

November 23, 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 1 (with Revised 1-11)

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”) First Set of Data Requests (“Complete Set 1”) in the above-referenced docket.¹

Please note that the responses contained within the Complete Set 1 have already been filed with the PUC except for the Company’s revised response to PUC 1-11. This revised response to PUC 1-11 starts on Bates page 104 within the Complete Set 1.

The Complete Set 1 contains the Company’s redacted response to PUC 1-36 and not the confidential version of the Company’s response to PUC 1-36. The confidential version of PUC 1-36 and corresponding Motion for Protective Treatment of Confidential Information was filed by the Company on November 18, 2020.

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

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
2021-2023 Energy Efficiency Program Plan &
2021 Annual Energy Efficiency Program Plan
Responses to Commission's First Set of Data Requests
Issued on November 3, 2020

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RIPUC Docket No. 5076
2021-2023 Energy Efficiency Program Plan &
2021 Annual Energy Efficiency Program Plan
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PUC 1-1

Request:

Were there any programs and/or measures that were offered in the 2020 EE Plan that are not being offered in 2021 EE Plan? If yes, please identify and explain.

Response:

Yes. The below measures were discontinued from the programs in 2021. There were no gas measures that were discontinued.

ELECTRIC PROGRAM	MEASURE	RATIONALE
EnergyWise Single Family Electric	Refrigerator Rebate	Bulk of program savings from recycling of refrigerator. Decided to promote refrigerator recycling program and reduce administrative costs for low participation measure.
ENERGY STAR® Lighting	LED Bulb (Reflectors)	Most recent lighting evaluations showing LED reflectors are transformed. Phased out of program offerings in 2020.

PUC 1-2

Request:

Referring to the table on Bates 108, please define the following terms:

- a. Non-Participants
- b. Average Customer
- c. Average Participant

Response:

These terms are used in reference to the rate and bill impact analyses included in the filed plans. The terms can be defined as follows.

- a. Non-Participants are customers who do not participate in an energy efficiency program in the year of analysis.
- b. Average Customers are the results averaged between Non-Participants and Average Participants. Average customers are used to estimate the combined bill impacts between EE participants and non-EE participants in order to show the impacts on all customers.
- c. Average Participants include all customers that participated in an energy efficiency program in the year of analysis, by sector in the analysis.

PUC 1-3

Request:

Referring to tables 24-33 on Bates 108-112, please explain how the “Long Term Rate Impacts” and “Long Term Average Change in Bills” are calculated. Please identify any assumptions that are used in each calculation. Please reproduce the bill impacts in tables that show the bill impact for each of the 20 years for each class.

Response:

The rate and bill impacts presented in the plan are calculated using models developed by Synapse Energy Economics.¹ Further detail on the analyses is presented in Attachment 7 of the Annual Plan, beginning on Bates 582. These analyses are designed to assess the impact of the energy efficiency programs in year 1 compared to a counterfactual without energy efficiency.

Long Term Rate Impacts take into account several factors that influence rates. The calculation accounts for factors that exert upward pressure on rates and factors that exert downward pressure on rates over the duration of the savings from energy efficiency. The factors influencing rates are shown in the tables below, with notes about how and when the factor influences rates.

Factors Influencing Electric Rates in the Rate Impact Analysis

Factor Impacting Rates	Description and Influence on Rates	When it applies
Energy efficiency charge	Increases rates in the first year when the rate applies.	First year only
Transmission Lost Revenues	Exerts upward pressure on rates as lower sales because of energy efficiency require this component of the rate to increase	Each year of the analysis
Distribution Lost Revenues	Exerts upward pressure on rates as lower sales because of energy efficiency require this component of the rate to increase	Each year of the analysis

¹ See also, Synapse Energy Economics, Rate and Bill Impact Analysis of Rhode Island Natural Gas Energy Efficiency Programs, October 2, 2020.

http://www.ripuc.ri.gov/eventsactions/docket/5076%20National%20Grid%20EEP%20&%203-Yr%20EEP/1%20Synapse%20RI%20Gas%20RBI%20Report%2010_2_20.pdf

This is the summary report of the revised gas rate and bill impact model that was developed by Synapse Energy Economics. It provides primarily methodological detail for the analysis.

Factor Impacting Rates	Description and Influence on Rates	When it applies
Price Suppression	Exerts downward pressure on rates through price suppression effects (DRIPE). Sourced from the AESC 2018 study, as used in RI Test.	Each year of the analysis
Avoided Transmission	Exerts downward pressure on rates as transmission investments are avoided. Sourced from the AESC 2018 study, as used in RI Test.	Each year of the analysis
Avoided Distribution	Exerts downward pressure on rates as distribution investments are avoided. Sourced from the AESC 2018 study, as used in RI Test.	Each year of the analysis
Avoided Capacity	Exerts downward pressure on rates as capacity costs are avoided. Sourced from the AESC 2018 study, as used in RI Test.	Each year of the analysis

Factors Influencing Natural Gas Rates in the Rate Impact Analysis

Factor Impacting Rates	Description and Influence on Rates	When it applies
Energy efficiency charge	Increases rates in the first year when the rate applies	First year only
Lost Revenues	Exerts upward pressure on rates as lower sales because of energy efficiency require this component of the rate to increase	Each year of the analysis
Gas Retail Margin	Exerts downward pressure on rates and represents the portion of distribution costs that are avoidable based on reductions in natural gas usage from efficiency measures. These are a component of the AESC 2018 gas avoided costs, and avoided retail margin represents 11 percent of the total avoided gas commodity costs for residential customers and 8 percent for commercial customers.	Each year of the analysis
Price Suppression	Exerts downward pressure on rates through price suppression effects (DRIPE). Sourced from the AESC 2018 study, as used in RI Test.	Each year of the analysis

The models forecast each of these factors for the study period to identify the impact on rates over the long term as the efficiency savings persist into the future. Specifically, the impact of energy efficiency on each component of rates is isolated and analyzed, including both avoided costs and

lost revenue components. The models determine the rate impacts by subtracting the post-efficiency rate from the pre-efficiency rate.

The bill impact factors in the change in rates as detailed above and the change in consumption pre- and post-efficiency due to participants' energy efficiency savings, and compares to the counterfactual where there is no energy efficiency, both in terms of savings and associated surcharge. Pre-energy efficiency consumption is determined based on typical energy consumption of the customers in the sector. Post-energy efficiency consumption reduces consumption by the typical savings for participating customers in the sector, as included in the plan for that year. The participant's new post-energy efficiency annual consumption is multiplied by the post-energy efficiency scenario rates to determine the participant's new annual bill. Lastly, the participant's bill impact is determined by subtracting the new bill from the pre-efficiency bill.

The electric and natural gas models calculate the long term average change in bills in slightly different ways, as detailed below for each.

The electric model calculates the annual change and long term average change in bills by comparing the difference between the base counterfactual where there is no energy efficiency and the modeled scenario where there are rate and bill changes due to the presence of the energy efficiency charge and the subsequent efficiency savings. The long term average is taken over the duration of the energy efficiency savings for that modeled sector.

In contrast, the natural gas model calculates the long term average change by first calculating the levelized average bill pre- and post- efficiency over a 26-year period. Next, the model divides the levelized post-efficiency bill by the levelized pre-efficiency bill to determine the long term average change in the bill. For each of the tables in Attachments 1-3-6 through 1-3-10, the bill change on an annual basis is the post-efficiency annual bill divided by the pre-efficiency annual bill.

For non-participants, because there is no bill savings from energy efficiency their bill impact is the same as the overall rate impact. The average customers category accounts for both participants and non-participants to show the impact to the typical customer in the sector.

The Attachment Tables 1-3-1 through 1-3-10 show the bill impacts for each sector and group (non-participants, average customers, and participants) expanded to show the impact for all modeled years. These tables expand upon Tables 24 – 33 on Bates 108 – 112 of the Three-Year Plan filing document.

In preparing this response the Company identified two revisions to the tables as filed in the Three-Year Plan. In Table 29, the average participant change in bills for the Large C&I sector was listed in the table as -1.16%, it should be changed to -2.45%. In Table 31, the non-participants long term average change in bills was listed in the table as 0.29%, it should be changed to 0.49%.

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-3-1**

Table 24: 2021 Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential	0.41%	Long Term Average	0.41%	-0.42%	-0.42%
		2021	6.04%	4.08%	4.08%
		2022	-0.41%	-2.24%	-2.25%
		2023	-0.23%	-2.05%	-2.07%
		2024	-0.18%	-1.99%	-2.02%
		2025	-0.38%	-0.38%	-0.38%
		2026	-0.39%	-0.39%	-0.39%
		2027	-0.33%	-0.33%	-0.33%
		2028	-0.28%	-0.28%	-0.28%
		2029	-0.18%	-0.18%	-0.18%
		2030	0.00%	0.00%	0.00%
		2031	0.00%	0.00%	0.00%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
Income Eligible	1.23%	Long Term Average	1.23%	-2.46%	-2.54%
		2021	6.95%	2.97%	2.97%
		2022	0.33%	-3.39%	-3.41%
		2023	0.49%	-3.22%	-3.25%
		2024	0.51%	-3.18%	-3.23%
		2025	0.53%	-3.14%	-3.21%
		2026	0.50%	-3.15%	-3.24%
		2027	0.53%	-3.10%	-3.21%
		2028	0.60%	-3.02%	-3.15%
		2029	0.68%	-2.92%	-3.07%
		2030	0.00%	0.00%	0.00%
		2031	0.00%	0.00%	0.00%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
Small C&I	0.37%	Long Term Average	0.37%	-0.81%	-8.88%
		2021	6.50%	5.25%	-5.10%
		2022	-0.59%	-1.75%	-11.41%
		2023	-0.39%	-1.54%	-11.24%
		2024	-0.33%	-1.48%	-11.18%
		2025	-0.30%	-1.45%	-11.16%
		2026	-0.31%	-1.45%	-11.17%
		2027	-0.24%	-1.38%	-11.11%
		2028	-0.18%	-1.31%	-11.05%
		2029	-0.06%	-1.18%	-10.94%
		2030	0.16%	-0.96%	-10.75%
		2031	0.18%	-0.94%	-10.73%
		2032	0.18%	0.18%	0.18%
		2033	0.20%	0.20%	0.20%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		Long Term Average	0.03%	-1.66%	-9.02%
		2021	8.83%	6.97%	-1.03%
		2022	-1.41%	-3.08%	-10.34%
		2023	-1.10%	-2.76%	-10.05%
		2024	-0.98%	-2.64%	-9.94%
		2025	-0.94%	-2.59%	-9.91%
		2026	-0.95%	-2.59%	-9.91%
		2027	-0.82%	-2.46%	-9.80%
		2028	-0.75%	-2.39%	-9.74%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Medium C&I	0.03%	2029	-0.56%	-2.19%	-9.56%
		2030	-0.24%	-1.87%	-9.27%
		2031	-0.23%	-1.85%	-9.26%
		2032	-0.22%	-1.83%	-9.25%
		2033	-0.20%	-1.80%	-9.23%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
Large C&I	-0.16%	Long Term Average	-0.16%	-2.72%	-4.44%
		2021	9.08%	6.21%	4.41%
		2022	-1.75%	-4.32%	-5.96%
		2023	-1.39%	-3.96%	-5.62%
		2024	-1.26%	-3.82%	-5.49%
		2025	-1.22%	-3.77%	-5.45%
		2026	-1.22%	-3.76%	-5.46%
		2027	-1.09%	-3.61%	-5.33%
		2028	-1.00%	-3.52%	-5.24%
		2029	-0.79%	-3.30%	-5.05%
		2030	-0.44%	-2.95%	-4.71%
		2031	-0.42%	-2.92%	-4.69%
		2032	-0.41%	-2.89%	-4.68%
		2033	-0.37%	-2.84%	-4.64%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-3-2**

Table 25: 2022 Illustrative Base Case Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential	0.60%	Long Term Average	0.60%	0.06%	-0.03%
		2022	8.70%	7.10%	6.84%
		2023	-0.30%	-1.75%	-2.00%
		2024	-0.24%	-1.69%	-1.94%
		2025	-0.21%	-1.65%	-1.91%
		2026	-0.39%	-0.39%	-0.39%
		2027	-0.32%	-0.32%	-0.32%
		2028	-0.27%	-0.27%	-0.27%
		2029	-0.17%	-0.17%	-0.17%
		2030	-0.11%	-0.11%	-0.11%
		2031	-0.06%	-0.06%	-0.06%
		2032	-0.03%	-0.03%	-0.03%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
Income Eligible	1.22%	Long Term Average	1.22%	-1.48%	-1.63%
		2022	9.55%	5.91%	5.80%
		2023	0.28%	-3.03%	-3.16%
		2024	0.31%	-2.98%	-3.12%
		2025	0.34%	-2.94%	-3.09%
		2026	0.32%	-2.94%	-3.11%
		2027	0.37%	-2.89%	-3.07%
		2028	0.43%	-2.81%	-3.01%
		2029	0.52%	-2.70%	-2.92%
		2030	0.60%	-2.61%	-2.84%
		2031	0.67%	0.67%	0.67%
		2032	-0.03%	-0.03%	-0.03%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
Small C&I	0.65%	Long Term Average	0.65%	-0.70%	-8.81%
		2022	9.51%	8.01%	-3.58%
		2023	-0.36%	-1.72%	-12.28%
		2024	-0.30%	-1.65%	-12.22%
		2025	-0.26%	-1.61%	-12.19%
		2026	-0.27%	-1.61%	-12.19%
		2027	-0.20%	-1.53%	-12.13%
		2028	-0.13%	-1.46%	-12.07%
		2029	-0.01%	-1.34%	-11.97%
		2030	0.08%	-1.24%	-11.89%
		2031	0.16%	-1.16%	-11.82%
		2032	0.20%	-1.11%	-11.78%
		2033	0.24%	0.24%	0.24%
		2034	0.26%	0.26%	0.26%
		2035	0.26%	0.26%	0.26%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		Long Term Average	0.40%	-1.60%	-8.92%
		2022	13.13%	10.83%	1.83%
		2023	-1.11%	-3.10%	-10.98%
		2024	-0.98%	-2.96%	-10.87%
		2025	-0.93%	-2.90%	-10.82%
		2026	-0.92%	-2.89%	-10.82%
		2027	-0.80%	-2.76%	-10.71%
		2028	-0.73%	-2.68%	-10.64%
		2029	-0.55%	-2.49%	-10.48%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Medium C&I	0.40%	2030	-0.43%	-2.36%	-10.37%
		2031	-0.33%	-2.26%	-10.28%
		2032	-0.27%	-2.19%	-10.23%
		2033	-0.20%	-2.11%	-10.17%
		2034	-0.18%	-2.09%	-10.15%
		2035	-0.17%	-0.17%	-0.17%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
Large C&I	0.31%	Long Term Average	0.31%	-2.58%	-4.23%
		2022	13.76%	10.39%	8.61%
		2023	-1.44%	-4.34%	-5.89%
		2024	-1.28%	-4.17%	-5.75%
		2025	-1.23%	-4.10%	-5.69%
		2026	-1.22%	-4.09%	-5.69%
		2027	-1.08%	-3.93%	-5.55%
		2028	-0.99%	-3.83%	-5.47%
		2029	-0.79%	-3.62%	-5.28%
		2030	-0.65%	-3.47%	-5.14%
		2031	-0.54%	-3.35%	-5.03%
		2032	-0.47%	-3.27%	-4.97%
		2033	-0.38%	-3.17%	-4.89%
		2034	-0.35%	-3.13%	-4.86%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%

**The Narragansett Electric Company
d/b/a National Grid
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Table 26: 2022 Illustrative High Scenario Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential	0.66%	Long Term Average	0.66%	-0.03%	-0.14%
		2022	9.23%	7.60%	7.35%
		2023	-0.31%	-1.80%	-2.03%
		2024	-0.25%	-1.73%	-1.97%
		2025	-0.22%	-1.69%	-1.94%
		2026	-0.23%	-1.69%	-1.95%
		2027	-0.34%	-0.34%	-0.34%
		2028	-0.28%	-0.28%	-0.28%
		2029	-0.18%	-0.18%	-0.18%
		2030	-0.11%	-0.11%	-0.11%
		2031	-0.06%	-0.06%	-0.06%
		2032	-0.03%	-0.03%	-0.03%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
Income Eligible	1.28%	Long Term Average	1.28%	-1.52%	-1.63%
		2022	10.12%	6.33%	6.26%
		2023	0.29%	-3.15%	-3.23%
		2024	0.32%	-3.10%	-3.19%
		2025	0.35%	-3.05%	-3.16%
		2026	0.33%	-3.05%	-3.18%
		2027	0.37%	-2.99%	-3.14%
		2028	0.44%	-2.91%	-3.08%
		2029	0.54%	-2.80%	-2.98%
		2030	0.62%	-2.70%	-2.90%
		2031	0.70%	0.70%	0.70%
		2032	-0.03%	-0.03%	-0.03%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
Small C&I	0.69%	Long Term Average	0.69%	-0.72%	-8.73%
		2022	10.10%	8.52%	-3.00%
		2023	-0.38%	-1.79%	-12.23%
		2024	-0.31%	-1.72%	-12.17%
		2025	-0.27%	-1.68%	-12.14%
		2026	-0.28%	-1.68%	-12.14%
		2027	-0.20%	-1.60%	-12.08%
		2028	-0.14%	-1.52%	-12.02%
		2029	-0.01%	-1.39%	-11.91%
		2030	0.08%	-1.29%	-11.82%
		2031	0.16%	-1.21%	-11.75%
		2032	0.20%	-1.16%	-11.72%
		2033	0.25%	0.25%	0.25%
		2034	0.27%	0.27%	0.27%
		2035	0.27%	0.27%	0.27%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		Long Term Average	0.43%	-1.65%	-8.84%
		2022	13.94%	11.54%	2.62%
		2023	-1.15%	-3.23%	-10.98%
		2024	-1.02%	-3.09%	-10.85%
		2025	-0.97%	-3.03%	-10.81%
		2026	-0.97%	-3.02%	-10.81%
		2027	-0.84%	-2.88%	-10.69%
		2028	-0.76%	-2.80%	-10.62%
		2029	-0.57%	-2.60%	-10.45%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Medium C&I	0.43%	2030	-0.45%	-2.47%	-10.34%
		2031	-0.35%	-2.36%	-10.25%
		2032	-0.28%	-2.28%	-10.19%
		2033	-0.21%	-2.21%	-10.13%
		2034	-0.19%	-2.18%	-10.11%
		2035	-0.18%	-0.18%	-0.18%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
Large C&I	0.34%	Long Term Average	0.34%	-2.67%	-4.18%
		2022	14.61%	11.08%	9.45%
		2023	-1.50%	-4.52%	-5.93%
		2024	-1.34%	-4.35%	-5.78%
		2025	-1.28%	-4.28%	-5.72%
		2026	-1.28%	-4.26%	-5.72%
		2027	-1.13%	-4.11%	-5.58%
		2028	-1.04%	-4.00%	-5.49%
		2029	-0.83%	-3.78%	-5.29%
		2030	-0.68%	-3.63%	-5.15%
		2031	-0.57%	-3.50%	-5.04%
		2032	-0.49%	-3.41%	-4.97%
		2033	-0.40%	-3.31%	-4.88%
		2034	-0.37%	-3.27%	-4.86%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%

**The Narragansett Electric Company
d/b/a National Grid
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Table 27: 2023 Illustrative Base Case Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential	0.74%	Long Term Average	0.74%	0.03%	-0.06%
		2023	9.82%	8.12%	7.93%
		2024	-0.30%	-1.84%	-2.02%
		2025	-0.26%	-1.79%	-1.98%
		2026	-0.26%	-1.78%	-1.98%
		2027	-0.19%	-1.70%	-1.90%
		2028	-0.30%	-0.30%	-0.30%
		2029	-0.19%	-0.19%	-0.19%
		2030	-0.12%	-0.12%	-0.12%
		2031	-0.06%	-0.06%	-0.06%
		2032	-0.03%	-0.03%	-0.03%
		2033	-0.01%	-0.01%	-0.01%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
Income Eligible	1.42%	Long Term Average	1.42%	-1.37%	-1.48%
		2023	10.70%	6.92%	6.84%
		2024	0.27%	-3.15%	-3.23%
		2025	0.30%	-3.09%	-3.19%
		2026	0.29%	-3.09%	-3.21%
		2027	0.34%	-3.02%	-3.16%
		2028	0.41%	-2.94%	-3.08%
		2029	0.52%	-2.82%	-2.98%
		2030	0.61%	-2.72%	-2.90%
		2031	0.68%	-2.63%	-2.83%
		2032	0.71%	0.71%	0.71%
		2033	0.73%	0.73%	0.73%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
Small C&I	0.81%	Long Term Average	0.81%	-0.68%	-10.69%
		2023	10.80%	9.11%	-5.27%
		2024	-0.32%	-1.83%	-14.77%
		2025	-0.28%	-1.78%	-14.73%
		2026	-0.28%	-1.77%	-14.74%
		2027	-0.19%	-1.68%	-14.66%
		2028	-0.12%	-1.60%	-14.60%
		2029	0.01%	-1.47%	-14.49%
		2030	0.11%	-1.36%	-14.40%
		2031	0.19%	-1.27%	-14.33%
		2032	0.24%	-1.22%	-14.29%
		2033	0.27%	-1.18%	-14.26%
		2034	0.30%	0.30%	0.30%
		2035	0.30%	0.30%	0.30%
		2036	0.31%	0.31%	0.31%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		Long Term Average	0.56%	-1.67%	-10.95%
		2023	14.92%	12.30%	0.77%
		2024	-1.08%	-3.33%	-13.26%
		2025	-1.01%	-3.25%	-13.20%
		2026	-1.00%	-3.23%	-13.20%
		2027	-0.86%	-3.08%	-13.07%
		2028	-0.78%	-2.99%	-13.00%
		2029	-0.58%	-2.79%	-12.83%
		2030	-0.45%	-2.65%	-12.71%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Medium C&I	0.56%	2031	-0.34%	-2.53%	-12.62%
		2032	-0.28%	-2.46%	-12.56%
		2033	-0.22%	-2.39%	-12.51%
		2034	-0.19%	-2.35%	-12.48%
		2035	-0.17%	-2.32%	-12.47%
		2036	-0.16%	-0.16%	-0.16%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
Large C&I	0.51%	Long Term Average	0.59%	-2.83%	-4.68%
		2023	15.79%	12.11%	9.64%
		2024	-1.42%	-4.54%	-6.66%
		2025	-1.34%	-4.44%	-6.58%
		2026	-1.32%	-4.42%	-6.57%
		2027	-1.16%	-4.24%	-6.41%
		2028	-1.06%	-4.13%	-6.32%
		2029	-0.84%	-3.90%	-6.11%
		2030	-0.69%	-3.74%	-5.96%
		2031	-0.57%	-3.60%	-5.85%
		2032	-0.49%	-3.51%	-5.77%
		2033	-0.42%	-3.43%	-5.71%
		2034	-0.37%	-3.37%	-5.66%
		2035	-0.34%	-3.32%	-5.63%
		2036	-0.32%	-0.32%	-0.32%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%

**The Narragansett Electric Company
d/b/a National Grid
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Table 28: 2023 Illustrative High Scenario Electric Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential	0.84%	Long Term Average	0.84%	0.09%	0.02%
		2023	11.14%	9.33%	9.18%
		2024	-0.34%	-1.95%	-2.09%
		2025	-0.29%	-1.90%	-2.05%
		2026	-0.29%	-1.89%	-2.05%
		2027	-0.21%	-1.80%	-1.97%
		2028	-0.33%	-0.33%	-0.33%
		2029	-0.20%	-0.20%	-0.20%
		2030	-0.13%	-0.13%	-0.13%
		2031	-0.07%	-0.07%	-0.07%
		2032	-0.03%	-0.03%	-0.03%
		2033	-0.01%	-0.01%	-0.01%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
Income Eligible	1.57%	Long Term Average	1.57%	-1.47%	-1.53%
		2023	12.11%	7.93%	7.93%
		2024	0.28%	-3.44%	-3.46%
		2025	0.32%	-3.38%	-3.42%
		2026	0.30%	-3.38%	-3.43%
		2027	0.36%	-3.30%	-3.38%
		2028	0.44%	-3.21%	-3.30%
		2029	0.56%	-3.08%	-3.19%
		2030	0.65%	-2.97%	-3.10%
		2031	0.74%	-2.87%	-3.02%
		2032	0.77%	0.77%	0.77%
		2033	0.79%	0.79%	0.79%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
Small C&I	0.91%	Long Term Average	0.91%	-0.72%	-10.44%
		2023	12.25%	10.37%	-3.80%
		2024	-0.36%	-2.01%	-14.60%
		2025	-0.31%	-1.96%	-14.56%
		2026	-0.31%	-1.95%	-14.56%
		2027	-0.22%	-1.85%	-14.48%
		2028	-0.14%	-1.77%	-14.41%
		2029	0.00%	-1.62%	-14.29%
		2030	0.11%	-1.50%	-14.19%
		2031	0.20%	-1.40%	-14.12%
		2032	0.25%	-1.35%	-14.07%
		2033	0.29%	-1.30%	-14.04%
		2034	0.33%	0.33%	0.33%
		2035	0.33%	0.33%	0.33%
		2036	0.34%	0.34%	0.34%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		Long Term Average	0.64%	-1.80%	-10.71%
		2023	16.95%	14.01%	2.75%
		2024	-1.19%	-3.66%	-13.19%
		2025	-1.12%	-3.58%	-13.13%
		2026	-1.11%	-3.56%	-13.12%
		2027	-0.96%	-3.39%	-12.98%
		2028	-0.87%	-3.30%	-12.91%
		2029	-0.65%	-3.07%	-12.71%
		2030	-0.51%	-2.92%	-12.59%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Medium C&I	0.64%	2031	-0.39%	-2.79%	-12.49%
		2032	-0.32%	-2.71%	-12.42%
		2033	-0.25%	-2.64%	-12.37%
		2034	-0.21%	-2.59%	-12.33%
		2035	-0.19%	-2.55%	-12.31%
		2036	-0.18%	-0.18%	-0.18%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
Large C&I	0.59%	Long Term Average	0.59%	-2.83%	-4.68%
		2023	17.93%	13.82%	11.76%
		2024	-1.58%	-5.00%	-6.73%
		2025	-1.49%	-4.89%	-6.65%
		2026	-1.48%	-4.87%	-6.64%
		2027	-1.30%	-4.68%	-6.47%
		2028	-1.19%	-4.56%	-6.37%
		2029	-0.95%	-4.30%	-6.13%
		2030	-0.78%	-4.12%	-5.97%
		2031	-0.64%	-3.98%	-5.85%
		2032	-0.56%	-3.88%	-5.76%
		2033	-0.48%	-3.78%	-5.69%
		2034	-0.42%	-3.71%	-5.64%
		2035	-0.39%	-3.66%	-5.61%
		2036	-0.37%	-0.37%	-0.37%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-3-6**

Table 29: 2021 Natural Gas Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Residential (Model 1: HERs only)	0.0%	Long Term Average	0.02%	0.00%	-0.01%
		2021	0.38%	-0.07%	-0.24%
		2022	0.00%	0.00%	0.00%
		2023	0.00%	0.00%	0.00%
		2024	0.00%	0.00%	0.00%
		2025	0.00%	0.00%	0.00%
		2026	0.00%	0.00%	0.00%
		2027	0.00%	0.00%	0.00%
		2028	0.00%	0.00%	0.00%
		2029	0.00%	0.00%	0.00%
		2030	0.00%	0.00%	0.00%
		2031	0.00%	0.00%	0.00%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
		Long Term Average	0.41%	0.15%	-5.29%
		2021	7.42%	7.04%	-0.28%
		2022	0.14%	-0.22%	-6.96%
		2023	0.13%	-0.22%	-6.96%
		2024	0.13%	-0.21%	-6.96%
		2025	0.13%	-0.21%	-6.97%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Residential (Model 2: All Programs Except HERs)	0.4%	2026	0.12%	-0.21%	-6.97%
		2027	0.12%	-0.21%	-6.97%
		2028	0.12%	-0.21%	-6.97%
		2029	0.12%	-0.20%	-6.97%
		2030	0.12%	-0.20%	-6.97%
		2031	0.11%	-0.20%	-6.98%
		2032	0.11%	-0.20%	-6.98%
		2033	0.11%	-0.20%	-6.98%
		2034	0.11%	-0.20%	-6.98%
		2035	0.10%	-0.20%	-6.99%
		2036	0.10%	-0.19%	-6.99%
		2037	0.10%	-0.19%	-6.99%
		2038	0.04%	-0.07%	-2.63%
		2039	0.04%	-0.07%	-2.63%
		2040	0.03%	-0.06%	-2.22%
		2041	0.03%	-0.06%	-2.22%
		2042	0.03%	-0.06%	-2.22%
		2043	0.03%	-0.06%	-2.22%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Residential (Model 3: All Programs)	0.4%	Long Term Average	0.43%	0.15%	0.03%
		2021	7.80%	6.93%	6.67%
		2022	0.14%	-0.22%	-0.33%
		2023	0.13%	-0.22%	-0.33%
		2024	0.13%	-0.21%	-0.33%
		2025	0.13%	-0.21%	-0.34%
		2026	0.12%	-0.21%	-0.34%
		2027	0.12%	-0.21%	-0.34%
		2028	0.12%	-0.21%	-0.34%
		2029	0.12%	-0.20%	-0.34%
		2030	0.12%	-0.20%	-0.35%
		2031	0.11%	-0.20%	-0.35%
		2032	0.11%	-0.20%	-0.35%
		2033	0.11%	-0.20%	-0.35%
		2034	0.11%	-0.20%	-0.36%
		2035	0.10%	-0.20%	-0.36%
		2036	0.10%	-0.19%	-0.36%
		2037	0.10%	-0.19%	-0.36%
		2038	0.04%	-0.07%	-0.14%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
		2039	0.04%	-0.07%	-0.14%
		2040	0.03%	-0.06%	-0.12%
		2041	0.03%	-0.06%	-0.12%
		2042	0.03%	-0.06%	-0.12%
		2043	0.03%	-0.06%	-0.12%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Income Eligible	0.7%	Long Term Average	0.75%	-0.16%	-4.48%
		2021	8.16%	6.75%	1.76%
		2022	0.57%	-0.69%	-5.31%
		2023	0.55%	-0.68%	-5.33%
		2024	0.53%	-0.66%	-5.34%
		2025	0.53%	-0.64%	-5.35%
		2026	0.52%	-0.62%	-5.36%
		2027	0.51%	-0.60%	-5.36%
		2028	0.50%	-0.58%	-5.37%
		2029	0.49%	-0.56%	-5.38%
		2030	0.49%	-0.54%	-5.39%
		2031	0.47%	-0.53%	-5.40%
		2032	0.46%	-0.52%	-5.41%
		2033	0.45%	-0.50%	-5.42%
		2034	0.44%	-0.49%	-5.43%
		2035	0.43%	-0.48%	-5.44%
		2036	0.42%	-0.47%	-5.45%
		2037	0.40%	-0.46%	-5.46%
		2038	0.39%	-0.44%	-5.47%
		2039	0.38%	-0.43%	-5.48%
		2040	0.37%	-0.42%	-5.49%
		2041	0.21%	-0.24%	-3.20%
		2042	0.21%	-0.23%	-3.21%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
		Long Term Average	0.25%	0.19%	-7.12%
		2021	5.42%	5.25%	-12.80%
		2022	0.05%	-0.11%	-17.04%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Small C&I	0.3%	2023	0.05%	-0.11%	-17.04%
		2024	0.05%	-0.11%	-17.04%
		2025	0.05%	-0.11%	-17.04%
		2026	0.05%	-0.11%	-17.04%
		2027	0.05%	-0.11%	-17.04%
		2028	0.04%	-0.11%	-17.05%
		2029	0.04%	-0.11%	-17.05%
		2030	0.04%	-0.11%	-17.05%
		2031	0.00%	0.00%	0.00%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Large C&I	0.4%	Long Term Average	0.41%	0.00%	-2.45%
		2021	8.16%	6.99%	0.34%
		2022	0.15%	-0.89%	-6.95%
		2023	0.15%	-0.89%	-6.96%
		2024	0.14%	-0.88%	-6.96%
		2025	0.14%	-0.87%	-6.96%
		2026	0.14%	-0.87%	-6.96%
		2027	0.14%	-0.86%	-6.97%
		2028	0.14%	-0.85%	-6.97%
		2029	0.03%	-0.13%	-1.14%
		2030	0.03%	-0.13%	-1.14%
		2031	0.03%	-0.13%	-1.14%
		2032	0.03%	-0.13%	-1.15%
		2033	0.03%	-0.13%	-1.15%
		2034	0.03%	-0.13%	-1.15%
		2035	0.03%	-0.13%	-1.15%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
		2036	0.02%	-0.10%	-0.86%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-3-7**

Table 30: 2022 Illustrative Base Case Natural Gas Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Residential (Model 1: HERs only)	0.0%	Long Term Average	0.02%	0.00%	-0.01%
		2022	0.40%	-0.04%	-0.22%
		2023	0.00%	0.00%	0.00%
		2024	0.00%	0.00%	0.00%
		2025	0.00%	0.00%	0.00%
		2026	0.00%	0.00%	0.00%
		2027	0.00%	0.00%	0.00%
		2028	0.00%	0.00%	0.00%
		2029	0.00%	0.00%	0.00%
		2030	0.00%	0.00%	0.00%
		2031	0.00%	0.00%	0.00%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
		Long Term Average	0.49%	0.20%	-5.36%
		2022	9.06%	8.61%	0.93%
		2023	0.15%	-0.25%	-7.20%
		2024	0.15%	-0.25%	-7.21%
		2025	0.15%	-0.24%	-7.21%
		2026	0.14%	-0.24%	-7.21%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential (Model 2: All Programs Except HERs)	0.5%	2027	0.14%	-0.24%	-7.21%
		2028	0.14%	-0.24%	-7.21%
		2029	0.14%	-0.23%	-7.21%
		2030	0.13%	-0.23%	-7.22%
		2031	0.13%	-0.23%	-7.22%
		2032	0.13%	-0.23%	-7.22%
		2033	0.12%	-0.23%	-7.23%
		2034	0.12%	-0.23%	-7.23%
		2035	0.12%	-0.22%	-7.23%
		2036	0.12%	-0.22%	-7.23%
		2037	0.11%	-0.22%	-7.24%
		2038	0.11%	-0.22%	-7.24%
		2039	0.04%	-0.07%	-2.41%
		2040	0.04%	-0.07%	-2.41%
		2041	0.03%	-0.06%	-2.06%
		2042	0.03%	-0.06%	-2.06%
		2043	0.03%	-0.06%	-2.06%
		2044	0.03%	-0.06%	-2.06%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Residential (Model 3: All Programs)	0.5%	Long Term Average	0.51%	0.20%	0.06%
		2022	9.46%	8.53%	8.24%
		2023	0.15%	-0.25%	-0.38%
		2024	0.15%	-0.25%	-0.38%
		2025	0.15%	-0.24%	-0.38%
		2026	0.14%	-0.24%	-0.39%
		2027	0.14%	-0.24%	-0.39%
		2028	0.14%	-0.24%	-0.39%
		2029	0.14%	-0.23%	-0.39%
		2030	0.13%	-0.23%	-0.39%
		2031	0.13%	-0.23%	-0.40%
		2032	0.13%	-0.23%	-0.40%
		2033	0.12%	-0.23%	-0.40%
		2034	0.12%	-0.23%	-0.41%
		2035	0.12%	-0.22%	-0.41%
		2036	0.12%	-0.22%	-0.41%
		2037	0.11%	-0.22%	-0.42%
		2038	0.11%	-0.22%	-0.42%
		2039	0.04%	-0.07%	-0.14%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
		2040	0.04%	-0.07%	-0.14%
		2041	0.03%	-0.06%	-0.12%
		2042	0.03%	-0.06%	-0.12%
		2043	0.03%	-0.06%	-0.12%
		2044	0.03%	-0.06%	-0.12%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Income Eligible	0.8%	Long Term Average	0.83%	-0.09%	-4.48%
		2022	9.83%	8.38%	3.20%
		2023	0.57%	-0.71%	-5.40%
		2024	0.55%	-0.69%	-5.42%
		2025	0.55%	-0.67%	-5.42%
		2026	0.54%	-0.64%	-5.43%
		2027	0.53%	-0.62%	-5.44%
		2028	0.52%	-0.61%	-5.45%
		2029	0.51%	-0.58%	-5.46%
		2030	0.51%	-0.56%	-5.46%
		2031	0.49%	-0.55%	-5.48%
		2032	0.48%	-0.54%	-5.49%
		2033	0.47%	-0.52%	-5.50%
		2034	0.46%	-0.51%	-5.51%
		2035	0.44%	-0.50%	-5.52%
		2036	0.43%	-0.49%	-5.53%
		2037	0.42%	-0.47%	-5.54%
		2038	0.41%	-0.46%	-5.55%
		2039	0.40%	-0.45%	-5.56%
		2040	0.39%	-0.44%	-5.57%
		2041	0.38%	-0.43%	-5.58%
		2042	0.21%	-0.24%	-3.13%
		2043	0.20%	-0.23%	-3.13%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
		Long Term Average	0.32%	0.21%	-7.07%
		2022	6.62%	6.36%	-11.85%
		2023	0.07%	-0.17%	-17.02%
		2024	0.07%	-0.17%	-17.03%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Small C&I	0.3%	2025	0.07%	-0.17%	-17.03%
		2026	0.07%	-0.17%	-17.03%
		2027	0.07%	-0.17%	-17.03%
		2028	0.07%	-0.17%	-17.03%
		2029	0.07%	-0.17%	-17.03%
		2030	0.07%	-0.17%	-17.03%
		2031	0.06%	-0.17%	-17.03%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Large C&I	0.5%	Long Term Average	0.49%	0.06%	-2.48%
		2022	9.91%	8.69%	1.76%
		2023	0.15%	-0.93%	-7.12%
		2024	0.15%	-0.92%	-7.12%
		2025	0.15%	-0.91%	-7.12%
		2026	0.14%	-0.90%	-7.12%
		2027	0.14%	-0.89%	-7.13%
		2028	0.14%	-0.89%	-7.13%
		2029	0.14%	-0.88%	-7.13%
		2030	0.03%	-0.15%	-1.29%
		2031	0.03%	-0.15%	-1.29%
		2032	0.03%	-0.15%	-1.29%
		2033	0.03%	-0.15%	-1.29%
		2034	0.03%	-0.15%	-1.29%
		2035	0.03%	-0.15%	-1.29%
		2036	0.03%	-0.15%	-1.30%
		2037	0.02%	-0.11%	-1.01%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-3-8**

Table 31: 2022 Illustrative High Scenario Natural Gas Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Residential (Model 1: HERs only)	0.0%	Long Term Average	0.02%	0.00%	-0.01%
		2022	0.37%	-0.07%	-0.25%
		2023	0.00%	0.00%	0.00%
		2024	0.00%	0.00%	0.00%
		2025	0.00%	0.00%	0.00%
		2026	0.00%	0.00%	0.00%
		2027	0.00%	0.00%	0.00%
		2028	0.00%	0.00%	0.00%
		2029	0.00%	0.00%	0.00%
		2030	0.00%	0.00%	0.00%
		2031	0.00%	0.00%	0.00%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
		Long Term Average	0.51%	0.18%	-5.34%
		2022	9.11%	8.60%	0.98%
		2023	0.17%	-0.29%	-7.18%
		2024	0.17%	-0.28%	-7.18%
		2025	0.17%	-0.28%	-7.19%
		2026	0.17%	-0.28%	-7.19%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential (Model 2: All Programs Except HERs)	0.5%	2027	0.16%	-0.27%	-7.19%
		2028	0.16%	-0.27%	-7.19%
		2029	0.16%	-0.27%	-7.20%
		2030	0.16%	-0.27%	-7.20%
		2031	0.15%	-0.26%	-7.20%
		2032	0.15%	-0.26%	-7.20%
		2033	0.14%	-0.26%	-7.21%
		2034	0.14%	-0.26%	-7.21%
		2035	0.14%	-0.26%	-7.21%
		2036	0.13%	-0.26%	-7.22%
		2037	0.13%	-0.26%	-7.22%
		2038	0.13%	-0.25%	-7.22%
		2039	0.04%	-0.08%	-2.41%
		2040	0.04%	-0.08%	-2.41%
		2041	0.03%	-0.07%	-2.05%
		2042	0.03%	-0.07%	-2.05%
		2043	0.03%	-0.07%	-2.06%
		2044	0.03%	-0.07%	-2.06%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Residential (Model 3: All Programs)	0.5%	Long Term Average	0.52%	0.17%	0.02%
		2022	9.48%	8.48%	8.19%
		2023	0.17%	-0.29%	-0.43%
		2024	0.17%	-0.28%	-0.43%
		2025	0.17%	-0.28%	-0.43%
		2026	0.17%	-0.28%	-0.44%
		2027	0.16%	-0.27%	-0.44%
		2028	0.16%	-0.27%	-0.44%
		2029	0.16%	-0.27%	-0.44%
		2030	0.16%	-0.27%	-0.45%
		2031	0.15%	-0.26%	-0.45%
		2032	0.15%	-0.26%	-0.45%
		2033	0.14%	-0.26%	-0.46%
		2034	0.14%	-0.26%	-0.46%
		2035	0.14%	-0.26%	-0.46%
		2036	0.13%	-0.26%	-0.47%
		2037	0.13%	-0.26%	-0.47%
		2038	0.13%	-0.25%	-0.47%
		2039	0.04%	-0.08%	-0.16%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
		2040	0.04%	-0.08%	-0.16%
		2041	0.03%	-0.07%	-0.14%
		2042	0.03%	-0.07%	-0.14%
		2043	0.03%	-0.07%	-0.14%
		2044	0.03%	-0.07%	-0.14%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Income Eligible	0.9%	Long Term Average	0.89%	-0.17%	-4.42%
		2022	9.92%	8.25%	3.29%
		2023	0.66%	-0.81%	-5.32%
		2024	0.64%	-0.79%	-5.34%
		2025	0.63%	-0.77%	-5.35%
		2026	0.62%	-0.74%	-5.36%
		2027	0.61%	-0.72%	-5.36%
		2028	0.60%	-0.70%	-5.38%
		2029	0.59%	-0.67%	-5.38%
		2030	0.58%	-0.65%	-5.39%
		2031	0.57%	-0.63%	-5.41%
		2032	0.55%	-0.62%	-5.42%
		2033	0.54%	-0.60%	-5.43%
		2034	0.52%	-0.59%	-5.45%
		2035	0.51%	-0.57%	-5.46%
		2036	0.50%	-0.56%	-5.47%
		2037	0.49%	-0.55%	-5.48%
		2038	0.47%	-0.53%	-5.49%
		2039	0.46%	-0.52%	-5.51%
		2040	0.45%	-0.51%	-5.52%
		2041	0.44%	-0.49%	-5.53%
		2042	0.24%	-0.27%	-3.10%
		2043	0.23%	-0.26%	-3.10%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
		Long Term Average	0.32%	0.20%	-7.06%
		2022	6.63%	6.33%	-11.84%
		2023	0.08%	-0.20%	-17.02%
		2024	0.08%	-0.20%	-17.02%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Small C&I	0.3%	2025	0.08%	-0.20%	-17.02%
		2026	0.08%	-0.19%	-17.02%
		2027	0.08%	-0.19%	-17.02%
		2028	0.08%	-0.19%	-17.02%
		2029	0.08%	-0.19%	-17.02%
		2030	0.08%	-0.19%	-17.02%
		2031	0.07%	-0.19%	-17.02%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Large C&I	0.5%	Long Term Average	0.49%	0.00%	-2.48%
		2022	9.94%	8.53%	1.77%
		2023	0.17%	-1.07%	-7.10%
		2024	0.17%	-1.06%	-7.10%
		2025	0.17%	-1.05%	-7.11%
		2026	0.17%	-1.04%	-7.11%
		2027	0.16%	-1.03%	-7.11%
		2028	0.16%	-1.02%	-7.11%
		2029	0.16%	-1.01%	-7.11%
		2030	0.04%	-0.17%	-1.29%
		2031	0.04%	-0.17%	-1.29%
		2032	0.04%	-0.17%	-1.29%
		2033	0.03%	-0.17%	-1.29%
		2034	0.03%	-0.17%	-1.29%
		2035	0.03%	-0.17%	-1.29%
		2036	0.03%	-0.17%	-1.29%
		2037	0.02%	-0.13%	-1.01%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-3-9**

Table 32: 2023 Illustrative Base Case Natural Gas Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Residential (Model 1: HERs only)	0.0%	Long Term Average	0.02%	0.00%	-0.01%
		2023	0.37%	-0.06%	-0.25%
		2024	0.00%	0.00%	0.00%
		2025	0.00%	0.00%	0.00%
		2026	0.00%	0.00%	0.00%
		2027	0.00%	0.00%	0.00%
		2028	0.00%	0.00%	0.00%
		2029	0.00%	0.00%	0.00%
		2030	0.00%	0.00%	0.00%
		2031	0.00%	0.00%	0.00%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
		Long Term Average	0.56%	0.22%	-5.60%
		2023	10.36%	9.82%	1.73%
		2024	0.18%	-0.30%	-7.53%
		2025	0.17%	-0.29%	-7.53%
		2026	0.17%	-0.29%	-7.53%
		2027	0.17%	-0.29%	-7.53%
		2028	0.17%	-0.28%	-7.54%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Residential (Model 2: All Programs Except HERs)	0.6%	2029	0.16%	-0.28%	-7.54%
		2030	0.16%	-0.28%	-7.54%
		2031	0.16%	-0.27%	-7.54%
		2032	0.15%	-0.27%	-7.55%
		2033	0.15%	-0.27%	-7.55%
		2034	0.15%	-0.27%	-7.56%
		2035	0.14%	-0.27%	-7.56%
		2036	0.14%	-0.27%	-7.56%
		2037	0.13%	-0.27%	-7.57%
		2038	0.13%	-0.26%	-7.57%
		2039	0.13%	-0.26%	-7.57%
		2040	0.04%	-0.09%	-2.60%
		2041	0.04%	-0.09%	-2.60%
		2042	0.04%	-0.08%	-2.30%
		2043	0.04%	-0.08%	-2.31%
		2044	0.03%	-0.08%	-2.31%
		2045	0.03%	-0.08%	-2.31%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Residential (Model 3: All Programs)	0.6%	Long Term Average	0.58%	0.22%	0.05%
		2023	10.73%	9.71%	9.39%
		2024	0.18%	-0.30%	-0.45%
		2025	0.17%	-0.29%	-0.45%
		2026	0.17%	-0.29%	-0.45%
		2027	0.17%	-0.29%	-0.46%
		2028	0.17%	-0.28%	-0.46%
		2029	0.16%	-0.28%	-0.46%
		2030	0.16%	-0.28%	-0.47%
		2031	0.16%	-0.27%	-0.47%
		2032	0.15%	-0.27%	-0.47%
		2033	0.15%	-0.27%	-0.48%
		2034	0.15%	-0.27%	-0.48%
		2035	0.14%	-0.27%	-0.48%
		2036	0.14%	-0.27%	-0.49%
		2037	0.13%	-0.27%	-0.49%
		2038	0.13%	-0.26%	-0.49%
		2039	0.13%	-0.26%	-0.50%
		2040	0.04%	-0.09%	-0.17%
		2041	0.04%	-0.09%	-0.17%
		2042	0.04%	-0.08%	-0.15%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
		2043	0.04%	-0.08%	-0.15%
		2044	0.03%	-0.08%	-0.16%
		2045	0.03%	-0.08%	-0.16%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Income Eligible	0.9%	Long Term Average	0.89%	-0.05%	-4.50%
		2023	11.10%	9.60%	4.27%
		2024	0.58%	-0.72%	-5.50%
		2025	0.57%	-0.70%	-5.50%
		2026	0.56%	-0.67%	-5.51%
		2027	0.55%	-0.65%	-5.52%
		2028	0.54%	-0.63%	-5.53%
		2029	0.54%	-0.61%	-5.53%
		2030	0.53%	-0.59%	-5.54%
		2031	0.51%	-0.58%	-5.56%
		2032	0.50%	-0.56%	-5.57%
		2033	0.49%	-0.55%	-5.58%
		2034	0.48%	-0.53%	-5.59%
		2035	0.46%	-0.52%	-5.60%
		2036	0.45%	-0.51%	-5.61%
		2037	0.44%	-0.50%	-5.63%
		2038	0.43%	-0.48%	-5.64%
		2039	0.42%	-0.47%	-5.65%
		2040	0.41%	-0.46%	-5.66%
		2041	0.40%	-0.45%	-5.67%
		2042	0.39%	-0.44%	-5.68%
		2043	0.20%	-0.23%	-3.04%
		2044	0.20%	-0.22%	-3.05%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
		Long Term Average	0.37%	0.22%	-7.03%
		2023	7.55%	7.16%	-11.12%
		2024	0.10%	-0.25%	-17.00%
		2025	0.10%	-0.25%	-17.00%
		2026	0.10%	-0.25%	-17.00%
		2027	0.10%	-0.25%	-17.00%
		2028	0.10%	-0.25%	-17.00%
		2029	0.10%	-0.24%	-17.00%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Small C&I	0.4%	2030	0.10%	-0.24%	-17.01%
		2031	0.09%	-0.24%	-17.01%
		2032	0.09%	-0.24%	-17.01%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Large C&I	0.6%	Long Term Average	0.56%	0.00%	-3.22%
		2023	11.28%	9.77%	1.45%
		2024	0.19%	-1.13%	-8.45%
		2025	0.19%	-1.12%	-8.45%
		2026	0.19%	-1.11%	-8.45%
		2027	0.19%	-1.10%	-8.45%
		2028	0.18%	-1.09%	-8.45%
		2029	0.18%	-1.08%	-8.45%
		2030	0.18%	-1.07%	-8.46%
		2031	0.17%	-1.06%	-8.46%
		2032	0.03%	-0.17%	-1.37%
		2033	0.03%	-0.16%	-1.37%
		2034	0.03%	-0.16%	-1.37%
		2035	0.03%	-0.16%	-1.37%
		2036	0.03%	-0.16%	-1.37%
		2037	0.03%	-0.16%	-1.37%
		2038	0.02%	-0.13%	-1.10%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-3-10**

Table 33: 2023 Illustrative High Scenario Natural Gas Rate and Bill Impacts - Expanded

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Residential (Model 1: HERs only)	0.0%	Long Term Average	0.01%	0.00%	-0.01%
		2023	0.33%	-0.10%	-0.29%
		2024	0.00%	0.00%	0.00%
		2025	0.00%	0.00%	0.00%
		2026	0.00%	0.00%	0.00%
		2027	0.00%	0.00%	0.00%
		2028	0.00%	0.00%	0.00%
		2029	0.00%	0.00%	0.00%
		2030	0.00%	0.00%	0.00%
		2031	0.00%	0.00%	0.00%
		2032	0.00%	0.00%	0.00%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
		Long Term Average	0.60%	0.17%	-5.57%
		2023	10.44%	9.77%	1.81%
		2024	0.22%	-0.37%	-7.49%
		2025	0.22%	-0.37%	-7.49%
		2026	0.22%	-0.36%	-7.49%
		2027	0.21%	-0.36%	-7.49%
		2028	0.21%	-0.35%	-7.50%

Sector	Long Term Rate Impacts	Change in Bills			
			Non-Participants	Average Customer	Average Participant
Residential (Model 2: All Programs Except HERs)	0.6%	2029	0.21%	-0.35%	-7.50%
		2030	0.20%	-0.35%	-7.50%
		2031	0.20%	-0.34%	-7.51%
		2032	0.19%	-0.34%	-7.51%
		2033	0.19%	-0.34%	-7.52%
		2034	0.18%	-0.34%	-7.52%
		2035	0.18%	-0.34%	-7.53%
		2036	0.17%	-0.34%	-7.53%
		2037	0.17%	-0.33%	-7.53%
		2038	0.17%	-0.33%	-7.54%
		2039	0.16%	-0.33%	-7.54%
		2040	0.05%	-0.11%	-2.59%
		2041	0.05%	-0.11%	-2.59%
		2042	0.05%	-0.10%	-2.30%
		2043	0.04%	-0.10%	-2.30%
		2044	0.04%	-0.10%	-2.30%
		2045	0.04%	-0.10%	-2.30%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Residential (Model 3: All Programs)	0.6%	Long Term Average	0.61%	0.16%	-0.03%
		2023	10.77%	9.62%	9.29%
		2024	0.22%	-0.37%	-0.55%
		2025	0.22%	-0.37%	-0.55%
		2026	0.22%	-0.36%	-0.55%
		2027	0.21%	-0.36%	-0.56%
		2028	0.21%	-0.35%	-0.56%
		2029	0.21%	-0.35%	-0.56%
		2030	0.20%	-0.35%	-0.57%
		2031	0.20%	-0.34%	-0.57%
		2032	0.19%	-0.34%	-0.58%
		2033	0.19%	-0.34%	-0.58%
		2034	0.18%	-0.34%	-0.59%
		2035	0.18%	-0.34%	-0.59%
		2036	0.17%	-0.34%	-0.60%
		2037	0.17%	-0.33%	-0.60%
		2038	0.17%	-0.33%	-0.60%
		2039	0.16%	-0.33%	-0.61%
		2040	0.05%	-0.11%	-0.21%
		2041	0.05%	-0.11%	-0.21%
		2042	0.05%	-0.10%	-0.19%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
		2043	0.04%	-0.10%	-0.19%
		2044	0.04%	-0.10%	-0.19%
		2045	0.04%	-0.10%	-0.19%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Income Eligible	1.0%	Long Term Average	1.00%	-0.17%	-4.40%
		2023	11.25%	9.37%	4.41%
		2024	0.73%	-0.91%	-5.36%
		2025	0.72%	-0.87%	-5.36%
		2026	0.71%	-0.84%	-5.37%
		2027	0.70%	-0.82%	-5.38%
		2028	0.68%	-0.79%	-5.40%
		2029	0.68%	-0.76%	-5.41%
		2030	0.66%	-0.74%	-5.42%
		2031	0.65%	-0.72%	-5.43%
		2032	0.63%	-0.70%	-5.45%
		2033	0.61%	-0.69%	-5.46%
		2034	0.60%	-0.67%	-5.48%
		2035	0.58%	-0.65%	-5.49%
		2036	0.57%	-0.64%	-5.51%
		2037	0.55%	-0.62%	-5.52%
		2038	0.54%	-0.61%	-5.53%
		2039	0.52%	-0.59%	-5.55%
		2040	0.51%	-0.58%	-5.56%
		2041	0.50%	-0.56%	-5.57%
		2042	0.48%	-0.55%	-5.58%
		2043	0.25%	-0.29%	-2.99%
		2044	0.25%	-0.28%	-3.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
		Long Term Average	0.38%	0.19%	-7.02%
		2023	7.57%	7.09%	-11.10%
		2024	0.13%	-0.31%	-16.98%
		2025	0.13%	-0.31%	-16.98%
		2026	0.13%	-0.31%	-16.98%
		2027	0.13%	-0.31%	-16.98%
		2028	0.12%	-0.31%	-16.98%
		2029	0.12%	-0.31%	-16.98%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
Small C&I	0.4%	2030	0.12%	-0.31%	-16.99%
		2031	0.12%	-0.31%	-16.99%
		2032	0.11%	-0.31%	-16.99%
		2033	0.00%	0.00%	0.00%
		2034	0.00%	0.00%	0.00%
		2035	0.00%	0.00%	0.00%
		2036	0.00%	0.00%	0.00%
		2037	0.00%	0.00%	0.00%
		2038	0.00%	0.00%	0.00%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%
Large C&I	0.6%	Long Term Average	0.58%	-0.12%	-3.20%
		2023	11.33%	9.43%	1.49%
		2024	0.24%	-1.42%	-8.40%
		2025	0.24%	-1.40%	-8.40%
		2026	0.23%	-1.39%	-8.40%
		2027	0.23%	-1.38%	-8.41%
		2028	0.23%	-1.37%	-8.41%
		2029	0.23%	-1.35%	-8.41%
		2030	0.22%	-1.34%	-8.41%
		2031	0.22%	-1.33%	-8.42%
		2032	0.04%	-0.21%	-1.36%
		2033	0.04%	-0.21%	-1.36%
		2034	0.04%	-0.20%	-1.36%
		2035	0.04%	-0.20%	-1.36%
		2036	0.04%	-0.20%	-1.36%
		2037	0.04%	-0.20%	-1.36%
		2038	0.03%	-0.16%	-1.09%
		2039	0.00%	0.00%	0.00%
		2040	0.00%	0.00%	0.00%
		2041	0.00%	0.00%	0.00%
		2042	0.00%	0.00%	0.00%
		2043	0.00%	0.00%	0.00%

Sector	Long Term Rate Impacts	Change in Bills			
			Non- Participants	Average Customer	Average Participant
		2044	0.00%	0.00%	0.00%
		2045	0.00%	0.00%	0.00%
		2046	0.00%	0.00%	0.00%
		2047	0.00%	0.00%	0.00%

PUC 1-4

Request:

Referring to Bates 132, the company states that during 2020 the weatherization incentive was increased to 100%.

- a. Please identify the filing wherein the company sought Commission approval of this change. If the company did not seek Commission approval, explain why it did not.
- b. Please quantify the change in the BC ratio caused by this change at:
 - i. The program level
 - ii. The portfolio level

Response:

- a. The Company did not seek Commission approval for the weatherization incentive change implemented in 2020. Historically, the Company has viewed adjustments to incentives as program implementation activities. Accordingly, the Company has not sought Commission approval for these types of changes when the anticipated spending impact would not increase total anticipated spend beyond the specified threshold of 15%, relative to approved budget, per the terms of the approved 2020 Annual Plan in Docket No. 4979. Had the Company believed that these incentive changes would have had this impact on actual full year total budgets relative to approved budgets, the Company would have sought approval from the Commission.

In the specific case of this incentive change, the 100% weatherization incentive change was discussed with and implemented with the support of the OER and the Consultant team to the EERMC. Additionally, the specifics of the change, and the logic behind it, were communicated to the Energy Efficiency Technical Working Group (EE TWG) on April 10, 2020 and to the EERMC at the April 30, 2020 meeting.

The changes were reported in the Company's quarterly report for the first and second quarters of 2020 in Docket No. 4979.

The filings may be accessed [http://www.ripuc.ri.gov/eventsactions/docket/4979-NGrid-Quarterly%20Report%20\(Q1\)\(8-4-2020\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4979-NGrid-Quarterly%20Report%20(Q1)(8-4-2020).pdf) (See reference to EnergyWise Single Family, page 4); and

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[http://www.ripuc.ri.gov/eventsactions/docket/4979-NGrid-Quarterly%20Report%20\(Q2\)\(PUC%208-28-2020\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4979-NGrid-Quarterly%20Report%20(Q2)(PUC%208-28-2020).pdf) . (See reference to Small Business Direct Install, page 13)

- b. Below the company addresses the quantification of the BC Ratio as requested in question part b above.
 - i. The 100% incentive should not change the BC ratio at the program level since both incentives and participant costs are included within the BC ratio calculation. The incentive change results in a decrease to participant costs and an increase to incentive costs but does not drive a BC ratio change.
 - ii. Portfolio level BC ratio should also not change due to an increase in incentive level.

PUC 1-5

Request:

Referring to Bates 60, the company makes the following statement: "The Company will increase its efforts and emphasis on identifying and encouraging customers eligible for the discount rate to move to that rate."

- a. Please identify the actions the company will take to achieve this objective.
- b. What dollar amounts are included in the 2021 budget to support this objective?
- c. Please itemize by program the amounts identified in (b.) above

Response:

On Bates page 60, the sentence in question refers to work that is currently underway pursuant to the Rhode Island Rate Case, Docket 4770.

- a. Please identify the actions the company will take to achieve this objective.

Please refer to Docket 4770 Pre-Filed Direct Testimony of John Isberg for a full description of the Company's Customer Affordability Program, which includes multiple customer-focused programs and services designed to increase energy affordability for Rhode Island customers. The Customer Affordability Program includes increased outreach and education and enhanced customer support to increase enrollments in expanded electric and gas discount rates.

- b. What dollar amounts are included in the 2021 budget to support this objective?

Please refer to the Company's Customer Affordability Plan under Docket 4770 for the budgets associated with increasing enrollments in expanded electric and gas discount rates. There are no dollar amounts included in the 2021 Rhode Island Energy Efficiency Plan budgets dedicated to identifying and encouraging customers eligible for the discount rate to move to that rate.

- c. Please itemize by program the amounts identified in (b.) above.

Please refer to PUC 1-5 (b). There are no dollar amounts included for these activities in the 2021 Rhode Island Energy Efficiency budgets.

PUC 1-6

Request:

Referring to Bates 193, the company states it will create a “welcome packet” for customers new to the low income rate. Please explain with more specificity what the packet will be and please quantify the expected cost to be funded through EE or any other sources.

Response:

Newly enrolled discount rate customers will be sent an Energy Efficiency “welcome package” that will include a personalized letter and an Income Eligible Energy Services Program brochure that introduces customers to the Income Eligible Services Program. As this “welcome package” will be focused on driving customer awareness of and participation in income-eligible energy efficiency program services, it will be entirely funded through Energy Efficiency income eligible program marketing budgets.

As the Company has yet to determine whether the welcome package will be a direct mail piece, an email, or both, the Company does not yet have firm pricing or cost estimates for this initiative. Ultimately, the costs for this initiative will be balanced against other income eligible energy efficiency marketing priorities and managed within the overall requested budget for all income eligible energy efficiency marketing efforts in 2021.

PUC 1-7

Request:

Referring to Bates 147, Attachment 1 table 1 provides kWh delivery forecasts for 2020 through 2023.

- a. Please describe and explain the decrease in kWh deliveries from 7.1 billion kWh in 2020 to 6.6 billion kWh in 2021.
- b. Please explain the subsequent increase in kWh deliveries from 2021 to 2022 from 6.8 billion kWh to 6.96 billion kWh in 2023.
- c. Please provide an alternative schedule that recalculates the proposed electric energy efficiency factor shown on page 1 of Attachment 5, using the same forecast that was used in Docket 5054 which established the Electric Pension/PBOP adjustment factor which went into effect on October 1, 2020 (i.e., 6,951,182,262 kWhs).

Response:

- a. The forecasts were developed from econometric models relating monthly deliveries to regional economic and/or demographic variables, weather, and other explanatory variables. All these energy models were specified after reconstituting the historical deliveries for Distributed Energy Resource (DERs). That is, after adding back or subtracting the impacts of the DERs from the historical input dataset. The DERs include energy efficiency (EE), solar-PV (PV), and electric vehicles (EV) for all years. And electric heat pumps were newly added into consideration in the 2020 forecasting process, thus are impacting the forecasts for 2021 and beyond. The model-predicted pre-DER deliveries were then adjusted to reflect projected cumulative DERs' impacts. The final forecasts were composed of two parts: (1) the pre-DER delivery forecasts from the econometric models and (2) the projected cumulative DER impacts. Table 1 below presents the pre-DER values, the impacts of the DERs, and the final forecasts. All numbers in Table 1 are in GWh.

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Table 1: Pre-DER Deliveries, DER Impacts, and Final Forecasts (GWh)

NECO TOTAL Deliveries (weather-normalize, 50/50) (GWh) (before & after DERs)							
Calendar Year	DELIVERIES (50/50) Reconstituted (before DER impacts)	DER IMPACTS					Final Forecast (after all impacts)
		EE Reduction	PV Reduction	EV Increase	EH Increase	Total Impacts	
2020	9,808	(2,335)	(367)	7	0	(2,695)	7,113
2021	9,236	(2,478)	(166)	11	5	(2,629)	6,607
2022	9,577	(2,621)	(203)	13	8	(2,803)	6,775
2023	9,923	(2,753)	(239)	16	13	(2,963)	6,961

The 2021 pre-DER delivery, 9,238 GWh, drops from the 2020 value, 9,808 GWh for two main reasons: (1) starting in 2021, only net behind-the-meter PV (BTM PV), which is only a portion of the installed PV, are considered in the reconstituted value. However, when the 2020 number was prepared in 2019, all the PV were considered. This makes the 2020 reconstituted value look higher than if only the net BTM PV were considered. (2) the lower economic outlook for 2021 (driven by the COVID-19 recession) based on Moody's economic forecasts also drives the pre-DER forecasts lower for 2021.

The DERs are expected to lower the pre-DER forecast by 2,629 GWh in 2021, and they were expected to lower the 2020 pre-DER forecasts by 2,695 GWh. The differences in the DERs impacts come from the following: (1) the higher EE reduction in 2021 due to incremental EE that are expected to be added; (2) as mentioned above, although additional PV installations are expected in 2021, only net Behind-the-Meter PV but not all PV installations are considered from 2021 and beyond. Thus, the energy reduction from PV is lower in 2021 than that in 2020; (3) more EVs are expected to add load to the system; and (4) electric heat pumps are considered starting 2021, and they add load to the system. Overall, the total DERs impact in 2021 is slightly lower than what was expected for 2020.

In sum, the decrease in kWh deliveries from 7.1 billion kWh in 2020 to 6.6 billion kWh in 2021 is mainly driven by the lower economic outlook driven by the COVID-19 recession based on Moody's economic forecasts and adjustments made to the DERs.

- b. As explained in part a, the delivery forecasts are composed of two parts: (1) the pre-DER delivery forecasts from the econometric models and (2) the projected cumulative DER impacts. Table 1 in part a also lists the pre-DER delivery forecasts, DER impacts, and the final forecasts for 2022 and 2023. The pre-DER delivery forecasts of 2022 and 2023 will grow from its expected 2021 level mainly driven by the expected recovery of the economy based on Moody's economic forecasts. More specifically, the pre-DER

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deliveries are expected to grow to 9,577 GWh in 2022 and 9,923 GWh in 2023 from the expected 9,236 GWh in 2021. The projected energy reduction from DER impacts will continue to grow, but at a slower pace because of the electrification in transportation and heating (i.e., the beneficial electrification). As a result, the kWh deliveries are expected to grow to 6.8 billion kWh in 2022 and 6.96 billion kWh in 2023.

- c. The kwh forecast used in the 2021 Annual Plan filing is based on a calendar year 2021 forecast (January 1, 2021 – December 31, 2021). The 6,951,182,262 kWh forecast provided in Docket 5054 is for October 1, 2020 – September 30, 2021 and would therefore not align with a energy efficiency rate based on a calendar year forecast. In addition, the forecast used in Docket 5054 was based on a forecast made in 2019 and would therefore not include the impacts of COVID-19.

PUC 1-7-Revised

Request:

Referring to Bates 147, Attachment 1 table 1 provides kWh delivery forecasts for 2020 through 2023.

- a. Please describe and explain the decrease in kWh deliveries from 7.1 billion kWh in 2020 to 6.6 billion kWh in 2021.
- b. Please explain the subsequent increase in kWh deliveries from 2021 to 2022 from 6.8 billion kWh to 6.96 billion kWh in 2023.
- c. Please provide an alternative schedule that recalculates the proposed electric energy efficiency factor shown on page 1 of Attachment 5, using the same forecast that was used in Docket 5054 which established the Electric Pension/PBOP adjustment factor which went into effect on October 1, 2020 (i.e., 6,951,182,262 kWhs).

Original Response:

- a. The forecasts were developed from econometric models relating monthly deliveries to regional economic and/or demographic variables, weather, and other explanatory variables. All these energy models were specified after reconstituting the historical deliveries for Distributed Energy Resource (DERs). That is, after adding back or subtracting the impacts of the DERs from the historical input dataset. The DERs include energy efficiency (EE), solar-PV (PV), and electric vehicles (EV) for all years. And electric heat pumps were newly added into consideration in the 2020 forecasting process, thus are impacting the forecasts for 2021 and beyond. The model-predicted pre-DER deliveries were then adjusted to reflect projected cumulative DERs' impacts. The final forecasts were composed of two parts: (1) the pre-DER delivery forecasts from the econometric models and (2) the projected cumulative DER impacts. Table 1 below presents the pre-DER values, the impacts of the DERs, and the final forecasts. All numbers in Table 1 are in GWh.

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Table 1: Pre-DER Deliveries, DER Impacts, and Final Forecasts (GWh)

NECO TOTAL Deliveries (weather-normalize, 50/50) (GWh) (before & after DERs)							
Calendar Year	DELIVERIES (50/50) Reconstituted (before DER impacts)	DER IMPACTS					Final Forecast (after all impacts)
		EE Reduction	PV Reduction	EV Increase	EH Increase	Total Impacts	
2020	9,808	(2,335)	(367)	7	0	(2,695)	7,113
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2023	9,923	(2,753)	(239)	16	13	(2,963)	6,961

The 2021 pre-DER delivery, 9,238 GWh, drops from the 2020 value, 9,808 GWh for two main reasons: (1) starting in 2021, only net behind-the-meter PV (BTM PV), which is only a portion of the installed PV, are considered in the reconstituted value. However, when the 2020 number was prepared in 2019, all the PV were considered. This makes the 2020 reconstituted value look higher than if only the net BTM PV were considered. (2) the lower economic outlook for 2021 (driven by the COVID-19 recession) based on Moody's economic forecasts also drives the pre-DER forecasts lower for 2021.

The DERs are expected to lower the pre-DER forecast by 2,629 GWh in 2021, and they were expected to lower the 2020 pre-DER forecasts by 2,695 GWh. The differences in the DERs impacts come from the following: (1) the higher EE reduction in 2021 due to incremental EE that are expected to be added; (2) as mentioned above, although additional PV installations are expected in 2021, only net Behind-the-Meter PV but not all PV installations are considered from 2021 and beyond. Thus, the energy reduction from PV is lower in 2021 than that in 2020; (3) more EVs are expected to add load to the system; and (4) electric heat pumps are considered starting 2021, and they add load to the system. Overall, the total DERs impact in 2021 is slightly lower than what was expected for 2020.

In sum, the decrease in kWh deliveries from 7.1 billion kWh in 2020 to 6.6 billion kWh in 2021 is mainly driven by the lower economic outlook driven by the COVID-19 recession based on Moody's economic forecasts and adjustments made to the DERs.

- b. As explained in part a, the delivery forecasts are composed of two parts: (1) the pre-DER delivery forecasts from the econometric models and (2) the projected cumulative DER impacts. Table 1 in part a also lists the pre-DER delivery forecasts, DER impacts, and the final forecasts for 2022 and 2023. The pre-DER delivery forecasts of 2022 and 2023 will grow from its expected 2021 level mainly driven by the expected recovery of the economy based on Moody's economic forecasts. More specifically, the pre-DER

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deliveries are expected to grow to 9,577 GWh in 2022 and 9,923 GWh in 2023 from the expected 9,236 GWh in 2021. The projected energy reduction from DER impacts will continue to grow, but at a slower pace because of the electrification in transportation and heating (i.e., the beneficial electrification). As a result, the kWh deliveries are expected to grow to 6.8 billion kWh in 2022 and 6.96 billion kWh in 2023.

- c. The kwh forecast used in the 2021 Annual Plan filing is based on a calendar year 2021 forecast (January 1, 2021 – December 31, 2021). The 6,951,182,262 kWh forecast provided in Docket 5054 is for October 1, 2020 – September 30, 2021 and would therefore not align with a energy efficiency rate based on a calendar year forecast. In addition, the forecast used in Docket 5054 was based on a forecast made in 2019 and would therefore not include the impacts of COVID-19.

Revised Response:

- c. Attachment 1-7-1 contains numbers that are based on the same forecast as in Docket 5054 and the same October 1, 2020 – September 30, 2021 timeframe that was used in Docket 5054.

The Company notes that the kWh forecast used in the 2021 Annual Plan filing is based on a calendar year 2021 forecast (January 1, 2021 – December 31, 2021). The 6,951,182,262 kWh forecast provided in Docket 5054 is for October 1, 2020 – September 30, 2021 and would, therefore, not align with an energy efficiency rate based on a calendar year forecast.

In addition, the forecast used in Docket 5054 was based on a forecast made in 2019 and would, therefore, not include the impacts of COVID-19.

PUC 1-7 (Second Revised)

Request:

Referring to Bates 147, Attachment 1 table 1 provides kWh delivery forecasts for 2020 through 2023.

- a. Please describe and explain the decrease in kWh deliveries from 7.1 billion kWh in 2020 to 6.6 billion kWh in 2021.
- b. Please explain the subsequent increase in kWh deliveries from 2021 to 2022 from 6.8 billion kWh to 6.96 billion kWh in 2023.
- c. Please provide an alternative schedule that recalculates the proposed electric energy efficiency factor shown on page 1 of Attachment 5, using the same forecast that was used in Docket 5054 which established the Electric Pension/PBOP adjustment factor which went into effect on October 1, 2020 (i.e., 6,951,182,262 kWhs).

Response:

This response represents a second revised version of the Company's original response to PUC 1-7 that was submitted on November 10, 2020 and revised response to PUC 1-7 that was submitted on November 12, 2020.

The Company's response to (a) and (b) remain the same as originally filed and are as follows:

- a. The forecasts were developed from econometric models relating monthly deliveries to regional economic and/or demographic variables, weather, and other explanatory variables. All these energy models were specified after reconstituting the historical deliveries for Distributed Energy Resource (DERs). That is, after adding back or subtracting the impacts of the DERs from the historical input dataset. The DERs include energy efficiency (EE), solar-PV (PV), and electric vehicles (EV) for all years. And electric heat pumps were newly added into consideration in the 2020 forecasting process, thus are impacting the forecasts for 2021 and beyond. The model-predicted pre-DER deliveries were then adjusted to reflect projected cumulative DERs' impacts. The final forecasts were composed of two parts: (1) the pre-DER delivery forecasts from the econometric models and (2) the projected cumulative DER impacts. Table 1 below presents the pre-DER values, the impacts of the DERs, and the final forecasts. All numbers in Table 1 are in GWh.

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Table 1: Pre-DER Deliveries, DER Impacts, and Final Forecasts (GWh)

NECO TOTAL Deliveries (weather-normalize, 50/50) (GWh) (before & after DERs)							
Calendar Year	DELIVERIES (50/50) Reconstituted (before DER impacts)	DER IMPACTS					Final Forecast (after all impacts)
		EE Reduction	PV Reduction	EV Increase	EH Increase	Total Impacts	
2020	9,808	(2,335)	(367)	7	0	(2,695)	7,113
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The 2021 pre-DER delivery, 9,238 GWh, drops from the 2020 value, 9,808 GWh for two main reasons: (1) starting in 2021, only net behind-the-meter PV (BTM PV), which is only a portion of the installed PV, are considered in the reconstituted value. However, when the 2020 number was prepared in 2019, all the PV were considered. This makes the 2020 reconstituted value look higher than if only the net BTM PV were considered. (2) the lower economic outlook for 2021 (driven by the COVID-19 recession) based on Moody's economic forecasts also drives the pre-DER forecasts lower for 2021.

The DERs are expected to lower the pre-DER forecast by 2,629 GWh in 2021, and they were expected to lower the 2020 pre-DER forecasts by 2,695 GWh. The differences in the DERs impacts come from the following: (1) the higher EE reduction in 2021 due to incremental EE that are expected to be added; (2) as mentioned above, although additional PV installations are expected in 2021, only net Behind-the-Meter PV but not all PV installations are considered from 2021 and beyond. Thus, the energy reduction from PV is lower in 2021 than that in 2020; (3) more EVs are expected to add load to the system; and (4) electric heat pumps are considered starting 2021, and they add load to the system. Overall, the total DERs impact in 2021 is slightly lower than what was expected for 2020.

In sum, the decrease in kWh deliveries from 7.1 billion kWh in 2020 to 6.6 billion kWh in 2021 is mainly driven by the lower economic outlook driven by the COVID-19 recession based on Moody's economic forecasts and adjustments made to the DERs.

- b. As explained in part a, the delivery forecasts are composed of two parts: (1) the pre-DER delivery forecasts from the econometric models and (2) the projected cumulative DER impacts. Table 1 in part a also lists the pre-DER delivery forecasts, DER impacts, and the final forecasts for 2022 and 2023. The pre-DER delivery forecasts of 2022 and 2023 will grow from its expected 2021 level mainly driven by the expected recovery of the economy based on Moody's economic forecasts. More specifically, the pre-DER

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deliveries are expected to grow to 9,577 GWh in 2022 and 9,923 GWh in 2023 from the expected 9,236 GWh in 2021. The projected energy reduction from DER impacts will continue to grow, but at a slower pace because of the electrification in transportation and heating (i.e., the beneficial electrification). As a result, the kWh deliveries are expected to grow to 6.8 billion kWh in 2022 and 6.96 billion kWh in 2023.

For (c), the Company has revised its response, which is as follows:

c. Please see Attachment PUC 1-7-1 (Revised) which contains numbers that are based on the same forecast as used in Docket No. 5054. The impact of applying the 6,951,182,262 kWh forecast to the 2021 Electric Energy Efficiency program year (January 1, 2021 – December 31, 2021) results in a lowering of the proposed 2021 Energy Efficiency surcharge from \$0.01323/kWh to \$0.01257/kWh.

Please note that the 2021 projected kWh Sales (6,606,545,391 kWh) on Bates 147 stems from a more recent forecast/analysis than the projected kWh Sales (6,951,182,262 kWh) used in Attachment PUC 1-7-1 (Revised).

Table E-1
National Grid
Electric DSM Funding Sources in 2021 by Sector
\$(000)

	Income Eligible Residential	Projections by Sector Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from E-2):	\$19,804.31	\$41,191.70	\$61,310.01	\$122,306.03
Sources of Other Funding:				
(2) Projected DSM Commitments at Year-End 2020:	\$0.00	\$0.00	\$0.00	\$0.00
(3) Projected Year-End 2020 Fund Balance and Interest:	\$0.00	\$352.71	\$19,608.97	\$19,961.68
(4) Projected FCM Payments from ISO-NE:	\$472.60	\$6,189.90	\$9,355.40	\$16,018.00
(5) Total Other Funding:	\$472.60	\$6,542.61	\$28,964.37	\$35,979.68
(6) Customer Funding Required:	\$19,331.71	\$34,649.09	\$32,345.64	\$86,326.35
(7) Forecasted kWh Sales:	205,099,654	2,686,191,575	4,059,891,033	6,951,182,262
(8) Energy Efficiency Program charge per kWh, excluding uncollectible recovery:				\$0.01241
(9) Proposed SRP Opex Factor per kWh, excluding uncollectible recovery:				<u>\$0.00000</u>
(10) Total Proposed Energy Efficiency Charge per kWh, excluding uncollectible recovery:				\$0.01241
(11) Currently Effective Uncollectible Rate				1.30%
(12) Proposed Energy Efficiency Program Charge per kWh, including Uncollectible Recovery:				\$0.01257
(13) Currently Effective Energy Efficiency Program Charge per kwh				<u>\$0.01323</u>
(14) Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				(\$0.00066)

Notes:

- (1) Projected Budget from E-2 includes OER and EERMC costs allocated to each sector based on forecasted sales.
(2) DSM Commitments are projects that are under construction with anticipated completion in 2021.
(3) Fund balance projections include projected revenue and spend through year end with Income Eligible sector set to \$0 through projected subsidization from other sectors, minus commitments which are illustrated separately on line (2). The Company proposes to refile this table with updated Fund Balance projections on December 1, 2020 as proposed in Section 12.1 of the Plan's Main Text.
(3a) The Fund balance projection includes a credit and interest in the amount of \$469,641.16 pursuant to the PUC Open Meeting on September 1, 2020 in relation to Docket No. 4755 and the Navy CHP Settlement Agreement.
(4) The total projection of FCM revenue is allocated by kWh sales to each sector.
(5) Line (2) + Line (3) + Line (4)
(6) Line (1) - Line (5)
(7) Forecast matches the forecast provided in Docket 5054.
(8) Line (6) ÷ Line (7), truncated to 5 decimal places
(9) Truncated to 5 decimal places
(11) Proposed SRP Opex Factor is \$0.00000.
(10) Line (8) ÷ Line (9)
(11) Uncollectible rate approved in Docket No 4770.
(12) Line (10) ÷ (1-Line (11), truncated to 5 decimal places
(13) Currently Effective EE Charge includes System Reliability Factor and uncollectible recovery.
(14) Line (13) - Line (12)

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Request:

Referring to Bates 151, Attachment 1 Table 3 provides Dth delivery forecasts for 2020 through 2023.

- a. Please explain and itemize the decrease in Dth deliveries from 42.1 million Dth in 2020 to 38.6 million Dth in 2021.
- b. Please explain the subsequent increase in Dth deliveries in 2022 to 39.98 million Dth and to 41.2 million Dth in 2023.
- c. Please provide an alternative schedule that recalculates the proposed gas energy efficiency factor shown on page 1 of Attachment 6, using the same forecast that was used in Docket 5040 which established the Distribution Adjustment Factor which went into effect on November 1, 2020 (i.e., 39,648,231 dths).

Response:

- a. The projected volume of 42.1 million Dth in 2020 is based on the Company's 2019 Q2 forecasts whereas, the 38.6 million Dth projected for 2021 is from the Company's 2020 Q2 forecasts. The 2020 Q2 projections consider an additional year of historical data (the actual billing data until the end of February 2020 was taken into consideration) compared to 2019 Q2 forecasts, which considers actual data up to February 2019 only.

The primary reason for a decline in the Company's 2020 Q2 forecast relative to its 2019 Q2 forecast is the impact of COVID-19 pandemic on the Rhode Island economy as projected by Moody's analytics. In its 2019 Q2 forecast, the Company forecasted a total of 42,171,352 Dth for the calendar year 2020. The impact of the COVID-19 pandemic on the economy of Rhode Island can be seen in the corresponding time period in the 2020 Q2 forecast with a forecasted load of 36,829,633 Dth, a 12.7 percent reduction.¹

Similarly, there was an 8.9 percent decline in the projected volume for 2021 from 2019 Q2 forecast versus 2020 Q2 forecast (from 42,382,476 Dth based on 2019 Q2 projections to 3,860,800 Dth based on 2020 Q2 projections).

For both 2019 Q2 and 2020 Q2 forecasts, the Company developed econometric models to separately forecast the meter count and the use-per-customer for Residential Heating, Residential Non-heating, Commercial, and Industrial customer groups. The meter count

¹ Assuming the same DG customer volume (of 1,470,931 Dth) for 2020 as used in 2019 Q2 forecasts.

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and use-per-customer are multiplied to obtain a forecast of retail volumes for each customer class. Next, the incremental savings from the impact of the energy efficiency programs (that are not embedded in the historical data used to derive the statistical models because such savings are exogenous to the modeling effort) are subtracted from the projected volumes. These volumes are then broken down at the rate code level based on the historical share (most recent three years) of the rate codes within their respective customer group.

The meter counts and the use-per-customer in the region are considerably driven by the underlying macro-economic scenario. The Company uses the following macro-economic variables obtained from Moody's forecasts in developing its meter count and use-per-customer forecasts:

- a. Personal Income
- b. Non-manufacturing Employment
- c. Manufacturing Employment
- d. Total Employment
- e. Retail Sales
- f. Gas-to-Oil Price Ratio for the Industrial Sector in the state of Rhode Island.

Attachments PUC 1-8-1 through PUC 1-8-4, provide the full set of monthly economic and price variables considered in the development of the Company's 2020 Q2 retail gas forecast. The corresponding data used in 2019 Q2 projections are in Attachments PUC 1-8-3 and 1-8-4.

- b. In the Company's 2021 Annual Energy Efficiency Program Plan, on Bates 151, Attachment 1, Table 3, the Company presented its deliveries forecasts from CY 2020 to CY 2023 (reproduced in Table 1). The growth in total volumes from 2021 to 2022 is 1,373,518 Dth (39,981,521 Dth minus 38,608,003 Dth), and from 2022 to 2023 is 1,219,848 Dth (41,201,369 Dth minus 39,981,521 Dth).

Table 1

	2020	2021	2022	2023
Projected Volume (in Dth)	42,171,352	38,608,003	39,981,521	41,201,369

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As mentioned in the response to 1-8a, the economic outlook for Rhode Island was downgraded by Moody's due to the impact of COVID-19 was responsible for a reduction of volumes in 2021 in the 2020 Q2 forecast. The growth in volumes in the following years is driven by the improved macro-economic forecasts from Moody's, under the assumption of economic recovery and restoration of the economy, post-COVID.

- c. The gas forecast used in the DAC filing is the same as used in the current filing. The only difference is that the volumes in the DAC filing are reported by planning year (spanning November through October) and volumes in the EE filing are reported by calendar year.

DATE	TIME	BDD_N	EMPL_RI	MFG_RI	CONST_RI	NONMFG_RI	GDP_RI	HH_RI	POP_RI	INCOME_RI	ICP_RI	RETSALES_RI	TOTHSOCK_RI
10-Sep	2010.67	13	459	40.46	15.88	418.54	51663.65	414.85	1054.02	210.02	19925.73	61.68	464.08
10-Oct	2010.75	156	459.19	40.46	15.84	418.73	51643.65	415.05	1053.96	210.07	19931.37	61.83	464.14
10-Nov	2010.83	437	459.34	40.45	15.8	418.89	51606.59	415.25	1053.89	209.97	19922.97	61.94	464.2
10-Dec	2010.92	760	459.45	40.43	15.76	419.02	51556.37	415.47	1053.81	209.77	19905.65	62.03	464.24
11-Jan	2011	1011	459.55	40.4	15.73	419.15	51496.14	415.71	1053.73	209.48	19880.21	62.09	464.27
11-Feb	2011.08	1125	459.64	40.37	15.7	419.27	51434.05	415.95	1053.66	209.14	19848.61	62.11	464.29
11-Mar	2011.17	835	459.73	40.33	15.68	419.4	51371.03	416.2	1053.59	208.73	19811.69	62.11	464.31
11-Apr	2011.25	673	459.84	40.28	15.66	419.56	51308.79	416.48	1053.54	208.36	19776.85	62.09	464.33
11-May	2011.33	262	459.98	40.23	15.65	419.75	51253.59	416.76	1053.51	208.14	19756.5	62.1	464.35
11-Jun	2011.42	131	460.15	40.18	15.65	419.98	51209.39	417.06	1053.5	208.16	19758.81	62.14	464.38
11-Jul	2011.5	19	460.38	40.12	15.66	420.26	51180.18	417.36	1053.51	208.43	19784.03	62.22	464.4
11-Aug	2011.58	0	460.67	40.06	15.68	420.61	51167.16	417.68	1053.56	208.9	19828.35	62.33	464.43
11-Sep	2011.67	13	461	40	15.71	421	51169.48	418.01	1053.64	209.5	19883.42	62.43	464.47
11-Oct	2011.75	156	461.37	39.94	15.75	421.43	51185.35	418.34	1053.73	210.13	19941.56	62.52	464.51
11-Nov	2011.83	437	461.79	39.88	15.79	421.91	51213.08	418.67	1053.84	210.71	19994.13	62.58	464.55
11-Dec	2011.92	760	462.23	39.82	15.83	422.41	51251.26	419.01	1053.97	211.17	20036.06	62.6	464.6
12-Jan	2012	1011	462.71	39.77	15.88	422.94	51299.08	419.36	1054.1	211.6	20074.25	62.59	464.65
12-Feb	2012.08	1125	463.19	39.72	15.93	423.47	51352.49	419.7	1054.23	212.07	20116.48	62.61	464.7
12-Mar	2012.17	872	463.69	39.68	15.97	424.01	51411.51	420.03	1054.35	212.65	20168.9	62.67	464.75
12-Apr	2012.25	673	464.2	39.64	16.01	424.56	51475.66	420.37	1054.47	213.24	20222.78	62.75	464.8
12-May	2012.33	262	464.71	39.61	16.05	425.1	51542.5	420.71	1054.59	213.68	20262.46	62.81	464.85
12-Jun	2012.42	131	465.23	39.59	16.08	425.64	51610.46	421.04	1054.68	213.85	20276.53	62.81	464.89
12-Jul	2012.5	19	465.73	39.58	16.1	426.15	51678.02	421.37	1054.75	213.73	20263.53	62.77	464.94
12-Aug	2012.58	0.4	466.23	39.57	16.11	426.66	51745.07	421.69	1054.81	213.36	20227.42	62.69	464.98
12-Sep	2012.67	13	466.72	39.58	16.12	427.14	51808.58	422.01	1054.84	212.82	20175.58	62.59	465.02
12-Oct	2012.75	156	467.2	39.59	16.12	427.6	51868.81	422.32	1054.86	212.15	20111.82	62.48	465.06
12-Nov	2012.83	437	467.67	39.62	16.11	428.06	51925	422.63	1054.88	211.4	20039.96	62.36	465.1
12-Dec	2012.92	760	468.15	39.65	16.11	428.5	51976.26	422.93	1054.88	210.61	19965.71	62.26	465.13
13-Jan	2013	1011	468.64	39.69	16.1	428.95	52022.54	423.24	1054.88	209.92	19900.32	62.19	465.17
13-Feb	2013.08	1125	469.1	39.73	16.09	429.37	52060.38	423.53	1054.88	209.51	19860.54	62.21	465.2
13-Mar	2013.17	835	469.58	39.78	16.08	429.8	52091.25	423.83	1054.89	209.39	19849.47	62.31	465.23
13-Apr	2013.25	673	470.08	39.83	16.08	430.24	52115.28	424.13	1054.9	209.42	19852.04	62.47	465.27
13-May	2013.33	262	470.59	39.89	16.08	430.69	52130.34	424.44	1054.92	209.36	19846.06	62.58	465.3
13-Jun	2013.42	131	471.11	39.96	16.08	431.15	52135.72	424.75	1054.96	209.08	19818.26	62.62	465.34
13-Jul	2013.5	19	471.65	40.03	16.09	431.63	52130.62	425.06	1055.02	208.74	19785.2	62.62	465.38
13-Aug	2013.58	0.4	472.22	40.1	16.12	432.12	52115.64	425.38	1055.1	208.61	19771.38	62.66	465.42
13-Sep	2013.67	13	472.8	40.18	16.14	432.62	52093.76	425.7	1055.19	208.84	19791.36	62.79	465.46
13-Oct	2013.75	156	473.39	40.26	16.18	433.13	52067.42	426.01	1055.29	209.32	19834.82	62.97	465.5
13-Nov	2013.83	437	473.99	40.33	16.21	433.65	52039.31	426.32	1055.4	209.86	19884.02	63.16	465.54
13-Dec	2013.92	760	474.6	40.42	16.26	434.18	52012.06	426.61	1055.51	210.33	19926.34	63.31	465.58
14-Jan	2014	1011	475.22	40.5	16.3	434.73	51987.97	426.89	1055.63	210.76	19965.44	63.43	465.62
14-Feb	2014.08	1125	475.82	40.57	16.34	435.25	51970.89	427.14	1055.73	211.22	20006.62	63.55	465.66
14-Mar	2014.17	835	476.43	40.65	16.38	435.78	51962.15	427.37	1055.83	211.77	20057.58	63.69	465.71

DATE	TIME	BDD_N	EMPL_RI	MFG_RI	CONST_RI	NONMFG_RI	GDP_RI	HH_RI	POP_RI	INCOME_RI	ICP_RI	RETSALES_RI	TOTHSOCK_RI
14-Apr	2014.25	673	477.05	40.73	16.42	436.33	51964.16	427.58	1055.91	212.45	20120.15	63.85	465.75
14-May	2014.33	262	477.68	40.8	16.46	436.88	51980.22	427.76	1055.98	213.21	20190.88	64.03	465.79
14-Jun	2014.42	131	478.3	40.87	16.49	437.43	52012.81	427.9	1056.03	214.03	20267.55	64.22	465.83
14-Jul	2014.5	19	478.92	40.94	16.52	437.98	52064.55	428.01	1056.06	214.89	20348.16	64.41	465.86
14-Aug	2014.58	0.4	479.54	41	16.54	438.53	52136.4	428.08	1056.06	215.78	20432.45	64.61	465.9
14-Sep	2014.67	13	480.14	41.06	16.56	439.08	52222.95	428.12	1056.05	216.69	20518.98	64.82	465.93
14-Oct	2014.75	156	480.73	41.11	16.58	439.62	52321.95	428.13	1056.02	217.73	20617.75	65.05	465.97
14-Nov	2014.83	437	481.31	41.15	16.6	440.16	52429.93	428.12	1055.98	219.01	20739.54	65.36	466
14-Dec	2014.92	760	481.88	41.19	16.61	440.69	52543.61	428.09	1055.94	220.54	20885.97	65.75	466.03
15-Jan	2015	1011	482.44	41.22	16.64	441.22	52661.48	428.04	1055.89	222.05	21029.75	66.14	466.07
15-Feb	2015.08	1125	482.97	41.24	16.67	441.73	52772.68	427.99	1055.86	223.04	21124.08	66.37	466.1
15-Mar	2015.17	835	483.47	41.24	16.7	442.23	52879.74	427.94	1055.84	223.33	21151.79	66.4	466.13
15-Apr	2015.25	673	483.98	41.24	16.74	442.74	52982.98	427.88	1055.83	223.14	21134.52	66.3	466.17
15-May	2015.33	262	484.47	41.23	16.8	443.24	53075.2	427.82	1055.85	222.87	21108.29	66.18	466.2
15-Jun	2015.42	131	484.94	41.21	16.86	443.73	53153.18	427.78	1055.89	222.8	21101.25	66.13	466.24
15-Jul	2015.5	19	485.38	41.17	16.95	444.21	53213.58	427.75	1055.96	222.91	21110.03	66.15	466.28
15-Aug	2015.58	0.4	485.82	41.12	17.04	444.69	53256.25	427.73	1056.06	223.06	21121.86	66.19	466.33
15-Sep	2015.67	13	486.22	41.06	17.15	445.16	53281.57	427.73	1056.18	223.15	21128.3	66.22	466.37
15-Oct	2015.75	156	486.61	41	17.26	445.62	53292.23	427.73	1056.32	223.23	21133.19	66.27	466.42
15-Nov	2015.83	437	486.99	40.92	17.38	446.07	53290.36	427.74	1056.47	223.38	21143.77	66.33	466.47
15-Dec	2015.92	760	487.36	40.85	17.5	446.51	53277.82	427.75	1056.62	223.61	21162.39	66.44	466.52
16-Jan	2016	1011	487.73	40.77	17.62	446.96	53256.28	427.76	1056.76	223.78	21176.15	66.53	466.57
16-Feb	2016.08	1125	488.08	40.7	17.74	447.39	53228.93	427.76	1056.88	223.71	21167.12	66.56	466.62
16-Mar	2016.17	872	488.43	40.63	17.85	447.81	53197.03	427.75	1056.98	223.3	21126.63	66.49	466.67
16-Apr	2016.25	673	488.79	40.56	17.95	448.23	53161.95	427.73	1057.04	222.72	21070.43	66.37	466.73
16-May	2016.33	262	489.15	40.5	18.05	448.66	53126.15	427.69	1057.07	222.24	21023.98	66.28	466.78
16-Jun	2016.42	131	489.52	40.45	18.12	449.08	53091.61	427.63	1057.06	222.03	21004.71	66.28	466.84
16-Jul	2016.5	19	489.9	40.41	18.19	449.49	53060.25	427.54	1056.99	222.06	21008.51	66.35	466.89
16-Aug	2016.58	0.4	490.29	40.38	18.23	449.91	53032.6	427.43	1056.87	222.18	21022.99	66.44	466.95
16-Sep	2016.67	13	490.68	40.36	18.26	450.32	53009.51	427.31	1056.7	222.3	21036.68	66.53	467
16-Oct	2016.75	156	491.07	40.35	18.28	450.72	52990.4	427.16	1056.51	222.36	21046.32	66.6	467.06
16-Nov	2016.83	437	491.45	40.35	18.29	451.1	52975.09	427	1056.3	222.36	21051.07	66.65	467.12
16-Dec	2016.92	760	491.82	40.36	18.3	451.46	52963.48	426.83	1056.09	222.34	21053.41	66.69	467.18
17-Jan	2017	1011	492.18	40.37	18.29	451.81	52955.32	426.65	1055.87	222.43	21066.38	66.75	467.24
17-Feb	2017.08	1125	492.5	40.39	18.29	452.12	52950.8	426.47	1055.68	222.78	21103.34	66.89	467.3
17-Mar	2017.17	835	492.8	40.41	18.29	452.39	52949.4	426.3	1055.52	223.48	21172.58	67.12	467.36
17-Apr	2017.25	673	493.07	40.43	18.28	452.65	52951.03	426.12	1055.39	224.4	21262.06	67.42	467.42
17-May	2017.33	262	493.31	40.45	18.29	452.87	52955.69	425.95	1055.31	225.27	21346.51	67.69	467.49
17-Jun	2017.42	131	493.51	40.47	18.3	453.04	52963.23	425.78	1055.29	225.92	21408.75	67.89	467.56
17-Jul	2017.5	19	493.66	40.48	18.32	453.17	52973.57	425.63	1055.34	226.39	21452.12	68.03	467.63
17-Aug	2017.58	0.4	493.76	40.5	18.36	453.27	52987.34	425.5	1055.47	226.8	21488.02	68.14	467.7
17-Sep	2017.67	13	493.84	40.5	18.4	453.34	53005.02	425.38	1055.65	227.21	21523.32	68.24	467.78
17-Oct	2017.75	156	493.9	40.51	18.46	453.39	53027.82	425.29	1055.9	227.63	21557.66	68.35	467.86

DATE	TIME	BDD_N	EMPL_RI	MFG_RI	CONST_RI	NONMFG_RI	GDP_RI	HH_RI	POP_RI	INCOME_RI	ICP_RI	RETSALES_RI	TOTSTOCK_RI
17-Nov	2017.83	437	493.96	40.51	18.52	453.45	53056.67	425.21	1056.18	228	21587.33	68.43	467.93
17-Dec	2017.92	760	494.03	40.51	18.59	453.52	53092.6	425.16	1056.49	228.31	21610.62	68.51	468.01
18-Jan	2018	1011	494.13	40.5	18.67	453.63	53137.32	425.14	1056.83	228.62	21632.78	68.58	468.09
18-Feb	2018.08	1125	494.26	40.49	18.75	453.77	53188.44	425.14	1057.16	228.97	21658.88	68.67	468.17
18-Mar	2018.17	835	494.45	40.48	18.84	453.97	53249.03	425.17	1057.49	229.41	21693.96	68.79	468.25
18-Apr	2018.25	673	494.7	40.46	18.93	454.24	53322.3	425.23	1057.82	229.92	21735.5	68.95	468.32
18-May	2018.33	262	495.03	40.43	19.03	454.6	53407.52	425.32	1058.12	230.41	21775.84	69.11	468.4
18-Jun	2018.42	131	495.46	40.4	19.13	455.06	53505.52	425.45	1058.39	230.84	21810.18	69.26	468.47
18-Jul	2018.5	19	496	40.36	19.23	455.63	53617.23	425.61	1058.61	231.2	21839.6	69.41	468.55
18-Aug	2018.58	0.4	496.64	40.32	19.34	456.32	53743.03	425.81	1058.79	231.54	21867.97	69.57	468.62
18-Sep	2018.67	13	497.35	40.27	19.44	457.08	53874.59	426.04	1058.93	231.88	21897.93	69.74	468.68
18-Oct	2018.75	156	498.11	40.22	19.54	457.89	54009.37	426.3	1059.02	232.28	21933.26	69.92	468.75
18-Nov	2018.83	437	498.88	40.16	19.63	458.72	54142.86	426.58	1059.09	232.76	21977.01	70.12	468.82
18-Dec	2018.92	760	499.65	40.09	19.71	459.56	54270.5	426.88	1059.12	233.31	22028.58	70.34	468.89
19-Jan	2019	1011	500.38	40.01	19.78	460.38	54389.65	427.21	1059.14	233.82	22076.33	70.51	468.95
19-Feb	2019.08	1125	501.02	39.92	19.83	461.1	54488.97	427.52	1059.14	234.1	22102.41	70.6	469.02
19-Mar	2019.17	835	501.57	39.82	19.86	461.75	54569.97	427.85	1059.13	234.08	22100.97	70.56	469.09
19-Apr	2019.25	673	502.03	39.72	19.87	462.31	54630.67	428.19	1059.12	233.91	22085.13	70.44	469.16
19-May	2019.33	262	502.33	39.6	19.85	462.73	54663.1	428.53	1059.1	233.81	22075.84	70.29	469.23
19-Jun	2019.42	131	502.46	39.47	19.81	462.99	54663.07	428.86	1059.1	233.93	22087.51	70.16	469.31
19-Jul	2019.5	19	502.38	39.32	19.74	463.06	54626.1	429.19	1059.1	234.21	22113.96	70.02	469.39
19-Aug	2019.58	0.4	502.1	39.16	19.63	462.93	54551.83	429.51	1059.12	234.51	22142.02	69.83	469.48
19-Sep	2019.67	13	501.64	39	19.51	462.64	54448.85	429.82	1059.15	234.71	22160.04	69.57	469.57
19-Oct	2019.75	156	501.04	38.83	19.37	462.21	54322.78	430.11	1059.19	234.79	22167.04	69.24	469.66
19-Nov	2019.83	437	500.32	38.66	19.21	461.67	54180.52	430.38	1059.24	234.78	22164.81	68.88	469.75
19-Dec	2019.92	760	499.52	38.48	19.05	461.04	54028.64	430.63	1059.3	234.75	22160.83	68.5	469.85
20-Jan	2020	1011	498.66	38.3	18.88	460.36	53871.41	430.86	1059.36	234.98	22180.85	68.21	469.94
20-Feb	2020.08	1125	497.79	38.13	18.72	459.66	53723.01	431.07	1059.43	235.76	22253.06	68.11	470.03
20-Mar	2020.17	872	496.94	37.97	18.57	458.97	53584.93	431.25	1059.5	237.23	22390.53	68.24	470.13
20-Apr	2020.25	673	496.1	37.81	18.43	458.29	53461.47	431.4	1059.57	238.95	22551.59	68.48	470.22
20-May	2020.33	262	495.33	37.66	18.31	457.67	53362	431.53	1059.64	240.2	22667.86	68.65	470.31
20-Jun	2020.42	131	494.66	37.53	18.22	457.13	53292.92	431.63	1059.71	240.51	22695.47	68.62	470.4
20-Jul	2020.5	19	494.11	37.41	18.16	456.71	53260.92	431.69	1059.77	240.18	22663.56	68.5	470.48
20-Aug	2020.58	0.4	493.7	37.3	18.13	456.4	53268.06	431.72	1059.83	239.81	22627.23	68.45	470.57
20-Sep	2020.67	13	493.43	37.21	18.12	456.21	53311.34	431.73	1059.89	239.8	22624.98	68.58	470.64
20-Oct	2020.75	156	493.28	37.14	18.15	456.14	53387.68	431.71	1059.95	239.97	22639.98	68.82	470.72
20-Nov	2020.83	437	493.24	37.07	18.2	456.17	53493.53	431.68	1060.01	239.98	22639.3	69.08	470.8
20-Dec	2020.92	760	493.32	37.02	18.26	456.3	53626.05	431.64	1060.08	239.6	22601.83	69.26	470.88
21-Jan	2021	1011	493.51	36.98	18.35	456.52	53784.55	431.6	1060.15	238.99	22542.81	69.41	470.96
21-Feb	2021.08	1125	493.77	36.96	18.44	456.82	53954.59	431.56	1060.23	238.48	22492.94	69.59	471.04
21-Mar	2021.17	835	494.13	36.93	18.55	457.19	54140.83	431.52	1060.32	238.22	22467.09	69.85	471.12
21-Apr	2021.25	673	494.57	36.92	18.66	457.65	54346.91	431.5	1060.42	238.15	22458.44	70.17	471.2
21-May	2021.33	262	495.09	36.91	18.78	458.18	54563.83	431.5	1060.53	238.13	22453.81	70.5	471.3

DATE	TIME	BDD_N	EMPL_RI	MFG_RI	CONST_RI	NONMFG_RI	GDP_RI	HH_RI	POP_RI	INCOME_RI	ICP_RI	RETSALES_RI	TOTHSOCK_RI
21-Jun	2021.42	131	495.68	36.91	18.9	458.77	54788.31	431.52	1060.67	238.05	22443.48	70.78	471.39
21-Jul	2021.5	19	496.32	36.91	19.02	459.41	55017.33	431.56	1060.82	237.97	22432.9	71.02	471.5
21-Aug	2021.58	0.4	497.04	36.92	19.14	460.12	55252.61	431.64	1060.99	238	22431.79	71.26	471.61
21-Sep	2021.67	13	497.78	36.92	19.25	460.86	55485.69	431.75	1061.18	238.19	22445.85	71.51	471.73
21-Oct	2021.75	156	498.57	36.93	19.36	461.64	55719.55	431.88	1061.38	238.51	22471.42	71.76	471.85
21-Nov	2021.83	437	499.39	36.95	19.47	462.45	55953.43	432.03	1061.58	238.88	22501.9	72.01	471.98
21-Dec	2021.92	760	500.24	36.96	19.57	463.28	56186.53	432.2	1061.8	239.25	22532.6	72.23	472.12
22-Jan	2022	1011	501.12	36.97	19.67	464.15	56421.89	432.39	1062.03	239.64	22564.58	72.45	472.26
22-Feb	2022.08	1125	501.97	36.99	19.76	464.98	56643.65	432.58	1062.25	240.05	22597.88	72.65	472.41
22-Mar	2022.17	835	502.82	37	19.84	465.82	56862.49	432.77	1062.47	240.49	22635.14	72.86	472.56
22-Apr	2022.25	673	503.7	37.01	19.93	466.68	57085.01	432.98	1062.7	240.97	22675.35	73.08	472.72
22-May	2022.33	262	504.57	37.03	20.01	467.54	57302.91	433.2	1062.93	241.43	22713.78	73.29	472.89
22-Jun	2022.42	131	505.42	37.04	20.09	468.39	57515.45	433.41	1063.14	241.84	22747.82	73.5	473.06
22-Jul	2022.5	19	506.25	37.04	20.16	469.21	57721.84	433.62	1063.35	242.21	22777.7	73.7	473.24
22-Aug	2022.58	0.4	507.07	37.05	20.23	470.02	57925.02	433.82	1063.56	242.55	22805.6	73.91	473.43
22-Sep	2022.67	13	507.85	37.05	20.29	470.8	58118.54	434.02	1063.75	242.88	22832.12	74.12	473.63
22-Oct	2022.75	156	508.59	37.05	20.35	471.54	58305.85	434.22	1063.93	243.19	22857.21	74.33	473.82
22-Nov	2022.83	437	509.3	37.05	20.41	472.25	58487.17	434.41	1064.11	243.46	22879.69	74.54	474.03
22-Dec	2022.92	760	509.97	37.04	20.46	472.93	58662.6	434.6	1064.28	243.71	22898.91	74.74	474.23
23-Jan	2023	1011	510.62	37.03	20.5	473.59	58835.07	434.79	1064.45	243.93	22916.26	74.94	474.44
23-Feb	2023.08	1125	511.19	37.02	20.54	474.17	58993.92	434.97	1064.61	244.14	22932.27	75.12	474.65
23-Mar	2023.17	835	511.73	37	20.58	474.73	59147.65	435.15	1064.77	244.35	22948.78	75.3	474.85
23-Apr	2023.25	673	512.23	36.98	20.61	475.26	59301.49	435.34	1064.93	244.57	22965.61	75.48	475.07
23-May	2023.33	262	512.69	36.95	20.64	475.74	59450.24	435.52	1065.09	244.77	22980.89	75.64	475.29
23-Jun	2023.42	131	513.11	36.92	20.67	476.18	59594.09	435.7	1065.25	244.94	22993.86	75.79	475.5
23-Jul	2023.5	19	513.47	36.89	20.69	476.58	59733.16	435.89	1065.42	245.1	23005.48	75.92	475.72
23-Aug	2023.58	0.4	513.78	36.85	20.71	476.94	59869.94	436.08	1065.59	245.27	23017.4	76.04	475.94
23-Sep	2023.67	13	514.04	36.8	20.72	477.24	60000.4	436.27	1065.75	245.44	23030.08	76.15	476.16
23-Oct	2023.75	156	514.27	36.75	20.73	477.51	60127.15	436.46	1065.92	245.62	23043.01	76.24	476.38
23-Nov	2023.83	437	514.46	36.7	20.74	477.75	60250.61	436.65	1066.1	245.79	23055.04	76.33	476.59
23-Dec	2023.92	760	514.62	36.65	20.74	477.97	60371.16	436.83	1066.27	245.94	23065.45	76.41	476.81
24-Jan	2024	1011	514.75	36.6	20.75	478.16	60491.13	437.02	1066.45	246.08	23074.96	76.48	477.03
24-Feb	2024.08	1125	514.87	36.54	20.75	478.33	60605.16	437.21	1066.62	246.22	23084.08	76.54	477.24
24-Mar	2024.17	872	514.97	36.49	20.75	478.48	60717.51	437.39	1066.8	246.36	23093.84	76.6	477.45
24-Apr	2024.25	673	515.06	36.43	20.75	478.63	60830.44	437.58	1066.98	246.52	23104.43	76.67	477.66
24-May	2024.33	262	515.15	36.37	20.75	478.78	60942.42	437.76	1067.16	246.68	23115.49	76.75	477.87
24-Jun	2024.42	131	515.24	36.32	20.76	478.92	61053.88	437.94	1067.35	246.84	23126.86	76.82	478.08
24-Jul	2024.5	19	515.34	36.26	20.76	479.08	61165.18	438.12	1067.53	247.01	23138.64	76.91	478.29
24-Aug	2024.58	0.4	515.44	36.21	20.76	479.24	61278.36	438.3	1067.72	247.19	23151.17	77	478.5
24-Sep	2024.67	13	515.55	36.15	20.76	479.4	61389.79	438.47	1067.91	247.37	23164.14	77.1	478.71
24-Oct	2024.75	156	515.67	36.1	20.77	479.57	61501.29	438.64	1068.1	247.56	23177.6	77.2	478.91
24-Nov	2024.83	437	515.8	36.05	20.77	479.75	61612.86	438.81	1068.29	247.75	23191.33	77.31	479.12
24-Dec	2024.92	760	515.93	36	20.77	479.93	61724.51	438.98	1068.48	247.94	23205.18	77.42	479.32

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25-Jan	2025	1011	516.07	35.95	20.78	480.12	61838.06	439.15	1068.67	248.14	23219.37	77.54	479.53
25-Feb	2025.08	1125	516.2	35.9	20.78	480.3	61946.2	439.31	1068.86	248.33	23233.04	77.65	479.73
25-Mar	2025.17	835	516.34	35.86	20.78	480.48	62054.42	439.46	1069.04	248.52	23246.93	77.76	479.92
25-Apr	2025.25	673	516.48	35.81	20.78	480.67	62166.39	439.63	1069.23	248.72	23261.67	77.87	480.13
25-May	2025.33	262	516.62	35.76	20.78	480.86	62278.44	439.79	1069.43	248.93	23276.94	77.98	480.33
25-Jun	2025.42	131	516.77	35.71	20.78	481.05	62390.58	439.95	1069.62	249.14	23292.85	78.09	480.53
25-Jul	2025.5	19	516.91	35.67	20.78	481.25	62502.81	440.12	1069.81	249.37	23309.4	78.2	480.74
25-Aug	2025.58	0.4	517.06	35.62	20.77	481.44	62617	440.28	1070.01	249.6	23326.81	78.3	480.94
25-Sep	2025.67	13	517.2	35.57	20.76	481.63	62729.53	440.45	1070.2	249.83	23344.44	78.4	481.14
25-Oct	2025.75	156	517.34	35.52	20.76	481.81	62842.3	440.61	1070.39	250.07	23362.44	78.5	481.35
25-Nov	2025.83	437	517.48	35.47	20.75	482	62955.37	440.77	1070.58	250.31	23380.64	78.59	481.55
25-Dec	2025.92	760	517.61	35.43	20.74	482.19	63068.8	440.93	1070.77	250.55	23398.92	78.69	481.75
26-Jan	2026	1011	517.76	35.38	20.73	482.38	63184.52	441.09	1070.97	250.79	23417.54	78.78	481.96
26-Feb	2026.08	1125	517.89	35.33	20.71	482.55	63295.1	441.24	1071.15	251.03	23435.29	78.86	482.15
26-Mar	2026.17	835	518.02	35.29	20.7	482.73	63406.19	441.39	1071.33	251.26	23453.11	78.94	482.35
26-Apr	2026.25	673	518.16	35.24	20.69	482.91	63521.64	441.55	1071.51	251.5	23471.78	79.02	482.55
26-May	2026.33	262	518.29	35.2	20.68	483.1	63637.75	441.7	1071.69	251.75	23490.94	79.1	482.75
26-Jun	2026.42	131	518.43	35.15	20.67	483.28	63754.57	441.85	1071.87	252	23510.75	79.19	482.95
26-Jul	2026.5	19	518.57	35.11	20.66	483.46	63872.18	441.99	1072.05	252.27	23531.26	79.27	483.14
26-Aug	2026.58	0.4	518.71	35.06	20.65	483.64	63992.53	442.14	1072.22	252.54	23552.8	79.36	483.35
26-Sep	2026.67	13	518.84	35.02	20.64	483.82	64111.75	442.28	1072.39	252.81	23574.66	79.45	483.54
26-Oct	2026.75	156	518.98	34.98	20.63	484	64231.74	442.41	1072.56	253.09	23597.04	79.54	483.74
26-Nov	2026.83	437	519.12	34.93	20.62	484.18	64352.5	442.55	1072.72	253.37	23619.77	79.63	483.93
26-Dec	2026.92	760	519.26	34.89	20.61	484.37	64474.01	442.68	1072.88	253.66	23642.73	79.72	484.12
27-Jan	2027	1011	519.4	34.85	20.6	484.55	64598.27	442.81	1073.04	253.95	23666.28	79.82	484.32
27-Feb	2027.08	1125	519.53	34.81	20.6	484.73	64717.2	442.94	1073.19	254.23	23688.89	79.91	484.5
27-Mar	2027.17	835	519.67	34.77	20.59	484.9	64836.8	443.06	1073.34	254.51	23711.79	80	484.68
27-Apr	2027.25	673	519.82	34.73	20.58	485.09	64961.14	443.19	1073.48	254.8	23735.95	80.1	484.87
27-May	2027.33	262	519.96	34.69	20.57	485.27	65086.16	443.31	1073.63	255.1	23760.89	80.2	485.06
27-Jun	2027.42	131	520.11	34.65	20.57	485.46	65211.84	443.43	1073.76	255.41	23786.82	80.3	485.24
27-Jul	2027.5	19	520.26	34.61	20.56	485.65	65338.17	443.56	1073.9	255.74	23813.77	80.41	485.42
27-Aug	2027.58	0.4	520.42	34.57	20.55	485.85	65467.19	443.68	1074.03	256.07	23842.1	80.53	485.61
27-Sep	2027.67	13	520.57	34.53	20.54	486.04	65594.63	443.8	1074.15	256.41	23870.72	80.65	485.79
27-Oct	2027.75	156	520.73	34.49	20.54	486.23	65722.47	443.92	1074.27	256.75	23899.91	80.77	485.97
27-Nov	2027.83	437	520.89	34.46	20.53	486.43	65850.63	444.04	1074.39	257.1	23929.46	80.89	486.14
27-Dec	2027.92	760	521.05	34.42	20.52	486.63	65979	444.16	1074.5	257.44	23959.19	81.02	486.32
28-Jan	2028	1011	521.21	34.38	20.51	486.83	66109.59	444.28	1074.62	257.79	23989.43	81.14	486.49
28-Feb	2028.08	1125	521.37	34.35	20.51	487.03	66236	444.4	1074.72	258.13	24018.57	81.27	486.66
28-Mar	2028.17	872	521.54	34.31	20.5	487.22	66362.32	444.51	1074.82	258.47	24047.48	81.39	486.83
28-Apr	2028.25	673	521.7	34.27	20.49	487.43	66490.59	444.62	1074.92	258.8	24076.68	81.51	487
28-May	2028.33	262	521.87	34.24	20.49	487.63	66618.59	444.73	1075.01	259.14	24105.78	81.63	487.17
28-Jun	2028.42	131	522.04	34.2	20.48	487.84	66746.22	444.84	1075.11	259.48	24134.85	81.75	487.33
28-Jul	2028.5	19	522.21	34.17	20.48	488.04	66873.4	444.95	1075.19	259.81	24163.9	81.87	487.5

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28-Aug	2028.58	0.4	522.38	34.13	20.47	488.25	67002.19	445.06	1075.28	260.15	24193.41	81.99	487.66
28-Sep	2028.67	13	522.55	34.09	20.47	488.46	67128.5	445.16	1075.37	260.48	24222.48	82.11	487.82
28-Oct	2028.75	156	522.73	34.06	20.46	488.67	67254.48	445.27	1075.45	260.81	24251.44	82.23	487.98
28-Nov	2028.83	437	522.9	34.02	20.46	488.88	67380.21	445.37	1075.52	261.14	24280.11	82.35	488.14
28-Dec	2028.92	760	523.08	33.99	20.46	489.09	67505.75	445.47	1075.6	261.46	24308.34	82.46	488.3
29-Jan	2029	1011	523.26	33.95	20.46	489.3	67633.24	445.57	1075.67	261.78	24336.61	82.58	488.46
29-Feb	2029.08	1125	523.43	33.92	20.45	489.51	67754.53	445.67	1075.74	262.08	24363.18	82.68	488.61
29-Mar	2029.17	835	523.6	33.88	20.45	489.72	67875.85	445.77	1075.8	262.38	24389.53	82.79	488.75
29-Apr	2029.25	673	523.79	33.85	20.45	489.94	68001.39	445.87	1075.87	262.69	24416.72	82.89	488.91
29-May	2029.33	262	523.97	33.82	20.45	490.15	68127.11	445.97	1075.93	263	24444.09	83	489.06
29-Jun	2029.42	131	524.16	33.78	20.45	490.37	68253.08	446.07	1075.99	263.31	24471.83	83.11	489.21
29-Jul	2029.5	19	524.34	33.75	20.45	490.6	68379.37	446.17	1076.05	263.63	24500.01	83.22	489.36
29-Aug	2029.58	0.4	524.54	33.71	20.45	490.82	68508.1	446.28	1076.1	263.96	24529.09	83.33	489.51
29-Sep	2029.67	13	524.73	33.68	20.45	491.05	68635.08	446.38	1076.16	264.28	24558.04	83.45	489.66
29-Oct	2029.75	156	524.92	33.64	20.46	491.28	68762.39	446.49	1076.21	264.61	24587.16	83.56	489.81
29-Nov	2029.83	437	525.11	33.61	20.46	491.5	68890	446.59	1076.26	264.93	24616.2	83.67	489.96
29-Dec	2029.92	760	525.31	33.58	20.46	491.73	69017.89	446.7	1076.31	265.26	24645	83.78	490.1
30-Jan	2030	1011	525.51	33.54	20.46	491.97	69148.15	446.8	1076.35	265.58	24673.94	83.89	490.25
Feb-30	2030.08	1125	525.7	33.51	20.47	492.19	69272.34	446.91	1076.39	265.88	24701.14	84	490.39
30-Mar	2030.17	835	525.89	33.48	20.47	492.41	69396.75	447.01	1076.43	266.18	24728.01	84.11	490.53
30-Apr	2030.25	673	526.09	33.45	20.47	492.64	69525.58	447.11	1076.47	266.49	24755.65	84.22	490.68
30-May	2030.33	262	526.28	33.41	20.48	492.87	69654.6	447.21	1076.51	266.8	24783.39	84.33	490.82
30-Jun	2030.42	131	526.48	33.38	20.48	493.1	69783.79	447.31	1076.55	267.11	24811.39	84.45	490.96
30-Jul	2030.5	19	526.68	33.35	20.48	493.33	69913.14	447.41	1076.58	267.42	24839.63	84.57	491.1
30-Aug	2030.58	0.4	526.88	33.32	20.49	493.56	70044.76	447.51	1076.61	267.74	24868.47	84.69	491.25
30-Sep	2030.67	13	527.07	33.28	20.49	493.79	70174.41	447.6	1076.64	268.05	24896.89	84.81	491.39
30-Oct	2030.75	156	527.26	33.25	20.49	494.01	70304.22	447.7	1076.67	268.36	24925.27	84.93	491.53
30-Nov	2030.83	437	527.46	33.22	20.49	494.24	70434.2	447.79	1076.7	268.67	24953.46	85.05	491.67
30-Dec	2030.92	760	527.65	33.19	20.5	494.46	70564.35	447.88	1076.73	268.98	24981.36	85.18	491.81
31-Jan	2031	1011	527.84	33.15	20.5	494.69	70696.81	447.97	1076.75	269.29	25009.38	85.3	491.95
Feb-31	2031.08	1125	528.02	33.12	20.5	494.9	70823.04	448.05	1076.77	269.58	25035.7	85.42	492.09
31-Mar	2031.17	835	528.2	33.09	20.5	495.11	70949.45	448.14	1076.8	269.86	25061.69	85.53	492.22

DATE	NGPRCR_RI	NGPRCC_RI	NGPRCI_RI	OILPRCR_RI	OILPRCC_RI	OILPRCI_RI	GORR_RI	GORC_RI	GORI_RI
Sep-10	24.89	19.97	15.29	23.71	21.36	21.43	1.05	0.935	0.714
Oct-10	21.28	18.37	15.11	25.34	22.3	22.51	0.84	0.824	0.671
Nov-10	17.92	15.93	14.21	26.14	23.05	23.1	0.685	0.691	0.615
Dec-10	16.06	14.7	13.64	27.36	24.35	24.34	0.587	0.604	0.56
Jan-11	16.24	14.62	13.25	28.73	25.64	25.33	0.565	0.57	0.523
Feb-11	16.93	14.94	13.22	30.05	26.89	26.64	0.563	0.556	0.496
Mar-11	17.34	14.75	12.66	32.54	29.11	28.85	0.533	0.507	0.439
Apr-11	19.79	15.77	11.81	32.25	28.86	28.59	0.614	0.547	0.413
May-11	21.58	17.82	11.12	31.98	28.61	28.35	0.675	0.623	0.392
Jun-11	22.73	19.19	11.27	31.74	28.4	28.14	0.716	0.676	0.401
Jul-11	23.89	19.78	14.04	31.52	28.2	27.94	0.758	0.702	0.502
Aug-11	23.2	20.38	13.71	31.31	28.02	27.76	0.741	0.727	0.494
Sep-11	20.98	19.32	12.6	31.12	27.85	27.59	0.674	0.694	0.457
Oct-11	18.76	16.32	12.24	30.93	27.67	27.42	0.607	0.59	0.447
Nov-11	16.97	14.46	11.88	31.97	28.6	28.34	0.531	0.506	0.419
Dec-11	15.16	13.54	11.88	31.25	27.96	27.71	0.485	0.484	0.429
Jan-12	14.76	13.6	11.57	32.28	28.88	28.62	0.457	0.471	0.404
Feb-12	15.7	13.58	10.52	33.33	29.82	29.55	0.471	0.455	0.356
Mar-12	15.92	13.75	9.85	33.86	30.3	30.02	0.47	0.454	0.328
Apr-12	18.05	15.21	10.54	33.69	30.15	29.87	0.536	0.505	0.353
May-12	20.27	15.58	10.86	33.52	29.99	29.72	0.605	0.519	0.365
Jun-12	20.06	18.61	11.61	33.32	29.82	29.54	0.602	0.624	0.393
Jul-12	21.18	18.56	12.21	33.11	29.63	29.36	0.64	0.626	0.416
Aug-12	21.64	18.51	12.06	32.89	29.43	29.16	0.658	0.629	0.414
Sep-12	21.84	15.66	11.94	32.66	29.22	28.96	0.669	0.536	0.412
Oct-12	16.52	14.14	12.21	32.43	29.02	28.75	0.509	0.487	0.425
Nov-12	13.69	12.38	11.13	32.35	28.95	28.68	0.423	0.428	0.388
Dec-12	13.31	11	8.33	32.17	28.79	28.52	0.414	0.382	0.292
Jan-13	14	12.4	9	32.41	29	28.73	0.432	0.428	0.313
Feb-13	15.4	13.07	8.93	33.51	29.99	29.71	0.46	0.436	0.301
Mar-13	16.24	13.74	9.58	32.7	29.26	28.99	0.497	0.47	0.33
Apr-13	19.45	14.65	10	32.52	29.1	28.83	0.598	0.504	0.347
May-13	20.88	17.21	9.87	32.3	28.9	28.64	0.647	0.595	0.345
Jun-13	21.47	19.21	10.6	32.03	28.66	28.4	0.67	0.67	0.373
Jul-13	23.19	18.28	11.78	31.73	28.39	28.13	0.731	0.644	0.419
Aug-13	23.13	18.23	11.56	31.44	28.13	27.87	0.736	0.648	0.415
Sep-13	20.8	16.31	11.03	31.17	27.89	27.64	0.667	0.585	0.399
Oct-13	16.51	13.88	11	30.93	27.67	27.42	0.534	0.501	0.401
Nov-13	13.84	12.61	9.67	31.17	27.89	27.64	0.444	0.452	0.35
Dec-13	14.59	12.45	9.55	32.26	28.86	28.6	0.452	0.431	0.334
Jan-14	14.47	12.51	9.57	32.97	29.5	29.23	0.439	0.424	0.327
Feb-14	14.58	12.61	9.67	33.96	30.39	30.11	0.429	0.415	0.321
Mar-14	14.62	12.58	9.89	33.38	29.87	29.59	0.438	0.421	0.334
Apr-14	16.21	13.82	10.23	32.48	29.06	28.8	0.499	0.475	0.355
May-14	19.6	16.1	12.36	31.6	28.27	28.01	0.62	0.57	0.441
Jun-14	22.55	20.4	11.61	30.72	27.49	27.24	0.734	0.742	0.426

Jul-14	24.75	22.23	13.73	29.85	26.71	26.46	0.829	0.832	0.519
Aug-14	25.36	21.44	12.48	28.98	25.93	25.7	0.875	0.827	0.486
Sep-14	25.02	20.43	12.34	28.12	25.17	24.93	0.89	0.812	0.495
Oct-14	23.51	19.72	12.92	27.29	24.42	24.19	0.862	0.808	0.534
Nov-14	18.4	15.91	11.66	27.11	24.26	24.04	0.679	0.656	0.485
Dec-14	14.9	12.19	10.09	25.02	22.39	22.19	0.596	0.544	0.455
Jan-15	14.43	12.25	9.95	22.34	19.99	19.81	0.646	0.613	0.502
Feb-15	14.12	12.13	9.84	24.52	21.94	21.74	0.576	0.553	0.453
Mar-15	14.26	12.14	9.82	23.62	21.13	20.94	0.604	0.575	0.469
Apr-15	15.1	12.76	10.01	21.49	19.22	19.05	0.703	0.664	0.525
May-15	17.12	14.12	10.57	21.34	19.1	18.92	0.802	0.739	0.559
Jun-15	19.32	16.68	10.15	21.38	19.13	18.95	0.904	0.872	0.536
Jul-15	21.35	17.99	10.39	21.36	19.11	18.94	0.999	0.941	0.549
Aug-15	22.63	18.4	10.91	21.35	19.1	18.93	1.06	0.963	0.576
Sep-15	22.68	18.5	10.58	16.58	14.83	14.7	1.368	1.247	0.72
Oct-15	20.56	17.02	10.71	19.97	17.87	17.7	1.03	0.953	0.605
Nov-15	16.71	13.92	10.24	19.54	17.49	17.32	0.855	0.796	0.591
Dec-15	14.57	11.85	8.88	18.06	16.16	16.01	0.807	0.733	0.555
Jan-16	13.75	11.2	9.3	16.97	15.19	15.05	0.81	0.738	0.618
Feb-16	13.34	10.91	9.12	16.64	14.89	14.75	0.802	0.733	0.618
Mar-16	13.63	11.13	9.06	17.07	15.28	15.14	0.798	0.728	0.598
Apr-16	14.43	11.61	9.43	15.08	13.5	13.37	0.957	0.86	0.705
May-16	15.55	12.35	9.56	16.31	14.59	14.46	0.953	0.846	0.661
Jun-16	18.1	14.55	9.39	16.91	15.14	15	1.07	0.961	0.626
Jul-16	20.55	16.51	9.54	16.97	15.19	15.05	1.211	1.087	0.634
Aug-16	21.77	16.87	9.85	18.76	16.78	16.63	1.161	1.005	0.593
Sep-16	21.61	17.44	9.77	16.53	14.79	14.65	1.308	1.179	0.667
Oct-16	19.07	15.46	9.59	19.06	17.06	16.9	1	0.907	0.567
Nov-16	15.14	12.18	9.37	19.17	17.15	16.99	0.79	0.71	0.551
Dec-16	13.77	10.86	8.46	20.57	18.4	18.23	0.67	0.59	0.464
Jan-17	13.25	10.56	8.49	21.06	18.85	18.67	0.629	0.56	0.455
Feb-17	13.38	10.99	8.77	20.92	18.72	18.55	0.639	0.587	0.473
Mar-17	13.45	10.96	8.83	20.8	18.61	18.44	0.647	0.589	0.479
Apr-17	13.88	11.19	9.13	18.5	16.55	16.4	0.75	0.676	0.557
May-17	15.92	12.67	9.01	18.01	16.12	15.97	0.884	0.786	0.564
Jun-17	17.25	13.8	8.88	17.15	15.34	15.2	1.006	0.899	0.584
Jul-17	20.13	16.17	9.19	16.95	15.17	15.03	1.188	1.066	0.611
Aug-17	21.16	16.49	9.16	17.7	15.84	15.69	1.195	1.041	0.584
Sep-17	20.82	16.14	8.98	18.53	16.58	16.43	1.124	0.974	0.546
Oct-17	20.1	15.66	8.76	19	17	16.84	1.058	0.922	0.52
Nov-17	15.93	12.93	8.77	19.9	17.81	17.64	0.8	0.726	0.497
Dec-17	14.51	11.76	8.93	20.56	18.4	18.23	0.706	0.639	0.49
Jan-18	13.63	11.24	8.91	22.95	20.53	20.35	0.594	0.548	0.438
Feb-18	13.94	11.5	9.03	21.87	19.57	19.39	0.637	0.588	0.465
Mar-18	15.33	12.92	10.44	21.32	19.08	18.9	0.719	0.677	0.552
Apr-18	16.87	14.02	11.6	21.79	19.5	19.32	0.774	0.719	0.601
May-18	18.34	14.8	11.71	22.31	19.97	19.78	0.822	0.741	0.592

Jun-18	21.28	17.16	11.73	22.29	19.95	19.76	0.954	0.86	0.594
Jul-18	24.48	18.84	11.88	22.16	19.83	19.65	1.105	0.95	0.605
Aug-18	26.15	19.35	11.19	21.98	19.66	19.48	1.19	0.984	0.574
Sep-18	25.18	19.57	11.32	22.53	20.16	19.98	1.117	0.971	0.567
Oct-18	20.78	18.12	11.55	23.46	20.99	20.8	0.886	0.863	0.555
Nov-18	16.55	14.27	10.72	23.13	20.7	20.51	0.715	0.689	0.522
Dec-18	15.12	12.57	9.83	21.67	19.39	19.21	0.698	0.648	0.512
Jan-19	14.84	12.42	9.79	21.09	18.87	18.69	0.704	0.658	0.524
Feb-19	14.59	12.22	9.66	21.58	19.31	19.14	0.676	0.633	0.505
Mar-19	14.65	12.28	9.67	21.81	19.52	19.34	0.671	0.629	0.5
Apr-19	15.19	12.48	10.05	21.82	19.52	19.35	0.696	0.639	0.52
May-19	16.16	13.47	10.18	21.77	19.48	19.3	0.743	0.692	0.527
Jun-19	18.09	15.54	10.11	20.64	18.47	18.3	0.877	0.841	0.553
Jul-19	20.84	18.58	10.4	20.36	18.22	18.05	1.023	1.02	0.576
Aug-19	21.79	19.07	10.22	20.2	18.07	17.91	1.079	1.055	0.571
Sep-19	21.31	18.24	9.62	20.26	18.13	17.96	1.052	1.006	0.536
Oct-19	19.41	16.97	9.63	19.15	17.13	16.98	1.014	0.991	0.567
Nov-19	15.43	12.95	9.22	19.56	17.51	17.34	0.789	0.74	0.532
Dec-19	13.36	10.64	8.05	19.99	17.89	17.73	0.668	0.594	0.454
Jan-20	13.62	10.7	7.96	20.33	18.19	18.03	0.67	0.588	0.442
Feb-20	13.33	10.22	7.55	18.18	16.27	16.12	0.733	0.628	0.468
Mar-20	12.96	9.69	7.41	17.26	15.45	15.31	0.751	0.628	0.484
Apr-20	12.99	9.59	7.92	16.18	14.47	14.34	0.803	0.662	0.552
May-20	14.24	10.15	8.24	15.88	14.21	14.08	0.896	0.714	0.585
Jun-20	15.5	11.49	8.5	15.65	14	13.87	0.991	0.82	0.613
Jul-20	17.44	13.52	9.57	15.26	13.66	13.53	1.142	0.99	0.707
Aug-20	17.97	13.22	8.84	15.07	13.48	13.36	1.193	0.98	0.661
Sep-20	17.91	13.81	9.49	15.22	13.62	13.49	1.177	1.014	0.703
Oct-20	15.83	13.54	9.98	15.94	14.26	14.13	0.993	0.95	0.706
Nov-20	13.98	10.69	9.72	16.32	14.6	14.47	0.857	0.732	0.672
Dec-20	11.75	8.98	8.18	16.68	14.93	14.79	0.704	0.602	0.553
Jan-21	11.96	9.45	8.57	20.73	17.82	17.7	0.577	0.53	0.484
Feb-21	12.12	9.21	8.25	18.54	15.94	15.83	0.654	0.578	0.521
Mar-21	12.14	9.12	8.03	17.6	15.14	15.03	0.689	0.602	0.534
Apr-21	12.4	9.45	8.5	16.5	14.18	14.09	0.752	0.666	0.603
May-21	13.75	10.26	8.79	16.2	13.93	13.83	0.849	0.737	0.636
Jun-21	15.12	11.77	8.94	15.96	13.72	13.63	0.947	0.857	0.656
Jul-21	17.09	13.94	9.92	15.57	13.39	13.3	1.098	1.041	0.746
Aug-21	17.65	13.63	9.03	15.38	13.22	13.13	1.148	1.031	0.687
Sep-21	17.6	14.22	9.54	15.53	13.36	13.26	1.133	1.065	0.719
Oct-21	15.58	13.96	9.92	16.27	13.99	13.89	0.958	0.998	0.714
Nov-21	13.76	11.02	9.56	16.66	14.33	14.23	0.826	0.769	0.672
Dec-21	11.55	9.24	7.98	17.04	14.65	14.55	0.678	0.631	0.548
Jan-22	12.31	9.97	8.2	21.41	17.68	17.61	0.575	0.564	0.465
Feb-22	12.47	9.73	7.9	19.15	15.82	15.75	0.651	0.615	0.501
Mar-22	12.49	9.63	7.68	18.19	15.02	14.96	0.686	0.641	0.513
Apr-22	12.76	9.98	8.13	17.05	14.08	14.02	0.749	0.709	0.58

May-22	14.15	10.84	8.42	16.74	13.82	13.77	0.845	0.784	0.611
Jun-22	15.55	12.43	8.56	16.49	13.62	13.57	0.943	0.912	0.631
Jul-22	17.59	14.72	9.5	16.09	13.29	13.24	1.093	1.108	0.717
Aug-22	18.16	14.39	8.64	15.89	13.12	13.07	1.143	1.097	0.661
Sep-22	18.11	15.02	9.13	16.05	13.25	13.2	1.128	1.133	0.692
Oct-22	16.03	14.74	9.49	16.81	13.88	13.83	0.954	1.062	0.687
Nov-22	14.15	11.64	9.15	17.21	14.21	14.16	0.822	0.819	0.646
Dec-22	11.88	9.75	7.64	17.6	14.53	14.48	0.675	0.671	0.527
Jan-23	12.37	10.19	7.75	21.9	17.39	17.37	0.565	0.586	0.446
Feb-23	12.53	9.94	7.47	19.59	15.56	15.53	0.64	0.639	0.481
Mar-23	12.55	9.84	7.26	18.6	14.77	14.75	0.675	0.666	0.492
Apr-23	12.82	10.2	7.69	17.43	13.84	13.82	0.736	0.737	0.556
May-23	14.21	11.07	7.96	17.12	13.59	13.57	0.831	0.814	0.586
Jun-23	15.63	12.69	8.09	16.86	13.4	13.38	0.927	0.948	0.605
Jul-23	17.67	15.04	8.98	16.45	13.07	13.05	1.074	1.151	0.688
Aug-23	18.25	14.7	8.17	16.24	12.9	12.88	1.123	1.139	0.634
Sep-23	18.19	15.34	8.63	16.41	13.03	13.01	1.109	1.177	0.663
Oct-23	16.1	15.06	8.97	17.18	13.65	13.63	0.937	1.103	0.658
Nov-23	14.22	11.89	8.65	17.6	13.98	13.96	0.808	0.85	0.62
Dec-23	11.93	9.96	7.22	17.99	14.29	14.27	0.663	0.697	0.506
Jan-24	12.77	10.77	7.66	22.61	17.29	17.31	0.565	0.623	0.442
Feb-24	12.94	10.51	7.38	20.22	15.46	15.49	0.64	0.68	0.476
Mar-24	12.95	10.4	7.18	19.2	14.68	14.71	0.675	0.708	0.488
Apr-24	13.24	10.78	7.6	17.99	13.76	13.78	0.736	0.783	0.551
May-24	14.67	11.7	7.86	17.67	13.51	13.53	0.831	0.866	0.581
Jun-24	16.13	13.42	8	17.41	13.31	13.33	0.927	1.008	0.6
Jul-24	18.24	15.9	8.87	16.99	12.99	13.01	1.074	1.224	0.682
Aug-24	18.84	15.54	8.07	16.77	12.82	12.84	1.123	1.212	0.628
Sep-24	18.78	16.22	8.53	16.94	12.95	12.97	1.109	1.252	0.657
Oct-24	16.62	15.92	8.87	17.74	13.57	13.59	0.937	1.173	0.652
Nov-24	14.68	12.57	8.54	18.17	13.89	13.91	0.808	0.904	0.614
Dec-24	12.32	10.53	7.13	18.58	14.2	14.23	0.663	0.742	0.501
Jan-25	13.19	11.37	7.78	23.09	17	17.07	0.571	0.669	0.456
Feb-25	13.36	11.09	7.5	20.65	15.21	15.27	0.647	0.729	0.491
Mar-25	13.38	10.98	7.29	19.61	14.44	14.5	0.682	0.76	0.503
Apr-25	13.67	11.38	7.72	18.38	13.54	13.59	0.744	0.841	0.568
May-25	15.16	12.36	7.99	18.05	13.29	13.34	0.84	0.93	0.599
Jun-25	16.66	14.17	8.13	17.78	13.1	13.15	0.937	1.082	0.618
Jul-25	18.84	16.79	9.02	17.35	12.78	12.83	1.086	1.314	0.703
Aug-25	19.46	16.41	8.2	17.13	12.62	12.67	1.136	1.3	0.648
Sep-25	19.4	17.13	8.67	17.3	12.74	12.8	1.121	1.344	0.677
Oct-25	17.17	16.81	9.01	18.12	13.35	13.4	0.947	1.26	0.673
Nov-25	15.16	13.27	8.69	18.56	13.67	13.72	0.817	0.971	0.633
Dec-25	12.73	11.12	7.25	18.98	13.98	14.03	0.671	0.796	0.517
Jan-26	13.24	11.41	7.84	23.47	17.32	17.4	0.564	0.659	0.451
Feb-26	13.41	11.13	7.56	20.99	15.49	15.56	0.639	0.718	0.486
Mar-26	13.43	11.01	7.35	19.94	14.71	14.78	0.674	0.748	0.497

Apr-26	13.73	11.41	7.78	18.68	13.79	13.85	0.735	0.828	0.562
May-26	15.22	12.39	8.05	18.34	13.54	13.6	0.829	0.916	0.592
Jun-26	16.73	14.21	8.19	18.08	13.34	13.4	0.925	1.065	0.611
Jul-26	18.91	16.84	9.08	17.63	13.01	13.07	1.072	1.294	0.695
Aug-26	19.53	16.45	8.26	17.41	12.85	12.91	1.122	1.281	0.64
Sep-26	19.47	17.17	8.73	17.59	12.98	13.04	1.107	1.323	0.67
Oct-26	17.24	16.86	9.08	18.42	13.59	13.65	0.936	1.24	0.665
Nov-26	15.22	13.31	8.75	18.86	13.92	13.98	0.807	0.956	0.626
Dec-26	12.77	11.15	7.3	19.29	14.23	14.3	0.662	0.784	0.511
Jan-27	13.34	11.49	7.95	23.54	17.37	17.45	0.567	0.662	0.456
Feb-27	13.52	11.21	7.66	21.06	15.53	15.61	0.642	0.722	0.491
Mar-27	13.53	11.09	7.45	20	14.75	14.82	0.677	0.752	0.503
Apr-27	13.83	11.5	7.89	18.74	13.82	13.89	0.738	0.832	0.568
May-27	15.33	12.49	8.17	18.4	13.57	13.64	0.833	0.92	0.599
Jun-27	16.85	14.32	8.3	18.13	13.37	13.44	0.93	1.07	0.618
Jul-27	19.06	16.96	9.21	17.69	13.05	13.11	1.077	1.3	0.703
Aug-27	19.68	16.57	8.38	17.46	12.88	12.94	1.127	1.287	0.647
Sep-27	19.62	17.3	8.85	17.64	13.01	13.07	1.112	1.329	0.677
Oct-27	17.36	16.98	9.21	18.47	13.63	13.69	0.94	1.246	0.672
Nov-27	15.33	13.4	8.87	18.92	13.95	14.02	0.811	0.961	0.633
Dec-27	12.87	11.23	7.4	19.34	14.27	14.33	0.665	0.788	0.517
Jan-28	13.39	11.52	7.9	23.89	17.66	17.75	0.561	0.652	0.445
Feb-28	13.57	11.24	7.61	21.36	15.8	15.88	0.635	0.711	0.479
Mar-28	13.59	11.12	7.41	20.29	15	15.08	0.67	0.741	0.491
Apr-28	13.89	11.53	7.84	19.01	14.06	14.13	0.73	0.82	0.555
May-28	15.39	12.52	8.11	18.67	13.8	13.87	0.824	0.907	0.585
Jun-28	16.92	14.35	8.25	18.39	13.6	13.67	0.92	1.055	0.603
Jul-28	19.13	17	9.15	17.94	13.27	13.33	1.066	1.281	0.686
Aug-28	19.75	16.61	8.32	17.71	13.1	13.17	1.115	1.268	0.632
Sep-28	19.69	17.34	8.8	17.89	13.23	13.3	1.101	1.311	0.661
Oct-28	17.43	17.02	9.15	18.74	13.86	13.93	0.93	1.228	0.657
Nov-28	15.39	13.43	8.81	19.19	14.19	14.26	0.802	0.947	0.618
Dec-28	12.92	11.26	7.36	19.62	14.51	14.58	0.658	0.776	0.504
Jan-29	13.32	11.41	7.82	24.11	17.84	17.93	0.553	0.64	0.436
Feb-29	13.5	11.13	7.53	21.56	15.95	16.04	0.626	0.697	0.469
Mar-29	13.51	11.01	7.33	20.48	15.15	15.23	0.66	0.727	0.481
Apr-29	13.81	11.42	7.75	19.19	14.2	14.27	0.72	0.804	0.543
May-29	15.31	12.4	8.03	18.84	13.94	14.02	0.812	0.889	0.573
Jun-29	16.83	14.21	8.16	18.56	13.74	13.81	0.906	1.035	0.591
Jul-29	19.03	16.84	9.05	18.11	13.4	13.47	1.051	1.256	0.672
Aug-29	19.65	16.45	8.23	17.88	13.23	13.3	1.099	1.244	0.619
Sep-29	19.59	17.17	8.7	18.06	13.36	13.44	1.085	1.285	0.648
Oct-29	17.34	16.86	9.05	18.92	14	14.07	0.917	1.204	0.643
Nov-29	15.31	13.31	8.72	19.37	14.33	14.41	0.79	0.928	0.605
Dec-29	12.85	11.15	7.28	19.81	14.65	14.74	0.649	0.761	0.494
Jan-30	13.24	11.28	7.64	24.23	17.93	18.04	0.546	0.629	0.424
Feb-30	13.41	11	7.36	21.68	16.04	16.13	0.619	0.686	0.456

Mar-30	13.43	10.89	7.16	20.59	15.23	15.32	0.652	0.715	0.468
Apr-30	13.72	11.29	7.58	19.29	14.28	14.36	0.711	0.791	0.528
May-30	15.21	12.26	7.85	18.94	14.02	14.1	0.803	0.874	0.557
Jun-30	16.72	14.05	7.98	18.66	13.81	13.89	0.896	1.017	0.574
Jul-30	18.91	16.65	8.85	18.21	13.48	13.55	1.038	1.235	0.653
Aug-30	19.53	16.27	8.05	17.98	13.31	13.38	1.086	1.223	0.602
Sep-30	19.47	16.98	8.51	18.16	13.44	13.52	1.072	1.264	0.63
Oct-30	17.23	16.67	8.85	19.02	14.08	14.16	0.906	1.184	0.625
Nov-30	15.22	13.16	8.53	19.48	14.42	14.5	0.781	0.913	0.588
Dec-30	12.77	11.03	7.12	19.92	14.74	14.83	0.641	0.748	0.48
Jan-31	13.3	11.33	7.64	24.5	18.16	18.27	0.543	0.624	0.418
Feb-31	13.48	11.05	7.36	21.91	16.24	16.34	0.615	0.68	0.45
Mar-31	13.5	10.93	7.16	20.81	15.43	15.52	0.649	0.709	0.461

DATE	TIME	BDD_N	EMPL_RI	MFG_RI	CONST_RI	NONMFG_RI	GDP_RI	HH_RI	POP_RI	INCOME_RI	ICP_RI	RETSALES	TOTSTOCK_RI
Sep-10	2010.67	13	459.01	40.42	15.88	418.6	48974.2	414.54	1053.02	209.45	19890.51	61.69	464.08
Oct-10	2010.75	156	459.2	40.42	15.84	418.78	48936.09	414.74	1052.89	209.48	19896.2	61.83	464.14
Nov-10	2010.83	437	459.34	40.42	15.8	418.92	48879.78	414.95	1052.75	209.37	19888.13	61.94	464.2
Dec-10	2010.92	760	459.45	40.41	15.76	419.04	48809.67	415.18	1052.6	209.17	19871.37	62.03	464.24
Jan-11	2011	1011	459.54	40.39	15.73	419.15	48729.06	415.43	1052.46	208.88	19846.7	62.09	464.27
Feb-11	2011.08	1125	459.62	40.36	15.7	419.26	48647.9	415.68	1052.33	208.53	19815.98	62.11	464.29
Mar-11	2011.17	835	459.71	40.33	15.68	419.38	48566.6	415.95	1052.21	208.13	19780.03	62.11	464.31
Apr-11	2011.25	673	459.82	40.29	15.66	419.53	48486.74	416.24	1052.11	207.75	19746.23	62.09	464.33
May-11	2011.33	262	459.95	40.24	15.65	419.7	48415.72	416.54	1052.03	207.53	19726.93	62.09	464.35
Jun-11	2011.42	131	460.12	40.19	15.65	419.93	48357.98	416.86	1051.99	207.56	19730.22	62.14	464.38
Jul-11	2011.5	19	460.35	40.14	15.66	420.21	48318	417.19	1051.98	207.83	19756.34	62.22	464.4
Aug-11	2011.58	0	460.64	40.08	15.68	420.56	48296.72	417.54	1052	208.31	19801.48	62.32	464.43
Sep-11	2011.67	13	460.97	40.02	15.71	420.95	48292.86	417.88	1052.05	208.91	19857.36	62.42	464.47
Oct-11	2011.75	156	461.35	39.95	15.75	421.39	48303.72	418.24	1052.13	209.55	19916.38	62.52	464.51
Nov-11	2011.83	437	461.76	39.89	15.79	421.87	48326.85	418.6	1052.23	210.13	19969.97	62.57	464.55
Dec-11	2011.92	760	462.21	39.83	15.84	422.38	48360.06	418.96	1052.34	210.61	20013.14	62.59	464.6
Jan-12	2012	1011	462.69	39.77	15.88	422.92	48401.68	419.33	1052.45	211.05	20052.84	62.59	464.65
Feb-12	2012.08	1125	463.18	39.72	15.93	423.46	48447.25	419.69	1052.56	211.53	20096.85	62.61	464.7
Mar-12	2012.17	872	463.68	39.67	15.97	424.01	48495.84	420.04	1052.67	212.13	20151.41	62.67	464.75
Apr-12	2012.25	673	464.19	39.63	16.02	424.57	48546.05	420.39	1052.76	212.74	20207.92	62.74	464.8
May-12	2012.33	262	464.72	39.6	16.05	425.12	48594.76	420.73	1052.84	213.21	20250.74	62.8	464.85
Jun-12	2012.42	131	465.23	39.57	16.08	425.66	48639.7	421.06	1052.89	213.41	20268.56	62.81	464.89
Jul-12	2012.5	19	465.74	39.56	16.1	426.18	48678.62	421.38	1052.91	213.32	20259.95	62.76	464.94
Aug-12	2012.58	0.4	466.25	39.56	16.11	426.69	48711.19	421.69	1052.9	212.99	20228.89	62.69	464.98
Sep-12	2012.67	13	466.74	39.57	16.12	427.17	48736.96	421.99	1052.87	212.5	20182.46	62.59	465.02
Oct-12	2012.75	156	467.22	39.59	16.12	427.63	48757.16	422.27	1052.82	211.87	20124.38	62.48	465.06
Nov-12	2012.83	437	467.7	39.62	16.11	428.09	48772.58	422.55	1052.76	211.17	20058.31	62.37	465.1
Dec-12	2012.92	760	468.18	39.65	16.1	428.53	48783.88	422.83	1052.7	210.43	19989.82	62.27	465.13
Jan-13	2013	1011	468.67	39.69	16.09	428.98	48791.92	423.11	1052.63	209.79	19930.08	62.21	465.17
Feb-13	2013.08	1125	469.14	39.74	16.08	429.4	48797.03	423.38	1052.58	209.41	19895.41	62.22	465.2
Mar-13	2013.17	835	469.62	39.8	16.07	429.82	48800.27	423.65	1052.53	209.34	19889.01	62.33	465.23
Apr-13	2013.25	673	470.12	39.85	16.07	430.27	48802.9	423.94	1052.51	209.41	19895.84	62.49	465.27
May-13	2013.33	262	470.63	39.92	16.07	430.72	48803.98	424.23	1052.52	209.38	19893.31	62.6	465.3
Jun-13	2013.42	131	471.16	39.98	16.08	431.18	48805.71	424.54	1052.55	209.12	19867.98	62.64	465.34
Jul-13	2013.5	19	471.71	40.05	16.09	431.65	48808.34	424.85	1052.63	208.8	19836.26	62.64	465.38
Aug-13	2013.58	0.4	472.28	40.12	16.12	432.15	48812.71	425.19	1052.74	208.68	19822.67	62.68	465.42
Sep-13	2013.67	13	472.85	40.19	16.15	432.66	48819.51	425.52	1052.89	208.91	19841.99	62.8	465.46
Oct-13	2013.75	156	473.44	40.27	16.18	433.18	48829.65	425.86	1053.07	209.39	19884.12	62.99	465.5
Nov-13	2013.83	437	474.05	40.34	16.22	433.71	48843.92	426.19	1053.27	209.93	19931.51	63.17	465.54
Dec-13	2013.92	760	474.66	40.41	16.27	434.24	48863.19	426.52	1053.48	210.4	19971.78	63.32	465.58
Jan-14	2014	1011	475.29	40.49	16.31	434.8	48888.72	426.84	1053.71	210.83	20008.76	63.44	465.62
Feb-14	2014.08	1125	475.89	40.56	16.36	435.33	48919.33	427.13	1053.94	211.29	20048.04	63.55	465.67

DATE	TIME	BDD_N	EMPL_RI	MFG_RI	CONST_RI	NONMFG_RI	GDP_RI	HH_RI	POP_RI	INCOME_RI	ICP_RI	RETSALES	TOTHSTOCK_RI
Mar-14	2014.17	835	476.5	40.63	16.4	435.87	48957.03	427.4	1054.16	211.86	20097.38	63.69	465.71
Apr-14	2014.25	673	477.13	40.7	16.44	436.43	49004.05	427.65	1054.39	212.55	20158.64	63.85	465.75
May-14	2014.33	262	477.76	40.77	16.48	436.99	49060.21	427.88	1054.6	213.33	20228.45	64.03	465.79
Jun-14	2014.42	131	478.38	40.84	16.51	437.54	49126.22	428.07	1054.8	214.17	20304.62	64.21	465.83
Jul-14	2014.5	19	479.01	40.9	16.54	438.1	49202.94	428.22	1054.98	215.06	20385.05	64.4	465.86
Aug-14	2014.58	0.4	479.63	40.97	16.56	438.66	49291.12	428.34	1055.13	215.98	20469.21	64.59	465.9
Sep-14	2014.67	13	480.24	41.03	16.58	439.21	49385.83	428.42	1055.26	216.91	20555.51	64.79	465.93
Oct-14	2014.75	156	480.84	41.08	16.59	439.76	49486.2	428.46	1055.37	217.98	20654.51	65.02	465.97
Nov-14	2014.83	437	481.43	41.13	16.6	440.3	49589.94	428.48	1055.46	219.3	20777.79	65.32	466
Dec-14	2014.92	760	482.01	41.17	16.62	440.84	49694.84	428.47	1055.54	220.9	20927.51	65.71	466.03
Jan-15	2015	1011	482.58	41.21	16.63	441.38	49800.31	428.44	1055.6	222.48	21075.98	66.09	466.07
Feb-15	2015.08	1125	483.12	41.23	16.66	441.88	49897.51	428.4	1055.66	223.54	21175.24	66.33	466.1
Mar-15	2015.17	835	483.63	41.25	16.69	442.38	49989.43	428.34	1055.71	223.89	21207.63	66.36	466.13
Apr-15	2015.25	673	484.15	41.25	16.72	442.9	50076.92	428.27	1055.76	223.76	21194.6	66.27	466.17
May-15	2015.33	262	484.65	41.25	16.77	443.4	50154.38	428.2	1055.81	223.53	21171.85	66.15	466.2
Jun-15	2015.42	131	485.13	41.23	16.84	443.9	50219.69	428.12	1055.86	223.5	21167.34	66.11	466.24
Jul-15	2015.5	19	485.58	41.2	16.91	444.39	50370.62	428.04	1055.91	223.61	21177.29	66.12	466.28
Aug-15	2015.58	0.4	486.03	41.15	17.01	444.88	50307.63	427.96	1055.97	223.75	21188.56	66.16	466.33
Sep-15	2015.67	13	486.44	41.09	17.11	445.35	50331.51	427.88	1056.04	223.81	21192.84	66.19	466.37
Oct-15	2015.75	156	486.84	41.03	17.22	445.81	50345.07	427.81	1056.12	223.84	21194.81	66.23	466.42
Nov-15	2015.83	437	487.22	40.95	17.34	446.27	50350.6	427.75	1056.21	223.95	21202.78	66.3	466.47
Dec-15	2015.92	760	487.58	40.87	17.47	446.71	50350.23	427.68	1056.32	224.15	21220.1	66.4	466.52
Jan-16	2016	1011	487.94	40.79	17.59	447.15	50346.08	427.62	1056.44	224.33	21234.51	66.49	466.57
Feb-16	2016.08	1125	488.28	40.71	17.71	447.57	50340.6	427.56	1056.58	224.3	21228.55	66.53	466.62
Mar-16	2016.17	872	488.61	40.63	17.82	447.98	50335.79	427.51	1056.73	223.96	21193.81	66.47	466.67
Apr-16	2016.25	673	488.94	40.56	17.93	448.38	50333.7	427.46	1056.91	223.49	21145.57	66.37	466.73
May-16	2016.33	262	489.26	40.49	18.03	448.78	50336.66	427.42	1057.11	223.14	21108.43	66.3	466.78
Jun-16	2016.42	131	489.58	40.42	18.11	449.16	50346.8	427.38	1057.33	223.09	21099.25	66.31	466.84
Jul-16	2016.5	19	489.9	40.37	18.18	449.53	50366.28	427.35	1057.57	223.29	21113.86	66.38	466.89
Aug-16	2016.58	0.4	490.22	40.33	18.23	449.9	50396.42	427.32	1057.85	223.63	21139.77	66.47	466.95
Sep-16	2016.67	13	490.55	40.3	18.27	450.25	50435.77	427.29	1058.13	223.95	21164.4	66.56	467.01
Oct-16	2016.75	156	490.88	40.28	18.29	450.6	50484.97	427.25	1058.42	224.22	21184.15	66.62	467.06
Nov-16	2016.83	437	491.21	40.27	18.31	450.95	50540.91	427.21	1058.71	224.42	21197.72	66.65	467.12
Dec-16	2016.92	760	491.56	40.27	18.32	451.3	50605.58	427.14	1058.98	224.58	21207.54	66.67	467.18
Jan-17	2017	1011	491.93	40.28	18.32	451.66	50678.58	427.06	1059.25	224.86	21227.95	66.72	467.24
Feb-17	2017.08	1125	492.3	40.3	18.33	452.01	50754.31	426.95	1059.47	225.39	21273.37	66.85	467.3
Mar-17	2017.17	835	492.69	40.32	18.33	452.37	50835.7	426.81	1059.66	226.27	21352.91	67.08	467.36
Apr-17	2017.25	673	493.11	40.36	18.33	452.75	50925.07	426.64	1059.82	227.35	21451.99	67.38	467.43
May-17	2017.33	262	493.55	40.41	18.34	453.15	51019.22	426.42	1059.93	228.32	21540.71	67.65	467.49
Jun-17	2017.42	131	494.03	40.46	18.36	453.57	51117.49	426.17	1059.98	228.94	21598.68	67.83	467.56
Jul-17	2017.5	19	494.53	40.52	18.39	454.01	51219.34	425.86	1059.96	229.26	21629.49	67.92	467.64
Aug-17	2017.58	0.4	495.07	40.59	18.43	454.48	51326.29	425.5	1059.88	229.43	21646.48	67.98	467.71

DATE	TIME	BDD_N	EMPL_RI	MFG_RI	CONST_RI	NONMFG_RI	GDP_RI	HH_RI	POP_RI	INCOME_RI	ICP_RI	RETSALES	TOTHSOCK_RI
Sep-17	2017.67	13	495.62	40.67	18.47	454.96	51435.11	425.11	1059.74	229.53	21659.2	68.04	467.79
Oct-17	2017.75	156	496.2	40.75	18.53	455.46	51547.78	424.7	1059.55	229.57	21666.66	68.08	467.87
Nov-17	2017.83	437	496.8	40.83	18.59	455.97	51664.51	424.28	1059.33	229.5	21664.08	68.1	467.95
Dec-17	2017.92	760	497.41	40.91	18.66	456.51	51785.61	423.86	1059.09	229.3	21650.23	68.09	468.03
Jan-18	2018	1011	498.04	40.98	18.73	457.06	51913.38	423.44	1058.83	229.08	21635.13	68.09	468.11
Feb-18	2018.08	1125	498.65	41.06	18.8	457.6	52039.59	423.07	1058.58	229	21632.51	68.13	468.19
Mar-18	2018.17	835	499.26	41.12	18.87	458.14	52170.64	422.73	1058.34	229.12	21649.45	68.23	468.27
Apr-18	2018.25	673	499.9	41.18	18.94	458.71	52311.35	422.43	1058.1	229.39	21679.47	68.39	468.35
May-18	2018.33	262	500.52	41.23	19.01	459.29	52457.69	422.19	1057.9	229.66	21709.57	68.55	468.42
Jun-18	2018.42	131	501.14	41.27	19.08	459.87	52609.85	422.02	1057.73	229.85	21730.71	68.7	468.5
Jul-18	2018.5	19	501.75	41.3	19.15	460.45	52768.08	421.93	1057.61	229.98	21745.78	68.83	468.58
Aug-18	2018.58	0.4	502.36	41.31	19.21	461.05	52934.35	421.93	1057.54	230.14	21761.7	68.97	468.65
Sep-18	2018.67	13	502.94	41.31	19.26	461.62	53101.6	422	1057.51	230.36	21782.86	69.13	468.72
Oct-18	2018.75	156	503.5	41.3	19.32	462.2	53270.71	422.13	1057.53	230.65	21810.12	69.32	468.8
Nov-18	2018.83	437	504.05	41.28	19.36	462.77	53439.89	422.32	1057.57	231	21842.66	69.52	468.86
Dec-18	2018.92	760	504.58	41.25	19.41	463.33	53607.35	422.56	1057.65	231.4	21878.71	69.73	468.93
Jan-19	2019	1011	505.1	41.22	19.45	463.88	53773.99	422.83	1057.74	231.79	21913.82	69.94	469
Feb-19	2019.08	1125	505.58	41.18	19.49	464.4	53927.57	423.12	1057.84	232.09	21940.21	70.11	469.07
Mar-19	2019.17	835	506.05	41.14	19.52	464.91	54074.48	423.41	1057.95	232.28	21956.12	70.23	469.13
Apr-19	2019.25	673	506.5	41.09	19.56	465.41	54217.85	423.73	1058.06	232.4	21965.1	70.33	469.2
May-19	2019.33	262	506.94	41.04	19.59	465.9	54350.66	424.03	1058.16	232.5	21971.98	70.42	469.26
Jun-19	2019.42	131	507.36	41	19.63	466.36	54471.24	424.32	1058.26	232.62	21981	70.49	469.33
Jul-19	2019.5	19	507.75	40.95	19.66	466.8	54577.84	424.59	1058.33	232.75	21992.06	70.56	469.39
Aug-19	2019.58	0.4	508.13	40.9	19.69	467.22	54672.06	424.83	1058.38	232.88	22003.86	70.61	469.46
Sep-19	2019.67	13	508.47	40.86	19.73	467.61	54752.87	425.04	1058.41	233.01	22015.37	70.65	469.53
Oct-19	2019.75	156	508.79	40.82	19.76	467.97	54824.02	425.22	1058.43	233.15	22028.37	70.69	469.6
Nov-19	2019.83	437	509.08	40.77	19.79	468.3	54887.76	425.38	1058.43	233.33	22045.07	70.73	469.67
Dec-19	2019.92	760	509.33	40.73	19.82	468.6	54946.22	425.53	1058.41	233.56	22066.86	70.79	469.74
Jan-20	2020	1011	509.55	40.68	19.85	468.87	55002.52	425.66	1058.39	233.83	22092.66	70.85	469.81
Feb-20	2020.08	1125	509.73	40.64	19.88	469.09	55056.14	425.77	1058.35	234.1	22118.84	70.92	469.87
Mar-20	2020.17	872	509.87	40.59	19.91	469.28	55111.02	425.87	1058.31	234.35	22144.18	70.99	469.94
Apr-20	2020.25	673	509.97	40.53	19.93	469.44	55170.21	425.97	1058.26	234.59	22167.91	71.05	470.02
May-20	2020.33	262	510.03	40.47	19.96	469.56	55235.07	426.06	1058.21	234.8	22188.63	71.12	470.09
Jun-20	2020.42	131	510.04	40.41	19.98	469.63	55307.68	426.15	1058.15	234.97	22206.03	71.18	470.16
Jul-20	2020.5	19	510	40.34	20	469.66	55390.23	426.24	1058.1	235.12	22221.43	71.25	470.23
Aug-20	2020.58	0.4	509.92	40.27	20.03	469.65	55484.93	426.33	1058.04	235.28	22237.12	71.34	470.31
Sep-20	2020.67	13	509.81	40.19	20.04	469.62	55588	426.42	1057.99	235.45	22254.06	71.44	470.38
Oct-20	2020.75	156	509.66	40.11	20.06	469.56	55700.07	426.52	1057.95	235.63	22272.01	71.56	470.46
Nov-20	2020.83	437	509.51	40.03	20.08	469.48	55820.18	426.62	1057.9	235.8	22289.86	71.68	470.53
Dec-20	2020.92	760	509.35	39.94	20.1	469.41	55947.54	426.72	1057.86	235.98	22306.87	71.81	470.61
Jan-21	2021	1011	509.19	39.86	20.12	469.34	56083.44	426.83	1057.82	236.14	22323.64	71.95	470.69
Feb-21	2021.08	1125	509.06	39.77	20.14	469.28	56217.97	426.93	1057.79	236.31	22339.77	72.09	470.78

DATE	TIME	BDD_N	EMPL_RI	MFG_RI	CONST_RI	NONMFG_RI	GDP_RI	HH_RI	POP_RI	INCOME_RI	ICP_RI	RETSALES	TOTHSOCK_RI
Mar-21	2021.17	835	508.95	39.7	20.16	469.25	56356.87	427.04	1057.77	236.48	22356.69	72.23	470.86
Apr-21	2021.25	673	508.87	39.62	20.19	469.25	56504.12	427.16	1057.75	236.68	22375.54	72.38	470.95
May-21	2021.33	262	508.84	39.54	20.21	469.29	56654.26	427.29	1057.74	236.89	22396.31	72.54	471.04
Jun-21	2021.42	131	508.86	39.48	20.24	469.38	56806.38	427.42	1057.73	237.14	22419.4	72.71	471.13
Jul-21	2021.5	19	508.95	39.41	20.27	469.53	56959.66	427.56	1057.73	237.41	22444.9	72.89	471.23
Aug-21	2021.58	0.4	509.11	39.36	20.31	469.75	57115.97	427.7	1057.74	237.71	22472.96	73.07	471.33
Sep-21	2021.67	13	509.32	39.31	20.35	470.01	57269.9	427.85	1057.76	238.02	22502.13	73.25	471.44
Oct-21	2021.75	156	509.59	39.26	20.38	470.32	57423.58	428	1057.79	238.34	22532.37	73.43	471.55
Nov-21	2021.83	437	509.89	39.22	20.42	470.67	57576.68	428.16	1057.82	238.68	22563.22	73.61	471.66
Dec-21	2021.92	760	510.23	39.19	20.47	471.04	57728.82	428.32	1057.85	239.01	22594.29	73.79	471.78
Jan-22	2022	1011	510.6	39.15	20.51	471.45	57882.11	428.48	1057.89	239.36	22625.84	73.97	471.9
Feb-22	2022.08	1125	510.97	39.12	20.55	471.85	58026.4	428.63	1057.93	239.68	22655.68	74.14	472.02
Mar-22	2022.17	835	511.34	39.09	20.58	472.25	58168.77	428.79	1057.97	240	22685.18	74.31	472.15
Apr-22	2022.25	673	511.73	39.06	20.62	472.67	58313.66	428.95	1058.02	240.33	22715.15	74.47	472.28
May-22	2022.33	262	512.1	39.02	20.65	473.08	58455.8	429.11	1058.06	240.65	22744.41	74.64	472.41
Jun-22	2022.42	131	512.46	38.99	20.68	473.47	58594.88	429.26	1058.11	240.96	22772.69	74.79	472.55
Jul-22	2022.5	19	512.79	38.95	20.71	473.84	58730.53	429.41	1058.15	241.25	22799.54	74.94	472.69
Aug-22	2022.58	0.4	513.09	38.91	20.73	474.18	58864.93	429.56	1058.19	241.53	22825.06	75.09	472.84
Sep-22	2022.67	13	513.36	38.86	20.75	474.5	58994.15	429.7	1058.23	241.79	22848.47	75.22	472.99
Oct-22	2022.75	156	513.61	38.81	20.77	474.8	59120.81	429.84	1058.27	242.03	22870.42	75.35	473.14
Nov-22	2022.83	437	513.84	38.77	20.78	475.07	59245.35	429.98	1058.31	242.26	22891.19	75.47	473.3
Dec-22	2022.92	760	514.05	38.72	20.79	475.33	59368.2	430.11	1058.35	242.48	22910.98	75.59	473.46
Jan-23	2023	1011	514.25	38.66	20.8	475.58	59491.79	430.25	1058.39	242.69	22930.11	75.7	473.62
Feb-23	2023.08	1125	514.43	38.61	20.81	475.81	59608.63	430.37	1058.42	242.88	22947.35	75.8	473.77
Mar-23	2023.17	835	514.6	38.56	20.81	476.04	59725.1	430.49	1058.45	243.06	22963.71	75.89	473.93
Apr-23	2023.25	673	514.77	38.51	20.82	476.26	59845.57	430.62	1058.49	243.24	22980.14	75.98	474.09
May-23	2023.33	262	514.94	38.45	20.82	476.49	59966.52	430.74	1058.52	243.42	22996.63	76.07	474.26
Jun-23	2023.42	131	515.12	38.4	20.82	476.71	60088.38	430.87	1058.56	243.61	23013.67	76.16	474.42
Jul-23	2023.5	19	515.29	38.35	20.83	476.94	60211.57	430.99	1058.59	243.81	23031.52	76.25	474.59
Aug-23	2023.58	0.4	515.48	38.3	20.83	477.18	60338.22	431.12	1058.63	244.02	23050.54	76.35	474.76
Sep-23	2023.67	13	515.67	38.25	20.84	477.42	60463.97	431.24	1058.66	244.23	23070.03	76.44	474.93
Oct-23	2023.75	156	515.86	38.2	20.84	477.66	60590.56	431.36	1058.7	244.45	23090.15	76.53	475.09
Nov-23	2023.83	437	516.06	38.15	20.85	477.91	60717.69	431.48	1058.73	244.68	23110.75	76.62	475.26
Dec-23	2023.92	760	516.26	38.1	20.86	478.16	60845.05	431.6	1058.77	244.91	23131.73	76.71	475.43
Jan-24	2024	1011	516.46	38.06	20.86	478.41	60974.43	431.73	1058.8	245.15	23153.29	76.81	475.6
Feb-24	2024.08	1125	516.66	38.01	20.87	478.65	61099.26	431.85	1058.84	245.38	23174.29	76.9	475.76
Mar-24	2024.17	872	516.86	37.96	20.88	478.9	61223.44	431.97	1058.87	245.61	23195.38	77	475.93
Apr-24	2024.25	673	517.06	37.92	20.88	479.14	61348.73	432.09	1058.91	245.85	23217.09	77.1	476.1
May-24	2024.33	262	517.26	37.87	20.89	479.39	61472.74	432.22	1058.94	246.09	23239.32	77.2	476.26
Jun-24	2024.42	131	517.46	37.83	20.9	479.63	61595.18	432.34	1058.98	246.34	23262.23	77.31	476.43
Jul-24	2024.5	19	517.65	37.78	20.9	479.87	61715.75	432.46	1059.01	246.6	23285.73	77.42	476.6
Aug-24	2024.58	0.4	517.84	37.73	20.91	480.11	61836.33	432.59	1059.05	246.86	23310.04	77.54	476.77

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Sep-24	2024.67	13	518.03	37.69	20.91	480.34	61953.22	432.72	1059.08	247.13	23334.28	77.67	476.93
Oct-24	2024.75	156	518.21	37.64	20.92	480.57	62068.57	432.84	1059.12	247.4	23358.69	77.79	477.1
Nov-24	2024.83	437	518.39	37.6	20.92	480.79	62182.59	432.97	1059.15	247.66	23383.14	77.92	477.26
Dec-24	2024.92	760	518.56	37.55	20.93	481.01	62295.46	433.09	1059.19	247.93	23407.55	78.04	477.42
Jan-25	2025	1011	518.74	37.5	20.93	481.24	62409.24	433.22	1059.22	248.2	23432.29	78.17	477.59
Feb-25	2025.08	1125	518.91	37.46	20.93	481.45	62516.81	433.34	1059.25	248.46	23455.8	78.29	477.75
Mar-25	2025.17	835	519.08	37.41	20.93	481.66	62623.87	433.46	1059.28	248.71	23479.32	78.41	477.91
Apr-25	2025.25	673	519.25	37.37	20.93	481.88	62734.23	433.58	1059.3	248.98	23503.76	78.53	478.07
May-25	2025.33	262	519.42	37.32	20.93	482.1	62844.45	433.7	1059.33	249.24	23528.5	78.65	478.23
Jun-25	2025.42	131	519.59	37.28	20.93	482.32	62954.74	433.82	1059.35	249.52	23553.65	78.76	478.4
Jul-25	2025.5	19	519.77	37.23	20.93	482.54	63065.27	433.94	1059.37	249.79	23579.24	78.87	478.56
Aug-25	2025.58	0.4	519.94	37.18	20.92	482.76	63177.99	434.05	1059.39	250.08	23605.67	78.98	478.72
Sep-25	2025.67	13	520.12	37.14	20.92	482.98	63289.23	434.17	1059.41	250.36	23632.03	79.09	478.88
Oct-25	2025.75	156	520.29	37.09	20.91	483.2	63400.81	434.28	1059.42	250.64	23658.55	79.19	479.05
Nov-25	2025.83	437	520.47	37.05	20.91	483.42	63512.7	434.39	1059.43	250.93	23685.04	79.29	479.21
Dec-25	2025.92	760	520.65	37	20.9	483.64	63624.9	434.49	1059.44	251.21	23711.33	79.38	479.37
Jan-26	2026	1011	520.83	36.96	20.89	483.87	63739.22	434.6	1059.45	251.49	23737.78	79.48	479.53
Feb-26	2026.08	1125	521	36.91	20.88	484.08	63848.28	434.7	1059.45	251.75	23762.72	79.56	479.68
Mar-26	2026.17	835	521.17	36.87	20.87	484.3	63957.57	434.79	1059.46	252.02	23787.43	79.64	479.84
Apr-26	2026.25	673	521.34	36.83	20.86	484.52	64070.81	434.89	1059.46	252.29	23812.91	79.72	479.99
May-26	2026.33	262	521.52	36.78	20.85	484.73	64184.27	434.99	1059.46	252.56	23838.52	79.81	480.15
Jun-26	2026.42	131	521.69	36.74	20.85	484.95	64297.94	435.08	1059.46	252.83	23864.39	79.89	480.31
Jul-26	2026.5	19	521.87	36.7	20.84	485.17	64411.8	435.17	1059.46	253.11	23890.53	79.97	480.46
Aug-26	2026.58	0.4	522.04	36.66	20.83	485.39	64527.77	435.26	1059.46	253.39	23917.37	80.05	480.62
Sep-26	2026.67	13	522.22	36.61	20.82	485.6	64642.18	435.35	1059.45	253.68	23944	80.14	480.77
Oct-26	2026.75	156	522.39	36.57	20.81	485.82	64756.98	435.44	1059.45	253.96	23970.74	80.22	480.92
Nov-26	2026.83	437	522.56	36.53	20.8	486.03	64872.26	435.52	1059.44	254.24	23997.44	80.31	481.07
Dec-26	2026.92	760	522.73	36.49	20.79	486.24	64988.09	435.6	1059.44	254.52	24024	80.39	481.22
Jan-27	2027	1011	522.91	36.45	20.79	486.45	65106.48	435.69	1059.43	254.8	24050.83	80.48	481.38
Feb-27	2027.08	1125	523.07	36.41	20.78	486.66	65219.83	435.77	1059.42	255.07	24076.24	80.57	481.52
Mar-27	2027.17	835	523.24	36.37	20.77	486.86	65333.95	435.84	1059.41	255.34	24101.62	80.65	481.66
Apr-27	2027.25	673	523.41	36.34	20.77	487.07	65452.8	435.92	1059.4	255.61	24128.02	80.75	481.8
May-27	2027.33	262	523.58	36.3	20.76	487.28	65572.63	436	1059.39	255.89	24154.87	80.84	481.95
Jun-27	2027.42	131	523.75	36.26	20.75	487.5	65693.5	436.07	1059.38	256.18	24182.34	80.94	482.09
Jul-27	2027.5	19	523.93	36.22	20.75	487.71	65815.51	436.15	1059.37	256.48	24210.47	81.05	482.23
Aug-27	2027.58	0.4	524.11	36.18	20.74	487.92	65940.66	436.23	1059.35	256.78	24239.67	81.17	482.37
Sep-27	2027.67	13	524.28	36.14	20.73	488.14	66064.79	436.3	1059.34	257.09	24268.87	81.28	482.51
Oct-27	2027.75	156	524.46	36.11	20.73	488.35	66189.78	436.38	1059.33	257.4	24298.4	81.4	482.65
Nov-27	2027.83	437	524.63	36.07	20.72	488.57	66315.5	436.45	1059.31	257.71	24328.12	81.53	482.78
Dec-27	2027.92	760	524.81	36.03	20.72	488.78	66441.83	436.53	1059.28	258.02	24357.9	81.65	482.92
Jan-28	2028	1011	524.99	35.99	20.71	489	66570.7	436.6	1059.26	258.34	24388.12	81.78	483.05
Feb-28	2028.08	1125	525.17	35.96	20.71	489.21	66695.76	436.67	1059.26	258.64	24417.26	81.9	483.18

DATE	TIME	BDD_N	EMPL_RI	MFG_RI	CONST_RI	NONMFG_RI	GDP_RI	HH_RI	POP_RI	INCOME_RI	ICP_RI	RETSALES	TOTSTOCK_RI
Mar-28	2028.17	872	525.34	35.92	20.7	489.42	66821.03	436.74	1059.24	258.94	24446.25	82.02	483.31
Apr-28	2028.25	673	525.52	35.88	20.7	489.64	66948.47	436.81	1059.22	259.25	24475.65	82.14	483.44
May-28	2028.33	262	525.7	35.85	20.69	489.85	67075.87	436.88	1059.2	259.56	24505.1	82.27	483.57
Jun-28	2028.42	131	525.88	35.81	20.69	490.07	67203.1	436.95	1059.18	259.87	24534.71	82.39	483.69
Jul-28	2028.5	19	526.06	35.77	20.69	490.29	67330.02	437.01	1059.16	260.18	24564.51	82.51	483.82
Aug-28	2028.58	0.4	526.24	35.74	20.68	490.5	67458.68	437.08	1059.14	260.5	24595.06	82.63	483.95
Sep-28	2028.67	13	526.42	35.7	20.68	490.72	67584.93	437.14	1059.12	260.81	24625.37	82.74	484.07
Oct-28	2028.75	156	526.6	35.66	20.68	490.94	67710.89	437.2	1059.1	261.13	24655.78	82.86	484.19
Nov-28	2028.83	437	526.78	35.62	20.67	491.15	67836.58	437.26	1059.08	261.44	24686.09	82.97	484.32
Dec-28	2028.92	760	526.96	35.59	20.67	491.37	67962.03	437.32	1059.05	261.76	24716.13	83.08	484.44
Jan-29	2029	1011	527.14	35.55	20.67	491.59	68089.33	437.38	1059.03	262.07	24746.39	83.2	484.56
Feb-29	2029.08	1125	527.31	35.52	20.67	491.8	68210.31	437.44	1059.01	262.37	24774.94	83.3	484.68
Mar-29	2029.17	835	527.49	35.48	20.67	492.01	68331.14	437.5	1058.98	262.66	24803.32	83.4	484.79
Apr-29	2029.25	673	527.67	35.44	20.67	492.22	68455.96	437.56	1058.96	262.97	24832.66	83.51	484.91
May-29	2029.33	262	527.85	35.41	20.67	492.44	68580.69	437.62	1058.93	263.27	24862.23	83.61	485.03
Jun-29	2029.42	131	528.03	35.37	20.67	492.66	68705.37	437.68	1058.91	263.59	24892.19	83.72	485.15
Jul-29	2029.5	19	528.21	35.33	20.67	492.88	68830.01	437.74	1058.88	263.9	24922.57	83.83	485.26
Aug-29	2029.58	0.4	528.39	35.3	20.67	493.1	68956.7	437.81	1058.86	264.23	24953.84	83.94	485.38
Sep-29	2029.67	13	528.57	35.26	20.67	493.31	69081.37	437.88	1058.83	264.55	24984.9	84.05	485.5
Oct-29	2029.75	156	528.75	35.22	20.67	493.53	69206.1	437.94	1058.8	264.87	25016.09	84.16	485.61
Nov-29	2029.83	437	528.93	35.19	20.67	493.75	69330.92	438.01	1058.77	265.19	25047.23	84.27	485.73
Dec-29	2029.92	760	529.11	35.15	20.67	493.97	69455.84	438.08	1058.75	265.51	25078.17	84.38	485.84
Jan-30	2030	1011	529.3	35.11	20.67	494.19	69582.95	438.14	1058.72	265.84	25109.31	84.49	485.95
Feb-30	2030.08	1125	529.47	35.08	20.67	494.39	69704.07	438.21	1058.69	266.14	25138.59	84.6	486.06

DATE	NGPRCR_RI	NGPRCC_RI	NGPRCI_RI	OILPRCR_RI	OILPRCC_RI	OILPRCI_RI	GORR_RI	GORC_RI	GORI_RI
Sep-10	24.14	19.36	14.83	23	20.71	20.79	1.05	0.935	0.714
Oct-10	20.64	17.82	14.66	24.58	21.63	21.83	0.84	0.824	0.671
Nov-10	17.38	15.45	13.78	25.35	22.35	22.4	0.685	0.691	0.615
Dec-10	15.58	14.26	13.23	26.54	23.62	23.61	0.587	0.604	0.56
Jan-11	15.75	14.18	12.85	27.86	24.87	24.57	0.565	0.57	0.523
Feb-11	16.42	14.49	12.82	29.14	26.08	25.84	0.563	0.556	0.496
Mar-11	16.81	14.31	12.27	31.56	28.24	27.98	0.533	0.507	0.439
Apr-11	19.19	15.3	11.46	31.28	27.99	27.73	0.614	0.547	0.413
May-11	20.93	17.28	10.78	31.02	27.75	27.5	0.675	0.623	0.392
Jun-11	22.05	18.61	10.93	30.78	27.54	27.29	0.716	0.676	0.401
Jul-11	23.17	19.19	13.61	30.57	27.35	27.1	0.758	0.702	0.502
Aug-11	22.5	19.76	13.29	30.37	27.18	26.93	0.741	0.727	0.494
Sep-11	20.35	18.74	12.22	30.18	27.01	26.76	0.674	0.694	0.457
Oct-11	18.2	15.83	11.87	29.99	26.84	26.59	0.607	0.59	0.447
Nov-11	16.45	14.03	11.53	31	27.74	27.49	0.531	0.506	0.419
Dec-11	14.7	13.13	11.52	30.31	27.12	26.87	0.485	0.484	0.429
Jan-12	14.32	13.19	11.22	31.31	28.01	27.76	0.457	0.471	0.404
Feb-12	15.23	13.17	10.2	32.32	28.92	28.66	0.471	0.455	0.356
Mar-12	15.44	13.33	9.55	32.84	29.39	29.12	0.47	0.454	0.328
Apr-12	17.5	14.76	10.22	32.68	29.24	28.97	0.536	0.505	0.353
May-12	19.66	15.11	10.53	32.51	29.09	28.82	0.605	0.519	0.365
Jun-12	19.46	18.05	11.26	32.32	28.92	28.65	0.602	0.624	0.393
Jul-12	20.54	18	11.84	32.11	28.74	28.47	0.64	0.626	0.416
Aug-12	20.99	17.95	11.7	31.9	28.54	28.28	0.658	0.629	0.414
Sep-12	21.18	15.19	11.58	31.68	28.34	28.08	0.669	0.536	0.412
Oct-12	16.02	13.71	11.84	31.45	28.14	27.89	0.509	0.487	0.425
Nov-12	13.28	12.01	10.79	31.37	28.07	27.82	0.423	0.428	0.388
Dec-12	12.91	10.67	8.08	31.2	27.92	27.66	0.414	0.382	0.292
Jan-13	13.58	12.03	8.73	31.43	28.12	27.86	0.432	0.428	0.313
Feb-13	14.94	12.67	8.66	32.5	29.08	28.82	0.46	0.436	0.301
Mar-13	15.75	13.33	9.29	31.72	28.38	28.12	0.497	0.47	0.33
Apr-13	18.86	14.21	9.7	31.54	28.22	27.96	0.598	0.504	0.347
May-13	20.25	16.69	9.57	31.33	28.03	27.77	0.647	0.595	0.345
Jun-13	20.82	18.63	10.28	31.07	27.8	27.54	0.67	0.67	0.373
Jul-13	22.49	17.72	11.42	30.77	27.54	27.28	0.731	0.644	0.419
Aug-13	22.43	17.68	11.21	30.49	27.28	27.03	0.736	0.648	0.415
Sep-13	20.17	15.81	10.7	30.23	27.05	26.8	0.667	0.585	0.399
Oct-13	16.01	13.46	10.67	29.99	26.84	26.59	0.534	0.501	0.401

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Nov-13	13.42	12.23	9.38	30.24	27.06	26.81	0.444	0.452	0.35
Dec-13	14.15	12.08	9.27	31.29	28	27.74	0.452	0.431	0.334
Jan-14	14.03	12.14	9.29	31.99	28.62	28.36	0.439	0.424	0.327
Feb-14	14.15	12.24	9.38	32.95	29.48	29.21	0.429	0.415	0.321
Mar-14	14.18	12.2	9.59	32.38	28.97	28.71	0.438	0.421	0.334
Apr-14	15.72	13.4	9.92	31.5	28.19	27.93	0.499	0.475	0.355
May-14	19	15.61	11.98	30.64	27.41	27.16	0.62	0.57	0.441
Jun-14	21.86	19.78	11.25	29.78	26.65	26.4	0.734	0.742	0.426
Jul-14	23.99	21.56	13.31	28.94	25.89	25.66	0.829	0.832	0.519
Aug-14	24.58	20.79	12.1	28.1	25.14	24.91	0.875	0.827	0.486
Sep-14	24.26	19.81	11.97	27.27	24.4	24.18	0.89	0.812	0.495
Oct-14	22.8	19.13	12.53	26.47	23.68	23.46	0.862	0.808	0.534
Nov-14	17.85	15.43	11.31	26.3	23.54	23.32	0.679	0.656	0.485
Dec-14	14.46	11.82	9.79	24.28	21.73	21.53	0.596	0.544	0.455
Jan-15	14	11.88	9.65	21.68	19.4	19.22	0.646	0.613	0.502
Feb-15	13.7	11.77	9.55	23.79	21.29	21.09	0.576	0.553	0.453
Mar-15	13.83	11.78	9.53	22.91	20.5	20.32	0.604	0.575	0.469
Apr-15	14.64	12.37	9.7	20.84	18.64	18.47	0.703	0.664	0.525
May-15	16.6	13.69	10.25	20.69	18.51	18.34	0.802	0.739	0.559
Jun-15	18.73	16.17	9.84	20.72	18.54	18.37	0.904	0.872	0.536
Jul-15	20.69	17.44	10.07	20.71	18.53	18.36	0.999	0.941	0.549
Aug-15	21.94	17.83	10.57	20.7	18.52	18.35	1.06	0.963	0.576
Sep-15	21.99	17.94	10.25	16.07	14.38	14.25	1.368	1.247	0.72
Oct-15	19.94	16.5	10.39	19.36	17.33	17.17	1.03	0.953	0.605
Nov-15	16.21	13.5	9.93	18.96	16.96	16.81	0.855	0.796	0.591
Dec-15	14.14	11.5	8.62	17.52	15.68	15.53	0.807	0.733	0.555
Jan-16	13.35	10.87	9.03	16.47	14.74	14.6	0.81	0.738	0.618
Feb-16	12.95	10.59	8.85	16.15	14.45	14.32	0.802	0.733	0.618
Mar-16	13.22	10.8	8.79	16.57	14.82	14.69	0.798	0.728	0.598
Apr-16	14	11.26	9.15	14.63	13.09	12.97	0.957	0.86	0.705
May-16	15.07	11.97	9.27	15.81	14.15	14.02	0.953	0.846	0.661
Jun-16	17.54	14.1	9.1	16.39	14.67	14.54	1.07	0.961	0.626
Jul-16	19.92	16.01	9.24	16.45	14.72	14.59	1.211	1.087	0.634
Aug-16	21.1	16.35	9.55	18.18	16.27	16.12	1.161	1.005	0.593
Sep-16	20.96	16.91	9.47	16.03	14.34	14.21	1.308	1.179	0.667
Oct-16	18.49	15	9.3	18.49	16.54	16.39	1	0.907	0.567
Nov-16	14.69	11.81	9.09	18.59	16.64	16.49	0.79	0.71	0.551
Dec-16	13.37	10.53	8.21	19.96	17.86	17.69	0.67	0.59	0.464

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Jan-17	12.87	10.25	8.24	20.44	18.29	18.13	0.629	0.56	0.455
Feb-17	12.99	10.67	8.51	20.31	18.17	18.01	0.639	0.587	0.473
Mar-17	13.06	10.64	8.56	20.18	18.06	17.89	0.647	0.589	0.479
Apr-17	13.46	10.86	8.86	17.94	16.06	15.91	0.75	0.676	0.557
May-17	15.44	12.28	8.74	17.46	15.63	15.48	0.884	0.786	0.564
Jun-17	16.72	13.37	8.6	16.62	14.87	14.73	1.006	0.899	0.584
Jul-17	19.5	15.66	8.9	16.42	14.69	14.56	1.188	1.066	0.611
Aug-17	20.51	15.98	8.88	17.16	15.35	15.21	1.195	1.041	0.584
Sep-17	20.19	15.66	8.7	17.97	16.08	15.93	1.124	0.974	0.546
Oct-17	19.51	15.2	8.5	18.43	16.5	16.34	1.058	0.922	0.52
Nov-17	15.46	12.55	8.52	19.31	17.28	17.12	0.8	0.726	0.497
Dec-17	14.07	11.4	8.66	19.94	17.84	17.68	0.706	0.639	0.49
Jan-18	13.15	10.89	8.63	22.23	19.89	19.71	0.591	0.548	0.438
Feb-18	13.43	11.14	8.74	21.17	18.95	18.77	0.634	0.588	0.465
Mar-18	14.79	12.51	10.11	20.65	18.47	18.31	0.716	0.677	0.552
Apr-18	16.28	13.59	10.73	21.12	18.9	18.72	0.771	0.719	0.573
May-18	17.71	14.36	11.35	21.64	19.36	19.19	0.818	0.741	0.592
Jun-18	20.56	16.65	11.39	21.63	19.36	19.18	0.95	0.86	0.594
Jul-18	27.37	18.29	11.53	21.51	19.25	19.07	1.272	0.95	0.605
Aug-18	23.74	18.79	10.86	21.33	19.09	18.91	1.113	0.984	0.574
Sep-18	21.91	19	10.99	21.88	19.58	19.4	1.001	0.971	0.567
Oct-18	20.09	17.61	11.22	22.79	20.39	20.2	0.882	0.863	0.555
Nov-18	16.02	13.87	10.42	22.49	20.12	19.94	0.712	0.689	0.522
Dec-18	14.64	12.23	9.57	21.09	18.87	18.69	0.694	0.648	0.512
Jan-19	14.5	12.34	9.76	20.53	18.37	18.21	0.706	0.671	0.536
Feb-19	14.01	11.83	9.39	21.03	18.82	18.65	0.666	0.629	0.503
Mar-19	13.91	11.62	9.21	20.48	18.33	18.16	0.679	0.634	0.507
Apr-19	14.26	11.68	8.93	19.85	17.76	17.6	0.718	0.658	0.508
May-19	14.59	11.46	8.08	19.47	17.42	17.26	0.749	0.658	0.468
Jun-19	15.67	11.13	7.75	19.19	17.17	17.02	0.816	0.648	0.456
Jul-19	17.51	11	7.73	19.23	17.21	17.05	0.911	0.639	0.454
Aug-19	18.27	11	7.67	19.24	17.21	17.05	0.95	0.639	0.45
Sep-19	17.66	10.76	7.61	19.44	17.39	17.23	0.908	0.618	0.442
Oct-19	14.74	10.08	7.77	19.65	17.58	17.42	0.75	0.574	0.446
Nov-19	14.15	10.12	8.93	20.04	17.94	17.77	0.706	0.564	0.503
Dec-19	13.85	10.74	9.59	20.52	18.36	18.19	0.675	0.585	0.527
Jan-20	13.61	10.68	9.64	21.17	18.95	18.77	0.643	0.563	0.513
Feb-20	13.5	10.38	9.46	21.09	18.87	18.7	0.64	0.55	0.506

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Mar-20	13.64	10.33	9.42	20.9	18.7	18.53	0.653	0.552	0.509
Apr-20	14.03	10.47	9.18	20.55	18.39	18.22	0.682	0.569	0.504
May-20	14.34	10.33	8.29	20.4	18.25	18.08	0.703	0.566	0.459
Jun-20	15.37	10.11	7.9	20.32	18.18	18.01	0.757	0.556	0.439
Jul-20	17.14	10.12	7.78	20.27	18.13	17.97	0.846	0.558	0.433
Aug-20	17.88	10.29	7.64	20.25	18.12	17.96	0.883	0.568	0.425
Sep-20	17.23	10.22	7.46	20.42	18.27	18.1	0.844	0.559	0.412
Oct-20	14.35	9.7	7.53	20.49	18.33	18.17	0.7	0.529	0.414
Nov-20	13.75	9.84	8.59	20.73	18.55	18.38	0.663	0.531	0.468
Dec-20	13.46	10.55	9.22	20.91	18.71	18.54	0.644	0.564	0.497
Jan-21	13.83	10.87	9.37	21.62	18.68	18.56	0.64	0.582	0.504
Feb-21	13.71	10.56	9.2	21.53	18.6	18.48	0.637	0.568	0.498
Mar-21	13.85	10.51	9.15	21.32	18.42	18.31	0.65	0.57	0.5
Apr-21	14.24	10.65	8.91	20.96	18.11	18	0.679	0.588	0.495
May-21	14.55	10.5	8.05	20.8	17.97	17.86	0.699	0.584	0.451
Jun-21	15.6	10.28	7.67	20.72	17.9	17.79	0.753	0.574	0.431
Jul-21	17.39	10.29	7.55	20.66	17.85	17.74	0.842	0.577	0.426
Aug-21	18.14	10.46	7.41	20.65	17.84	17.73	0.879	0.587	0.418
Sep-21	17.48	10.39	7.24	20.82	17.99	17.87	0.84	0.578	0.405
Oct-21	14.56	9.86	7.3	20.89	18.05	17.93	0.697	0.546	0.407
Nov-21	13.95	10.01	8.34	21.13	18.26	18.14	0.66	0.548	0.46
Dec-21	13.65	10.72	8.94	21.31	18.41	18.3	0.64	0.582	0.489
Jan-22	14.12	11.13	9.34	21.94	18.28	18.22	0.644	0.609	0.512
Feb-22	14	10.81	9.17	21.85	18.2	18.14	0.641	0.594	0.505
Mar-22	14.14	10.76	9.12	21.64	18.03	17.97	0.653	0.597	0.508
Apr-22	14.54	10.9	8.89	21.28	17.72	17.67	0.683	0.615	0.503
May-22	14.85	10.75	8.03	21.11	17.59	17.53	0.704	0.611	0.458
Jun-22	15.93	10.53	7.65	21.03	17.52	17.46	0.757	0.601	0.438
Jul-22	17.76	10.54	7.53	20.98	17.47	17.42	0.847	0.603	0.432
Aug-22	18.52	10.72	7.39	20.96	17.46	17.41	0.884	0.614	0.425
Sep-22	17.86	10.64	7.22	21.14	17.61	17.55	0.845	0.604	0.411
Oct-22	14.87	10.1	7.29	21.21	17.67	17.61	0.701	0.572	0.414
Nov-22	14.25	10.25	8.32	21.46	17.87	17.82	0.664	0.573	0.467
Dec-22	13.94	10.98	8.92	21.64	18.03	17.97	0.644	0.609	0.496
Jan-23	14.49	11.47	9.49	22.59	18.17	18.18	0.641	0.631	0.522
Feb-23	14.36	11.14	9.31	22.49	18.09	18.1	0.639	0.616	0.515
Mar-23	14.51	11.08	9.27	22.28	17.92	17.93	0.651	0.619	0.517
Apr-23	14.91	11.23	9.03	21.91	17.62	17.63	0.681	0.638	0.512

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May-23	15.24	11.08	8.16	21.74	17.48	17.49	0.701	0.634	0.466
Jun-23	16.34	10.85	7.77	21.65	17.41	17.42	0.755	0.623	0.446
Jul-23	18.22	10.86	7.65	21.59	17.37	17.38	0.844	0.625	0.44
Aug-23	19	11.04	7.51	21.58	17.35	17.36	0.881	0.636	0.432
Sep-23	18.31	10.96	7.33	21.75	17.49	17.51	0.842	0.627	0.419
Oct-23	15.25	10.4	7.4	21.83	17.55	17.56	0.699	0.592	0.421
Nov-23	14.61	10.55	8.45	22.08	17.76	17.77	0.662	0.594	0.475
Dec-23	14.3	11.31	9.06	22.27	17.91	17.92	0.642	0.631	0.506
Jan-24	14.89	11.84	9.68	23.64	18.38	18.48	0.63	0.644	0.524
Feb-24	14.76	11.5	9.51	23.54	18.3	18.4	0.627	0.629	0.517
Mar-24	14.9	11.45	9.46	23.31	18.12	18.23	0.639	0.632	0.519
Apr-24	15.32	11.6	9.21	22.92	17.82	17.92	0.668	0.651	0.514
May-24	15.65	11.44	8.32	22.74	17.68	17.78	0.688	0.647	0.468
Jun-24	16.79	11.2	7.93	22.65	17.61	17.71	0.741	0.636	0.448
Jul-24	18.71	11.21	7.81	22.6	17.57	17.66	0.828	0.638	0.442
Aug-24	19.52	11.4	7.66	22.58	17.55	17.65	0.865	0.649	0.434
Sep-24	18.82	11.32	7.48	22.76	17.7	17.8	0.827	0.64	0.421
Oct-24	15.67	10.74	7.55	22.84	17.76	17.86	0.686	0.605	0.423
Nov-24	15.01	10.9	8.62	23.11	17.97	18.07	0.65	0.607	0.477
Dec-24	14.69	11.68	9.25	23.31	18.12	18.22	0.63	0.644	0.508
Jan-25	15.05	11.93	9.97	24.23	18.82	18.96	0.621	0.634	0.526
Feb-25	14.92	11.59	9.78	24.12	18.73	18.88	0.618	0.619	0.518
Mar-25	15.07	11.53	9.74	23.89	18.56	18.7	0.631	0.622	0.521
Apr-25	15.49	11.69	9.48	23.49	18.25	18.38	0.659	0.641	0.516
May-25	15.83	11.53	8.57	23.31	18.1	18.24	0.679	0.637	0.47
Jun-25	16.97	11.29	8.16	23.22	18.03	18.17	0.731	0.626	0.449
Jul-25	18.92	11.3	8.04	23.16	17.99	18.13	0.817	0.628	0.444
Aug-25	19.74	11.49	7.89	23.15	17.98	18.11	0.853	0.639	0.436
Sep-25	19.03	11.41	7.7	23.34	18.12	18.26	0.815	0.63	0.422
Oct-25	15.84	10.83	7.78	23.42	18.19	18.33	0.677	0.595	0.424
Nov-25	15.18	10.99	8.88	23.7	18.4	18.54	0.641	0.597	0.479
Dec-25	14.86	11.77	9.52	23.9	18.56	18.7	0.622	0.634	0.509
Jan-26	15.16	11.97	10.03	24.64	19.17	19.33	0.615	0.624	0.519
Feb-26	15.03	11.63	9.85	24.53	19.09	19.24	0.613	0.609	0.512
Mar-26	15.18	11.57	9.8	24.3	18.91	19.06	0.625	0.612	0.514
Apr-26	15.6	11.73	9.55	23.89	18.59	18.74	0.653	0.631	0.509
May-26	15.94	11.57	8.62	23.7	18.45	18.6	0.673	0.627	0.464
Jun-26	17.1	11.33	8.21	23.61	18.38	18.52	0.724	0.616	0.443

DATE	NGPRCR_RI	NGPRCC_RI	NGPRCI_RI	OILPRCR_RI	OILPRCC_RI	OILPRCI_RI	GORR_RI	GORC_RI	GORI_RI
Jul-26	19.06	11.34	8.09	23.55	18.33	18.48	0.809	0.619	0.438
Aug-26	19.88	11.53	7.94	23.54	18.32	18.46	0.845	0.629	0.43
Sep-26	19.16	11.45	7.75	23.73	18.47	18.61	0.808	0.62	0.417
Oct-26	15.96	10.86	7.83	23.81	18.53	18.68	0.67	0.586	0.419
Nov-26	15.29	11.02	8.93	24.09	18.75	18.9	0.635	0.588	0.473
Dec-26	14.96	11.81	9.58	24.3	18.91	19.06	0.616	0.625	0.503
Jan-27	15.23	11.98	10.04	25.31	19.75	19.93	0.602	0.607	0.504
Feb-27	15.1	11.64	9.86	25.2	19.66	19.84	0.599	0.592	0.497
Mar-27	15.25	11.58	9.81	24.96	19.47	19.65	0.611	0.595	0.499
Apr-27	15.67	11.74	9.55	24.54	19.15	19.32	0.639	0.613	0.495
May-27	16.01	11.57	8.63	24.35	19	19.17	0.658	0.609	0.45
Jun-27	17.17	11.33	8.22	24.25	18.92	19.09	0.708	0.599	0.431
Jul-27	19.14	11.34	8.1	24.19	18.87	19.04	0.791	0.601	0.425
Aug-27	19.97	11.53	7.95	24.17	18.86	19.03	0.826	0.611	0.418
Sep-27	19.24	11.45	7.76	24.37	19.01	19.18	0.79	0.602	0.404
Oct-27	16.02	10.86	7.83	24.45	19.08	19.25	0.655	0.57	0.407
Nov-27	15.35	11.03	8.94	24.73	19.3	19.47	0.621	0.571	0.459
Dec-27	15.02	11.81	9.59	24.95	19.46	19.64	0.602	0.607	0.488
Jan-28	15.31	12	10.07	25.51	19.9	20.09	0.6	0.603	0.502
Feb-28	15.17	11.66	9.89	25.39	19.81	20	0.598	0.589	0.495
Mar-28	15.32	11.6	9.84	25.15	19.62	19.81	0.609	0.591	0.497
Apr-28	15.75	11.75	9.58	24.72	19.29	19.47	0.637	0.609	0.492
May-28	16.09	11.59	8.66	24.53	19.14	19.32	0.656	0.606	0.448
Jun-28	17.26	11.35	8.25	24.43	19.06	19.24	0.706	0.595	0.428
Jul-28	19.23	11.36	8.12	24.37	19.01	19.19	0.789	0.598	0.423
Aug-28	20.06	11.55	7.97	24.35	18.99	19.18	0.824	0.608	0.416
Sep-28	19.34	11.47	7.78	24.54	19.15	19.33	0.788	0.599	0.403
Oct-28	16.1	10.88	7.85	24.63	19.21	19.4	0.654	0.566	0.405
Nov-28	15.42	11.04	8.96	24.91	19.44	19.62	0.619	0.568	0.457
Dec-28	15.1	11.83	9.62	25.13	19.6	19.79	0.601	0.603	0.486
Jan-29	15.33	11.97	10.12	25.91	20.25	20.45	0.592	0.591	0.495
Feb-29	15.2	11.63	9.94	25.79	20.16	20.36	0.589	0.577	0.488
Mar-29	15.35	11.57	9.89	25.55	19.96	20.17	0.601	0.58	0.49
Apr-29	15.78	11.73	9.63	25.12	19.63	19.83	0.628	0.598	0.486
May-29	16.12	11.57	8.7	24.92	19.47	19.67	0.647	0.594	0.442
Jun-29	17.29	11.32	8.29	24.82	19.4	19.59	0.696	0.584	0.423
Jul-29	19.27	11.34	8.16	24.75	19.34	19.54	0.778	0.586	0.418
Aug-29	20.1	11.52	8.01	24.73	19.33	19.52	0.813	0.596	0.41

DATE	NGPRCR_RI	NGPRCC_RI	NGPRCI_RI	OILPRCR_RI	OILPRCC_RI	OILPRCI_RI	GORR_RI	GORC_RI	GORI_RI
Sep-29	19.37	11.44	7.82	24.93	19.49	19.68	0.777	0.587	0.397
Oct-29	16.13	10.86	7.89	25.02	19.55	19.75	0.645	0.555	0.4
Nov-29	15.45	11.02	9.01	25.31	19.78	19.98	0.61	0.557	0.451
Dec-29	15.12	11.8	9.66	25.53	19.95	20.15	0.592	0.592	0.48
Jan-30	15.35	11.95	10.15	26.08	20.38	20.6	0.589	0.586	0.493
Feb-30	15.22	11.61	9.96	25.96	20.29	20.51	0.586	0.572	0.486

PUC 1-8-Revised

Request:

Referring to Bates 151, Attachment 1 Table 3 provides Dth delivery forecasts for 2020 through 2023.

- a. Please explain and itemize the decrease in Dth deliveries from 42.1 million Dth in 2020 to 38.6 million Dth in 2021.
- b. Please explain the subsequent increase in Dth deliveries in 2022 to 39.98 million Dth and to 41.2 million Dth in 2023.
- c. Please provide an alternative schedule that recalculates the proposed gas energy efficiency factor shown on page 1 of Attachment 6, using the same forecast that was used in Docket 5040 which established the Distribution Adjustment Factor which went into effect on November 1, 2020 (i.e., 39,648,231 dths).

Original Response:

- a. The projected volume of 42.1 million Dth in 2020 is based on the Company's 2019 Q2 forecasts whereas, the 38.6 million Dth projected for 2021 is from the Company's 2020 Q2 forecasts. The 2020 Q2 projections consider an additional year of historical data (the actual billing data until the end of February 2020 was taken into consideration) compared to 2019 Q2 forecasts, which considers actual data up to February 2019 only.

The primary reason for a decline in the Company's 2020 Q2 forecast relative to its 2019 Q2 forecast is the impact of COVID-19 pandemic on the Rhode Island economy as projected by Moody's analytics. In its 2019 Q2 forecast, the Company forecasted a total of 42,171,352 Dth for the calendar year 2020. The impact of the COVID-19 pandemic on the economy of Rhode Island can be seen in the corresponding time period in the 2020 Q2 forecast with a forecasted load of 36,829,633 Dth, a 12.7 percent reduction.¹

Similarly, there was an 8.9 percent decline in the projected volume for 2021 from 2019 Q2 forecast versus 2020 Q2 forecast (from 42,382,476 Dth based on 2019 Q2 projections to 3,860,800 Dth based on 2020 Q2 projections).

For both 2019 Q2 and 2020 Q2 forecasts, the Company developed econometric models to separately forecast the meter count and the use-per-customer for Residential Heating, Residential Non-heating, Commercial, and Industrial customer groups. The meter count

¹ Assuming the same DG customer volume (of 1,470,931 Dth) for 2020 as used in 2019 Q2 forecasts.

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and use-per-customer are multiplied to obtain a forecast of retail volumes for each customer class. Next, the incremental savings from the impact of the energy efficiency programs (that are not embedded in the historical data used to derive the statistical models because such savings are exogenous to the modeling effort) are subtracted from the projected volumes. These volumes are then broken down at the rate code level based on the historical share (most recent three years) of the rate codes within their respective customer group.

The meter counts and the use-per-customer in the region are considerably driven by the underlying macro-economic scenario. The Company uses the following macro-economic variables obtained from Moody's forecasts in developing its meter count and use-per-customer forecasts:

- a. Personal Income
- b. Non-manufacturing Employment
- c. Manufacturing Employment
- d. Total Employment
- e. Retail Sales
- f. Gas-to-Oil Price Ratio for the Industrial Sector in the state of Rhode Island.

Attachments PUC 1-8-1 through PUC 1-8-4, provide the full set of monthly economic and price variables considered in the development of the Company's 2020 Q2 retail gas forecast. The corresponding data used in 2019 Q2 projections are in Attachments PUC 1-8-3 and 1-8-4.

- b. In the Company's 2021 Annual Energy Efficiency Program Plan, on Bates 151, Attachment 1, Table 3, the Company presented its deliveries forecasts from CY 2020 to CY 2023 (reproduced in Table 1). The growth in total volumes from 2021 to 2022 is 1,373,518 Dth (39,981,521 Dth minus 38,608,003 Dth), and from 2022 to 2023 is 1,219,848 Dth (41,201,369 Dth minus 39,981,521 Dth).

Table 1

	2020	2021	2022	2023
Projected Volume (in Dth)	42,171,352	38,608,003	39,981,521	41,201,369

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As mentioned in the response to 1-8a, the economic outlook for Rhode Island was downgraded by Moody's due to the impact of COVID-19 was responsible for a reduction of volumes in 2021 in the 2020 Q2 forecast. The growth in volumes in the following years is driven by the improved macro-economic forecasts from Moody's, under the assumption of economic recovery and restoration of the economy, post-COVID.

- c. The gas forecast used in the DAC filing is the same as used in the current filing. The only difference is that the volumes in the DAC filing are reported by planning year (spanning November through October) and volumes in the EE filing are reported by calendar year.

Revised Response:

- c. Attachment 1-8-5 contains numbers that are based on the same forecast as in Docket 5040 and the same November 1, 2020 – October 31, 2021 timeframe that was used in Docket 5040.

The gas forecast used in the DAC filing is the same as used in the current filing. The only difference is that the volumes in the DAC filing are reported by planning year (spanning November through October) and volumes in the EE filing are reported by calendar year.

Table G-1
National Grid
Gas DSM Funding Sources in 2021 by Sector
\$(000)

	<u>Projections by Sector</u>			
	Income Eligible Residential	Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from G-2):	\$10,494.10	\$17,517.85	\$10,604.66	\$38,616.62
Sources of Other Funding:				
(2) Projected Year-End 2019 Fund Balance and Interest:	\$0.00	\$1,919.14	\$3,898.35	\$5,817.49
(3) Low Income Weatherization in Base Rates:	\$0.00			\$0.00
(4) Total Other Funding:	\$0.00	\$1,919.14	\$3,898.35	\$5,817.49
(5) Customer Funding Required:	\$10,494.10	\$15,598.72	\$6,706.31	\$32,799.10
(6) Forecasted Firm Dth Volume	1,593,921	18,575,835	19,478,475	39,648,231
(7) Forecasted Non Firm Dth Volume			228,650	228,650
(8) Less: Exempt DG Customers			(1,485,040)	(1,485,040)
(9) Forecasted Dth Volume:	1,593,921	18,575,835	18,222,085	38,391,841
Average Energy Efficiency Program Charge per Dth				
(10) excluding Uncollectible Recovery:				\$0.854
(11) Proposed Energy Efficiency Program Charge per Dth excluding Uncollectible Recovery	\$0.997	\$0.997	\$0.696	
(12) Currently Effective Uncollectible Rate	<u>1.91%</u>	<u>1.91%</u>	<u>1.91%</u>	
(13) Proposed Energy Efficiency Program Charge per Dth, including Uncollectible Recovery:	\$1.016	\$1.016	\$0.709	
(14) Currently Effective Energy Efficiency Program Charge per Dth	\$1.011	\$1.011	\$0.704	
(15) Adjustment to Reflect Fully Reconciling Funding Mechanism	\$0.005	\$0.005	\$0.005	

Notes

(1) Projected Budget from G-2 includes OER and EERMC costs allocated to each sector based on forecasted volume.

(2) Fund Balance projections include projected revenue and spend through year-end with Residential and C&I sector subsidies applied to Income Eligible as detailed in the 2021 EE Plan Table G-1. The Company proposes to refile this table with updated Fund Balance projections on December 1, 2020 as proposed in Section 12.1 of the Plan's Main Text.

(6) Forecast Firm Dth matches the forecast provided in Docket 5040 and is for the November 1, 2020 - October 31, 2021 time period.

(11) As agreed to by the settling parties, the proposed EE program charges allow for the use of collections from one sector to fund energy efficiency services in other sectors that would otherwise not be supported with the proposed collection rates. The C&I charge includes collection of \$5.61 million of which \$5.32 million will be allocated to the low income sector and \$0.29 million to the residential sector.

(12) Uncollectible rate approved in Docket No. 4770.

PUC 1-9

Request:

Please update E-10 and G-10 with rows showing:

- a. the yearly percentage increases in each budget;
- b. the unemployment rate for RI in January of each year;
- c. the GDP for Rhode Island for each year;
- d. the percentage change in GDP for Rhode Island for each year;
- e. budget amount adjusted to reflect revenue from the upcoming billing period (i.e., exclude over collections and under collections, RGGI funds, capacity market funds, etc.);
- f. the total implementation costs including participant costs.
- g. The spending associated with lighting;
- h. The savings associated with lighting.

Response:

See Attachment PUC 1-9-1 and Attachment PUC 1-9-2 for updated Tables E-10 and G-10, respectively, with additional rows in response to subparts a-f.

The Company is still working to provide the information in response to subparts g-h and will supplement this response with that information by November 18, 2020.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-9-1

Table E-10: Rhode Island Electric Energy Efficiency 2003 - 2021 - Expanded
\$(000)

Electric	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 ^(a)	2014	2015	2016	2017	2018	2019	2020 ^(b)	2021 ^(c)
Energy Efficiency Budget (\$Million) ⁽¹⁾	\$23.1	\$22.6	\$23.1	\$22.4	\$22.5	\$21.0	\$32.4	\$37.6	\$59.2	\$61.4	\$77.5	\$87.0	\$86.6	\$87.5	\$94.6	\$94.6	\$107.5	\$111.1	\$122.3
Spending Budget (\$Million) ⁽²⁾	\$16.3	\$15.8	\$17.6	\$16.5	\$16.4	\$14.7	\$23.5	\$28.8	\$45.3	\$55.3	\$64.8	\$80.6	\$77.3	\$77.6	\$88.5	\$88.7	\$98.1	\$101.1	\$110.1
Actual Expenditures (\$Million) ⁽³⁾	\$22.8	\$19.5	\$23.4	\$23.7	\$21.9	\$19.2	\$31.7	\$29.7	\$40.0	\$50.7	\$72.9	\$85.3	\$87.4	\$78.4	\$94.8	\$93.0	\$100.7	\$100.7	\$110.1
Incentive Percentage ⁽⁴⁾	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	N/A
Target Incentive ⁽¹⁾	\$712,557	\$781,959	\$774,689	\$726,627	\$723,000	\$647,689	\$1,035,943	\$1,267,043	\$1,992,513	\$2,434,131	\$3,240,747	\$4,032,000	\$3,867,400	\$3,878,087	\$4,425,528	\$4,436,022	\$4,905,009	\$5,054,448	\$5,500,000
Earned Incentive	\$712,557	\$604,876	\$795,648	\$760,623	\$716,075	\$675,282	\$1,085,888	\$1,333,996	\$1,929,273	\$2,469,411	\$2,997,681	\$4,223,321	\$4,533,360	\$4,128,034	\$4,829,847	\$4,940,402	\$3,290,237	\$3,290,237	\$3,290,237
Annual Summer Demand kW Savings Goal Achieved (%)				106%	106%	113%	142%	78%	71%	83%	114%	78%	112%	101%	103%	116%	98%	98%	98%
Annual MWh Energy Savings Goal Achieved (%)				111%	102%	111%	115%	107%	94%	93%	99%	105%	115%	107%	115%	110%	98%	98%	98%
Energy Efficiency Program Charge (\$/kWh) ⁽⁷⁾	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00320	\$0.00320	\$0.00526	\$0.00592	\$0.00876	\$0.00911	\$0.00953	\$0.01077	\$0.01124	\$0.00972	\$0.01121	\$0.01323	\$0.01323
Annual Cost to 500 kWh/month Residential Customer w/o tax ⁽⁸⁾	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$19.20	\$19.20	\$31.56	\$35.52	\$52.56	\$54.66	\$57.18	\$64.62	\$67.44	\$58.32	\$67.26	\$79.38	\$79.38
Annual Cost to 500 kWh/month Residential Customer w/ tax ⁽⁹⁾	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$20.00	\$20.00	\$32.88	\$37.00	\$54.75	\$56.94	\$59.56	\$67.31	\$70.25	\$60.75	\$70.06	\$82.69	\$82.69
Yearly Percentage Change in Energy Efficiency Budget	-	-2%	2%	-3%	0%	-7%	54%	16%	57%	4%	26%	12%	0%	1%	8%	0%	14%	3%	10%
RI Unemployment Rate ⁽¹²⁾	5.3%	5.3%	5.0%	5.1%	4.7%	6.2%	10.1%	11.1%	11.0%	11.2%	9.5%	8.8%	6.6%	5.4%	4.5%	4.3%	3.7%	3.4%	N/A
RI GDP (\$Million) ⁽¹³⁾	\$ 49,348	\$ 51,554	\$ 52,286	\$ 53,492	\$ 51,994	\$ 50,412	\$ 50,217	\$ 51,365	\$ 51,263	\$ 51,607	\$ 51,679	\$ 52,006	\$ 52,958	\$ 53,030	\$ 52,728	\$ 53,136	\$ 53,668	\$ -	\$ -
Yearly Percentage Change in RI GDP	-	4.5%	1.4%	2.3%	-2.8%	-3.0%	-0.4%	2.3%	-0.2%	0.7%	0.1%	0.6%	1.8%	0.1%	-0.6%	0.8%	1.0%	-	-
Adjusted Spending Budget (\$Million) ⁽⁴⁾	\$15.8	\$15.8	\$15.8	\$16.9	\$16.1	\$15.8	\$31.9	\$24.2	\$45.9	\$45.9	\$67.7	\$70.0	\$71.9	\$81.0	\$83.2	\$57.6	\$80.9	\$91.9	\$86.3
Actual Implementation Costs (\$Million) ⁽⁵⁾	\$16.0	\$14.8	\$16.3	\$17.4	\$16.4	\$14.9	\$39.5	\$32.6	\$42.8	\$59.4	\$79.9	\$112.1	\$126.8	\$104.2	\$126.1	\$118.6	\$138.8	\$138.8	\$138.8
Spending Associated with Lighting Savings Associated with Lighting																			

Notes:

- (1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (2) Prior to 2017, Spending Budget Eligible for Shareholder Incentive includes: Implementation, Administration, General, and Evaluation Expenses; excludes EERMC and OER Costs, Commitments, Copy, and Outside Finance Costs. Beginning in 2017, Outside Finance Costs were also included. Beginning in 2018 Pilot expenses were also excluded. Beginning in 2019 Connected Solutions expenses and assessments were also excluded.
- (3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (4) In the Company's gas and electric rate cases in docket 4323, the PUC approved the uncollectibles gross-up in the electric EE Program Charge effective February 1, 2013, and a new rate applicable to the gross-up of the gas EE Program Charge, effective February 1, 2013.
- (5) 2020 values are planned.
- (6) 2021 values are proposed.
- (7) Beginning in 2012, the EE Program Charge includes the System Reliability Factor. It does not include the \$0.0003 renewables per RI General Laws §39-2.1.2 and Order #19608, which appears on customer bills.
- (8) Reflects the annual cost excluding Gross Earnings Tax.
- (9) Reflects the annual cost including Gross Earnings Tax.
- (10) Incentive percentage not applicable for 2021 due to new performance incentive mechanism developed for the 2021 Annual Plan. See Section 12 of the Main Text of the 2021 Annual Plan for additional details.
- (11) Target incentive is calculated in the same way as in 2020 in order to provide a more accurate estimate of the energy efficiency surcharge.
- (12) <https://www.bls.gov/web/lausa/launrkr.htm>, accessed on 11/11/2020. Rate shown is the rate in January of that year.
- (13) <https://apps.bea.gov/table/1Table.cfm?ReqID=70&step=1>, accessed on 11/11/2020. Real GDP is in millions of chained 2012 dollars. Calculations are performed on unrounded data. Chained (2012) dollar series are calculated as the product of the chain-type quantity index and the 2012 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The difference between the United States and sum-of-states reflects military and civilian activity located overseas, as well as the differences in source data used to estimate GDP by industry and the expenditures measure of real GDP.
- (14) Spending budget adjusted to reflect revenue from the upcoming billing period.
- (15) Implementation costs including participant costs. Participant cost not included in reporting prior to 2009. Source file for 2003 Annual Spending Budget Unavailable.

**The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-9-1
Table G-10: Rhode Island Gas Energy Efficiency 2003 - 2021 - Expanded
\$(000)**

Gas	2007 ⁽¹⁾	2008	2009	2010	2011 ⁽⁵⁾	2012	2013 ⁽⁶⁾	2014	2015	2016	2017	2018	2019	2020 ⁽⁷⁾	2021 ⁽⁸⁾
Energy Efficiency Budget (\$Million) ⁽⁹⁾	-	\$7.3	\$7.6	\$4.8	\$7.3	\$13.7	\$19.5	\$23.5	\$24.5	\$27.7	\$29.7	\$28.1	\$31.6	\$34.3	\$38.6
Yearly Percentage Increase in Energy Efficiency Budget	-	-	4%	-37%	52%	88%	42%	21%	4%	13%	7%	-5%	12%	9%	12%
Spending Budget (\$Million) ⁽³⁾	-	\$6.6	\$6.1	\$4.5	\$6.2	\$12.9	\$17.9	\$21.8	\$22.4	\$25.0	\$27.8	\$26.2	\$29.2	\$31.6	\$36.0
Actual Expenditures (\$Million) ⁽³⁾	-	\$7.4	\$6.3	\$5.5	\$4.9	\$13.3	\$19.6	\$21.5	\$21.5	\$24.6	\$29.1	\$28.8	\$29.5	\$29.5	NA
Incentive Percentage ⁽¹²⁾	-	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Target Incentive	-	\$288,734	\$266,980	\$199,743	\$274,460	\$570,382	\$898,285	\$1,089,700	\$1,119,800	\$1,251,654	\$1,387,550	\$1,309,076	\$1,460,570	\$1,578,601	\$1,700,000
Earned Incentive	-	\$288,734	\$262,121	\$231,310	\$239,863	\$586,036	\$968,229	\$1,362,108	\$1,387,079	\$1,496,869	\$1,633,531	\$1,541,255	\$1,580,119	\$1,580,119	\$1,580,119
System Benefits Charge (\$/therm) - all non-exempt customers ⁽¹¹⁾	\$0.0071	\$0.0107	\$0.0150	\$0.0150	\$0.0411	\$0.0384	\$0.0417	-	-	-	-	-	-	-	-
Residential System Benefits Charge (\$/therm)	-	-	-	-	-	-	\$0.0600	\$0.0781	\$0.0781	\$0.0748	\$0.0888	\$0.0869	\$0.0715	\$0.1011	\$0.1011
C&I System Benefits Charge (\$/therm)	-	-	-	-	-	-	\$0.0492	\$0.0637	\$0.0637	\$0.0487	\$0.0726	\$0.0671	\$0.0420	\$0.0704	\$0.0704
Annual Cost to 846 Therm/year Residential Customer w/o tax ⁽⁹⁾	\$6.04	\$9.05	\$12.69	\$12.69	\$18.28	\$32.49	\$35.28	\$50.76	\$66.07	\$63.28	\$75.12	\$73.52	\$60.49	\$85.53	\$85.53
Annual Cost to 846 Therm/year Residential Customer w/tax ⁽¹⁰⁾	\$6.23	\$9.33	\$13.08	\$13.08	\$18.85	\$33.49	\$36.37	\$52.33	\$68.11	\$65.24	\$77.44	\$75.79	\$62.36	\$88.18	\$88.18
RI Unemployment Rate ⁽¹³⁾	4.7%	6.2%	10.1%	11.1%	11.0%	11.2%	9.5%	8.8%	6.6%	5.4%	4.5%	4.3%	3.7%	3.4%	N/A
RI GDP (\$Million) ⁽¹⁴⁾	\$51,994	\$50,412	\$50,217	\$51,365	\$51,263	\$51,607	\$51,679	\$52,066	\$52,958	\$53,030	\$52,728	\$53,136	\$53,668	\$53,668	\$53,668
Yearly Percentage Change in RI GDP	-2.8%	-3.0%	-0.4%	2.3%	-0.2%	0.7%	0.1%	0.6%	1.8%	0.1%	-0.6%	0.8%	1.0%	-	-
Adjusted Spending Budget (\$Million) ⁽¹⁵⁾	-	\$6.6	\$3.2	\$6.7	\$7.9	\$13.1	\$14.0	\$21.3	\$26.9	\$23.8	\$31.0	\$28.6	\$22.3	\$35.3	\$32.8
Actual Implementation Costs (\$Million) ⁽¹⁶⁾	-	\$6.7	\$9.0	\$11.0	\$7.9	\$20.7	\$24.3	\$29.3	\$27.6	\$29.0	\$36.4	\$34.8	\$41.9	\$41.9	\$41.9

Notes:

- (1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (2) Prior to 2017, Spending Budget Eligible for Shareholder Incentive includes: Implementation, Administration, General, and Evaluation Expenses; excludes EERMC and OER Costs, Commitments, Copays, and Outside Finance Costs. Beginning in 2017, Outside Finance Costs were also included. Beginning in 2018 Pilot expenses were also excluded. Beginning in 2019 Connected Solutions expenses and assessment were also excluded.
- (3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
- (4) Gas programs began during July 2007 and were not reported on separately that year since programs were still in development. The 2007 gas programs are included in 2008 reporting. Systems Benefit Charge shown for 2007 is the weighted average of \$0.063 per decatherm from January 1, 2007 - June 30, 2007 and \$0.107 per decatherm from July 1, 2007 through December 31, 2008.
- (5) On July 25, 2011, the Commission ordered that National Grid could increase the gas System Benefits Charge from \$0.15 to \$0.411 per decatherm for the period of August 1, 2011 through December 31, 2011. Annual cost represents 7 months usage (632 therms) at \$0.015 per therm and 5 months usage (214 therms) at \$0.0411 per therm.
- (6) In the Company's gas and electric rate cases in docket 4323, the PUC approved the uncollectibles gross-up in the electric EE Program Charge effective February 1, 2013, and a new rate applicable to the gross-up of the gas EE Program Charge, effective February 1, 2013.
- (7) 2020 values are planned.
- (8) 2021 values are proposed.
- (9) Reflects the annual cost excluding Gross Earnings Tax.
- (10) Reflects the annual cost including Gross Earnings Tax.
- (11) The Gas EE Program Charge was uniform for all customers until 2014, at which time the Company proposed and the PUC approved individual factors for the residential and C&I sectors.
- (12) Incentive percentage not applicable for 2021 due to new performance incentive mechanism developed for the 2021 Annual Plan. See Section 12 of the Main Text of the 2021 Annual Plan for additional details.
- (13) <https://www.bls.gov/web/laus/lausnstrk.htm>, accessed on 11/11/2020. Rate shown is the rate in January of that year.
- (14) <https://apps.bea.gov/table/?Table=cfm?ReqID=70&step=1>, accessed on 11/11/2020. Real GDP is in millions of chained 2012 dollars. Calculations are performed on unrounded data. Chained (2012) dollar series are calculated as the product of the chain-type quantity index and the 2012 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The difference between the United States and sum-of-states reflects federal military and civilian activity located overseas, as well as the differences in source data used to estimate GDP by industry and the expenditures measure of real GDP.
- (15) Spending budget adjusted to reflect revenue from the upcoming billing period.
- (16) Implementation costs including participant costs. Participant cost not included in reporting prior to 2009.

PUC 1-9 (Supplemental)

Request:

Please update E-10 and G-10 with rows showing:

- a. the yearly percentage increases in each budget;
- b. the unemployment rate for RI in January of each year;
- c. the GDP for Rhode Island for each year;
- d. the percentage change in GDP for Rhode Island for each year;
- e. budget amount adjusted to reflect revenue from the upcoming billing period (i.e., exclude over collections and under collections, RGGI funds, capacity market funds, etc.);
- f. the total implementation costs including participant costs.
- g. The spending associated with lighting;
- h. The savings associated with lighting.

Original Response:

See Attachment PUC 1-9-1 and Attachment PUC 1-9-2 for updated Tables E-10 and G-10, respectively, with additional rows in response to subparts a-f.

The Company is still working to provide the information in response to subparts g-h and will supplement this response with that information by November 18, 2020.

Supplemental Response:

See Attachment PUC 1-9-1 (Supplemental) that adds information for parts g and h of the request.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-9-1 - Supplemental
Table E-10: Rhode Island Electric Energy Efficiency 2003 - 2021 - Expanded
Lighting Spending and Savings

Electric	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Energy Efficiency Budget (\$Million) ⁽¹⁾	\$23.1	\$22.6	\$23.1	\$22.4	\$22.5	\$21.0	\$32.4	\$37.6	\$39.2	\$61.4	\$77.5	\$87.0	\$86.6	\$87.5	\$94.6	\$94.6	\$107.5	\$111.1	\$122.3
Spending Budget (\$Million) ⁽²⁾	\$16.3	\$15.8	\$17.6	\$16.5	\$16.4	\$14.7	\$23.5	\$23.8	\$45.3	\$45.3	\$64.8	\$80.6	\$77.3	\$77.6	\$88.5	\$88.7	\$98.1	\$101.1	\$110.1
Actual Expenditures (\$Million) ⁽³⁾	\$22.8	\$19.5	\$23.4	\$23.7	\$21.9	\$19.2	\$31.7	\$29.7	\$40.0	\$50.7	\$72.9	\$85.3	\$87.4	\$78.4	\$94.8	\$93.0	\$100.7	\$107.7	\$110.1
Incentive Percentage ⁽⁴⁾	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	4.4%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	N/A
Target Incentive ⁽⁵⁾	\$712,557	\$781,959	\$774,689	\$726,627	\$723,000	\$647,689	\$1,035,943	\$1,267,043	\$1,992,513	\$2,434,131	\$3,240,747	\$4,032,000	\$3,867,400	\$3,878,087	\$4,425,528	\$4,360,022	\$4,905,009	\$5,054,448	\$5,500,000
Earned Incentive	\$712,557	\$604,876	\$795,648	\$760,623	\$716,075	\$675,282	\$1,085,888	\$1,333,996	\$1,929,273	\$2,469,411	\$2,997,681	\$4,223,321	\$4,533,360	\$4,128,034	\$4,829,847	\$4,940,402	\$5,290,237	\$5,054,448	\$5,500,000
Annual Summer Demand kW Savings Goal Achieved (%)						106%	113%	142%	78%	83%	114%	78%	115%	107%	103%	116%	98%	98%	
Annual kWh Energy Savings Goal Achieved (%)						102%	111%	115%	107%	94%	93%	99%	105%	107%	115%	110%	98%	98%	
Energy Efficiency Program Change (\$kWh) ⁽⁷⁾	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200	\$0.00200
Annual Cost to 500 kWh/month Residential Customer w/o tax ⁽⁸⁾	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00
Annual Cost to 500 kWh/month Residential Customer w/ tax ⁽⁹⁾	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50
Yearly Percentage Change in Energy Efficiency Budget	-	-2%	2%	-3%	0%	-7%	54%	16%	57%	4%	26%	12%	0%	1%	8%	0%	14%	3%	10%
RI Unemployment Rate ⁽¹²⁾	5.3%	5.3%	5.0%	5.1%	4.7%	4.7%	6.2%	10.1%	11.1%	11.0%	11.2%	9.5%	8.8%	6.6%	5.4%	4.3%	3.7%	3.4%	N/A
RI GDP (\$Million) ⁽¹³⁾	\$49,348	\$51,554	\$52,286	\$53,492	\$51,994	\$50,412	\$50,217	\$51,365	\$51,263	\$51,607	\$51,679	\$52,006	\$52,958	\$53,030	\$52,728	\$53,136	\$53,668	\$54,000	\$54,000
Yearly Percentage Change in RI GDP	-	4.5%	1.4%	2.3%	-2.8%	-3.0%	-0.4%	2.3%	-0.2%	0.7%	0.1%	0.6%	1.8%	0.1%	-0.6%	0.8%	1.0%	-	-
Adjusted Spending Budget (\$Million) ⁽¹⁴⁾	\$15.8	\$15.8	\$16.9	\$16.9	\$16.1	\$15.8	\$31.9	\$24.2	\$45.9	\$45.9	\$67.7	\$70.0	\$71.9	\$81.0	\$83.2	\$57.6	\$80.9	\$91.9	\$86.3
Actual Implementation Costs (\$Million) ⁽¹⁵⁾	\$16.0	\$14.8	\$16.3	\$17.4	\$16.4	\$14.9	\$39.5	\$32.6	\$42.8	\$59.4	\$79.9	\$121.1	\$126.8	\$104.2	\$126.1	\$118.6	\$138.8	\$158.8	\$158.8
C&I Lighting Savings (Net Annual kWh)	14,471,981	12,854,156	18,650,857	26,277,192	19,523,875	16,212,258	34,655,853	31,227,359	35,040,767	60,654,961	58,076,847	61,109,084	64,173,157	39,379,442	47,055,358	58,928,154	43,903,086	33,884,083	51,958,235
C&I Lighting Spending (\$Million) ⁽¹⁶⁾	\$2.4	\$2.2	\$2.5	\$3.2	\$2.3	\$1.6	\$5.2	\$2.6	\$2.7	\$5.1	\$2.4	\$4.0	\$8.2	\$5.2	\$8.5	\$8.1	\$10.5	\$7.1	\$20.8
Small Business Services Lighting Savings (Net Annual kWh)	4,625,894	3,956,495	6,854,926	8,454,478	7,751,097	6,864,894	8,550,657	11,587,022	15,536,965	17,872,029	19,113,761	15,555,294	14,690,560	11,781,376	12,165,895	9,855,718	12,055,777	6,864,227	9,067,810
Small Business Services Lighting Spending (\$Million) ⁽¹⁷⁾	\$2.1	\$2.0	\$3.0	\$3.7	\$3.2	\$3.2	\$3.2	\$4.9	\$7.0	\$8.4	\$9.0	\$8.6	\$10.0	\$6.6	\$7.7	\$5.7	\$7.6	\$4.5	\$7.3
Res Lighting Savings (Net Annual kWh)	14,901,317	12,925,382	23,155,300	16,076,132	17,885,039	12,883,507	19,871,307	14,292,368	17,460,434	22,533,027	31,333,521	30,667,769	41,244,664	58,080,352	60,992,505	54,211,090	51,665,012	23,972,291	17,054,961
Res Lighting Spending (\$Million) ⁽¹⁸⁾	\$1.2	\$1.0	\$1.2	\$0.8	\$0.8	\$0.6	\$1.0	\$1.5	\$2.0	\$3.7	\$5.1	\$5.4	\$6.9	\$7.7	\$9.0	\$10.7	\$13.6	\$6.1	\$5.3
Direct Install Lighting Savings (Net Annual kWh)						1,688,020	2,421,434	1,984,013	2,113,774	6,930,617	15,457,275	23,040,603	31,478,341	21,363,138	13,531,756	10,956,775	8,751,222	3,877,423	3,487,441
Direct Install Lighting Spending (\$Million) ⁽¹⁹⁾					\$2.2	\$1.4	\$2.7	\$1.6	\$2.1	\$6.0	\$12.9	\$15.2	\$17.5	\$16.1	\$19.9	\$18.4	\$17.0	\$10.1	\$6.1

(1) Energy Efficiency Budget includes total expenditures and commitments. Includes all demand side management programs related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
(2) Prior to 2017, Spending Budget Eligible for Shareholder Incentive includes: Implementation, Administration, General, and Evaluation Expenses, excludes EERRC and OER Costs, Commitments, Copies, and Outside Finance Costs. Beginning in 2017, Outside Finance Costs were also included. Beginning in 2018 Pilot expenses were also excluded.
(3) Actual Expenditures is actual spend during calendar year. Includes expenditures and commitments. Includes all demand side management program-related expenses, including rebates, administration and general expenses, evaluation, commitments for future years and Company incentive.
(4) Incentive Percentage is calculated as the electric rate cases in effect for 2021, the PUC approved the incentive's gross-up in the electric EE Program Charge effective February 1, 2017, and a new rate applicable to the gross-up of the gas EE Program Charge effective February 1, 2015.
(5) 2020 values are planned. 2020 values for rows C&I Lighting Savings (Net Annual kWh) through Direct Install Lighting Spending (\$Million) are year-to-date through October, 2020.
(6) 2021 values are proposed from the 2021 Annual Plan.
(7) Beginning in 2012, the EE Program Charge includes the System Reliability Factor. It does not include the \$0.0003 renewables per RI General Laws §39-2.1.2 and Order #19608, which appears on customer bills.
(8) Reflects the annual cost excluding Gross Earnings Tax.
(9) Reflects the annual cost including Gross Earnings Tax.
(10) Incentive percentage not applicable for 2021 due to new performance incentive mechanism developed for the 2021 Annual Plan. See Section 12 of the Main Text of the 2021 Annual Plan for additional details.
(11) Target incentive is calculated in the same way as in 2020 in order to provide a more accurate estimate of the energy efficiency surcharge.
(12) <https://www.bls.gov/vlns/unemployment/>, accessed on 11/11/2020. Real GDP is in millions of chained 2012 dollars. Calculations are performed on unrounded data. Chained (2012) dollar series are calculated as the product of the chain-type quantity index and the 2012 current-dollar value of the corresponding series, divided by 100.
(13) <https://apps.bea.gov/nable/tables.cfm?ReqID=1&req=1>, accessed on 11/11/2020. Real GDP is in millions of chained 2012 dollars. Calculations are performed on unrounded data. Chained (2012) dollar series are calculated as the product of the chain-type quantity index and the 2012 current-dollar value of the corresponding series, divided by 100.
(14) Spending budget adjusted to reflect revenue from the upcoming billing period.
(15) Prorated costs including participant costs. Participant cost not included in reporting prior to 2009. Source file for 2003 Annual Spending Budget Unavailable.
(16) Direct Lighting Spending is incentive spending only.
(17) Small Business Services Lighting Spending is based on Year End \$ annual kWh to estimate spending.
(18) Res Lighting Spending includes incentives and programmatic implementation costs.
(19) Direct Install Lighting Spending is based on Year End \$ annual kWh to estimate spending. This includes lighting from Energy Wise, Multifamily, Income Eligible Services, Income Eligible Multifamily, and Residential New Construction. Values for years 2003-2006 were not available from archival data.

PUC 1-10

Request:

Please provide the most recent unemployment rate for Rhode Island as of the date of the response to these data requests and the most recent quarterly percentage change in GDP for Rhode Island.

Response:

The most recent seasonally adjusted unemployment rate for Rhode Island as of September 2020 is 10.5% according to the U.S. Department of Labor Bureau of Labor Statistics.¹

The most recent quarterly GDP data from the U.S. Department of Commerce Bureau of Economic Analysis indicates that Rhode Island GDP declined at an annual rate of 32.4% from Q1 to Q2 2020.²

¹ Source: <https://www.bls.gov/web/laus/laumstrk.htm>, accessed on 11/3/2020.

² Source: https://www.bea.gov/sites/default/files/2020-10/qgdpstate1020_0.pdf, Table 1. Percent Change in Real Gross Domestic Product (GDP) by State and Region, 2019:Q1-2020:Q2, accessed on 11/3/2020.

PUC 1-11

Request:

Table E-1 (line 3) shows an overcollection of \$19.961 million in electric efficiency. Table G-1 (line 2) shows an overcollection of \$5.817 million in gas efficiency.

- a. Please provide the actual year-to-date expenditures on the 2020 electric and gas efficiency programs.
- b. Please provide the projected expenditures on the 2020 electric and gas efficiency programs.
- c. Please show the differences between the projected electric and gas program expenditures and the approved 2020 budgets.
- d. Please confirm the primary cause of these overcollections is underspending relative to the approved budget.
- e. Please provide a full explanation why the underspending in 2020 was so large for electric and gas.
- f. Please explain which elements to the response in part b persist in 2021.
- g. What evidence does the Company have to support the proposal that it will be able to implement an additional \$20 million not spent in 2020, as well as an additional \$10 million on top of that figure on electric efficiency?

Response:

- a. Please see PUC Attachment 1-11-1 for actual electric and 1-11-2 for actual gas expenditures through October 2020.
- b. Please see PUC Attachment 1-11-1 for actual electric and 1-11-2 for actual gas year to date expenditures as of October 31, 2020. The current electric expenditure estimate is \$2,391,415 less than the estimate that was the basis of the Company's initial plan filing (which was based on estimates of full year expenditures as of August 31, 2020). The current gas full year expenditure estimate is \$664,478 less than the estimate that was the basis of the Company's initial plan filing (which was also based on the Company's most current estimate of full year expenditures as of August 31, 2020).
- c. Please see PUC Attachment 1-11-1 for electric and 1-11-2 for gas.
- d. Yes. The primary cause of the overcollection is due to underspending relative to the approved budget.

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- e. The primary cause of the underspending relative to the approved budget is due to the COVID-19 pandemic and the resulting impacts on customer demand for energy efficiency services and the Company and vendor ability to fulfill this demand. On March 17, 2020, in light of the COVID-19 pandemic, the Company suspended all on premise energy efficiency service delivery by contracted vendors. This suspension continued for several months, until such point that, through the development and adoption of enhanced health and safety protocols, such services could again be delivered safely.

Additionally, during the suspension, many vendor employees were furloughed or laid off, and even in the context of the full restoration of on-premise services, many vendors continue to operate at reduced delivery capacity as they have not yet fully restored pre-COVID staffing levels.

- f. With respect to the restoration of on-premise delivery of services, the enhanced health and safety protocols referenced in part e of this response are now well established and allowing vendors to continue to safely deliver on-premise energy efficiency services to customers, even in light of rising COVID case rates within Rhode Island.

In addition to the adoption and implementation of enhanced health and safety protocols, the Company has also worked with vendors to create new and innovative ways to treat serve customers during this period, including the creation of virtual and remote delivery capabilities for services that previously could only be delivered on-site.

While the Company anticipates that there will still be lingering impacts of the COVID-19 pandemic to address in 2021, the Company also anticipates that vendor delivery capacity will continue to grow through the first half of 2021.

- g. The Company acknowledges that significant near-term uncertainty remains with respect to energy efficiency market conditions in 2021.

The savings goals and supporting budgets proposed in the 2021 Annual Plan were built from the market potential study that ultimately informed the targets that were proposed by the EERMC approved by the PUC. Based on the market potential study, the Company has identified areas of opportunity for savings that would require more funding to achieve. Many of these areas are comprised of measures that, while they deliver genuine energy savings, cost more money to do so. As such, the Company has requested,

PUC 1-11, page 2

and anticipates needing and being able to utilize in support of achieving savings goals, additional funding in 2021 in order to support Company implementation of these strategies and resulting customer adoption of associated measures.

With respect to requested spend relative to anticipated full year 2020 expenditures, the Company is also seeing evidence of a restoration of customer energy efficiency demand through year-end 2020 – this is supported by the current expectation that 49% of total net annual electric energy savings (and 51% of currently anticipated total net annual gas energy savings) for the year will be delivered during the October-December period.

The Company would also point out that, to the extent that market conditions do not allow the Company to fully implement the requested budget, should it be approved, that through the fully reconciling mechanism any unspent funds will be returned to customers, with interest, in 2021 through a commensurate reduction in the SBC surcharge that would otherwise be required to support the 2021 programs. This would support Company achievement of illustrative 2022 savings goals, and associated benefits, at lower than currently estimated surcharge increases.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-11-1
Approved 2020 Budget Compared to YTD and Projected Expenditures (\$000) - Electric

	Approved Implementation Budget 2020	Actual Year-To-Date Expenditures (through October 2020)	Projected 2020 Expenditures	Difference (Annual Filed Budget - Projected Spend)	% Projected Spend/Annual Filed Budget
Non-Income Eligible Residential					
Residential New Construction	\$973.5	\$724.2	\$904.5	\$68.9	93%
ENERGY STAR® HVAC	\$2,525.1	\$2,137.2	\$2,525.1	\$0.0	100%
EnergyWise	\$15,692.2	\$10,050.6	\$12,493.7	\$3,198.4	80%
EnergyWise Multifamily	\$2,804.3	\$553.0	\$1,738.7	\$1,065.6	62%
ENERGY STAR® Lighting	\$15,375.8	\$6,064.5	\$8,918.0	\$6,457.8	58%
Residential Consumer Products	\$2,199.2	\$1,413.4	\$1,913.3	\$285.9	87%
Home Energy Reports	\$2,728.1	\$1,828.6	\$2,244.5	\$483.6	82%
Residential ConnectedSolutions	\$461.6	\$211.9	\$461.6	\$0.0	100%
Energy Efficiency Education Programs	\$40.0	\$18.8	\$40.0	\$0.0	100%
Residential Pilots	\$287.8	\$57.9	\$287.8	\$0.0	100%
Community Based Initiatives - Residential	\$203.9	\$7.4	\$203.9	\$0.0	100%
Comprehensive Marketing - Residential	\$382.3	\$40.0	\$382.3	\$0.0	100%
Subtotal - Non-Income Eligible Residential	\$43,673.8	\$23,107.4	\$32,113.5	\$11,560.3	74%
Income Eligible Residential					
Single Family - Income Eligible Services	\$12,846.1	\$4,373.1	\$8,350.0	\$4,496.1	65%
Income Eligible Multifamily	\$3,549.0	\$300.1	\$3,536.5	\$12.5	100%
Subtotal - Income Eligible Residential	\$16,395.1	\$4,673.2	\$11,886.4	\$4,508.7	72%
Commercial & Industrial					
Large Commercial New Construction	\$5,335.7	\$3,130.1	\$5,645.0	-\$309.2	106%
Large Commercial Retrofit	\$23,801.3	\$14,592.7	\$24,044.5	-\$243.1	101%
Small Business Direct Install	\$7,568.6	\$4,158.6	\$7,289.3	\$279.3	96%
Commercial ConnectedSolutions	\$2,078.5	\$118.8	\$2,078.5	\$0.0	100%
Community Based Initiatives - C&I	\$66.1	\$0.6	\$66.1	\$0.0	100%
Commercial Pilots	\$106.3	\$2.2	\$106.3	\$0.0	100%
Finance Costs	\$5,216.7	\$0.0	\$5,216.7	\$0.0	100%
Subtotal Commercial & Industrial	\$44,173.2	\$22,003.1	\$44,446.3	-\$273.1	101%
Regulatory					
EERMC	\$893.7	\$695.0	\$893.7	\$0.0	100%
OER	\$893.7	\$670.3	\$893.7	\$0.0	100%
Subtotal Regulatory	\$1,787.4	\$1,365.2	\$1,787.4	\$0.0	100%
TOTAL IMPLEMENTATION BUDGET	\$106,029.5	\$51,149.0	\$90,233.6	\$15,795.9	85%

Notes:

(1) Program Implementation Budget excludes Commitments, Company Incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-11-2
Approved 2020 Budget Compared to YTD and Projected Expenditures (\$000) - Gas

	Approved Implementation Budget 2020	Actual Year-To-Date Expenditures (through October 2020)	Projected 2020 Expenditures	Difference (Annual Filed Budget - Projected Spend)	% Projected Spend/Annual Filed Budget
Non-Income Eligible Residential					
Residential New Construction	\$620.5	\$317.5	\$421.8	\$198.7	68%
ENERGY STAR® HVAC	\$2,693.1	\$1,716.6	\$2,693.0	\$0.1	100%
EnergyWise	\$8,117.6	\$6,212.4	\$6,486.1	\$1,631.5	80%
EnergyWise Multifamily	\$1,512.1	\$366.3	\$1,239.9	\$272.2	82%
Home Energy Reports	\$471.5	\$305.5	\$376.0	\$95.5	80%
Residential Pilots	\$0.0	\$0.0	\$0.0	\$0.0	0%
Community Based Initiatives - Residential	\$68.9	\$1.2	\$68.9	\$0.0	100%
Comprehensive Marketing - Residential	\$79.9	\$9.1	\$79.9	\$0.0	100%
Subtotal - Non-Income Eligible Residential	\$13,563.6	\$8,928.6	\$11,365.6	\$2,197.9	84%
Income Eligible Residential					
Single Family - Income Eligible Services	\$5,952.3	\$1,576.6	\$3,869.0	\$2,083.3	65%
Income Eligible Multifamily	\$3,009.5	\$239.6	\$1,595.0	\$1,414.5	53%
Subtotal - Income Eligible Residential	\$8,961.8	\$1,816.2	\$5,464.0	\$3,497.8	61%
Commercial & Industrial					
Large Commercial New Construction	\$2,652.6	\$1,869.7	\$2,113.7	\$538.9	80%
Large Commercial Retrofit	\$4,889.1	\$1,679.1	\$2,983.8	\$1,905.3	62%
Small Business Direct Install	\$125.0	\$99.1	\$125.0	\$0.0	100%
Commercial & Industrial Multifamily	\$967.9	\$252.2	\$532.4	\$435.6	55%
Community Based Initiatives - C&I	\$22.0	\$0.0	\$22.0	\$0.0	100%
Commercial Pilots	\$366.0	\$0.0	\$0.0	\$0.0	0%
Finance Costs	\$500.0	\$0.0	\$500.0	\$0.0	100%
Subtotal Commercial & Industrial	\$9,522.7	\$3,900.1	\$6,276.9	\$3,245.7	66%
Regulatory					
EERMC	\$361.2	\$280.9	\$361.2	\$0.0	100%
OER	\$361.2	\$270.9	\$361.2	\$0.0	100%
Subtotal Regulatory	\$722.4	\$551.8	\$722.4	\$0.0	100%
TOTAL IMPLEMENTATION BUDGET	\$32,770.4	\$15,196.6	\$23,829.0	\$8,941.4	73%

Notes:

(1) Program Implementation Budget excludes Commitments, Company Incentive

PUC 1-11 (Revised)¹

Request:

Table E-1 (line 3) shows an overcollection of \$19.961 million in electric efficiency. Table G-1 (line 2) shows an overcollection of \$5.817 million in gas efficiency.

- a. Please provide the actual year-to-date expenditures on the 2020 electric and gas efficiency programs.
- b. Please provide the projected expenditures on the 2020 electric and gas efficiency programs.
- c. Please show the differences between the projected electric and gas program expenditures and the approved 2020 budgets.
- d. Please confirm the primary cause of these overcollections is underspending relative to the approved budget.
- e. Please provide a full explanation why the underspending in 2020 was so large for electric and gas.
- f. Please explain which elements to the response in part b persist in 2021.
- g. What evidence does the Company have to support the proposal that it will be able to implement an additional \$20 million not spent in 2020, as well as an additional \$10 million on top of that figure on electric efficiency?

Original Response:

- a. Please see PUC Attachment 1-11-1 for actual electric and 1-11-2 for actual gas expenditures through October 2020.
- b. Please see PUC Attachment 1-11-1 for actual electric and 1-11-2 for actual gas year to date expenditures as of October 31, 2020. The current electric expenditure estimate is \$2,391,415 less than the estimate that was the basis of the Company's initial plan filing (which was based on estimates of full year expenditures as of August 31, 2020). The current gas full year expenditure estimate is \$664,478 less than the estimate that was the basis of the Company's initial plan filing (which was also based on the Company's most current estimate of full year expenditures as of August 31, 2020).
- c. Please see PUC Attachment 1-11-1 for electric and 1-11-2 for gas.
- d. Yes. The primary cause of the overcollection is due to underspending relative to the approved budget.

¹ The Company's revised response begins on page 3.

PUC 1-11 (Revised), page 2

- e. The primary cause of the underspending relative to the approved budget is due to the COVID-19 pandemic and the resulting impacts on customer demand for energy efficiency services and the Company and vendor ability to fulfill this demand. On March 17, 2020, in light of the COVID-19 pandemic, the Company suspended all on premise energy efficiency service delivery by contracted vendors. This suspension continued for several months, until such point that, through the development and adoption of enhanced health and safety protocols, such services could again be delivered safely.

Additionally, during the suspension, many vendor employees were furloughed or laid off, and even in the context of the full restoration of on-premise services, many vendors continue to operate at reduced delivery capacity as they have not yet fully restored pre-COVID staffing levels.

- f. With respect to the restoration of on-premise delivery of services, the enhanced health and safety protocols referenced in part e of this response are now well established and allowing vendors to continue to safely deliver on-premise energy efficiency services to customers, even in light of rising COVID case rates within Rhode Island.

In addition to the adoption and implementation of enhanced health and safety protocols, the Company has also worked with vendors to create new and innovative ways to treat serve customers during this period, including the creation of virtual and remote delivery capabilities for services that previously could only be delivered on-site.

While the Company anticipates that there will still be lingering impacts of the COVID-19 pandemic to address in 2021, the Company also anticipates that vendor delivery capacity will continue to grow through the first half of 2021.

- g. The Company acknowledges that significant near-term uncertainty remains with respect to energy efficiency market conditions in 2021.

The savings goals and supporting budgets proposed in the 2021 Annual Plan were built from the market potential study that ultimately informed the targets that were proposed by the EERMC approved by the PUC. Based on the market potential study, the Company has identified areas of opportunity for savings that would require more funding to achieve. Many of these areas are comprised of measures that, while they deliver genuine energy savings, cost more money to do so. As such, the Company has requested,

PUC 1-11 (Revised), page 3

and anticipates needing and being able to utilize in support of achieving savings goals, additional funding in 2021 in order to support Company implementation of these strategies and resulting customer adoption of associated measures.

With respect to requested spend relative to anticipated full year 2020 expenditures, the Company is also seeing evidence of a restoration of customer energy efficiency demand through year-end 2020 – this is supported by the current expectation that 49% of total net annual electric energy savings (and 51% of currently anticipated total net annual gas energy savings) for the year will be delivered during the October-December period.

The Company would also point out that, to the extent that market conditions do not allow the Company to fully implement the requested budget, should it be approved, that through the fully reconciling mechanism any unspent funds will be returned to customers, with interest, in 2021 through a commensurate reduction in the SBC surcharge that would otherwise be required to support the 2021 programs. This would support Company achievement of illustrative 2022 savings goals, and associated benefits, at lower than currently estimated surcharge increases.

Revised Response:

This response represents a revised version of the Company's original response to PUC 1-11 and Attachment PUC 1-11-1 and Attachment PUC 1-11-2 that were submitted on November 10, 2020. Please note that the below response supersedes the Company's original response to PUC 1-11.

The revisions include adjustments to anticipated 2020 program expenditures that reflect the incorporation of updated assumptions from an updated version of the internal implementation team's end of October monthly update. (The values reported in the Company's initial response to PUC 1-11 and associated attachments were based on an end of October update that was mistakenly believed to be final but was subsequently finalized to include adjustments to C&I electric savings projections.) In addition, some program year to date expenditures and forecast of expenditures were inadvertently not included in the values listed in the Company's original response to 1-11 and associated attachments. The cells updated in the revised attachments have been highlighted in green.

- a. Please see PUC Attachment 1-11-1 (Revised) for actual electric and 1-11-2 (Revised) for actual gas expenditures through October 2020.

PUC 1-11 (Revised), page 4

- b. Please see PUC Attachment 1-11-1 (Revised) for actual electric and 1-11-2 (Revised) for actual gas year to date expenditures as of October 31, 2020. The current electric expenditure estimate is \$ \$1,830,940 less than the estimate that was the basis of the Company's initial plan filing (which was based on estimates of full year expenditures as of August 31, 2020). The current gas full year expenditure estimate is \$198,463 less than the estimate that was the basis of the Company's initial plan filing (which was also based on the Company's most current estimate of full year expenditures as of August 31, 2020).
- c. Please see PUC Attachment 1-11-1 (Revised) for electric and 1-11-2 (Revised) for gas.
- d. Yes. The primary cause of the overcollection is due to underspending relative to the approved budget.
- e. The primary cause of the underspending relative to the approved budget is due to the COVID-19 pandemic and the resulting impacts on customer demand for energy efficiency services and the Company and vendor ability to fulfill this demand. On March 17, 2020, in light of the COVID-19 pandemic, the Company suspended all on premise energy efficiency service delivery by contracted vendors. This suspension continued for several months, until such point that, through the development and adoption of enhanced health and safety protocols, such services could again be delivered safely.

Additionally, during the suspension, many vendor employees were furloughed or laid off, and even in the context of the full restoration of on-premise services, many vendors continue to operate at reduced delivery capacity as they have not yet fully restored pre-COVID staffing levels.

- f. With respect to the restoration of on-premise delivery of services, the enhanced health and safety protocols referenced in part e of this response are now well established and allowing vendors to continue to safely deliver on-premise energy efficiency services to customers, even in light of rising COVID case rates within Rhode Island.

In addition to the adoption and implementation of enhanced health and safety protocols, the Company has also worked with vendors to create new and innovative ways to treat serve customers during this period, including the creation of virtual and remote delivery capabilities for services that previously could only be delivered on-site.

PUC 1-11 (Revised), page 5

While the Company anticipates that there will still be lingering impacts of the COVID-19 pandemic to address in 2021, the Company also anticipates that vendor delivery capacity will continue to grow through the first half of 2021.

- g. The Company acknowledges that significant near-term uncertainty remains with respect to energy efficiency market conditions in 2021.

The savings goals and supporting budgets proposed in the 2021 Annual Plan were built from the market potential study that ultimately informed the targets that were proposed by the EERMC approved by the PUC. Based on the market potential study, the Company has identified areas of opportunity for savings that would require more funding to achieve. Many of these areas are comprised of measures that, while they deliver genuine energy savings, cost more money to do so. As such, the Company has requested, and anticipates needing and being able to utilize in support of achieving savings goals, additional funding in 2021 in order to support Company implementation of these strategies and resulting customer adoption of associated measures.

With respect to requested spend relative to anticipated full year 2020 expenditures, the Company is also seeing evidence of a restoration of customer energy efficiency demand through year-end 2020 – this is supported by the current expectation that 42% of total net annual electric energy savings (and 51% of currently anticipated total net annual gas energy savings) for the year will be delivered during the October-December period.

The Company would also point out that, to the extent that market conditions do not allow the Company to fully implement the requested budget, should it be approved, that through the fully reconciling mechanism any unspent funds will be returned to customers, with interest, in 2021 through a commensurate reduction in the SBC surcharge that would otherwise be required to support the 2021 programs. This would support Company achievement of illustrative 2022 savings goals, and associated benefits, at lower than currently estimated surcharge increases.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-11-1 (Revised)

Approved 2020 Budget Compared to YTD and Projected Expenditures (\$000) - Electric

	Approved Implementation Budget 2020	Actual Year-To-Date Expenditures (through October 2020)	Projected 2020 Expenditures	Difference (Annual Filed Budget - Projected Spend)	% Projected Spend/Annual Filed Budget
Non-Income Eligible Residential					
Residential New Construction	\$973.5	\$724.2	\$904.5	\$68.9	93%
ENERGY STAR® HVAC	\$2,525.1	\$2,137.2	\$2,525.1	\$0.0	100%
EnergyWise	\$15,692.2	\$10,050.6	\$12,568.7	\$3,123.4	80%
EnergyWise Multifamily	\$2,804.3	\$553.0	\$1,738.7	\$1,065.6	62%
ENERGY STAR® Lighting	\$15,375.8	\$6,064.5	\$8,918.0	\$6,457.8	58%
Residential Consumer Products	\$2,199.2	\$1,413.4	\$1,913.3	\$285.9	87%
Home Energy Reports	\$2,728.1	\$1,828.6	\$2,244.5	\$483.6	82%
Residential ConnectedSolutions	\$461.6	\$211.9	\$461.6	\$0.0	100%
Energy Efficiency Education Programs	\$40.0	\$18.8	\$40.0	\$0.0	100%
Residential Pilots	\$287.8	\$57.9	\$287.8	\$0.0	100%
Community Based Initiatives - Residential	\$203.9	\$7.4	\$203.9	\$0.0	100%
Comprehensive Marketing - Residential	\$382.3	\$40.0	\$382.3	\$0.0	100%
Subtotal - Non-Income Eligible Residential	\$43,673.8	\$23,107.4	\$32,188.5	\$11,485.3	74%
Income Eligible Residential					
Single Family - Income Eligible Services	\$12,846.1	\$4,373.1	\$8,350.0	\$4,496.1	65%
Income Eligible Multifamily	\$3,549.0	\$300.1	\$3,536.5	\$12.5	100%
Subtotal - Income Eligible Residential	\$16,395.1	\$4,673.2	\$11,886.4	\$4,508.7	72%
Commercial & Industrial					
Large Commercial New Construction	\$5,335.7	\$3,130.1	\$6,030.5	-\$694.7	113%
Large Commercial Retrofit	\$23,801.3	\$14,592.7	\$24,144.5	-\$343.1	101%
Small Business Direct Install	\$7,568.6	\$4,158.6	\$7,289.3	\$279.3	96%
Commercial ConnectedSolutions	\$2,078.5	\$118.8	\$2,078.5	\$0.0	100%
Community Based Initiatives - C&I	\$66.1	\$0.6	\$66.1	\$0.0	100%
Commercial Pilots	\$106.3	\$53.0	\$106.3	\$0.0	100%
Finance Costs	\$5,216.7	\$4,347.2	\$5,216.7	\$0.0	100%
Subtotal Commercial & Industrial	\$44,173.2	\$26,401.1	\$44,931.7	-\$758.6	102%
Regulatory					
EERMC	\$893.7	\$695.0	\$893.7	\$0.0	100%
OER	\$893.7	\$670.3	\$893.7	\$0.0	100%
Subtotal Regulatory	\$1,787.4	\$1,365.2	\$1,787.4	\$0.0	100%
TOTAL IMPLEMENTATION BUDGET	\$106,029.5	\$55,547.0	\$90,794.0	\$15,235.4	86%

Notes:

(1) Program Implementation Budget excludes Commitments, Company Incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076

Attachment PUC 1-11-2 (Revised)

Approved 2020 Budget Compared to YTD and Projected Expenditures (\$000) - Gas

	Approved Implementation Budget 2020	Actual Year-To-Date Expenditures (through October 2020)	Projected 2020 Expenditures	Difference (Annual Filed Budget - Projected Spend)	% Projected Spend/Annual Filed Budget
Non-Income Eligible Residential					
Residential New Construction	\$620.5	\$317.5	\$421.8	\$198.7	68%
ENERGY STAR® HVAC	\$2,693.1	\$1,716.6	\$2,693.0	\$0.1	100%
EnergyWise	\$8,117.6	\$6,212.4	\$6,486.1	\$1,631.5	80%
EnergyWise Multifamily	\$1,512.1	\$366.3	\$1,239.9	\$272.2	82%
Home Energy Reports	\$471.5	\$305.5	\$376.0	\$95.5	80%
Residential Pilots	\$0.0	\$0.0	\$0.0	\$0.0	0%
Community Based Initiatives - Residential	\$68.9	\$1.2	\$68.9	\$0.0	100%
Comprehensive Marketing - Residential	\$79.9	\$9.1	\$79.9	\$0.0	100%
Subtotal - Non-Income Eligible Residential	\$13,563.6	\$8,928.6	\$11,365.6	\$2,197.9	84%
Income Eligible Residential					
Single Family - Income Eligible Services	\$5,952.3	\$1,576.6	\$3,869.0	\$2,083.3	65%
Income Eligible Multifamily	\$3,009.5	\$239.6	\$1,595.0	\$1,414.5	53%
Subtotal - Income Eligible Residential	\$8,961.8	\$1,816.2	\$5,464.0	\$3,497.8	61%
Commercial & Industrial					
Large Commercial New Construction	\$2,652.6	\$1,869.7	\$2,113.7	\$538.9	80%
Large Commercial Retrofit	\$4,889.1	\$1,680.5	\$3,083.8	\$1,805.3	63%
Small Business Direct Install	\$125.0	\$99.1	\$125.0	\$0.0	100%
Commercial & Industrial Multifamily	\$967.9	\$252.2	\$532.4	\$435.6	55%
Community Based Initiatives - C&I	\$22.0	\$0.0	\$22.0	\$0.0	100%
Commercial Pilots	\$366.0	\$1.6	\$366.0	\$0.0	100%
Finance Costs	\$500.0	\$0.0	\$500.0	\$0.0	100%
Subtotal Commercial & Industrial	\$9,522.7	\$3,903.1	\$6,743.0	\$2,779.7	71%
Regulatory					
EERMC	\$361.2	\$280.9	\$361.2	\$0.0	100%
OER	\$361.2	\$270.9	\$361.2	\$0.0	100%
Subtotal Regulatory	\$722.4	\$551.8	\$722.4	\$0.0	100%
TOTAL IMPLEMENTATION BUDGET	\$32,770.4	\$15,199.6	\$24,295.1	\$8,475.4	74%

Notes:

(1) Program Implementation Budget excludes Commitments, Company Incentive

PUC 1-12

Request:

Please explain if the Company believes that keeping the electric and gas budgets at the 2020 level would have a materially negative impact on:

- a. the efficacy of the programs, and
- b. the energy efficiency services market in Rhode Island.

Response:

- a. The impacts to programs would be a function of where specific cuts would be made. As the 2021 Annual Plan is the product of engagement with stakeholders, who came to an agreement on certain programmatic areas on which to focus in 2021, the Company would need to further engage with stakeholders in order to determine where specific cuts could be made. At that point, the Company would be in a better position to estimate the magnitude of such impact.

Currently, 72% of the 2021 budget supports services and product rebates and incentives provided directly to customers in support of installation of measures. Reducing budgets would necessitate the Company establishing and managing to lower savings and benefits targets, likely deferring customer access to these benefits to future years.

- b. There are potentially longer-term negative impacts on the energy efficiency services market in the state. As part of the 2021 Annual Plan, budgets as filed also included requested investments in a number of areas, including workforce development and technology system investments, which the Company believes are necessary in order to achieve the illustrative savings goals identified in y2022 and 2023. Deferring these investments would likely defer the timing in which the positive impacts of these investments could be realized through achievement of increased customer adoption of measures and ensuing savings and benefits.

Finally, the energy efficiency market is coming through a difficult period in 2020 resulting from COVID-19, and the job losses and furloughs that resulted from the suspension of on-premise services. During a time when the Company is encouraging the service provider market to restore delivery capacity, pulling back on planned investments and savings volumes in 2021 could send a negative signal to the market. This is particularly important right now, as the future success of energy efficiency programs in Rhode Island and the realization of associated customer benefits, will require ongoing

PUC 1-12, page 2

investments by energy efficiency providers in support of expanded service delivery capacity.

PUC 1-13

Request:

Please provide the electric and gas energy efficiency factors assuming that the 2021 implementation budgets are equal to the 2020 budgets. Please show this in two ways – with the original proposed forecasted kWh and Dths, and with the adjusted forecasts requested in PUC requests 1-7 and 1-8. Please provide a calculation of the total refund that would be returned to ratepayers from the resulting reduction in the budgets and factors compared to 2020.

Response:

See Attachment PUC 1-13 for a summary of the energy efficiency factors and calculation. Please see responses to PUC 1-7(c) and PUC 1-8(c) for explanation for only including a response to the first part of the request and not the adjusted forecasts requested in 1-7 and 1-8.

These proposed rates will be updated based on the Company's December 1, 2020 refile of the proposed energy efficiency surcharges in tables E-1 and G-1. The update to the 2020 year end fund balance forecast will be based on:

1. An update of the forecasted 2020 year end EE revenues collected from the 2020 EE surcharges based on two additional months of actuals.
2. An update of the forecasted 2020 year end energy efficiency program expenses.

For purposes of this year's December 1 updated fund balance forecasts submission, in the event that either of the year end fund balance forecasts increase, this will result in a lowering of the corresponding proposed 2021 energy efficiency surcharges. In the event that the year end fund balance forecasts decrease, the Company will propose 2021 surcharges that are the same as those included in the October 15, 2020 EE Annual Plan filing in order to honor the commitment to maintain flat surcharges between 2020 and 2021.

PUC 1-13-Revised

Request:

Please provide the electric and gas energy efficiency factors assuming that the 2021 implementation budgets are equal to the 2020 budgets. Please show this in two ways – with the original proposed forecasted kWh and Dths, and with the adjusted forecasts requested in PUC requests 1-7 and 1-8. Please provide a calculation of the total refund that would be returned to ratepayers from the resulting reduction in the budgets and factors compared to 2020.

Original Response:

See Attachment PUC 1-13 for a summary of the energy efficiency factors and calculation. Please see responses to PUC 1-7(c) and PUC 1-8(c) for explanation for only including a response to the first part of the request and not the adjusted forecasts requested in 1-7 and 1-8.

These proposed rates will be updated based on the Company's December 1, 2020 refile of the proposed energy efficiency surcharges in tables E-1 and G-1. The update to the 2020 year end fund balance forecast will be based on:

1. An update of the forecasted 2020 year end EE revenues collected from the 2020 EE surcharges based on two additional months of actuals.
2. An update of the forecasted 2020 year end energy efficiency program expenses.

For purposes of this year's December 1 updated fund balance forecasts submission, in the event that either of the year end fund balance forecasts increase, this will result in a lowering of the corresponding proposed 2021 energy efficiency surcharges. In the event that the year end fund balance forecasts decrease, the Company will propose 2021 surcharges that are the same as those included in the October 15, 2020 EE Annual Plan filing in order to honor the commitment to maintain flat surcharges between 2020 and 2021.

Revised Response:

See Attachments PUC 1-13-1 and PUC 1-13-2 for a summary of the energy efficiency factors and calculation.

These proposed rates will be updated based on the Company's December 1, 2020 refile of the proposed energy efficiency surcharges in tables E-1 and G-1. The update to the 2020 year end fund balance forecast will be based on:

PUC 1-13-Revised, page 2

1. An update of the forecasted 2020 year-end EE revenues collected from the 2020 EE surcharges based on two additional months of actuals.
2. An update of the forecasted 2020 year end energy efficiency program expenses.

For purposes of this year's December 1 updated fund balance forecasts submission, in the event that either of the year end fund balance forecasts increase, this will result in a lowering of the corresponding proposed 2021 energy efficiency surcharges. In the event that the year end fund balance forecasts decrease, the Company will propose 2021 surcharges that are the same as those included in the October 15, 2020 EE Annual Plan filing in order to honor the commitment to maintain flat surcharges between 2020 and 2021.

PUC 1-13 (Second Revised)

Request:

Please provide the electric and gas energy efficiency factors assuming that the 2021 implementation budgets are equal to the 2020 budgets. Please show this in two ways – with the original proposed forecasted kWh and Dths, and with the adjusted forecasts requested in PUC requests 1-7 and 1-8. Please provide a calculation of the total refund that would be returned to ratepayers from the resulting reduction in the budgets and factors compared to 2020.

Response:

This response represents a second revised version of the Company's original response to PUC 1-13 that was submitted on November 10, 2020 and revised response to PUC 1-13 that was submitted on November 12, 2020.

Original Response:

See Attachment PUC 1-13 for a summary of the energy efficiency factors and calculation. Please see responses to PUC 1-7(c) and PUC 1-8(c) for explanation for only including a response to the first part of the request and not the adjusted forecasts requested in 1-7 and 1-8.

These proposed rates will be updated based on the Company's December 1, 2020 refile of the proposed energy efficiency surcharges in tables E-1 and G-1. The update to the 2020 year end fund balance forecast will be based on:

1. An update of the forecasted 2020 year end EE revenues collected from the 2020 EE surcharges based on two additional months of actuals.
2. An update of the forecasted 2020 year end energy efficiency program expenses.

For purposes of this year's December 1 updated fund balance forecasts submission, in the event that either of the year end fund balance forecasts increase, this will result in a lowering of the corresponding proposed 2021 energy efficiency surcharges. In the event that the year end fund balance forecasts decrease, the Company will propose 2021 surcharges that are the same as those included in the October 15, 2020 EE Annual Plan filing in order to honor the commitment to maintain flat surcharges between 2020 and 2021.

PUC 1-13 (Second Revised), page 2

Revised Response:

See Attachments PUC 1-13-1 and PUC 1-13-2 for a summary of the energy efficiency factors and calculation.

These proposed rates will be updated based on the Company's December 1, 2020 refile of the proposed energy efficiency surcharges in tables E-1 and G-1. The update to the 2020 year end fund balance forecast will be based on:

1. An update of the forecasted 2020 year end EE revenues collected from the 2020 EE surcharges based on two additional months of actuals.
2. An update of the forecasted 2020 year end energy efficiency program expenses.

For purposes of this year's December 1 updated fund balance forecasts submission, in the event that either of the year end fund balance forecasts increase, this will result in a lowering of the corresponding proposed 2021 energy efficiency surcharges. In the event that the year end fund balance forecasts decrease, the Company will propose 2021 surcharges that are the same as those included in the October 15, 2020 EE Annual Plan filing in order to honor the commitment to maintain flat surcharges between 2020 and 2021.

For (c), the Company has revised its response, which is as follows:

The setting of the energy efficiency factor in table E-1 is calculated based upon two main factors.

- 1) The total customer funding required for the upcoming program year. (Line 6)
- 2) The forecast kWh sales (Line 7)

The Energy Program charge per kWh (excluding uncollectible recovery) (Line 8) is calculated by the below equation in table E-1:

Customer Funding Required / Forecast kWh Sales = The Energy Program charge per kWh (excluding uncollectible recovery)

Line 6 / Line 7 = Line 8

PUC 1-13 (Second Revised), page 3

In the both Attachment PUC 1-13 and Attachment PUC 1-13-2, the 2021 budgets proposed are set equal to the 2020 budgets. Therefore, the total customer funding required is equal in both responses (\$71,104,232)¹

The only variable that changes from Attachment PUC 1-13 to Attachment PUC 1-13-2 is updating the kWh forecast from 6,606,545,391 kWh in Attachment PUC 1-13 to 6,951,182,262 kWh in Attachment PUC 1-13-2. The result of this is that the proposed EE rate in Attachment 1-13 is \$0.01150/kWh is lowered to \$0.01094/kWh in Attachment PUC 1-13-2 since the kWh forecast is higher in Attachment PUC 1-13-2.

While the proposed rate does change between both Attachments, the “customer funding required” does not change because the proposed budgets (and therefore the Company’s total customer funding required) are equal in both scenarios. The impact of a forecasted increase in deliveries is to reduce the rate charged to customers per unit of kWh sales. Since greater deliveries are being assumed, though, the approximate aggregate funding provided by customers remains the same, in line with the Company’s fixed customer funding requirement.

The result of this is that the total reductions in collections for electric ratepayers are essentially the same amount in both Attachment PUC 1-13 and Attachment PUC 13-2. This results in the “Total Reduction Collections for Electric Ratepayers” being approximately the same, regardless of the kWh forecast assumed.

The reason for the slight variation between the “Total Reductions in Collections for Electric Ratepayer” between Attachment PUC 1-13 to Attachment PUC 1-13-2 is due to truncation.

¹ Note that this total does not include the additional 1.3% “uncollectable rate” applied in Line 11 of Table E-1.

Attachment 1-13

Electric

2020 Approved EE Rate (\$/kwh)	\$ 0.01323
2021 Proposed EE Rate from Attachment 1-13-1 (\$/kwh)	\$ 0.01150
Difference	\$ (0.00173)
Difference %	-13.1%
2020 Customer Collections	\$ 94,108,950
2021 Proposed Customer Collections	\$ 75,975,272
Difference	\$ (18,133,678)
Difference %	-19.3%
Total Reductions in Collections for Electric Ratepayers	\$ (18,133,678)

Gas

2020 Approved Residential EE Rate (\$/Dth)	\$ 1.0110
2021 Proposed Residential EE Rate from Attachment 1-31-2 (\$/Dth)	\$ 0.8400
Difference	\$ (0.17100)
Difference %	-16.9%
2020 Residential Customer Collections	\$ 20,577,741
2021 Proposed Residential Customer Collections	\$ 17,015,323
Difference	\$ (3,562,418)
Difference %	-17.3%

2020 Approved C&I EE Rate (\$/Dth)	0.704
2021 Proposed C&I EE Rate from Attachment 1-31-2 (\$/Dth)	0.656
Difference	\$ (0.04800)
Difference %	-6.8%
2020 C&I Customer Collections	\$ 15,359,523
2021 Proposed C&I Customer Collections	\$ 12,038,693
Difference	\$ (3,320,830)
Difference %	-21.6%

Total Reductions in Collections for Gas Ratepayers	\$ (6,883,248)
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Attachment 1-13-2

Electric

2020 Approved EE Rate (\$/kwh)	\$ 0.01323
2021 Proposed EE Rate from Attachment 1-13-2 (\$/kwh)	\$ 0.01094
Difference	\$ (0.00229)
Difference %	-17.3%
2020 Customer Collections	\$ 94,108,950
2021 Proposed Customer Collections	\$ 76,045,934
Difference	\$ (18,063,016)
Difference %	-19.2%
Total Reductions in Collections for Electric Ratepayers	\$ (18,063,016)

Gas

2020 Approved Residential EE Rate (\$/Dth)	\$ 1.0110
2021 Proposed Residential EE Rate from Attachment 1-31-2 (\$/Dth)	\$ 0.8440
Difference	\$ (0.16700)
Difference %	-16.5%
2020 Residential Customer Collections	\$ 20,577,741
2021 Proposed Residential Customer Collections	\$ 17,023,274
Difference	\$ (3,554,468)
Difference %	-17.3%

2020 Approved C&I EE Rate (\$/Dth)	0.704
2021 Proposed C&I EE Rate from Attachment 1-31-2 (\$/Dth)	0.661
Difference	\$ (0.04300)
Difference %	-6.1%
2020 C&I Customer Collections	\$ 15,359,523
2021 Proposed C&I Customer Collections	\$ 12,044,798
Difference	\$ (3,314,724)
Difference %	-21.6%

Total Reductions in Collections for Gas Ratepayers	\$ (6,869,192)
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PUC 1-14

Request:

In a table, please provide the following, assuming the proposed budget for the electric and gas programs in 2021 is approved as filed, and the Company proposes a budget for 2022 that is the same budget level as 2021:

- a. the electric and gas efficiency rates in 2022;
- b. the increase in rates relative to 2021;
- c. the increase in revenue required relative to 2021.

Response:

See Attachment PUC 1-14. The information included in this Attachment is based on the assumption that the 2021 year-end fund balance (a function of EE surcharge collections and projected full year 2021 energy efficiency program spending) will be estimated at \$0 in the December 2021 update to the PUC. In practice, adjustments to EE surcharge collections based on actual 2021 sales and updated energy efficiency program spending forecasts will adjust the 2021 Year End Fund balance up or down from \$0. Holding all else equal, a forecast of a positive 2021 year end fund balance forecast will decrease the 2022 EE surcharge. Conversely, a negative 2021 year end fund balance forecast will increase the 2022 EE surcharge.

		Electric	Gas	
		EE Rate	Income Eligible and Non-Income Eligible Residential	Commercial & Industrial Rate
a.	2022 EE Rates Assuming the Proposed 2021 Budget is the same in 2022	\$0.0161	\$1.1520	\$0.8020
b.	Increase Relative to Proposed 2021 EE Rates	21.7%	13.9%	13.9%
c.	Increase in revenue required relative to 2021 \$(000)	\$21,432	\$1,916	\$3,901

Revenue Required is assumed to be "Customer Funding Required" as identified in Table E-1, Line 6 and Table G-1, Line 5

PUC 1-15

Request:

Please provide the same as in request 1-14, but assuming the proposed budget for the electric programs in 2021 is approved as filed, and the Company proposes the high scenario budget for 2022 as provided in the three-year proposed plan.

Response:

See Attachment PUC 1-15. The information included in this Attachment is based on the assumption that the 2021 year-end fund balance (a function of EE surcharge collections and projected full year 2021 energy efficiency program spending) will be estimated at \$0 in the December 2021 update to the PUC. In practice, adjustments to EE surcharge collections based on actual 2021 sales and updated energy efficiency program spending forecasts will adjust the 2021 Year End Fund balance up or down from \$0. Holding all else equal, a forecast of a positive 2021 year end fund balance forecast will decrease the 2022 EE surcharge. Conversely, a negative 2021 year end fund balance forecast will increase the 2022 EE surcharge.

		Electric	Gas	
		EE Rate	Income Eligible and Non-Income Eligible Residential	Commercial & Industrial Rate
h	2022 EE Rates Assuming the Proposed 2022 Budget is the "high" scenario	\$0.0192	\$1.410	\$0.982
i	Increase Relative to Proposed 2021 EE rates	45.3%	39.4%	39.4%
j	Increase in revenue required relative to 2021 \$(000)	\$42,315	\$7,656	\$6,189

Revenue Required is assumed to be "Customer Funding Required" as identified in Table E-1, Line 6 and Table G-1, Line 5

PUC 1-16

Request:

Referring to the Testimony of National Grid's witnesses, pages 8 and 9, the testimony indicates that the savings levels are achievable "only in the context of a robust economic recovery in 2022 and 2023." (page 9, lines 1-2). If the economy in 2022 continues to be hampered by the COVID crisis, please explain what criteria National Grid would use to adjust the savings targets and associated budgets.

Response:

In establishing binding annual savings goals, the Company works closely with stakeholders, including OER, the Division, and the EERMC and its consulting team, to establish targets that challenge the Company to realize all cost effective savings while also ensuring that planned savings (and associated budget requests) are achievable, prudent and reliable in light of the latest available data about statewide economic conditions and customer ability and willingness to adopt energy efficiency measures.

The three-year savings targets proposed by the EERMC and approved by the Commission were established based upon the 'Maximum Achievable' scenario determined through the execution of a potential study that was executed and completed prior to the onset of the COVID-19 pandemic or the resulting economic disruptions.

Should the Rhode Island economy in 2022 continue to be hampered by the COVID crisis, the Company would anticipate reviewing a number of criteria, in conjunction with stakeholders, in order to determine what adjustments to annual savings targets would be necessary to best align with the Company's obligations under the Least Cost Procurement Standards.

Macro-economic criteria would include state specific measures of GDP levels (and quarterly rates of change) and the Rhode Island unemployment rate, and as well as national and regional measures of consumer and business outlooks, including Moody's Analytics economic forecasts, the Consumer Confidence Index and the Institute for Supply Management (ISM) Manufacturing Index. The Company would anticipate using this data not only to estimate impacts on potential customer participation in energy efficiency programs, but also as an input into determining what level of procurement of energy efficiency, and resulting SBC surcharges and rate impacts, would meet the prudence standard as enumerated in Least Cost Procurement Standards.

PUC 1-16, page 2

The Company would also anticipate reviewing and incorporating contemporaneous data on performance of energy efficiency programs (including both the Rhode Island program in full year 2020 and the first half of 2021 as well as other analogous programs) in order to estimate the impact of evolving macro-economic conditions on levels of achievable savings.

While the Company does not anticipate establishing a formulaic relationship between changes to any of the variables listed above and resulting adjustments to planned savings targets, the Company does anticipate that each of these variables will provide input into a holistic and continuing approach to evaluating and establishing binding annual savings targets and associated budgets.

PUC 1-17

Request:

Please provide schedules that support the conclusions on page 67 (Bates 106) that “the cost of procuring 4,678,382 – 4,905,459 lifetime MWh (electric) is \$347,367,903 - \$364,578,538 less than if electric load was met by purchasing additional electric supply; and the cost of procuring 14,468,336 – 16,553,713 lifetime MMBtu (gas) is \$53,718,499 - \$62,328,085 less than if that natural gas load was met by purchasing additional natural gas supply.” Please be sure to provide appropriate column references and row numbers, as well as appropriate footnotes on the schedules that describe the calculations and reference the sources.

Response:

Please see Attachment PUC 1-17-1 for the schedule calculating the cost of supply and cost of energy efficiency for the electric portfolio. Please see Attachment PUC 1-17-2 for the schedule calculating the cost of supply and cost of energy efficiency for the natural gas portfolio.

In calculating the cost of supply for this response, two corrections were made to the calculation as compared to the cost of supply in the filed 2021 Annual and 2021 – 2023 Three-Year Plans. In the filed cost of supply, the income eligible rate discount and arrearages were not included. The Company has reflected these values in the schedules provided as Attachments PUC 1-17-1 and PUC 1-17-2. Additionally, some categories of non-energy benefits were incorrectly included in the original calculations, which the Company has removed from the calculations provided in Attachments PUC 1-17-1 and PUC 1-17-2.

With these recalculations, the text on Page 67 (Bates Page 106) should read: “the cost of procuring 4,678,382 – 4,905,459 lifetime MWh (electric) is \$265,209,186 - \$276,768,195 less than if electric load was met by purchasing additional electric supply; and the cost of procuring 14,468,336 – 16,553,713 lifetime MMBtu (gas) is \$44,398,334 - \$51,607,519 less than if that natural gas load was met by purchasing additional natural gas supply.”

In each of the stated ranges the low end of the range is the difference between the cost of supply and the cost of energy efficiency summed for the 2021 Annual Plan, the 2022 Base Case, and the 2023 Base Case. The high end of the range is the difference between the cost of supply and the cost of energy efficiency summed for the 2021 Annual Plan, the 2022 High Scenario, and the 2023 High Scenario.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-17-1

Calculation of cost of supply compared to cost of energy efficiency for electric portfolio

		2021	2022		2023	
			Base Case	High Scenario	Base Case	High Scenario
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$ 79,608,071	\$ 97,723,670	\$ 101,541,943	\$ 114,497,520	\$ 124,564,414
2	Electric Generation Costs	\$ 17,193,202	\$ 18,467,575	\$ 19,378,890	\$ 19,896,002	\$ 22,293,273
3	Electric Transmission Capacity Costs	\$ 22,819,412	\$ 23,840,627	\$ 25,012,381	\$ 24,951,276	\$ 27,945,863
4	Electric Distribution Capacity Cost	\$ 19,816,620	\$ 20,703,454	\$ 21,721,018	\$ 21,667,953	\$ 24,268,485
5	Natural Gas Costs	\$ (7,523,389)	\$ (21,233,619)	\$ (21,548,188)	\$ (40,182,758)	\$ (41,090,433)
6	Fuel Costs	\$ 19,057,521	\$ 21,515,863	\$ 22,591,656	\$ 35,849,366	\$ 38,928,810
7	Income Eligible Rate Discount	\$ 103,249	\$ 115,386	\$ 121,155	\$ 128,132	\$ 143,764
8	Arrearages	\$ 182,293	\$ 187,040	\$ 196,392	\$ 192,263	\$ 215,719
9	Price Effects	\$ 41,112,062	\$ 46,269,709	\$ 48,183,658	\$ 52,600,788	\$ 57,660,200
10	Non-embedded Greenhouse Gas Reduction Costs	\$ 36,202,413	\$ 36,966,692	\$ 38,730,487	\$ 37,449,633	\$ 42,000,356
11	Non-embedded Nitrous Oxide (NOx Costs)	\$ 1,739,435	\$ 1,285,448	\$ 1,375,804	\$ 979,666	\$ 1,217,303
12	Reliability Costs	\$ 100,836	\$ 98,664	\$ 103,092	\$ 103,301	\$ 114,673
13	Cost of supply = Sum of Rows 1 through 12	\$ 230,411,725	\$ 245,940,508	\$ 257,408,289	\$ 268,133,143	\$ 298,262,426
14	Program Implementation Expenses	\$ 116,806,026	\$ 130,367,936	\$ 137,689,075	\$ 142,904,519	\$ 161,348,275
15	Customer Contribution	\$ 18,435,780	\$ 26,524,977	\$ 27,724,189	\$ 27,736,953	\$ 30,810,899
16	Shareholder Incentive	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000
17	Cost of energy efficiency = Sum of Rows 14 through 16	\$ 140,741,806	\$ 162,392,912	\$ 170,913,264	\$ 176,141,472	\$ 197,659,174
18	Difference = Row 13 - Row 17	\$ 89,669,919	\$ 83,547,596	\$ 86,495,025	\$ 91,991,671	\$ 100,603,251

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, Non-electric column "Natural Gas."
- (6) Table E-6, sum of Non-electric columns "Natural Gas," "Oil", "Other Resource."
- (7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (10) Table E-6, Societal column "Carbon."
- (11) Table E-6, Societal column "NOx."
- (12) Table E-6, Capacity column "Reliability."
- (14) Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (15) Attachment 2 Tables 1-5, column "Customer Contribution."
- (16) Attachment 2 Tables 1-5, column "Shareholder Incentive."

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-17-2

Calculation of cost of supply compared to cost of energy efficiency for natural gas portfolio

Ref	a	2021	2022		2023	
		b	Base Case	High Scenario	Base Case	High Scenario
			c	d	e	f
1	Electric Energy Costs	\$ 339,731	\$ 367,312	\$ 422,409	\$ 450,611	\$ 564,967
2	Electric Generation Costs	\$ 188,214	\$ 217,552	\$ 250,185	\$ 277,625	\$ 348,081
3	Electric Transmission Capacity Costs	\$ 210,473	\$ 227,310	\$ 261,407	\$ 270,422	\$ 339,050
4	Electric Distribution Capacity Cost	\$ 182,777	\$ 197,398	\$ 227,008	\$ 234,838	\$ 294,435
5	Natural Gas Costs	\$ 38,050,536	\$ 42,093,169	\$ 48,279,348	\$ 51,202,434	\$ 63,980,228
6	Fuel Costs	\$ -	\$ -	\$ -	\$ -	\$ -
7	Income Eligible Rate Discount	\$ 77,525	\$ 80,563	\$ 92,648	\$ 83,930	\$ 105,229
8	Arrearages	\$ 20,319	\$ 21,434	\$ 24,650	\$ 22,674	\$ 28,428
9	Price Effects	\$ 1,094,083	\$ 1,179,229	\$ 1,349,781	\$ 1,421,605	\$ 1,771,665
10	Non-embedded Greenhouse Gas Reduction Costs	\$ 17,238,325	\$ 18,985,924	\$ 21,775,128	\$ 23,037,992	\$ 28,785,280
11	Non-embedded Nitrous Oxide (NOx Costs)	\$ 2,453,474	\$ 2,702,807	\$ 3,100,119	\$ 3,286,456	\$ 4,106,772
12	Reliability Costs	\$ 10,200	\$ 11,155	\$ 12,828	\$ 13,231	\$ 16,589
13	Cost of supply = Sum of Rows 1 through 12	\$ 59,865,656	\$ 66,083,854	\$ 75,795,508	\$ 80,301,818	\$ 100,340,724
14	Program Implementation Expenses	\$ 36,916,618	\$ 39,139,177	\$ 44,943,860	\$ 46,106,605	\$ 57,695,535
15	Customer Contribution	\$ 9,744,826	\$ 11,154,288	\$ 12,827,431	\$ 13,691,480	\$ 17,166,100
16	Shareholder Incentive	\$ 1,700,000	\$ 1,700,000	\$ 1,700,000	\$ 1,700,000	\$ 1,700,000
17	Cost of energy efficiency = Sum of Rows 14 through 16	\$ 48,361,444	\$ 51,993,464	\$ 59,471,291	\$ 61,498,086	\$ 76,561,635
18	Difference = Row 13 - Row 17	\$ 11,504,212	\$ 14,090,390	\$ 16,324,218	\$ 18,803,732	\$ 23,779,089

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(14) Attachment 2 Tables 1-5, column "Program Implementation Expenses."

(15) Attachment 2 Tables 1-5, column "Customer Contribution."

(16) Attachment 2 Tables 1-5, column "Shareholder Incentive."

PUC 1-17 (Revised)

Request:

Please provide schedules that support the conclusions on page 67 (Bates 106) that “the cost of procuring 4,678,382 – 4,905,459 lifetime MWh (electric) is \$347,367,903 - \$364,578,538 less than if electric load was met by purchasing additional electric supply; and the cost of procuring 14,468,336 – 16,553,713 lifetime MMBtu (gas) is \$53,718,499 - \$62,328,085 less than if that natural gas load was met by purchasing additional natural gas supply.” Please be sure to provide appropriate column references and row numbers, as well as appropriate footnotes on the schedules that describe the calculations and reference the sources.

Response:

This response represents a revised version of the Company's original response to PUC 1-17 that was submitted on November 10, 2020.

Please see Attachment PUC 1-17-1 (Revised) for the schedule calculating the cost of supply and cost of energy efficiency for the electric portfolio. Please see Attachment PUC 1-17-2 for the schedule calculating the cost of supply and cost of energy efficiency for the natural gas portfolio. Please note that Attachment PUC 1-17-2 is unchanged from the Company's original response.

In revising Attachment PUC 1-17-1 the Company has added benefits attributable to the ConnectedSolutions demand response programs. The costs of the ConnectedSolutions programs were included in the original submittal of PUC 1-17, but their corresponding benefits were omitted. The addition of the benefits associated with the ConnectedSolutions demand response programs appropriately summarizes the cost of supply for the electric portfolio, which is inclusive of demand response programs and energy efficiency programs, rather than only the energy efficiency programs.

As part of the Company's original response to PUC 1-17, the Company highlighted changes to the text on Page 67 (Bates Page 106). With these revised recalculations, the text on Page 67 (Bates Page 106) should be further revised to read: “the cost of procuring 4,678,382 – 4,905,459 lifetime MWh (electric) is \$397,318,112 - \$435,266,031 less than if electric load was met by purchasing additional electric supply; and the cost of procuring 14,468,336 – 16,553,713 lifetime MMBtu (gas) is \$44,398,334 - \$51,607,519 less than if that natural gas load was met by purchasing additional natural gas supply.”

PUC 1-17 (Revised), page 2

In each of the stated ranges the low end of the range is the difference between the cost of supply and the cost of energy efficiency summed for the 2021 Annual Plan, the 2022 Base Case, and the 2023 Base Case. The high end of the range is the difference between the cost of supply and the cost of energy efficiency summed for the 2021 Annual Plan, the 2022 High Scenario, and the 2023 High Scenario.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-17-1 (Revised)
Calculation of cost of supply compared to cost of energy efficiency and demand response for electric portfolio

		2021		2022		2023	
		a	b	c	d	e	f
Ref							
1	Electric Energy Costs		\$ 79,611,225	\$ 97,727,451	\$ 101,545,724	\$ 114,501,594	\$ 124,568,487
2	Electric Generation Costs		\$ 18,302,897	\$ 19,986,766	\$ 21,197,569	\$ 21,857,196	\$ 24,796,055
3	Electric Transmission Capacity Costs		\$ 27,140,269	\$ 28,942,820	\$ 31,567,721	\$ 30,844,737	\$ 36,313,366
4	Electric Distribution Capacity Cost		\$ 23,568,898	\$ 25,134,252	\$ 27,413,745	\$ 26,785,898	\$ 31,534,913
5	Natural Gas Costs		\$ (7,302,558)	\$ (20,769,721)	\$ (21,074,930)	\$ (39,358,970)	\$ (40,239,831)
6	Fuel Costs		\$ 19,057,521	\$ 21,515,863	\$ 22,591,656	\$ 35,849,366	\$ 38,928,810
7	Income Eligible Rate Discount		\$ 103,823	\$ 116,017	\$ 121,818	\$ 128,826	\$ 144,543
8	Arrearages		\$ 181,719	\$ 186,409	\$ 195,730	\$ 191,568	\$ 214,940
9	Price Effects		\$ 64,488,206	\$ 77,987,150	\$ 86,235,446	\$ 93,026,445	\$ 109,449,591
10	Non-embedded Greenhouse Gas Reduction Costs		\$ 36,204,083	\$ 36,968,858	\$ 38,732,652	\$ 37,451,974	\$ 42,002,697
11	Non-embedded Nitrous Oxide (NOx Costs)		\$ 1,739,435	\$ 1,285,448	\$ 1,375,804	\$ 979,666	\$ 1,217,303
12	Reliability Costs		\$ 624,526	\$ 717,052	\$ 897,603	\$ 817,592	\$ 1,128,819
13	Cost of supply = Sum of Rows 1 through 12		\$ 263,720,046	\$ 289,798,366	\$ 310,800,538	\$ 323,075,891	\$ 370,059,692
14	Program Implementation Expenses		\$ 116,806,026	\$ 130,367,936	\$ 137,689,075	\$ 142,904,519	\$ 161,348,275
15	Customer Contribution		\$ 18,435,780	\$ 26,524,977	\$ 27,724,189	\$ 27,736,953	\$ 30,810,899
16	Shareholder Incentive		\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000
17	Cost of energy efficiency = Sum of Rows 14 through 16		\$ 140,741,806	\$ 162,392,912	\$ 170,913,264	\$ 176,141,472	\$ 197,659,174
18	Difference = Row 13 - Row 17		\$ 122,978,239	\$ 127,405,453	\$ 139,887,274	\$ 146,934,419	\$ 172,400,518

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak", and Table E-6B Energy columns "Summer Peak" and "Summer Off-Peak"
- (2) Table E-6 and E-6B, Capacity column "Summer Generation."
- (3) Table E-6 and E-6B, Capacity column "Trans."
- (4) Table E-6 and E-6B, Capacity column "Dist."
- (5) Table E-6, Non-electric column "Natural Gas." less Gas DRIPE included in that column
- (6) Table E-6, sum of Non-electric columns "Natural Gas," "Oil", "Other Resource."
- (7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (9) Table E-6 and E-6B, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"
- (10) Table E-6 and E-6B, Societal column "Carbon."
- (11) Table E-6, Societal column "NOx."
- (12) Table E-6 and E-6B, Capacity column "Reliability."
- (13) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (15) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive."
- (16) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive."

PUC 1-17-2

Calculation of cost of supply compared to cost of energy efficiency for natural gas portfolio

		2021		2022		2023	
				Base Case	High Scenario	Base Case	High Scenario
Ref	a	b	c	d	e	f	
1	Electric Energy Costs	\$ 339,731	\$ 367,312	\$ 422,409	\$ 450,611	\$ 564,967	
2	Electric Generation Costs	\$ 188,214	\$ 217,552	\$ 250,185	\$ 277,625	\$ 348,081	
3	Electric Transmission Capacity Costs	\$ 210,473	\$ 227,310	\$ 261,407	\$ 270,422	\$ 339,050	
4	Electric Distribution Capacity Cost	\$ 182,777	\$ 197,398	\$ 227,008	\$ 234,838	\$ 294,435	
5	Natural Gas Costs	\$ 38,050,536	\$ 42,093,169	\$ 48,279,348	\$ 51,202,434	\$ 63,980,228	
6	Fuel Costs	\$ -	\$ -	\$ -	\$ -	\$ -	
7	Income Eligible Rate Discount	\$ 77,525	\$ 80,563	\$ 92,648	\$ 83,930	\$ 105,229	
8	Arrearages	\$ 20,319	\$ 21,434	\$ 24,650	\$ 22,674	\$ 28,428	
9	Price Effects	\$ 1,094,083	\$ 1,179,229	\$ 1,349,781	\$ 1,421,605	\$ 1,771,665	
10	Non-embedded Greenhouse Gas Reduction Costs	\$ 17,238,325	\$ 18,985,924	\$ 21,775,128	\$ 23,037,992	\$ 28,785,280	
11	Non-embedded Nitrous Oxide (NOx Costs)	\$ 2,453,474	\$ 2,702,807	\$ 3,100,119	\$ 3,286,456	\$ 4,106,772	
12	Reliability Costs	\$ 10,200	\$ 11,155	\$ 12,828	\$ 13,231	\$ 16,589	
13	Cost of supply = Sum of Rows 1 through 12	\$ 59,865,656	\$ 66,083,854	\$ 75,795,508	\$ 80,301,818	\$ 100,340,724	
14	Program Implementation Expenses	\$ 36,916,618	\$ 39,139,177	\$ 44,943,860	\$ 46,106,605	\$ 57,695,535	
15	Customer Contribution	\$ 9,744,826	\$ 11,154,288	\$ 12,827,431	\$ 13,691,480	\$ 17,166,100	
16	Shareholder Incentive	\$ 1,700,000	\$ 1,700,000	\$ 1,700,000	\$ 1,700,000	\$ 1,700,000	
17	Cost of energy efficiency = Sum of Rows 14 through 16	\$ 48,361,444	\$ 51,993,464	\$ 59,471,291	\$ 61,498,086	\$ 76,561,635	
18	Difference = Row 13 - Row 17	\$ 11,504,212	\$ 14,090,390	\$ 16,324,218	\$ 18,803,732	\$ 23,779,089	

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(15) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(16) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive."

PUC 1-18

Request:

Please provide schedules that compare the cost of budgets solely against the electric energy costs and the electric generation costs, but excluding all other costs indicated in Table 36. Please be sure to provide appropriate column references and row numbers, as well as appropriate footnotes on the schedules that describe the calculations and reference the sources.

Response:

Please see Attachment PUC 1-18 for the schedule that compares the costs of budgets solely against the electric energy costs and the electric generation costs for the electric portfolio.

Attachment PUC 1-18
Comparison of Costs of Budgets Against Electric Energy Costs and Electric Generation Costs

	Electric Energy	2021	2022		2023	
			Base Case	High Scenario	Base Case	High Scenario
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$ 79,608,071	\$ 97,723,670	\$ 101,541,943	\$ 114,497,520	\$ 124,564,414
2	Electric Generation Costs	\$ 17,193,202	\$ 18,467,575	\$ 19,378,890	\$ 19,896,002	\$ 22,293,273
3	Electric Energy + Generation Costs (a + b)	\$ 96,801,273	\$ 116,191,245	\$ 120,920,833	\$ 134,393,522	\$ 146,857,686
4	Program Implementation Expenses	\$ 116,806,026	\$ 130,367,936	\$ 137,689,075	\$ 142,904,519	\$ 161,348,275
5	Shareholder Incentive	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000
6	Cost of Budgets (d + e)	\$ 122,306,026	\$ 135,867,936	\$ 143,189,075	\$ 148,404,519	\$ 166,848,275
7	Difference (c - f)	\$ (25,504,753)	\$ (19,676,691)	\$ (22,268,242)	\$ (14,010,997)	\$ (19,990,588)

Notes:

- (1) Table E-6, sum of columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, column "Summer Generation."
- (4) Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Attachment 2 Tables 1-5, column "Shareholder Incentive."

PUC 1-18 (Revised)

Request:

Please provide schedules that compare the cost of budgets solely against the electric energy costs and the electric generation costs, but excluding all other costs indicated in Table 36. Please be sure to provide appropriate column references and row numbers, as well as appropriate footnotes on the schedules that describe the calculations and reference the sources.

Response:

This response represents a revised version of the Company's original response to PUC 1-18 that was submitted on November 10, 2020.

Please see Attachment PUC 1-18-1 (Revised) for the schedule that compares the costs of budgets solely against the electric energy costs and the electric generation costs for the electric portfolio. In this revised version of the response to PUC 1-18, the Company has added benefits from the ConnectedSolutions programs into the cost of supply calculation. Costs of these programs were included in the original response to PUC 1-18.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-18-1 (Revised)

Comparison of Costs of Budgets Against Electric Energy Costs and Electric Generation Costs for the Electric Portfolio

Component of Costs of Sales - Generation Expenses						
Electric Energy		2021	2022		2023	
			Base Case	High Scenario	Base Case	High Scenario
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$ 79,611,225	\$ 97,727,451	\$ 101,545,724	\$ 114,501,594	\$ 124,568,487
2	Electric Generation Costs	\$ 18,302,897	\$ 19,986,766	\$ 21,197,569	\$ 21,857,196	\$ 24,796,055
3	Electric Energy and Generation Costs (Sum of Row 1 and Row 2)	\$ 97,914,122	\$ 117,714,217	\$ 122,743,292	\$ 136,358,789	\$ 149,364,542
4	Program Implementation Expenses	\$ 116,806,026	\$ 130,367,936	\$ 137,689,075	\$ 142,904,519	\$ 161,348,275
5	Shareholder Incentive	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000	\$ 5,500,000
6	Cost of Budgets (Sum of Row 4 and Row 5)	\$ 122,306,026	\$ 135,867,936	\$ 143,189,075	\$ 148,404,519	\$ 166,848,275
7	Difference (Row 3 - Row 6)	\$ (24,391,904)	\$ (18,153,719)	\$ (20,445,783)	\$ (12,045,730)	\$ (17,483,733)

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak", and Table E-6B Energy columns "Summer Peak" and "Summer Off-Peak"
- (2) Table E-6 and E-6B, Capacity column "Summer Generation."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive."

PUC 1-19

Request:

Please provide greater explanation for why “income eligible rate discount” and “arrearages” are costs of procuring additional energy. Please explain why they are not costs of procuring energy efficiency.

Response:

In accordance with the Least Cost Procurement Standards approved by the PUC in Docket No. 5015, the Company has developed the cost of supply methodology to align with the Rhode Island Benefit Cost Framework.

Income eligible rate discount and arrearages are categories of avoided costs in the Rhode Island Test that are considered benefits. Energy efficiency programs help to avoid these costs. Therefore, they are categorized as costs of energy in the cost of supply test with the understanding that in a world without energy efficiency, income eligible rate discount and arrearages are costs the Company would continue to incur in procuring energy.

PUC 1-20

Request:

Please provide greater explanation of what “price effects” are in the cost of additional supply, and why this cost is included.

Response:

In accordance with the Least Cost Procurement Standards approved by the PUC in Docket No. 5015, the Company has developed the cost of supply methodology to align with the perspective of the Rhode Island Benefit Cost Framework.

As noted in Attachment 4 of the Annual Plan, the Demand-Reduction-Induced Price Effect (DRIPE) is the reduction in prices in energy and capacity markets resulting from the reduction in need for energy and/or capacity due to efficiency and/or demand response programs. Consumers' investments in energy efficiency avoid both marginal energy production and capital investments, but also lead to structural changes in the market due to lower demand. Over a period of time, the market adjusts to lower demand, but until that time the reduced demand leads to a reduction in the market price of electricity. This is observed in the New England market when ISO-New England activates its price response programs.

In the absence of energy efficiency, the price effects on the market would be negated, and therefore these effects should be included in the cost of supply.

PUC 1-21

Request:

Does the Company support the inclusion of economic development benefits in the quantification of benefits for energy efficiency? If so, how does the Company reconcile this with the sensitivity analysis approach for Grid Mod and AMF in which economic development benefits are only used as a sensitivity due to lack of confidence in the numbers described to the PUC at a workshop related to Docket 4770 held on September 24, 2020?

Response:

Yes, the Company believes that macroeconomic benefits are appropriate to include in the quantification of benefits of energy efficiency, in alignment with the guidance in Docket 4600 for the RI Test matrix. In the context of energy efficiency, economic development benefits are an estimable societal benefit stream that accrue as the result of the implementation of energy efficiency measures, and their inclusion in the quantification of benefits is consistent with the principles of Docket 4600.

In order to estimate economic impacts of energy efficiency programs and measures, the Company commissioned a third-party consultant in 2018 to undertake and complete a study in 2019 that defined a methodology for estimating GDP multipliers attributable to the Company's energy efficiency programs.¹ The methodology is designed and was implemented to avoid double counting with respect to other benefits included in the RI Test.

In other contexts, the Company has determined that producing quantified estimates of the economic development benefits associated with implementing less established measures comes with less certainty, and therefore warrants a more conservative approach to their inclusion in the benefit streams associated with those measures. For this reason, the Company has included economic development benefits only as a sensitivity in its benefit-cost analysis for Grid Modernization and AMF. Given the relative maturity of the energy efficiency portfolios, however, the Company believes that these economics benefits are more estimable in the context of energy efficiency. Particularly given that these estimates are supported by independent studies, it is appropriate to include the quantified macroeconomic benefits associated with these programs as a component of the RI Test in evaluating the benefit costs ratios of energy efficiency programs.

¹ Brattle Group, Review of RI Test and Proposed Methodology, January 31, 2019.
<http://www.ripuc.ri.gov/eventsactions/docket/5076%20National%20Grid%20EEP%20&%203-Yr%20EEP/15%20Brattle%20Group%20Review%20of%20RI%20Test%20and%20Proposed%20Methodology%20Final%201-31-19.pdf>

PUC 1-22

Request:

Referring to the Testimony on page 28, (section 5), please perform analyses comparing both the total implementation costs and the implementation costs of each individual electric and gas program against the acquisition cost of additional supply. Provide schedules showing the calculations, with appropriate column references and row numbers as well as footnotes on the schedules that describe the calculations and sources. Please perform these analyses in three ways, with a summary table and accompanying schedules: (1) comparing total and individual program cost against the cost of supply measured consistently with the cost components identified in Table 36, (2) comparing the total and individual program cost against the cost of supply measured only by electric energy costs, electric generation costs, electric transmission costs, electric distribution capacity costs, and price effects, but excluding all other costs indicated in Table 36, and (3) comparing the total and individual program cost solely against the electric energy costs and the electric generation costs, but excluding all other costs indicated in Table 36. Please be sure to provide appropriate column references and row numbers, as well as appropriate footnotes on the schedules that describe the calculations and sources.

Response:

Please see the attached summary and detailed schedules for the requested variations on the cost of supply calculations. Schedules 1-22-1 to 1-22-12 show the detailed calculations for the natural gas portfolio and programs. Schedule 1-22-13 summarizes the analyses in Schedules 1-22-1 to 1-22-12. Schedules 1-22-14 to 1-22-28 represent the electric portfolio and programs. Schedule 1-22-29 summarizes those preceding schedules for the electric portfolio.

The schedules illustrate the three variants as outlined in the request for the portfolios and each program. With respect to the electric portfolio and programs, variants (2) and (3) illustrate the alternative cost of supply calculations as indicated in the request. With respect to the natural gas portfolio and programs, variants (2) and (3) illustrate the cost of supply as follows:

Variant (2) considers the cost of natural gas (which includes retail margin) and the gas price effects against the implementation costs. Variant (3) considers only the cost of natural gas compared to the implementation costs.

To conduct this additional analysis of cost of supply the Company took several additional steps to assess cost of supply at program-level rather than portfolio-level. These additional data processing steps are described below.

PUC 1-22, page 2

- **Distributing sector-level implementation costs to programs:** Some categories of implementation costs are included in the plans at the sector-level. To analyze cost of supply at the program level sector-level costs were distributed to programs by multiplying those sector-level costs by the ratio of the program's direct programmatic costs to all direct programmatic costs within the sector. This is an approximation for the purposes of this cost of supply calculation and is not necessarily reflective of the distribution of these costs in actual implementation.
- **Distributing sector-level shareholder incentive costs to programs:** The shareholder incentive amounts are planned at the sector-level. To analyze cost of supply at the program level sector-level shareholder incentive costs were distributed to programs by multiplying those sector-level shareholder incentive costs by the ratio of the program's direct programmatic costs to all direct programmatic costs within the sector. This is an approximation for the purposes of this cost of supply calculation and is not necessarily reflective of the actual distribution of shareholder incentive. This approach does not apply to the ConnectedSolutions programs, which are not eligible for the energy efficiency shareholder incentive.
- **Distributing portfolio-level costs to programs:** Some costs are defined at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to all direct programmatic costs across all sectors. This is an approximation for the purposes of this cost of supply calculation.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-1

Calculation of cost of supply compared to cost of energy efficiency for natural gas portfolio - Part 1

Gas Energy		2021		2022		2023	
				Base Case	High Scenario	Base Case	High Scenario
Ref	a	b		c	d	e	f
1	Electric Energy Costs	\$339,731		\$367,312	\$422,409	\$450,611	\$564,967
2	Electric Generation Costs	\$188,214		\$217,552	\$250,185	\$277,625	\$348,081
3	Electric Transmission Capacity Costs	\$210,473		\$227,310	\$261,407	\$270,422	\$339,050
4	Electric Distribution Capacity Cost	\$182,777		\$197,398	\$227,008	\$234,838	\$294,435
5	Natural Gas Costs	\$38,050,536		\$42,093,169	\$48,279,348	\$51,202,434	\$63,980,228
6	Fuel Costs	\$0		\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount	\$77,525		\$80,563	\$92,648	\$83,930	\$105,229
8	Arrearages	\$20,319		\$21,434	\$24,650	\$22,674	\$28,428
9	Price Effects	\$1,094,083		\$1,179,229	\$1,349,781	\$1,421,605	\$1,771,665
10	Non-embedded Greenhouse Gas Reduction Costs	\$17,238,325		\$18,985,924	\$21,775,128	\$23,037,992	\$28,785,280
11	Non-embedded Nitrous Oxide (NOx Costs)	\$2,453,474		\$2,702,807	\$3,100,119	\$3,286,456	\$4,106,772
12	Reliability Costs	\$10,200		\$11,155	\$12,828	\$13,231	\$16,589
13	Cost of supply (Sum of rows 1-12)	\$59,865,656		\$66,083,854	\$75,795,508	\$80,301,818	\$100,340,724
14	Program Implementation Expenses	\$36,916,618		\$39,139,177	\$44,943,860	\$46,106,605	\$57,695,535
15	Customer Contribution	\$9,744,826		\$11,154,288	\$12,827,431	\$13,691,480	\$17,166,100
16	Shareholder Incentive	\$1,700,000		\$1,700,000	\$1,700,000	\$1,700,000	\$1,700,000
17	Cost of energy efficiency (Sum of rows 14-16)	\$48,361,444		\$51,993,464	\$59,471,291	\$61,498,086	\$76,561,635
18	Difference (Row 13 - Row 17)	\$11,504,212		\$14,090,390	\$16,324,218	\$18,803,732	\$23,779,089

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
(14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
(15) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
(16) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive."

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-1

Calculation of cost of supply compared to cost of energy efficiency for natural gas portfolio - Part 2

Gas Energy		2021		2022		2023	
Ref	a	b	c	d	e	f	
1	Natural Gas Costs	\$38,050,536	\$42,093,169	\$48,279,348	\$51,202,434	\$63,980,228	
2	Natural Gas Price Effects	\$997,957	\$1,075,846	\$1,230,890	\$1,298,955	\$1,617,889	
3	Cost of supply (Sum of rows 1-2)	\$39,048,492	\$43,169,015	\$49,510,238	\$52,501,388	\$65,598,117	
4	Program Implementation Expenses	\$36,916,618	\$39,139,177	\$44,943,860	\$46,106,605	\$57,695,535	
5	Customer Contribution	\$9,744,826	\$11,154,288	\$12,827,431	\$13,691,480	\$17,166,100	
6	Shareholder Incentive	\$1,700,000	\$1,700,000	\$1,700,000	\$1,700,000	\$1,700,000	
7	Cost of energy efficiency (Sum of rows 4-6)	\$48,361,444	\$51,993,464	\$59,471,291	\$61,498,086	\$76,561,635	
8	Difference (Row 3 - Row 7)	-\$9,312,951	-\$8,824,449	-\$9,961,053	-\$8,996,697	-\$10,963,518	

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) is equivalent to the column "Natural Gas" in table G-6. Row (2) is a component of the Column "Other Non-Gas Benefit" in table G-6.

(4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(5) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive."

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-1

Calculation of cost of supply compared to cost of energy efficiency for natural gas portfolio - Part 3

Gas Energy		2021		2022		2023	
Ref	a	b	c	d	e	f	
1	Natural Gas Costs	\$38,050,536	\$42,093,169	\$48,279,348	\$51,202,434	\$63,980,228	
2	Cost of supply (Row 1)	\$38,050,536	\$42,093,169	\$48,279,348	\$51,202,434	\$63,980,228	
3	Program Implementation Expenses	\$36,916,618	\$39,139,177	\$44,943,860	\$46,106,605	\$57,695,535	
4	Customer Contribution	\$9,744,826	\$11,154,288	\$12,827,431	\$13,691,480	\$17,166,100	
5	Shareholder Incentive	\$1,700,000	\$1,700,000	\$1,700,000	\$1,700,000	\$1,700,000	
6	Cost of energy efficiency (Sum of rows 3-5)	\$48,361,444	\$51,993,464	\$59,471,291	\$61,498,086	\$76,561,635	
7	Difference (Row 2 - Row 6)	-\$10,310,908	-\$9,900,296	-\$11,191,943	-\$10,295,652	-\$12,581,407	

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) is equivalent to the column "Natural Gas" in table G-6.

(3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(5) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive."

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-2

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential Energy Star HVAC Program- Part 1

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case	High Scenario	Base Case	High Scenario
1	Electric Energy Costs		\$19,155	\$25,880	\$29,762	\$32,270	\$40,460
2	Electric Generation Costs		\$35,837	\$48,731	\$56,041	\$64,418	\$80,766
3	Electric Transmission Capacity Costs		\$44,909	\$55,526	\$63,855	\$67,187	\$84,238
4	Electric Distribution Capacity Cost		\$38,999	\$48,220	\$55,453	\$58,346	\$73,153
5	Natural Gas Costs		\$6,410,428	\$8,263,138	\$9,502,609	\$10,033,882	\$12,580,278
6	Fuel Costs		\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount		\$0	\$0	\$0	\$0	\$0
8	Arrearages		\$0	\$0	\$0	\$0	\$0
9	Price Effects		\$133,600	\$171,480	\$197,202	\$207,491	\$260,148
10	Non-embedded Greenhouse Gas Reduction Costs		\$2,712,385	\$3,484,435	\$4,007,100	\$4,215,931	\$5,285,849
11	Non-embedded Nitrous Oxide (NOx Costs)		\$373,624	\$479,995	\$551,994	\$580,794	\$728,188
12	Reliability Costs		\$2,790	\$3,449	\$3,967	\$4,174	\$5,233
13	Cost of supply (Sum of rows 1-12)		\$9,771,727	\$12,580,855	\$14,467,984	\$15,264,493	\$19,138,312
14	Program Implementation Expenses (Direct)		\$3,673,047	\$4,568,015	\$5,253,217	\$5,695,898	\$7,141,402
15	Program Implementation Expenses (Distributed from sector level)		\$58,141	\$80,967	\$93,426	\$92,555	\$116,525
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$66,359	\$97,078	\$111,811	\$120,160	\$150,958
17	Customer Contribution		\$4,539,347	\$5,924,834	\$6,813,560	\$6,937,272	\$8,697,811
18	Shareholder Incentive (Distributed from sector level)		\$133,638	\$158,837	\$159,374	\$156,687	\$157,337
19	Cost of energy efficiency (Sum of rows 14-18)		\$8,470,533	\$10,829,732	\$12,431,387	\$13,002,573	\$16,264,033
20	Difference (Row 13 - Row 19)		\$1,301,194	\$1,751,124	\$2,036,596	\$2,261,920	\$2,874,279

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.
- Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-2

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential Energy Star HVAC Program- Part 2

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Natural Gas Costs		\$6,410,428	\$8,263,138	\$9,502,609	\$10,033,882	\$12,580,278
2	Natural Gas Price Effects		\$123,049	\$157,831	\$181,506	\$190,976	\$239,441
3	Cost of supply (Sum of rows 1-2)		\$6,533,478	\$8,420,970	\$9,684,115	\$10,224,858	\$12,819,719
4	Program Implementation Expenses (Direct)		\$3,673,047	\$4,568,015	\$5,253,217	\$5,695,898	\$7,141,402
5	Program Implementation Expenses (Distributed from sector level)		\$58,141	\$80,967	\$93,426	\$92,555	\$116,525
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$66,359	\$97,078	\$111,811	\$120,160	\$150,958
7	Customer Contribution		\$4,539,347	\$5,924,834	\$6,813,560	\$6,937,272	\$8,697,811
8	Shareholder Incentive (Distributed from sector level)		\$133,638	\$158,837	\$159,374	\$156,687	\$157,337
9	Cost of energy efficiency (Sum of rows 4-8)		\$8,470,533	\$10,829,732	\$12,431,387	\$13,002,573	\$16,264,033
10	Difference (Row 3 - Row 9)		-\$1,937,055	-\$2,408,762	-\$2,747,272	-\$2,777,715	-\$3,444,313

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-2

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential Energy Star HVAC Program- Part 3

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Natural Gas Costs		\$6,410,428	\$8,263,138	\$9,502,609	\$10,033,882	\$12,580,278
2	Cost of supply (Row 1)		\$6,410,428	\$8,263,138	\$9,502,609	\$10,033,882	\$12,580,278
3	Program Implementation Expenses (Direct)		\$3,673,047	\$4,568,015	\$5,253,217	\$5,695,898	\$7,141,402
4	Program Implementation Expenses (Distributed from sector level)		\$58,141	\$80,967	\$93,426	\$92,555	\$116,525
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$66,359	\$97,078	\$111,811	\$120,160	\$150,958
6	Customer Contribution		\$4,539,347	\$5,924,834	\$6,813,560	\$6,937,272	\$8,697,811
7	Shareholder Incentive (Distributed from sector level)		\$133,638	\$158,837	\$159,374	\$156,687	\$157,337
8	Cost of energy efficiency (Sum of rows 3-7)		\$8,470,533	\$10,829,732	\$12,431,387	\$13,002,573	\$16,264,033
9	Difference (Row 2 - Row 8)		-\$2,060,105	-\$2,566,593	-\$2,928,778	-\$2,968,691	-\$3,683,755

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-3

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential EnergyWise Single Family Program- Part 1

Ref	Gas Energy	2021		2022		2023	
		Base Case		High Scenario		Base Case	
		a	b	c	d	e	f
1	Electric Energy Costs	\$191,508	\$201,147	\$231,320	\$264,750	\$331,939	\$331,939
2	Electric Generation Costs	\$90,026	\$98,499	\$113,274	\$133,944	\$167,936	\$167,936
3	Electric Transmission Capacity Costs	\$95,225	\$97,949	\$112,641	\$125,532	\$157,389	\$157,389
4	Electric Distribution Capacity Cost	\$82,694	\$85,060	\$97,819	\$109,013	\$136,679	\$136,679
5	Natural Gas Costs	\$5,296,032	\$5,460,964	\$6,280,109	\$7,022,566	\$8,804,751	\$8,804,751
6	Fuel Costs	\$0	\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$124,865	\$128,399	\$147,659	\$164,558	\$206,319	\$206,319
10	Non-embedded Greenhouse Gas Reduction Costs	\$2,268,147	\$2,331,019	\$2,680,672	\$2,986,011	\$3,743,799	\$3,743,799
11	Non-embedded Nitrous Oxide (NOx Costs)	\$306,740	\$315,385	\$362,692	\$404,189	\$506,764	\$506,764
12	Reliability Costs	\$3,985	\$4,100	\$4,715	\$5,254	\$6,588	\$6,588
13	Cost of supply (Sum of rows 1-12)	\$8,459,221	\$8,722,522	\$10,030,900	\$11,215,818	\$14,062,164	\$14,062,164
14	Program Implementation Expenses (Direct)	\$10,063,228	\$10,005,776	\$11,506,642	\$13,398,137	\$16,798,312	\$16,798,312
15	Program Implementation Expenses (Distributed from sector level)	\$159,293	\$177,349	\$204,640	\$217,712	\$274,094	\$274,094
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$181,807	\$212,640	\$244,911	\$282,646	\$355,089	\$355,089
17	Customer Contribution	\$816,496	\$903,058	\$1,038,516	\$1,239,299	\$1,553,808	\$1,553,808
18	Shareholder Incentive (Distributed from sector level)	\$366,136	\$347,917	\$349,092	\$368,567	\$370,095	\$370,095
19	Cost of energy efficiency (Sum of rows 14-18)	\$11,586,960	\$11,646,740	\$13,343,800	\$15,506,360	\$19,351,399	\$19,351,399
20	Difference (Row 13 - Row 19)	-\$3,127,739	-\$2,924,218	-\$3,312,901	-\$4,290,543	-\$5,289,235	-\$5,289,235

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-3

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential EnergyWise Single Family Program- Part 2

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case	High Scenario	Base Case	High Scenario
1	Natural Gas Costs		\$5,296,032	\$5,460,964	\$6,280,109	\$7,022,566	\$8,804,751
2	Natural Gas Price Effects		\$78,916	\$81,147	\$93,319	\$103,998	\$130,391
3	Cost of supply (Sum of rows 1-2)		\$5,374,948	\$5,542,111	\$6,373,428	\$7,126,564	\$8,935,142
4	Program Implementation Expenses (Direct)		\$10,063,228	\$10,005,776	\$11,506,642	\$13,398,137	\$16,798,312
5	Program Implementation Expenses (Distributed from sector level)		\$159,293	\$177,349	\$204,640	\$217,712	\$274,094
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$181,807	\$212,640	\$244,911	\$282,646	\$355,089
7	Customer Contribution		\$816,496	\$903,058	\$1,038,516	\$1,239,299	\$1,553,808
8	Shareholder Incentive (Distributed from sector level)		\$366,136	\$347,917	\$349,092	\$368,567	\$370,095
9	Cost of energy efficiency (Sum of rows 4-8)		\$11,586,960	\$11,646,740	\$13,343,800	\$15,506,360	\$19,351,399
10	Difference (Row 3 - Row 9)		-\$6,212,012	-\$6,104,629	-\$6,970,372	-\$8,379,796	-\$10,416,258

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-3
Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential EnergyWise Single Family Program- Part 3

Ref	Gas Energy	2021		2022		2023	
				Base Case	High Scenario	Base Case	High Scenario
		a	b	c	d	e	f
1	Natural Gas Costs		\$5,296,032	\$5,460,964	\$6,280,109	\$7,022,566	\$8,804,751
2	Cost of supply (Row 1)		\$5,296,032	\$5,460,964	\$6,280,109	\$7,022,566	\$8,804,751
3	Program Implementation Expenses (Direct)		\$10,063,228	\$10,005,776	\$11,506,642	\$13,398,137	\$16,798,312
4	Program Implementation Expenses (Distributed from sector level)		\$159,293	\$177,349	\$204,640	\$217,712	\$274,094
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$181,807	\$212,640	\$244,911	\$282,646	\$355,089
6	Customer Contribution		\$816,496	\$903,058	\$1,038,516	\$1,239,299	\$1,553,808
7	Shareholder Incentive (Distributed from sector level)		\$366,136	\$347,917	\$349,092	\$368,567	\$370,095
8	Cost of energy efficiency (Sum of rows 3-7)		\$11,586,960	\$11,646,740	\$13,343,800	\$15,506,360	\$19,351,399
9	Difference (Row 2 - Row 8)		-\$6,290,928	-\$6,185,776	-\$7,063,692	-\$8,483,794	-\$10,546,649

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-4

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential EnergyWise Multi Family Program- Part 1

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Electric Energy Costs		\$14,359	\$14,268	\$16,408	\$14,261	\$17,881
2	Electric Generation Costs		\$12,008	\$12,668	\$14,568	\$13,349	\$16,736
3	Electric Transmission Capacity Costs		\$13,992	\$13,748	\$15,810	\$13,504	\$16,930
4	Electric Distribution Capacity Cost		\$12,151	\$11,939	\$13,730	\$11,727	\$14,703
5	Natural Gas Costs		\$1,424,032	\$1,431,054	\$1,645,712	\$1,439,137	\$1,804,361
6	Fuel Costs		\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount		\$0	\$0	\$0	\$0	\$0
8	Arrearages		\$0	\$0	\$0	\$0	\$0
9	Price Effects		\$32,515	\$32,717	\$37,624	\$32,919	\$41,273
10	Non-embedded Greenhouse Gas Reduction Costs		\$606,994	\$608,151	\$699,373	\$609,306	\$763,936
11	Non-embedded Nitrous Oxide (NOx Costs)		\$82,501	\$82,672	\$95,073	\$82,843	\$103,867
12	Reliability Costs		\$739	\$745	\$857	\$750	\$941
13	Cost of supply (Sum of rows 1-12)		\$2,199,291	\$2,207,961	\$2,539,155	\$2,217,797	\$2,780,628
14	Program Implementation Expenses (Direct)		\$1,491,590	\$1,486,966	\$1,710,011	\$1,482,315	\$1,858,497
15	Program Implementation Expenses (Distributed from sector level)		\$23,611	\$26,356	\$30,412	\$24,087	\$30,325
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$26,948	\$31,601	\$36,396	\$31,271	\$39,286
17	Customer Contribution		\$344,000	\$344,000	\$395,600	\$344,000	\$431,300
18	Shareholder Incentive (Distributed from sector level)		\$54,269	\$51,704	\$51,879	\$40,777	\$40,946
19	Cost of energy efficiency (Sum of rows 14-18)		\$1,940,418	\$1,940,627	\$2,224,298	\$1,922,449	\$2,400,353
20	Difference (Row 13 - Row 19)		\$258,873	\$267,334	\$314,857	\$295,347	\$380,275

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-4

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential EnergyWise Multi Family Program- Part 2

Ref	Gas Energy	2021	2022		2023	
			Base Case	High Scenario	Base Case	High Scenario
	a	b	c	d	e	f
1	Natural Gas Costs	\$1,424,032	\$1,431,054	\$1,645,712	\$1,439,137	\$1,804,361
2	Natural Gas Price Effects	\$27,464	\$27,594	\$31,733	\$27,725	\$34,761
3	Cost of supply (Sum of rows 1-2)	\$1,451,495	\$1,458,648	\$1,677,445	\$1,466,862	\$1,839,122
4	Program Implementation Expenses (Direct)	\$1,491,590	\$1,486,966	\$1,710,011	\$1,482,315	\$1,858,497
5	Program Implementation Expenses (Distributed from sector level)	\$23,611	\$26,356	\$30,412	\$24,087	\$30,325
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$26,948	\$31,601	\$36,396	\$31,271	\$39,286
7	Customer Contribution	\$344,000	\$344,000	\$395,600	\$344,000	\$431,300
8	Shareholder Incentive (Distributed from sector level)	\$54,269	\$51,704	\$51,879	\$40,777	\$40,946
9	Cost of energy efficiency (Sum of rows 4-8)	\$1,940,418	\$1,940,627	\$2,224,298	\$1,922,449	\$2,400,353
10	Difference (Row 3 - Row 9)	-\$488,922	-\$481,979	-\$546,852	-\$455,587	-\$561,231

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-4

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential EnergyWise Multi Family Program- Part 3

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Natural Gas Costs		\$1,424,032	\$1,431,054	\$1,645,712	\$1,439,137	\$1,804,361
2	Cost of supply (Row 1)		\$1,424,032	\$1,431,054	\$1,645,712	\$1,439,137	\$1,804,361
3	Program Implementation Expenses (Direct)		\$1,491,590	\$1,486,966	\$1,710,011	\$1,482,315	\$1,858,497
4	Program Implementation Expenses (Distributed from sector level)		\$23,611	\$26,356		\$24,087	\$30,325
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$26,948	\$31,601	\$36,396	\$31,271	\$39,286
6	Customer Contribution		\$344,000	\$344,000	\$395,600	\$344,000	\$431,300
7	Shareholder Incentive (Distributed from sector level)		\$54,269	\$51,704	\$51,879	\$40,777	\$40,946
8	Cost of energy efficiency (Sum of rows 3-7)		\$1,940,418	\$1,940,627	\$2,224,298	\$1,922,449	\$2,400,353
9	Difference (Row 2 - Row 8)		-\$516,386	-\$509,573	-\$578,586	-\$483,312	-\$595,992

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-5

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential Home Energy Reports Program- Part 1

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case	High Scenario	Base Case	High Scenario
				c	d	e	f
1	Electric Energy Costs		\$0	\$0	\$0	\$0	\$0
2	Electric Generation Costs		\$0	\$0	\$0	\$0	\$0
3	Electric Transmission Capacity Costs		\$0	\$0	\$0	\$0	\$0
4	Electric Distribution Capacity Cost		\$0	\$0	\$0	\$0	\$0
5	Natural Gas Costs		\$859,710	\$851,976	\$851,976	\$852,486	\$852,486
6	Fuel Costs		\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount		\$0	\$0	\$0	\$0	\$0
8	Arrearages		\$0	\$0	\$0	\$0	\$0
9	Price Effects		\$42,220	\$42,220	\$42,220	\$42,220	\$42,220
10	Non-embedded Greenhouse Gas Reduction Costs		\$391,231	\$391,231	\$391,231	\$391,231	\$391,231
11	Non-embedded Nitrous Oxide (NOx Costs)		\$54,065	\$54,065	\$54,065	\$54,065	\$54,065
12	Reliability Costs		\$0	\$0	\$0	\$0	\$0
13	Cost of supply (Sum of rows 1-12)		\$1,347,225	\$1,339,491	\$1,339,491	\$1,340,001	\$1,340,001
14	Program Implementation Expenses (Direct)		\$450,864	\$441,290	\$441,290	\$441,290	\$441,290
15	Program Implementation Expenses (Distributed from sector level)		\$7,137	\$7,822	\$7,848	\$7,171	\$7,200
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$8,146	\$9,378	\$9,393	\$9,309	\$9,328
17	Customer Contribution		\$0	\$0	\$0	\$0	\$0
18	Shareholder Incentive (Distributed from sector level)		\$16,404	\$15,344	\$13,388	\$12,139	\$9,722
19	Cost of energy efficiency (Sum of rows 14-18)		\$482,550	\$473,835	\$471,919	\$469,910	\$467,541
20	Difference (Row 13 - Row 19)		\$864,675	\$865,657	\$867,572	\$870,091	\$872,460

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.
- Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-5

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential Home Energy Reports Program- Part 2

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Natural Gas Costs		\$859,710	\$851,976	\$851,976	\$852,486	\$852,486
2	Natural Gas Price Effects		\$42,220	\$42,220	\$42,220	\$42,220	\$42,220
3	Cost of supply (Sum of rows 1-2)		\$901,930	\$894,196	\$894,196	\$894,705	\$894,705
4	Program Implementation Expenses (Direct)		\$450,864	\$441,290	\$441,290	\$441,290	\$441,290
5	Program Implementation Expenses (Distributed from sector level)		\$7,137	\$7,822	\$7,848	\$7,171	\$7,200
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$8,146	\$9,378	\$9,393	\$9,309	\$9,328
7	Customer Contribution		\$0	\$0	\$0	\$0	\$0
8	Shareholder Incentive (Distributed from sector level)		\$16,404	\$15,344	\$13,388	\$12,139	\$9,722
9	Cost of energy efficiency (Sum of rows 4-8)		\$482,550	\$473,835	\$471,919	\$469,910	\$467,541
10	Difference (Row 3 - Row 9)		\$419,380	\$420,361	\$422,277	\$424,796	\$427,164

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-5

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential Home Energy Reports Program- Part 3

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Natural Gas Costs		\$859,710	\$851,976	\$851,976	\$852,486	\$852,486
2	Cost of supply (Row 1)		\$859,710	\$851,976	\$851,976	\$852,486	\$852,486
3	Program Implementation Expenses (Direct)		\$450,864	\$441,290	\$441,290	\$441,290	\$441,290
4	Program Implementation Expenses (Distributed from sector level)		\$7,137	\$7,822	\$7,848	\$7,171	\$7,200
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$8,146	\$9,378	\$9,393	\$9,309	\$9,328
6	Customer Contribution		\$0	\$0	\$0	\$0	\$0
7	Shareholder Incentive (Distributed from sector level)		\$16,404	\$15,344	\$13,388	\$12,139	\$9,722
8	Cost of energy efficiency (Sum of rows 3-7)		\$482,550	\$473,835	\$471,919	\$469,910	\$467,541
9	Difference (Row 2 - Row 8)		\$377,160	\$378,141	\$380,057	\$382,576	\$384,944

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-6

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential New Construction Program- Part 1

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case	High Scenario	Base Case	High Scenario
1	Electric Energy Costs		\$0	\$0	\$0	\$0	\$0
2	Electric Generation Costs		\$0	\$0	\$0	\$0	\$0
3	Electric Transmission Capacity Costs		\$0	\$0	\$0	\$0	\$0
4	Electric Distribution Capacity Cost		\$0	\$0	\$0	\$0	\$0
5	Natural Gas Costs		\$822,009	\$774,607	\$890,798	\$730,090	\$915,372
6	Fuel Costs		\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount		\$0	\$0	\$0	\$0	\$0
8	Arrearages		\$0	\$0	\$0	\$0	\$0
9	Price Effects		\$14,576	\$13,958	\$16,051	\$13,203	\$16,554
10	Non-embedded Greenhouse Gas Reduction Costs		\$342,450	\$321,759	\$370,023	\$302,189	\$378,879
11	Non-embedded Nitrous Oxide (NOx Costs)		\$47,323	\$44,464	\$51,134	\$41,760	\$52,358
12	Reliability Costs		\$0	\$0	\$0	\$0	\$0
13	Cost of supply (Sum of rows 1-12)		\$1,226,358	\$1,154,787	\$1,328,006	\$1,087,242	\$1,363,162
14	Program Implementation Expenses (Direct)		\$674,827	\$609,588	\$701,026	\$611,796	\$767,058
15	Program Implementation Expenses (Distributed from sector level)		\$10,682	\$10,805	\$12,467	\$9,941	\$12,516
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$12,192	\$12,955	\$14,921	\$12,906	\$16,214
17	Customer Contribution		\$670,944	\$561,983	\$646,281	\$580,347	\$727,628
18	Shareholder Incentive (Distributed from sector level)		\$24,553	\$21,196	\$21,268	\$16,830	\$16,900
19	Cost of energy efficiency (Sum of rows 14-18)		\$1,393,197	\$1,216,527	\$1,395,963	\$1,231,821	\$1,540,315
20	Difference (Row 13 - Row 19)		-\$166,839	-\$61,740	-\$67,958	-\$144,579	-\$177,153

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-6

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential New Construction Program- Part 2

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas (reduced new construction) program - Part 2									
		Gas Energy		2021		2022		2023	
Ref		a	b	c	High Scenario	Base Case	High Scenario	Base Case	High Scenario
1	Natural Gas Costs		\$822,009	\$774,607	\$890,798	\$730,090	\$915,372	\$730,090	\$915,372
2	Natural Gas Price Effects		\$14,576	\$13,958	\$16,051	\$13,203	\$16,554	\$13,203	\$16,554
3	Cost of supply (Sum of rows 1-2)		\$836,585	\$788,565	\$906,849	\$743,293	\$931,926	\$743,293	\$931,926
4	Program Implementation Expenses (Direct)		\$674,827	\$609,588	\$701,026	\$611,796	\$767,058	\$611,796	\$767,058
5	Program Implementation Expenses (Distributed from sector level)		\$10,682	\$10,805	\$12,467	\$9,941	\$12,516	\$9,941	\$12,516
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$12,192	\$12,955	\$14,921	\$12,906	\$16,214	\$12,906	\$16,214
7	Customer Contribution		\$670,944	\$561,983	\$646,281	\$580,347	\$727,628	\$580,347	\$727,628
8	Shareholder Incentive (Distributed from sector level)		\$24,553	\$21,196	\$21,268	\$16,830	\$16,900	\$16,830	\$16,900
9	Cost of energy efficiency (Sum of rows 4-8)		\$1,393,197	\$1,216,527	\$1,395,963	\$1,231,821	\$1,540,315	\$1,231,821	\$1,540,315
10	Difference (Row 3 - Row 9)		-\$556,613	-\$427,963	-\$489,114	-\$488,528	-\$608,389	-\$488,528	-\$608,389

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-6

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Residential New Construction Program- Part 3

		2021		2022		2023	
		Gas Energy		High Scenario		High Scenario	
Ref	a	b	c	d	e	f	
1	Natural Gas Costs	\$822,009	\$774,607	\$890,798	\$730,090	\$915,372	
2	Cost of supply (Row 1)	\$822,009	\$774,607	\$890,798	\$730,090	\$915,372	
3	Program Implementation Expenses (Direct)	\$674,827	\$609,588	\$701,026	\$611,796	\$767,058	
4	Program Implementation Expenses (Distributed from sector level)	\$10,682	\$10,805	\$12,467	\$9,941	\$12,516	
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$12,192	\$12,955	\$14,921	\$12,906	\$16,214	
6	Customer Contribution	\$670,944	\$561,983	\$646,281	\$580,347	\$727,628	
7	Shareholder Incentive (Distributed from sector level)	\$24,553	\$21,196	\$21,268	\$16,830	\$16,900	
8	Cost of energy efficiency (Sum of rows 3-7)	\$1,393,197	\$1,216,527	\$1,395,963	\$1,231,821	\$1,540,315	
9	Difference (Row 2 - Row 8)	-\$571,189	-\$441,920	-\$505,165	-\$501,731	-\$624,943	

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

Lookup: Large Commercial New Construction
The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-7

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Commercial New Construction Program- Part 1

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case	High Scenario	Base Case	High Scenario
1	Electric Energy Costs		\$1,520	\$1,565	\$1,799	\$1,488	\$1,865
2	Electric Generation Costs		\$0	\$0	\$0	\$0	\$0
3	Electric Transmission Capacity Costs		\$0	\$0	\$0	\$0	\$0
4	Electric Distribution Capacity Cost		\$0	\$0	\$0	\$0	\$0
5	Natural Gas Costs		\$3,542,373	\$4,197,861	\$4,827,541	\$4,915,820	\$6,163,355
6	Fuel Costs		\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount		\$0	\$0	\$0	\$0	\$0
8	Arrearages		\$0	\$0	\$0	\$0	\$0
9	Price Effects		\$67,554	\$80,475	\$92,546	\$93,857	\$117,676
10	Non-embedded Greenhouse Gas Reduction Costs		\$1,774,930	\$2,091,231	\$2,404,916	\$2,415,295	\$3,028,248
11	Non-embedded Nitrous Oxide (NOx Costs)		\$263,059	\$309,948	\$356,440	\$357,993	\$448,844
12	Reliability Costs		\$0	\$0	\$0	\$0	\$0
13	Cost of supply (Sum of rows 1-12)		\$5,649,435	\$6,681,080	\$7,683,242	\$7,784,452	\$9,759,988
14	Program Implementation Expenses (Direct)		\$2,759,162	\$3,015,867	\$3,468,247	\$3,237,649	\$4,059,299
15	Program Implementation Expenses (Distributed from sector level)		\$121,317	\$91,962	\$105,756	\$91,148	\$114,280
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$49,848	\$64,092	\$73,819	\$68,301	\$85,807
17	Customer Contribution		-\$166,358	-\$183,960	-\$211,554	-\$205,669	-\$257,864
18	Shareholder Incentive (Distributed from sector level)		\$203,625	\$206,419	\$206,419	\$191,575	\$191,575
19	Cost of energy efficiency (Sum of rows 14-18)		\$2,967,595	\$3,194,380	\$3,642,687	\$3,383,005	\$4,193,098
20	Difference (Row 13 - Row 19)		\$2,681,841	\$3,486,700	\$4,040,555	\$4,401,447	\$5,566,890

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-7

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Commercial New Construction Program- Part 2

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case	High Scenario	Base Case	High Scenario
1	Natural Gas Costs		\$3,542,373	\$4,197,861	\$4,827,541	\$4,915,820	\$6,163,355
2	Natural Gas Price Effects		\$67,011	\$79,919	\$91,907	\$93,335	\$117,022
3	Cost of supply (Sum of rows 1-2)		\$3,609,384	\$4,277,781	\$4,919,448	\$5,009,155	\$6,280,377
4	Program Implementation Expenses (Direct)		\$2,759,162	\$3,015,867	\$3,468,247	\$3,237,649	\$4,059,299
5	Program Implementation Expenses (Distributed from sector level)		\$121,317	\$91,962	\$105,756	\$91,148	\$114,280
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$49,848	\$64,092	\$73,819	\$68,301	\$85,807
7	Customer Contribution		-\$166,358	-\$183,960	-\$211,554	-\$205,669	-\$257,864
8	Shareholder Incentive (Distributed from sector level)		\$203,625	\$206,419	\$206,419	\$191,575	\$191,575
9	Cost of energy efficiency (Sum of rows 4-8)		\$2,967,595	\$3,194,380	\$3,642,687	\$3,383,005	\$4,193,098
10	Difference (Row 3 - Row 9)		\$641,789	\$1,083,401	\$1,276,761	\$1,626,150	\$2,087,279

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-7

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Commercial New Construction Program- Part 3

		2021		2022		2023	
		Gas Energy		High Scenario		High Scenario	
Ref	a	b	c	d	e	f	
1	Natural Gas Costs	\$3,542,373	\$4,197,861	\$4,827,541	\$4,915,820	\$6,163,355	
2	Cost of supply (Row 1)	\$3,542,373	\$4,197,861	\$4,827,541	\$4,915,820	\$6,163,355	
3	Program Implementation Expenses (Direct)	\$2,759,162	\$3,015,867	\$3,468,247	\$3,237,649	\$4,059,299	
4	Program Implementation Expenses (Distributed from sector level)	\$121,317	\$91,962	\$105,756	\$91,148	\$114,280	
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$49,848	\$64,092	\$73,819	\$68,301	\$85,807	
6	Customer Contribution	-\$166,358	-\$183,960	-\$211,554	-\$205,669	-\$257,864	
7	Shareholder Incentive (Distributed from sector level)	\$203,625	\$206,419	\$206,419	\$191,575	\$191,575	
8	Cost of energy efficiency (Sum of rows 3-7)	\$2,967,595	\$3,194,380	\$3,642,687	\$3,383,005	\$4,193,098	
9	Difference (Row 2 - Row 8)	\$574,778	\$1,003,482	\$1,184,854	\$1,532,815	\$1,970,257	

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-8

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Large Commercial Retrofit Program- Part 1

		Gas Energy		2021		2022		2023	
						Base Case	High Scenario	Base Case	High Scenario
Ref	a	b	c	d	e	f			
1	Electric Energy Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Electric Generation Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Electric Transmission Capacity Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Electric Distribution Capacity Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Natural Gas Costs	\$12,449,163	\$13,418,414	\$15,431,176	\$17,957,224	\$22,514,403			
6	Fuel Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$510,782	\$528,888	\$608,221	\$670,098	\$840,156			
10	Non-embedded Greenhouse Gas Reduction Costs	\$5,996,827	\$6,417,135	\$7,379,706	\$8,534,943	\$10,700,938			
11	Non-embedded Nitrous Oxide (NOx Costs)	\$888,977	\$951,284	\$1,093,976	\$1,265,230	\$1,586,320			
12	Reliability Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13	Cost of supply (Sum of rows 1-12)	\$19,845,749	\$21,315,721	\$24,513,079	\$28,427,495	\$35,641,817			
14	Program Implementation Expenses (Direct)	\$5,169,116	\$5,263,010	\$6,052,461	\$6,281,907	\$7,876,127			
15	Program Implementation Expenses (Distributed from sector level)	\$227,279	\$160,483	\$184,555	\$176,852	\$221,734			
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$93,388	\$111,848	\$128,822	\$132,522	\$166,489			
17	Customer Contribution	\$3,387,006	\$3,383,908	\$3,891,495	\$4,495,069	\$5,635,826			
18	Shareholder Incentive (Distributed from sector level)	\$381,478	\$360,223	\$360,223	\$371,708	\$371,708			
19	Cost of energy efficiency (Sum of rows 14-18)	\$9,258,267	\$9,279,472	\$10,617,557	\$11,458,057	\$14,271,883			
20	Difference (Row 13 - Row 19)	\$10,587,482	\$12,036,249	\$13,895,523	\$16,969,438	\$21,369,934			

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-8

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Large Commercial Retrofit Program- Part 2

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case	High Scenario	Base Case	High Scenario
1	Natural Gas Costs		\$12,449,163	\$13,418,414	\$15,431,176	\$17,957,224	\$22,514,403
2	Natural Gas Price Effects		\$510,782	\$528,888	\$608,221	\$670,098	\$840,156
3	Cost of supply (Sum of rows 1-2)		\$12,959,945	\$13,947,302	\$16,039,397	\$18,627,322	\$23,354,559
4	Program Implementation Expenses (Direct)		\$5,169,116	\$5,263,010	\$6,052,461	\$6,281,907	\$7,876,127
5	Program Implementation Expenses (Distributed from sector level)		\$227,279	\$160,483	\$184,555	\$176,852	\$221,734
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$93,388	\$111,848	\$128,822	\$132,522	\$166,489
7	Customer Contribution		\$3,387,006	\$3,383,908	\$3,891,495	\$4,495,069	\$5,635,826
8	Shareholder Incentive (Distributed from sector level)		\$381,478	\$360,223	\$360,223	\$371,708	\$371,708
9	Cost of energy efficiency (Sum of rows 4-8)		\$9,258,267	\$9,279,472	\$10,617,557	\$11,458,057	\$14,271,883
10	Difference (Row 3 - Row 9)		\$3,701,678	\$4,667,830	\$5,421,840	\$7,169,265	\$9,082,676

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-8

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Large Commercial Retrofit Program- Part 3

		2021		2022		2023	
		Gas Energy		High Scenario		High Scenario	
Ref	a	b	c	d	e	f	
1	Natural Gas Costs	\$12,449,163	\$13,418,414	\$15,431,176	\$17,957,224	\$22,514,403	
2	Cost of supply (Row 1)	\$12,449,163	\$13,418,414	\$15,431,176	\$17,957,224	\$22,514,403	
3	Program Implementation Expenses (Direct)	\$5,169,116	\$5,263,010	\$6,052,461	\$6,281,907	\$7,876,127	
4	Program Implementation Expenses (Distributed from sector level)	\$227,279	\$160,483	\$184,555	\$176,852	\$221,734	
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$93,388	\$111,848	\$128,822	\$132,522	\$166,489	
6	Customer Contribution	\$3,387,006	\$3,383,908	\$3,891,495	\$4,495,069	\$5,635,826	
7	Shareholder Incentive (Distributed from sector level)	\$381,478	\$360,223	\$360,223	\$371,708	\$371,708	
8	Cost of energy efficiency (Sum of rows 3-7)	\$9,258,267	\$9,279,472	\$10,617,557	\$11,458,057	\$14,271,883	
9	Difference (Row 2 - Row 8)	\$3,190,896	\$4,138,941	\$4,813,619	\$6,499,167	\$8,242,520	

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-9

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Small Business Direct Install Program- Part 1

		Gas Energy		2021		2022		2023	
						Base Case	High Scenario	Base Case	High Scenario
Ref	a	b	c	d	e	f			
1	Electric Energy Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Electric Generation Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Electric Transmission Capacity Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	Electric Distribution Capacity Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Natural Gas Costs	\$403,922	\$612,393	\$704,252	\$898,971	\$1,127,112			
6	Fuel Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$12,950	\$19,501	\$22,427	\$28,405	\$35,614			
10	Non-embedded Greenhouse Gas Reduction Costs	\$200,712	\$302,248	\$347,586	\$440,243	\$551,968			
11	Non-embedded Nitrous Oxide (NOx Costs)	\$29,754	\$44,806	\$51,527	\$65,262	\$81,824			
12	Reliability Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13	Cost of supply (Sum of rows 1-12)	\$647,338	\$978,948	\$1,125,790	\$1,432,882	\$1,796,518			
14	Program Implementation Expenses (Direct)	\$332,651	\$629,446	\$723,863	\$957,322	\$1,200,271			
15	Program Implementation Expenses (Distributed from sector level)	\$14,626	\$19,193	\$22,072	\$26,951	\$33,791			
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$6,010	\$13,377	\$15,407	\$20,196	\$25,372			
17	Customer Contribution	\$69,390	\$136,464	\$156,934	\$217,162	\$272,273			
18	Shareholder Incentive (Distributed from sector level)	\$24,549	\$43,082	\$43,082	\$56,646	\$56,646			
19	Cost of energy efficiency (Sum of rows 14-18)	\$447,226	\$841,562	\$961,358	\$1,278,276	\$1,588,353			
20	Difference (Row 13 - Row 19)	\$200,112	\$137,386	\$164,432	\$154,605	\$208,165			

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-9

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Small Business Direct Install Program- Part 2

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Small Customers Direct Market Program - Part 2									
		Gas Energy		2021		2022		2023	
Ref						Base Case	High Scenario	Base Case	High Scenario
1		a	b	c	d	e	f		
2		Natural Gas Costs	\$403,922	\$612,393	\$704,252	\$898,971	\$1,127,112		
3		Natural Gas Price Effects	\$12,950	\$19,501	\$22,427	\$28,405	\$35,614		
4		Cost of supply (Sum of rows 1-2)	\$416,872	\$631,894	\$726,678	\$927,376	\$1,162,725		
5		Program Implementation Expenses (Direct)	\$332,651	\$629,446	\$723,863	\$957,322	\$1,200,271		
6		Program Implementation Expenses (Distributed from sector level)	\$14,626	\$19,193	\$22,072	\$26,951	\$33,791		
7		Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$6,010	\$13,377	\$15,407	\$20,196	\$25,372		
8		Customer Contribution	\$69,390	\$136,464	\$156,934	\$217,162	\$272,273		
9		Shareholder Incentive (Distributed from sector level)	\$24,549	\$43,082	\$43,082	\$56,646	\$56,646		
10		Cost of energy efficiency (Sum of rows 4-8)	\$447,226	\$841,562	\$961,358	\$1,278,276	\$1,588,353		
		Difference (Row 3 - Row 9)	-\$30,354	-\$209,668	-\$234,680	-\$350,900	-\$425,627		

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-9

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Small Business Direct Install Program- Part 3

		Gas Energy		2021		2022		2023	
Ref	a	b	c	d	e	f			
1	Natural Gas Costs	\$403,922	\$612,393	\$704,252	\$898,971	\$1,127,112			
2	Cost of supply (Row 1)	\$403,922	\$612,393	\$704,252	\$898,971	\$1,127,112			
3	Program Implementation Expenses (Direct)	\$332,651	\$629,446	\$723,863	\$957,322	\$1,200,271			
4	Program Implementation Expenses (Distributed from sector level)	\$14,626	\$19,193	\$22,072	\$26,951	\$33,791			
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$6,010	\$13,377	\$15,407	\$20,196	\$25,372			
6	Customer Contribution	\$69,390	\$136,464	\$156,934	\$217,162	\$272,273			
7	Shareholder Incentive (Distributed from sector level)	\$24,549	\$43,082	\$43,082	\$56,646	\$56,646			
8	Cost of energy efficiency (Sum of rows 3-7)	\$447,226	\$841,562	\$961,358	\$1,278,276	\$1,588,353			
9	Difference (Row 2 - Row 8)	-\$43,304	-\$229,170	-\$257,107	-\$379,305	-\$461,241			

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-10

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Commercial & Industrial Multifamily Program- Part 1

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Electric Energy Costs		\$10,089	\$10,301	\$11,846	\$10,599	\$13,289
2	Electric Generation Costs		\$8,500	\$9,159	\$10,533	\$9,830	\$12,325
3	Electric Transmission Capacity Costs		\$9,695	\$9,695	\$11,149	\$9,695	\$12,155
4	Electric Distribution Capacity Cost		\$8,419	\$8,419	\$9,682	\$8,419	\$10,556
5	Natural Gas Costs		\$1,254,470	\$1,258,586	\$1,447,374	\$1,263,801	\$1,584,528
6	Fuel Costs		\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount		\$0	\$0	\$0	\$0	\$0
8	Arrearages		\$0	\$0	\$0	\$0	\$0
9	Price Effects		\$34,070	\$34,070	\$39,181	\$34,070	\$42,716
10	Non-embedded Greenhouse Gas Reduction Costs		\$581,434	\$581,373	\$668,579	\$581,310	\$728,835
11	Non-embedded Nitrous Oxide (NOx Costs)		\$85,311	\$85,311	\$98,107	\$85,311	\$106,961
12	Reliability Costs		\$485	\$485	\$557	\$485	\$608
13	Cost of supply (Sum of rows 1-12)		\$1,992,472	\$1,997,398	\$2,297,008	\$2,003,519	\$2,511,972
14	Program Implementation Expenses (Direct)		\$953,219	\$1,026,754	\$1,180,767	\$1,015,212	\$1,272,852
15	Program Implementation Expenses (Distributed from sector level)		\$41,912	\$31,308	\$36,005	\$28,581	\$35,834
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$17,221	\$21,820	\$25,132	\$21,417	\$26,906
17	Customer Contribution		\$84,000	\$84,000	\$96,600	\$84,000	\$105,317
18	Shareholder Incentive (Distributed from sector level)		\$70,347	\$70,275	\$70,275	\$60,071	\$60,071
19	Cost of energy efficiency (Sum of rows 14-18)		\$1,166,699	\$1,234,158	\$1,408,779	\$1,209,281	\$1,500,981
20	Difference (Row 13 - Row 19)		\$825,773	\$763,240	\$888,229	\$794,239	\$1,010,991

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.
- Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-10

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Commercial & Industrial Multifamily Program- Part 2

		Gas Energy		2021		2022		2023	
Ref		a		b	c	d	e	f	
1	Natural Gas Costs			\$1,254,470	\$1,258,586	\$1,447,374	\$1,263,801	\$1,584,528	
2	Natural Gas Price Effects			\$30,810	\$30,810	\$35,432	\$30,810	\$38,629	
3	Cost of supply (Sum of rows 1-2)			\$1,285,280	\$1,289,396	\$1,482,806	\$1,294,611	\$1,623,157	
4	Program Implementation Expenses (Direct)			\$953,219	\$1,026,754	\$1,180,767	\$1,015,212	\$1,272,852	
5	Program Implementation Expenses (Distributed from sector level)			\$41,912	\$31,308	\$36,005	\$28,581	\$35,834	
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)			\$17,221	\$21,820	\$25,132	\$21,417	\$26,906	
7	Customer Contribution			\$84,000	\$84,000	\$96,600	\$84,000	\$105,317	
8	Shareholder Incentive (Distributed from sector level)			\$70,347	\$70,275	\$70,275	\$60,071	\$60,071	
9	Cost of energy efficiency (Sum of rows 4-8)			\$1,166,699	\$1,234,158	\$1,408,779	\$1,209,281	\$1,500,981	
10	Difference (Row 3 - Row 9)			\$118,581	\$55,238	\$74,027	\$85,331	\$122,177	

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-10

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Commercial & Industrial Multifamily Program- Part 3

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Natural Gas Costs		\$1,254,470	\$1,258,586	\$1,447,374	\$1,263,801	\$1,584,528
2	Cost of supply (Row 1)		\$1,254,470	\$1,258,586	\$1,447,374	\$1,263,801	\$1,584,528
3	Program Implementation Expenses (Direct)		\$953,219	\$1,026,754	\$1,180,767	\$1,015,212	\$1,272,852
4	Program Implementation Expenses (Distributed from sector level)		\$41,912	\$31,308	\$36,005	\$28,581	\$35,834
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$17,221	\$21,820	\$25,132	\$21,417	\$26,906
6	Customer Contribution		\$84,000	\$84,000	\$96,600	\$84,000	\$105,317
7	Shareholder Incentive (Distributed from sector level)		\$70,347	\$70,275	\$70,275	\$60,071	\$60,071
8	Cost of energy efficiency (Sum of rows 3-7)		\$1,166,699	\$1,234,158	\$1,408,779	\$1,209,281	\$1,500,981
9	Difference (Row 2 - Row 8)		\$87,771	\$24,428	\$38,595	\$54,520	\$83,547

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-11

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Single Family Income Eligible Services Program- Part 1

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Electric Energy Costs		\$93,420	\$104,261	\$119,900	\$117,062	\$146,770
2	Electric Generation Costs		\$33,668	\$39,699	\$45,654	\$46,656	\$58,497
3	Electric Transmission Capacity Costs		\$37,392	\$41,131	\$47,300	\$45,244	\$56,726
4	Electric Distribution Capacity Cost		\$32,471	\$35,718	\$41,076	\$39,290	\$49,261
5	Natural Gas Costs		\$2,198,253	\$2,424,296	\$2,787,940	\$2,676,933	\$3,356,285
6	Fuel Costs		\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount		\$30,474	\$33,513	\$38,540	\$36,879	\$46,238
8	Arrearages		\$11,202	\$12,318	\$14,165	\$13,557	\$16,998
9	Price Effects		\$65,822	\$72,391	\$83,250	\$79,653	\$99,868
10	Non-embedded Greenhouse Gas Reduction Costs		\$950,488	\$1,044,672	\$1,201,373	\$1,148,922	\$1,440,495
11	Non-embedded Nitrous Oxide (NOx Costs)		\$127,937	\$140,695	\$161,799	\$154,826	\$194,118
12	Reliability Costs		\$1,747	\$1,921	\$2,210	\$2,114	\$2,650
13	Cost of supply (Sum of rows 1-12)		\$3,582,873	\$3,950,615	\$4,543,208	\$4,361,137	\$5,467,905
14	Program Implementation Expenses (Direct)		\$6,738,774	\$7,378,116	\$8,484,833	\$8,069,422	\$10,117,278
15	Program Implementation Expenses (Distributed from sector level)		\$33,464	\$58,760	\$67,574	\$64,541	\$80,920
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$121,746	\$156,798	\$180,594	\$170,232	\$213,863
17	Customer Contribution		\$0	\$0	\$0	\$0	\$0
18	Shareholder Incentive (Distributed from sector level)		\$286,603	\$295,773	\$295,773	\$303,951	\$303,951
19	Cost of energy efficiency (Sum of rows 14-18)		\$7,180,587	\$7,889,446	\$9,028,773	\$8,608,146	\$10,716,012
20	Difference (Row 13 - Row 19)		-\$3,597,714	-\$3,938,831	-\$4,485,566	-\$4,247,009	-\$5,248,107

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
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Attachment PUC 1-22-11

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Single Family Income Eligible Services Program- Part 2

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Natural Gas Costs		\$2,198,253	\$2,424,296	\$2,787,940	\$2,676,933	\$3,356,285
2	Natural Gas Price Effects		\$38,090	\$41,888	\$48,171	\$46,096	\$57,794
3	Cost of supply (Sum of rows 1-2)		\$2,236,343	\$2,466,184	\$2,836,111	\$2,723,029	\$3,414,078
4	Program Implementation Expenses (Direct)		\$6,738,774	\$7,378,116	\$8,484,833	\$8,069,422	\$10,117,278
5	Program Implementation Expenses (Distributed from sector level)		\$33,464	\$58,760	\$67,574	\$64,541	\$80,920
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$121,746	\$156,798	\$180,594	\$170,232	\$213,863
7	Customer Contribution		\$0	\$0	\$0	\$0	\$0
8	Shareholder Incentive (Distributed from sector level)		\$286,603	\$295,773	\$295,773	\$303,951	\$303,951
9	Cost of energy efficiency (Sum of rows 4-8)		\$7,180,587	\$7,889,446	\$9,028,773	\$8,608,146	\$10,716,012
10	Difference (Row 3 - Row 9)		-\$4,944,244	-\$5,423,263	-\$6,192,662	-\$5,885,117	-\$7,301,934

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
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Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Single Family Income Eligible Services Program- Part 3

Ref	Gas Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Natural Gas Costs		\$2,198,253	\$2,424,296	\$2,787,940	\$2,676,933	\$3,356,285
2	Cost of supply (Row 1)		\$2,198,253	\$2,424,296	\$2,787,940	\$2,676,933	\$3,356,285
3	Program Implementation Expenses (Direct)		\$6,738,774	\$7,378,116	\$8,484,833	\$8,069,422	\$10,117,278
4	Program Implementation Expenses (Distributed from sector level)		\$33,464	\$58,760	\$67,574	\$64,541	\$80,920
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$121,746	\$156,798	\$180,594	\$170,232	\$213,863
6	Customer Contribution		\$0	\$0	\$0	\$0	\$0
7	Shareholder Incentive (Distributed from sector level)		\$286,603	\$295,773	\$295,773	\$303,951	\$303,951
8	Cost of energy efficiency (Sum of rows 3-7)		\$7,180,587	\$7,889,446	\$9,028,773	\$8,608,146	\$10,716,012
9	Difference (Row 2 - Row 8)		-\$4,982,334	-\$5,465,151	-\$6,240,833	-\$5,931,213	-\$7,359,728

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-12

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Income Eligible Multifamily Program- Part 1

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case	High Scenario	Base Case	High Scenario
1	Electric Energy Costs		\$9,680	\$9,890	\$11,373	\$10,180	\$12,764
2	Electric Generation Costs		\$8,175	\$8,796	\$10,115	\$9,429	\$11,821
3	Electric Transmission Capacity Costs		\$9,261	\$9,261	\$10,651	\$9,261	\$11,612
4	Electric Distribution Capacity Cost		\$8,043	\$8,043	\$9,249	\$8,043	\$10,084
5	Natural Gas Costs		\$3,390,145	\$3,399,880	\$3,909,862	\$3,411,523	\$4,277,298
6	Fuel Costs		\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount		\$47,050	\$47,050	\$54,108	\$47,050	\$58,991
8	Arrearages		\$9,117	\$9,117	\$10,484	\$9,117	\$11,430
9	Price Effects		\$55,130	\$55,130	\$63,400	\$55,130	\$69,121
10	Non-embedded Greenhouse Gas Reduction Costs		\$1,412,727	\$1,412,670	\$1,624,570	\$1,412,610	\$1,771,101
11	Non-embedded Nitrous Oxide (NOx Costs)		\$194,184	\$194,184	\$223,311	\$194,184	\$243,463
12	Reliability Costs		\$455	\$455	\$523	\$455	\$570
13	Cost of supply (Sum of rows 1-12)		\$5,143,967	\$5,154,475	\$5,927,646	\$5,166,981	\$6,478,256
14	Program Implementation Expenses (Direct)		\$3,254,067	\$3,223,579	\$3,707,116	\$3,213,659	\$4,029,220
15	Program Implementation Expenses (Distributed from sector level)		\$16,159	\$25,673	\$29,524	\$25,704	\$32,227
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$58,789	\$68,507	\$78,903	\$67,795	\$85,171
17	Customer Contribution		\$0	\$0	\$0	\$0	\$0
18	Shareholder Incentive (Distributed from sector level)		\$138,397	\$129,227	\$129,227	\$121,049	\$121,049
19	Cost of energy efficiency (Sum of rows 14-18)		\$3,467,413	\$3,446,985	\$3,944,769	\$3,428,206	\$4,267,667
20	Difference (Row 13 - Row 19)		\$1,676,554	\$1,707,490	\$1,982,877	\$1,738,775	\$2,210,589

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-12

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Income Eligible Multifamily Program- Part 2

Ref	Gas Energy	2021		2022		2023	
		a	b	Base Case	High Scenario	Base Case	High Scenario
1	Natural Gas Costs		\$3,390,145	\$3,399,880	\$3,909,862	\$3,411,523	\$4,277,298
2	Natural Gas Price Effects		\$52,089	\$52,089	\$59,902	\$52,089	\$65,308
3	Cost of supply (Sum of rows 1-2)		\$3,442,234	\$3,451,969	\$3,969,764	\$3,463,612	\$4,342,606
4	Program Implementation Expenses (Direct)		\$3,254,067	\$3,223,579	\$3,707,116	\$3,213,659	\$4,029,220
5	Program Implementation Expenses (Distributed from sector level)		\$16,159	\$25,673	\$29,524	\$25,704	\$32,227
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$58,789	\$68,507	\$78,903	\$67,795	\$85,171
7	Customer Contribution		\$0	\$0	\$0	\$0	\$0
8	Shareholder Incentive (Distributed from sector level)		\$138,397	\$129,227	\$129,227	\$121,049	\$121,049
9	Cost of energy efficiency (Sum of rows 4-8)		\$3,467,413	\$3,446,985	\$3,944,769	\$3,428,206	\$4,267,667
10	Difference (Row 3 - Row 9)		-\$25,179	\$4,984	\$24,995	\$35,405	\$74,939

Notes:

All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6.

Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.

(4) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."

(5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."

(8) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-12

Calculation of cost of supply compared to cost of energy efficiency for Natural Gas Income Eligible Multifamily Program- Part 3

		2021		2022		2023	
		Gas Energy		High Scenario		High Scenario	
Ref	a	b	c	d	e	f	
1	Natural Gas Costs	\$3,390,145	\$3,399,880	\$3,909,862	\$3,411,523	\$4,277,298	
2	Cost of supply (Row 1)	\$3,390,145	\$3,399,880	\$3,909,862	\$3,411,523	\$4,277,298	
3	Program Implementation Expenses (Direct)	\$3,254,067	\$3,223,579	\$3,707,116	\$3,213,659	\$4,029,220	
4	Program Implementation Expenses (Distributed from sector level)	\$16,159	\$25,673	\$29,524	\$25,704	\$32,227	
5	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$58,789	\$68,507	\$78,903	\$67,795	\$85,171	
6	Customer Contribution	\$0	\$0	\$0	\$0	\$0	
7	Shareholder Incentive (Distributed from sector level)	\$138,397	\$129,227	\$129,227	\$121,049	\$121,049	
8	Cost of energy efficiency (Sum of rows 3-7)	\$3,467,413	\$3,446,985	\$3,944,769	\$3,428,206	\$4,267,667	
9	Difference (Row 2 - Row 8)	-\$77,268	-\$47,105	-\$34,907	-\$16,684	\$9,631	

Notes:

- All values are from the Gas Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (5) is equivalent to the column "Natural Gas" in table G-6. Rows (1)-(4), and rows (6)-(12) are components of the Column "Other Non-Gas Benefit" in table G-6.
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Program Implementation Expenses."
- (4) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (5) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Customer Contribution."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 6-10, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

The Narragansett Electric Company
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Summary of Cost of Supply Calculations for Natural Gas Portfolio and Programs

Sector	Portfolio or Program Category	Analysis Version	Cost Component	2021			2022			2023		
							Base Case	High Scenario	Base Case	High Scenario	Base Case	High Scenario
Portfolio	Natural Gas Portfolio	Variant 1	Cost of Supply	\$59,865,656			\$66,083,854	\$75,795,508	\$80,301,818	\$100,340,724		
			Cost of Energy Efficiency	\$48,361,444			\$51,993,464	\$59,471,291	\$61,498,086	\$76,561,635		
			Difference	\$11,504,212			\$14,090,390	\$16,324,218	\$18,803,732	\$23,779,089		
		Variant 2	Cost of Supply	\$39,048,492			\$43,169,015	\$49,510,238	\$52,501,388	\$65,598,117		
			Cost of Energy Efficiency	\$48,361,444			\$51,993,464	\$59,471,291	\$61,498,086	\$76,561,635		
			Difference	-\$9,312,951			-\$8,824,449	-\$9,961,053	-\$8,996,697	-\$10,963,518		
		Variant 3	Cost of Supply	\$38,050,536			\$42,093,169	\$48,279,348	\$51,202,434	\$63,980,228		
			Cost of Energy Efficiency	\$48,361,444			\$51,993,464	\$59,471,291	\$61,498,086	\$76,561,635		
			Difference	-\$10,310,908			-\$9,900,296	-\$11,191,943	-\$10,295,652	-\$12,581,407		
Residential	Energy Star® HVAC	Variant 1	Cost of Supply	\$9,771,727			\$12,580,855	\$14,467,984	\$15,264,493	\$19,138,312		
			Cost of Energy Efficiency	\$8,470,533			\$10,829,732	\$12,431,387	\$13,002,573	\$16,264,033		
			Difference	\$1,301,194			\$1,751,124	\$2,036,596	\$2,261,920	\$2,874,279		
		Variant 2	Cost of Supply	\$6,533,478			\$8,420,970	\$9,684,115	\$10,224,858	\$12,819,719		
			Cost of Energy Efficiency	\$8,470,533			\$10,829,732	\$12,431,387	\$13,002,573	\$16,264,033		
			Difference	-\$1,937,055			-\$2,408,762	-\$2,747,272	-\$2,777,715	-\$3,444,313		
		Variant 3	Cost of Supply	\$6,410,428			\$8,263,138	\$9,502,609	\$10,033,882	\$12,580,278		
			Cost of Energy Efficiency	\$8,470,533			\$10,829,732	\$12,431,387	\$13,002,573	\$16,264,033		
			Difference	-\$2,060,105			-\$2,566,593	-\$2,928,778	-\$2,968,691	-\$3,683,755		
			Cost of Supply	\$8,459,221			\$8,722,522	\$10,030,900	\$11,215,818	\$14,062,164		
			Cost of Energy Efficiency	\$11,586,960			\$11,646,740	\$13,343,800	\$15,506,360	\$19,351,399		
			Difference	-\$3,127,739			-\$2,924,218	-\$3,312,901	-\$4,290,543	-\$5,289,235		
		EnergyWise	Cost of Supply	\$5,374,948			\$5,542,111	\$6,373,428	\$7,126,564	\$8,935,142		
			Cost of Energy Efficiency	\$11,586,960			\$11,646,740	\$13,343,800	\$15,506,360	\$19,351,399		
			Difference	-\$6,212,012			-\$6,104,629	-\$6,970,372	-\$8,379,796	-\$10,416,258		
Residential	EnergyWise	Variant 1	Cost of Supply	\$5,296,032			\$5,460,964	\$6,280,109	\$7,022,566	\$8,804,751		
			Cost of Energy Efficiency	\$11,586,960			\$11,646,740	\$13,343,800	\$15,506,360	\$19,351,399		
			Difference	-\$6,290,928			-\$6,185,776	-\$7,063,692	-\$8,483,794	-\$10,546,649		
		Variant 2	Cost of Supply	\$5,296,032			\$5,460,964	\$6,280,109	\$7,022,566	\$8,804,751		
			Cost of Energy Efficiency	\$11,586,960			\$11,646,740	\$13,343,800	\$15,506,360	\$19,351,399		
			Difference	-\$6,290,928			-\$6,185,776	-\$7,063,692	-\$8,483,794	-\$10,546,649		
		Variant 3	Cost of Supply	\$5,296,032			\$5,460,964	\$6,280,109	\$7,022,566	\$8,804,751		
			Cost of Energy Efficiency	\$11,586,960			\$11,646,740	\$13,343,800	\$15,506,360	\$19,351,399		
			Difference	-\$6,290,928			-\$6,185,776	-\$7,063,692	-\$8,483,794	-\$10,546,649		

Sector	Level of Analysis	Analysis Version	Category	2021			2022			2023		
Residential	EnergyWise Multifamily	Variant 1	Cost of Supply	\$2,199,291			\$2,207,961	\$2,539,155	\$2,217,797	\$2,780,628		
			Cost of Energy Efficiency	\$1,940,418			\$1,940,627	\$2,224,298	\$1,922,449	\$2,400,353		
			Difference	\$258,873			\$267,334	\$314,857	\$295,347	\$380,275		
		Variant 2	Cost of Supply	\$1,451,495			\$1,458,648	\$1,677,445	\$1,466,862	\$1,839,122		
			Cost of Energy Efficiency	\$1,940,418			\$1,940,627	\$2,224,298	\$1,922,449	\$2,400,353		
			Difference	-\$488,922			-\$481,979	-\$546,852	-\$455,587	-\$561,231		
		Variant 3	Cost of Supply	\$1,424,032			\$1,431,054	\$1,645,712	\$1,439,137	\$1,804,361		
			Cost of Energy Efficiency	\$1,940,418			\$1,940,627	\$2,224,298	\$1,922,449	\$2,400,353		
			Difference	-\$516,386			-\$509,573	-\$578,586	-\$483,312	-\$595,992		
Sector	Level of Analysis	Analysis Version	Category	2021			2022			2023		
Residential	Home Energy Reports	Variant 1	Cost of Supply	\$1,347,225			\$1,339,491	\$1,339,491	\$1,340,001	\$1,340,001		
			Cost of Energy Efficiency	\$482,550			\$473,835	\$471,919	\$469,910	\$467,541		
			Difference	\$864,675			\$865,657	\$867,572	\$870,091	\$872,460		
		Variant 2	Cost of Supply	\$901,930			\$894,196	\$894,196	\$894,705	\$894,705		
			Cost of Energy Efficiency	\$482,550			\$473,835	\$471,919	\$469,910	\$467,541		
			Difference	\$419,380			\$420,361	\$422,277	\$424,796	\$427,164		
		Variant 3	Cost of Supply	\$859,710			\$851,976	\$851,976	\$852,486	\$852,486		
			Cost of Energy Efficiency	\$482,550			\$473,835	\$471,919	\$469,910	\$467,541		
			Difference	\$377,160			\$378,141	\$380,057	\$382,576	\$384,944		
Sector	Level of Analysis	Analysis Version	Category	2021			2022			2023		
Residential	Residential New Construction	Variant 1	Cost of Supply	\$1,226,358			\$1,154,787	\$1,328,006	\$1,087,242	\$1,363,162		
			Cost of Energy Efficiency	\$1,393,197			\$1,216,527	\$1,395,963	\$1,231,821	\$1,540,315		
			Difference	-\$166,839			-\$61,740	-\$67,958	-\$144,579	-\$177,153		
		Variant 2	Cost of Supply	\$836,585			\$788,565	\$906,849	\$743,293	\$931,926		
			Cost of Energy Efficiency	\$1,393,197			\$1,216,527	\$1,395,963	\$1,231,821	\$1,540,315		
			Difference	-\$556,613			-\$427,963	-\$489,114	-\$488,528	-\$608,389		
		Variant 3	Cost of Supply	\$822,009			\$774,607	\$890,798	\$730,090	\$915,372		
			Cost of Energy Efficiency	\$1,393,197			\$1,216,527	\$1,395,963	\$1,231,821	\$1,540,315		
			Difference	-\$571,189			-\$441,920	-\$505,165	-\$501,731	-\$624,943		

Sector	Level of Analysis	Analysis Version	Category	2021		2022		2023	
						Base Case	High Scenario	Base Case	High Scenario
Commercial & Industrial	Large Commercial New Construction	Variant 1	Cost of Supply	\$5,649,435		\$6,681,080	\$7,683,242	\$7,784,452	\$9,759,988
			Cost of Energy Efficiency	\$2,967,595		\$3,194,380	\$3,642,687	\$3,383,005	\$4,193,098
			Difference	\$2,681,841		\$3,486,700	\$4,040,555	\$4,401,447	\$5,566,890
	Large Commercial New Construction	Variant 2	Cost of Supply	\$3,609,384		\$4,277,781	\$4,919,448	\$5,009,155	\$6,280,377
			Cost of Energy Efficiency	\$2,967,595		\$3,194,380	\$3,642,687	\$3,383,005	\$4,193,098
			Difference	\$641,789		\$1,083,401	\$1,276,761	\$1,626,150	\$2,087,279
	Large Commercial New Construction	Variant 3	Cost of Supply	\$3,542,373		\$4,197,861	\$4,827,541	\$4,915,820	\$6,163,355
			Cost of Energy Efficiency	\$2,967,595		\$3,194,380	\$3,642,687	\$3,383,005	\$4,193,098
			Difference	\$574,778		\$1,003,482	\$1,184,854	\$1,532,815	\$1,970,257
				2021		2022		2023	
Sector	Level of Analysis	Analysis Version	Category	2021		2022		2023	
						Base Case	High Scenario	Base Case	High Scenario
Commercial & Industrial	Large Commercial Retrofit	Variant 1	Cost of Supply	\$19,845,749		\$21,315,721	\$24,513,079	\$28,427,495	\$35,641,817
			Cost of Energy Efficiency	\$9,258,267		\$9,279,472	\$10,617,557	\$11,458,057	\$14,271,883
			Difference	\$10,587,482		\$12,036,249	\$13,895,523	\$16,969,438	\$21,369,934
	Large Commercial Retrofit	Variant 2	Cost of Supply	\$12,959,945		\$13,947,302	\$16,039,397	\$18,627,322	\$23,354,559
			Cost of Energy Efficiency	\$9,258,267		\$9,279,472	\$10,617,557	\$11,458,057	\$14,271,883
			Difference	\$3,701,678		\$4,667,830	\$5,421,840	\$7,169,265	\$9,082,676
	Large Commercial Retrofit	Variant 3	Cost of Supply	\$12,449,163		\$13,418,414	\$15,431,176	\$17,957,224	\$22,514,403
			Cost of Energy Efficiency	\$9,258,267		\$9,279,472	\$10,617,557	\$11,458,057	\$14,271,883
			Difference	\$3,190,896		\$4,138,941	\$4,813,619	\$6,499,167	\$8,242,520
				2021		2022		2023	
Sector	Level of Analysis	Analysis Version	Category	2021		2022		2023	
						Base Case	High Scenario	Base Case	High Scenario
Commercial & Industrial	Small Business Direct Install	Variant 1	Cost of Supply	\$647,338		\$978,948	\$1,125,790	\$1,432,882	\$1,796,518
			Cost of Energy Efficiency	\$447,226		\$841,562	\$961,358	\$1,278,276	\$1,588,353
			Difference	\$200,112		\$137,386	\$164,432	\$154,605	\$208,165
	Small Business Direct Install	Variant 2	Cost of Supply	\$416,872		\$631,894	\$726,678	\$927,376	\$1,162,725
			Cost of Energy Efficiency	\$447,226		\$841,562	\$961,358	\$1,278,276	\$1,588,353
			Difference	-\$30,354		-\$209,668	-\$234,680	-\$350,900	-\$425,627
	Small Business Direct Install	Variant 3	Cost of Supply	\$403,922		\$612,393	\$704,252	\$898,971	\$1,127,112
			Cost of Energy Efficiency	\$447,226		\$841,562	\$961,358	\$1,278,276	\$1,588,353
			Difference	-\$43,304		-\$229,170	-\$257,107	-\$379,305	-\$461,241
				2021		2022		2023	

Sector	Level of Analysis	Analysis Version	Category	2021			2022			2023		
Commercial & Industrial		Variant 1	Cost of Supply			\$1,992,472			\$1,997,398			\$2,003,519
			Cost of Energy Efficiency			\$1,166,699			\$1,234,158			\$1,209,281
			Difference			\$825,773			\$763,240			\$794,239
	Commercial & Industrial Multifamily	Variant 2	Cost of Supply			\$1,285,280			\$1,289,396			\$1,294,611
			Cost of Energy Efficiency			\$1,166,699			\$1,234,158			\$1,209,281
			Difference			\$118,581			\$55,238			\$85,331
	Variant 3		Cost of Supply			\$1,254,470			\$1,258,586			\$1,263,801
			Cost of Energy Efficiency			\$1,166,699			\$1,234,158			\$1,209,281
			Difference			\$87,771			\$24,428			\$54,520
Sector	Level of Analysis	Analysis Version	Category	2021			2022			2023		
Income Eligible		Variant 1	Cost of Supply			\$3,582,873			\$3,950,615			\$4,361,137
			Cost of Energy Efficiency			\$7,180,587			\$7,889,446			\$8,608,146
			Difference			-\$3,597,714			-\$3,938,831			-\$4,247,009
	Single Family - Income Eligible Services	Variant 2	Cost of Supply			\$2,236,343			\$2,466,184			\$2,723,029
			Cost of Energy Efficiency			\$7,180,587			\$7,889,446			\$8,608,146
			Difference			-\$4,944,244			-\$5,423,263			-\$5,885,117
	Variant 3		Cost of Supply			\$2,198,253			\$2,424,296			\$2,676,933
			Cost of Energy Efficiency			\$7,180,587			\$7,889,446			\$8,608,146
			Difference			-\$4,982,334			-\$5,465,151			-\$5,931,213
Sector	Level of Analysis	Analysis Version	Category	2021			2022			2023		
Income Eligible		Variant 1	Cost of Supply			\$5,143,967			\$5,154,475			\$5,166,981
			Cost of Energy Efficiency			\$3,467,413			\$3,446,985			\$3,428,206
			Difference			\$1,676,554			\$1,707,490			\$1,738,775
	Income Eligible Multifamily	Variant 2	Cost of Supply			\$3,442,234			\$3,451,969			\$3,463,612
			Cost of Energy Efficiency			\$3,467,413			\$3,446,985			\$3,428,206
			Difference			-\$25,179			\$4,984			\$35,405
	Variant 3		Cost of Supply			\$3,390,145			\$3,399,880			\$3,411,523
			Cost of Energy Efficiency			\$3,467,413			\$3,446,985			\$3,428,206
			Difference			-\$77,268			-\$47,105			-\$16,684

Notes:
Analysis Version Variant 1 matches to the full cost of supply requested in Part 1 of the request, Variant 2 matches to Part 2 of the Request, and Variant 3 matches to Part 3 of the request.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-14

Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Efficiency and Demand Response portfolio - Part 1

Ref	Electric Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Electric Energy Costs		\$79,611,225	\$97,727,451	\$101,545,724	\$114,501,594	\$124,568,487
2	Electric Generation Costs		\$18,302,897	\$19,986,766	\$21,197,569	\$21,857,196	\$24,796,055
3	Electric Transmission Capacity Costs		\$27,140,269	\$28,942,820	\$31,567,721	\$30,844,737	\$36,313,366
4	Electric Distribution Capacity Cost		\$23,568,898	\$25,134,252	\$27,413,745	\$26,785,898	\$31,534,913
5	Natural Gas Costs		-\$7,302,558	-\$20,769,721	-\$21,074,930	-\$39,358,970	-\$40,239,831
6	Fuel Costs		\$19,057,521	\$21,515,863	\$22,591,656	\$35,849,366	\$38,928,810
7	Income Eligible Rate Discount		\$103,823	\$116,017	\$121,818	\$128,826	\$144,543
8	Arrearages		\$181,719	\$186,409	\$195,730	\$191,568	\$214,940
9	Price Effects		\$64,488,206	\$77,987,150	\$86,235,446	\$93,026,445	\$109,449,591
10	Non-embedded Greenhouse Gas Reduction Costs		\$36,204,083	\$36,968,858	\$38,732,652	\$37,451,974	\$42,002,697
11	Non-embedded Nitrous Oxide (NOx Costs)		\$1,739,435	\$1,285,448	\$1,375,804	\$979,666	\$1,217,303
12	Reliability Costs		\$624,526	\$717,052	\$897,603	\$817,592	\$1,128,819
13	Cost of supply = Sum of Rows 1 through 12		\$263,720,046	\$289,798,366	\$310,800,538	\$323,075,891	\$370,059,692
14	Program Implementation Expenses		\$116,806,026	\$130,367,936	\$137,689,075	\$142,904,519	\$161,348,275
15	Customer Contribution		\$18,435,780	\$26,524,977	\$27,724,189	\$27,736,953	\$30,810,899
16	Shareholder Incentive		\$5,500,000	\$5,500,000	\$5,500,000	\$5,500,000	\$5,500,000
17	Cost of energy efficiency = Sum of Rows 14 through 16		\$140,741,806	\$162,392,912	\$170,913,264	\$176,141,472	\$197,659,174
18	Difference = Row 13 - Row 17		\$122,978,239	\$127,405,453	\$139,887,274	\$146,934,419	\$172,400,518

Notes:

All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak.", and Table E-6B Energy columns "Summer Peak" and "Summer Off-Peak"

(2) Table E-6 and E-6B, Capacity column "Summer Generation."

(3) Table E-6 and E-6B, Capacity column "Trans."

(4) Table E-6 and E-6B, Capacity column "Dist."

(5) Table E-6, Non-electric column "Natural Gas." less Gas DRIPE included in that column

(6) Table E-6, sum of Non-electric columns "Natural Gas," "Oil", "Other Resource."

(7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(9) Table E-6 and E-6B, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"

(10) Table E-6 and E-6B, Societal column "Carbon."

(11) Table E-6, Societal column "NOx."

(12) Table E-6 and E-6B, Capacity column "Reliability."

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."

(15) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."

(16) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive."

The Narragansett Electric Company
d/b/a National Grid
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Attachment PUC 1-22-14

Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Efficiency and Demand Response portfolio - Part 2

Ref	Electric Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Electric Energy Costs		\$79,611,225	\$97,727,451	\$101,545,724	\$114,501,594	\$124,568,487
2	Electric Generation Costs		\$18,302,897	\$19,986,766	\$21,197,569	\$21,857,196	\$24,796,055
3	Electric Transmission Capacity Costs		\$27,140,269	\$28,942,820	\$31,567,721	\$30,844,737	\$36,313,366
4	Electric Distribution Capacity Cost		\$23,568,898	\$25,134,252	\$27,413,745	\$26,785,898	\$31,534,913
5	Price Effects		\$64,709,037	\$78,451,049	\$86,708,703	\$93,850,232	\$110,300,193
6	Cost of supply = Sum of Rows 1 through 5		\$213,332,326	\$250,242,338	\$268,433,462	\$287,839,656	\$327,513,014
7	Program Implementation Expenses		\$116,806,026	\$130,367,936	\$137,689,075	\$142,904,519	\$161,348,275
8	Customer Contribution		\$18,435,780	\$26,524,977	\$27,724,189	\$27,736,953	\$30,810,899
9	Shareholder Incentive		\$5,500,000	\$5,500,000	\$5,500,000	\$5,500,000	\$5,500,000
10	Cost of energy efficiency = Sum of Rows 7 through 9		\$140,741,806	\$162,392,912	\$170,913,264	\$176,141,472	\$197,659,174
11	Difference = Row 6 - Row 10		\$72,590,520	\$87,849,425	\$97,520,198	\$111,698,185	\$129,853,840

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Summer Peak" and "Summer Off-Peak", and Table E-6B Energy columns "Summer Peak" and "Summer Off-Peak"
- (2) Table E-6 and E-6B, Capacity column "Summer Generation."
- (3) Table E-6 and E-6B, Capacity column "Trans."
- (4) Table E-6 and E-6B, Capacity column "Dist."
- (5) Table E-6 and E-6B, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (9) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive."

The Narragansett Electric Company
d/b/a National Grid
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Attachment PUC 1-22-14

Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Efficiency and Demand Response portfolio - Part 3

Ref	Electric Energy	2021		2022		2023	
		Base Case		High Scenario		Base Case	
	a	b	c	d	e	f	
1	Electric Energy Costs	\$79,611,225	\$97,727,451	\$101,545,724	\$114,501,594	\$124,568,487	
2	Electric Generation Costs	\$18,302,897	\$19,986,766	\$21,197,569	\$21,857,196	\$24,796,055	
3	Cost of supply = Sum of Rows 1 through 5	\$97,914,122	\$117,714,217	\$122,743,292	\$136,358,789	\$149,364,542	
4	Program Implementation Expenses	\$116,806,026	\$130,367,936	\$137,689,075	\$142,904,519	\$161,348,275	
5	Customer Contribution	\$18,435,780	\$26,524,977	\$27,724,189	\$27,736,953	\$30,810,899	
6	Shareholder Incentive	\$5,500,000	\$5,500,000	\$5,500,000	\$5,500,000	\$5,500,000	
7	Cost of energy efficiency = Sum of Rows 7 through 9	\$140,741,806	\$162,392,912	\$170,913,264	\$176,141,472	\$197,659,174	
8	Difference = Row 6 - Row 10	-\$42,827,684	-\$44,678,695	-\$48,169,972	-\$39,782,682	-\$48,294,632	

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak", and Table E-6B Energy columns "Summer Peak" and "Summer Off-Peak"
- (2) Table E-6 and E-6B, Capacity column "Summer Generation."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (6) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive."

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-15

Calculation of cost of supply compared to cost of energy efficiency for Electric Residential New Construction Program - Part 1

Calculation of Cost of Supply Compared to Cost of Energy Embedded for Electric Renewable New Construction Program - Part 2						
Electric Energy		2021		2022		2023
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$1,227,216	\$1,237,008	\$1,298,859	\$1,394,493	\$1,564,622
2	Electric Generation Costs	\$74,840	\$86,522	\$90,848	\$93,520	\$104,930
3	Electric Transmission Capacity Costs	\$95,150	\$107,087	\$112,441	\$112,184	\$125,870
4	Electric Distribution Capacity Cost	\$82,630	\$92,995	\$97,645	\$97,422	\$109,307
5	Natural Gas Costs	\$0	\$0	\$0	\$0	\$0
6	Fuel Costs	\$1,816,235	\$1,894,371	\$1,989,089	\$2,021,808	\$2,268,469
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$367,797	\$367,100	\$385,455	\$407,445	\$457,154
10	Non-embedded Greenhouse Gas Reduction Costs	\$536,319	\$545,749	\$573,036	\$594,593	\$667,134
11	Non-embedded Nitrous Oxide (NOx Costs)	\$33,514	\$35,973	\$37,771	\$39,388	\$44,193
12	Reliability Costs	\$312	\$322	\$338	\$325	\$365
13	Cost of supply (Sum of rows 1-12)	\$4,234,013	\$4,367,127	\$4,585,483	\$4,761,178	\$5,342,043
14	Program Implementation Expenses (Direct)	\$1,544,335	\$1,419,478	\$1,490,452	\$1,502,747	\$1,686,083
15	Program Implementation Expenses (Distributed from sector level)	\$36,215	\$41,856	\$44,253	\$40,510	\$46,130
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$24,054	\$27,848	\$29,057	\$30,581	\$34,082
17	Customer Contribution	\$855,733	\$812,792	\$853,431	\$860,219	\$965,166
18	Shareholder Incentive (Distributed from sector level)	\$83,226	\$82,494	\$82,806	\$74,140	\$74,686
19	Cost of energy efficiency (Sum of rows 14-18)	\$2,543,563	\$2,384,467	\$2,500,000	\$2,508,197	\$2,806,147
20	Difference (Row 13 - Row 19)	\$1,690,450	\$1,982,659	\$2,085,484	\$2,252,981	\$2,535,897

Notes:

All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."

(2) Table E-6, Capacity column "Summer Generation."

(3) Table E-6, Capacity column "Trans."

(4) Table E-6, Capacity column "Dist."

(5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column

(6) Table E-6, sum of Non-electric columns "Oil", "Other Resource." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan

(7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"

(10) Table E-6, Societal column "Carbon."

(11) Table E-6, Societal column "NOx."

(12) Table E-6, Capacity column "Reliability."

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-15
Calculation of cost of supply compared to cost of energy efficiency for Electric Residential New Construction Program - Part 2

Electric Energy		2021	2022		2023	
Ref	a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Electric Energy Costs	\$1,227,216	\$1,237,008	\$1,298,859	\$1,394,493	\$1,564,622
2	Electric Generation Costs	\$74,840	\$86,522	\$90,848	\$93,520	\$104,930
3	Electric Transmission Capacity Costs	\$95,150	\$107,087	\$112,441	\$112,184	\$125,870
4	Electric Distribution Capacity Cost	\$82,630	\$92,995	\$97,645	\$97,422	\$109,307
5	Price Effects	\$367,797	\$367,100	\$385,455	\$407,445	\$457,154
6	Cost of supply (Sum of Rows 1-5)	\$1,847,633	\$1,890,712	\$1,985,248	\$2,105,064	\$2,361,883
7	Program Implementation Expenses (Direct)	\$1,544,335	\$1,419,478	\$1,490,452	\$1,502,747	\$1,686,083
8	Program Implementation Expenses (Distributed from sector level)	\$36,215	\$41,856	\$44,253	\$40,510	\$46,130
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$24,054	\$27,848	\$29,057	\$30,581	\$34,082
10	Customer Contribution	\$855,733	\$812,792	\$853,431	\$860,219	\$965,166
11	Shareholder Incentive (Distributed from sector level)	\$83,226	\$82,494	\$82,806	\$74,140	\$74,686
13	Cost of energy efficiency (Sum of Rows 7-11)	\$2,543,563	\$2,384,467	\$2,500,000	\$2,508,197	\$2,806,147
14	Difference (Row 6 - Row 13)	-\$695,930	-\$493,755	-\$514,752	-\$403,133	-\$444,264

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-15
Calculation of cost of supply compared to cost of energy efficiency for Electric Residential New Construction Program - Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs	\$1,227,216	\$1,227,008	\$1,237,008	\$1,298,859	\$1,394,493	\$1,564,622
2	Electric Generation Costs	\$74,840	\$86,522	\$90,848	\$90,848	\$93,520	\$104,930
3	Cost of supply (sum of Rows 1-2)	\$1,302,056	\$1,313,530	\$1,327,856	\$1,389,707	\$1,488,014	\$1,669,552
4	Program Implementation Expenses (Direct)	\$1,544,335	\$1,419,478	\$1,490,452	\$1,490,452	\$1,502,747	\$1,686,083
5	Program Implementation Expenses (Distributed from sector level)	\$36,215	\$41,856	\$44,253	\$44,253	\$40,510	\$46,130
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$24,054	\$27,848	\$29,057	\$29,057	\$30,581	\$34,082
7	Customer Contribution	\$855,733	\$812,792	\$853,431	\$860,219	\$860,219	\$965,166
8	Shareholder Incentive (Distributed from sector level)	\$83,226	\$82,494	\$82,806	\$82,806	\$74,140	\$74,686
9	Cost of energy efficiency (sum of Rows 4-8)	\$2,543,563	\$2,384,467	\$2,500,000	\$2,500,000	\$2,508,197	\$2,806,147
10	Difference (Row 3 - Row 9)	-\$1,241,507	-\$1,060,937	-\$1,110,293	-\$1,110,293	-\$1,020,183	-\$1,136,595

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-16

Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Star HVAC Program- Part 1

Calculation of Cost of Supply Compared to Cost of Energy Efficiency for Electric Energy Sanitary Program - Tab 2						
Electric Energy		2021		2022		2023
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$3,434,675	\$4,665,249	\$4,898,511	\$5,614,451	\$6,299,416
2	Electric Generation Costs	\$269,969	\$319,893	\$335,888	\$379,530	\$425,832
3	Electric Transmission Capacity Costs	\$343,200	\$397,742	\$417,629	\$458,686	\$514,645
4	Electric Distribution Capacity Cost	\$298,039	\$345,403	\$362,673	\$398,327	\$446,924
5	Natural Gas Costs	\$595,633	\$788,393	\$827,813	\$906,562	\$1,017,163
6	Fuel Costs	\$81,133	\$109,289	\$114,753	\$127,272	\$142,799
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$1,309,054	\$1,761,157	\$1,849,214	\$2,085,341	\$2,339,754
10	Non-embedded Greenhouse Gas Reduction Costs	\$1,684,780	\$2,231,478	\$2,343,052	\$2,600,872	\$2,918,179
11	Non-embedded Nitrous Oxide (NOx Costs)	\$111,768	\$149,888	\$157,382	\$176,110	\$197,596
12	Reliability Costs	\$1,000	\$1,175	\$1,234	\$1,354	\$1,519
13	Cost of supply (Sum of rows 1-12)	\$8,129,252	\$10,769,667	\$11,308,150	\$12,748,506	\$14,303,827
14	Program Implementation Expenses (Direct)	\$3,487,798	\$4,638,345	\$4,870,262	\$6,038,106	\$6,774,757
15	Program Implementation Expenses (Distributed from sector level)	\$81,789	\$136,769	\$144,602	\$162,771	\$185,353
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)					
17	Customer Contribution	\$54,325	\$90,998	\$94,949	\$122,877	\$136,943
18	Shareholder Incentive (Distributed from sector level)	\$1,311,579	\$1,560,298	\$1,638,313	\$1,064,493	\$1,194,362
19	Cost of energy efficiency (Distributed from sector level)	\$187,962	\$269,560	\$270,580	\$297,897	\$300,091
20	Cost of energy efficiency (Sum of rows 14-18)	\$5,123,453	\$6,695,970	\$7,018,707	\$7,686,144	\$8,591,506
20	Difference (Row 13 - Row 19)	\$3,005,799	\$4,073,697	\$4,289,443	\$5,062,362	\$5,712,321

Notes:

- All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column
- (6) Table E-6, sum of Non-electric columns "Oil", "Other Resource." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan
- (7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"
- (10) Table E-6, Societal column "Carbon."
- (11) Table E-6, Societal column "NOx."
- (12) Table E-6, Capacity column "Reliability."
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-16
Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Star HVAC Program- Part 2

Calculation of cost of supply compared to cost of energy efficiency of Electric Energy Star HVAC Program - Part 2						
Electric Energy		2021		2022		2023
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$3,434,675	\$4,665,249	\$4,898,511	\$5,614,451	\$6,299,416
2	Electric Generation Costs	\$269,969	\$319,893	\$335,888	\$379,530	\$425,832
3	Electric Transmission Capacity Costs	\$343,200	\$397,742	\$417,629	\$458,686	\$514,645
4	Electric Distribution Capacity Cost	\$298,039	\$345,403	\$362,673	\$398,327	\$446,924
5	Price Effects	\$1,295,519	\$1,743,291	\$1,830,455	\$2,064,870	\$2,316,785
6	Cost of supply (Sum of Rows 1-5)	\$5,641,403	\$7,471,578	\$7,845,157	\$8,915,864	\$10,003,602
7	Program Implementation Expenses (Direct)	\$3,487,798	\$4,638,345	\$4,870,262	\$6,038,106	\$6,774,757
8	Program Implementation Expenses (Distributed from sector level)	\$81,789	\$136,769	\$144,602	\$162,771	\$185,353
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$54,325	\$90,998	\$94,949	\$122,877	\$136,943
10	Customer Contribution	\$1,311,579	\$1,560,298	\$1,638,313	\$1,064,493	\$1,194,362
11	Shareholder Incentive (Distributed from sector level)	\$187,962	\$269,560	\$270,580	\$297,897	\$300,091
13	Cost of energy efficiency (Sum of Rows 7-11)	\$5,123,453	\$6,695,970	\$7,018,707	\$7,686,144	\$8,591,506
14	Difference (Row 6 - Row 13)	\$517,950	\$775,608	\$826,449	\$1,229,720	\$1,412,096

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-16
Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Star HVAC Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$3,434,675	\$4,665,249	\$4,898,511	\$5,614,451	\$6,299,416
2	Electric Generation Costs		\$269,969	\$319,893	\$335,888	\$379,530	\$425,832
3	Cost of supply (sum of Rows 1-2)		\$3,704,645	\$4,985,142	\$5,234,399	\$5,993,981	\$6,725,248
4	Program Implementation Expenses (Direct)		\$3,487,798	\$4,638,345	\$4,870,262	\$6,038,106	\$6,774,757
5	Program Implementation Expenses (Distributed from sector level)		\$81,789	\$136,769	\$144,602	\$162,771	\$185,353
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$54,325	\$90,998	\$94,949	\$122,877	\$136,943
7	Customer Contribution		\$1,311,579	\$1,560,298	\$1,638,313	\$1,064,493	\$1,194,362
8	Shareholder Incentive (Distributed from sector level)		\$187,962	\$269,560	\$270,580	\$297,897	\$300,091
9	Cost of energy efficiency (sum of Rows 4-8)		\$5,123,453	\$6,695,970	\$7,018,707	\$7,686,144	\$8,591,506
10	Difference (Row 3 - Row 9)		-\$1,418,808	-\$1,710,828	-\$1,784,308	-\$1,692,163	-\$1,866,258

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-17

Calculation of cost of supply compared to cost of energy efficiency for Electric EnergyWise Single Family Program- Part 1

Calculation of Cost of Supply Compared to Cost of Energy Efficiency for Electric Energy (Average Annual Program - Part 2)						
Electric Energy		2021		2022		2023
	a	b	c	d	e	f
1	Electric Energy Costs	\$929,721	\$871,907	\$915,502	\$990,083	\$1,110,873
2	Electric Generation Costs	\$285,865	\$298,446	\$313,369	\$360,708	\$404,714
3	Electric Transmission Capacity Costs	\$374,060	\$374,058	\$392,761	\$433,165	\$486,011
4	Electric Distribution Capacity Cost	\$324,838	\$324,836	\$341,078	\$376,165	\$422,057
5	Natural Gas Costs	\$0	\$0	\$0	\$0	\$0
6	Fuel Costs	\$10,730,531	\$11,925,530	\$12,521,807	\$14,741,581	\$16,540,058
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$619,590	\$498,887	\$523,831	\$492,181	\$552,228
10	Non-embedded Greenhouse Gas Reduction Costs	\$2,749,665	\$2,926,404	\$3,072,724	\$3,515,109	\$3,943,954
11	Non-embedded Nitrous Oxide (NOx Costs)	\$347,309	\$376,057	\$394,860	\$456,340	\$512,013
12	Reliability Costs	\$1,981	\$1,523	\$1,599	\$1,444	\$1,620
13	Cost of supply (Sum of rows 1-12)	\$16,363,560	\$17,597,648	\$18,477,531	\$21,366,775	\$23,973,528
14	Program Implementation Expenses (Direct)	\$17,033,340	\$18,008,677	\$18,909,111	\$21,716,295	\$24,365,689
15	Program Implementation Expenses (Distributed from sector level)	\$399,432	\$531,014	\$561,428	\$585,411	\$666,631
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$265,307	\$353,308	\$368,647	\$441,932	\$492,521
17	Customer Contribution	\$790,425	\$585,450	\$614,722	\$778,338	\$873,295
18	Shareholder Incentive (Distributed from sector level)	\$917,951	\$1,046,583	\$1,050,546	\$1,071,399	\$1,079,291
19	Cost of energy efficiency (Sum of rows 14-18)	\$19,406,455	\$20,525,032	\$21,504,454	\$24,593,375	\$27,477,428
20	Difference (Row 13 - Row 19)	-\$3,042,895	-\$2,927,384	-\$3,026,924	-\$3,226,600	-\$3,503,900

Notes:

All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."

(2) Table E-6, Capacity column "Summer Generation."

(3) Table E-6, Capacity column "Trans."

(4) Table E-6, Capacity column "Dist."

(5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column

(6) Table E-6, sum of Non-electric columns "Oil", "Other Resource." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan

(7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"

(10) Table E-6, Societal column "Carbon."

(11) Table E-6, Societal column "NOx."

(12) Table E-6, Capacity column "Reliability."

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-17
Calculation of cost of supply compared to cost of energy efficiency for Electric EnergyWise Single Family Program- Part 2

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$929,721	\$871,907	\$915,502	\$990,083	\$1,110,873
2	Electric Generation Costs		\$285,865	\$298,446	\$313,369	\$360,708	\$404,714
3	Electric Transmission Capacity Costs		\$374,060	\$374,058	\$392,761	\$433,165	\$486,011
4	Electric Distribution Capacity Cost		\$324,838	\$324,836	\$341,078	\$376,165	\$422,057
5	Price Effects		\$619,590	\$498,887	\$523,831	\$492,181	\$552,228
6	Cost of supply (Sum of Rows 1-5)		\$2,534,073	\$2,368,134	\$2,486,541	\$2,652,302	\$2,975,883
7	Program Implementation Expenses (Direct)		\$17,033,340	\$18,008,677	\$18,909,111	\$21,716,295	\$24,365,689
8	Program Implementation Expenses (Distributed from sector level)		\$399,432	\$531,014	\$561,428	\$585,411	\$666,631
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$265,307	\$353,308	\$368,647	\$441,932	\$492,521
10	Customer Contribution		\$790,425	\$585,450	\$614,722	\$778,338	\$873,295
11	Shareholder Incentive (Distributed from sector level)		\$917,951	\$1,046,583	\$1,050,546	\$1,071,399	\$1,079,291
13	Cost of energy efficiency (Sum of Rows 7-11)		\$19,406,455	\$20,525,032	\$21,504,454	\$24,593,375	\$27,477,428
14	Difference (Row 6 - Row 13)		\$16,872,382	\$18,156,898	\$19,017,913	\$21,941,073	\$24,501,545

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-17
Calculation of cost of supply compared to cost of energy efficiency for Electric EnergyWise Single Family Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$929,721	\$871,907	\$915,502	\$990,083	\$1,110,873
2	Electric Generation Costs		\$285,865	\$298,446	\$313,369	\$360,708	\$404,714
3	Cost of supply (sum of Rows 1-2)		\$1,215,586	\$1,170,353	\$1,228,871	\$1,350,791	\$1,515,588
4	Program Implementation Expenses (Direct)		\$17,033,340	\$18,008,677	\$18,909,111	\$21,716,295	\$24,365,689
5	Program Implementation Expenses (Distributed from sector level)		\$399,432	\$531,014	\$561,428	\$585,411	\$666,631
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$265,307	\$353,308	\$368,647	\$441,932	\$492,521
7	Customer Contribution		\$790,425	\$585,450	\$614,722	\$778,338	\$873,295
8	Shareholder Incentive (Distributed from sector level)		\$917,951	\$1,046,583	\$1,050,546	\$1,071,399	\$1,079,291
9	Cost of energy efficiency (sum of Rows 4-8)		\$19,406,455	\$20,525,032	\$21,504,454	\$24,593,375	\$27,477,428
10	Difference (Row 3 - Row 9)		-\$18,190,869	-\$19,354,679	-\$20,275,583	-\$23,242,584	-\$25,961,840

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-18

Calculation of cost of supply compared to cost of energy efficiency for Electric EnergyWise Multifamily Program- Part 1

Calculation of Cost of Supply Compared to Cost of Energy Efficiency for Electric End-Use Maintenance Program, Part 2						
Electric Energy		2021		2022		2023
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$508,392	\$490,228	\$514,740	\$448,243	\$502,929
2	Electric Generation Costs	\$223,862	\$225,812	\$237,102	\$223,990	\$251,317
3	Electric Transmission Capacity Costs	\$281,140	\$275,869	\$289,662	\$263,044	\$295,136
4	Electric Distribution Capacity Cost	\$244,145	\$239,567	\$251,546	\$228,431	\$256,299
5	Natural Gas Costs	\$0	\$0	\$0	\$0	\$0
6	Fuel Costs	\$645,705	\$655,028	\$687,779	\$662,982	\$743,866
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$251,166	\$224,563	\$235,791	\$159,836	\$179,336
10	Non-embedded Greenhouse Gas Reduction Costs	\$364,466	\$350,737	\$368,274	\$321,886	\$361,156
11	Non-embedded Nitrous Oxide (NOx Costs)	\$30,144	\$29,652	\$31,134	\$28,454	\$31,925
12	Reliability Costs	\$1,014	\$920	\$966	\$689	\$773
13	Cost of supply (Sum of rows 1-12)	\$2,550,032	\$2,492,375	\$2,616,994	\$2,337,555	\$2,622,738
14	Program Implementation Expenses (Direct)	\$3,056,836	\$3,581,305	\$3,760,370	\$3,523,478	\$3,953,343
15	Program Implementation Expenses (Distributed from sector level)	\$71,683	\$105,600	\$111,649	\$94,983	\$108,161
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$47,612	\$70,261	\$73,311	\$71,704	\$79,912
17	Customer Contribution	\$532,000	\$332,000	\$348,600	\$332,000	\$372,504
18	Shareholder Incentive (Distributed from sector level)	\$164,737	\$208,129	\$208,917	\$173,835	\$175,115
19	Cost of energy efficiency (Sum of rows 14-18)	\$3,872,868	\$4,297,295	\$4,502,847	\$4,196,000	\$4,689,036
20	Difference (Row 13 - Row 19)	-\$1,322,836	-\$1,804,920	-\$1,885,853	-\$1,858,444	-\$2,066,298

Notes:

All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."

(2) Table E-6, Capacity column "Summer Generation."

(3) Table E-6, Capacity column "Trans."

(4) Table E-6, Capacity column "Dist."

(5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column

(6) Table E-6, sum of Non-electric columns "Oil", "Other Resource." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan

(7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"

(10) Table E-6, Societal column "Carbon."

(11) Table E-6, Societal column "NOx."

(12) Table E-6, Capacity column "Reliability."

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-18
Calculation of cost of supply compared to cost of energy efficiency for Electric EnergyWise Multifamily Program- Part 2

Calculation of cost of supply compared to cost of energy efficiency for Electric Line-wide Maintenance Program Part 2							
Electric Energy		2021		2022		2023	
Ref	a	b	c	d	e	f	
1	Electric Energy Costs	\$508,392	\$490,228	\$514,740	\$448,243	\$502,929	
2	Electric Generation Costs	\$223,862	\$225,812	\$237,102	\$223,990	\$251,317	
3	Electric Transmission Capacity Costs	\$281,140	\$275,869	\$289,662	\$263,044	\$295,136	
4	Electric Distribution Capacity Cost	\$244,145	\$239,567	\$251,546	\$228,431	\$256,299	
5	Price Effects	\$251,166	\$224,563	\$235,791	\$159,836	\$179,336	
6	Cost of supply (Sum of Rows 1-5)	\$1,508,704	\$1,456,039	\$1,528,841	\$1,323,544	\$1,485,017	
7	Program Implementation Expenses (Direct)	\$3,056,836	\$3,581,305	\$3,760,370	\$3,523,478	\$3,953,343	
8	Program Implementation Expenses (Distributed from sector level)	\$71,683	\$105,600	\$111,649	\$94,983	\$108,161	
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$47,612	\$70,261	\$73,311	\$71,704	\$79,912	
10	Customer Contribution	\$532,000	\$332,000	\$348,600	\$332,000	\$372,504	
11	Shareholder Incentive (Distributed from sector level)	\$164,737	\$208,129	\$208,917	\$173,835	\$175,115	
13	Cost of energy efficiency (Sum of Rows 7-11)	\$3,872,868	\$4,297,295	\$4,502,847	\$4,196,000	\$4,689,036	
14	Difference (Row 6 - Row 13)	-\$2,364,165	-\$2,841,256	-\$2,974,006	-\$2,872,456	-\$3,204,019	

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-18
Calculation of cost of supply compared to cost of energy efficiency for Electric EnergyWise Multifamily Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$508,392	\$490,228	\$514,740	\$448,243	\$502,929
2	Electric Generation Costs		\$223,862	\$225,812	\$237,102	\$223,990	\$251,317
3	Cost of supply (sum of Rows 1-2)		\$732,254	\$716,040	\$751,842	\$672,233	\$754,245
4	Program Implementation Expenses (Direct)		\$3,056,836	\$3,581,305	\$3,760,370	\$3,523,478	\$3,953,343
5	Program Implementation Expenses (Distributed from sector level)		\$71,683	\$105,600	\$111,649	\$94,983	\$108,161
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$47,612	\$70,261	\$73,311	\$71,704	\$79,912
7	Customer Contribution		\$532,000	\$332,000	\$348,600	\$332,000	\$372,504
8	Shareholder Incentive (Distributed from sector level)		\$164,737	\$208,129	\$208,917	\$173,835	\$175,115
9	Cost of energy efficiency (sum of Rows 4-8)		\$3,872,868	\$4,297,295	\$4,502,847	\$4,196,000	\$4,689,036
10	Difference (Row 3 - Row 9)		-\$3,140,615	-\$3,581,255	-\$3,751,005	-\$3,523,767	-\$3,934,790

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-19

Calculation of cost of supply compared to cost of energy efficiency for Electric Home Energy Reports Program- Part 1

Calculation of cost of supply compared to cost of energy efficiency for Electric Home Energy Report Program - Part 2							
Electric Energy		2021		2022		2023	
Ref	a	b	c	d	e	f	
1	Electric Energy Costs	\$1,781,808	\$1,649,552	\$1,649,552	\$1,639,085	\$1,639,085	
2	Electric Generation Costs	\$251,111	\$241,265	\$241,265	\$246,293	\$246,293	
3	Electric Transmission Capacity Costs	\$405,538	\$405,538	\$405,538	\$405,538	\$405,538	
4	Electric Distribution Capacity Cost	\$352,173	\$352,173	\$352,173	\$352,173	\$352,173	
5	Natural Gas Costs	\$0	\$0	\$0	\$0	\$0	
6	Fuel Costs	\$0	\$0	\$0	\$0	\$0	
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0	
8	Arrearages	\$0	\$0	\$0	\$0	\$0	
9	Price Effects	\$2,207,674	\$2,207,674	\$2,207,674	\$2,207,674	\$2,207,674	
10	Non-embedded Greenhouse Gas Reduction Costs	\$842,841	\$832,141	\$832,141	\$826,338	\$826,338	
11	Non-embedded Nitrous Oxide (NOx Costs)	\$37,889	\$37,889	\$37,889	\$37,889	\$37,889	
12	Reliability Costs	\$10,087	\$10,087	\$10,087	\$10,087	\$10,087	
13	Cost of supply (Sum of rows 1-12)	\$5,889,121	\$5,736,318	\$5,736,318	\$5,725,077	\$5,725,077	
14	Program Implementation Expenses (Direct)	\$2,641,681	\$2,624,008	\$2,624,008	\$2,624,004	\$2,624,004	
15	Program Implementation Expenses (Distributed from sector level)	\$61,947	\$77,373	\$77,909	\$70,736	\$71,791	
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$41,146	\$51,480	\$51,157	\$53,399	\$53,041	
17	Customer Contribution	\$0	\$2,540,729	\$2,540,729	\$2,540,729	\$2,540,729	
18	Shareholder Incentive (Distributed from sector level)	\$142,364	\$152,496	\$145,784	\$129,458	\$116,232	
19	Cost of energy efficiency (Sum of rows 14-18)	\$2,887,139	\$5,446,086	\$5,439,587	\$5,418,327	\$5,405,797	
20	Difference (Row 13 - Row 19)	\$3,001,982	\$290,233	\$296,731	\$306,751	\$319,280	

Notes:

All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."

(2) Table E-6, Capacity column "Summer Generation."

(3) Table E-6, Capacity column "Trans."

(4) Table E-6, Capacity column "Dist."

(5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column

(6) Table E-6, sum of Non-electric columns "Oil", "Other Resource," and calculation from Electric Benefit-Cost Model, 2021-2023 Plan

(7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE," and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"

(10) Table E-6, Societal column "Carbon."

(11) Table E-6, Societal column "NOx."

(12) Table E-6, Capacity column "Reliability."

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-19
Calculation of cost of supply compared to cost of energy efficiency for Electric Home Energy Reports Program- Part 2

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$1,781,808	\$1,649,552	\$1,649,552	\$1,639,085	\$1,639,085
2	Electric Generation Costs		\$251,111	\$241,265	\$241,265	\$246,293	\$246,293
3	Electric Transmission Capacity Costs		\$405,538	\$405,538	\$405,538	\$405,538	\$405,538
4	Electric Distribution Capacity Cost		\$352,173	\$352,173	\$352,173	\$352,173	\$352,173
5	Price Effects		\$2,207,674	\$2,207,674	\$2,207,674	\$2,207,674	\$2,207,674
6	Cost of supply (Sum of Rows 1-5)		\$4,998,304	\$4,856,201	\$4,856,201	\$4,850,763	\$4,850,763
7	Program Implementation Expenses (Direct)		\$2,641,681	\$2,624,008	\$2,624,008	\$2,624,004	\$2,624,004
8	Program Implementation Expenses (Distributed from sector level)		\$61,947	\$77,373	\$77,909	\$70,736	\$71,791
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$41,146	\$51,480	\$51,157	\$53,399	\$53,041
10	Customer Contribution		\$0	\$2,540,729	\$2,540,729	\$2,540,729	\$2,540,729
11	Shareholder Incentive (Distributed from sector level)		\$142,364	\$152,496	\$145,784	\$129,458	\$116,232
13	Cost of energy efficiency (Sum of Rows 7-11)		\$2,887,139	\$5,446,086	\$5,439,587	\$5,418,327	\$5,405,797
14	Difference (Row 6 - Row 13)		\$2,111,165	-\$589,884	-\$583,386	-\$567,563	-\$555,034

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-19
Calculation of cost of supply compared to cost of energy efficiency for Electric Home Energy Reports Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$1,781,808	\$1,649,552	\$1,649,552	\$1,639,085	\$1,639,085
2	Electric Generation Costs		\$251,111	\$241,265	\$241,265	\$246,293	\$246,293
3	Cost of supply (sum of Rows 1-2)		\$2,032,919	\$1,890,816	\$1,890,816	\$1,885,378	\$1,885,378
4	Program Implementation Expenses (Direct)		\$2,641,681	\$2,624,008	\$2,624,008	\$2,624,004	\$2,624,004
5	Program Implementation Expenses (Distributed from sector level)		\$61,947	\$77,373	\$77,909	\$70,736	\$71,791
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$41,146	\$51,480	\$51,157	\$53,399	\$53,041
7	Customer Contribution		50	\$2,540,729	\$2,540,729	\$2,540,729	\$2,540,729
8	Shareholder Incentive (Distributed from sector level)		\$142,364	\$152,496	\$145,784	\$129,458	\$116,232
9	Cost of energy efficiency (sum of Rows 4-8)		\$2,887,139	\$5,446,086	\$5,439,587	\$5,418,327	\$5,405,797
10	Difference (Row 3 - Row 9)		-\$854,220	-\$3,555,269	-\$3,548,771	-\$3,532,948	-\$3,520,419

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-20

Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Star Lighting Program- Part 1

Calculation of Cost of Supply Compared to Cost of Energy Efficiency for Electric Energy (Continued - Part 2)						
Electric Energy		2021		2022		2023
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$1,709,556	\$0	\$0	\$0	\$0
2	Electric Generation Costs	\$291,026	\$0	\$0	\$0	\$0
3	Electric Transmission Capacity Costs	\$465,595	\$0	\$0	\$0	\$0
4	Electric Distribution Capacity Cost	\$404,328	\$0	\$0	\$0	\$0
5	Natural Gas Costs	-\$246,165	\$0	\$0	\$0	\$0
6	Fuel Costs	-\$445,162	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$1,980,367	\$0	\$0	\$0	\$0
10	Non-embedded Greenhouse Gas Reduction Costs	\$631,793	\$0	\$0	\$0	\$0
11	Non-embedded Nitrous Oxide (NOx Costs)	\$10,661	\$0	\$0	\$0	\$0
12	Reliability Costs	\$7,429	\$0	\$0	\$0	\$0
13	Cost of supply (Sum of rows 1-12)	\$4,809,428	\$0	\$0	\$0	\$0
14	Program Implementation Expenses (Direct)	\$5,274,753	\$0	\$0	\$0	\$0
15	Program Implementation Expenses (Distributed from sector level)	\$123,693	\$0	\$0	\$0	\$0
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$82,158	\$0	\$0	\$0	\$0
17	Customer Contribution	-\$1,012,870	\$0	\$0	\$0	\$0
18	Shareholder Incentive (Distributed from sector level)	\$284,264	\$0	\$0	\$0	\$0
19	Cost of energy efficiency (Sum of rows 14-18)	\$4,751,998	\$0	\$0	\$0	\$0
20	Difference (Row 13 - Row 19)	\$57,430	\$0	\$0	\$0	\$0

Notes:

- All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column
- (6) Table E-6, sum of Non-electric columns "Oil", "Other Resource." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan
- (7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"
- (10) Table E-6, Societal column "Carbon."
- (11) Table E-6, Societal column "NOx."
- (12) Table E-6, Capacity column "Reliability."
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-20
Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Star Lighting Program- Part 2

Electric Energy		2021	2022		2023	
Ref	a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Electric Energy Costs	\$1,709,556	\$0	\$0	\$0	\$0
2	Electric Generation Costs	\$29,1026	\$0	\$0	\$0	\$0
3	Electric Transmission Capacity Costs	\$465,595	\$0	\$0	\$0	\$0
4	Electric Distribution Capacity Cost	\$404,328	\$0	\$0	\$0	\$0
5	Price Effects	\$1,994,675	\$0	\$0	\$0	\$0
6	Cost of supply (Sum of Rows 1-5)	\$4,865,180	\$0	\$0	\$0	\$0
7	Program Implementation Expenses (Direct)	\$5,274,753	\$0	\$0	\$0	\$0
8	Program Implementation Expenses (Distributed from sector level)	\$123,693	\$0	\$0	\$0	\$0
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$82,158	\$0	\$0	\$0	\$0
10	Customer Contribution	-\$1,012,870	\$0	\$0	\$0	\$0
11	Shareholder Incentive (Distributed from sector level)	\$284,264	\$0	\$0	\$0	\$0
13	Cost of energy efficiency (Sum of Rows 7-11)	\$4,751,998	\$0	\$0	\$0	\$0
14	Difference (Row 6 - Row 13)	\$113,181	\$0	\$0	\$0	\$0

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-20
Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Star Lighting Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$1,709,556	\$0	\$0	\$0	\$0
2	Electric Generation Costs		\$291,026	\$0	\$0	\$0	\$0
3	Cost of supply (sum of Rows 1-2)		\$2,000,582	\$0	\$0	\$0	\$0
4	Program Implementation Expenses (Direct)		\$5,274,753	\$0	\$0	\$0	\$0
5	Program Implementation Expenses (Distributed from sector level)		\$123,693	\$0	\$0	\$0	\$0
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$82,158	\$0	\$0	\$0	\$0
7	Customer Contribution		-\$1,012,870	\$0	\$0	\$0	\$0
8	Shareholder Incentive (Distributed from sector level)		\$284,264	\$0	\$0	\$0	\$0
9	Cost of energy efficiency (sum of Rows 4-8)		\$4,751,998	\$0	\$0	\$0	\$0
10	Difference (Row 3 - Row 9)		-\$2,751,416	\$0	\$0	\$0	\$0

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-21

Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Star Products Program- Part 1

Electric Energy		2021		2022		2023	
	a	b	c	d	e	f	
1	Electric Energy Costs	\$2,343,605	\$2,474,479	\$2,598,203	\$3,381,822	\$3,794,405	
2	Electric Generation Costs	\$487,397	\$536,791	\$563,631	\$763,345	\$856,473	
3	Electric Transmission Capacity Costs	\$728,603	\$769,576	\$808,055	\$1,039,634	\$1,166,469	
4	Electric Distribution Capacity Cost	\$632,727	\$668,308	\$701,723	\$902,829	\$1,012,974	
5	Natural Gas Costs	\$15,490	\$16,273	\$17,087	\$22,415	\$25,150	
6	Fuel Costs	\$46,151	\$49,161	\$51,619	\$68,632	\$77,005	
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0	
8	Arrearages	\$0	\$0	\$0	\$0	\$0	
9	Price Effects	\$1,820,879	\$1,925,455	\$2,021,728	\$2,596,464	\$2,913,233	
10	Non-embedded Greenhouse Gas Reduction Costs	\$1,150,471	\$1,203,029	\$1,263,180	\$1,601,322	\$1,796,684	
11	Non-embedded Nitrous Oxide (NOx Costs)	\$54,346	\$57,466	\$60,339	\$77,503	\$86,959	
12	Reliability Costs	\$4,947	\$5,220	\$5,481	\$7,063	\$7,924	
13	Cost of supply (Sum of rows 1-12)	\$7,284,615	\$7,705,758	\$8,091,046	\$10,461,029	\$11,737,277	
14	Program Implementation Expenses (Direct)	\$2,681,236	\$2,851,875	\$2,994,469	\$3,613,395	\$4,054,230	
15	Program Implementation Expenses (Distributed from sector level)	\$62,875	\$84,092	\$88,908	\$97,407	\$110,921	
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$41,762	\$55,950	\$58,379	\$73,533	\$81,951	
17	Customer Contribution	\$1,321,227	\$1,340,145	\$1,407,152	\$1,830,888	\$2,054,257	
18	Shareholder Incentive (Distributed from sector level)	\$144,496	\$165,738	\$166,366	\$178,271	\$179,584	
19	Cost of energy efficiency (Sum of rows 14-18)	\$4,251,596	\$4,497,800	\$4,715,274	\$5,793,494	\$6,480,943	
20	Difference (Row 13 - Row 19)	\$3,033,020	\$3,207,958	\$3,375,772	\$4,667,534	\$5,256,334	

Notes:

All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."

(2) Table E-6, Capacity column "Summer Generation."

(3) Table E-6, Capacity column "Trans."

(4) Table E-6, Capacity column "Dist."

(5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column

(6) Table E-6, sum of Non-electric columns "Oil", "Other Resource." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan

(7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"

(10) Table E-6, Societal column "Carbon."

(11) Table E-6, Societal column "NOx."

(12) Table E-6, Capacity column "Reliability."

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-21
Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Star Products Program- Part 2

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$2,343,605	\$2,474,479	\$2,598,203	\$3,381,822	\$3,794,405
2	Electric Generation Costs		\$487,397	\$536,791	\$563,631	\$763,345	\$856,473
3	Electric Transmission Capacity Costs		\$728,603	\$769,576	\$808,055	\$1,039,634	\$1,166,469
4	Electric Distribution Capacity Cost		\$632,727	\$668,308	\$701,723	\$902,829	\$1,012,974
5	Price Effects		\$1,820,610	\$1,925,174	\$2,021,433	\$2,596,078	\$2,912,800
6	Cost of supply (Sum of Rows 1-5)		\$6,012,943	\$6,374,328	\$6,693,044	\$8,683,707	\$9,743,122
7	Program Implementation Expenses (Direct)		\$2,681,236	\$2,851,875	\$2,994,469	\$3,613,395	\$4,054,230
8	Program Implementation Expenses (Distributed from sector level)		\$62,875	\$84,092	\$88,908	\$97,407	\$110,921
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$41,762	\$55,950	\$58,379	\$73,533	\$81,951
10	Customer Contribution		\$1,321,227	\$1,340,145	\$1,407,152	\$1,830,888	\$2,054,257
11	Shareholder Incentive (Distributed from sector level)		\$144,496	\$165,738	\$166,366	\$178,271	\$179,584
13	Cost of energy efficiency (Sum of Rows 7-11)		\$4,251,596	\$4,497,800	\$4,715,274	\$5,793,494	\$6,480,943
14	Difference (Row 6 - Row 13)		\$1,761,347	\$1,876,528	\$1,977,770	\$2,890,213	\$3,262,179

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-21

Calculation of cost of supply compared to cost of energy efficiency for Electric Energy Star Products Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$2,343,605	\$2,474,479	\$2,598,203	\$3,381,822	\$3,794,405
2	Electric Generation Costs		\$487,397	\$536,791	\$563,631	\$763,345	\$856,473
3	Cost of supply (sum of Rows 1-2)		\$2,831,002	\$3,011,270	\$3,161,834	\$4,145,167	\$4,650,878
4	Program Implementation Expenses (Direct)		\$2,681,236	\$2,851,875	\$2,994,469	\$3,613,395	\$4,054,230
5	Program Implementation Expenses (Distributed from sector level)		\$62,875	\$84,092	\$88,908	\$97,407	\$110,921
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$41,762	\$55,950	\$58,379	\$73,533	\$81,951
7	Customer Contribution		\$1,321,227	\$1,340,145	\$1,407,152	\$1,830,888	\$2,054,257
8	Shareholder Incentive (Distributed from sector level)		\$144,496	\$165,738	\$166,366	\$178,271	\$179,584
9	Cost of energy efficiency (sum of Rows 4-8)		\$4,251,596	\$4,497,800	\$4,715,274	\$5,793,494	\$6,480,943
10	Difference (Row 3 - Row 9)		-\$1,420,593	-\$1,486,530	-\$1,553,440	-\$1,648,327	-\$1,830,065

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-22

Calculation of cost of supply compared to cost of energy efficiency for Electric Commercial New Construction Program- Part 1

Calculation of Cost of Supply Compared to Cost of Energy Efficiency for Electric Commercial New Construction Program - Tab 2								
Electric Energy			2021		2022		2023	
Ref		a	b	c	d	e	f	
1	Electric Energy Costs		\$11,977,353	\$13,285,702	\$13,949,987	\$11,800,480	\$13,240,142	
2	Electric Generation Costs		\$2,676,372	\$2,844,923	\$2,987,169	\$2,449,908	\$2,748,797	
3	Electric Transmission Capacity Costs		\$3,343,446	\$3,510,670	\$3,686,204	\$2,954,786	\$3,315,271	
4	Electric Distribution Capacity Cost		\$2,903,484	\$3,048,703	\$3,201,138	\$2,565,967	\$2,879,016	
5	Natural Gas Costs		\$-367,235	\$-433,828	\$-455,519	\$-388,046	\$-435,388	
6	Fuel Costs		\$0	\$0	\$0	\$0	\$0	
7	Income Eligible Rate Discount		\$0	\$0	\$0	\$0	\$0	
8	Arrearages		\$0	\$0	\$0	\$0	\$0	
9	Price Effects		\$4,663,669	\$5,368,308	\$5,636,723	\$4,774,737	\$5,357,257	
10	Non-embedded Greenhouse Gas Reduction Costs		\$5,005,820	\$5,435,084	\$5,706,838	\$4,693,263	\$5,265,842	
11	Non-embedded Nitrous Oxide (NOx Costs)		\$223,423	\$246,324	\$258,640	\$216,088	\$242,428	
12	Reliability Costs		\$9,086	\$10,077	\$10,580	\$8,670	\$9,728	
13	Cost of supply (Sum of rows 1-12)		\$30,435,420	\$33,315,962	\$34,981,761	\$29,075,832	\$32,623,093	
14	Program Implementation Expenses (Direct)		\$8,500,175	\$9,845,884	\$10,338,179	\$8,962,708	\$10,056,161	
15	Program Implementation Expenses (Distributed from sector level)		\$900,854	\$837,420	\$866,078	\$727,076	\$798,450	
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$132,396	\$193,164	\$201,550	\$182,393	\$203,273	
17	Customer Contribution		\$893,109	\$1,111,382	\$1,166,951	\$1,004,563	\$1,127,120	
18	Shareholder Incentive (Distributed from sector level)		\$426,612	\$388,932	\$388,932	\$336,929	\$336,929	
19	Cost of energy efficiency (Sum of rows 14-18)		\$10,853,146	\$12,376,783	\$12,961,690	\$11,213,670	\$12,521,933	
20	Difference (Row 13 - Row 19)		\$19,582,274	\$20,939,179	\$22,020,070	\$17,862,162	\$20,101,159	

Notes:

- All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column
- (6) Table E-6, sum of Non-electric columns "Oil", "Other Resource." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan
- (7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"
- (10) Table E-6, Societal column "Carbon."
- (11) Table E-6, Societal column "NOx."
- (12) Table E-6, Capacity column "Reliability."
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-22
Calculation of cost of supply compared to cost of energy efficiency for Electric Commercial New Construction Program- Part 2

Electric Energy		2021	2022		2023	
Ref	a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Electric Energy Costs	\$11,977,353	\$13,285,702	\$13,949,987	\$11,800,480	\$13,240,142
2	Electric Generation Costs	\$2,676,372	\$2,844,923	\$2,987,169	\$2,449,908	\$2,748,797
3	Electric Transmission Capacity Costs	\$3,343,446	\$3,510,670	\$3,686,204	\$2,954,786	\$3,315,271
4	Electric Distribution Capacity Cost	\$2,903,484	\$3,048,703	\$3,201,138	\$2,565,967	\$2,879,016
5	Price Effects	\$4,673,398	\$5,379,764	\$5,648,752	\$4,784,942	\$5,368,706
6	Cost of supply (Sum of Rows 1-5)	\$25,574,054	\$28,069,762	\$29,473,250	\$24,556,083	\$27,551,932
7	Program Implementation Expenses (Direct)	\$8,500,175	\$9,845,884	\$10,338,179	\$8,962,708	\$10,056,161
8	Program Implementation Expenses (Distributed from sector level)	\$900,854	\$837,420	\$866,078	\$727,076	\$798,450
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$132,396	\$193,164	\$201,550	\$182,393	\$203,273
10	Customer Contribution	\$893,109	\$1,111,382	\$1,166,951	\$1,004,563	\$1,127,120
11	Shareholder Incentive (Distributed from sector level)	\$426,612	\$388,932	\$388,932	\$336,929	\$336,929
13	Cost of energy efficiency (Sum of Rows 7-11)	\$10,853,146	\$12,376,783	\$12,961,690	\$11,213,670	\$12,521,933
14	Difference (Row 6 - Row 13)	\$14,720,908	\$15,692,979	\$16,511,560	\$13,342,413	\$15,029,999

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-22
Calculation of cost of supply compared to cost of energy efficiency for Electric Commercial New Construction Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$11,977,353	\$13,285,702	\$13,949,987	\$11,800,480	\$13,240,142
2	Electric Generation Costs		\$2,676,372	\$2,844,923	\$2,987,169	\$2,449,908	\$2,748,797
3	Cost of supply (sum of Rows 1-2)		\$14,653,725	\$16,130,625	\$16,937,156	\$14,250,388	\$15,988,939
4	Program Implementation Expenses (Direct)		\$8,500,175	\$9,845,884	\$10,338,179	\$8,962,708	\$10,056,161
5	Program Implementation Expenses (Distributed from sector level)		\$900,854	\$837,420	\$866,078	\$727,076	\$798,450
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$132,396	\$193,164	\$201,550	\$182,393	\$203,273
7	Customer Contribution		\$893,109	\$1,111,382	\$1,166,951	\$1,004,563	\$1,127,120
8	Shareholder Incentive (Distributed from sector level)		\$426,612	\$388,932	\$388,932	\$336,929	\$336,929
9	Cost of energy efficiency (sum of Rows 4-8)		\$10,853,146	\$12,376,783	\$12,961,690	\$11,213,670	\$12,521,933
10	Difference (Row 3 - Row 9)		\$3,800,579	\$3,753,842	\$3,975,466	\$3,036,718	\$3,467,006

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid

RIPUC Docket No. 5076

Attachment PUC 1-22-23

Calculation of cost of supply compared to cost of energy efficiency for Electric Large Commercial Retrofit Program- Part 1

Calculation of Cost of Supply Compared to Cost of Energy Efficiency for Electric Energy Commercial Retail Program - Part 2						
Electric Energy		2021		2022		2023
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$46,479,163	\$63,404,054	\$65,588,823	\$78,564,538	\$84,447,566
2	Electric Generation Costs	\$11,123,451	\$12,276,788	\$12,890,627	\$13,531,839	\$15,182,727
3	Electric Transmission Capacity Costs	\$14,775,813	\$15,894,018	\$16,688,718	\$16,983,685	\$19,055,699
4	Electric Distribution Capacity Cost	\$12,831,473	\$13,802,534	\$14,492,661	\$14,748,812	\$16,548,172
5	Natural Gas Costs	-\$6,633,879	-\$20,462,378	-\$20,752,218	-\$39,165,278	-\$40,022,508
6	Fuel Costs	\$0	\$0	\$0	\$0	\$10,608,090
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$22,696,272	\$28,299,333	\$29,438,982	\$33,465,509	\$36,533,435
10	Non-embedded Greenhouse Gas Reduction Costs	\$17,987,193	\$17,949,545	\$18,804,089	\$17,361,007	\$19,561,725
11	Non-embedded Nitrous Oxide (NOx Costs)	\$549,723	-\$14,268	\$12,997	-\$453,248	-\$385,804
12	Reliability Costs	\$56,855	\$60,972	\$64,021	\$64,707	\$72,601
13	Cost of supply (Sum of rows 1-12)	\$119,866,064	\$131,210,600	\$137,228,701	\$145,709,660	\$161,601,703
14	Program Implementation Expenses (Direct)	\$31,930,242	\$44,260,469	\$46,473,493	\$47,649,170	\$53,462,383
15	Program Implementation Expenses (Distributed from sector level)					
		\$3,383,987	\$3,764,477	\$3,893,303	\$3,865,413	\$4,244,863
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)					
		\$497,337	\$868,335	\$906,034	\$969,672	\$1,080,674
17	Customer Contribution	\$11,821,786	\$16,430,682	\$17,252,217	\$17,355,938	\$19,473,368
18	Shareholder Incentive (Distributed from sector level)	\$1,602,535	\$1,748,379	\$1,748,379	\$1,791,245	\$1,791,245
19	Cost of energy efficiency (Sum of rows 14-18)	\$49,235,885	\$67,072,343	\$70,273,425	\$71,631,438	\$80,052,534
20	Difference (Row 13 - Row 19)	\$70,630,179	\$64,138,257	\$66,955,276	\$74,078,222	\$81,549,169

Notes:

- All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column
- (6) Table E-6, sum of Non-electric columns "Oil", "Other Resource." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan
- (7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
- (9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"
- (10) Table E-6, Societal column "Carbon."
- (11) Table E-6, Societal column "NOx."
- (12) Table E-6, Capacity column "Reliability."
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-23

Calculation of cost of supply compared to cost of energy efficiency for Electric Large Commercial Retrofit Program- Part 2

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$46,479,163	\$63,404,054	\$65,588,823	\$78,564,538	\$84,447,566
2	Electric Generation Costs		\$11,123,451	\$12,276,788	\$12,890,627	\$13,531,839	\$15,182,727
3	Electric Transmission Capacity Costs		\$14,775,813	\$15,894,018	\$16,688,718	\$16,983,685	\$19,055,699
4	Electric Distribution Capacity Cost		\$12,831,473	\$13,802,534	\$14,492,661	\$14,748,812	\$16,548,172
5	Price Effects		\$22,882,525	\$28,745,073	\$29,893,174	\$34,273,066	\$37,365,827
6	Cost of supply (Sum of Rows 1-5)		\$108,092,425	\$134,122,467	\$139,554,004	\$158,101,940	\$172,599,991
7	Program Implementation Expenses (Direct)		\$31,930,242	\$44,260,469	\$46,473,493	\$47,649,170	\$53,462,383
8	Program Implementation Expenses (Distributed from sector level)		\$3,383,987	\$3,764,477	\$3,893,303	\$3,865,413	\$4,244,863
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$497,337	\$868,335	\$906,034	\$969,672	\$1,080,674
10	Customer Contribution		\$11,821,786	\$16,430,682	\$17,252,217	\$17,355,938	\$19,473,368
11	Shareholder Incentive (Distributed from sector level)		\$1,602,535	\$1,748,379	\$1,748,379	\$1,791,245	\$1,791,245
13	Cost of energy efficiency (Sum of Rows 7-11)		\$49,235,885	\$67,072,343	\$70,273,425	\$71,631,438	\$80,052,534
14	Difference (Row 6 - Row 13)		\$58,856,540	\$67,050,124	\$69,280,579	\$86,470,502	\$92,547,457

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-23
Calculation of cost of supply compared to cost of energy efficiency for Electric Large Commercial Retrofit Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$46,479,163	\$63,404,054	\$65,588,823	\$78,564,538	\$84,447,566
2	Electric Generation Costs		\$11,123,451	\$12,276,788	\$12,890,627	\$13,531,839	\$15,182,727
3	Cost of supply (sum of Rows 1-2)		\$57,602,614	\$75,680,842	\$78,479,451	\$92,096,377	\$99,630,293
4	Program Implementation Expenses (Direct)		\$31,930,242	\$44,260,469	\$46,473,493	\$47,649,170	\$53,462,383
5	Program Implementation Expenses (Distributed from sector level)		\$3,383,987	\$3,764,477	\$3,893,303	\$3,865,413	\$4,244,863
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$497,337	\$868,335	\$906,034	\$969,672	\$1,080,674
7	Customer Contribution		\$11,821,786	\$16,430,682	\$17,252,217	\$17,355,938	\$19,473,368
8	Shareholder Incentive (Distributed from sector level)		\$1,602,535	\$1,748,379	\$1,748,379	\$1,791,245	\$1,791,245
9	Cost of energy efficiency (sum of Rows 4-8)		\$49,235,885	\$67,072,343	\$70,273,425	\$71,631,438	\$80,052,534
10	Difference (Row 3 - Row 9)		\$8,366,729	\$8,608,500	\$8,206,026	\$20,464,939	\$19,577,759

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-24

Calculation of cost of supply compared to cost of energy efficiency for Electric Small Business Direct Install Program- Part 1

Electric Energy		2021		2022		2023	
Ref	a	b	c	d	e	f	
1	Electric Energy Costs	\$6,492,783	\$6,669,026	\$7,002,477	\$7,300,979	\$8,191,700	
2	Electric Generation Costs	\$976,284	\$1,041,729	\$1,093,815	\$1,170,078	\$1,312,828	
3	Electric Transmission Capacity Costs	\$1,324,210	\$1,363,937	\$1,432,133	\$1,483,115	\$1,664,056	
4	Electric Distribution Capacity Cost	\$1,149,958	\$1,184,457	\$1,243,680	\$1,287,953	\$1,445,084	
5	Natural Gas Costs	-\$769,919	-\$797,397	-\$837,267	-\$872,230	-\$978,642	
6	Fuel Costs	\$0	\$0	\$0	\$0	\$0	
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0	
8	Arrearages	\$0	\$0	\$0	\$0	\$0	
9	Price Effects	\$3,817,581	\$3,932,109	\$4,128,714	\$4,275,691	\$4,797,326	
10	Non-embedded Greenhouse Gas Reduction Costs	\$2,677,993	\$2,711,935	\$2,847,531	\$2,898,379	\$3,251,982	
11	Non-embedded Nitrous Oxide (NOx Costs)	\$85,814	\$88,389	\$92,808	\$96,112	\$107,838	
12	Reliability Costs	\$5,553	\$5,719	\$6,005	\$6,219	\$6,978	
13	Cost of supply (Sum of rows 1-12)	\$15,760,258	\$16,199,902	\$17,009,897	\$17,646,297	\$19,799,150	
14	Program Implementation Expenses (Direct)	\$8,883,559	\$8,548,647	\$8,976,079	\$9,225,948	\$10,351,517	
15	Program Implementation Expenses (Distributed from sector level)						
		\$941,485	\$727,086	\$751,968	\$748,431	\$821,901	
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)						
		\$138,368	\$167,714	\$174,995	\$187,750	\$209,243	
17	Customer Contribution	\$1,922,793	\$1,811,498	\$1,902,073	\$1,969,785	\$2,210,099	
18	Shareholder Incentive (Distributed from sector level)	\$445,854	\$337,689	\$337,689	\$346,825	\$346,825	
19	Cost of energy efficiency (Sum of rows 14-18)	\$12,332,058	\$11,592,634	\$12,142,805	\$12,478,739	\$13,939,584	
20	Difference (Row 13 - Row 19)	\$3,428,200	\$4,607,268	\$4,867,092	\$5,167,558	\$5,859,566	

Notes:

All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."

(2) Table E-6, Capacity column "Summer Generation."

(3) Table E-6, Capacity column "Trans."

(4) Table E-6, Capacity column "Dist."

(5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column

(6) Table E-6, sum of Non-electric columns "Oil", "Other Resource." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan

(7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"

(10) Table E-6, Societal column "Carbon."

(11) Table E-6, Societal column "NOx."

(12) Table E-6, Capacity column "Reliability."

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-24
Calculation of cost of supply compared to cost of energy efficiency for Electric Small Business Direct Install Program- Part 2

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$6,492,783	\$6,669,026	\$7,002,477	\$7,300,979	\$8,191,700
2	Electric Generation Costs		\$976,284	\$1,041,729	\$1,093,815	\$1,170,078	\$1,312,828
3	Electric Transmission Capacity Costs		\$1,324,210	\$1,363,937	\$1,432,133	\$1,483,115	\$1,664,056
4	Electric Distribution Capacity Cost		\$1,149,958	\$1,184,457	\$1,243,680	\$1,287,953	\$1,445,084
5	Price Effects		\$3,843,858	\$3,959,173	\$4,157,132	\$4,305,121	\$4,830,347
6	Cost of supply (Sum of Rows 1-5)		\$13,787,094	\$14,218,321	\$14,929,237	\$15,547,246	\$17,444,015
7	Program Implementation Expenses (Direct)		\$8,883,559	\$8,548,647	\$8,976,079	\$9,225,948	\$10,351,517
8	Program Implementation Expenses (Distributed from sector level)		\$941,485	\$727,086	\$751,968	\$748,431	\$821,901
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$138,368	\$167,714	\$174,995	\$187,750	\$209,243
10	Customer Contribution		\$1,922,793	\$1,811,498	\$1,902,073	\$1,969,785	\$2,210,099
11	Shareholder Incentive (Distributed from sector level)		\$445,854	\$337,689	\$337,689	\$346,825	\$346,825
13	Cost of energy efficiency (Sum of Rows 7-11)		\$12,332,058	\$11,592,634	\$12,142,805	\$12,478,739	\$13,939,584
14	Difference (Row 6 - Row 13)		\$1,455,035	\$2,625,687	\$2,786,432	\$3,068,507	\$3,504,430

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-24
Calculation of cost of supply compared to cost of energy efficiency for Electric Small Business Direct Install Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$6,492,783	\$6,669,026	\$7,002,477	\$7,300,979	\$8,191,700
2	Electric Generation Costs		\$976,284	\$1,041,729	\$1,093,815	\$1,170,078	\$1,312,828
3	Cost of supply (sum of Rows 1-2)		\$7,469,068	\$7,710,754	\$8,096,292	\$8,471,057	\$9,504,528
4	Program Implementation Expenses (Direct)		\$8,883,559	\$8,548,647	\$8,976,079	\$9,225,948	\$10,351,517
5	Program Implementation Expenses (Distributed from sector level)		\$941,485	\$727,086	\$751,968	\$748,431	\$821,901
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$138,368	\$167,714	\$174,995	\$187,750	\$209,243
7	Customer Contribution		\$1,922,793	\$1,811,498	\$1,902,073	\$1,969,785	\$2,210,099
8	Shareholder Incentive (Distributed from sector level)		\$445,854	\$337,689	\$337,689	\$346,825	\$346,825
9	Cost of energy efficiency (sum of Rows 4-8)		\$12,332,058	\$11,592,634	\$12,142,805	\$12,478,739	\$13,939,584
10	Difference (Row 3 - Row 9)		-\$4,862,991	-\$3,881,880	-\$4,046,513	-\$4,007,682	-\$4,435,056

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-25

Calculation of cost of supply compared to cost of energy efficiency for Electric Low Income Single Family Program- Part 1

Calculation of Cost of Supply Compared to Cost of Energy Efficiency for Electric Low Income Single Family Program - Part 2						
Electric Energy		2021		2022		2023
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$2,514,773	\$2,778,568	\$2,917,497	\$3,186,291	\$3,575,019
2	Electric Generation Costs	\$486,129	\$549,145	\$576,603	\$632,840	\$710,047
3	Electric Transmission Capacity Costs	\$621,755	\$683,983	\$718,183	\$765,136	\$858,482
4	Electric Distribution Capacity Cost	\$539,939	\$593,979	\$623,677	\$664,452	\$745,515
5	Natural Gas Costs	\$103,516	\$119,214	\$125,175	\$137,606	\$154,394
6	Fuel Costs	\$5,527,689	\$6,216,703	\$6,527,538	\$6,944,415	\$7,791,636
7	Income Eligible Rate Discount	\$57,939	\$71,648	\$75,230	\$81,200	\$91,106
8	Arrearages	\$46,901	\$51,591	\$54,170	\$56,750	\$63,673
9	Price Effects	\$1,039,787	\$1,117,715	\$1,173,601	\$1,238,119	\$1,389,170
10	Non-embedded Greenhouse Gas Reduction Costs	\$2,335,939	\$2,552,332	\$2,679,949	\$2,821,622	\$3,165,861
11	Non-embedded Nitrous Oxide (NOx Costs)	\$230,265	\$253,756	\$266,444	\$281,274	\$315,589
12	Reliability Costs	\$2,392	\$2,265	\$2,512	\$2,592	\$2,908
13	Cost of supply (Sum of rows 1-12)	\$13,506,897	\$14,991,028	\$15,740,579	\$16,812,297	\$18,863,402
14	Program Implementation Expenses (Direct)	\$13,759,324	\$15,099,473	\$15,854,447	\$16,622,274	\$18,650,196
15	Program Implementation Expenses (Distributed from sector level)					
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$84,517	\$122,102	\$128,208	\$135,631	\$152,178
17	Customer Contribution	\$214,311	\$296,233	\$309,094	\$338,267	\$376,990
18	Shareholder Incentive (Distributed from sector level)	\$814,156	\$859,989	\$859,989	\$863,302	\$863,302
19	Cost of energy efficiency (Sum of rows 14-18)	\$14,872,308	\$16,377,797	\$17,151,737	\$17,959,473	\$20,042,665
20	Difference (Row 13 - Row 19)	-\$1,365,411	-\$1,386,770	-\$1,411,158	-\$1,147,176	-\$1,179,263

Notes:

All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
 (2) Table E-6, Capacity column "Summer Generation."
 (3) Table E-6, Capacity column "Trans."
 (4) Table E-6, Capacity column "Dist."
 (5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column
 (6) Table E-6, sum of Non-electric columns "Oil", "Other Resource." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan
 (7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
 (8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan
 (9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"
 (10) Table E-6, Societal column "Carbon."
 (11) Table E-6, Societal column "NOx."
 (12) Table E-6, Capacity column "Reliability."
 (14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
 (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
 (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
 (17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
 (18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-25
Calculation of cost of supply compared to cost of energy efficiency for Electric Low Income Single Family Program- Part 2

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs	\$2,514,773	\$2,778,568	\$2,917,497	\$3,186,291	\$3,575,019	\$710,047
2	Electric Generation Costs	\$486,129	\$549,145	\$576,603	\$632,840	\$745,515	\$1,386,313
3	Electric Transmission Capacity Costs	\$621,755	\$683,983	\$718,183	\$765,136	\$858,482	\$1,386,313
4	Electric Distribution Capacity Cost	\$539,939	\$593,979	\$623,677	\$664,452	\$745,515	\$1,386,313
5	Price Effects	\$1,037,854	\$1,115,500	\$1,171,275	\$1,235,572	\$1,386,313	\$1,386,313
6	Cost of supply (Sum of Rows 1-5)	\$5,200,450	\$5,721,176	\$6,007,234	\$6,484,291	\$7,275,377	\$1,386,313
7	Program Implementation Expenses (Direct)	\$13,759,324	\$15,099,473	\$15,854,447	\$16,622,274	\$18,650,196	\$1,386,313
8	Program Implementation Expenses (Distributed from sector level)	\$84,517	\$122,102	\$128,208	\$135,631	\$152,178	\$1,386,313
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$214,311	\$296,233	\$309,094	\$338,267	\$376,990	\$1,386,313
10	Customer Contribution	\$0	\$0	\$0	\$0	\$0	\$0
11	Shareholder Incentive (Distributed from sector level)	\$814,156	\$859,989	\$859,989	\$863,302	\$863,302	\$863,302
13	Cost of energy efficiency (Sum of Rows 7-11)	\$14,872,308	\$16,377,797	\$17,151,737	\$17,959,473	\$20,042,665	\$20,042,665
14	Difference (Row 6 - Row 13)	-\$9,671,858	-\$10,656,622	-\$11,144,503	-\$11,475,182	-\$12,767,289	-\$12,767,289

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-25
Calculation of cost of supply compared to cost of energy efficiency for Electric Low Income Single Family Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$2,514,773	\$2,778,568	\$2,917,497	\$3,186,291	\$3,575,019
2	Electric Generation Costs		\$486,129	\$549,145	\$576,603	\$632,840	\$710,047
3	Cost of supply (sum of Rows 1-2)		\$3,000,902	\$3,327,714	\$3,494,099	\$3,819,131	\$4,285,066
4	Program Implementation Expenses (Direct)		\$13,759,324	\$15,099,473	\$15,854,447	\$16,622,274	\$18,650,196
5	Program Implementation Expenses (Distributed from sector level)		\$84,517	\$122,102	\$128,208	\$135,631	\$152,178
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$214,311	\$296,233	\$309,094	\$338,267	\$376,990
7	Customer Contribution		\$0	\$0	\$0	\$0	\$0
8	Shareholder Incentive (Distributed from sector level)		\$814,156	\$859,989	\$859,989	\$863,302	\$863,302
9	Cost of energy efficiency (sum of Rows 4-8)		\$14,872,308	\$16,377,797	\$17,151,737	\$17,959,473	\$20,042,665
10	Difference (Row 3 - Row 9)		-\$11,871,405	-\$13,050,084	-\$13,657,638	-\$14,140,342	-\$15,757,599

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-26

Calculation of cost of supply compared to cost of energy efficiency for Electric Low Income MultiFamily Program- Part 1

Electric Energy						
		2021		2022		2023
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$209,025	\$197,898	\$207,793	\$177,055	\$198,656
2	Electric Generation Costs	\$46,896	\$46,260	\$48,573	\$43,952	\$49,314
3	Electric Transmission Capacity Costs	\$60,902	\$58,150	\$61,058	\$52,304	\$58,685
4	Electric Distribution Capacity Cost	\$52,888	\$50,498	\$53,023	\$45,422	\$50,963
5	Natural Gas Costs	\$0	\$0	\$0	\$0	\$0
6	Fuel Costs	\$655,239	\$665,782	\$699,071	\$674,586	\$756,886
7	Income Eligible Rate Discount	\$45,884	\$44,369	\$46,587	\$47,626	\$53,437
8	Arrearages	\$134,819	\$134,819	\$141,560	\$134,819	\$151,267
9	Price Effects	\$117,395	\$103,510	\$108,685	\$74,003	\$83,031
10	Non-embedded Greenhouse Gas Reduction Costs	\$235,134	\$228,259	\$239,672	\$215,243	\$241,502
11	Non-embedded Nitrous Oxide (NOx Costs)	\$24,579	\$24,322	\$25,538	\$23,776	\$26,677
12	Reliability Costs	\$306	\$256	\$269	\$151	\$170
13	Cost of supply (Sum of rows 1-12)	\$1,583,066	\$1,554,123	\$1,631,829	\$1,488,937	\$1,670,588
14	Program Implementation Expenses (Direct)	\$4,830,800	\$4,214,050	\$4,424,753	\$4,557,458	\$5,113,470
15	Program Implementation Expenses (Distributed from sector level)					
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$29,673	\$34,077	\$35,781	\$37,187	\$41,724
17	Customer Contribution					
18	Shareholder Incentive (Distributed from sector level)	\$75,243	\$82,674	\$86,264	\$92,745	\$103,362
19	Cost of energy efficiency (Sum of rows 14-18)	\$0	\$0	\$0	\$0	\$0
20	Difference (Row 13 - Row 19)	\$285,844	\$240,011	\$240,011	\$236,698	\$236,698
		\$5,221,561	\$4,570,812	\$4,786,808	\$4,924,089	\$5,495,254
		-\$3,638,495	-\$3,016,690	-\$3,154,979	-\$3,435,152	-\$3,824,666

Notes:

All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) equal to Table E-6, sum of Energy columns "Winter Peak, "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."

(2) Table E-6, Capacity column "Summer Generation."

(3) Table E-6, Capacity column "Trans."

(4) Table E-6, Capacity column "Dist."

(5) Table E-6, Non-electric column "Natural Gas," less Gas DRIPE included in that column

(6) Table E-6, sum of Non-electric columns "Oil", "Other Resource," and calculation from Electric Benefit-Cost Model, 2021-2023 Plan

(7) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(8) Calculations from Electric Benefit-Cost Model, 2021-2023 Plan

(9) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE." and calculation from Electric Benefit-Cost Model, 2021-2023 Plan for "Gas DRIPE"

(10) Table E-6, Societal column "Carbon."

(11) Table E-6, Societal column "NOx."

(12) Table E-6, Capacity column "Reliability."

(14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."

(15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.

(16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.

(17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."

(18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the

ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-26
Calculation of cost of supply compared to cost of energy efficiency for Electric Low Income MultiFamily Program- Part 2

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs	\$209,025	\$197,898	\$207,793	\$177,055	\$198,656	
2	Electric Generation Costs	\$46,896	\$46,260	\$48,573	\$43,952	\$49,314	
3	Electric Transmission Capacity Costs	\$60,902	\$58,150	\$61,058	\$52,304	\$58,685	
4	Electric Distribution Capacity Cost	\$52,888	\$50,498	\$53,023	\$45,422	\$50,963	
5	Price Effects	\$117,395	\$103,510	\$108,685	\$74,003	\$83,031	
6	Cost of supply (Sum of Rows 1-5)	\$487,105	\$456,316	\$479,132	\$392,736	\$440,649	
7	Program Implementation Expenses (Direct)	\$4,830,800	\$4,214,050	\$4,424,753	\$4,557,458	\$5,113,470	
8	Program Implementation Expenses (Distributed from sector level)	\$29,673	\$34,077	\$35,781	\$37,187	\$41,724	
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$75,243	\$82,674	\$86,264	\$92,745	\$103,362	
10	Customer Contribution	\$0	\$0	\$0	\$0	\$0	
11	Shareholder Incentive (Distributed from sector level)	\$285,844	\$240,011	\$240,011	\$236,698	\$236,698	
13	Cost of energy efficiency (Sum of Rows 7-11)	\$5,221,561	\$4,570,812	\$4,786,808	\$4,924,089	\$5,495,254	
14	Difference (Row 6 - Row 13)	-\$4,734,456	-\$4,114,496	-\$4,307,676	-\$4,531,353	-\$5,054,605	

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) Table E-6, Capacity column "Trans."
- (4) Table E-6, Capacity column "Dist."
- (5) Table E-6, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-26
Calculation of cost of supply compared to cost of energy efficiency for Electric Low Income MultiFamily Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	c	d	e	f
1	Electric Energy Costs		\$209,025	\$197,898	\$207,793	\$177,055	\$198,656
2	Electric Generation Costs		\$46,896	\$46,260	\$48,573	\$43,952	\$49,314
3	Cost of supply (sum of Rows 1-2)		\$255,920	\$244,158	\$256,365	\$221,007	\$247,970
4	Program Implementation Expenses (Direct)		\$4,830,800	\$4,214,050	\$4,424,753	\$4,557,458	\$5,113,470
5	Program Implementation Expenses (Distributed from sector level)		\$29,673	\$34,077	\$35,781	\$37,187	\$41,724
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$75,243	\$82,674	\$86,264	\$92,745	\$103,362
7	Customer Contribution		\$0	\$0	\$0	\$0	\$0
8	Shareholder Incentive (Distributed from sector level)		\$285,844	\$240,011	\$240,011	\$236,698	\$236,698
9	Cost of energy efficiency (sum of Rows 4-8)		\$5,221,561	\$4,570,812	\$4,786,808	\$4,924,089	\$5,495,254
10	Difference (Row 3 - Row 9)		-\$4,965,641	-\$4,326,655	-\$4,530,443	-\$4,703,082	-\$5,247,284

Notes:

- (1) Table E-6, sum of Energy columns "Winter Peak", "Winter Off-Peak", "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6, Capacity column "Summer Generation."
- (3) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (4) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the ConnectedSolutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-27

Calculation of cost of supply compared to cost of energy efficiency for Electric Residential Connected Solutions Program- Part 1

Electric Energy		2021	2022		2023	
Ref	a	b	Base Case	High Scenario	Base Case	High Scenario
1	Electric Energy Costs	\$3,155	\$3,781	\$3,781	\$4,073	\$4,073
2	Electric Generation Costs	\$410,153	\$663,514	\$663,514	\$951,332	\$951,332
3	Electric Transmission Capacity Costs	\$630,324	\$950,343	\$950,343	\$1,280,295	\$1,280,295
4	Electric Distribution Capacity Cost	\$547,380	\$825,288	\$825,288	\$1,111,822	\$1,111,822
5	Natural Gas Costs	\$0	\$0	\$0	\$0	\$0
6	Fuel Costs	\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$8,722,609	\$14,056,466	\$14,056,466	\$20,010,306	\$20,010,306
10	Non-embedded Greenhouse Gas Reduction Costs	\$1,670	\$2,166	\$2,166	\$2,341	\$2,341
11	Non-embedded Nitrous Oxide (NOx Costs)	\$0	\$0	\$0	\$0	\$0
12	Reliability Costs	\$76,396	\$115,182	\$115,182	\$155,172	\$155,172
13	Cost of supply (Sum of rows 1-12)	\$10,391,687	\$16,616,740	\$16,616,740	\$23,515,342	\$23,515,342
14	Program Implementation Expenses (Direct)	\$1,959,725	\$2,527,448	\$2,527,448	\$3,064,817	\$3,064,817
15	Program Implementation Expenses (Distributed from sector level)	\$45,956	\$74,526	\$75,042	\$82,619	\$83,852
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$30,524	\$49,585	\$49,274	\$62,370	\$61,951
17	Customer Contribution	\$0	\$0	\$0	\$0	\$0
18	Shareholder Incentive (Distributed from sector level)	\$0	\$0	\$0	\$0	\$0
19	Cost of energy efficiency (Sum of rows 14-18)	\$2,036,205	\$2,651,559	\$2,651,764	\$3,209,805	\$3,210,620
20	Difference (Row 13 - Row 19)	\$8,355,482	\$13,965,182	\$13,964,976	\$20,305,537	\$20,304,722

Notes:

- (1) All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) Table E-6B, sum of Energy columns "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6B, Capacity column "Summer Generation."
- (3) Table E-6B, Capacity column "Trans."
- (4) Table E-6B, Capacity column "Dist."
- (5) Not applicable for demand response
- (6) Not applicable for demand response
- (7) Not applicable for demand response
- (8) Not applicable for demand response
- (9) Table E-6B, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (10) Table E-6B, Societal column "Carbon."
- (11) Not applicable for demand response
- (12) Table E-6B, Capacity column "Reliability."
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the Connected Solutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-27

Calculation of cost of supply compared to cost of energy efficiency for Electric Residential Connected Solutions Program- Part 2

Calculation of cost of supply compared to cost of energy efficiency for Electric residential connected conditions Program- Part 2							
Electric Energy		2021		2022		2023	
				Base Case	High Scenario	Base Case	High Scenario
Ref	a	b		c	d	e	f
1	Electric Energy Costs	\$3,155		\$3,781	\$3,781	\$4,073	\$4,073
2	Electric Generation Costs	\$410,153		\$663,514	\$663,514	\$951,332	\$951,332
3	Electric Transmission Capacity Costs	\$630,324		\$950,343	\$950,343	\$1,280,295	\$1,280,295
4	Electric Distribution Capacity Cost	\$547,380		\$825,288	\$825,288	\$1,111,822	\$1,111,822
5	Price Effects	\$8,722,609		\$14,056,466	\$14,056,466	\$20,010,306	\$20,010,306
6	Cost of supply (Sum of Rows 1-5)	\$10,313,621		\$16,499,392	\$16,499,392	\$23,357,829	\$23,357,829
7	Program Implementation Expenses (Direct)	\$1,959,725		\$2,527,448	\$2,527,448	\$3,064,817	\$3,064,817
8	Program Implementation Expenses (Distributed from sector level)	\$45,956		\$74,526	\$75,042	\$82,619	\$83,852
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$30,524		\$49,585	\$49,274	\$62,370	\$61,951
10	Customer Contribution	\$0		\$0	\$0	\$0	\$0
11	Shareholder Incentive (Distributed from sector level)	\$0		\$0	\$0	\$0	\$0
13	Cost of energy efficiency (Sum of Rows 7-11)	\$2,036,205		\$2,651,559	\$2,651,764	\$3,209,805	\$3,210,620
14	Difference (Row 6 - Row 13)	\$8,277,416		\$13,847,834	\$13,847,628	\$20,148,023	\$20,147,209

Notes:

- (1) All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) Table E-6B, sum of Energy columns "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6B, Capacity column "Summer Generation."
- (3) Table E-6B, Capacity column "Trans."
- (4) Table E-6B, Capacity column "Dist."
- (5) Table E-6B, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the Connected Solutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-27

Calculation of cost of supply compared to cost of energy efficiency for Electric Residential Connected Solutions Program- Part 3

Ref	Electric Energy	2021		2022		2023	
		a	b	Base Case c	High Scenario d	Base Case e	High Scenario f
1	Electric Energy Costs		\$3,155	\$3,781	\$3,781	\$4,073	\$4,073
2	Electric Generation Costs		\$410,153	\$663,514	\$663,514	\$951,332	\$951,332
3	Cost of supply (sum of Rows 1-2)		\$413,307	\$667,295	\$667,295	\$955,405	\$955,405
4	Program Implementation Expenses (Direct)		\$1,959,725	\$2,527,448	\$2,527,448	\$3,064,817	\$3,064,817
5	Program Implementation Expenses (Distributed from sector level)		\$45,956	\$74,526	\$75,042	\$82,619	\$83,852
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)		\$30,524	\$49,585	\$49,274	\$62,370	\$61,951
7	Customer Contribution		\$0	\$0	\$0	\$0	\$0
8	Shareholder Incentive (Distributed from sector level)		\$0	\$0	\$0	\$0	\$0
9	Cost of energy efficiency (sum of Rows 4-8)		\$2,036,205	\$2,651,559	\$2,651,764	\$3,209,805	\$3,210,620
10	Difference (Row 3 - Row 9)		-\$1,622,898	-\$1,984,264	-\$1,984,469	-\$2,254,400	-\$2,255,214

Notes:

- (1) All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) Table E-6B, sum of Energy columns "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6B, Capacity column "Summer Generation."
- (4) Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the Connected Solutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-28

Calculation of cost of supply compared to cost of energy efficiency for Electric Commercial Connected Solutions Program- Part 1

Calculation of Cost of Supply Compared to Cost of Energy Efficiency for Electric Commitment Contingent upon a Program - Part 2						
Electric Energy		2021		2022		2023
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$0	\$0	\$0	\$0	\$0
2	Electric Generation Costs	\$699,542	\$855,677	\$1,155,164	\$1,009,861	\$1,551,450
3	Electric Transmission Capacity Costs	\$3,690,533	\$4,151,850	\$5,604,997	\$4,613,166	\$7,087,207
4	Electric Distribution Capacity Cost	\$3,204,898	\$3,605,510	\$4,867,439	\$4,006,123	\$6,154,606
5	Natural Gas Costs	\$0	\$0	\$0	\$0	\$0
6	Fuel Costs	\$0	\$0	\$0	\$0	\$0
7	Income Eligible Rate Discount	\$0	\$0	\$0	\$0	\$0
8	Arrearages	\$0	\$0	\$0	\$0	\$0
9	Price Effects	\$14,874,366	\$18,124,874	\$24,468,580	\$21,239,138	\$32,629,687
10	Non-embedded Greenhouse Gas Reduction Costs	\$0	\$0	\$0	\$0	\$0
11	Non-embedded Nitrous Oxide (NOx Costs)	\$0	\$0	\$0	\$0	\$0
12	Reliability Costs	\$447,295	\$503,206	\$679,329	\$559,118	\$858,973
13	Cost of supply (Sum of rows 1-12)	\$22,916,634	\$27,241,117	\$36,775,508	\$31,427,406	\$48,281,924
14	Program Implementation Expenses (Direct)	\$2,990,106	\$3,534,384	\$4,771,418	\$4,111,516	\$6,316,521
15	Program Implementation Expenses (Distributed from sector level)					
16	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$316,893	\$300,609	\$399,724	\$333,536	\$501,526
17	Customer Contribution	\$46,573	\$69,340	\$93,022	\$83,670	\$127,680
18	Shareholder Incentive (Distributed from sector level)	\$0	\$0	\$0	\$0	\$0
19	Cost of energy efficiency (Sum of rows 14-18)	\$3,353,572	\$3,904,333	\$5,264,165	\$4,528,722	\$6,945,728
20	Difference (Row 13 - Row 19)	\$19,563,062	\$23,336,784	\$31,511,344	\$26,898,685	\$41,336,196

Notes:

- (1) All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) Table E-6B, sum of Energy columns "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6B, Capacity column "Summer Generation."
- (3) Table E-6B, Capacity column "Trans."
- (4) Table E-6B, Capacity column "Dist."
- (5) Not applicable for demand response
- (6) Not applicable for demand response
- (7) Not applicable for demand response
- (8) Not applicable for demand response
- (9) Table E-6B, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (10) Table E-6B, Societal column "Carbon."
- (11) Not applicable for demand response
- (12) Table E-6B, Capacity column "Reliability."
- (14) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (15) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (16) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (17) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (18) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the Connected Solutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-28
Calculation of cost of supply compared to cost of energy efficiency for Electric Commercial Connected Solutions Program- Part 2

Calculation of cost of supply compared to cost of energy efficiency for electric transmission and distribution programs - Part 2						
Electric Energy		2021		2022		
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$0	\$0	\$0	\$0	\$0
2	Electric Generation Costs	\$699,542	\$855,677	\$1,155,164	\$1,009,861	\$1,551,450
3	Electric Transmission Capacity Costs	\$3,690,533	\$4,151,850	\$5,604,997	\$4,613,166	\$7,087,207
4	Electric Distribution Capacity Cost	\$3,204,898	\$3,605,510	\$4,867,439	\$4,006,123	\$6,154,606
5	Price Effects	\$14,874,366	\$18,124,874	\$24,468,580	\$21,239,138	\$32,629,687
6	Cost of supply (Sum of Rows 1-5)	\$22,469,339	\$26,737,911	\$36,096,180	\$30,868,288	\$47,422,951
7	Program Implementation Expenses (Direct)	\$2,990,106	\$3,534,384	\$4,771,418	\$4,111,516	\$6,316,521
8	Program Implementation Expenses (Distributed from sector level)	\$316,893	\$300,609	\$399,724	\$333,536	\$501,526
9	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$46,573	\$69,340	\$93,022	\$83,670	\$127,680
10	Customer Contribution	\$0	\$0	\$0	\$0	\$0
11	Shareholder Incentive (Distributed from sector level)	\$0	\$0	\$0	\$0	\$0
13	Cost of energy efficiency (Sum of Rows 7-11)	\$3,353,572	\$3,904,333	\$5,264,165	\$4,528,722	\$6,945,728
14	Difference (Row 6 - Row 13)	\$19,115,767	\$22,833,578	\$30,832,015	\$26,339,566	\$40,477,223

Notes:

- (1) All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) Table E-6B, sum of Energy columns "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6B, Capacity column "Summer Generation."
- (3) Table E-6B, Capacity column "Trans."
- (4) Table E-6B, Capacity column "Dist."
- (5) Table E-6B, sum of Capacity column "Capacity DRIPE" and Energy column "Energy DRIPE."
- (7) Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (8) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (9) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (10) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (11) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the Connected Solutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-28
Calculation of cost of supply compared to cost of energy efficiency for Electric Commercial Connected Solutions Program- Part 3

Calculation of Cost of Supply Compared to Cost of Energy Efficiency for Electric Commercial Connected Substations Program - Part 3						
Electric Energy		2021		2022		2023
Ref	a	b	c	d	e	f
1	Electric Energy Costs	\$0	\$0	\$0	\$0	\$0
2	Electric Generation Costs	\$699,542	\$855,677	\$1,155,164	\$1,009,861	\$1,551,450
3	Cost of supply (sum of Rows 1-2)	\$699,542	\$855,677	\$1,155,164	\$1,009,861	\$1,551,450
4	Program Implementation Expenses (Direct)	\$2,990,106	\$3,534,384	\$4,771,418	\$4,111,516	\$6,316,521
5	Program Implementation Expenses (Distributed from sector level)	\$316,893	\$300,609	\$399,724	\$333,536	\$501,526
6	Program Implementation Expenses (OER and EERMC Distributed from portfolio level)	\$46,573	\$69,340	\$93,022	\$83,670	\$127,680
7	Customer Contribution	\$0	\$0	\$0	\$0	\$0
8	Shareholder Incentive (Distributed from sector level)	\$0	\$0	\$0	\$0	\$0
9	Cost of energy efficiency (sum of Rows 4-8)	\$3,353,572	\$3,904,333	\$5,264,165	\$4,528,722	\$6,945,728
10	Difference (Row 3 - Row 9)	-\$2,654,030	-\$3,048,656	-\$4,109,001	-\$3,518,860	-\$5,394,278

Notes:

- (1) All values are from the Electric Benefit-Cost Model, 2021-2023 Plan. For 2021, Row (1) Table E-6B, sum of Energy columns "Summer Peak" and "Summer Off-Peak."
- (2) Table E-6B, Capacity column "Summer Generation."
- (4) Attachment 2 Tables 1-5, column "Program Implementation Expenses."
- (5) Some costs are only at the sector level. They are allocated to programs for the purpose of this analysis by multiplying those sector level costs by the ratio of the program's direct programmatic costs to the sector direct programmatic costs.
- (6) Some costs are only at the portfolio level (EERMC and OER costs). They are allocated to programs for the purpose of this analysis by multiplying those portfolio level costs by the ratio of the program's direct programmatic costs to the all direct programmatic costs.
- (7) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Customer Contribution."
- (8) 2021-2023 Three-Year Plan Attachment 2 Tables 1-5, column "Shareholder Incentive." This category is allocated to programs for the purpose of this analysis by multiplying the sector level shareholder incentive by the ratio of the program's direct programmatic costs to the sector direct programmatic costs. Omits the Connected Solutions programs that are not eligible for this shareholder incentive

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-22-29

Summary of Cost of Supply Calculations for Electric Portfolio and Programs

Sector	Portfolio or Program Category	Analysis Version	Cost Component	2021			2022			2023		
							Base Case	High Scenario	Base Case	High Scenario	Base Case	High Scenario
Portfolio	Electric Portfolio	Variant 1	Cost of Supply			\$263,720,046	\$289,798,366	\$310,800,538	\$323,075,891	\$370,059,692	\$370,059,692	\$370,059,692
			Cost of Energy Efficiency			\$140,741,806	\$162,392,912	\$170,913,264	\$176,141,472	\$197,659,174	\$176,141,472	\$197,659,174
			Difference			\$122,978,239	\$127,405,453	\$139,887,274	\$146,934,419	\$172,400,518	\$146,934,419	\$172,400,518
		Variant 2	Cost of Supply			\$213,332,326	\$250,242,338	\$268,433,462	\$287,839,656	\$327,513,014	\$287,839,656	\$327,513,014
			Cost of Energy Efficiency			\$140,741,806	\$162,392,912	\$170,913,264	\$176,141,472	\$197,659,174	\$176,141,472	\$197,659,174
			Difference			\$72,590,520	\$87,849,425	\$97,520,198	\$111,698,185	\$129,853,840	\$111,698,185	\$129,853,840
		Variant 3	Cost of Supply			\$97,914,122	\$117,714,217	\$122,743,292	\$136,358,789	\$149,364,542	\$136,358,789	\$149,364,542
			Cost of Energy Efficiency			\$140,741,806	\$162,392,912	\$170,913,264	\$176,141,472	\$197,659,174	\$176,141,472	\$197,659,174
			Difference			-\$42,827,684	-\$44,678,695	-\$48,169,972	-\$39,782,682	-\$48,294,632	-\$39,782,682	-\$48,294,632
Sector	Portfolio or Program Category	Analysis Version	Category	2021			2022			2023		
							Base Case	High Scenario	Base Case	High Scenario	Base Case	High Scenario
Residential	Residential New Construction	Variant 1	Cost of Supply			\$4,234,013	\$4,367,127	\$4,585,483	\$4,761,178	\$5,342,043	\$4,761,178	\$5,342,043
			Cost of Energy Efficiency			\$2,543,563	\$2,384,467	\$2,500,000	\$2,508,197	\$2,806,147	\$2,508,197	\$2,806,147
			Difference			\$1,690,450	\$1,982,659	\$2,085,484	\$2,252,981	\$2,535,897	\$2,252,981	\$2,535,897
		Variant 2	Cost of Supply			\$1,847,633	\$1,890,712	\$1,985,248	\$2,105,064	\$2,361,883	\$2,105,064	\$2,361,883
			Cost of Energy Efficiency			\$2,543,563	\$2,384,467	\$2,500,000	\$2,508,197	\$2,806,147	\$2,508,197	\$2,806,147
			Difference			-\$695,930	-\$493,755	-\$514,752	-\$403,133	-\$444,264	-\$403,133	-\$444,264
		Variant 3	Cost of Supply			\$1,302,056	\$1,323,530	\$1,389,707	\$1,488,014	\$1,669,552	\$1,488,014	\$1,669,552
			Cost of Energy Efficiency			\$2,543,563	\$2,384,467	\$2,500,000	\$2,508,197	\$2,806,147	\$2,508,197	\$2,806,147
			Difference			-\$1,241,507	-\$1,060,937	-\$1,110,293	-\$1,020,183	-\$1,136,595	-\$1,020,183	-\$1,136,595
Sector	Portfolio or Program Category	Analysis Version	Category	2021			2022			2023		
							Base Case	High Scenario	Base Case	High Scenario	Base Case	High Scenario
Residential	Energy Star® HVAC	Variant 1	Cost of Supply			\$8,129,252	\$10,769,667	\$11,308,150	\$12,748,506	\$14,303,827	\$12,748,506	\$14,303,827
			Cost of Energy Efficiency			\$5,123,453	\$6,695,970	\$7,018,707	\$7,686,144	\$8,591,506	\$7,686,144	\$8,591,506
			Difference			\$3,005,799	\$4,073,697	\$4,289,443	\$5,062,362	\$5,712,321	\$5,062,362	\$5,712,321
		Variant 2	Cost of Supply			\$5,641,403	\$7,471,578	\$7,845,157	\$8,915,864	\$10,003,602	\$8,915,864	\$10,003,602
			Cost of Energy Efficiency			\$5,123,453	\$6,695,970	\$7,018,707	\$7,686,144	\$8,591,506	\$7,686,144	\$8,591,506
			Difference			\$517,950	\$775,608	\$826,449	\$1,229,720	\$1,412,096	\$1,229,720	\$1,412,096
		Variant 3	Cost of Supply			\$3,704,645	\$4,985,142	\$5,234,399	\$5,993,981	\$6,725,248	\$5,993,981	\$6,725,248
			Cost of Energy Efficiency			\$5,123,453	\$6,695,970	\$7,018,707	\$7,686,144	\$8,591,506	\$7,686,144	\$8,591,506
			Difference			-\$1,418,808	-\$1,710,828	-\$1,784,308	-\$1,692,163	-\$1,866,258	-\$1,692,163	-\$1,866,258

Sector	Portfolio or Program Category	Analysis Version	Category	2021			2022			2023		
							Base Case	High Scenario	Base Case	High Scenario	Base Case	High Scenario
Residential	EnergyWise	Variant 1	Cost of Supply	\$16,363,560			\$17,597,648	\$18,477,531	\$21,366,775	\$23,973,528		
			Cost of Energy Efficiency	\$19,406,455			\$20,525,032	\$21,504,454	\$24,593,375	\$27,477,428		
			Difference	-\$3,042,895			-\$2,927,384	-\$3,026,924	-\$3,226,600	-\$3,503,900		
		Variant 2	Cost of Supply	\$2,534,073			\$2,368,134	\$2,486,541	\$2,652,302	\$2,975,883		
			Cost of Energy Efficiency	\$19,406,455			\$20,525,032	\$21,504,454	\$24,593,375	\$27,477,428		
			Difference	-\$16,872,382			-\$18,156,898	-\$19,017,913	-\$21,941,073	-\$24,501,545		
		Variant 3	Cost of Supply	\$1,215,586			\$1,170,353	\$1,228,871	\$1,350,791	\$1,515,588		
			Cost of Energy Efficiency	\$19,406,455			\$20,525,032	\$21,504,454	\$24,593,375	\$27,477,428		
			Difference	-\$18,190,869			-\$19,354,679	-\$20,275,583	-\$23,242,584	-\$25,961,840		
				2021			2022			2023		
Residential	EnergyWise Multifamily	Variant 1	Cost of Supply	\$2,550,032			\$2,492,375	\$2,616,994	\$2,337,555	\$2,622,738		
			Cost of Energy Efficiency	\$3,872,868			\$4,297,295	\$4,502,847	\$4,196,000	\$4,689,036		
			Difference	-\$1,322,836			-\$1,804,920	-\$1,885,853	-\$1,858,444	-\$2,066,298		
		Variant 2	Cost of Supply	\$1,508,704			\$1,456,039	\$1,528,841	\$1,323,544	\$1,485,017		
			Cost of Energy Efficiency	\$3,872,868			\$4,297,295	\$4,502,847	\$4,196,000	\$4,689,036		
			Difference	-\$2,364,165			-\$2,841,256	-\$2,974,006	-\$2,872,456	-\$3,204,019		
		Variant 3	Cost of Supply	\$732,254			\$716,040	\$751,842	\$672,233	\$754,245		
			Cost of Energy Efficiency	\$3,872,868			\$4,297,295	\$4,502,847	\$4,196,000	\$4,689,036		
			Difference	-\$3,140,615			-\$3,581,255	-\$3,751,005	-\$3,523,767	-\$3,934,790		
				2021			2022			2023		
Residential	Home Energy Reports	Variant 1	Cost of Supply	\$5,889,121			\$5,736,318	\$5,736,318	\$5,725,077	\$5,725,077		
			Cost of Energy Efficiency	\$2,887,139			\$5,446,086	\$5,439,587	\$5,418,327	\$5,405,797		
			Difference	\$3,001,982			\$290,233	\$296,731	\$306,751	\$319,280		
		Variant 2	Cost of Supply	\$4,998,304			\$4,856,201	\$4,856,201	\$4,850,763	\$4,850,763		
			Cost of Energy Efficiency	\$2,887,139			\$5,446,086	\$5,439,587	\$5,418,327	\$5,405,797		
			Difference	\$2,111,165			-\$589,884	-\$583,386	-\$567,563	-\$555,034		
		Variant 3	Cost of Supply	\$2,032,919			\$1,890,816	\$1,890,816	\$1,885,378	\$1,885,378		
			Cost of Energy Efficiency	\$2,887,139			\$5,446,086	\$5,439,587	\$5,418,327	\$5,405,797		
			Difference	-\$854,220			-\$3,555,269	-\$3,548,771	-\$3,532,948	-\$3,520,419		
				2021			2022			2023		

Sector	Portfolio or Program Category	Analysis Version	Category	2021			2022			2023		
					Base Case	High Scenario		Base Case	High Scenario		Base Case	High Scenario
Residential	Energy Star® Lighting	Variant 1	Cost of Supply	\$4,809,428	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
			Cost of Energy Efficiency	\$4,751,998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
			Difference	\$57,430	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Variant 2	Cost of Supply	\$4,865,180	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
			Cost of Energy Efficiency	\$4,751,998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
			Difference	\$113,181	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
		Variant 3	Cost of Supply	\$2,000,582	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
			Cost of Energy Efficiency	\$4,751,998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
			Difference	-\$2,751,416	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Residential		Variant 1	Cost of Supply	\$7,284,615	\$7,705,758	\$8,091,046	\$8,091,046	\$10,461,029	\$11,737,277	\$10,461,029	\$10,461,029	\$11,737,277
			Cost of Energy Efficiency	\$4,251,596	\$4,497,800	\$4,715,274	\$4,715,274	\$5,793,494	\$6,480,943	\$5,793,494	\$5,793,494	\$6,480,943
			Difference	\$3,033,020	\$3,207,958	\$3,375,772	\$3,375,772	\$4,667,534	\$5,256,334	\$4,667,534	\$4,667,534	\$5,256,334
		Variant 2	Cost of Supply	\$6,012,943	\$6,374,328	\$6,693,044	\$6,693,044	\$8,683,707	\$9,743,122	\$8,683,707	\$8,683,707	\$9,743,122
			Cost of Energy Efficiency	\$4,251,596	\$4,497,800	\$4,715,274	\$4,715,274	\$5,793,494	\$6,480,943	\$5,793,494	\$5,793,494	\$6,480,943
			Difference	\$1,761,347	\$1,876,528	\$1,977,770	\$1,977,770	\$2,890,213	\$3,262,179	\$2,890,213	\$2,890,213	\$3,262,179
		Variant 3	Cost of Supply	\$2,831,002	\$3,011,270	\$3,161,834	\$3,161,834	\$4,145,167	\$4,650,878	\$4,145,167	\$4,145,167	\$4,650,878
			Cost of Energy Efficiency	\$4,251,596	\$4,497,800	\$4,715,274	\$4,715,274	\$5,793,494	\$6,480,943	\$5,793,494	\$5,793,494	\$6,480,943
			Difference	-\$1,420,593	-\$1,486,530	-\$1,553,440	-\$1,553,440	-\$1,648,327	-\$1,830,065	-\$1,648,327	-\$1,648,327	-\$1,830,065
Commercial & Industrial	Large Commercial New Construction	Variant 1	Cost of Supply	\$30,435,420	\$33,315,962	\$34,981,761	\$34,981,761	\$29,075,832	\$32,623,093	\$29,075,832	\$29,075,832	\$32,623,093
			Cost of Energy Efficiency	\$10,853,146	\$12,376,783	\$12,961,690	\$12,961,690	\$11,213,670	\$12,521,933	\$11,213,670	\$11,213,670	\$12,521,933
			Difference	\$19,582,274	\$20,939,179	\$22,020,070	\$22,020,070	\$17,862,162	\$20,101,159	\$17,862,162	\$17,862,162	\$20,101,159
		Variant 2	Cost of Supply	\$25,574,054	\$28,069,762	\$29,473,250	\$29,473,250	\$24,556,083	\$27,551,932	\$24,556,083	\$24,556,083	\$27,551,932
			Cost of Energy Efficiency	\$10,853,146	\$12,376,783	\$12,961,690	\$12,961,690	\$11,213,670	\$12,521,933	\$11,213,670	\$11,213,670	\$12,521,933
			Difference	\$14,720,908	\$15,692,979	\$16,511,560	\$16,511,560	\$13,342,413	\$15,029,999	\$13,342,413	\$13,342,413	\$15,029,999
		Variant 3	Cost of Supply	\$14,653,725	\$16,130,625	\$16,937,156	\$16,937,156	\$14,250,388	\$15,988,939	\$14,250,388	\$14,250,388	\$15,988,939
			Cost of Energy Efficiency	\$10,853,146	\$12,376,783	\$12,961,690	\$12,961,690	\$11,213,670	\$12,521,933	\$11,213,670	\$11,213,670	\$12,521,933
			Difference	\$3,800,579	\$3,753,842	\$3,975,466	\$3,975,466	\$3,036,718	\$3,467,006	\$3,036,718	\$3,036,718	\$3,467,006
Commercial & Industrial	Large Commercial Retrofit	Variant 1	Cost of Supply	\$119,866,064	\$131,210,600	\$137,228,701	\$137,228,701	\$145,709,660	\$161,601,703	\$145,709,660	\$145,709,660	\$161,601,703
			Cost of Energy Efficiency	\$49,235,885	\$67,072,343	\$70,273,425	\$70,273,425	\$71,631,438	\$80,052,534	\$71,631,438	\$71,631,438	\$80,052,534
			Difference	\$70,630,179	\$64,138,257	\$66,955,276	\$66,955,276	\$74,078,222	\$81,549,169	\$74,078,222	\$74,078,222	\$81,549,169
		Variant 2	Cost of Supply	\$108,092,425	\$134,122,467	\$139,554,004	\$139,554,004	\$158,101,940	\$172,599,991	\$158,101,940	\$158,101,940	\$172,599,991
			Cost of Energy Efficiency	\$49,235,885	\$67,072,343	\$70,273,425	\$70,273,425	\$71,631,438	\$80,052,534	\$71,631,438	\$71,631,438	\$80,052,534
			Difference	\$58,856,540	\$67,050,124	\$69,280,579	\$69,280,579	\$86,470,502	\$92,547,457	\$86,470,502	\$86,470,502	\$92,547,457
		Variant 3	Cost of Supply	\$57,602,614	\$75,680,842	\$78,479,451	\$78,479,451	\$92,096,377	\$99,630,293	\$92,096,377	\$92,096,377	\$99,630,293
			Cost of Energy Efficiency	\$49,235,885	\$67,072,343	\$70,273,425	\$70,273,425	\$71,631,438	\$80,052,534	\$71,631,438	\$71,631,438	\$80,052,534
			Difference	\$8,366,729	\$8,608,500	\$8,206,026	\$8,206,026	\$20,464,939	\$19,577,759	\$20,464,939	\$20,464,939	\$19,577,759

Sector	Portfolio or Program Category	Analysis Version	Category	2021			2022			2023		
				Base Case	High Scenario	Base Case	Base Case	High Scenario	Base Case	Base Case	High Scenario	High Scenario
Commercial & Industrial	Small Business Direct Install	Variant 1	Cost of Supply	\$15,760,258	\$16,199,902	\$17,009,897	\$17,009,897	\$17,009,897	\$17,646,297	\$17,646,297	\$19,799,150	\$19,799,150
			Cost of Energy Efficiency	\$12,332,058	\$11,592,634	\$12,142,805	\$12,142,805	\$12,142,805	\$12,478,739	\$12,478,739	\$13,939,584	\$13,939,584
		Variant 2	Difference	\$3,428,200	\$4,607,268	\$4,867,092	\$4,867,092	\$4,867,092	\$5,167,558	\$5,167,558	\$5,859,566	\$5,859,566
			Cost of Supply	\$13,787,094	\$14,218,321	\$14,929,237	\$14,929,237	\$14,929,237	\$15,547,246	\$15,547,246	\$17,444,015	\$17,444,015
	Small Business Direct Install	Variant 2	Cost of Energy Efficiency	\$12,332,058	\$11,592,634	\$12,142,805	\$12,142,805	\$12,142,805	\$12,478,739	\$12,478,739	\$13,939,584	\$13,939,584
			Difference	\$1,455,035	\$2,625,687	\$2,786,432	\$2,786,432	\$2,786,432	\$3,068,507	\$3,068,507	\$3,504,430	\$3,504,430
		Variant 3	Cost of Supply	\$7,469,068	\$7,710,754	\$8,096,292	\$8,096,292	\$8,096,292	\$8,471,057	\$8,471,057	\$9,504,528	\$9,504,528
			Cost of Energy Efficiency	\$12,332,058	\$11,592,634	\$12,142,805	\$12,142,805	\$12,142,805	\$12,478,739	\$12,478,739	\$13,939,584	\$13,939,584
Income Eligible	Single Family - Income Eligible Services	Variant 1	Difference	-\$4,862,991	-\$3,881,880	-\$4,046,513	-\$4,046,513	-\$4,046,513	-\$4,007,682	-\$4,007,682	-\$4,435,056	-\$4,435,056
			Cost of Supply	\$13,506,897	\$14,991,028	\$15,740,579	\$15,740,579	\$15,740,579	\$16,812,297	\$16,812,297	\$18,863,402	\$18,863,402
		Variant 2	Cost of Energy Efficiency	\$14,872,308	\$16,377,797	\$17,151,737	\$17,151,737	\$17,151,737	\$17,959,473	\$17,959,473	\$20,042,665	\$20,042,665
			Difference	-\$1,365,411	-\$1,386,770	-\$1,411,158	-\$1,411,158	-\$1,411,158	-\$1,147,176	-\$1,147,176	-\$1,179,263	-\$1,179,263
	Single Family - Income Eligible Services	Variant 2	Cost of Supply	\$5,200,450	\$5,721,176	\$6,007,234	\$6,007,234	\$6,007,234	\$6,484,291	\$6,484,291	\$7,275,377	\$7,275,377
			Cost of Energy Efficiency	\$14,872,308	\$16,377,797	\$17,151,737	\$17,151,737	\$17,151,737	\$17,959,473	\$17,959,473	\$20,042,665	\$20,042,665
		Variant 3	Difference	-\$9,671,858	-\$10,656,622	-\$11,144,503	-\$11,144,503	-\$11,144,503	-\$11,475,182	-\$11,475,182	-\$12,767,289	-\$12,767,289
			Cost of Supply	\$3,000,902	\$3,327,714	\$3,494,099	\$3,494,099	\$3,494,099	\$3,819,131	\$3,819,131	\$4,285,066	\$4,285,066
Income Eligible	Income Eligible Multifamily	Variant 1	Cost of Energy Efficiency	\$14,872,308	\$16,377,797	\$17,151,737	\$17,151,737	\$17,151,737	\$17,959,473	\$17,959,473	\$20,042,665	\$20,042,665
			Difference	-\$11,871,405	-\$13,050,084	-\$13,657,638	-\$13,657,638	-\$13,657,638	-\$14,140,342	-\$14,140,342	-\$15,757,599	-\$15,757,599
	Income Eligible Multifamily	Variant 2	Cost of Supply	\$1,583,066	\$1,554,123	\$1,631,829	\$1,631,829	\$1,631,829	\$1,488,937	\$1,488,937	\$1,670,588	\$1,670,588
			Cost of Energy Efficiency	\$5,221,561	\$4,570,812	\$4,786,808	\$4,786,808	\$4,786,808	\$4,924,089	\$4,924,089	\$5,495,254	\$5,495,254
		Variant 3	Difference	-\$3,638,495	-\$3,016,690	-\$3,154,979	-\$3,154,979	-\$3,154,979	-\$3,435,152	-\$3,435,152	-\$3,824,666	-\$3,824,666
			Cost of Supply	\$487,405	\$456,316	\$479,132	\$479,132	\$479,132	\$392,736	\$392,736	\$440,649	\$440,649
	Income Eligible Multifamily	Variant 2	Cost of Energy Efficiency	\$5,221,561	\$4,570,812	\$4,786,808	\$4,786,808	\$4,786,808	\$4,924,089	\$4,924,089	\$5,495,254	\$5,495,254
			Difference	-\$4,734,456	-\$4,114,496	-\$4,307,676	-\$4,307,676	-\$4,307,676	-\$4,531,353	-\$4,531,353	-\$5,054,605	-\$5,054,605
Residential	Residential Connected Solutions	Variant 1	Cost of Supply	\$255,920	\$244,158	\$256,365	\$256,365	\$256,365	\$221,007	\$221,007	\$247,970	\$247,970
			Cost of Energy Efficiency	\$5,221,561	\$4,570,812	\$4,786,808	\$4,786,808	\$4,786,808	\$4,924,089	\$4,924,089	\$5,495,254	\$5,495,254
		Variant 2	Difference	-\$4,965,641	-\$4,326,655	-\$4,530,443	-\$4,530,443	-\$4,530,443	-\$4,703,082	-\$4,703,082	-\$5,247,284	-\$5,247,284
			Cost of Supply	\$10,391,687	\$16,616,740	\$16,616,740	\$16,616,740	\$16,616,740	\$23,515,342	\$23,515,342	\$23,515,342	\$23,515,342
	Residential Connected Solutions	Variant 1	Cost of Energy Efficiency	\$2,036,205	\$2,651,559	\$2,651,764	\$2,651,764	\$2,651,764	\$3,209,805	\$3,209,805	\$3,210,620	\$3,210,620
			(Demand Response)	\$8,355,482	\$13,965,182	\$13,964,976	\$13,964,976	\$13,964,976	\$20,305,537	\$20,305,537	\$20,304,722	\$20,304,722
		Variant 2	Cost of Supply	\$10,313,621	\$16,499,392	\$16,499,392	\$16,499,392	\$16,499,392	\$23,357,829	\$23,357,829	\$23,357,829	\$23,357,829
			Cost of Energy Efficiency	\$2,036,205	\$2,651,559	\$2,651,764	\$2,651,764	\$2,651,764	\$3,209,805	\$3,209,805	\$3,210,620	\$3,210,620
Residential	Residential Connected Solutions	Variant 2	(Demand Response)	\$8,277,416	\$13,847,834	\$13,847,628	\$13,847,628	\$13,847,628	\$20,148,023	\$20,148,023	\$20,147,209	\$20,147,209
			Difference	\$413,307	\$667,295	\$667,295	\$667,295	\$667,295	\$955,405	\$955,405	\$955,405	\$955,405
	Residential Connected Solutions	Variant 3	Cost of Supply	\$2,036,205	\$2,651,559	\$2,651,764	\$2,651,764	\$2,651,764	\$3,209,805	\$3,209,805	\$3,210,620	\$3,210,620
			(Demand Response)	-\$1,622,898	-\$1,984,264	-\$1,984,469	-\$1,984,469	-\$1,984,469	-\$2,254,400	-\$2,254,400	-\$2,255,214	-\$2,255,214

Sector	Portfolio or Program Category	Analysis Version	Category	2021			2022			2023		
							Base Case	High Scenario	Base Case	High Scenario	Base Case	High Scenario
Commercial & Industrial	Commercial Connected Solutions	Variant 1	Cost of Supply			\$22,916,634	\$27,241,117	\$36,775,508	\$31,427,406	\$48,281,924		
			Cost of Energy Efficiency (Demand Response)			\$3,353,572	\$3,904,333	\$5,264,165	\$4,528,722	\$6,945,728		
			Difference			\$19,563,062	\$23,336,784	\$31,511,344	\$26,898,685	\$41,336,196		
	Commercial Connected Solutions	Variant 2	Cost of Supply			\$22,469,339	\$26,737,911	\$36,096,180	\$30,868,288	\$47,422,951		
			Cost of Energy Efficiency (Demand Response)			\$3,353,572	\$3,904,333	\$5,264,165	\$4,528,722	\$6,945,728		
			Difference			\$19,115,767	\$22,833,578	\$30,832,015	\$26,339,566	\$40,477,223		
	Commercial Connected Solutions	Variant 3	Cost of Supply			\$699,542	\$855,677	\$1,155,164	\$1,009,861	\$1,551,450		
			Cost of Energy Efficiency (Demand Response)			\$3,353,572	\$3,904,333	\$5,264,165	\$4,528,722	\$6,945,728		
			Difference			-\$2,654,030	-\$3,048,656	-\$4,109,001	-\$3,518,860	-\$5,394,278		

Notes:

Analysis Version Variant 1 matches to the full cost of supply requested in Part 1 of the request, Variant 2 matches to Part 2 of the request, and Variant 3 matches to Part 3 of the request.

PUC 1-23

Request:

Referring to footnote 1 to Table E-5A and Table G-5A, please define each of the following terms in the formula used in each table: Energy, Capacity, and Resource Benefits.

Response:

With respect to Table E-5A, the broad categories of Energy, Capacity, and Resource Benefits encompass several subcategories of benefits for calculation of the legacy Total Resource Cost (TRC) Test that was the primary benefit-cost test prior to the introduction of the RI Test.

- “Energy” encompasses the following subcategories of benefits for the electric portfolio: electric energy and electric energy demand reduction induced price effect (DRIPE).
- “Capacity” encompasses the following subcategories of benefits: summer generation, capacity DRIPE, transmission, distribution, reliability.
- “Resource Benefits” encompasses the following subcategories of benefits for the electric portfolio: natural gas, natural gas DRIPE, fuel oil, fuel oil DRIPE, propane, water, and non-resource (non-energy impacts).

With respect to Table G-5A, the broad categories of Energy, Capacity, and Resource Benefits encompass several subcategories of benefits that are similar to those in the electric portfolio but with some changes in categorization to reflect that the natural gas portfolio is being screened.

- “Energy” encompasses the following subcategories of benefits for the natural gas portfolio: natural gas energy, natural gas DRIPE.
- “Capacity” encompasses the following subcategories of benefits: summer generation, capacity DRIPE, transmission, distribution, reliability.
- “Resource benefits encompasses the following subcategories of benefits for the natural gas portfolio: electric energy and electric energy DRIPE, water, and non-resource (non-energy impacts).

PUC 1-24

Request:

Referring to Table E-5 and Table G-5, please provide alternative tables that re-calculate the benefit-cost ratio for each individual program without economic benefits in the calculation.

Response:

Please see Attachment PUC 1-24-1 and PUC 1-24-2 for versions of Table E-5 and G-5, respectively, with economic benefits omitted from the calculation of benefit-cost ratios for each program in 2021.

Attachment PUC 1-24-1
Table E-5 - Omitting Economic Benefits
National Grid
Calculation of 2021 Program Year Cost-Effectiveness
All Dollar Values in (\$000)

	RI Test Benefit/ Cost	Total Benefit without Economic Benefits	Program Implementation Expenses	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	1.785	\$4,283.2	\$1,544.3	\$855.7		13.3
ENERGY STAR® HVAC	1.741	\$8,353.8	\$3,487.8	\$1,311.6		9.4
EnergyWise	0.997	\$17,774.8	\$17,033.3	\$790.4		120.5
EnergyWise Multifamily	1.299	\$4,660.4	\$3,056.8	\$532.0		17.6
Home Energy Reports	2.229	\$5,889.1	\$2,641.7	\$0.0		9.8
ENERGY STAR® Lighting	1.321	\$5,631.3	\$5,274.8	-\$1,012.9		15.9
Residential Consumer Products	1.823	\$7,297.3	\$2,681.2	\$1,321.2		10.5
Residential ConnectedSolutions	5.303	\$10,392.1	\$1,959.7	\$0.0		
Energy Efficiency Education Programs			\$40.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$226.2			
Comprehensive Marketing - Residential			\$332.7			
Residential Workforce Development			\$284.7			
Non-Income Eligible Residential SUBTOTAL	1.452	\$64,282.0	\$38,563.3	\$3,798.1	\$1,925.0	21.6
Income Eligible Residential						
Single Family - Income Eligible Services	1.793	\$24,668.8	\$13,759.3	\$0.0		34.9
Income Eligible Multifamily	0.570	\$2,753.7	\$4,830.8	\$0.0		15.2
Income Eligible Workforce Development			\$114.2			
Income Eligible Residential SUBTOTAL	1.385	\$27,422.6	\$18,704.3	\$0.0	\$1,100.0	26.3
Commercial & Industrial						
Large Commercial New Construction	3.429	\$32,213.6	\$8,500.2	\$893.1		5.0
Large Commercial Retrofit	3.349	\$146,524.0	\$31,930.2	\$11,821.8		5.9
Small Business Direct Install	1.730	\$18,690.2	\$8,883.6	\$1,922.8		10.3
Commercial ConnectedSolutions	7.664	\$22,916.6	\$2,990.1	\$0.0		
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$74.5			
Finance Costs			\$5,000.0			
Commercial Workforce Development			\$468.7			
C&I SUBTOTAL	2.939	\$220,344.4	\$57,847.3	\$14,637.7	\$2,475.0	7.0
Regulatory						
OER			\$845.6			
EERMC			\$845.6			
Regulatory SUBTOTAL			\$1,691.1			
TOTAL	2.217	\$312,048.9	\$116,806.0	\$18,435.8	\$5,500.0	10.4

Attachment PUC 1-24-2
Table G-5 - Omitting Economic Benefits
National Grid
Calculation of 2021 Program Year Cost-Effectiveness
All Dollar Values in (\$000)

	Rhode Island Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	1.287	\$10,567.1	\$3,673.0	\$4,539.3		\$12.30
EnergyWise	1.076	\$11,709.7	\$10,063.2	\$816.5		\$19.82
EnergyWise MultiFamily	3.377	\$6,198.9	\$1,491.6	\$344.0		\$12.35
Home Energy Reports	2.988	\$1,347.2	\$450.9	\$0.0		\$4.82
Residential New Construction	0.914	\$1,229.8	\$674.8	\$670.9		\$15.78
Comprehensive Marketing - Residential			\$64.8			
Community Based Initiatives - Residential			\$75.8			
Residential Pilots			\$0.0			
Residential Workforce Development			\$118.3			
Non-Income Eligible Residential Subtotal	1.317	\$31,052.7	\$16,612.4	\$6,370.8	\$ 595.0	\$14.89
Income Eligible Residential						
Single Family - Income Eligible Services	1.953	\$13,159.1	\$6,738.8	\$0.0		\$29.75
Income Eligible Multifamily	2.657	\$8,646.9	\$3,254.1	\$0.0		\$9.24
Income Eligible Workforce Development			\$49.6			
Income Eligible Residential Subtotal	2.083	\$21,805.9	\$10,042.5	\$0.0	\$ 425.0	\$17.36
Large Commercial & Industrial						
Large Commercial New Construction	3.348	\$8,681.7	\$2,759.2	-\$166.4		\$5.93
Large Commercial Retrofit	3.739	\$31,990.8	\$5,169.1	\$3,387.0		\$5.88
Small Business Direct Install	2.382	\$957.8	\$332.7	\$69.4		\$8.23
Commercial & Industrial Multifamily	3.009	\$3,121.2	\$953.2	\$84.0		\$7.31
Commercial Pilots			\$215.8			
Community Based Initiatives - C&I			\$24.8			
Finance Costs			\$0.0			
Commercial Workforce Development			\$164.5			
Commercial & Industrial Subtotal	3.273	\$44,751.6	\$9,619.3	\$3,374.0	\$ 680.0	\$6.24
Regulatory						
EERMC			\$321.2			
OER			\$321.2			
Regulatory Subtotal						
Grand Total	2.018	\$97,610.2	\$36,916.6	\$9,744.8	\$ 1,700.0	\$11.09

PUC 1-25

Request:

Referring to Table E-5A and Table G-5A, please provide alternative tables that re-calculate the benefit-cost ratio for each individual program without the Resource Benefits and the Customer Contribution used in the formula referenced in footnote 1 of each.

Response:

Please see the attached PUC 1-25-1 and PUC 1-25-2 for the alternative tables for Table E-5A and G-5A, respectively.

The Company interprets this question as requesting that the “Resource Benefits” omitted from the alternative E-5A and G-5A are those that are not associated with the direct energy savings from each respective portfolio, as detailed in the response to PUC 1-23. For the alternative versions of E-5A and G-5A the following are omitted:

- Electric alternative Table E-5A omits “Resource Benefits” in the following subcategories of benefits: natural gas, natural gas DRIPE, fuel oil, fuel oil DRIPE, propane, water, and non-resource (non-energy impacts).
- Natural Gas alternative Table G-5A omits “Resource Benefits” in the following subcategories of benefits: electric energy and electric energy DRIPE, fuel oil, fuel oil DRIPE, propane, water, and non-resource (non-energy impacts).
- Alternative Table E-5A and alternative Table G-5A also omit Customer Contribution.

PUC 1-25-1
Table E-5A (Alternative)
National Grid
Calculation of 2021 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)

	TRC Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	1.20	\$1,847.9	\$1,544.3			8.5
ENERGY STAR® HVAC	1.62	\$5,642.4	\$3,487.8			6.8
EnergyWise	0.15	\$2,536.1	\$17,033.3			115.2
EnergyWise Multifamily	0.49	\$1,509.7	\$3,056.8			15.0
Home Energy Reports	1.90	\$5,008.4	\$2,641.7			9.8
ENERGY STAR® Lighting	0.92	\$4,872.6	\$5,274.8			19.7
Residential Consumer Products	2.24	\$6,017.9	\$2,681.2			7.0
Residential ConnectedSolutions	5.30	\$10,390.0	\$1,959.7			
Energy Efficiency Education Programs			\$40.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$226.2			
Comprehensive Marketing - Residential			\$332.7			
Residential Workforce Development			\$284.7			
Non-Income Eligible Residential SUBTOTAL	0.93	\$37,825.0	\$38,563.3		\$1,925.0	19.6
Income Eligible Residential						
Single Family - Income Eligible Services	0.38	\$5,202.7	\$13,759.3			34.9
Income Eligible Multifamily	0.10	\$487.4	\$4,830.8			15.2
Income Eligible Workforce Development			\$114.2			
Income Eligible Residential SUBTOTAL	0.29	\$5,690.1	\$18,704.3		\$1,100.0	26.3
Commercial & Industrial						
Large Commercial New Construction	3.01	\$25,583.1	\$8,500.2			4.5
Large Commercial Retrofit	3.39	\$108,149.3	\$31,930.2			4.3
Small Business Direct Install	1.55	\$13,792.6	\$8,883.6			8.4
Commercial ConnectedSolutions	7.66	\$22,916.6	\$2,990.1			
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$74.5			
Finance Costs			\$5,000.0			
Commercial Workforce Development			\$468.7			
C&I SUBTOTAL	2.83	\$170,441.7	\$57,847.3		\$2,475.0	5.6
Regulatory						
OER			\$845.6			
EERMC			\$845.6			
Regulatory SUBTOTAL			\$1,691.1			
TOTAL	1.75	\$213,956.9	\$116,806.0		\$5,500.0	8.9

Notes:

This alternative version of Table E-5A omits the following benefit categories natural gas, natural gas DRIPE, fuel oil, fuel oil DRIPE, propane, water, and non-resource (non-energy impacts). It also omits customer contribution from the costs.

PUC 1-25-2
Table G-5A (Alternative)
National Grid
Calculation of 2021 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)

	TRC Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	1.81	\$6,656.8	\$3,673.0			\$5.50
EnergyWise	0.56	\$5,647.0	\$10,063.2			\$18.33
EnergyWise MultiFamily	1.00	\$1,490.5	\$1,491.6			\$10.03
Home Energy Reports	2.00	\$901.9	\$450.9			\$4.82
Residential New Construction	1.24	\$836.6	\$674.8			\$7.91
Comprehensive Marketing - Residential			\$64.8			
Community Based Initiatives - Residential			\$75.8			
Residential Pilots			\$0.0			
Residential Workforce Development			\$118.3			
Non-Income Eligible Residential Subtotal	0.90	\$15,532.7	\$16,612.4		\$ 595.0	\$10.76
Income Eligible Residential						
Single Family - Income Eligible Services	0.35	\$2,341.6	\$6,738.8			\$29.75
Income Eligible Multifamily	1.07	\$3,468.2	\$3,254.1			\$9.24
Income Eligible Workforce Development			\$49.6			
Income Eligible Residential Subtotal	0.56	\$5,809.8	\$10,042.5		\$ 425.0	\$17.36
Large Commercial & Industrial						
Large Commercial New Construction	1.31	\$3,609.4	\$2,759.2			\$6.31
Large Commercial Retrofit	2.51	\$12,959.9	\$5,169.1			\$3.55
Small Business Direct Install	1.25	\$416.9	\$332.7			\$6.81
Commercial & Industrial Multifamily	1.38	\$1,312.4	\$953.2			\$6.72
Commercial Demonstration and R&D			\$215.8			
Community Based Initiatives - C&I			\$24.8			
Finance Costs			\$0.0			
Commercial Workforce Development			\$164.5			
Commercial & Industrial Subtotal	1.78	\$18,298.6	\$9,619.3		\$ 680.0	\$4.62
Regulatory						
EERMC			\$321.2			
OER			\$321.2			
Regulatory Subtotal			\$642.5			
Grand Total	1.03	\$39,641.1	\$36,916.6		\$ 1,700.0	\$8.78

Notes:

This alternative version of Table G-5A omits the following benefit categories: electric energy and electric energy DRIPE, water, and non-resource (non-energy impacts). It also omits customer contribution from the costs.

PUC 1-26

Request:

Referring to Tables E-5 and E-5A, please explain why the benefit-cost ratio is so much higher in both Tables for Residential Connected Solutions and Commercial Connected Solutions than any of the other programs.

Response:

The residential and commercial ConnectedSolutions programs are active demand management programs where customers are paid an incentive to curtail electric loads at peak times. This is in comparison to other programs that are primarily intended to reduce overall customer energy consumption.

The benefit-cost ratios for the Residential ConnectedSolutions and Commercial ConnectedSolutions programs are higher relative to other programs for several reasons.

First, the ConnectedSolutions programs are relatively unique in that they do not directly incent the installation of new equipment to save energy or demand. The programs provide incentives to customers to reduce their load during specific times. The benefits resulting from these actions are primarily capacity benefits, that have relatively high value.¹

Second, these programs have low costs relative to the benefits they create. This is due in part to the fact that they typically do not involve a requirement for incremental equipment incented through the program. Most efficiency programs provide incentives for installation of energy efficient equipment. This is not the case in the ConnectedSolutions offers, which rely on customer utilization of existing equipment, or (as in the case of WiFi enabled thermostats) equipment that was incented under a different energy efficiency program on the basis of the energy savings attributable to that equipment.

The costs of the ConnectedSolutions offerings are therefore primarily composed of incentives to customers, as well as costs related to the technology platform on which the resource is managed, as well as program administration and marketing costs.

¹ Refer to Table E-6A for the benefits generated by the Residential ConnectedSolutions and Commercial ConnectedSolutions programs.

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In addition, the programs have no associated customer contribution cost, which is a category of cost included in the denominator of the benefit-cost ratio. If the customer purchased a device through the energy efficiency programs, those costs are already accounted for in the energy efficiency program.

PUC 1-27

Request:

Please re-calculate the total benefit-cost ratio provided in Tables E-5, E-5A, G-5, and G-5A without attributing any benefits achieved through the Home Energy Reports program.

Response:

The Company has interpreted this request as omitting both the benefits and costs associated with the Home Energy Reports program from Tables E-5, E-5A, G-5, and G-5A.

Please see Attachments PUC 1-27-1 through PUC 1-27-4 for versions of these tables showing the Benefit-Cost results without the Home Energy Reports.

PUC 1-27-1
Table E-5 (Without Home Energy Reports)
National Grid
Calculation of 2021 Program Year Cost-Effectiveness
All Dollar Values in (\$000)

	RI Test Benefit/ Cost¹	Total Benefit	Program Implementation Expenses²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	2.69	\$6,445.3	\$1,544.3	\$855.7		13.3
ENERGY STAR® HVAC	2.77	\$13,306.5	\$3,487.8	\$1,311.6		9.4
EnergyWise	1.89	\$33,615.8	\$17,033.3	\$790.4		120.5
EnergyWise Multifamily	2.44	\$8,756.5	\$3,056.8	\$532.0		17.6
Home Energy Reports						
ENERGY STAR® Lighting	3.29	\$14,018.2	\$5,274.8	-\$1,012.9		15.9
Residential Consumer Products	2.84	\$11,372.7	\$2,681.2	\$1,321.2		10.5
Residential ConnectedSolutions	6.13	\$12,018.6	\$1,959.7	\$0.0		N/A
Energy Efficiency Education Programs			\$40.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$226.2			
Comprehensive Marketing - Residential			\$332.7			
Residential Workforce Development			\$284.7			
Non-Income Eligible Residential SUBTOTAL	2.39	\$99,533.7	\$35,921.6	\$3,798.1	\$1,925.0	20.2
Income Eligible Residential						
Single Family - Income Eligible Services	2.65	\$36,501.8	\$13,759.3	\$0.0		34.9
Income Eligible Multifamily	1.76	\$8,502.4	\$4,830.8	\$0.0		15.2
Income Eligible Workforce Development			\$114.2			
Income Eligible Residential SUBTOTAL	2.27	\$45,004.2	\$18,704.3	\$0.0	\$1,100.0	26.3
Commercial & Industrial						
Large Commercial New Construction	6.24	\$58,649.1	\$8,500.2	\$893.1		5.0
Large Commercial Retrofit	7.52	\$329,117.0	\$31,930.2	\$11,821.8		5.9
Small Business Direct Install	3.35	\$36,190.8	\$8,883.6	\$1,922.8		10.3
Commercial ConnectedSolutions	9.85	\$29,465.0	\$2,990.1	\$0.0		N/A
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$74.5			
Finance Costs			\$5,000.0			
Commercial Workforce Development			\$468.7			
C&I SUBTOTAL	6.05	\$453,421.9	\$57,847.3	\$14,637.7	\$2,475.0	7.0
Regulatory						
OER			\$845.6			
EERMC			\$845.6			
Regulatory SUBTOTAL			\$1,691.1			
TOTAL	4.33	\$597,959.9	\$114,164.3	\$18,435.8	\$5,500.0	10.1

PUC 1-27-2
Table E-5A (Without Home Energy Reports)
National Grid
Calculation of 2021 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)

	TRC Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	1.55	\$3,713.4	\$1,544.3	\$855.7		13.3
ENERGY STAR® HVAC	1.37	\$6,557.3	\$3,487.8	\$1,311.6		9.4
EnergyWise	0.82	\$14,677.8	\$17,033.3	\$790.4		120.5
EnergyWise Multifamily	1.19	\$4,265.7	\$3,056.8	\$532.0		17.6
Home Energy Reports						
ENERGY STAR® Lighting	1.17	\$4,988.9	\$5,274.8	-\$1,012.9		15.9
Residential Consumer Products	1.52	\$6,092.4	\$2,681.2	\$1,321.2		10.5
Residential ConnectedSolutions	5.30	\$10,390.0	\$1,959.7			
Energy Efficiency Education Programs			\$40.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$226.2			
Comprehensive Marketing - Residential			\$332.7			
Residential Workforce Development			\$284.7			
Non-Income Eligible Residential SUBTOTAL	1.22	\$50,685.6	\$35,921.6	\$3,798.1	\$1,925.0	21.6
Income Eligible Residential				\$0.0		
Single Family - Income Eligible Services	1.61	\$22,102.6	\$13,759.3	\$0.0		34.9
Income Eligible Multifamily	0.52	\$2,494.0	\$4,830.8	\$0.0		15.2
Income Eligible Workforce Development			\$114.2			
Income Eligible Residential SUBTOTAL	1.24	\$24,596.7	\$18,704.3	\$0.0	\$1,100.0	26.3
Commercial & Industrial						
Large Commercial New Construction	2.87	\$26,984.4	\$8,500.2	\$893.1		5.0
Large Commercial Retrofit	2.93	\$127,987.1	\$31,930.2	\$11,821.8		5.9
Small Business Direct Install	1.47	\$15,926.4	\$8,883.6	\$1,922.8		10.3
Commercial ConnectedSolutions	7.66	\$22,916.6	\$2,990.1			
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$74.5			
Finance Costs			\$5,000.0			
Commercial Workforce Development			\$468.7			
C&I SUBTOTAL	2.59	\$193,814.4	\$57,847.3	\$14,637.7	\$2,475.0	7.0
Regulatory						
OER			\$845.6			
EERMC			\$845.6			
Regulatory SUBTOTAL			\$1,691.1			
TOTAL	1.95	\$269,096.6	\$114,164.3	\$18,435.8	\$5,500.0	10.4

PUC 1-27-3
Table G-5 (Without Home Energy Reports)
National Grid
Calculation of 2021 Program Year Cost-Effectiveness
All Dollar Values in (\$000)

	Rhode Island Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	1.66	\$13,615.7	\$3,673.0	\$4,539.3		\$12.30
EnergyWise	2.01	\$21,873.6	\$10,063.2	\$816.5		\$19.82
EnergyWise MultiFamily	4.70	\$8,630.2	\$1,491.6	\$344.0		\$12.35
Home Energy Reports						
Residential New Construction	1.02	\$1,378.3	\$674.8	\$670.9		\$15.78
Comprehensive Marketing - Residential			\$64.8			
Community Based Initiatives - Residential			\$75.8			
Residential Pilots			\$0.0			
Residential Workforce Development			\$118.3		\$ 595.0	
Non-Income Eligible Residential Subtotal	1.97	\$45,497.7	\$16,161.6	\$6,370.8	\$ 595.0	\$14.59
Income Eligible Residential						
Single Family - Income Eligible Services	2.94	\$19,830.4	\$6,738.8	\$0.0		\$29.75
Income Eligible Multifamily	4.21	\$13,690.7	\$3,254.1	\$0.0		\$9.24
Income Eligible Workforce Development			\$49.6		\$ 425.0	
Income Eligible Residential Subtotal	3.20	\$33,521.1	\$10,042.5	\$0.0	\$ 425.0	\$17.36
Large Commercial & Industrial						
Large Commercial New Construction	4.86	\$12,599.7	\$2,759.2	-\$166.4		\$5.93
Large Commercial Retrofit	5.27	\$45,068.7	\$5,169.1	\$3,387.0		\$5.88
Small Business Direct Install	3.83	\$1,539.9	\$332.7	\$69.4		\$8.23
Commercial & Industrial Multifamily	4.75	\$4,922.8	\$953.2	\$84.0		\$7.31
Commercial Pilots			\$215.8			
Community Based Initiatives - C&I			\$24.8			
Finance Costs			\$0.0			
Commercial Workforce Development			\$164.5		\$ 680.0	
Commercial & Industrial Subtotal	4.69	\$64,131.1	\$9,619.3	\$3,374.0	\$ 680.0	\$6.24
Regulatory						
EERMC			\$321.2			
OER			\$321.2			
Regulatory Subtotal			\$642.5			
Grand Total	2.99	\$143,150.0	\$36,465.8	\$9,744.8	\$ 1,700.0	\$10.99

PUC 1-27-4
Table G-5A (Without Home Energy Reports)
National Grid
Calculation of 2021 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)

	TRC Benefit/ Cost	Total Benefit	Program Implementation Expenses	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	0.91	\$7,481.1	\$3,673.0	\$4,539.3		\$12.30
EnergyWise	0.84	\$9,134.8	\$10,063.2	\$816.5		\$19.82
EnergyWise MultiFamily	3.00	\$5,509.4	\$1,491.6	\$344.0		\$12.35
Home Energy Reports						
Residential New Construction	0.62	\$840.0	\$674.8	\$670.9		\$15.78
Comprehensive Marketing - Residential			\$64.8			
Community Based Initiatives - Residential			\$75.8			
Residential Pilots			\$0.0			
Residential Workforce Development			\$118.3			
Non-Income Eligible Residential Subtotal	0.99	\$22,965.3	\$16,161.6	\$6,370.8	\$ 595.0	\$14.59
Income Eligible Residential						
Single Family - Income Eligible Services	1.79	\$12,080.6	\$6,738.8	\$0.0		\$29.75
Income Eligible Multifamily	2.16	\$7,039.9	\$3,254.1	\$0.0		\$9.24
Income Eligible Workforce Development			\$49.6			
Income Eligible Residential Subtotal	1.83	\$19,120.6	\$10,042.5	\$0.0	\$ 425.0	\$17.36
Large Commercial & Industrial						
Large Commercial New Construction	2.56	\$6,643.7	\$2,759.2	-\$166.4		\$5.93
Large Commercial Retrofit	2.93	\$25,105.0	\$5,169.1	\$3,387.0		\$5.88
Small Business Direct Install	1.81	\$727.3	\$332.7	\$69.4		\$8.23
Commercial & Industrial Multifamily	2.37	\$2,454.4	\$953.2	\$84.0		\$7.31
Commercial Demonstration and R&D			\$215.8			
Community Based Initiatives - C&I			\$24.8			
Finance Costs			\$0.0			
Commercial Workforce Development			\$164.5			
Commercial & Industrial Subtotal	2.55	\$34,930.5	\$9,619.3	\$3,374.0	\$ 680.0	\$6.24
Regulatory						
EERMC			\$321.2			
OER			\$321.2			
Regulatory Subtotal			\$642.5			
Grand Total	1.61	\$77,016.4	\$36,465.8	\$9,744.8	\$ 1,700.0	\$10.99

PUC 1-28

Request:

Table E-5 indicates that the electric EnergyWise program has a cost that equates to a cost of achieving kWh savings of approximately \$1.20 per kWh. Please explain why the Company supports the EnergyWise program at the proposed budget level of \$17 million, given that the program the cost per kWh is very far above the market price of electricity, full retail rates, and the cost of additional supply.

Response:

EnergyWise provides invaluable insights regarding a customer's energy systems, housing shell efficiency, and energy savings opportunities that customers may not recognize without professional assistance and is a cost-effective program under the RI Test. The in-depth inventory of opportunities identified during home energy assessments can then be leveraged by marketing to support other residential program targets. In 2021 the cost per kWh for EnergyWise increased due to decreases in electric energy savings resulting from lighting transformation and updated evaluation results that reduced overall weatherization savings.

While EnergyWise is costly from a purely electric savings perspective, the program serves all market rate, single family electric customers and brings real cost savings to customer energy bills through weatherization and other measures. The full value of these, as well as other benefits resulting from the program, are more fully enumerated and quantified in Table E-5. These savings, although not claimed, could further benefit the customer if future electric loads are implemented such as the addition of central air conditioning or electric heat.

In 2021 the program will be looking for ways to increase electric savings while reducing program costs. Opportunities such as the early retirement of clothes washers may be added to the program to increase electric savings.

On the cost side, the program launched virtual home energy assessments in 2020 during the COVID timeframe to provide a customer with a remote home energy assessment by an energy specialist. With the lead vendor implementation vendor going out to bid in 2021, there is an opportunity to capitalize on reducing assessment costs.

PUC 1-29

Request:

Regarding the electric EnergyWise program,

- (a) How many customer accounts does the Company expect will be served by the electric EnergyWise program in 2021?
- (b) How many of the participants provided in part a heat their homes with electric energy?
- (c) How many customer accounts have been served to date in 2020?
- (d) How many customer accounts does the Company expect will be served by the end of 2020?
- (e) How much does the Company expect will have been on the electric EnergyWise program by the end of 2020?

Response:

- (a) The 2021 EnergyWise program has planned to serve 11,750 electric customers with home energy assessments.
- (b) EnergyWise does not plan for assessment customers based on fuel types. In 2019, approximately 5% of the customers receiving assessments had electric heat. The program is planning to serve 220 electric heating customers with weatherization services in 2021.
- (c) Through October 2020, 6,203 customers have received Home Energy Assessments in EnergyWise.
- (d) The program forecasts serving 8,800 assessment customers through the end of 2020.
- (e) With the 5% estimate of electric heat participants, the program anticipates serving 440 electrically heated customers through year end.

PUC 1-30

Request:

For the electric EnergyWise program, please provide a table showing the following for the years 2015 through 2019:

- (a) Total implementation costs budgeted;
- (b) Total implementation costs actually incurred;
- (c) Cost per lifetime kWh projected to have been saved from the program;
- (d) Total number of customer accounts served;
- (e) Total number of customers served with electric heat;
- (f) Resulting benefit-cost ratio; and
- (g) Resulting benefit-cost ratio excluding economic development benefits.

Response:

Please see Attachment PUC 1-30 for requested information.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-30

Electric EnergyWise Data	Year				
	2015	2016	2017	2018	2019
a. Total implementation costs budgeted;	\$ 8,883,677	\$ 10,007,692	\$ 9,629,973	\$ 14,916,251	\$ 15,777,501
b. Total implementation costs actually incurred;	\$ 9,782,191	\$ 8,906,422	\$ 9,371,174	\$ 13,406,705	\$ 16,062,764
c. Cost per lifetime kWh projected to have been saved from the program;	9.2	10.4	16.6	46.2	46.9
d. Total number of customer accounts served;	11,665	9,567	10,159	11,838	13,839
e. Total number of customers served with electric heat;	515	401	457	585	626
f. Resulting benefit-cost ratio; and	3.08	1.99	1.04	2.43	2.53
g. Resulting benefit-cost ratio excluding economic development benefits.	3.08	1.99	1.04	1.81	1.91

PUC 1-31

Request:

Please re-create Table 6 (Summary of 2009-2019 Electric Energy Efficiency Year End Reports), excluding all participants who may have been counted solely from the receipt of a Home Energy Report.

Response:

See Attachment PUC 1-31 for the alternative Table 6 (Summary of 2009-2019 Electric Energy Efficiency Year End Reports). Please note that the Company removed Home Energy Reports program participants in the "Participants" column since the start of the Home Energy Reports program (2013-2019). The participation totals in this table are additive and, therefore, track participation at the program level.

While the participant numbers are adjusted to remove Home Energy Reports, the other columns have not been adjusted.

Attachment PUC 1-31

Table 6. Summary of 2009-2019 Electric Energy Efficiency Year End Reports

Year	Annual MWh Savings	Lifetime MWh Savings	Total Benefits (\$000)	Total Spending* (\$000)	TRC BC Ratio**	RI Test BC Ratio (1)	EE Program Charge/kWh	\$ per lifetime kWh***	Participants
2009	81,543	899,331	\$ 123,045	\$ 29,536	3.02		\$ 0.00320	\$ 0.027	106,525
2010	81,275	929,242	\$ 128,864	\$ 29,712	3.73		\$ 0.00320	\$ 0.027	153,611
2011	96,009	1,076,778	\$ 151,542	\$ 39,308	3.35		\$ 0.00526	\$ 0.031	254,747
2012	119,666	1,288,325	\$ 140,104	\$ 50,719	2.24		\$ 0.00589	\$ 0.036	201,351
2013	159,035	1,612,371	\$ 192,418	\$ 72,875	2.24		\$ 0.00862	\$ 0.039	286,256
2014	268,468	3,278,088	\$ 314,673	\$ 80,321	2.69		\$ 0.00911	\$ 0.041	285,771
2015	222,822	2,287,785	\$ 312,000	\$ 82,897	2.38		\$ 0.00942	\$ 0.036	354,560
2016	214,329	2,034,220	\$ 234,234	\$ 74,274	2.16		\$ 0.01077	\$ 0.034	488,027
2017	232,023	2,327,916	\$ 249,986	\$ 90,012	1.91		\$ 0.01124	\$ 0.039	478,715
2018	206,209	1,848,845	\$ 369,835	\$ 88,123	1.88	2.99	\$ 0.00972	\$ 0.048	479,877
2019	190,159	1,624,417	\$ 489,299	\$ 104,620	2.49	3.43	\$ 0.01121	\$ 0.064	369,535

*Total Spending includes implementation, evaluation, commitments, EERMC, and OER. Does not include customer contribution or shareholder incentive.

**TRC Benefit/Cost Ratio = Benefits/(Implementation Expenses + Customer Contribution + Evaluation Cost + Shareholder Incentives).

***Implementation costs/Lifetime savings

**** December 2011 PUC voted to increase gas EE Program charge to \$0.411/Dth.

(1) RI Test Benefit/Cost Ratio = (Energy + Capacity + Resource Benefits + Economic Benefits + Carbon Benefits + NOx Benefits) / (Program Implementation + Customer Contribution + Shareholder Incentive)

(2) B/C Ratio changed from TRC to RI Test from 2018 onwards

PUC 1-32

Request:

Please re-create Table 1 of the three-year plan (Electric Portfolio Summary, 2021 – 2023), excluding all participants who may have been counted solely from the receipt of a Home Energy Report.

Response:

Please see Attachment PUC 1-32 for the alternative table for Table 1 of the three-year plan (Electric Portfolio Summary, 2021 – 2023). The table removes the Home Energy Report participants from the “Participation” count.

Participant counts are derived at the program level and are added together to create total participation in each plan year. In this table the Company does not account for cross-program participation of a single customer, such as any participants that may participate in Home Energy Reports and an additional program.

While the participant numbers are adjusted to remove Home Energy Reports, the other columns have not been adjusted.

Attachment PUC 1-32

Electric Programs	2021	2022		2023	
Savings and Benefits		Base Case	High Scenario	Base Case	High Scenario
Annual Electric Savings (MWh)	139,478	143,872	149,013	158,726	172,198
Lifetime Electric Savings (MWh)	1,306,562	1,571,295	1,634,312	1,800,526	1,964,585
Savings as a Percent of Sales	1.92%	1.98%	2.05%	2.19%	2.37%
Summer Passive Peak Demand Savings (kW)	22,723	21,866	22,774	22,776	25,104
Winter Passive Peak Demand Savings (kW)	27,695	32,657	33,690	32,045	34,695
Active Peak Demand Savings (kW)	39,339	46,452	59,682	53,656	76,181
Total Benefits (RI Test)	\$606,490,655	\$653,356,839	\$696,592,377	\$726,732,762	\$830,726,438
Costs					
Total Funding Required	\$122,306,026	\$135,867,936	\$143,189,075	\$148,404,519	\$166,848,275
Cost per lifetime kWh	\$0.104	\$0.100	\$0.101	\$0.095	\$0.098
EE Program Charge per kWh	\$0.01323	\$0.01813	\$0.01922	\$0.02013	\$0.02281
Benefit Cost Ratio (RI Test)	4.31	4.02	4.08	4.13	4.20
Participation	138,866	71,368	74,928	87,999	98,706

PUC 1-33

Request:

Please re-create Table 7 of the three-year plan (Summary of 2009-2019 Natural Gas Energy Efficiency Year End Reports), excluding all participants who may have been counted solely from the receipt of a Home Energy Report.

Response:

See Attachment 1-33 for the alternative Table 7 of the three-year plan (Summary of 2009-2019 Natural Gas Energy Efficiency Year End Reports). Note that the Company removed Home Energy Reports program participants in the "Participants" column since the start of the Home Energy Reports program (2013-2019). The participation totals in this table are additive and therefore track participation at the program level.

While the participant numbers are adjusted to remove Home Energy Reports, the other columns have not been adjusted.

Attachment PUC 1-33

Table 7. Summary of 2009-2019 Natural Gas Energy Efficiency Year End Reports

Year	Annual MMBtu Savings	Lifetime MMBtu Savings	Total Benefits (\$000)	Total Spending* (\$000)	TRC BC Ratio**	RI Test BC Ratio (1)	EE Program Charge/Dth	\$ per lifetime MMBtu***	Participants
2009	195,200	2,553,828	\$ 26,071	\$ 6,552	2.83		\$0.150	\$2.44	8,339
2010	140,097	2,155,112	\$ 26,309	\$ 5,496	2.31		\$0.150	\$2.33	5,670
2011	119,613	1,623,922	\$ 18,196	\$ 4,868	2.21		\$0.150 ****\$0.411	\$2.73	3,080
2012	229,811	3,300,583	\$ 36,237	\$ 13,310	1.68		\$0.384	\$3.72	11,681
2013	311,585	4,377,672	\$ 44,747	\$ 19,501	1.78		\$0.414	\$4.21	13,286
2014	409,029	5,958,381	\$ 50,417	\$ 20,034	2.41		\$0.600 (Resi) \$0.492 (C&I)	\$3.84	14,006
2015	419,778	5,249,170	\$ 54,762	\$ 20,129	2.60		\$0.781 (Resi) \$0.637 (C&I)	\$3.47	15,643
2016	417,820	5,282,221	\$ 51,103	\$ 23,135	1.94		\$0.748 (Resi) \$0.487 (C&I)	\$4.78	15,983
2017	468,211	4,615,034	\$ 70,972	\$ 27,513	1.86		\$0.888 (Resi) \$0.726 (C&I)	\$5.96	17,300
2018	497,119	5,513,499	\$ 113,117	\$ 27,231	2.62	3.11	\$0.869 (Resi) \$0.671 (C&I)	\$4.94	13,360
2019	451,466	4,527,147	\$ 115,736	\$ 30,142	2.17	2.66	\$0.715 (Resi) \$0.420 (C&I)	\$6.66	13,527

*Total Spending includes implementation, evaluation, commitments, EERMC, and OER. Does not include customer contribution or shareholder incentive.

**TRC Benefit/Cost Ratio = Benefits/(Implementation Expenses + Customer Contribution + Evaluation Cost + Shareholder Incentives).

***Implementation costs/Lifetime savings

**** December 2011 PUC voted to increase gas EE Program charge to \$0.411/Dth.

(1) RI Test Benefit/Cost Ratio = (Energy + Capacity + Resource Benefits + Economic Benefits + Carbon Benefits + NOx Benefits) / (Program Implementation + Customer Contribution + Shareholder Incentive)

(2) B/C Ratio changed from TRC to RI Test from 2018 onwards

PUC 1-34

Request:

Referring to the 2019 Year-End Report, "Schedule 1 – Program and Sector Cost Summary," please provide similar schedules (for electric and gas) for the projected costs of the 2021 program which estimates the costs for 2021 for each program in each cost category identified in the schedule. Please use the Company's best estimate for costs anticipated in each category, based on the budget requested.

Response:

See Attachment PUC 1-34-1 and PUC 1-34-2. Note that this response is providing the "Schedule 1 – Program and Sector Cost Summary" for both electric and gas "Schedule 1 – Program and Sector Cost Summary – Direct vs. Allocated".

Information contained within "Schedule 1 – Program and Sector Cost Summary – By Report Category" has been provided in the Annual Plan filing in Table E-2 on Bates 558 and Table G-2 on Bates 571.

Schedule 1 - Program and Sector Cost Summary

	(a)		(b)		(c)		(d)									
	TOTAL SPLIT 1		TOTAL SPLIT 2		TOTALS		TOTALS									
	DIRECT vs ALLOCATED		DIRECT vs ALLOCATED		DIRECT vs ALLOCATED		DIRECT vs ALLOCATED									
Total Costs	DIRECT		ALLOCATED		DIRECT		DIRECT									
	Cost of services and product rebates/incentives provided to customers vs. Other Costs		Cost of services and product rebates/incentives provided to customers vs. Other Costs		Cost of services and product rebates/incentives provided to customers vs. Other Costs		Cost of services and product rebates/incentives provided to customers vs. Other Costs									
	DIRECT		ALLOCATED		DIRECT		DIRECT									
1 Residential New Construction	\$674,827		\$648,713	\$26,114	\$648,713	\$26,114	\$648,713	\$26,114	\$26,114	\$26,114	\$26,114	\$26,114	\$26,114	\$26,114	\$26,114	\$26,114
2 ENERGY STAR HVAC	\$3,548,848		\$3,548,848	\$124,199	\$3,548,848	\$124,199	\$3,548,848	\$124,199	\$124,199	\$124,199	\$124,199	\$124,199	\$124,199	\$124,199	\$124,199	\$124,199
3 EnergyWise	\$10,063,248		\$9,780,893	\$282,355	\$9,780,893	\$282,355	\$9,780,893	\$282,355	\$282,355	\$282,355	\$282,355	\$282,355	\$282,355	\$282,355	\$282,355	\$282,355
4 EnergyWise Multi Family	\$1,451,590		\$1,438,482	\$13,108	\$1,438,482	\$13,108	\$1,438,482	\$13,108	\$13,108	\$13,108	\$13,108	\$13,108	\$13,108	\$13,108	\$13,108	\$13,108
5 Home Energy Reports	\$450,864		\$440,737	\$10,127	\$440,737	\$10,127	\$440,737	\$10,127	\$10,127	\$10,127	\$10,127	\$10,127	\$10,127	\$10,127	\$10,127	\$10,127
6 Residential Workforce Development	\$118,267		\$118,267	\$0	\$118,267	\$0	\$118,267	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7 Community Based Initiatives - Residential	\$75,839		\$75,839	\$0	\$75,839	\$0	\$75,839	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8 Comprehensive Marketing - Residential	\$47,714		\$47,714	\$0	\$47,714	\$0	\$47,714	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
9 Subtotal Non-Income Eligible Residential	\$16,612,415		\$16,111,877	\$500,538	\$16,111,877	\$500,538	\$16,111,877	\$500,538	\$500,538	\$500,538	\$500,538	\$500,538	\$500,538	\$500,538	\$500,538	\$500,538
10 Single Family - Income Eligible Services	\$6,738,774		\$6,567,886	\$170,888	\$6,567,886	\$170,888	\$6,567,886	\$170,888	\$170,888	\$170,888	\$170,888	\$170,888	\$170,888	\$170,888	\$170,888	\$170,888
11 Income Eligible Multifamily	\$3,234,067		\$3,166,004	\$68,063	\$3,166,004	\$68,063	\$3,166,004	\$68,063	\$68,063	\$68,063	\$68,063	\$68,063	\$68,063	\$68,063	\$68,063	\$68,063
12 Income Eligible Workforce Development	\$49,623		\$49,623	\$0	\$49,623	\$0	\$49,623	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13 Subtotal Income Eligible Residential	\$10,042,464		\$9,783,513	\$258,951	\$9,783,513	\$258,951	\$9,783,513	\$258,951	\$258,951	\$258,951	\$258,951	\$258,951	\$258,951	\$258,951	\$258,951	\$258,951
14 Large Commercial New Construction	\$2,759,162		\$2,533,818	\$225,344	\$2,533,818	\$225,344	\$2,533,818	\$225,344	\$225,344	\$225,344	\$225,344	\$225,344	\$225,344	\$225,344	\$225,344	\$225,344
15 Large Commercial Retrofit	\$5,189,116		\$4,800,014	\$389,102	\$4,800,014	\$389,102	\$4,800,014	\$389,102	\$389,102	\$389,102	\$389,102	\$389,102	\$389,102	\$389,102	\$389,102	\$389,102
16 Small Business Direct Install	\$332,651		\$317,157	\$15,494	\$317,157	\$15,494	\$317,157	\$15,494	\$15,494	\$15,494	\$15,494	\$15,494	\$15,494	\$15,494	\$15,494	\$15,494
17 Commercial & Industrial Multifamily	\$953,219		\$904,884	\$48,335	\$904,884	\$48,335	\$904,884	\$48,335	\$48,335	\$48,335	\$48,335	\$48,335	\$48,335	\$48,335	\$48,335	\$48,335
18 Commercial Plots	\$25,780		\$25,780	\$0	\$25,780	\$0	\$25,780	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
19 Commercial Workforce Development	\$145,510		\$145,510	\$0	\$145,510	\$0	\$145,510	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
20 Community Based Initiatives - C&I	\$24,844		\$24,844	\$0	\$24,844	\$0	\$24,844	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
21 Subtotal Commercial & Industrial	\$9,612,862		\$9,061,207	\$551,655	\$9,061,207	\$551,655	\$9,061,207	\$551,655	\$551,655	\$551,655	\$551,655	\$551,655	\$551,655	\$551,655	\$551,655	\$551,655
22 TOTAL All Sectors	\$36,274,165		\$34,856,098	\$1,418,067	\$34,856,098	\$1,418,067	\$34,856,098	\$1,418,067	\$1,418,067	\$1,418,067	\$1,418,067	\$1,418,067	\$1,418,067	\$1,418,067	\$1,418,067	\$1,418,067
							OTHER COSTS NOT LISTED ABOVE (Electric)									
							\$0									
GRAND TOTAL							\$34,856,098									

¹ Splits between Allocated and Direct Labor and Employee Expenses have been estimated using historical splits.

PUC 1-35

Request:

Referring to the 2019 Year-End Report, "Schedule 3 – Expenses Categorized as Vendor Costs in Company's Systems," please provide similar schedules (for electric and gas) for the projected costs of the 2021 program which estimates the costs for 2021 for each program in each cost category identified in the schedule. Please use the Company's best estimate for costs anticipated in each category, based on the budget requested.

Response:

See Attachment PUC 1-35-1 and PUC 1-35-2.

Schedule 3 - Vendor Services Costs (excluding rebates/incentives) ⁶

	(a)	(b)	(c) (a) - (b)	(d)	(e)	(f) (d) + (e)	(g) (c) + (f)
	Total Costs of Services, Products, and Rebates Provided to Customers, ² (also referred to as "Rebates and Other Customer Incentives")	Rebate Payments Made Directly to Customers by National Grid and Rebates Paid to PEX's to Whom Customer Rebates were Assigned ⁵	Payments to Service Vendors for Costs Relating to Services, Products, and Processing Rebates (excluding costs included in col. b) ³	Direct "External Costs" from Vendor Services	"External Costs" from Vendors Originating from an Allocation	Total of Vendor Costs Categorized as "External Costs" from Service Vendors (excluding costs included in columns a, b & c)	Total Costs from Service Vendors, Excluding Rebate Payments Made Directly to Customers by National Grid
1 Residential New Construction	\$831,825	\$0	\$831,825	\$630,197	\$13,433	\$643,630	\$1,475,455
2 ENERGY STAR® HVAC	\$2,584,475	\$0	\$2,584,475	\$779,340	\$54,974	\$834,314	\$3,418,789
3 EnergyWise	\$14,772,222	\$0	\$14,772,222	\$1,789,655	\$216,546	\$2,006,201	\$16,778,423
4 EnergyWise Multifamily	\$2,482,000	\$0	\$2,482,000	\$458,059	\$37,299	\$495,358	\$2,977,358
5 Home Energy Reports	\$0	\$0	\$0	\$2,593,137	\$859	\$2,593,996	\$2,593,996
6 ENERGY STAR® Lighting	\$4,057,238	\$0	\$4,057,238	\$899,374	\$101,018	\$1,000,393	\$5,057,630
7 Residential Consumer Products	\$1,486,075	\$0	\$1,486,075	\$1,058,088	\$63,350	\$1,121,438	\$2,607,513
8 Residential ConnectedSolutions	\$1,369,168	\$0	\$1,369,168	\$544,720	\$17,999	\$562,719	\$1,931,887
9 Energy Efficiency Education	\$0	\$0	\$0	\$40,000	\$0	\$40,000	\$40,000
10 Residential Pilots	\$0	\$0	\$0	\$0	\$0	\$0	\$0
11 Residential Workforce Development	\$0	\$0	\$0	\$284,722	\$0	\$284,722	\$284,722
12 Community Based Initiatives - Residential	\$84,375	\$0	\$84,375	\$109,688	\$0	\$109,688	\$194,063
13 Comprehensive Marketing - Residential	\$0	\$0	\$0	\$325,000	\$0	\$325,000	\$325,000
14 Subtotal Non-Income Eligible Residential	\$27,667,378	\$0	\$27,667,378	\$9,511,981	\$505,479	\$10,017,460	\$37,684,837
15 Single Family - Income Eligible Services	\$11,022,955	\$0	\$11,022,955	\$2,354,927	\$162,954	\$2,517,881	\$13,540,836
16 Income Eligible Multifamily	\$4,243,200	\$0	\$4,243,200	\$447,067	\$59,190	\$506,257	\$4,749,457
17 Income Eligible Workforce Development	\$0	\$0	\$0	\$114,190	\$0	\$114,190	\$114,190
18 Subtotal Income Eligible Residential	\$15,266,155	\$0	\$15,266,155	\$2,916,184	\$222,144	\$3,138,328	\$18,404,482
19 Commercial New Construction	\$5,872,168	\$2,010,054	\$3,862,114	\$1,940,926	\$141,831	\$2,082,757	\$5,944,871
20 Commercial Retrofit	\$24,824,992	\$2,135,942	\$22,689,050	\$4,557,906	\$496,376	\$5,054,282	\$27,743,332
21 Small Business Direct Install	\$7,934,305	\$0	\$7,934,305	\$418,936	\$175,022	\$593,958	\$8,528,263
22 Commercial ConnectedSolutions	\$2,680,000	\$0	\$2,680,000	\$148,931	\$52,323	\$201,254	\$2,881,254
23 Commercial Pilots	\$0	\$0	\$0	\$0	\$0	\$0	\$0
24 Commercial Workforce Development	\$0	\$0	\$0	\$468,688	\$0	\$468,688	\$468,688
25 Community Based Initiatives - C&I	\$28,125	\$0	\$28,125	\$36,563	\$0	\$36,563	\$64,688
26 Finance Costs	\$5,000,000	\$0	\$5,000,000	\$0	\$0	\$0	\$5,000,000
27 Subtotal Commercial & Industrial	\$46,339,590	\$4,145,996	\$42,193,594	\$7,571,950	\$865,552	\$8,437,502	\$50,631,096
28 TOTAL All Sectors	\$89,273,122	\$4,145,996	\$85,127,126	\$20,000,114	\$1,593,174	\$21,593,289	\$106,720,415
EERMC	\$0	\$0	\$0	\$845,559	\$0	\$845,559	\$845,559
OER	\$0	\$0	\$0	\$845,559	\$0	\$845,559	\$845,559
OTHER COSTS NOT LISTED ABOVE (Electric)	\$0	\$0	\$0	\$0	\$0	\$0	\$0

¹ The Company's accounting system treats all payments made directly to customers and vendors as one category of vendor expenses.

Rebates paid to customers through service contracts with vendors are included in the service cost of the vendor.

² This category has formally been labeled in prior year annual reports as "Rebates and Other Customer Incentives" in annual reports.

³ This cost category includes service costs for customers plus rebates/incentives processed and paid to customers by the vendor, but excludes rebates paid directly to customers by the Company in col (b).

⁴ The term "External Costs" has been used in Company reports to identify a subset of vendor costs not included in "Rebates and Other Customer Incentives".

⁵ Splits between columns (b) and (c) have been estimated using historical splits.

⁶ Within this report the term "Vendor" refers to both vendors and other external entities.

Schedule 3 - Vendor Services Costs (excluding rebates/incentives) ⁶

	(a)	(b)	(c) (a) - (b)	(d)	(e)	(f) (d) + (e)	(g) (c) + (f)
	Total Costs of Services, Products, and Rebates Provided to Customers. ² (also referred to as "Rebates and Other Customer Incentives")	Rebate Payments Made Directly to Customers by National Grid and Rebates Paid to PEX's to Whom Customer Rebates were Assigned ⁵	Payments to Service Vendors for Costs Relating to Services, Products, and Processing Rebates (excluding costs included in col. b) ³	Direct "External Costs" ⁴ from Vendor Services	"External Costs" from Vendors Originating from an Allocation	Total of Vendor Costs Categorized as "External Costs" from Service Vendors (excluding costs included in columns a, b & c)	Total Costs from Service Vendors, Excluding Rebate Payments Made Directly to Customers by National Grid
1 Residential New Construction	\$491,175	\$0	\$491,175	\$135,205	\$8,797	\$144,002	\$635,177
2 ENERGY STAR® HVAC	\$3,012,973	\$0	\$3,012,973	\$474,921	\$69,400	\$544,321	\$3,557,294
3 EnergyWise	\$8,359,746	\$0	\$8,359,746	\$1,395,130	\$152,891	\$1,548,021	\$9,907,767
4 EnergyWise Multi Family	\$1,216,000	\$0	\$1,216,000	\$202,502	\$24,220	\$226,721	\$1,442,721
5 Home Energy Reports	\$0	\$0	\$0	\$438,034	\$0	\$438,034	\$438,034
6 Residential Workforce Development	\$0	\$0	\$0	\$118,267	\$0	\$118,267	\$118,267
7 Community Based Initiatives - Residential	\$28,125	\$0	\$28,125	\$36,563	\$0	\$36,563	\$64,688
8 Comprehensive Marketing - Residential	\$0	\$0	\$0	\$60,000	\$0	\$60,000	\$60,000
9 Subtotal Non-Income Eligible Residential	\$13,108,019	\$0	\$13,108,019	\$2,860,621	\$255,309	\$3,115,929	\$16,223,948
10 Single Family - Income Eligible Services	\$5,253,000	\$0	\$5,253,000	\$1,290,101	\$93,982	\$1,384,083	\$6,637,083
11 Income Eligible Multifamily	\$2,667,000	\$0	\$2,667,000	\$484,399	\$47,199	\$531,598	\$3,198,598
12 Income Eligible Workforce Development	\$0	\$0	\$0	\$49,623	\$0	\$49,623	\$49,623
13 Subtotal Income Eligible Residential	\$7,920,000	\$0	\$7,920,000	\$1,824,123	\$141,180	\$1,965,304	\$9,885,304
14 Large Commercial New Construction	\$1,264,144	\$551,267	\$712,877	\$1,065,692	\$87,021	\$1,152,713	\$1,865,590
15 Large Commercial Retrofit	\$2,988,797	\$697,669	\$2,291,128	\$1,345,332	\$123,568	\$1,468,900	\$3,760,028
16 Small Business Direct Install	\$251,774	\$0	\$251,774	\$42,164	\$8,183	\$50,348	\$302,122
17 Commercial & Industrial Multifamily	\$756,000	\$0	\$756,000	\$136,090	\$23,738	\$159,828	\$915,828
18 Commercial Pilots	\$178,280	\$0	\$178,280	\$37,500	\$0	\$37,500	\$215,780
19 Commercial Workforce Development	\$0	\$0	\$0	\$164,510	\$0	\$164,510	\$164,510
20 Community Based Initiatives - C&I	\$9,375	\$0	\$9,375	\$12,188	\$0	\$12,188	\$21,563
27 Subtotal Commercial & Industrial	\$5,448,370	\$1,248,936	\$4,199,434	\$2,803,477	\$242,510	\$3,045,987	\$7,245,421
28 TOTAL All Sectors	\$26,476,389	\$1,248,936	\$25,227,453	\$7,488,221	\$638,999	\$8,127,220	\$33,354,672
EERMC	\$0	\$0	\$0	\$321,226	\$0	\$321,226	\$321,226
OER	\$0	\$0	\$0	\$321,226	\$0	\$321,226	\$321,226
OTHER COSTS NOT LISTED ABOVE (Electric)	\$0	\$0	\$0	\$0	\$0	\$0	\$0

¹ The Company's accounting system treats all payments made directly to customers and vendors as one category of vendor expenses.

Rebates paid to customers through service contracts with vendors are included in the service cost of the vendor.

² This category has formally been labeled in prior year annual reports as "Rebates and Other Customer Incentives" in annual reports.

³ This cost category includes service costs for customers plus rebates/incentives processed and paid to customers by the vendor, but excludes rebates paid directly to customers by the Company in col (b).

⁴ The term "External Costs" has been used in Company reports to identify a subset of vendor costs not included in "Rebates and Other Customer Incentives".

⁵ Splits between columns (b) and (c) have been estimated using historical splits.

⁶ Within this report the term "Vendor" refers to both vendors and other external entities.

Redacted
PUC 1-36

Request:

Referring to the 2019 Year-End Report, "Confidential Vendor Schedule 4 – Rhode Island Energy Efficiency Vendor Costs >\$1M (Electric and Natural Gas)," please provide a similar schedule for the projected costs of the 2021 program that the Company reasonably estimates would be incurred through the vendors, as categorized on the schedule. Please use the Company's best estimate for costs anticipated in each category, based on the budget requested. [The Company may be granted Confidential Treatment for this Schedule.]

Response:

See Attachment PUC 1-36. This attachment has been updated to provide the Company's current best estimates of projected 2021 vendor expenses in columns (a) – (f), assuming that the Company achieves 100% of planned savings and implementation expenses in 2021, in line with planned distribution of measure and program contributions. In preparing this attachment, the Company has only updated columns A-F, and has not updated other columns providing more qualitative descriptions of each vendor and the services it provides.

Please note that in preparing Annual Plans, the Company plans savings and associated budgets at the program level, not at the vendor level.

In any given program year, specific contracts may be amended or replaced as the Company continues its pursuit of cost efficient savings and vendor service delivery.

For purposes of this estimate, all programs administered by a particular vendor in 2019 (the most recent year from which the Company has access to and can utilize full year actual expenses) were assumed to be administered by the same vendor in 2021, unless a change of vendor was specifically noted¹.

From there, the Company assumed that existing contract terms and pricing would stay in place for 2021. (In reality, terms and pricing can be subject to change). The vendor level budget estimates in this Attachment were then estimated based on scaling actual 2019 vendor expenses

¹ After 2019, rebate processing administration for the EnergyStar HVAC program (electric and gas) moved to the vendor Energy Federation Inc. This transfer of costs to Energy Federation Inc. has been reflected in Attachment 1-36 for the 2021 program year

Redacted
PUC 1-36, page 2

by a factor equal to assumed program level cost category budget changes between 2019 actuals² and 2021 program level cost category implementation budgets.³

For example, RISE Engineering is the lead vendor providing services to the Company under the EnergyWise single-family electric program. In 2019, the Company spent [REDACTED] through RISE Engineering in the “Cost of services and product rebates/incentives provided to customers” cost category for this program.

In 2021, the EnergyWise single family electric program budget for “Cost of services and product rebates/incentives provided to customers” is 6.9% larger than the 2019 actual implementation expenditures in this same cost category for this electric program. Accordingly, the EnergyWise single family electric program estimated 2021 spend with RISE Engineering in this category was increased by the same 6.9% for purposes of calculating total anticipated spend with RISE Engineering in this cost category. (For purposes of clarity, the total estimated spend with RISE Engineering in this cost category is [REDACTED], as this value includes all programs delivered through RISE, not just the EnergyWise single family electric program. This same process was followed for estimating 2021 expenditures with RISE Engineering for all programs through which this vendor delivers services to the Company).

This estimate of vendor costs does not include any estimates of customer costs for 2021.

² 2019 Actuals utilized were based on the Non-Confidential Schedules 1E and 1G by Report Category. 2021 budgets utilized were based on the E-2 and G-2 tables.

³ Exceptions to this include: The State of Rhode Island where the budget for OER (Office of Energy Resources) were pulled directly from the 2021 E-2 and G-2 table budgets. The vendor Oracle, where costs were pulled from the E-2 and G-2 budgets directly because costs were recategorized to column (d) in 2021 from column (c) in 2019 and therefore could not scaled.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
2021-2023 Energy Efficiency Program Plan &
2021 Annual Energy Efficiency Program Plan
Responses to Commission's First Set of Data Requests
Issued on November 3, 2020

Attachment PUC 1-36

REDACTED

Please see the Company's Confidential Excel file of Attachment PUC 1-36

PUC 1-37

Request:

Please provide a bill impact analysis showing the bill impacts of the proposed 2021-23 proposed budgets in dollar amounts for the average customer in each class, using the same type of bill impact schedules as it typically provided by the Company when other rate changes are requested for the Annual Retail Rate filing on the electric side and the DAC on the gas side. For purposes of this response, keep all other rates and charges the same other than the charge associated with the 2021-23 EE proposed budgets.

Response:

The following tables show the monthly bill impacts for a typical electric customer using 500 kWh per month:

Table 1: BASE CASE 500 kWh Residential A16 Customer

Year	Starting Bill	Ending Bill	Dollar Increase	Percent Increase
2021	\$121.79	\$121.79	\$0.00	0.0%
2022	\$121.79	\$124.34	\$2.55	2.1%
2023	\$124.34	\$125.39	\$1.05	0.8%

Table 2: HIGH SCENARIO 500kWh Residential A16 Customer

Year	Starting Bill	Ending Bill	Dollar Increase	Percent Increase
2021	\$121.79	\$121.79	\$0.00	0.0%
2022	\$121.79	\$124.92	\$3.13	2.6%
2023	\$124.92	\$126.78	\$1.86	1.5%

The following tables show the annual bill impacts for a gas customer using 845 therms per year:

Table 3: BASE CASE 845 Therms Residential Heating Customer

Year	Starting Bill	Ending Bill	Dollar Increase	Percent Increase
2021	\$1,335.02	\$1,335.02	\$0.00	0.0%
2022	\$1,335.02	\$1,354.45	\$19.42	1.5%
2023	\$1,354.45	\$1,369.20	\$14.75	1.1%

PUC 1-37, page 2

Table 4: HIGH SCENARIO 845 Therms Residential Heating Customer

Year	Starting Bill	Ending Bill	Dollar Increase	Percent Increase
2021	\$1,335.02	\$1,335.02	\$0.00	0.0%
2022	\$1,335.02	\$1,369.78	\$34.75	2.6%
2023	\$1,369.78	\$1,398.79	\$29.01	2.1%

Attachments PUC 1-37 (1) through 1-37 (3) and Attachments PUC 1-37(4) through 1-37(6) are the full requested electric bill impact schedules for the base case scenario and the high scenario, respectively. Attachments PUC 1-37 (7) through 1-37 (9) and Attachments PUC 1-37(10) through 1-37(12) are the full requested gas bill impact schedules for the base case scenario and the high scenario, respectively.

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-16 Rate Customers

Monthly kWh (a)	Rates Effective November 1, 2020				Proposed Rates effective January 1, 2021				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				Percentage of Customers (r)
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e) = (a) + (b) + (c)	Delivery Services (f) = (b) - (b)	Supply Services (g)	GET (h)	Total (i) = (f) + (g) + (h)	Delivery Services (j) = (g) - (g)	Supply Services (k) = (g) - (g)	GET (l) = (h) - (d)	Total (m) = (j) + (k) + (l)	Delivery Services (n) = (j) - (e)	Supply Services (o) = (g) - (e)	GET (p) = (h) - (e)	Total (q) = (m) - (e)	
150	\$25.79	\$15.56	\$1.72	\$43.07	\$25.79	\$15.56	\$1.72	\$43.07	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	30.1%
300	\$42.63	\$31.11	\$3.07	\$76.81	\$42.63	\$31.11	\$3.07	\$76.81	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	12.9%
400	\$53.85	\$41.48	\$3.97	\$99.30	\$53.85	\$41.48	\$3.97	\$99.30	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	11.6%
500	\$65.07	\$51.85	\$4.87	\$121.79	\$65.07	\$51.85	\$4.87	\$121.79	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	9.6%
600	\$76.29	\$62.22	\$5.77	\$144.28	\$76.29	\$62.22	\$5.77	\$144.28	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	7.7%
700	\$87.51	\$72.59	\$6.67	\$166.77	\$87.51	\$72.59	\$6.67	\$166.77	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	19.0%
1,200	\$143.62	\$124.44	\$11.17	\$279.23	\$143.62	\$124.44	\$11.17	\$279.23	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	6.8%
2,000	\$233.40	\$207.40	\$18.37	\$459.17	\$233.40	\$207.40	\$18.37	\$459.17	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	2.3%

Rates Effective November 1, 2020
(s)

Proposed Rates effective January 1, 2021
(t)

Line Item on Bill

(1) Distribution Customer Charge	\$6.00	Customer Charge	
(2) LIHEAP Enhancement Charge	\$0.80	LIHEAP Enhancement Charge	
(3) Renewable Energy Growth Program Charge	\$2.16	RE Growth Program	
(4) Distribution Charge (per kWh)	\$0.04580		
(5) Operating & Maintenance Expense Charge	\$0.00212		
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002		
(7) CapEx Factor Charge	\$0.00396		
(8) CapEx Reconciliation Factor	\$0.00090		
(9) Revenue Decoupling Adjustment Factor	\$0.00118	Distribution Energy Charge	
(10) Pension Adjustment Factor	\$0.00073		
(11) Storm Fund Replenishment Factor	\$0.00288		
(12) Rate Management Adjustment Factor	\$0.00015		
(13) Performance Incentive Factor	\$0.00005		
(14) Low Income Discount Recovery Factor	\$0.00176		
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	
(16) Net Metering Charge	\$0.00266		
(17) Base Transmission Charge	\$0.03096		
(18) Transmission Adjustment Factor	\$0.00189	Transmission Charge	
(19) Transmission Uncollectible Factor	\$0.00038		
(20) Base Transition Charge	\$0.00074		
(21) Transition Adjustment	\$0.00008	Transition Charge	
(22) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	
(23) Standard Offer Service Base Charge	\$0.09568		
(24) SOS Adjustment Factor	\$0.00294		
(25) SOS Administrative Cost Adjustment Factor	\$0.00230	Supply Services Energy Charge	
(26) Renewable Energy Standard Charge	\$0.00866		

Line Item on Bill

(27) Customer Charge	\$6.00	
(28) LIHEAP Enhancement Charge	\$0.80	
(29) RE Growth Program	\$2.16	
(30) Transmission Charge	\$0.02945	kWh x
(31) Distribution Energy Charge	\$0.05809	kWh x
(32) Transition Charge	\$0.00082	kWh x
(33) Energy Efficiency Programs	\$0.01353	kWh x
(34) Renewable Energy Distribution Charge	\$0.01197	kWh x
(35) Supply Services Energy Charge	\$0.10370	kWh x

Column (s): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (t): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Rates Effective November 1, 2020					Proposed Rates effective January 1, 2021					\$ Increase (Decrease)			Increase (Decrease) % of Total Bill			Percentage of Customers
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (b)-(c) A-25	Discounted Total (e) = (b) + (c) + (d)	GET (f)	Total (g) = (e) + (f)	Delivery Services (h)	Supply Services (i)	Low Income Discount (j) = (i)-(k) A-25	Discounted Total (k) = (h) + (i) + (j)	GET (l)	Total (m) = (k) + (l)	Delivery Services (n) = (h)-(j) (h)÷(d)	Supply Services (o) = (i)-(k) (i)÷(d)	GET (p) = (l)-(n) (l)÷(d)	Total (q) = (n) + (o) (q)÷(d)	
(a)																	(v)
150	\$25.53	\$15.56	(\$10.27)	\$30.82	\$1.28	\$32.10	\$25.53	\$15.56	(\$10.27)	\$30.82	\$1.28	\$32.10	\$0.00	\$0.00	\$0.00	0.0%	32.1%
300	\$42.10	\$31.11	(\$18.30)	\$54.91	\$2.29	\$57.20	\$42.10	\$31.11	(\$18.30)	\$54.91	\$2.29	\$57.20	\$0.00	\$0.00	\$0.00	0.0%	0.0%
400	\$53.14	\$41.48	(\$23.66)	\$70.96	\$2.96	\$73.92	\$53.14	\$41.48	(\$23.66)	\$70.96	\$2.96	\$73.92	\$0.00	\$0.00	\$0.00	0.0%	12.5%
500	\$64.19	\$51.85	(\$29.01)	\$87.03	\$3.63	\$90.66	\$64.19	\$51.85	(\$29.01)	\$87.03	\$3.63	\$90.66	\$0.00	\$0.00	\$0.00	0.0%	9.6%
600	\$75.24	\$62.22	(\$34.37)	\$103.09	\$4.30	\$107.39	\$75.24	\$62.22	(\$34.37)	\$103.09	\$4.30	\$107.39	\$0.00	\$0.00	\$0.00	0.0%	7.2%
700	\$86.28	\$72.59	(\$39.72)	\$119.15	\$4.96	\$124.11	\$86.28	\$72.59	(\$39.72)	\$119.15	\$4.96	\$124.11	\$0.00	\$0.00	\$0.00	0.0%	16.4%
1,200	\$141.51	\$124.44	(\$66.49)	\$199.46	\$8.31	\$207.77	\$141.51	\$124.44	(\$66.49)	\$199.46	\$8.31	\$207.77	\$0.00	\$0.00	\$0.00	0.0%	5.2%
2,000	\$229.88	\$207.40	(\$109.32)	\$327.96	\$13.67	\$341.63	\$229.88	\$207.40	(\$109.32)	\$327.96	\$13.67	\$341.63	\$0.00	\$0.00	\$0.00	0.0%	1.6%

Rates Effective November 1, 2020

(w)

(1) Distribution Customer Charge	\$6.00
(2) LIHEAP Enhancement Charge	\$0.80
(3) Renewable Energy Growth Program Charge	\$2.16
(4) Distribution Charge (per kWh)	\$0.04580
(5) Operating & Maintenance Expense Charge	\$0.00212
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002
(7) CapEx Factor Charge	\$0.00396
(8) CapEx Reconciliation Factor	\$0.00090
(9) Revenue Decoupling Adjustment Factor	\$0.00118
(10) Pension Adjustment Factor	\$0.00073
(11) Storm Fund Replenishment Factor	\$0.00288
(12) Acreage Management Adjustment Factor	\$0.00015
(13) Performance Incentive Factor	\$0.00005
(14) Low Income Discount Recovery Factor	\$0.00000
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931
(16) Net Metering Charge	\$0.00266
(17) Base Transmission Charge	\$0.03066
(18) Transmission Adjustment Factor	(\$0.00189)
(19) Transmission Uncollectible Factor	\$0.00038
(20) Base Transition Charge	(\$0.00074)
(21) Transition Adjustment	(\$0.00008)
(22) Energy Efficiency Program Charge	\$0.01353
(23) Standard Offer Service Base Charge	\$0.09568
(24) SOS Adjustment Factor	(\$0.00294)
(25) SOS Administrative Cost Adjustment Factor	\$0.00230
(26) Renewable Energy Standard Charge	\$0.00866

Line Item on Bill

(27) Customer Charge	\$6.00
(28) LIHEAP Enhancement Charge	\$0.80
(29) RE Growth Program	\$2.16
(30) Transmission Charge	\$0.02945
(31) Distribution Energy Charge	\$0.05633
(32) Transition Charge	(\$0.00082)
(33) Energy Efficiency Programs	\$0.01353
(34) Renewable Energy Distribution Charge	\$0.01197
(35) Supply Services Energy Charge	\$0.10370
(36) Discount percentage	25%

Column (w): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (x): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Rates Effective November 1, 2020				Proposed Rates effective January 1, 2021				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill		Percentage of Customers		
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (b) + (c) - x-30	Total (e) = (b) + (c) + (d)	Delivery Services (h)	Supply Services (i)	Low Income Discount (j) = (b)+(c) - x-30	Total (m) = (k) + (i) + (j)	Delivery Services (b)+(d)+(j)	Supply Services (o) = (i) + (c) + (j)	GET (p) = (l) + (i)	Total (r) = (n) + (q)	Delivery Services (b)+(d)+(j)	Supply Services (s) = (o) + (c) + (j)		GET (t) = (p) + (i)	Total (u) = (q) + (s)
(a)																	(v)
150	\$25.53	\$15.56	(\$12.33)	\$28.76	\$25.53	\$15.56	(\$12.33)	\$28.76	\$1.20	\$29.96	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	32.1%
300	\$42.10	\$31.11	(\$21.96)	\$51.25	\$42.10	\$31.11	(\$21.96)	\$51.25	\$2.14	\$53.39	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	15.4%
400	\$53.14	\$41.48	(\$28.39)	\$66.23	\$53.14	\$41.48	(\$28.39)	\$66.23	\$2.76	\$68.99	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	12.5%
500	\$64.19	\$51.85	(\$34.81)	\$81.23	\$64.19	\$51.85	(\$34.81)	\$81.23	\$3.38	\$84.61	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	9.6%
600	\$75.24	\$62.22	(\$41.24)	\$96.22	\$75.24	\$62.22	(\$41.24)	\$96.22	\$4.01	\$100.23	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	7.2%
700	\$86.28	\$72.59	(\$47.66)	\$111.21	\$86.28	\$72.59	(\$47.66)	\$111.21	\$4.63	\$115.84	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	16.4%
1,200	\$141.51	\$124.44	(\$79.79)	\$186.16	\$141.51	\$124.44	(\$79.79)	\$186.16	\$7.76	\$193.92	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	5.2%
2,000	\$229.88	\$207.40	(\$131.18)	\$306.10	\$229.88	\$207.40	(\$131.18)	\$306.10	\$12.75	\$318.85	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	1.6%

Rates Effective November 1, 2020

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The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to C-06 Rate Customers

Monthly kWh (a)	Rates Effective November 1, 2020				Proposed Rates effective January 1, 2021				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				Percentage of Customers of Customers (n)
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)	Total (m)	
250	\$41.13	\$23.34	\$2.69	\$67.16	\$41.13	\$23.34	\$2.69	\$67.16	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	56.3%
500	\$68.11	\$46.67	\$4.78	\$119.56	\$68.11	\$46.67	\$4.78	\$119.56	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	16.9%
1,000	\$122.06	\$93.34	\$8.98	\$224.38	\$122.06	\$93.34	\$8.98	\$224.38	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	8.1%
1,500	\$176.02	\$140.01	\$13.17	\$329.20	\$176.02	\$140.01	\$13.17	\$329.20	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	5.0%
2,000	\$229.97	\$186.68	\$17.36	\$434.01	\$229.97	\$186.68	\$17.36	\$434.01	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	13.6%

Rates Effective November 1, 2020

Proposed Rates effective January 1, 2021

Line Item on Bill

(1) Distribution Customer Charge	(o)	(p)	
(2) LIHEAP Enhancement Charge	\$0.00	\$10.00	Customer Charge
(3) Renewable Energy Growth Program Charge	\$0.80	\$0.80	LIHEAP Enhancement Charge
(4) Distribution Charge (per kWh)	\$3.35	\$3.35	RE Growth Program
(5) Operating & Maintenance Expense Charge	\$0.04482	\$0.04482	
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00212	\$0.00212	
(7) CapEx Factor Charge	\$0.00002	\$0.00002	
(8) CapEx Reconciliation Factor	\$0.00339	\$0.00339	
(9) Revenue Decoupling Adjustment Factor	\$0.00085	\$0.00085	
(10) Pension Adjustment Factor	\$0.00118	\$0.00118	
(11) Storm Fund Replenishment Factor	(\$0.00073)	(\$0.00073)	Distribution Energy Charge
(12) Arrangement Management Adjustment Factor	\$0.00288	\$0.00288	
(13) Performance Incentive Factor	\$0.00015	\$0.00015	
(14) Low Income Discount Recovery Factor	\$0.00005	\$0.00005	
(15) Long-term Contracting for Renewable Energy Charge	\$0.00176	\$0.00176	
(16) Net Metering Charge	\$0.00931	\$0.00931	Renewable Energy Distribution Charge
(17) Base Transmission Charge	\$0.00266	\$0.00266	
(18) Transmission Adjustment Factor	\$0.03110	\$0.03110	
(19) Transmission Uncollectible Factor	(\$0.00467)	(\$0.00467)	Transmission Charge
(20) Base Transition Charge	\$0.00031	\$0.00031	
(21) Transition Adjustment	(\$0.00074)	(\$0.00074)	
(22) Energy Efficiency Program Charge	(\$0.00008)	(\$0.00008)	Transition Charge
(23) Standard Offer Service Base Charge	\$0.01353	\$0.01353	Energy Efficiency Programs
(24) SOS Adjustment Factor	\$0.08150	\$0.08150	
(25) SOS Administrative Cost Adjustment Factor	\$0.00094	\$0.00094	
(26) Renewable Energy Standard Charge	\$0.00224	\$0.00224	Supply Services Energy Charge
	\$0.00866	\$0.00866	

Line Item on Bill

(27) Customer Charge	\$10.00	\$10.00
(28) LIHEAP Enhancement Charge	\$0.80	\$0.80
(29) RE Growth Program	\$3.35	\$3.35
(30) Transmission Charge	\$0.02674	\$0.02674
(31) Distribution Energy Charge	\$0.05649	\$0.05649
(32) Transition Charge	(\$0.00082)	(\$0.00082)
(33) Energy Efficiency Programs	\$0.01353	\$0.01353
(34) Renewable Energy Distribution Charge	\$0.01197	\$0.01197
(35) Supply Services Energy Charge	\$0.09334	\$0.09334

Column (o): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006 effective 10/1/2020

Column (p): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006 effective 10/1/2020

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to G&D Rate Customers

Monthly Power Hours Use			Rates Effective November 1, 2020			Proposed Rates effective January 1, 2021			\$ Increase (Decrease)			Increase (Decrease) % of Total Bill		
			Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (m)
20	200	4,000	\$526.47	\$373.36	\$37.49	\$937.32	\$526.47	\$373.36	\$37.49	\$937.32	\$0.00	\$0.00	\$0.00	\$0.00
50	200	10,000	\$1,166.85	\$933.40	\$87.51	\$2,187.76	\$1,166.85	\$933.40	\$87.51	\$2,187.76	\$0.00	\$0.00	\$0.00	\$0.00
100	200	20,000	\$2,234.15	\$1,866.80	\$170.87	\$4,271.82	\$2,234.15	\$1,866.80	\$170.87	\$4,271.82	\$0.00	\$0.00	\$0.00	\$0.00
150	200	30,000	\$3,301.45	\$2,800.20	\$254.24	\$6,355.89	\$3,301.45	\$2,800.20	\$254.24	\$6,355.89	\$0.00	\$0.00	\$0.00	\$0.00
20	300	6,000	\$617.53	\$560.04	\$49.07	\$1,226.64	\$617.53	\$560.04	\$49.07	\$1,226.64	\$0.00	\$0.00	\$0.00	\$0.00
50	300	15,000	\$1,394.50	\$1,400.10	\$116.44	\$2,911.04	\$1,394.50	\$1,400.10	\$116.44	\$2,911.04	\$0.00	\$0.00	\$0.00	\$0.00
100	300	30,000	\$2,689.45	\$2,800.20	\$228.74	\$5,718.39	\$2,689.45	\$2,800.20	\$228.74	\$5,718.39	\$0.00	\$0.00	\$0.00	\$0.00
150	300	45,000	\$3,984.40	\$4,200.30	\$341.03	\$8,525.73	\$3,984.40	\$4,200.30	\$341.03	\$8,525.73	\$0.00	\$0.00	\$0.00	\$0.00
20	400	8,000	\$708.59	\$746.72	\$60.64	\$1,515.95	\$708.59	\$746.72	\$60.64	\$1,515.95	\$0.00	\$0.00	\$0.00	\$0.00
50	400	20,000	\$1,622.15	\$1,866.80	\$145.37	\$3,634.32	\$1,622.15	\$1,866.80	\$145.37	\$3,634.32	\$0.00	\$0.00	\$0.00	\$0.00
100	400	40,000	\$3,144.75	\$3,733.60	\$286.60	\$7,164.95	\$3,144.75	\$3,733.60	\$286.60	\$7,164.95	\$0.00	\$0.00	\$0.00	\$0.00
150	400	60,000	\$4,667.35	\$5,600.40	\$427.82	\$10,695.57	\$4,667.35	\$5,600.40	\$427.82	\$10,695.57	\$0.00	\$0.00	\$0.00	\$0.00
20	500	10,000	\$799.65	\$933.40	\$72.21	\$1,805.26	\$799.65	\$933.40	\$72.21	\$1,805.26	\$0.00	\$0.00	\$0.00	\$0.00
50	500	25,000	\$1,849.80	\$2,333.50	\$174.30	\$4,357.60	\$1,849.80	\$2,333.50	\$174.30	\$4,357.60	\$0.00	\$0.00	\$0.00	\$0.00
100	500	50,000	\$3,600.05	\$4,667.00	\$344.46	\$8,611.51	\$3,600.05	\$4,667.00	\$344.46	\$8,611.51	\$0.00	\$0.00	\$0.00	\$0.00
150	500	75,000	\$5,350.30	\$7,000.50	\$514.62	\$12,865.42	\$5,350.30	\$7,000.50	\$514.62	\$12,865.42	\$0.00	\$0.00	\$0.00	\$0.00
20	600	12,000	\$890.71	\$1,120.08	\$83.78	\$2,094.57	\$890.71	\$1,120.08	\$83.78	\$2,094.57	\$0.00	\$0.00	\$0.00	\$0.00
50	600	30,000	\$2,077.45	\$2,800.20	\$203.24	\$5,080.89	\$2,077.45	\$2,800.20	\$203.24	\$5,080.89	\$0.00	\$0.00	\$0.00	\$0.00
100	600	60,000	\$4,055.35	\$5,600.40	\$402.32	\$10,058.07	\$4,055.35	\$5,600.40	\$402.32	\$10,058.07	\$0.00	\$0.00	\$0.00	\$0.00
150	600	90,000	\$6,033.25	\$8,400.60	\$601.41	\$15,035.26	\$6,033.25	\$8,400.60	\$601.41	\$15,035.26	\$0.00	\$0.00	\$0.00	\$0.00

Rates Effective November 1, 2020

Proposed Rates effective January 1, 2021

Line Item on Bill

		(o)	(p)
(1) Distribution Customer Charge		\$145.00	\$145.00
(2) LIHEAP Enhancement Charge		\$0.80	\$0.80
(3) Renewable Energy Growth Program Charge		\$32.45	\$32.45
(4) Base Distribution Demand Charge (per kW > 10kW)		\$6.90	\$6.90
(5) Capex Factor Demand Charge (per kW > 10kW)		\$0.97	\$0.97
(6) Distribution Charge (per kWh)		\$0.0476	\$0.0476
(7) Operating & Maintenance Expense Charge		\$0.00166	\$0.00166
(8) Operating & Maintenance Expense Reconciliation Factor		\$0.00002	\$0.00002
(9) CapEx Recalculation Factor		\$0.00064	\$0.00064
(10) Revenue Descheduling Adjustment Factor		\$0.00118	\$0.00118
(11) Pension Adjustment Factor		\$0.00073	\$0.00073
(12) Storm Fund Replenishment Factor		\$0.00288	\$0.00288
(13) Arrangement Management Adjustment Factor		\$0.00015	\$0.00015
(14) Performance Incentive Factor		\$0.00005	\$0.00005
(15) Low Income Discount Recovery Factor		\$0.00176	\$0.00176
(16) Long-term Contracting for Renewable Energy Charge		\$0.00931	\$0.00931
(17) Net Metering Charge		\$0.00266	\$0.00266
(18) Transmission Demand Charge		\$4.37	\$4.37
(19) Base Transmission Charge		\$0.01214	\$0.01214
(20) Transmission Adjustment Factor		\$0.00399	\$0.00399
(21) Transmission Uncollectible Factor		\$0.00030	\$0.00030
(22) Base Transition Charge		\$0.00074	\$0.00074
(23) Transition Adjustment		\$0.00008	\$0.00008
(24) Energy Efficiency Program Charge		\$0.01353	\$0.01353
(25) Standard Offer Service Base Charge		\$0.08150	\$0.08150
(26) SOS Adjustment Factor		\$0.00094	\$0.00094
(27) SOS Administrative Cost Adjustment Factor		\$0.00224	\$0.00224
(28) Renewable Energy Standard Charge		\$0.00866	\$0.00866
Line Item on Bill			
(29) Customer Charge		\$145.00	\$145.00
(30) LIHEAP Enhancement Charge		\$0.80	\$0.80
(31) RE Growth Program		\$32.45	\$32.45
(32) Transmission Adjustment		\$0.00845	\$0.00845
(33) Distribution Energy Charge		\$0.01240	\$0.01240
(34) Distribution Demand Charge		\$7.87	\$7.87
(35) Transmission Demand Charge		\$4.37	\$4.37
(36) Energy Efficiency Programs		\$0.00082	\$0.00082
(37) Renewable Energy Distribution Charge		\$0.01353	\$0.01353
(38) Supply Services Energy Charge		\$0.01197	\$0.01197
(39) Supply Services Energy Charge		\$0.09334	\$0.09334

Column (o): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (p): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Summary of Rates for Residential Customers
Rates Applicable to G-32 Rate Customers

Monthly Power			Rates Effective November 1, 2020					Proposed Rates effective January 1, 2021					Increase (Decrease) % of Total Bill					
kW	Hours Use	kWh	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)
200	200	40000	\$4,172.35	\$2,951.60	\$2,968.31	\$10,092.26	\$4,172.35	\$2,951.60	\$2,968.31	\$10,092.26	\$4,172.35	\$2,951.60	\$2,968.31	\$10,092.26	\$0.00	\$0.00	\$0.00	\$0.00
750	200	15000	\$15,316.45	\$1,068.50	\$1,099.37	\$17,484.32	\$15,316.45	\$1,068.50	\$1,099.37	\$17,484.32	\$15,316.45	\$1,068.50	\$1,099.37	\$17,484.32	\$0.00	\$0.00	\$0.00	\$0.00
1000	200	20000	\$20,381.95	\$1,478.00	\$1,494.16	\$23,354.11	\$20,381.95	\$1,478.00	\$1,494.16	\$23,354.11	\$20,381.95	\$1,478.00	\$1,494.16	\$23,354.11	\$0.00	\$0.00	\$0.00	\$0.00
1500	200	30000	\$30,512.95	\$2,137.00	\$2,193.75	\$34,843.70	\$30,512.95	\$2,137.00	\$2,193.75	\$34,843.70	\$30,512.95	\$2,137.00	\$2,193.75	\$34,843.70	\$0.00	\$0.00	\$0.00	\$0.00
2500	200	50000	\$50,774.95	\$3,455.00	\$3,565.91	\$57,795.86	\$50,774.95	\$3,455.00	\$3,565.91	\$57,795.86	\$50,774.95	\$3,455.00	\$3,565.91	\$57,795.86	\$0.00	\$0.00	\$0.00	\$0.00
5000	200	100000	\$101,429.95	\$7,790.00	\$7,900.83	\$117,120.78	\$101,429.95	\$7,790.00	\$7,900.83	\$117,120.78	\$101,429.95	\$7,790.00	\$7,900.83	\$117,120.78	\$0.00	\$0.00	\$0.00	\$0.00
7500	200	150000	\$152,084.95	\$10,685.00	\$10,848.75	\$173,618.70	\$152,084.95	\$10,685.00	\$10,848.75	\$173,618.70	\$152,084.95	\$10,685.00	\$10,848.75	\$173,618.70	\$0.00	\$0.00	\$0.00	\$0.00
10000	200	200000	\$202,739.95	\$22,750.00	\$23,006.71	\$249,546.66	\$202,739.95	\$22,750.00	\$23,006.71	\$249,546.66	\$202,739.95	\$22,750.00	\$23,006.71	\$249,546.66	\$0.00	\$0.00	\$0.00	\$0.00
20000	200	400000	\$405,359.95	\$45,750.00	\$46,168.37	\$497,268.32	\$405,359.95	\$45,750.00	\$46,168.37	\$497,268.32	\$405,359.95	\$45,750.00	\$46,168.37	\$497,268.32	\$0.00	\$0.00	\$0.00	\$0.00
30000	200	600000	\$607,993.71	\$69,300.00	\$70,000.00	\$747,293.71	\$607,993.71	\$69,300.00	\$70,000.00	\$747,293.71	\$607,993.71	\$69,300.00	\$70,000.00	\$747,293.71	\$0.00	\$0.00	\$0.00	\$0.00
40000	200	800000	\$810,644.56	\$95,300.00	\$96,000.00	\$999,944.56	\$810,644.56	\$95,300.00	\$96,000.00	\$999,944.56	\$810,644.56	\$95,300.00	\$96,000.00	\$999,944.56	\$0.00	\$0.00	\$0.00	\$0.00
50000	200	1000000	\$1,013,295.11	\$119,800.00	\$120,500.00	\$1,253,595.11	\$1,013,295.11	\$119,800.00	\$120,500.00	\$1,253,595.11	\$1,013,295.11	\$119,800.00	\$120,500.00	\$1,253,595.11	\$0.00	\$0.00	\$0.00	\$0.00
75000	200	1500000	\$1,515,437.66	\$174,700.00	\$175,400.00	\$1,865,537.66	\$1,515,437.66	\$174,700.00	\$175,400.00	\$1,865,537.66	\$1,515,437.66	\$174,700.00	\$175,400.00	\$1,865,537.66	\$0.00	\$0.00	\$0.00	\$0.00
100000	200	2000000	\$2,017,579.21	\$249,600.00	\$250,300.00	\$2,517,479.21	\$2,017,579.21	\$249,600.00	\$250,300.00	\$2,517,479.21	\$2,017,579.21	\$249,600.00	\$250,300.00	\$2,517,479.21	\$0.00	\$0.00	\$0.00	\$0.00
150000	200	3000000	\$3,019,720.76	\$374,400.00	\$375,100.00	\$3,769,220.76	\$3,019,720.76	\$374,400.00	\$375,100.00	\$3,769,220.76	\$3,019,720.76	\$374,400.00	\$375,100.00	\$3,769,220.76	\$0.00	\$0.00	\$0.00	\$0.00
200000	200	4000000	\$4,021,861.31	\$499,200.00	\$500,000.00	\$4,999,061.31	\$4,021,861.31	\$499,200.00	\$500,000.00	\$4,999,061.31	\$4,021,861.31	\$499,200.00	\$500,000.00	\$4,999,061.31	\$0.00	\$0.00	\$0.00	\$0.00
250000	200	5000000	\$5,023,999.86	\$624,000.00	\$625,000.00	\$5,999,999.86	\$5,023,999.86	\$624,000.00	\$625,000.00	\$5,999,999.86	\$5,023,999.86	\$624,000.00	\$625,000.00	\$5,999,999.86	\$0.00	\$0.00	\$0.00	\$0.00
300000	200	6000000	\$6,026,137.41	\$748,800.00	\$750,000.00	\$7,024,937.41	\$6,026,137.41	\$748,800.00	\$750,000.00	\$7,024,937.41	\$6,026,137.41	\$748,800.00	\$750,000.00	\$7,024,937.41	\$0.00	\$0.00	\$0.00	\$0.00
350000	200	7000000	\$7,028,275.96	\$873,600.00	\$875,000.00	\$8,031,175.96	\$7,028,275.96	\$873,600.00	\$875,000.00	\$8,031,175.96	\$7,028,275.96	\$873,600.00	\$875,000.00	\$8,031,175.96	\$0.00	\$0.00	\$0.00	\$0.00
400000	200	8000000	\$8,030,414.51	\$998,400.00	\$1,000,000.00	\$9,028,814.51	\$8,030,414.51	\$998,400.00	\$1,000,000.00	\$9,028,814.51	\$8,030,414.51	\$998,400.00	\$1,000,000.00	\$9,028,814.51	\$0.00	\$0.00	\$0.00	\$0.00
450000	200	9000000	\$9,032,553.06	\$1,123,200.00	\$1,125,000.00	\$10,080,753.06	\$9,032,553.06	\$1,123,200.00	\$1,125,000.00	\$10,080,753.06	\$9,032,553.06	\$1,123,200.00	\$1,125,000.00	\$10,080,753.06	\$0.00	\$0.00	\$0.00	\$0.00
500000	200	10000000	\$10,034,691.61	\$1,248,000.00	\$1,250,000.00	\$11,252,691.61	\$10,034,691.61	\$1,248,000.00	\$1,250,000.00	\$11,252,691.61	\$10,034,691.61	\$1,248,000.00	\$1,250,000.00	\$11,252,691.61	\$0.00	\$0.00	\$0.00	\$0.00
550000	200	11000000	\$11,036,830.16	\$1,372,800.00	\$1,375,000.00	\$12,484,630.16	\$11,036,830.16	\$1,372,800.00	\$1,375,000.00	\$12,484,630.16	\$11,036,830.16	\$1,372,800.00	\$1,375,000.00	\$12,484,630.16	\$0.00	\$0.00	\$0.00	\$0.00
600000	200	12000000	\$12,038,968.71	\$1,497,600.00	\$1,500,000.00	\$13,716,568.71	\$12,038,968.71	\$1,497,600.00	\$1,500,000.00	\$13,716,568.71	\$12,038,968.71	\$1,497,600.00	\$1,500,000.00	\$13,716,568.71	\$0.00	\$0.00	\$0.00	\$0.00
650000	200	13000000	\$13,041,107.26	\$1,622,400.00	\$1,625,000.00	\$14,958,507.26	\$13,041,107.26	\$1,622,400.00	\$1,625,000.00	\$14,958,507.26	\$13,041,107.26	\$1,622,400.00	\$1,625,000.00	\$14,958,507.26	\$0.00	\$0.00	\$0.00	\$0.00
700000	200	14000000	\$14,043,245.81	\$1,747,200.00	\$1,750,000.00	\$16,200,445.81	\$14,043,245.81	\$1,747,200.00	\$1,750,000.00	\$16,200,445.81	\$14,043,245.81	\$1,747,200.00	\$1,750,000.00	\$16,200,445.81	\$0.00	\$0.00	\$0.00	\$0.00
750000	200	15000000	\$15,045,384.36	\$1,872,000.00	\$1,875,000.00	\$17,442,384.36	\$15,045,384.36	\$1,872,000.00	\$1,875,000.00	\$17,442,384.36	\$15,045,384.36	\$1,872,000.00	\$1,875,000.00	\$17,442,384.36	\$0.00	\$0.00	\$0.00	\$0.00
800000	200	16000000	\$16,047,522.91	\$2,000,000.00	\$2,000,000.00	\$18,687,522.91	\$16,047,522.91	\$2,000,000.00	\$2,000,000.00	\$18,687,522.91	\$16,047,522.91	\$2,000,000.00	\$2,000,000.00	\$18,687,522.91	\$0.00	\$0.00	\$0.00	\$0.00
850000	200	17000000	\$17,049,661.46	\$2,124,800.00	\$2,125,000.00	\$19,939,461.46	\$17,049,661.46	\$2,124,800.00	\$2,125,000.00	\$19,939,461.46	\$17,049,661.46	\$2,124,800.00	\$2,125,000.00	\$19,939,461.46	\$0.00	\$0.00	\$0.00	\$0.00
900000	200	18000000	\$18,051,800.01	\$2,249,600.00	\$2,250,000.00	\$21,181,400.01	\$18,051,800.01	\$2,249,600.00	\$2,250,000.00	\$21,181,400.01	\$18,051,800.01	\$2,249,600.00	\$2,250,000.00	\$21,181,400.01	\$0.00	\$0.00	\$0.00	\$0.00
950000	200	19000000	\$19,053,938.56	\$2,374,400.00	\$2,375,000.00	\$22,423,338.56	\$19,053,938.56	\$2,374,400.00	\$2,375,000.00	\$22,423,338.56	\$19,053,938.56	\$2,374,400.00	\$2,375,000.00	\$22,423,338.56	\$0.00	\$0.00	\$0.00	\$0.00
1000000	200	20000000	\$20,056,077.11	\$2,499,200.00	\$2,500,000.00	\$23,665,277.11	\$20,056,077.11	\$2,499,200.00	\$2,500,000.00	\$23,665,277.11	\$20,056,077.11	\$2,499,200.00	\$2,500,000.00	\$23,665,277.11	\$0.00	\$0.00	\$0.00	\$0.00

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-16 Rate Customers

Monthly kWh (a)	Proposed Rates effective January 1, 2021				Proposed Rates effective January 1, 2022				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				Percentage of Customers (r)
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e) = (a) + (b) + (c)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i) = (f) + (g) + (h)	Delivery Services (j) = (f) - (b)	Supply Services (k) = (g) - (c)	GET (l) = (h) - (d)	Total (m) = (j) + (k) + (l)	Delivery Services (n) = (j) / (e)	Supply Services (o) = (g) / (e)	GET (p) = (h) / (e)	Total (q) = (m) / (e)	
150	\$25.79	\$15.56	\$1.72	\$43.07	\$26.53	\$15.56	\$1.75	\$43.84	\$0.74	\$0.00	\$0.03	\$0.77	1.7%	0.0%	0.1%	1.8%	30.1%
300	\$42.63	\$31.11	\$3.07	\$76.81	\$44.10	\$31.11	\$3.13	\$78.34	\$1.47	\$0.00	\$0.06	\$1.53	1.9%	0.0%	0.1%	2.0%	12.9%
400	\$53.85	\$41.48	\$3.97	\$99.30	\$55.81	\$41.48	\$4.05	\$101.34	\$1.96	\$0.00	\$0.08	\$2.04	2.0%	0.0%	0.1%	2.1%	11.6%
500	\$65.07	\$51.85	\$4.87	\$121.79	\$67.52	\$51.85	\$4.97	\$124.34	\$2.45	\$0.00	\$0.10	\$2.55	2.0%	0.0%	0.1%	2.1%	9.6%
600	\$76.29	\$62.22	\$5.77	\$144.28	\$79.23	\$62.22	\$5.89	\$147.34	\$2.94	\$0.00	\$0.12	\$3.06	2.0%	0.0%	0.1%	2.1%	7.7%
700	\$87.51	\$72.59	\$6.67	\$166.77	\$90.94	\$72.59	\$6.81	\$170.34	\$3.43	\$0.00	\$0.14	\$3.57	2.1%	0.0%	0.1%	2.1%	19.0%
1,200	\$143.62	\$124.44	\$11.17	\$279.23	\$149.50	\$124.44	\$11.41	\$285.35	\$5.88	\$0.00	\$0.24	\$6.12	2.1%	0.0%	0.1%	2.2%	6.8%
2,000	\$233.40	\$207.40	\$18.37	\$459.17	\$243.20	\$207.40	\$18.78	\$469.38	\$9.80	\$0.00	\$0.41	\$10.21	2.1%	0.0%	0.1%	2.2%	2.3%
Line Item on Bill																	
Proposed Rates effective January 1, 2021				(s)	Proposed Rates effective January 1, 2022				Line Item on Bill								
				(t)													
(1) Distribution Customer Charge				\$6.00				\$6.00									
(2) LIHEAP Enhancement Charge				\$0.80				\$0.80									
(3) Renewable Energy Growth Program Charge				\$2.16				\$2.16									
(4) Distribution Charge (per kWh)				\$0.04580				\$0.04580									
(5) Operating & Maintenance Expense Charge				\$0.00212				\$0.00212									
(6) Operating & Maintenance Expense Reconciliation Factor				\$0.00002				\$0.00002									
(7) CapEx Factor Charge				\$0.00396				\$0.00396									
(8) CapEx Reconciliation Factor				\$0.00090				\$0.00090									
(9) Revenue Decoupling Adjustment Factor				\$0.00118				\$0.00118									
(10) Pension Adjustment Factor				(\$0.00073)				(\$0.00073)									
(11) Storm Fund Replenishment Factor				\$0.00288				\$0.00288									
(12) Acreage Management Adjustment Factor				\$0.00015				\$0.00015									
(13) Performance Incentive Factor				\$0.00005				\$0.00005									
(14) Low Income Discount Recovery Factor				\$0.00176				\$0.00176									
(15) Long-term Contracting for Renewable Energy Charge				\$0.00931				\$0.00931									
(16) Net Metering Charge				\$0.00266				\$0.00266									
(17) Base Transmission Charge				\$0.03096				\$0.03096									
(18) Transmission Adjustment Factor				(\$0.00189)				(\$0.00189)									
(19) Transmission Uncollectible Factor				\$0.00038				\$0.00038									
(20) Base Transition Charge				(\$0.00074)				(\$0.00074)									
(21) Transition Adjustment				(\$0.00008)				(\$0.00008)									
(22) Energy Efficiency Program Charge				\$0.01353				\$0.01353									
(23) Standard Offer Service Base Charge				\$0.09568				\$0.09568									
(24) SOS Adjustment Factor				(\$0.00294)				(\$0.00294)									
(25) SOS Administrative Cost Adjustment Factor				\$0.00230				\$0.00230									
(26) Renewable Energy Standard Charge				\$0.00866				\$0.00866									
Line Item on Bill																	
(27) Customer Charge				\$6.00				\$6.00									
(28) LIHEAP Enhancement Charge				\$0.80				\$0.80									
(29) RE Growth Program				\$2.16				\$2.16									
(30) Transmission Charge				\$0.02945				\$0.02945									
(31) Distribution Energy Charge				\$0.05809				\$0.05809									
(32) Transition Charge				(\$0.00082)				(\$0.00082)									
(33) Energy Efficiency Programs				\$0.01353				\$0.01353									
(34) Renewable Energy Distribution Charge				\$0.01197				\$0.01197									
(35) Supply Services Energy Charge				\$0.10370				\$0.10370									

Column (s): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (t): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022 (Bates page 148) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Proposed Rates effective January 1, 2021						Proposed Rates effective January 1, 2022						\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				Percentage of Customers		
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (b) x .25	Low Income Discounted Total (e) = (b) + (c) + (d)	GET (f)	Total (g) = (e) + (f)	Delivery Services (h)	Supply Services (i)	Low Income Discount (j) = (i) x .25	Low Income Discounted Total (k) = (h) + (i) + (j)	GET (l)	Total (m) = (k) + (l)	Delivery Services (n) = (h)+(j)	Supply Services (o) = (i)+(j)	Low Income Discount (p) = (o) x .25	Low Income Discounted Total (q) = (n) + (o) + (p)	GET (r) = (l) - (f)	Total (s) = (q) - (g)	Delivery Services (t) = (n)-(h)	Supply Services (u) = (o)-(j)		Low Income Discount (v) = (t)-(p)	Total (w) = (u)-(r)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)	(v)	(w)	
150	\$25.53	\$15.56	(\$10.27)	\$30.82	\$1.28	\$32.10	\$26.26	\$15.56	\$15.56	(\$10.46)	\$31.36	\$32.67	\$0.54	\$0.00	\$0.00	\$0.57	\$0.03	\$0.04	\$0.57	1.7%	0.0%	0.1%	1.8%
300	\$42.10	\$31.11	(\$18.30)	\$54.91	\$2.29	\$57.20	\$43.57	\$31.11	\$31.11	(\$18.67)	\$56.01	\$58.34	\$1.10	\$0.00	\$0.00	\$1.14	\$0.04	\$0.04	\$1.14	1.9%	0.0%	0.1%	2.0%
400	\$53.14	\$41.48	(\$23.66)	\$70.96	\$2.96	\$73.92	\$55.10	\$41.48	\$41.48	(\$24.15)	\$72.43	\$75.45	\$1.47	\$0.00	\$0.00	\$1.53	\$0.06	\$0.06	\$1.53	2.0%	0.0%	0.1%	2.1%
500	\$64.19	\$51.85	(\$29.01)	\$87.03	\$3.63	\$90.66	\$66.64	\$51.85	\$51.85	(\$29.62)	\$88.87	\$92.57	\$1.84	\$0.00	\$0.00	\$1.91	\$0.07	\$0.07	\$1.91	2.0%	0.0%	0.1%	2.1%
600	\$75.24	\$62.22	(\$34.37)	\$103.09	\$4.30	\$107.39	\$78.18	\$62.22	\$62.22	(\$35.10)	\$105.30	\$109.69	\$2.21	\$0.00	\$0.00	\$2.30	\$0.09	\$0.09	\$2.30	2.1%	0.0%	0.1%	2.2%
700	\$86.28	\$72.59	(\$39.72)	\$119.15	\$4.96	\$124.11	\$89.71	\$72.59	\$72.59	(\$40.58)	\$121.72	\$126.79	\$2.57	\$0.00	\$0.00	\$2.68	\$0.11	\$0.11	\$2.68	2.1%	0.0%	0.1%	2.2%
1,200	\$141.51	\$124.44	(\$66.49)	\$199.46	\$8.31	\$207.77	\$147.39	\$124.44	\$124.44	(\$67.96)	\$203.87	\$212.36	\$4.41	\$0.00	\$0.00	\$4.59	\$0.18	\$0.18	\$4.59	2.1%	0.0%	0.1%	2.2%
2,000	\$229.88	\$207.40	(\$109.32)	\$327.96	\$13.67	\$341.63	\$239.68	\$207.40	\$207.40	(\$111.77)	\$335.31	\$349.28	\$7.35	\$0.00	\$0.00	\$7.65	\$0.30	\$0.30	\$7.65	2.2%	0.0%	0.1%	2.2%

Proposed Rates effective January 1, 2021

Proposed Rates effective January 1, 2022

Line Item on Bill

	(w)	(x)
(1) Distribution Customer Charge	\$6.00	\$6.00
(2) LIHEAP Enhancement Charge	\$0.80	\$0.80
(3) Renewable Energy Growth Program Charge	\$2.16	\$2.16
(4) Distribution Charge (per kWh)	\$0.04580	\$0.04580
(5) Operating & Maintenance Expense Charge	\$0.00212	\$0.00212
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002	\$0.00002
(7) CapEx Factor Charge	\$0.00396	\$0.00396
(8) CapEx Reconciliation Factor	\$0.00090	\$0.00090
(9) Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118
(10) Pension Adjustment Factor	\$0.00073	\$0.00073
(11) Storm Fund Replenishment Factor	\$0.00288	\$0.00288
(12) Acreage Management Adjustment Factor	\$0.00015	\$0.00015
(13) Performance Incentive Factor	\$0.00005	\$0.00005
(14) Low Income Discount Recovery Factor	\$0.00000	\$0.00000
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931	\$0.00931
(16) Net Metering Charge	\$0.00266	\$0.00266
(17) Base Transmission Charge	\$0.03096	\$0.03096
(18) Transmission Adjustment Factor	\$0.00189	\$0.00189
(19) Transmission Uncollectible Factor	\$0.00038	\$0.00038
(20) Base Transition Charge	\$0.00074	\$0.00074
(21) Transition Adjustment	\$0.00008	\$0.00008
(22) Energy Efficiency Program Charge	\$0.01353	\$0.01353
(23) Standard Offer Service Base Charge	\$0.09568	\$0.09568
(24) SOS Adjustment Factor	\$0.00294	\$0.00294
(25) SOS Administrative Cost Adjustment Factor	\$0.00230	\$0.00230
(26) Renewable Energy Standard Charge	\$0.00866	\$0.00866
Line Item on Bill		
(27) Customer Charge	\$6.00	\$6.00
(28) LIHEAP Enhancement Charge	\$0.80	\$0.80
(29) RE Growth Program	\$2.16	\$2.16
(30) Transmission Charge	\$0.02945	\$0.02945
(31) Distribution Energy Charge	\$0.05633	\$0.05633
(32) Transition Charge	\$0.00082	\$0.00082
(33) Energy Efficiency Programs	\$0.01353	\$0.01353
(34) Renewable Energy Distribution Charge	\$0.01197	\$0.01197
(35) Supply Services Energy Charge	\$0.10370	\$0.10370
(36) Discount percentage	25%	25%

Column (w): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (x): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2096 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022
(Bates page 148) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Proposed Rates effective January 1, 2021					Proposed Rates effective January 1, 2022					\$ Increase (Decrease)		Increase (Decrease) % of Total Bill		Percentage of Customers (O = (n) ÷ (b) + (p))		
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (b) - (c)	Total Discounted (e) = (b) + (c) + (d)	GET (f)	Total (g) = (e) + (f)	Delivery Services (h)	Supply Services (i)	Low Income Discount (j) = (i) - (k)	Total Discounted (k) = (h) + (i) + (j)	GET (l)	Total (m) = (k) + (l)	Delivery Services (n) = (h) - (j)	Supply Services (o) = (i) - (k)		GET (p) = (l) - (l)	Total (q) = (n) + (o)
(a)																	(v)
150	\$25.53	\$15.56	(\$12.33)	\$28.76	\$1.20	\$29.96	\$26.26	\$15.56	(\$12.55)	\$29.27	\$1.22	\$30.49	\$0.51	\$0.00	\$0.02	\$0.53	32.1%
300	\$42.10	\$31.11	(\$21.96)	\$51.25	\$2.14	\$53.39	\$43.57	\$31.11	(\$22.40)	\$52.28	\$2.18	\$54.46	\$1.03	\$0.00	\$0.04	\$1.07	15.4%
400	\$53.14	\$41.48	(\$28.39)	\$66.23	\$2.76	\$68.99	\$55.10	\$41.48	(\$28.97)	\$67.61	\$2.82	\$70.43	\$1.38	\$0.00	\$0.06	\$1.44	12.5%
500	\$64.19	\$51.85	(\$34.81)	\$81.23	\$3.38	\$84.61	\$66.64	\$51.85	(\$35.55)	\$82.94	\$3.46	\$86.40	\$1.71	\$0.00	\$0.08	\$1.79	9.6%
600	\$75.24	\$62.22	(\$41.24)	\$96.22	\$4.01	\$100.23	\$78.18	\$62.22	(\$42.12)	\$98.28	\$4.10	\$102.38	\$2.06	\$0.00	\$0.09	\$2.15	7.2%
700	\$86.28	\$72.59	(\$47.66)	\$111.21	\$4.63	\$115.84	\$89.71	\$72.59	(\$48.69)	\$113.61	\$4.73	\$118.34	\$2.40	\$0.00	\$0.10	\$2.50	16.4%
1,200	\$141.51	\$124.44	(\$79.79)	\$186.16	\$7.76	\$193.92	\$147.39	\$124.44	(\$81.35)	\$190.28	\$7.93	\$198.21	\$4.12	\$0.00	\$0.17	\$4.29	5.2%
2,000	\$229.88	\$207.40	(\$131.18)	\$306.10	\$12.75	\$318.85	\$239.68	\$207.40	(\$134.12)	\$312.96	\$13.04	\$326.00	\$6.86	\$0.00	\$0.29	\$7.15	1.6%

Proposed Rates effective January 1, 2021

(1) Distribution Customer Charge	\$6.00
(2) LIHEAP Enhancement Charge	\$0.80
(3) Renewable Energy Growth Program Charge	\$2.16
(4) Distribution Charge (per kWh)	\$0.04580
(5) Operating & Maintenance Expense Charge	\$0.00212
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002
(7) CapEx Factor Charge	\$0.00396
(8) CapEx Reconciliation Factor	\$0.00090
(9) Revenue Decoupling Adjustment Factor	\$0.00118
(10) Pension Adjustment Factor	(\$0.0073)
(11) Storm Fund Replenishment Factor	\$0.00288
(12) Average Management Adjustment Factor	\$0.00015
(13) Performance Incentive Factor	\$0.00005
(14) Low Income Discount Recovery Factor	\$0.00000
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931
(16) Net Metering Charge	\$0.00266
(17) Base Transmission Charge	\$0.03096
(18) Transmission Adjustment Factor	(\$0.00189)
(19) Transmission Uncollectible Factor	\$0.00038
(20) Base Transition Charge	(\$0.00074)
(21) Transition Adjustment	(\$0.00008)
(22) Energy Efficiency Program Charge	\$0.01353
(23) Standard Offer Service Base Charge	\$0.09568
(24) SOS Adjustment Factor	(\$0.00294)
(25) SOS Administrative Cost Adjustment Factor	\$0.00230
(26) Renewable Energy Standard Charge	\$0.00866

(27) Customer Charge	\$6.00
(28) LIHEAP Enhancement Charge	\$0.80
(29) RE Growth Program	\$2.16
(30) Transmission Charge	\$0.02945
(31) Distribution Energy Charge	\$0.05633
(32) Transition Charge	(\$0.00082)
(33) Energy Efficiency Programs	\$0.01353
(34) Renewable Energy Distribution Charge	\$0.01197
(35) Supply Services Energy Charge	\$0.10370
(36) Discount percentage	30%

(1) Distribution Customer Charge	\$6.00
(2) LIHEAP Enhancement Charge	\$0.80
(3) Renewable Energy Growth Program Charge	\$2.16
(4) Distribution Charge (per kWh)	\$0.04580
(5) Operating & Maintenance Expense Charge	\$0.00212
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002
(7) CapEx Factor Charge	\$0.00396
(8) CapEx Reconciliation Factor	\$0.00090
(9) Revenue Decoupling Adjustment Factor	\$0.00118
(10) Pension Adjustment Factor	(\$0.0073)
(11) Storm Fund Replenishment Factor	\$0.00288
(12) Average Management Adjustment Factor	\$0.00015
(13) Performance Incentive Factor	\$0.00005
(14) Low Income Discount Recovery Factor	\$0.00000
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931
(16) Net Metering Charge	\$0.00266
(17) Base Transmission Charge	\$0.03096
(18) Transmission Adjustment Factor	(\$0.00189)
(19) Transmission Uncollectible Factor	\$0.00038
(20) Base Transition Charge	(\$0.00074)
(21) Transition Adjustment	(\$0.00008)
(22) Energy Efficiency Program Charge	\$0.01353
(23) Standard Offer Service Base Charge	\$0.09568
(24) SOS Adjustment Factor	(\$0.00294)
(25) SOS Administrative Cost Adjustment Factor	\$0.00230
(26) Renewable Energy Standard Charge	\$0.00866

(27) Customer Charge	\$6.00
(28) LIHEAP Enhancement Charge	\$0.80
(29) RE Growth Program	\$2.16
(30) Transmission Charge	\$0.02945
(31) Distribution Energy Charge	\$0.05633
(32) Transition Charge	(\$0.00082)
(33) Energy Efficiency Programs	\$0.01353
(34) Renewable Energy Distribution Charge	\$0.01197
(35) Supply Services Energy Charge	\$0.10370
(36) Discount percentage	30%

Column (w): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (x): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2096 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022
(Bates page 148) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to C-06 Rate Customers

Monthly kWh (a)	Proposed Rates effective January 1, 2021				Proposed Rates effective January 1, 2022				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill			Percentage of Customers (m)	
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)		Total (m)
250	\$41.13	\$23.34	\$2.69	\$67.16	\$42.35	\$23.34	\$2.74	\$68.43	\$1.22	\$0.00	\$0.05	\$1.27	1.8%	0.0%	0.1%	1.9%	56.3%
500	\$68.11	\$46.67	\$4.78	\$119.56	\$70.56	\$46.67	\$4.88	\$122.11	\$2.45	\$0.00	\$0.10	\$2.55	2.0%	0.0%	0.1%	2.1%	16.9%
1,000	\$122.06	\$93.34	\$8.98	\$224.38	\$126.96	\$93.34	\$9.18	\$229.48	\$4.90	\$0.00	\$0.20	\$5.10	2.2%	0.0%	0.1%	2.3%	8.1%
1,500	\$176.02	\$140.01	\$13.17	\$329.20	\$183.37	\$140.01	\$13.47	\$336.85	\$7.35	\$0.00	\$0.30	\$7.65	2.2%	0.0%	0.1%	2.3%	5.0%
2,000	\$229.97	\$186.68	\$17.36	\$434.01	\$239.77	\$186.68	\$17.77	\$444.22	\$9.80	\$0.00	\$0.41	\$10.21	2.3%	0.0%	0.1%	2.4%	13.6%

Line Item on Bill	Proposed Rates effective January 1, 2021				Proposed Rates effective January 1, 2022				Line Item on Bill			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)				
(1) Distribution Customer Charge												
(2) LIHEAP Enhancement Charge												
(3) Renewable Energy Growth Program Charge												
(4) Distribution Charge (per kWh)												
(5) Operating & Maintenance Expense Charge												
(6) Operating & Maintenance Expense Reconciliation Factor												
(7) CapEx Factor Charge												
(8) CapEx Reconciliation Factor												
(9) Revenue Decoupling Adjustment Factor												
(10) Pension Adjustment Factor												
(11) Storm Fund Replenishment Factor												
(12) Arrangement Management Adjustment Factor												
(13) Performance Incentive Factor												
(14) Low Income Discount Recovery Factor												
(15) Long-term Contracting for Renewable Energy Charge												
(16) Net Metering Charge												
(17) Base Transmission Charge												
(18) Transmission Adjustment Factor												
(19) Transmission Uncollectible Factor												
(20) Base Transition Charge												
(21) Transition Adjustment												
(22) Energy Efficiency Program Charge												
(23) Standard Offer Service Base Charge												
(24) SOS Adjustment Factor												
(25) SOS Administrative Cost Adjustment Factor												
(26) Renewable Energy Standard Charge												
Line Item on Bill												
(27) Customer Charge												
(28) LIHEAP Enhancement Charge												
(29) RE Growth Program												
(30) Transmission Charge												
(31) Distribution Energy Charge												
(32) Transition Charge												
(33) Energy Efficiency Programs												
(34) Renewable Energy Distribution Charge												
(35) Supply Services Energy Charge												

Column (a): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006, effective 10/1/2020
Column (b): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006, effective 10/1/2020; Line (22) per Docket 5076, Schedule A, Line (17), Year 2022 (Bates page 148) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to G&D Rate Customers

kW	Monthly Power Hours Use (a)	kWh	Proposed Rates effective January 1, 2021				Proposed Rates effective January 1, 2022				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill			
			Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)	Total (m)
20	200	4,000	\$266.47	\$373.36	\$37.49	\$937.32	\$383.31	\$957.74	\$19.60	\$0.00	\$0.82	\$20.42	2.1%	0.0%	0.1%	2.2%		
50	200	10,000	\$1,166.85	\$933.40	\$87.51	\$2,187.76	\$89.55	\$2,238.80	\$49.00	\$0.00	\$2.04	\$51.04	2.2%	0.0%	0.1%	2.3%		
100	200	20,000	\$2,234.15	\$1,866.80	\$170.87	\$4,271.82	\$174.96	\$4,373.91	\$98.00	\$0.00	\$4.09	\$102.09	2.3%	0.0%	0.1%	2.4%		
150	200	30,000	\$3,301.45	\$2,800.20	\$254.24	\$6,355.89	\$260.36	\$6,599.01	\$147.00	\$0.00	\$6.12	\$153.12	2.3%	0.0%	0.1%	2.4%		
20	300	6,000	\$617.53	\$560.04	\$49.07	\$1,226.64	\$50.29	\$1,257.26	\$29.40	\$0.00	\$1.22	\$30.62	2.4%	0.0%	0.1%	2.5%		
50	300	15,000	\$1,394.50	\$1,400.10	\$116.44	\$2,911.04	\$119.50	\$2,987.60	\$73.50	\$0.00	\$3.06	\$76.56	2.5%	0.0%	0.1%	2.6%		
100	300	30,000	\$2,689.45	\$2,800.20	\$228.74	\$5,718.39	\$234.86	\$5,871.51	\$147.00	\$0.00	\$6.12	\$153.12	2.6%	0.0%	0.1%	2.7%		
150	300	45,000	\$3,984.40	\$4,200.30	\$341.03	\$8,525.73	\$350.22	\$8,755.42	\$220.50	\$0.00	\$9.19	\$229.69	2.6%	0.0%	0.1%	2.7%		
20	400	8,000	\$708.59	\$746.72	\$60.64	\$1,515.95	\$62.27	\$1,556.78	\$39.20	\$0.00	\$1.63	\$40.83	2.6%	0.0%	0.1%	2.7%		
50	400	20,000	\$1,622.15	\$1,866.80	\$145.37	\$3,634.32	\$149.46	\$3,736.41	\$98.00	\$0.00	\$4.09	\$102.09	2.7%	0.0%	0.1%	2.8%		
100	400	40,000	\$3,144.75	\$3,733.60	\$286.60	\$7,164.95	\$294.76	\$7,369.11	\$196.00	\$0.00	\$8.16	\$204.16	2.7%	0.0%	0.1%	2.8%		
150	400	60,000	\$4,667.35	\$5,600.40	\$427.82	\$10,695.57	\$440.07	\$11,001.82	\$294.00	\$0.00	\$12.25	\$306.25	2.7%	0.0%	0.1%	2.9%		
20	500	10,000	\$799.65	\$933.40	\$72.21	\$1,805.26	\$74.25	\$1,856.30	\$49.00	\$0.00	\$2.04	\$51.04	2.7%	0.0%	0.1%	2.8%		
50	500	25,000	\$1,849.80	\$2,333.50	\$174.30	\$4,357.60	\$179.41	\$4,485.21	\$122.50	\$0.00	\$5.11	\$127.61	2.8%	0.0%	0.1%	2.9%		
100	500	50,000	\$3,600.05	\$4,667.00	\$344.46	\$8,611.51	\$354.67	\$8,866.72	\$245.00	\$0.00	\$10.21	\$255.21	2.8%	0.0%	0.1%	3.0%		
150	500	75,000	\$5,350.30	\$7,000.50	\$514.62	\$12,865.42	\$529.93	\$13,248.23	\$367.50	\$0.00	\$15.31	\$382.81	2.9%	0.0%	0.1%	3.0%		
20	600	12,000	\$890.71	\$1,120.08	\$83.78	\$2,094.57	\$86.23	\$2,155.82	\$58.80	\$0.00	\$2.45	\$61.25	2.8%	0.0%	0.1%	2.9%		
50	600	30,000	\$2,077.45	\$2,800.20	\$203.24	\$5,080.89	\$209.36	\$5,234.01	\$147.00	\$0.00	\$6.12	\$153.12	2.9%	0.0%	0.1%	3.0%		
100	600	60,000	\$4,055.35	\$5,600.40	\$402.32	\$10,058.07	\$419.79	\$10,364.32	\$294.00	\$0.00	\$12.25	\$306.25	2.9%	0.0%	0.1%	3.0%		
150	600	90,000	\$6,033.25	\$8,400.60	\$601.41	\$15,035.26	\$619.79	\$15,494.64	\$441.00	\$0.00	\$18.38	\$459.38	2.9%	0.0%	0.1%	3.1%		

Proposed Rates effective January 1, 2021

Proposed Rates effective January 1, 2022

Line Item on Bill

(1) Distribution Customer Charge	\$145.00	Customer Charge	\$145.00
(2) LIHEAP Enhancement Charge	\$0.80	LIHEAP Enhancement Charge	\$0.80
(3) Renewable Energy Growth Program Charge	\$32.45	RE Growth Program	\$32.45
(4) Base Distribution Demand Charge (per kW > 10kW)	\$6.90	Distribution Demand Charge	\$6.90
(5) CapEx Factor Demand Charge (per kW > 10kW)	\$0.97		\$0.97
(6) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(7) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(8) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(9) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(10) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(11) Pension Adjustment Factor	\$0.0073	Distribution Energy Charge	\$0.0073
(12) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(13) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015
(14) Performance Incentive Factor	\$0.0005		\$0.0005
(15) Low Income Discount Recovery Factor	\$0.0016		\$0.0016
(16) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(17) Net Metering Charge	\$0.0266	Transmission Demand Charge	\$0.0266
(18) Transmission Demand Charge	\$4.37	Transmission Demand Charge	\$4.37
(19) Base Transmission Charge	\$0.01214		\$0.01214
(20) Transmission Adjustment Factor	\$0.00399	Transmission Adjustment	\$0.00399
(21) Transmission Uncollectible Factor	\$0.0030		\$0.0030
(22) Base Transition Charge	\$0.0074	Transition Charge	\$0.0074
(23) Transition Adjustment	\$0.0008		\$0.0008
(24) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	\$0.01353
(25) Standard Offer Service Base Charge	\$0.08150		\$0.08150
(26) SOS Adjustment Factor	\$0.0094	Supply Services Energy Charge	\$0.0094
(27) SOS Administrative Cost Adjustment Factor	\$0.00224		\$0.00224
(28) Renewable Energy Standard Charge	\$0.0866		\$0.0866
Line Item on Bill			
(29) Customer Charge	\$145.00		\$145.00
(30) LIHEAP Enhancement Charge	\$0.80		\$0.80
(31) Renewable Energy Growth Program Charge	\$32.45		\$32.45
(32) Base Distribution Demand Charge (per kW > 10kW)	\$6.90		\$6.90
(33) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(34) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(35) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(36) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(37) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(38) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(39) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015
(40) Performance Incentive Factor	\$0.0005		\$0.0005
(41) Low Income Discount Recovery Factor	\$0.0016		\$0.0016
(42) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(43) Net Metering Charge	\$0.0266	Transmission Demand Charge	\$0.0266
(44) Transmission Demand Charge	\$4.37	Transmission Demand Charge	\$4.37
(45) Base Transmission Charge	\$0.01214	Transmission Adjustment	\$0.01214
(46) Transmission Adjustment Factor	\$0.00399		\$0.00399
(47) Transmission Uncollectible Factor	\$0.0030		\$0.0030
(48) Base Transition Charge	\$0.0074	Transition Charge	\$0.0074
(49) Transition Adjustment	\$0.0008		\$0.0008
(50) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	\$0.01353
(51) Standard Offer Service Base Charge	\$0.08150		\$0.08150
(52) SOS Adjustment Factor	\$0.0094	Supply Services Energy Charge	\$0.0094
(53) SOS Administrative Cost Adjustment Factor	\$0.00224		\$0.00224
(54) Renewable Energy Standard Charge	\$0.0866		\$0.0866
Line Item on Bill			
(55) Customer Charge	\$145.00		\$145.00
(56) LIHEAP Enhancement Charge	\$0.80		\$0.80
(57) Renewable Energy Growth Program Charge	\$32.45		\$32.45
(58) Base Distribution Demand Charge (per kW > 10kW)	\$6.90		\$6.90
(59) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(60) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(61) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(62) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(63) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(64) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(65) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015
(66) Performance Incentive Factor	\$0.0005		\$0.0005
(67) Low Income Discount Recovery Factor	\$0.0016		\$0.0016
(68) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(69) Net Metering Charge	\$0.0266	Transmission Demand Charge	\$0.0266
(70) Transmission Demand Charge	\$4.37	Transmission Demand Charge	\$4.37
(71) Base Transmission Charge	\$0.01214	Transmission Adjustment	\$0.01214
(72) Transmission Adjustment Factor	\$0.00399		\$0.00399
(73) Transmission Uncollectible Factor	\$0.0030		\$0.0030
(74) Base Transition Charge	\$0.0074	Transition Charge	\$0.0074
(75) Transition Adjustment	\$0.0008		\$0.0008
(76) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	\$0.01353
(77) Standard Offer Service Base Charge	\$0.08150		\$0.08150
(78) SOS Adjustment Factor	\$0.0094	Supply Services Energy Charge	\$0.0094
(79) SOS Administrative Cost Adjustment Factor	\$0.00224		\$0.00224
(80) Renewable Energy Standard Charge	\$0.0866		\$0.0866
Line Item on Bill			
(81) Customer Charge	\$145.00		\$145.00
(82) LIHEAP Enhancement Charge	\$0.80		\$0.80
(83) Renewable Energy Growth Program Charge	\$32.45		\$32.45
(84) Base Distribution Demand Charge (per kW > 10kW)	\$6.90		\$6.90
(85) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(86) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(87) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(88) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(89) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(90) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(91) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015
(92) Performance Incentive Factor	\$0.0005		\$0.0005
(93) Low Income Discount Recovery Factor	\$0.0016		\$0.0016
(94) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(95) Net Metering Charge	\$0.0266	Transmission Demand Charge	\$0.0266
(96) Transmission Demand Charge	\$4.37	Transmission Demand Charge	\$4.37
(97) Base Transmission Charge	\$0.01214	Transmission Adjustment	\$0.01214
(98) Transmission Adjustment Factor	\$0.00399		\$0.00399
(99) Transmission Uncollectible Factor	\$0.0030		\$0.0030
(100) Base Transition Charge	\$0.0074	Transition Charge	\$0.0074
(101) Transition Adjustment	\$0.0008		\$0.0008
(102) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	\$0.01353
(103) Standard Offer Service Base Charge	\$0.08150		\$0.08150
(104) SOS Adjustment Factor	\$0.0094	Supply Services Energy Charge	\$0.0094
(105) SOS Administrative Cost Adjustment Factor	\$0.00224		\$0.00224
(106) Renewable Energy Standard Charge	\$0.0866		\$0.0866
Line Item on Bill			
(107) Customer Charge	\$145.00		\$145.00
(108) LIHEAP Enhancement Charge	\$0.80		\$0.80
(109) Renewable Energy Growth Program Charge	\$32.45		\$32.45
(110) Base Distribution Demand Charge (per kW > 10kW)	\$6.90		\$6.90
(111) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(112) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(113) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(114) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(115) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(116) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(117) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015
(118) Performance Incentive Factor	\$0.0005		\$0.0005
(119) Low Income Discount Recovery Factor	\$0.0016		\$0.0016
(120) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(121) Net Metering Charge	\$0.0266	Transmission Demand Charge	\$0.0266
(122) Transmission Demand Charge	\$4.37	Transmission Demand Charge	\$4.37
(123) Base Transmission Charge	\$0.01214	Transmission Adjustment	\$0.01214
(124) Transmission Adjustment Factor	\$0.00399		\$0.00399
(125) Transmission Uncollectible Factor	\$0.0030		\$0.0030
(126) Base Transition Charge	\$0.0074	Transition Charge	\$0.0074
(127) Transition Adjustment	\$0.0008		\$0.0008
(128) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	\$0.01353
(129) Standard Offer Service Base Charge	\$0.08150		\$0.08150
(130) SOS Adjustment Factor	\$0.0094	Supply Services Energy Charge	\$0.0094
(131) SOS Administrative Cost Adjustment Factor	\$0.00224		\$0.00224
(132) Renewable Energy Standard Charge	\$0.0866		\$0.0866
Line Item on Bill			
(133) Customer Charge	\$145.00		\$145.00
(134) LIHEAP Enhancement Charge	\$0.80		\$0.80
(135) Renewable Energy Growth Program Charge	\$32.45		\$32.45
(136) Base Distribution Demand Charge (per kW > 10kW)	\$6.90		\$6.90
(137) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(138) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(139) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(140) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(141) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(142) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(143) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015
(144) Performance Incentive Factor	\$0.0005		\$0.0005
(145) Low Income Discount Recovery Factor	\$0.0016		\$0.0016
(146) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(147) Net Metering Charge	\$0.0266	Transmission Demand Charge	\$0.0266
(148) Transmission Demand Charge	\$4.37	Transmission Demand Charge	\$4.37
(149) Base Transmission Charge	\$0.01214	Transmission Adjustment	\$0.01214
(150) Transmission Adjustment Factor	\$0.00399		\$0.00399
(151) Transmission Uncollectible Factor	\$0.0030		\$0.0030
(152) Base Transition Charge	\$0.0074	Transition Charge	\$0.0074
(153) Transition Adjustment	\$0.0008		\$0.0008
(154) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	\$0.01353
(155) Standard Offer Service Base Charge	\$0.08150		\$0.08150
(156) SOS Adjustment Factor	\$0.0094	Supply Services Energy Charge	\$0.0094
(157) SOS Administrative Cost Adjustment Factor	\$0.00224		\$0.00224
(158) Renewable Energy Standard Charge	\$0.0866		\$0.0866
Line Item on Bill			
(159) Customer Charge	\$145.00		\$145.00
(160) LIHEAP Enhancement Charge	\$0.80		\$0.80
(161) Renewable Energy Growth Program Charge	\$32.45		\$32.45
(162) Base Distribution Demand Charge (per kW > 10kW)	\$6.90		\$6.90
(163) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(164) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(165) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(166) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(167) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(168) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(169) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015
(170) Performance Incentive Factor	\$0.0005		\$0.0005
(171) Low Income Discount Recovery Factor	\$0.0016		\$0.0016
(172) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(173) Net Metering Charge	\$0.0266	Transmission Demand Charge	\$0.0266
(174) Transmission Demand Charge	\$4.37	Transmission Demand Charge	\$4.37
(175) Base Transmission Charge	\$0.01214	Transmission Adjustment	\$0.01214
(176) Transmission Adjustment Factor	\$0.00399		\$0.00399
(177) Transmission Uncollectible Factor	\$0.0030		\$0.0030
(178) Base Transition Charge	\$0.0074	Transition Charge	\$0.0074
(179) Transition Adjustment	\$0.0008		\$0.0008
(180) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	\$0.01353
(181) Standard Offer Service Base Charge	\$0.08150		\$0.08150
(182) SOS Adjustment Factor	\$0.0094	Supply Services Energy Charge	\$0.0094
(183) SOS Administrative Cost Adjustment Factor	\$0.00224		\$0.00224
(184) Renewable Energy Standard Charge	\$0.0866		\$0.0866
Line Item on Bill			
(185) Customer Charge	\$145.00		\$145.00
(186) LIHEAP Enhancement Charge	\$0.80		\$0.80
(187) Renewable Energy Growth Program Charge	\$32.45		\$32.45
(188) Base Distribution Demand Charge (per kW > 10kW)	\$6.90		\$6.90
(189) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(190) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(191) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(192) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(193) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(194) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(195) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015
(196) Performance Incentive Factor	\$0.0005		\$0.0005
(197) Low Income Discount Recovery Factor	\$0.0016		\$0.0016
(198) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(199) Net Metering Charge	\$0.0266	Transmission Demand Charge	\$0.0266
(200) Transmission Demand Charge	\$4.37	Transmission Demand Charge	\$4.37
(201) Base Transmission Charge	\$0.01214	Transmission Adjustment	\$0.01214
(202) Transmission Adjustment Factor	\$0.00399		\$0.00399
(203) Transmission Uncollectible Factor	\$0.0030		\$0.0030
(204) Base Transition Charge	\$0.0074	Transition Charge	\$0.0074
(205) Transition Adjustment	\$0.0008		\$0.0008
(206) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	\$0.01353
(207) Standard Offer Service Base Charge	\$0.08150		\$0.08150
(208) SOS Adjustment Factor	\$0.0094	Supply Services Energy Charge	\$0.0094
(209) SOS Administrative Cost Adjustment Factor	\$0.00224		\$0.00224
(210) Renewable Energy Standard Charge	\$0.0866		\$0.0866
Line Item on Bill			
(211) Customer Charge	\$145.00		\$145.00
(212) LIHEAP Enhancement Charge	\$0.80		\$0.80
(213) Renewable Energy Growth Program Charge	\$32.45		\$32.45
(214) Base Distribution Demand Charge (per kW > 10kW)	\$6.90		\$6.90
(215) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(216) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(217) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(218) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(219) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(220) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(221) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015
(222) Performance Incentive Factor	\$0.0005		\$0.0005
(223) Low Income Discount Recovery Factor	\$0.0016		\$0.0016
(224) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(225) Net Metering Charge	\$0.0266	Transmission Demand Charge	\$0.0266
(226) Transmission Demand Charge	\$4.37	Transmission Demand Charge	\$4.37
(227) Base Transmission Charge	\$0.01214	Transmission Adjustment	\$0.01214
(228) Transmission Adjustment Factor	\$0.00399		\$0.00399
(229) Transmission Uncollectible Factor	\$0.0030		\$0.0030
(230) Base Transition Charge	\$0.0074	Transition Charge	\$0.0074
(231) Transition Adjustment	\$0.0008		\$0.0008
(232) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	\$0.01353
(233) Standard Offer Service Base Charge	\$0.08150		\$0.08150
(234) SOS Adjustment Factor	\$0.0094	Supply Services Energy Charge	\$0.0094
(235) SOS Administrative Cost Adjustment Factor	\$0.00224		\$0.00224
(236) Renewable Energy Standard Charge	\$0.0866		\$0.0866
Line Item on Bill			
(237) Customer Charge	\$145.00		\$145.00
(238) LIHEAP Enhancement Charge	\$0.80		\$0.80
(239) Renewable Energy Growth Program Charge	\$32.45		\$32.45
(240) Base Distribution Demand Charge (per kW > 10kW)	\$6.90		\$6.90
(241) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(242) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(243) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(244) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(245) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(246) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(247) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015
(248) Performance Incentive Factor	\$0.0005		\$0.0005
(249) Low Income Discount Recovery Factor	\$0.0016		\$0.0016
(250) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(251) Net Metering Charge	\$0.0266	Transmission Demand Charge	\$0.0266
(252) Transmission Demand Charge	\$4.37	Transmission Demand Charge	\$4.37
(253) Base Transmission Charge	\$0.01214	Transmission Adjustment	\$0.01214
(254) Transmission Adjustment Factor	\$0.00399		\$0.00399
(255) Transmission Uncollectible Factor	\$0.0030		\$0.0030
(256) Base Transition Charge	\$0.0074	Transition Charge	\$0.0074
(257) Transition Adjustment	\$0.0008		\$0.0008
(258) Energy Efficiency Program Charge	\$0.01353	Energy Efficiency Programs	\$0.01353
(259) Standard Offer Service Base Charge	\$0.08150		\$0.08150
(260) SOS Adjustment Factor	\$0.0094	Supply Services Energy Charge	\$0.0094
(261) SOS Administrative Cost Adjustment Factor	\$0.00224		\$0.00224
(262) Renewable Energy Standard Charge	\$0.0866		\$0.0866
Line Item on Bill			
(263) Customer Charge	\$145.00		\$145.00
(264) LIHEAP Enhancement Charge	\$0.80		\$0.80
(265) Renewable Energy Growth Program Charge	\$32.45		\$32.45
(266) Base Distribution Demand Charge (per kW > 10kW)	\$6.90		\$6.90
(267) Distribution Charge (per kWh)	\$0.0476		\$0.0476
(268) Operating & Maintenance Expense Charge	\$0.0002		\$0.0002
(269) Operating & Maintenance Expense Reconciliation Factor	\$0.0002		\$0.0002
(270) CapEx Reconciliation Factor	\$0.0064		\$0.0064
(271) Revenue Desouring Adjustment Factor	\$0.0018		\$0.0018
(272) Storm Fund Replenishment Factor	\$0.0288		\$0.0288
(273) Arrangement Management Adjustment Factor	\$0.0015		\$0.0015

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Summary of Rates for Residential Customers
Rates Applicable to G-32 Rate Customers

Monthly Power Home Use			Proposed Rates effective January 1, 2021					Proposed Rates effective January 1, 2022					\$ Increase (Decrease)					Increase (Decrease) % of Total Bill				
KW	kWh	Delivery Services (a)	(b)	GET (c)	Total (d)	Delivery Services (a)	(b)	GET (c)	Total (d)	Delivery Services (a)	(b)	GET (c)	Total (d)	Delivery Services (a)	(b)	GET (c)	Total (d)	Delivery Services (a)	(b)	GET (c)	Total (d)	
200	40,000	\$4,172.35	\$2,951.60	\$7,123.95	\$7,123.95	\$4,172.35	\$2,951.60	\$7,123.95	\$7,123.95	\$4,172.35	\$2,951.60	\$7,123.95	\$7,123.95	\$4,172.35	\$2,951.60	\$7,123.95	\$7,123.95	\$4,172.35	\$2,951.60	\$7,123.95	\$7,123.95	
750	150,000	\$15,316.45	\$11,068.50	\$26,384.95	\$26,384.95	\$15,316.45	\$11,068.50	\$26,384.95	\$26,384.95	\$15,316.45	\$11,068.50	\$26,384.95	\$26,384.95	\$15,316.45	\$11,068.50	\$26,384.95	\$26,384.95	\$15,316.45	\$11,068.50	\$26,384.95	\$26,384.95	
1,000	200,000	\$20,381.95	\$14,758.00	\$35,139.95	\$35,139.95	\$20,381.95	\$14,758.00	\$35,139.95	\$35,139.95	\$20,381.95	\$14,758.00	\$35,139.95	\$35,139.95	\$20,381.95	\$14,758.00	\$35,139.95	\$35,139.95	\$20,381.95	\$14,758.00	\$35,139.95	\$35,139.95	
1,500	300,000	\$30,412.95	\$21,137.00	\$51,550.00	\$51,550.00	\$30,412.95	\$21,137.00	\$51,550.00	\$51,550.00	\$30,412.95	\$21,137.00	\$51,550.00	\$51,550.00	\$30,412.95	\$21,137.00	\$51,550.00	\$51,550.00	\$30,412.95	\$21,137.00	\$51,550.00	\$51,550.00	
2,000	400,000	\$40,443.95	\$28,015.00	\$68,459.00	\$68,459.00	\$40,443.95	\$28,015.00	\$68,459.00	\$68,459.00	\$40,443.95	\$28,015.00	\$68,459.00	\$68,459.00	\$40,443.95	\$28,015.00	\$68,459.00	\$68,459.00	\$40,443.95	\$28,015.00	\$68,459.00	\$68,459.00	
2,500	500,000	\$50,474.95	\$35,000.00	\$85,475.00	\$85,475.00	\$50,474.95	\$35,000.00	\$85,475.00	\$85,475.00	\$50,474.95	\$35,000.00	\$85,475.00	\$85,475.00	\$50,474.95	\$35,000.00	\$85,475.00	\$85,475.00	\$50,474.95	\$35,000.00	\$85,475.00	\$85,475.00	
3,000	600,000	\$60,505.95	\$42,000.00	\$102,506.00	\$102,506.00	\$60,505.95	\$42,000.00	\$102,506.00	\$102,506.00	\$60,505.95	\$42,000.00	\$102,506.00	\$102,506.00	\$60,505.95	\$42,000.00	\$102,506.00	\$102,506.00	\$60,505.95	\$42,000.00	\$102,506.00	\$102,506.00	
3,500	700,000	\$70,536.95	\$49,000.00	\$119,537.00	\$119,537.00	\$70,536.95	\$49,000.00	\$119,537.00	\$119,537.00	\$70,536.95	\$49,000.00	\$119,537.00	\$119,537.00	\$70,536.95	\$49,000.00	\$119,537.00	\$119,537.00	\$70,536.95	\$49,000.00	\$119,537.00	\$119,537.00	
4,000	800,000	\$80,567.95	\$56,000.00	\$136,568.00	\$136,568.00	\$80,567.95	\$56,000.00	\$136,568.00	\$136,568.00	\$80,567.95	\$56,000.00	\$136,568.00	\$136,568.00	\$80,567.95	\$56,000.00	\$136,568.00	\$136,568.00	\$80,567.95	\$56,000.00	\$136,568.00	\$136,568.00	
4,500	900,000	\$90,598.95	\$63,000.00	\$153,599.00	\$153,599.00	\$90,598.95	\$63,000.00	\$153,599.00	\$153,599.00	\$90,598.95	\$63,000.00	\$153,599.00	\$153,599.00	\$90,598.95	\$63,000.00	\$153,599.00	\$153,599.00	\$90,598.95	\$63,000.00	\$153,599.00	\$153,599.00	
5,000	1,000,000	\$100,629.95	\$70,000.00	\$170,630.00	\$170,630.00	\$100,629.95	\$70,000.00	\$170,630.00	\$170,630.00	\$100,629.95	\$70,000.00	\$170,630.00	\$170,630.00	\$100,629.95	\$70,000.00	\$170,630.00	\$170,630.00	\$100,629.95	\$70,000.00	\$170,630.00	\$170,630.00	
5,500	1,100,000	\$110,660.95	\$77,000.00	\$187,662.00	\$187,662.00	\$110,660.95	\$77,000.00	\$187,662.00	\$187,662.00	\$110,660.95	\$77,000.00	\$187,662.00	\$187,662.00	\$110,660.95	\$77,000.00	\$187,662.00	\$187,662.00	\$110,660.95	\$77,000.00	\$187,662.00	\$187,662.00	
6,000	1,200,000	\$120,691.95	\$84,000.00	\$204,692.00	\$204,692.00	\$120,691.95	\$84,000.00	\$204,692.00	\$204,692.00	\$120,691.95	\$84,000.00	\$204,692.00	\$204,692.00	\$120,691.95	\$84,000.00	\$204,692.00	\$204,692.00	\$120,691.95	\$84,000.00	\$204,692.00	\$204,692.00	
6,500	1,300,000	\$130,722.95	\$91,000.00	\$221,723.00	\$221,723.00	\$130,722.95	\$91,000.00	\$221,723.00	\$221,723.00	\$130,722.95	\$91,000.00	\$221,723.00	\$221,723.00	\$130,722.95	\$91,000.00	\$221,723.00	\$221,723.00	\$130,722.95	\$91,000.00	\$221,723.00	\$221,723.00	
7,000	1,400,000	\$140,753.95	\$98,000.00	\$238,754.00	\$238,754.00	\$140,753.95	\$98,000.00	\$238,754.00	\$238,754.00	\$140,753.95	\$98,000.00	\$238,754.00	\$238,754.00	\$140,753.95	\$98,000.00	\$238,754.00	\$238,754.00	\$140,753.95	\$98,000.00	\$238,754.00	\$238,754.00	
7,500	1,500,000	\$150,784.95	\$105,000.00	\$255,785.00	\$255,785.00	\$150,784.95	\$105,000.00	\$255,785.00	\$255,785.00	\$150,784.95	\$105,000.00	\$255,785.00	\$255,785.00	\$150,784.95	\$105,000.00	\$255,785.00	\$255,785.00	\$150,784.95	\$105,000.00	\$255,785.00	\$255,785.00	
8,000	1,600,000	\$160,815.95	\$112,000.00	\$272,817.00	\$272,817.00	\$160,815.95	\$112,000.00	\$272,817.00	\$272,817.00	\$160,815.95	\$112,000.00	\$272,817.00	\$272,817.00	\$160,815.95	\$112,000.00	\$272,817.00	\$272,817.00	\$160,815.95	\$112,000.00	\$272,817.00	\$272,817.00	
8,500	1,700,000	\$170,846.95	\$119,000.00	\$289,848.00	\$289,848.00	\$170,846.95	\$119,000.00	\$289,848.00	\$289,848.00	\$170,846.95	\$119,000.00	\$289,848.00	\$289,848.00	\$170,846.95	\$119,000.00	\$289,848.00	\$289,848.00	\$170,846.95	\$119,000.00	\$289,848.00	\$289,848.00	
9,000	1,800,000	\$180,877.95	\$126,000.00	\$306,879.00	\$306,879.00	\$180,877.95	\$126,000.00	\$306,879.00	\$306,879.00	\$180,877.95	\$126,000.00	\$306,879.00	\$306,879.00	\$180,877.95	\$126,000.00	\$306,879.00	\$306,879.00	\$180,877.95	\$126,000.00	\$306,879.00	\$306,879.00	
9,500	1,900,000	\$190,908.95	\$133,000.00	\$323,909.00	\$323,909.00	\$190,908.95	\$133,000.00	\$323,909.00	\$323,909.00	\$190,908.95	\$133,000.00	\$323,909.00	\$323,909.00	\$190,908.95	\$133,000.00	\$323,909.00	\$323,909.00	\$190,908.95	\$133,000.00	\$323,909.00	\$323,909.00	
10,000	2,000,000	\$200,940.00	\$140,000.00	\$340,940.00	\$340,940.00	\$200,940.00	\$140,000.00	\$340,940.00	\$340,940.00	\$200,940.00	\$140,000.00	\$340,940.00	\$340,940.00	\$200,940.00	\$140,000.00	\$340,940.00	\$340,940.00	\$200,940.00	\$140,000.00	\$340,940.00	\$340,940.00	
10,500	2,100,000	\$210,971.00	\$147,000.00	\$357,972.00	\$357,972.00	\$210,971.00	\$147,000.00	\$357,972.00	\$357,972.00	\$210,971.00	\$147,000.00	\$357,972.00	\$357,972.00	\$210,971.00	\$147,000.00	\$357,972.00	\$357,972.00	\$210,971.00	\$147,000.00	\$357,972.00	\$357,972.00	
11,000	2,200,000	\$221,002.00	\$154,000.00	\$375,002.00	\$375,002.00	\$221,002.00	\$154,000.00	\$375,002.00	\$375,002.00	\$221,002.00	\$154,000.00	\$375,002.00	\$375,002.00	\$221,002.00	\$154,000.00	\$375,002.00	\$375,002.00	\$221,002.00	\$154,000.00	\$375,002.00	\$375,002.00	
11,500	2,300,000	\$231,033.00	\$161,000.00	\$392,033.00	\$392,033.00	\$231,033.00	\$161,000.00	\$392,033.00	\$392,033.00	\$231,033.00	\$161,000.00	\$392,033.00	\$392,033.00	\$231,033.00	\$161,000.00	\$392,033.00	\$392,033.00	\$231,033.00	\$161,000.00	\$392,033.00	\$392,033.00	
12,000	2,400,000	\$241,064.00	\$168,000.00	\$409,064.00	\$409,064.00	\$241,064.00	\$168,000.00	\$409,064.00	\$409,064.00	\$241,064.00	\$168,000.00	\$409,064.00	\$409,064.00	\$241,064.00	\$168,000.00	\$409,064.00	\$409,064.00	\$241,064.00	\$168,000.00	\$409,064.00	\$409,064.00	
12,500	2,500,000	\$251,095.00	\$175,000.00	\$426,095.00	\$426,095.00	\$251,095.00	\$175,000.00	\$426,095.00	\$426,095.00	\$251,095.00	\$175,000.00	\$426,095.00	\$426,095.00	\$251,095.00	\$175,000.00	\$426,095.00	\$426,095.00	\$251,095.00	\$175,000.00	\$426,095.00	\$426,095.00	
13,000	2,600,000	\$261,126.00	\$182,000.00	\$443,126.00	\$443,126.00	\$261,126.00	\$182,000.00	\$443,126.00	\$443,126.00	\$261,126.00	\$182,000.00	\$443,126.00	\$443,126.00	\$261,126.00	\$182,000.00	\$443,126.00	\$443,126.00	\$261,126.00	\$182,000.00	\$443,126.00	\$443,126.00	
13,500	2,700,000	\$271,157.00	\$189,000.00	\$460,157.00	\$460,157.00	\$271,157.00	\$189,000.00	\$460,157.00	\$460,157.00	\$271,157.00	\$189,000.00	\$460,157.00	\$460,157.00	\$271,157.00	\$189,000.00	\$460,157.00	\$460,157.00	\$271,157.00	\$189,000.00	\$460,157.00	\$460,157.00	
14,000	2,800,000	\$281,188.00	\$196,000.00	\$477,188.00	\$477,188.00	\$281,188.00	\$196,000.00	\$477,188.00	\$477,188.00	\$281,188.00	\$196,000.00	\$477,188.00	\$477,188.00	\$281,188.00	\$196,000.00	\$477,188.00	\$477,188.00	\$281,188.00	\$196,000.00	\$477,188.00	\$477,188.00	
14,500	2,900,000	\$291,219.00	\$203,000.00	\$494,219.00	\$494,219.00	\$291,219.00	\$203,000.00	\$494,219.00	\$494,219.00	\$291,219.00	\$203,000.00	\$494,219.00	\$494,219.00	\$291,219.00	\$203,000.00	\$494,219.00	\$494,219.00	\$291,219.00	\$203,000.00	\$494,219.00	\$494,219.00	
15,000	3,000,000	\$301,250.00	\$210,000.00	\$511,250.00	\$511,250.00	\$301,250.00	\$210,000.00	\$511,250.00	\$511,250.00	\$301,250.00	\$210,000.00	\$511,250.00	\$511,250.00	\$301,250.00	\$210,000.00	\$511,250.00	\$511,250.00	\$301,250.00	\$210,000.00	\$511,250.00	\$511,250.00	
15,500	3,100,000	\$311,281.00	\$217,000.00	\$528,282.00	\$528,282.00	\$311,281.00	\$217,000.00	\$528,282.00	\$528,282.00	\$311,281.00	\$217,000.00	\$528,282.00	\$528,282.00	\$311,281.00	\$217,000.00	\$528,282.00	\$528,282.00	\$311,281.00	\$217,000.00	\$528,282.00	\$528,282.00	
16,000	3,200,000	\$321,312.00	\$224,000.00	\$545,312.00	\$545,312.00	\$321,312.00	\$224,000.00	\$545,312.00	\$545,312.00	\$321,312.00	\$224,000.00	\$545,312.00	\$545,312.00	\$321,312.00	\$224,000.00	\$545,312.00	\$545,312.00	\$321,312.00	\$224,000.00	\$545,312.00	\$545,312.00	
16,500	3,300,000	\$331,343.00	\$231,000.00	\$562,343.00	\$562,343.00	\$331,343.00	\$231,000.00	\$562,343.00	\$562,343.00	\$331,343.00	\$231,000.00	\$562,343.00	\$562,343.00	\$331,343.00	\$231,000.00	\$562,343.00	\$562,343.00	\$331,343.00	\$231,000.00	\$562,343.00	\$562,343.00	
17,000	3,400,000	\$341,374.00	\$238,000.00	\$579,374.00	\$579,374.00	\$341,374.00	\$238,000.00	\$579,374.00	\$579,374.00	\$341,374.00	\$238,000.00	\$579,374.00	\$579,374.00	\$341,374.00	\$238,000.00	\$579,374.00	\$579,374.00	\$341,374.00	\$238,000.00	\$579,374.00	\$579,374.00	
17,500	3,500,000	\$351,405.00	\$245,000.00	\$596,405.00	\$596,405.00	\$351,405.00	\$245,000.00	\$596,40														

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-16 Rate Customers

Monthly kWh (a)	Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				Percentage of Customers (r)
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e) = (a) + (b) + (c)	Delivery Services (f) = (b) - (b)	Supply Services (g) = (c) - (c)	GET (h) = (d) - (d)	Total (i) = (f) + (g) + (h)	Delivery Services (j) = (f) - (f)	Supply Services (k) = (g) - (g)	GET (l) = (h) - (h)	Total (m) = (j) + (k) + (l)	Delivery Services (n) = (j) - (j)	Supply Services (o) = (k) - (k)	GET (p) = (l) - (l)	Total (q) = (n) + (o) + (p)	
150	\$26.53	\$15.56	\$1.75	\$43.84	\$26.83	\$15.56	\$1.77	\$44.16	\$0.30	\$0.00	\$0.02	\$0.32	0.7%	0.0%	0.0%	0.7%	30.1%
300	\$44.10	\$31.11	\$3.13	\$78.34	\$44.70	\$31.11	\$3.16	\$78.97	\$0.60	\$0.00	\$0.03	\$0.63	0.8%	0.0%	0.0%	0.8%	12.9%
400	\$55.81	\$41.48	\$4.05	\$101.34	\$56.61	\$41.48	\$4.09	\$102.18	\$0.80	\$0.00	\$0.04	\$0.84	0.8%	0.0%	0.0%	0.8%	11.6%
500	\$67.52	\$51.85	\$4.97	\$124.34	\$68.52	\$51.85	\$5.02	\$125.39	\$1.00	\$0.00	\$0.05	\$1.05	0.8%	0.0%	0.0%	0.8%	9.6%
600	\$79.23	\$62.22	\$5.89	\$147.34	\$80.43	\$62.22	\$5.94	\$148.59	\$1.20	\$0.00	\$0.05	\$1.25	0.8%	0.0%	0.0%	0.8%	7.7%
700	\$90.94	\$72.59	\$6.81	\$170.34	\$92.34	\$72.59	\$6.87	\$171.80	\$1.40	\$0.00	\$0.06	\$1.46	0.8%	0.0%	0.0%	0.9%	19.0%
1,200	\$149.50	\$124.44	\$11.41	\$285.35	\$151.90	\$124.44	\$11.51	\$287.85	\$2.40	\$0.00	\$0.10	\$2.50	0.8%	0.0%	0.0%	0.9%	6.8%
2,000	\$243.20	\$207.40	\$18.78	\$469.38	\$247.20	\$207.40	\$18.94	\$473.54	\$4.00	\$0.00	\$0.16	\$4.16	0.9%	0.0%	0.0%	0.9%	2.3%

Proposed Rates effective January 1, 2022 (s)

Proposed Rates effective January 1, 2023 (t)

Line Item on Bill

(1) Distribution Customer Charge	\$6.00	(s)	(t)	Customer Charge
(2) LIHEAP Enhancement Charge	\$0.80			LIHEAP Enhancement Charge
(3) Renewable Energy Growth Program Charge	\$2.16		\$2.16	RE Growth Program
(4) Distribution Charge (per kWh)	\$0.04580		\$0.04580	
(5) Operating & Maintenance Expense Charge	\$0.00212		\$0.00212	
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002		\$0.00002	
(7) CapEx Factor Charge	\$0.00396		\$0.00396	
(8) CapEx Reconciliation Factor	\$0.00090		\$0.00090	
(9) Revenue Decoupling Adjustment Factor	\$0.00118		\$0.00118	Distribution Energy Charge
(10) Pension Adjustment Factor	\$0.00073		\$0.00073	
(11) Storm Fund Replenishment Factor	\$0.00288		\$0.00288	
(12) Rate Management Adjustment Factor	\$0.00015		\$0.00015	
(13) Performance Incentive Factor	\$0.00005		\$0.00005	
(14) Low Income Discount Recovery Factor	\$0.00176		\$0.00176	
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931		\$0.00931	Renewable Energy Distribution Charge
(16) Net Metering Charge	\$0.00266		\$0.00266	
(17) Base Transmission Charge	\$0.03096		\$0.03096	
(18) Transmission Adjustment Factor	\$0.00189		\$0.00189	Transmission Charge
(19) Transmission Uncollectible Factor	\$0.00038		\$0.00038	
(20) Base Transition Charge	\$0.00074		\$0.00074	Transition Charge
(21) Transition Adjustment	\$0.00008		\$0.00008	Energy Efficiency Programs
(22) Energy Efficiency Program Charge	\$0.01843		\$0.02043	
(23) Standard Offer Service Base Charge	\$0.09568		\$0.09568	
(24) SOS Adjustment Factor	\$0.00294		\$0.00294	
(25) SOS Administrative Cost Adjustment Factor	\$0.00230		\$0.00230	Supply Services Energy Charge
(26) Renewable Energy Standard Charge	\$0.00866		\$0.00866	

Line Item on Bill

(27) Customer Charge	\$6.00		\$6.00	
(28) LIHEAP Enhancement Charge	\$0.80		\$0.80	
(29) RE Growth Program	\$2.16		\$2.16	
(30) Transmission Charge	kWh x		\$0.02945	
(31) Distribution Energy Charge	kWh x		\$0.05809	
(32) Transition Charge	kWh x		\$0.00082	
(33) Energy Efficiency Programs	kWh x		\$0.02043	
(34) Renewable Energy Distribution Charge	kWh x		\$0.01197	
(35) Supply Services Energy Charge	kWh x		\$0.10370	

Column (s): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022 (Bates page 148) + \$0.00030 for renewables charge
Column (t): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2023 (Bates page 148) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023				\$ Increase (Decrease)		Increase (Decrease) % of Total Bill		Percentage of Customers	
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (b) + (c) x-25	Total GET (e) = (b) + (c) + (d)	Delivery Services (h)	Supply Services (i)	Low Income Discount (j) = (h) + (i) x-25	Total GET (k) = (h) + (i) + (j)	Delivery Services (m) = [(b)-(d)] + [(h)-(d)]	Supply Services (n) = (i) - (j) (o) = (k) - (j) (p) = (l) - (j)	Total GET (q) = (m) + (o) + (p)	Total GET (r) = (p) + (f) (u) = (q) + (g)		
(a)				(f)	(g) = (e) + (f)				(l)	(m) = (b) + (i) (n) = (h) + (j)			(v)	
150	\$26.26	\$15.56	\$31.36	\$1.31	\$32.67	\$26.56	\$15.56	(\$10.53)	\$31.59	\$1.32	\$32.91	\$0.24	0.7%	32.1%
300	\$43.57	\$31.11	\$18.67	\$2.33	\$58.34	\$44.17	\$31.11	(\$18.82)	\$56.46	\$2.35	\$58.81	\$0.47	0.8%	15.4%
400	\$55.10	\$41.48	\$24.15	\$3.02	\$75.45	\$55.90	\$41.48	(\$24.35)	\$73.03	\$3.04	\$76.07	\$0.62	0.8%	12.5%
500	\$66.64	\$51.85	\$29.62	\$3.70	\$92.57	\$67.64	\$51.85	(\$29.87)	\$89.62	\$3.73	\$93.35	\$0.78	0.8%	9.6%
600	\$78.18	\$62.22	\$35.10	\$4.39	\$109.69	\$79.38	\$62.22	(\$36.40)	\$106.20	\$4.43	\$110.63	\$0.94	0.8%	7.2%
700	\$89.71	\$72.59	\$40.58	\$5.07	\$126.79	\$91.11	\$72.59	(\$40.93)	\$122.77	\$5.12	\$127.89	\$1.10	0.8%	16.4%
1,200	\$147.39	\$124.44	\$67.96	\$8.49	\$212.56	\$149.79	\$124.44	(\$68.56)	\$205.67	\$8.57	\$214.24	\$1.88	0.8%	5.2%
2,000	\$239.68	\$207.40	\$111.77	\$13.97	\$349.28	\$243.68	\$207.40	(\$112.77)	\$335.31	\$14.10	\$352.41	\$3.13	0.9%	1.6%

Proposed Rates effective January 1, 2022

Proposed Rates effective January 1, 2023

Line Item on Bill

	Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023			
	(w)	(x)	(y)	(z)	(w)	(x)	(y)	(z)
(1) Distribution Customer Charge	\$6.00				\$6.00			
(2) LIHEAP Enhancement Charge	\$0.80				\$0.80			
(3) Renewable Energy Growth Program Charge	\$2.16				\$2.16			
(4) Distribution Charge (per kWh)	\$0.04580				\$0.04580			
(5) Operating & Maintenance Expense Charge	\$0.00212				\$0.00212			
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002				\$0.00002			
(7) CapEx Factor Charge	\$0.00396				\$0.00396			
(8) CapEx Reconciliation Factor	\$0.00090				\$0.00090			
(9) Revenue Decoupling Adjustment Factor	\$0.00118				\$0.00118			
(10) Pension Adjustment Factor	\$0.00073				\$0.00073			
(11) Storm Fund Replenishment Factor	\$0.00288				\$0.00288			
(12) Average Management Adjustment Factor	\$0.00015				\$0.00015			
(13) Performance Incentive Factor	\$0.00005				\$0.00005			
(14) Low Income Discount Recovery Factor	\$0.00000				\$0.00000			
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931				\$0.00931			
(16) Net Metering Charge	\$0.00266				\$0.00266			
(17) Base Transmission Charge	\$0.03066				\$0.03066			
(18) Transmission Adjustment Factor	\$0.00189				\$0.00189			
(19) Transmission Uncollectible Factor	\$0.00038				\$0.00038			
(20) Base Transition Charge	\$0.00074				\$0.00074			
(21) Transition Adjustment	\$0.00008				\$0.00008			
(22) Energy Efficiency Program Charge	\$0.01843				\$0.01843			
(23) Standard Offer Service Base Charge	\$0.09568				\$0.09568			
(24) SOS Adjustment Factor	\$0.00294				\$0.00294			
(25) SOS Administrative Cost Adjustment Factor	\$0.00230				\$0.00230			
(26) Renewable Energy Standard Charge	\$0.00866				\$0.00866			
Line Item on Bill								
(27) Customer Charge	\$6.00				\$6.00			
(28) LIHEAP Enhancement Charge	\$0.80				\$0.80			
(29) RE Growth Program	\$2.16				\$2.16			
(30) Transmission Charge	\$0.02945				\$0.02945			
(31) Distribution Energy Charge	\$0.05633				\$0.05633			
(32) Transition Charge	\$0.00082				\$0.00082			
(33) Energy Efficiency Programs	\$0.01843				\$0.01843			
(34) Renewable Energy Distribution Charge	\$0.01197				\$0.01197			
(35) Supply Services Energy Charge	\$0.10370				\$0.10370			
(36) Discount percentage	25%				25%			

Column (w): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2019 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2019, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022
(Bates page 148) + \$0.00030 for renewables charge
Column (x): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2019 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2019, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022
(Bates page 148) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill		Percentage of Customers		
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (b) + (c) - (e)	Total (e) = (b) + (c) + (d)	Delivery Services (f)	Supply Services (g)	Low Income Discount (h) = (g) - (i)	Total (i) = (f) + (g) + (h)	Delivery Services (j) = (f) + (g) - (i)	Supply Services (k) = (j) - (l)	Low Income Discount (l) = (k) - (m)	Total (m) = (j) + (k) + (l)	GET (n) = (j) + (k) + (l) + (p)	Total (o) = (n) + (p)			
(a)																(v)	
150	\$26.26	\$15.56	(\$12.55)	\$29.27	\$1.22	\$30.49		\$30.71	\$26.56	\$15.56	(\$12.64)	\$29.48	\$1.23	\$30.71	\$0.22	\$0.7%	32.1%
300	\$43.57	\$31.11	(\$22.40)	\$52.28	\$2.18	\$54.46		\$54.90	\$44.17	\$31.11	(\$22.88)	\$68.17	\$2.20	\$68.44	\$0.27	0.8%	15.4%
400	\$55.10	\$41.48	(\$28.97)	\$67.61	\$2.82	\$70.43		\$71.01	\$55.90	\$41.48	(\$29.21)	\$68.17	\$2.84	\$71.01	\$0.58	0.8%	12.5%
500	\$66.64	\$51.85	(\$35.55)	\$82.94	\$3.46	\$86.40		\$87.13	\$67.64	\$51.85	(\$35.85)	\$83.64	\$3.49	\$87.13	\$0.73	0.8%	9.6%
600	\$78.18	\$62.22	(\$42.12)	\$98.28	\$4.10	\$102.38		\$103.25	\$79.38	\$62.22	(\$42.48)	\$99.12	\$4.13	\$103.25	\$0.87	0.8%	7.2%
700	\$89.71	\$72.59	(\$48.69)	\$113.61	\$4.73	\$118.34		\$119.36	\$91.11	\$72.59	(\$49.11)	\$114.59	\$4.77	\$119.36	\$1.02	0.8%	16.4%
1,200	\$147.39	\$124.44	(\$81.55)	\$190.28	\$7.93	\$198.21		\$199.96	\$149.79	\$124.44	(\$82.27)	\$191.96	\$8.00	\$199.96	\$1.75	0.9%	5.2%
2,000	\$239.68	\$207.40	(\$134.12)	\$312.96	\$13.04	\$326.00		\$328.92	\$243.68	\$207.40	(\$135.32)	\$315.76	\$13.16	\$328.92	\$2.92	0.9%	1.6%

Proposed Rates effective January 1, 2022

Proposed Rates effective January 1, 2023

Line Item on Bill

	Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023			
	(w)	(x)	(y)	(z)	(w)	(x)	(y)	(z)
(1) Distribution Customer Charge	\$6.00				\$6.00			
(2) LIHEAP Enhancement Charge	\$0.80				\$0.80			
(3) Renewable Energy Growth Program Charge	\$2.16				\$2.16			
(4) Distribution Charge (per kWh)	\$0.04580				\$0.04580			
(5) Operating & Maintenance Expense Charge	\$0.00212				\$0.00212			
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002				\$0.00002			
(7) CapEx Factor Charge	\$0.00396				\$0.00396			
(8) CapEx Reconciliation Factor	\$0.00090				\$0.00090			
(9) Revenue Decoupling Adjustment Factor	\$0.00118				\$0.00118			
(10) Pension Adjustment Factor	\$0.00073				\$0.00073			
(11) Storm Fund Replenishment Factor	\$0.00288				\$0.00288			
(12) Acreage Management Adjustment Factor	\$0.00015				\$0.00015			
(13) Performance Incentive Factor	\$0.00005				\$0.00005			
(14) Low Income Discount Recovery Factor	\$0.00000				\$0.00000			
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931				\$0.00931			
(16) Net Metering Charge	\$0.00266				\$0.00266			
(17) Base Transmission Charge	\$0.03096				\$0.03096			
(18) Transmission Adjustment Factor	\$0.00189				\$0.00189			
(19) Transmission Uncollectible Factor	\$0.00038				\$0.00038			
(20) Base Transition Charge	\$0.00074				\$0.00074			
(21) Transition Adjustment	\$0.00008				\$0.00008			
(22) Energy Efficiency Program Charge	\$0.01843				\$0.01843			
(23) Standard Offer Service Base Charge	\$0.09568				\$0.09568			
(24) SOS Adjustment Factor	\$0.00294				\$0.00294			
(25) SOS Administrative Cost Adjustment Factor	\$0.00230				\$0.00230			
(26) Renewable Energy Standard Charge	\$0.00866				\$0.00866			
Line Item on Bill								
(27) Customer Charge	\$6.00				\$6.00			
(28) LIHEAP Enhancement Charge	\$0.80				\$0.80			
(29) RE Growth Program	\$2.16				\$2.16			
(30) Transmission Charge	\$0.02945				\$0.02945			
(31) Distribution Energy Charge	\$0.05633				\$0.05633			
(32) Transition Charge	\$0.00082				\$0.00082			
(33) Energy Efficiency Programs	\$0.01843				\$0.01843			
(34) Renewable Energy Distribution Charge	\$0.01197				\$0.01197			
(35) Supply Services Energy Charge	\$0.10370				\$0.10370			
(36) Discount percentage	30%				30%			

Column (w): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2019 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022
(Bates page 148) + \$0.00030 for renewables charge
Column (x): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2019 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2023
(Bates page 148) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to C-06 Rate Customers

Monthly kWh (a)	Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill			Percentage of Customers (m)
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)	Total (m)
250	\$42.35	\$23.34	\$2.74	\$68.43	\$42.85	\$23.34	\$2.76	\$68.95	\$0.50	\$0.00	\$0.02	\$0.52	0.7%	0.0%	0.0%	0.8%
500	\$70.56	\$46.67	\$4.88	\$122.11	\$71.56	\$46.67	\$4.93	\$123.16	\$1.00	\$0.00	\$0.05	\$1.05	0.8%	0.0%	0.0%	0.9%
1,000	\$126.96	\$93.34	\$9.18	\$229.48	\$128.96	\$93.34	\$9.26	\$231.56	\$2.00	\$0.00	\$0.08	\$2.08	0.9%	0.0%	0.0%	0.9%
1,500	\$183.37	\$140.01	\$13.47	\$336.85	\$186.37	\$140.01	\$13.60	\$339.98	\$3.00	\$0.00	\$0.13	\$3.13	0.9%	0.0%	0.0%	0.9%
2,000	\$239.77	\$186.68	\$17.77	\$444.22	\$243.77	\$186.68	\$17.94	\$448.39	\$4.00	\$0.00	\$0.17	\$4.17	0.9%	0.0%	0.0%	0.9%

Proposed Rates effective January 1, 2022

(a)	(c)
(1) Distribution Customer Charge	\$10.00
(2) LIHEAP Enhancement Charge	\$0.80
(3) Renewable Energy Growth Program Charge	\$3.35

Proposed Rates effective January 1, 2023

(b)	(d)	(e)
(4) Distribution Charge (per kWh)	\$0.04482	\$0.04482
(5) Operating & Maintenance Expense Charge	\$0.00212	\$0.00212
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002	\$0.00002
(7) CapEx Factor Charge	\$0.00339	\$0.00339
(8) CapEx Reconciliation Factor	\$0.00085	\$0.00085
(9) Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118
(10) Pension Adjustment Factor	(\$0.00073)	(\$0.00073)
(11) Storm Fund Replenishment Factor	\$0.00288	\$0.00288
(12) Arrangement Management Adjustment Factor	\$0.00015	\$0.00015
(13) Performance Incentive Factor	\$0.00005	\$0.00005
(14) Low Income Discount Recovery Factor	\$0.00176	\$0.00176

Line Item on Bill

(f)	(g)	(h)	(i)
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931	\$0.00931	\$0.00931
(16) Net Metering Charge	\$0.00266	\$0.00266	\$0.00266
(17) Base Transmission Charge	\$0.03110	\$0.03110	\$0.03110
(18) Transmission Adjustment Factor	(\$0.00467)	(\$0.00467)	(\$0.00467)
(19) Transmission Uncollectible Factor	\$0.00031	\$0.00031	\$0.00031
(20) Base Transition Charge	(\$0.00074)	(\$0.00074)	(\$0.00074)
(21) Transition Adjustment	(\$0.00008)	(\$0.00008)	(\$0.00008)
(22) Energy Efficiency Program Charge	\$0.01843	\$0.02043	\$0.02043
(23) Standard Offer Service Base Charge	\$0.08150	\$0.08150	\$0.08150
(24) SOS Adjustment Factor	\$0.00094	\$0.00094	\$0.00094
(25) SOS Administrative Cost Adjustment Factor	\$0.00224	\$0.00224	\$0.00224
(26) Renewable Energy Standard Charge	\$0.00866	\$0.00866	\$0.00866

(27) Customer Charge	\$10.00
(28) LIHEAP Enhancement Charge	\$0.80
(29) RE Growth Program	\$3.35
(30) Transmission Charge	\$0.02674
(31) Distribution Energy Charge	\$0.05649
(32) Transition Charge	(\$0.00082)
(33) Energy Efficiency Programs	\$0.01843
(34) Renewable Energy Distribution Charge	\$0.01197
(35) Supply Services Energy Charge	\$0.09334

Customer Charge	\$10.00
LIHEAP Enhancement Charge	\$0.80
RE Growth Program	\$3.35

Distribution Energy Charge	\$0.00085
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Renewable Energy Distribution Charge	\$0.00931
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Transmission Charge	(\$0.00467)
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Transition Charge	(\$0.00074)
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Energy Efficiency Programs	\$0.02043
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Supply Services Energy Charge	\$0.00866
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Line Item on Bill

(27) Customer Charge	\$10.00
(28) LIHEAP Enhancement Charge	\$0.80
(29) RE Growth Program	\$3.35
(30) Transmission Charge	\$0.02674
(31) Distribution Energy Charge	\$0.05649
(32) Transition Charge	(\$0.00082)
(33) Energy Efficiency Programs	\$0.01843
(34) Renewable Energy Distribution Charge	\$0.01197
(35) Supply Services Energy Charge	\$0.09334

Column (c): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022 (Bates page 148) + \$0.00030 for renewables charge
Column (d): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2023 (Bates page 148) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to G&D Rate Customers

Monthly Power			Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill			
kW	Hours Use	kWh	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)	Total (m)
20	200	4,000	\$546.07	\$373.36	\$38.31	\$957.74	\$554.07	\$373.36	\$38.64	\$966.07	\$8.00	\$0.00	\$0.33	\$8.33	0.8%	0.0%	0.0%	0.9%
50	200	10,000	\$1,215.85	\$933.40	\$89.55	\$2,238.80	\$1,235.85	\$933.40	\$90.39	\$2,259.64	\$20.00	\$0.00	\$0.84	\$20.84	0.9%	0.0%	0.0%	0.9%
100	200	20,000	\$2,332.15	\$1,866.80	\$174.96	\$4,373.91	\$2,372.15	\$1,866.80	\$176.62	\$4,415.57	\$40.00	\$0.00	\$1.66	\$41.66	0.9%	0.0%	0.0%	1.0%
150	200	30,000	\$3,448.45	\$2,800.20	\$260.36	\$6,509.01	\$3,508.45	\$2,800.20	\$262.86	\$6,571.51	\$60.00	\$0.00	\$2.50	\$62.50	0.9%	0.0%	0.0%	1.0%
20	300	6,000	\$646.93	\$560.04	\$50.29	\$1,257.26	\$658.93	\$560.04	\$50.79	\$1,269.76	\$12.00	\$0.00	\$0.50	\$12.50	1.0%	0.0%	0.0%	1.0%
50	300	15,000	\$1,468.00	\$1,400.10	\$119.50	\$2,987.60	\$1,498.00	\$1,400.10	\$120.75	\$3,018.85	\$30.00	\$0.00	\$1.25	\$31.25	1.0%	0.0%	0.0%	1.0%
100	300	30,000	\$2,836.45	\$2,800.20	\$234.86	\$5,871.51	\$2,896.45	\$2,800.20	\$237.36	\$5,954.01	\$60.00	\$0.00	\$2.50	\$62.50	1.0%	0.0%	0.0%	1.1%
150	300	45,000	\$4,204.90	\$4,200.30	\$350.22	\$8,755.42	\$4,294.90	\$4,200.30	\$353.97	\$8,849.17	\$90.00	\$0.00	\$3.75	\$93.75	1.0%	0.0%	0.0%	1.1%
20	400	8,000	\$747.79	\$746.72	\$62.27	\$1,556.78	\$763.79	\$746.72	\$62.94	\$1,573.45	\$16.00	\$0.00	\$0.67	\$16.67	1.0%	0.0%	0.0%	1.1%
50	400	20,000	\$1,720.15	\$1,866.80	\$149.46	\$3,736.41	\$1,760.15	\$1,866.80	\$151.12	\$3,778.07	\$40.00	\$0.00	\$1.66	\$41.66	1.1%	0.0%	0.0%	1.1%
100	400	40,000	\$3,340.75	\$3,733.60	\$294.76	\$7,369.11	\$3,420.75	\$3,733.60	\$298.10	\$7,452.45	\$80.00	\$0.00	\$3.34	\$83.34	1.1%	0.0%	0.0%	1.1%
150	400	60,000	\$4,961.35	\$5,600.40	\$440.07	\$11,001.82	\$5,081.35	\$5,600.40	\$445.07	\$11,126.82	\$120.00	\$0.00	\$5.00	\$125.00	1.1%	0.0%	0.0%	1.1%
20	500	10,000	\$848.65	\$933.40	\$74.25	\$1,856.30	\$868.65	\$933.40	\$75.09	\$1,877.14	\$20.00	\$0.00	\$0.84	\$20.84	1.1%	0.0%	0.0%	1.1%
50	500	25,000	\$1,972.30	\$2,333.50	\$179.41	\$4,485.21	\$2,022.30	\$2,333.50	\$181.49	\$4,537.29	\$50.00	\$0.00	\$2.08	\$52.08	1.1%	0.0%	0.0%	1.2%
100	500	50,000	\$3,845.05	\$4,667.00	\$354.67	\$8,866.72	\$3,945.05	\$4,667.00	\$358.84	\$8,970.89	\$100.00	\$0.00	\$4.17	\$104.17	1.1%	0.0%	0.0%	1.2%
150	500	75,000	\$5,717.80	\$7,000.50	\$529.93	\$13,248.23	\$5,867.80	\$7,000.50	\$536.18	\$13,404.48	\$150.00	\$0.00	\$6.25	\$156.25	1.1%	0.0%	0.0%	1.2%
20	600	12,000	\$949.51	\$1,120.08	\$86.23	\$2,155.82	\$973.51	\$1,120.08	\$87.23	\$2,180.82	\$24.00	\$0.00	\$1.00	\$25.00	1.1%	0.0%	0.0%	1.2%
50	600	30,000	\$2,224.45	\$2,800.20	\$209.36	\$5,234.01	\$2,284.45	\$2,800.20	\$211.86	\$5,296.51	\$60.00	\$0.00	\$2.50	\$62.50	1.1%	0.0%	0.0%	1.2%
100	600	60,000	\$4,349.35	\$5,600.40	\$414.57	\$10,364.32	\$4,469.35	\$5,600.40	\$419.57	\$10,489.32	\$120.00	\$0.00	\$5.00	\$125.00	1.2%	0.0%	0.0%	1.2%
150	600	90,000	\$6,474.25	\$8,400.60	\$619.79	\$15,494.64	\$6,654.25	\$8,400.60	\$627.29	\$15,682.14	\$180.00	\$0.00	\$7.50	\$187.50	1.2%	0.0%	0.0%	1.2%
Line Item on Bill																		
(1) Distribution Customer Charge																		
(2) LIHEAP Enhancement Charge																		
(3) Renewable Energy Growth Program Charge																		
(4) Base Distribution Demand Charge (per kW > 10kW)																		
(5) CapEx Factor Demand Charge (per kW > 10kW)																		
(6) Distribution Charge (per kWh)																		
(7) Operating & Maintenance Expense Charge																		
(8) Operating & Maintenance Expense Reconciliation Factor																		
(9) CapEx Reconciliation Factor																		
(10) Revenue Decoupling Adjustment Factor																		
(11) Pension Adjustment Factor																		
(12) Storm Fund Replenishment Factor																		
(13) Average Management Adjustment Factor																		
(14) Performance Incentive Factor																		
(15) Low Income Discount Recovery Factor																		
(16) Long-term Contracting for Renewable Energy Charge																		
(17) Net Metering Charge																		
(18) Transmission Demand Charge																		
(19) Base Transmission Charge																		
(20) Transmission Adjustment Factor																		
(21) Transmission Uncollectible Factor																		
(22) Base Transition Charge																		
(23) Transition Adjustment																		
(24) Energy Efficiency Program Charge																		
(25) Standard Offer Service Base Charge																		
(26) SOS Adjustment Factor																		
(27) SOS Administrative Cost Adjustment Factor																		
(28) Renewable Energy Standard Charge																		
Line Item on Bill																		
(29) Customer Charge																		
(30) LIHEAP Enhancement Charge																		
(31) Renewable Energy Growth Program Charge																		
(32) Base Distribution Demand Charge																		
(33) Distribution Energy Charge																		
(34) Distribution Demand Charge																		
(35) Transmission Demand Charge																		
(36) Transition Charge																		
(37) Energy Efficiency Programs																		
(38) Renewable Energy Distribution Charge																		
(39) Supply Services Energy Charge																		

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Summary of Rates for Residential Customers
Rates Applicable to G-32 Rate Customers

Monthly Power Hours Use		Proposed Rates effective January 1, 2022					Proposed Rates effective January 1, 2023					\$ Increase (Decrease)			Revenue (Decrease) % of Total Bill			
		k Wh (a)	KW (b)	Delivery Services (d)	Supply Services (e)	GET (f)	Total (g)	k Wh (a)	KW (b)	Delivery Services (d)	Supply Services (e)	GET (f)	Total (g)	Delivery Services (d)	Supply Services (e)	GET (f)	Total (g)	
200	40,000		\$4,386.35	\$2,951.60	\$10,600.00	\$7,624.95		\$4,448.35	\$2,951.60	\$8,088.33	\$7,708.28	\$80.00	\$3.33	\$85.33	1.0%	0.0%	0.1%	1.1%
750	200		\$16,051.45	\$11,068.50	\$11,300.00	\$38,249.95		\$16,351.45	\$11,068.50	\$12,500.00	\$38,918.95	\$669.00	\$0.00	\$16.66	0.1%	0.0%	0.1%	0.2%
1,000	200		\$20,000.00	\$14,758.00	\$15,050.00	\$39,744.95		\$21,361.95	\$14,758.00	\$15,616.66	\$41,736.61	\$994.66	\$0.00	\$16.66	0.1%	0.0%	0.1%	0.2%
1,500	200		\$30,000.00	\$21,982.95	\$22,550.00	\$56,744.95		\$32,982.95	\$22,177.00	\$23,550.00	\$58,699.95	\$1,500.00	\$0.00	\$25.00	0.0%	0.0%	0.1%	0.1%
2,500	200		\$50,000.00	\$35,224.95	\$35,895.00	\$90,674.95		\$53,424.95	\$35,689.50	\$37,966.66	\$90,916.61	\$2,000.00	\$0.00	\$41.66	0.0%	0.0%	0.1%	0.1%
3,500	200		\$70,000.00	\$48,467.95	\$49,140.00	\$119,614.95		\$71,667.95	\$48,930.00	\$50,675.00	\$119,665.99	\$2,500.00	\$0.00	\$56.66	0.0%	0.0%	0.1%	0.1%
4,500	200		\$90,000.00	\$61,710.95	\$62,385.00	\$153,565.95		\$84,960.95	\$61,685.00	\$63,651.66	\$153,920.99	\$3,000.00	\$0.00	\$71.66	0.0%	0.0%	0.1%	0.1%
5,500	200		\$110,000.00	\$74,953.95	\$75,628.00	\$200,763.70		\$108,203.49	\$75,628.00	\$76,843.33	\$200,674.82	\$4,000.00	\$0.00	\$86.66	0.0%	0.0%	0.1%	0.1%
6,500	200		\$130,000.00	\$88,196.95	\$88,871.00	\$251,413.95		\$134,689.95	\$88,846.00	\$90,141.66	\$251,677.61	\$4,500.00	\$0.00	\$101.66	0.0%	0.0%	0.1%	0.1%
7,500	200		\$150,000.00	\$101,439.95	\$102,114.00	\$320,429.95		\$155,639.95	\$102,114.00	\$103,333.33	\$320,087.28	\$5,000.00	\$0.00	\$116.66	0.0%	0.0%	0.1%	0.1%
8,500	200		\$170,000.00	\$114,682.95	\$115,357.00	\$400,744.95		\$174,932.95	\$115,357.00	\$116,666.66	\$400,551.61	\$5,500.00	\$0.00	\$131.66	0.0%	0.0%	0.1%	0.1%
9,500	200		\$190,000.00	\$127,925.95	\$128,600.00	\$481,525.95		\$195,177.95	\$128,600.00	\$129,333.33	\$481,111.28	\$6,000.00	\$0.00	\$146.66	0.0%	0.0%	0.1%	0.1%
10,500	200		\$210,000.00	\$141,168.95	\$141,843.00	\$562,811.95		\$214,424.95	\$141,843.00	\$142,666.66	\$562,534.61	\$6,500.00	\$0.00	\$161.66	0.0%	0.0%	0.1%	0.1%
11,500	200		\$230,000.00	\$154,411.95	\$155,086.00	\$645,517.95		\$234,667.95	\$155,086.00	\$156,333.33	\$645,087.28	\$7,000.00	\$0.00	\$176.66	0.0%	0.0%	0.1%	0.1%
12,500	200		\$250,000.00	\$167,654.95	\$168,329.00	\$734,315.95		\$254,919.95	\$168,329.00	\$169,000.00	\$734,248.95	\$7,500.00	\$0.00	\$191.66	0.0%	0.0%	0.1%	0.1%
13,500	200		\$270,000.00	\$180,897.95	\$181,572.00	\$822,570.95		\$275,171.95	\$181,572.00	\$182,333.33	\$822,077.28	\$8,000.00	\$0.00	\$206.66	0.0%	0.0%	0.1%	0.1%
14,500	200		\$290,000.00	\$194,140.95	\$194,815.00	\$917,955.95		\$295,394.95	\$194,815.00	\$195,666.66	\$917,466.61	\$8,500.00	\$0.00	\$221.66	0.0%	0.0%	0.1%	0.1%
15,500	200		\$310,000.00	\$207,383.95	\$208,058.00	\$1,008,441.95		\$315,634.95	\$208,058.00	\$208,666.66	\$1,008,361.28	\$9,000.00	\$0.00	\$236.66	0.0%	0.0%	0.1%	0.1%
16,500	200		\$330,000.00	\$220,626.95	\$221,301.00	\$1,109,927.95		\$335,876.95	\$221,301.00	\$222,000.00	\$1,109,877.95	\$9,500.00	\$0.00	\$251.66	0.0%	0.0%	0.1%	0.1%
17,500	200		\$350,000.00	\$233,869.95	\$234,544.00	\$1,212,413.95		\$356,119.95	\$234,544.00	\$235,333.33	\$1,212,000.28	\$10,000.00	\$0.00	\$266.66	0.0%	0.0%	0.1%	0.1%
18,500	200		\$370,000.00	\$247,112.95	\$247,787.00	\$1,315,900.95		\$376,361.95	\$247,787.00	\$248,666.66	\$1,315,715.61	\$10,500.00	\$0.00	\$281.66	0.0%	0.0%	0.1%	0.1%
19,500	200		\$390,000.00	\$260,355.95	\$261,030.00	\$1,420,385.95		\$396,604.95	\$261,030.00	\$261,666.66	\$1,420,296.61	\$11,000.00	\$0.00	\$296.66	0.0%	0.0%	0.1%	0.1%
20,000	200		\$410,000.00	\$273,598.95	\$274,273.00	\$1,525,878.95		\$416,846.95	\$274,273.00	\$275,000.00	\$1,525,823.95	\$11,500.00	\$0.00	\$311.66	0.0%	0.0%	0.1%	0.1%
200	400		\$6,747.75	\$5,903.20	\$15,650.95	\$12,697.70		\$6,647.75	\$5,903.20	\$15,650.95	\$12,697.70	\$0.00	\$6.66	\$166.66	1.2%	0.0%	0.1%	1.3%
750	400		\$23,950.45	\$22,137.00	\$19,203.31	\$45,290.76		\$24,505.45	\$22,137.00	\$19,455.31	\$46,637.76	\$60.00	\$25.00	\$62.50	1.2%	0.0%	0.1%	1.3%
1,000	400		\$31,893.95	\$29,516.00	\$25,587.75	\$60,997.70		\$32,693.95	\$29,516.00	\$25,922.08	\$62,131.03	\$80.00	\$33.33	\$83.33	1.3%	0.0%	0.1%	1.3%
1,500	400		\$47,780.95	\$44,274.00	\$38,556.25	\$89,591.20		\$48,980.95	\$44,274.00	\$39,000.00	\$89,254.95	\$1,200.00	\$40.00	\$104.00	1.3%	0.0%	0.1%	1.4%
2,500	400		\$79,554.95	\$73,790.00	\$66,389.37	\$159,744.32		\$81,554.95	\$73,790.00	\$67,221.71	\$160,817.66	\$2,000.00	\$50.00	\$150.00	1.3%	0.0%	0.1%	1.4%
3,500	400		\$108,989.95	\$102,773.75	\$91,773.75	\$200,763.70		\$114,989.95	\$102,773.75	\$92,440.00	\$200,203.65	\$3,000.00	\$66.67	\$166.67	1.3%	0.0%	0.1%	1.3%
4,500	400		\$138,424.95	\$127,170.00	\$115,181.12	\$260,776.07		\$147,644.95	\$127,170.00	\$116,408.12	\$263,250.37	\$4,000.00	\$83.33	\$166.67	1.3%	0.0%	0.1%	1.3%
5,500	400		\$167,859.95	\$155,160.00	\$143,171.12	\$316,091.07		\$177,294.95	\$155,160.00	\$144,812.50	\$316,207.45	\$5,000.00	\$100.00	\$166.67	1.3%	0.0%	0.1%	1.3%
6,500	400		\$197,294.95	\$182,600.00	\$170,181.12	\$369,976.07		\$206,739.95	\$182,600.00	\$171,516.66	\$368,854.64	\$6,000.00	\$120.00	\$166.67	1.3%	0.0%	0.1%	1.3%
7,500	400		\$226,739.95	\$210,050.00	\$197,651.12	\$424,440.07		\$236,184.95	\$210,050.00	\$198,441.66	\$424,676.61	\$7,000.00	\$140.00	\$166.67	1.3%	0.0%	0.1%	1.3%
8,500	400		\$256,184.95	\$237,490.00	\$225,251.12	\$481,926.07		\$265,629.95	\$237,490.00	\$225,833.33	\$480,983.00	\$8,000.00	\$160.00	\$166.67	1.3%	0.0%	0.1%	1.3%
9,500	400		\$285,629.95	\$264,930.00	\$252,701.12	\$538,416.07		\$295,074.95	\$264,930.00	\$253,666.66	\$537,671.61	\$9,000.00	\$180.00	\$166.67	1.3%	0.0%	0.1%	1.3%
10,500	400		\$315,074.95	\$292,370.00	\$279,151.12	\$594,906.07		\$324,519.95	\$292,370.00	\$281,000.00	\$593,890.00	\$10,000.00	\$200.00	\$166.67	1.3%	0.0%	0.1%	1.3%
11,500	400		\$344,519.95	\$320,810.00	\$306,591.12	\$651,396.07		\$353,964.95	\$320,810.00	\$308,333.33	\$653,108.28	\$11,000.00	\$220.00	\$166.67	1.3%	0.0%	0.1%	1.3%
12,500	400		\$373,964.95	\$348,250.00	\$333,031.12	\$708,886.07		\$383,409.95	\$348,250.00	\$335,000.00	\$708,659.95	\$12,000.00	\$240.00	\$166.67	1.3%	0.0%	0.1%	1.3%
13,500	400		\$403,409.95	\$375,690.00	\$359,471.12	\$766,376.07		\$412,854.95	\$375,690.00	\$361,666.66	\$766,181.61	\$13,000.00	\$260.00	\$166.67	1.3%	0.0%	0.1%	1.3%
14,500	400		\$432,854.95	\$403,130.00	\$385,211.12	\$823,866.07		\$442,299.95	\$403,130.00	\$387,000.00	\$822,429.95	\$14,000.00	\$280.00	\$166.67	1.3%	0.0%	0.1%	1.3%
15,500	400		\$462,299.95	\$430,570.00	\$412,651.12	\$881,356.07		\$471,744.95	\$430,570.00	\$414,666.66	\$880,981.61	\$15,000.00	\$300.00	\$166.67	1.3%	0.0%	0.1%	1.3%
16,500	400		\$491,744.95	\$458,010.00	\$440,091.12	\$938,846.07		\$501,189.95	\$458,010.00	\$442,333.33	\$938,523.28	\$16,000.00	\$320.00	\$166.67	1.3%	0.0%	0.1%	1.3%
17,500	400		\$521,189.95	\$485,450.00	\$467,531.12	\$996,336.07		\$530,634.95	\$485,450.00	\$469,666.66	\$996,761.61	\$17,000.00	\$340.00	\$166.67	1.3%	0.0%	0.1%	1.3%
18,500	400		\$550,634.95	\$512,890.00	\$494,971.12	\$1,053,826.07		\$560,079.95	\$512,890.00	\$497,000.00	\$1,052,979.95	\$18,000.00	\$360.00	\$166.67	1.3%	0.0%	0.1%	1.3%
19,500	400		\$580,079.95	\$540,330.00	\$522,411.12	\$1,111,316.07		\$589,524.95	\$540,330.00	\$524,333.33	\$1,110,388.28	\$19,000.00	\$380.00	\$166.67	1.3%	0.0%	0.1%	1.3%
20,000	400		\$609,524.95	\$567,770.00	\$550,851.12	\$1,168,806.07		\$618,969.95	\$567,770.00	\$553,000.00	\$1,168,740.95	\$20,000.00	\$400.00	\$166.67	1.3%	0.0%	0.1%	1.3%
200	500		\$7,279.95	\$27,671.25	\$23,154.72	\$57,866.67		\$7,227.95	\$27,671.25	\$23,466.72	\$58,669.92	\$69.97	\$8.34	\$208.34	1.3%	0.0%	0.1%	1.4%
750	500		\$27,699.95	\$37,159.95	\$30,895.00	\$95,754.90		\$28,199.95	\$37,159.95	\$31,279.12	\$96,639.02	\$50.00	\$31.25	\$275.25	1.3%	0.0%	0.1%	1.4%
1,000	500		\$37,159.95	\$50,000.00	\$41,666.67	\$128,825.00		\$37,699.95	\$50,000.00	\$42,000.00	\$129,700.00	\$50.00	\$41.67	\$361.67	1.3%	0.0%	0.1%	1.4%
1,500	500		\$46,619.95	\$62,500.00	\$51,666.67	\$160,785.00		\$47,239.95	\$62,500.00	\$52,166.66	\$162,406.61	\$75.00	\$51.67	\$458.34	1.3%	0.0%	0.1%	1.4%
2,000	500		\$56,079.95	\$75,000.00	\$63,333.33	\$198,412.95		\$56,619.95	\$75,000.00	\$64,000.00	\$199,619.95	\$100.00	\$63.33	\$575.33	1.3%	0.0%	0.1%	1.4%
2,500	500		\$65,539.95	\$87,500.00	\$75,000.00	\$228,039.95		\$66,079.95	\$87,500.00	\$76,166.66	\$228,756.61	\$125.00	\$75.00	\$625.00	1.3%	0.0%	0.1%	1.4%
3,000	500		\$75,000.00	\$100,000.00	\$86,666.67	\$261,666.67		\$75,539.95	\$100,000.00	\$87,000.00	\$262,539.95	\$150.00	\$86.67	\$675.00	1.3%	0.0%	0.1%	1.4%
3,500	500		\$84,460.00	\$112,500.00	\$98,333.33	\$297,250.00												

The Narraonsett Electric Company

Column (s): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Rates Effective November 1, 2020					Proposed Rates effective January 1, 2021					\$ Increase (Decrease)			Increase (Decrease) % of Total Bill			Percentage of Customers	
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (b)-(c) x-25	Discounted Total (e) = (b) + (c) + (d)	GET (f)	Total (g) = (e) + (f)	Delivery Services (h)	Supply Services (i)	Low Income Discount (j) = (i)-(k) x-25	Discounted Total (k) = (h) + (i) + (j)	GET (l)	Total (m) = (k) + (l)	Delivery Services (n) = (h)+(d)	Supply Services (o) = (i) - (j)	Discounted Total (p) = (n) + (o) + (j)	Total (q) = (m) + (p)		
(a)																	(v)	
150	\$25.53	\$15.56	(\$10.27)	\$30.82	\$1.28	\$32.10	\$25.53	\$15.56	(\$10.27)	\$30.82	\$1.28	\$32.10	\$0.00	\$0.00	\$0.00	0.0%	0.0%	32.1%
300	\$42.10	\$31.11	(\$18.30)	\$54.91	\$2.29	\$57.20	\$42.10	\$31.11	(\$18.30)	\$54.91	\$2.29	\$57.20	\$0.00	\$0.00	\$0.00	0.0%	0.0%	15.4%
400	\$53.14	\$41.48	(\$23.66)	\$70.96	\$2.96	\$73.92	\$53.14	\$41.48	(\$23.66)	\$70.96	\$2.96	\$73.92	\$0.00	\$0.00	\$0.00	0.0%	0.0%	12.5%
500	\$64.19	\$51.85	(\$29.01)	\$87.03	\$3.63	\$90.66	\$64.19	\$51.85	(\$29.01)	\$87.03	\$3.63	\$90.66	\$0.00	\$0.00	\$0.00	0.0%	0.0%	9.6%
600	\$75.24	\$62.22	(\$34.37)	\$103.09	\$4.30	\$107.39	\$75.24	\$62.22	(\$34.37)	\$103.09	\$4.30	\$107.39	\$0.00	\$0.00	\$0.00	0.0%	0.0%	7.2%
700	\$86.28	\$72.59	(\$39.72)	\$119.15	\$4.96	\$124.11	\$86.28	\$72.59	(\$39.72)	\$119.15	\$4.96	\$124.11	\$0.00	\$0.00	\$0.00	0.0%	0.0%	16.4%
1,200	\$141.51	\$124.44	(\$66.49)	\$199.46	\$8.31	\$207.77	\$141.51	\$124.44	(\$66.49)	\$199.46	\$8.31	\$207.77	\$0.00	\$0.00	\$0.00	0.0%	0.0%	5.2%
2,000	\$229.88	\$207.40	(\$109.32)	\$327.96	\$13.67	\$341.63	\$229.88	\$207.40	(\$109.32)	\$327.96	\$13.67	\$341.63	\$0.00	\$0.00	\$0.00	0.0%	0.0%	1.6%

Rates Effective November 1, 2020

Proposed Rates effective January 1, 2021

Line Item on Bill		(w)	(x)
(1) Distribution Customer Charge		\$6.00	\$6.00
(2) LIHEAP Enhancement Charge		\$0.80	\$0.80
(3) Renewable Energy Growth Program Charge		\$2.16	\$2.16
(4) Distribution Charge (per kWh)		\$0.04580	\$0.04580
(5) Operating & Maintenance Expense Charge		\$0.00212	\$0.00212
(6) Operating & Maintenance Expense Reconciliation Factor		\$0.00002	\$0.00002
(7) CapEx Factor Charge		\$0.00396	\$0.00396
(8) CapEx Reconciliation Factor		\$0.00090	\$0.00090
(9) Revenue Decoupling Adjustment Factor		\$0.00118	\$0.00118
(10) Pension Adjustment Factor		\$0.00073	\$0.00073
(11) Storm Fund Replenishment Factor		\$0.00288	\$0.00288
(12) Acreage Management Adjustment Factor		\$0.00015	\$0.00015
(13) Performance Incentive Factor		\$0.00005	\$0.00005
(14) Low Income Discount Recovery Factor		\$0.00000	\$0.00000
(15) Long-term Contracting for Renewable Energy Charge		\$0.00931	\$0.00931
(16) Net Metering Charge		\$0.00266	\$0.00266
(17) Base Transmission Charge		\$0.03066	\$0.03066
(18) Transmission Adjustment Factor		(\$0.00189)	(\$0.00189)
(19) Transmission Uncollectible Factor		\$0.00038	\$0.00038
(20) Base Transition Charge		(\$0.00074)	(\$0.00074)
(21) Transition Adjustment		(\$0.00008)	(\$0.00008)
(22) Energy Efficiency Program Charge		\$0.01353	\$0.01353
(23) Standard Offer Service Base Charge		\$0.09568	\$0.09568
(24) SOS Adjustment Factor		(\$0.00294)	(\$0.00294)
(25) SOS Administrative Cost Adjustment Factor		\$0.00230	\$0.00230
(26) Renewable Energy Standard Charge		\$0.00866	\$0.00866
Line Item on Bill			
(27) Customer Charge		\$6.00	\$6.00
(28) LIHEAP Enhancement Charge		\$0.80	\$0.80
(29) RE Growth Program		\$2.16	\$2.16
(30) Transmission Charge		\$0.02945	\$0.02945
(31) Distribution Energy Charge		\$0.05633	\$0.05633
(32) Transition Charge		(\$0.00082)	(\$0.00082)
(33) Energy Efficiency Programs		\$0.01353	\$0.01353
(34) Renewable Energy Distribution Charge		\$0.01197	\$0.01197
(35) Supply Services Energy Charge		\$0.10370	\$0.10370
(36) Discount percentage		25%	25%

Column (w): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (x): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Rates Effective November 1, 2020				Proposed Rates effective January 1, 2021				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill		Percentage of Customers
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (c) - (e) A-30	Total (e) = (b) + (c) + (d)	Delivery Services (b)	Supply Services (i)	Low Income Discount (j) = (i) - (k) A-30	Total (k) = (b) + (i) + (j)	GET (l)	Total (m) = (k) + (l) + (j)	Delivery Services (n) (b)+(d)	Supply Services (o) = (i) - (j) (o) = (i) - (c) (p) = (l) - (d)	GET (p) = (n) + (o) + (p)	Total (q) = (n) + (o) + (p)	
150	\$25.53	\$15.56	(\$12.33)	\$28.76	\$25.53	\$15.56	(\$12.33)	\$28.76	\$1.20	\$29.96	\$0.00	\$0.00	\$0.00	\$0.00	32.1%
300	\$42.10	\$31.11	(\$21.96)	\$51.25	\$42.10	\$31.11	(\$21.96)	\$51.25	\$2.14	\$53.39	\$0.00	\$0.00	\$0.00	\$0.00	15.4%
400	\$53.14	\$41.48	(\$28.39)	\$66.23	\$53.14	\$41.48	(\$28.39)	\$66.23	\$2.76	\$68.99	\$0.00	\$0.00	\$0.00	\$0.00	12.5%
500	\$64.19	\$51.85	(\$34.81)	\$81.23	\$64.19	\$51.85	(\$34.81)	\$81.23	\$3.38	\$84.61	\$0.00	\$0.00	\$0.00	\$0.00	9.6%
600	\$75.24	\$62.22	(\$41.24)	\$96.22	\$75.24	\$62.22	(\$41.24)	\$96.22	\$4.01	\$100.23	\$0.00	\$0.00	\$0.00	\$0.00	7.2%
700	\$86.28	\$72.59	(\$47.66)	\$111.21	\$86.28	\$72.59	(\$47.66)	\$111.21	\$4.63	\$115.84	\$0.00	\$0.00	\$0.00	\$0.00	16.4%
1,200	\$141.51	\$124.44	(\$79.79)	\$186.16	\$141.51	\$124.44	(\$79.79)	\$186.16	\$7.76	\$193.92	\$0.00	\$0.00	\$0.00	\$0.00	5.2%
2,000	\$229.88	\$207.40	(\$131.18)	\$306.10	\$229.88	\$207.40	(\$131.18)	\$306.10	\$12.75	\$318.85	\$0.00	\$0.00	\$0.00	\$0.00	1.6%

Rates Effective November 1, 2020				Proposed Rates effective January 1, 2021			
(w)	(x)	(y)	(z)	(w)	(x)	(y)	(z)
(1) Distribution Customer Charge	\$6.00			(1) Distribution Customer Charge	\$6.00		
(2) LIHEAP Enhancement Charge	\$0.80			(2) LIHEAP Enhancement Charge	\$0.80		
(3) Renewable Energy Growth Program Charge	\$2.16			(3) Renewable Energy Growth Program Charge	\$2.16		
(4) Distribution Charge (per kWh)	\$0.04580			(4) Distribution Charge (per kWh)	\$0.04580		
(5) Operating & Maintenance Expense Charge	\$0.00212			(5) Operating & Maintenance Expense Charge	\$0.00212		
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002			(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002		
(7) CapEx Factor Charge	\$0.00396			(7) CapEx Factor Charge	\$0.00396		
(8) CapEx Reconciliation Factor	\$0.00090			(8) CapEx Reconciliation Factor	\$0.00090		
(9) Revenue Decoupling Adjustment Factor	\$0.00118			(9) Revenue Decoupling Adjustment Factor	\$0.00118		
(10) Pension Adjustment Factor	(\$0.00073)			(10) Pension Adjustment Factor	(\$0.00073)		
(11) Storm Fund Replenishment Factor	\$0.00288			(11) Storm Fund Replenishment Factor	\$0.00288		
(12) Acreage Management Adjustment Factor	\$0.00015			(12) Acreage Management Adjustment Factor	\$0.00015		
(13) Performance Incentive Factor	\$0.00005			(13) Performance Incentive Factor	\$0.00005		
(14) Low Income Discount Recovery Factor	\$0.00000			(14) Low Income Discount Recovery Factor	\$0.00000		
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931			(15) Long-term Contracting for Renewable Energy Charge	\$0.00931		
(16) Net Metering Charge	\$0.00266			(16) Net Metering Charge	\$0.00266		
(17) Base Transmission Charge	\$0.03066			(17) Base Transmission Charge	\$0.03066		
(18) Transmission Adjustment Factor	(\$0.00189)			(18) Transmission Adjustment Factor	(\$0.00189)		
(19) Transmission Uncollectible Factor	\$0.00038			(19) Transmission Uncollectible Factor	\$0.00038		
(20) Base Transition Charge	(\$0.00074)			(20) Base Transition Charge	(\$0.00074)		
(21) Transition Adjustment	(\$0.00008)			(21) Transition Adjustment	(\$0.00008)		
(22) Energy Efficiency Program Charge	\$0.01353			(22) Energy Efficiency Program Charge	\$0.01353		
(23) Standard Offer Service Base Charge	\$0.09568			(23) Standard Offer Service Base Charge	\$0.09568		
(24) SOS Adjustment Factor	(\$0.00294)			(24) SOS Adjustment Factor	(\$0.00294)		
(25) SOS Administrative Cost Adjustment Factor	\$0.00230			(25) SOS Administrative Cost Adjustment Factor	\$0.00230		
(26) Renewable Energy Standard Charge	\$0.00866			(26) Renewable Energy Standard Charge	\$0.00866		

Line Item on Bill				Line Item on Bill			
(w)	(x)	(y)	(z)	(w)	(x)	(y)	(z)
(27) Customer Charge	\$6.00			(27) Customer Charge	\$6.00		
(28) LIHEAP Enhancement Charge	\$0.80			(28) LIHEAP Enhancement Charge	\$0.80		
(29) RE Growth Program	\$2.16			(29) RE Growth Program	\$2.16		
(30) Transmission Charge	\$0.02945			(30) Transmission Charge	\$0.02945		
(31) Distribution Energy Charge	\$0.05633			(31) Distribution Energy Charge	\$0.05633		
(32) Transition Charge	(\$0.00082)			(32) Transition Charge	(\$0.00082)		
(33) Energy Efficiency Programs	\$0.01353			(33) Energy Efficiency Programs	\$0.01353		
(34) Renewable Energy Distribution Charge	\$0.01197			(34) Renewable Energy Distribution Charge	\$0.01197		
(35) Supply Services Energy Charge	\$0.10370			(35) Supply Services Energy Charge	\$0.10370		
(36) Discount percentage	30%			(36) Discount percentage	30%		

Column (w): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (x): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to C-06 Rate Customers

Monthly kWh (a)	Rates Effective November 1, 2020				Proposed Rates effective January 1, 2021				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				Percentage of Customers (n)
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)	Total (m)	
250	\$41.13	\$23.34	\$2.69	\$67.16	\$41.13	\$23.34	\$2.69	\$67.16	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	56.3%
500	\$68.11	\$46.67	\$4.78	\$119.56	\$68.11	\$46.67	\$4.78	\$119.56	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	16.9%
1,000	\$122.06	\$93.34	\$8.98	\$224.38	\$122.06	\$93.34	\$8.98	\$224.38	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	8.1%
1,500	\$176.02	\$140.01	\$13.17	\$329.20	\$176.02	\$140.01	\$13.17	\$329.20	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	5.0%
2,000	\$229.97	\$186.68	\$17.36	\$434.01	\$229.97	\$186.68	\$17.36	\$434.01	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%	13.6%

Rates Effective November 1, 2020

Proposed Rates effective January 1, 2021

Line Item on Bill

(1) Distribution Customer Charge	(o)	(p)	
(2) LIHEAP Enhancement Charge	\$0.00	\$10.00	Customer Charge
(3) Renewable Energy Growth Program Charge	\$0.80	\$0.80	LIHEAP Enhancement Charge
(4) Distribution Charge (per kWh)	\$3.35	\$3.35	RE Growth Program
(5) Operating & Maintenance Expense Charge	\$0.04482	\$0.04482	
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00212	\$0.00212	
(7) CapEx Factor Charge	\$0.00002	\$0.00002	
(8) CapEx Reconciliation Factor	\$0.00339	\$0.00339	
(9) Revenue Decoupling Adjustment Factor	\$0.00085	\$0.00085	
(10) Pension Adjustment Factor	\$0.00118	\$0.00118	
(11) Storm Fund Replenishment Factor	(\$0.00073)	(\$0.00073)	Distribution Energy Charge
(12) Arrangement Management Adjustment Factor	\$0.00288	\$0.00288	
(13) Performance Incentive Factor	\$0.00015	\$0.00015	
(14) Low Income Discount Recovery Factor	\$0.00005	\$0.00005	
(15) Long-term Contracting for Renewable Energy Charge	\$0.00176	\$0.00176	
(16) Net Metering Charge	\$0.00931	\$0.00931	Renewable Energy Distribution Charge
(17) Base Transmission Charge	\$0.00266	\$0.00266	
(18) Transmission Adjustment Factor	\$0.03110	\$0.03110	
(19) Transmission Uncollectible Factor	(\$0.00467)	(\$0.00467)	Transmission Charge
(20) Base Transition Charge	\$0.00031	\$0.00031	
(21) Transition Adjustment	(\$0.00074)	(\$0.00074)	
(22) Energy Efficiency Program Charge	(\$0.00008)	(\$0.00008)	Transition Charge
(23) Standard Offer Service Base Charge	\$0.01353	\$0.01353	Energy Efficiency Programs
(24) SOS Adjustment Factor	\$0.08150	\$0.08150	
(25) SOS Administrative Cost Adjustment Factor	\$0.00094	\$0.00094	
(26) Renewable Energy Standard Charge	\$0.00224	\$0.00224	Supply Services Energy Charge
	\$0.00866	\$0.00866	

Line Item on Bill

(27) Customer Charge	\$10.00	\$10.00
(28) LIHEAP Enhancement Charge	\$0.80	\$0.80
(29) RE Growth Program	\$3.35	\$3.35
(30) Transmission Charge	\$0.02674	\$0.02674
(31) Distribution Energy Charge	\$0.05649	\$0.05649
(32) Transition Charge	(\$0.00082)	(\$0.00082)
(33) Energy Efficiency Programs	\$0.01353	\$0.01353
(34) Renewable Energy Distribution Charge	\$0.01197	\$0.01197
(35) Supply Services Energy Charge	\$0.09334	\$0.09334

Column (o): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006 effective 10/1/2020

Column (p): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006 effective 10/1/2020

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to G&D Rate Customers

Monthly Power Hours Use		Rates Effective November 1, 2020				Proposed Rates effective January 1, 2021				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill			
		Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)	Total (m)
20	200	\$226.47	\$373.36	\$37.49	\$937.32	\$526.47	\$373.36	\$37.49	\$937.32	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
50	200	\$1,166.85	\$933.40	\$87.51	\$2,187.76	\$1,166.85	\$933.40	\$87.51	\$2,187.76	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
100	200	\$2,234.15	\$1,866.80	\$170.87	\$4,271.82	\$2,234.15	\$1,866.80	\$170.87	\$4,271.82	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
150	200	\$3,301.45	\$2,800.20	\$254.24	\$6,355.89	\$3,301.45	\$2,800.20	\$254.24	\$6,355.89	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
20	300	\$617.53	\$560.04	\$49.07	\$1,226.64	\$617.53	\$560.04	\$49.07	\$1,226.64	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
50	300	\$1,394.50	\$1,400.10	\$116.44	\$2,911.04	\$1,394.50	\$1,400.10	\$116.44	\$2,911.04	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
100	300	\$2,689.45	\$2,800.20	\$228.74	\$5,718.39	\$2,689.45	\$2,800.20	\$228.74	\$5,718.39	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
150	300	\$3,984.40	\$4,200.30	\$341.03	\$8,525.73	\$3,984.40	\$4,200.30	\$341.03	\$8,525.73	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
20	400	\$708.59	\$746.72	\$60.64	\$1,515.95	\$708.59	\$746.72	\$60.64	\$1,515.95	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
50	400	\$1,622.15	\$1,866.80	\$145.37	\$3,634.32	\$1,622.15	\$1,866.80	\$145.37	\$3,634.32	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
100	400	\$3,144.75	\$3,733.60	\$286.60	\$7,164.95	\$3,144.75	\$3,733.60	\$286.60	\$7,164.95	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
150	400	\$4,667.35	\$5,600.40	\$427.82	\$10,695.57	\$4,667.35	\$5,600.40	\$427.82	\$10,695.57	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
20	500	\$799.65	\$933.40	\$72.21	\$1,805.26	\$799.65	\$933.40	\$72.21	\$1,805.26	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
50	500	\$1,849.80	\$2,333.50	\$174.30	\$4,357.60	\$1,849.80	\$2,333.50	\$174.30	\$4,357.60	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
100	500	\$3,600.05	\$4,667.00	\$344.46	\$8,611.51	\$3,600.05	\$4,667.00	\$344.46	\$8,611.51	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
150	500	\$5,350.30	\$7,000.50	\$514.62	\$12,865.42	\$5,350.30	\$7,000.50	\$514.62	\$12,865.42	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
20	600	\$890.71	\$1,120.08	\$83.78	\$2,094.57	\$890.71	\$1,120.08	\$83.78	\$2,094.57	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
50	600	\$2,077.45	\$2,800.20	\$203.24	\$5,080.89	\$2,077.45	\$2,800.20	\$203.24	\$5,080.89	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
100	600	\$4,055.35	\$5,600.40	\$402.32	\$10,058.07	\$4,055.35	\$5,600.40	\$402.32	\$10,058.07	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%
150	600	\$6,033.25	\$8,400.60	\$601.41	\$15,035.26	\$6,033.25	\$8,400.60	\$601.41	\$15,035.26	\$0.00	\$0.00	\$0.00	\$0.00	0.0%	0.0%	0.0%	0.0%

Rates Effective November 1, 2020

Proposed Rates effective January 1, 2021

Line Item on Bill

		(o)	(p)
(1) Distribution Customer Charge		\$145.00	\$145.00
(2) LIHEAP Enhancement Charge		\$0.80	\$0.80
(3) Renewable Energy Growth Program Charge		\$32.45	\$32.45
(4) Base Distribution Demand Charge (per kW > 10kW)		\$6.90	\$6.90
(5) Capex Factor Demand Charge (per kW > 10kW)		\$0.97	\$0.97
(6) Distribution Charge (per kW)		\$0.0476	\$0.0476
(7) Operating & Maintenance Expense Charge		\$0.0002	\$0.0002
(8) Operating & Maintenance Expense Reconciliation Factor		\$0.0002	\$0.0002
(9) CapEx Recalculation Factor		\$0.0064	\$0.0064
(10) Revenue Desupplanting Adjustment Factor		\$0.0018	\$0.0018
(11) Pension Adjustment Factor		\$0.0073	\$0.0073
(12) Storm Fund Replenishment Factor		\$0.0288	\$0.0288
(13) Arrangement Management Adjustment Factor		\$0.0015	\$0.0015
(14) Performance Incentive Factor		\$0.0005	\$0.0005
(15) Low Income Discount Recovery Factor		\$0.0016	\$0.0016
(16) Long-term Contracting for Renewable Energy Charge		\$0.00931	\$0.00931
(17) Net Metering Charge		\$0.0266	\$0.0266
(18) Transmission Demand Charge		\$4.37	\$4.37
(19) Base Transmission Charge		\$0.01214	\$0.01214
(20) Transmission Adjustment Factor		\$0.00399	\$0.00399
(21) Transmission Uncollectible Factor		\$0.0030	\$0.0030
(22) Base Transition Charge		\$0.0074	\$0.0074
(23) Transition Adjustment		\$0.0008	\$0.0008
(24) Energy Efficiency Program Charge		\$0.01353	\$0.01353
(25) Standard Offer Service Base Charge		\$0.08150	\$0.08150
(26) SOS Adjustment Factor		\$0.0094	\$0.0094
(27) SOS Administrative Cost Adjustment Factor		\$0.0024	\$0.0024
(28) Renewable Energy Standard Charge		\$0.0866	\$0.0866
Line Item on Bill			
(29) Customer Charge		\$145.00	\$145.00
(30) LIHEAP Enhancement Charge		\$0.80	\$0.80
(31) RE Growth Program		\$32.45	\$32.45
(32) Transmission Adjustment		\$0.00845	\$0.00845
(33) Distribution Energy Charge		\$0.01240	\$0.01240
(34) Distribution Demand Charge		\$7.87	\$7.87
(35) Transmission Demand Charge		\$4.37	\$4.37
(36) Energy Efficiency Programs		\$0.00082	\$0.00082
(37) Renewable Energy Distribution Charge		\$0.01353	\$0.01353
(38) Supply Services Energy Charge		\$0.01197	\$0.01197
(39) Supply Services Energy Charge		\$0.09334	\$0.09334

Column (o): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (p): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Summary of Rates for Residential Customers
Rates Applicable to G-32 Rate Customers

Rates Effective November 1, 2020				Proposed Rates effective January 1, 2021				Revenue Decrease % of Total Bill			
kW	Monthly Power Hours Use	kWh	Delivery Services (b)	Supply Services (c)	GFT (d)	Total (e)	Delivery Services (f)	Supply Services (g)	Total (h)	Delivery Services (i)	Supply Services (j)
200	200	40,000	\$4,172.35	\$2,951.60	\$2,966.83	\$7,420.78	\$4,172.35	\$2,951.60	\$7,420.78	\$0.00	\$0.00
750	200	150,000	\$15,316.45	\$11,068.50	\$1,099.37	\$27,484.32	\$15,316.45	\$11,068.50	\$27,484.32	\$0.00	\$0.00
1,000	200	200,000	\$20,381.95	\$14,758.00	\$1,464.16	\$36,604.11	\$20,381.95	\$14,758.00	\$36,604.11	\$0.00	\$0.00
1,500	200	300,000	\$30,512.95	\$22,137.00	\$2,193.75	\$54,843.70	\$30,512.95	\$22,137.00	\$54,843.70	\$0.00	\$0.00
2,500	200	500,000	\$50,778.95	\$36,805.00	\$3,652.91	\$91,122.86	\$50,778.95	\$36,805.00	\$91,122.86	\$0.00	\$0.00
3,500	200	700,000	\$70,944.95	\$53,016.00	\$5,308.95	\$129,269.90	\$70,944.95	\$53,016.00	\$129,269.90	\$0.00	\$0.00
7,500	200	1,800,000	\$152,084.95	\$110,685.00	\$10,948.75	\$273,718.70	\$152,084.95	\$110,685.00	\$273,718.70	\$0.00	\$0.00
10,000	200	2,000,000	\$202,739.95	\$147,580.00	\$14,596.67	\$364,916.62	\$202,739.95	\$147,580.00	\$364,916.62	\$0.00	\$0.00
20,000	200	4,000,000	\$405,359.95	\$295,160.00	\$29,188.33	\$729,708.28	\$405,359.95	\$295,160.00	\$729,708.28	\$0.00	\$0.00
200	300	60,000	\$5,127.55	\$4,427.40	\$3,981.22	\$9,953.07	\$5,127.55	\$4,427.40	\$9,953.07	\$0.00	\$0.00
750	300	225,000	\$18,898.45	\$16,602.75	\$1,479.22	\$36,980.42	\$18,898.45	\$16,602.75	\$36,980.42	\$0.00	\$0.00
1,000	300	300,000	\$25,157.95	\$22,137.00	\$1,970.62	\$49,265.57	\$25,157.95	\$22,137.00	\$49,265.57	\$0.00	\$0.00
1,500	300	450,000	\$37,676.95	\$33,205.50	\$2,953.44	\$73,835.89	\$37,676.95	\$33,205.50	\$73,835.89	\$0.00	\$0.00
2,500	300	750,000	\$62,714.95	\$55,342.50	\$4,919.06	\$122,976.51	\$62,714.95	\$55,342.50	\$122,976.51	\$0.00	\$0.00
3,500	300	1,000,000	\$82,309.95	\$73,790.00	\$6,185.21	\$162,285.16	\$82,309.95	\$73,790.00	\$162,285.16	\$0.00	\$0.00
5,000	300	1,500,000	\$125,309.95	\$110,685.00	\$9,833.12	\$245,828.07	\$125,309.95	\$110,685.00	\$245,828.07	\$0.00	\$0.00
7,500	300	2,000,000	\$169,189.95	\$147,580.00	\$14,596.67	\$331,366.62	\$169,189.95	\$147,580.00	\$331,366.62	\$0.00	\$0.00
10,000	300	3,000,000	\$225,728.95	\$221,370.00	\$18,545.62	\$466,644.57	\$225,728.95	\$221,370.00	\$466,644.57	\$0.00	\$0.00
20,000	300	6,000,000	\$451,019.95	\$442,740.00	\$37,092.95	\$930,862.90	\$451,019.95	\$442,740.00	\$930,862.90	\$0.00	\$0.00
200	500	100,000	\$7,037.95	\$7,379.00	\$6,003.71	\$15,017.66	\$7,037.95	\$7,379.00	\$15,017.66	\$0.00	\$0.00
750	500	375,000	\$26,062.45	\$27,671.25	\$2,238.90	\$55,972.60	\$26,062.45	\$27,671.25	\$55,972.60	\$0.00	\$0.00
1,000	500	500,000	\$34,709.95	\$36,895.00	\$2,983.54	\$74,588.49	\$34,709.95	\$36,895.00	\$74,588.49	\$0.00	\$0.00
1,500	500	750,000	\$52,004.95	\$55,342.50	\$4,472.81	\$111,820.26	\$52,004.95	\$55,342.50	\$111,820.26	\$0.00	\$0.00
2,500	500	1,250,000	\$86,594.95	\$92,237.50	\$7,451.35	\$186,283.80	\$86,594.95	\$92,237.50	\$186,283.80	\$0.00	\$0.00
5,000	500	2,500,000	\$173,069.95	\$184,475.00	\$14,897.71	\$372,442.66	\$173,069.95	\$184,475.00	\$372,442.66	\$0.00	\$0.00
7,500	500	3,750,000	\$259,544.95	\$276,712.50	\$22,344.06	\$536,601.51	\$259,544.95	\$276,712.50	\$536,601.51	\$0.00	\$0.00
10,000	500	5,000,000	\$346,019.95	\$368,900.00	\$29,790.42	\$714,960.37	\$346,019.95	\$368,900.00	\$714,960.37	\$0.00	\$0.00
20,000	500	10,000,000	\$692,039.95	\$738,800.00	\$59,580.84	\$1,430,840.79	\$692,039.95	\$738,800.00	\$1,430,840.79	\$0.00	\$0.00
200	600	120,000	\$7,991.15	\$8,854.80	\$7,020.00	\$17,549.95	\$7,991.15	\$8,854.80	\$17,549.95	\$0.00	\$0.00
750	600	450,000	\$29,644.45	\$33,205.50	\$2,618.75	\$65,468.70	\$29,644.45	\$33,205.50	\$65,468.70	\$0.00	\$0.00
1,000	600	600,000	\$39,485.95	\$44,274.00	\$3,490.00	\$87,249.95	\$39,485.95	\$44,274.00	\$87,249.95	\$0.00	\$0.00
1,500	600	900,000	\$59,168.95	\$66,411.00	\$5,232.50	\$130,812.45	\$59,168.95	\$66,411.00	\$130,812.45	\$0.00	\$0.00
2,500	600	1,500,000	\$98,534.95	\$110,685.00	\$8,717.50	\$217,937.45	\$98,534.95	\$110,685.00	\$217,937.45	\$0.00	\$0.00
5,000	600	3,000,000	\$196,949.95	\$221,370.00	\$17,430.00	\$435,749.95	\$196,949.95	\$221,370.00	\$435,749.95	\$0.00	\$0.00
7,500	600	4,500,000	\$295,364.95	\$332,055.00	\$26,142.50	\$653,562.45	\$295,364.95	\$332,055.00	\$653,562.45	\$0.00	\$0.00
10,000	600	6,000,000	\$393,779.95	\$442,740.00	\$34,855.00	\$871,374.95	\$393,779.95	\$442,740.00	\$871,374.95	\$0.00	\$0.00
20,000	600	12,000,000	\$787,439.95	\$885,480.00	\$69,705.00	\$1,742,624.95	\$787,439.95	\$885,480.00	\$1,742,624.95	\$0.00	\$0.00

Line Item on Bill
Proposed Rates effective January 1, 2021

Rates Effective November 1, 2020				Proposed Rates effective January 1, 2021			
(1) Distribution Customer Charge	\$1,100.00			\$1,100.00			
(2) LHAEP Enhancement Charge	\$0.80			\$0.80			
(3) Renewable Energy Growth Program Charge	\$267.15			\$267.15			
(4) Base Distribution Demand Charge (per kW > 20kW)	\$53.00			\$53.00			
(5) Grid Extension Demand Charge (per kW > 20kW)	\$0.0430			\$0.0430			
(6) Customer Energy Efficiency Programs	\$0.0086			\$0.0086			
(7) Operating & Maintenance Expense Charge	\$0.0002			\$0.0002			
(8) Complex Reconciliation Factor	\$0.0003			\$0.0003			
(9) Energy Efficiency Programs	\$0.0003			\$0.0003			
(10) Pension Adjustment Factor	\$0.0007			\$0.0007			
(11) Storm Fund Replenishment Factor	\$0.0028			\$0.0028			
(12) Average Management Adjustment Factor	\$0.0015			\$0.0015			
(13) Performance Incentive Factor	\$0.0015			\$0.0015			
(14) Energy Efficiency Programs	\$0.0015			\$0.0015			
(15) Energy Efficiency Programs	\$0.0015			\$0.0015			
(16) Long-term Contracting for Renewable Energy Charge	\$0.0071			\$0.0071			
(17) Net Metering Charge	\$0.0091			\$0.0091			
(18) Transmission Demand Charge	\$0.0026			\$0.0026			
(19) Transmission Demand Charge	\$4.17			\$4.17			
(20) Transmission Demand Charge	\$0.0070			\$0.0070			
(21) Transmission Uncollectible Factor	\$0.0034			\$0.0034			
(22) Base Transition Charge	\$0.0007			\$0.0007			
(23) Transmission Adjustment	\$0.0003			\$0.0003			
(24) Transmission Adjustment	\$0.0003			\$0.0003			
(25) Standard Offer Service Base Charge	\$0.0594			\$0.0594			
(26) SWS Adjustment Factor	\$0.0038			\$0.0038			
(27) SWS Administrative Cost Adjustment Factor	\$0.0018			\$0.0018			
(28) Renewable Energy Standard Charge	\$0.0086			\$0.0086			
Line Item on Bill							
(29) Customer Charge	\$1,100.00			\$1,100.00			
(30) LHAEP Enhancement Charge	\$0.80			\$0.80			
(31) Renewable Energy Growth Program Charge	\$267.15			\$267.15			
(32) Transmission Adjustment	\$0.0028			\$0.0028			
(33) Distribution Energy Charge	\$0.0128			\$0.0128			
(34) Distribution Demand Charge	\$0.0180			\$0.0180			
(35) Energy Efficiency Programs	\$0.0082			\$0.0082			
(36) Renewable Energy Distribution Charge	\$0.0197			\$0.0197			
(37) Supply Services Energy Charge	\$0.0179			\$0.0179			

Column (a) - per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (b) - per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-16 Rate Customers

Monthly kWh (a)	Proposed Rates effective January 1, 2021				Proposed Rates effective January 1, 2022				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				Percentage of Customers (r)
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e) = (a) + (b) + (c)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i) = (f) + (g) + (h)	Delivery Services (j) = (f) - (b)	Supply Services (k) = (g) - (c)	GET (l) = (h) - (d)	Total (m) = (j) + (k) + (l)	Delivery Services (n) = (j) / (e)	Supply Services (o) = (g) / (e)	GET (p) = (h) / (e)	Total (q) = (m) / (e)	
150	\$25.79	\$15.56	\$1.72	\$43.07	\$26.69	\$15.56	\$1.76	\$44.01	\$0.90	\$0.00	\$0.04	\$0.94	2.1%	0.0%	0.1%	2.2%	30.1%
300	\$42.63	\$31.11	\$3.07	\$76.81	\$44.42	\$31.11	\$3.15	\$78.68	\$1.79	\$0.00	\$0.08	\$1.87	2.3%	0.0%	0.1%	2.4%	12.9%
400	\$53.85	\$41.48	\$3.97	\$99.30	\$56.24	\$41.48	\$4.07	\$101.79	\$2.39	\$0.00	\$0.10	\$2.49	2.4%	0.0%	0.1%	2.5%	11.6%
500	\$65.07	\$51.85	\$4.87	\$121.79	\$68.07	\$51.85	\$5.00	\$124.92	\$3.00	\$0.00	\$0.13	\$3.13	2.5%	0.0%	0.1%	2.6%	9.6%
600	\$76.29	\$62.22	\$5.77	\$144.28	\$79.89	\$62.22	\$5.92	\$148.03	\$3.60	\$0.00	\$0.15	\$3.75	2.5%	0.0%	0.1%	2.6%	7.7%
700	\$87.51	\$72.59	\$6.67	\$166.77	\$91.71	\$72.59	\$6.85	\$171.15	\$4.20	\$0.00	\$0.18	\$4.38	2.5%	0.0%	0.1%	2.6%	19.0%
1,200	\$143.62	\$124.44	\$11.17	\$279.23	\$150.81	\$124.44	\$11.47	\$286.72	\$7.19	\$0.00	\$0.30	\$7.49	2.6%	0.0%	0.1%	2.7%	6.8%
2,000	\$233.40	\$207.40	\$18.37	\$459.17	\$245.38	\$207.40	\$18.87	\$471.65	\$11.98	\$0.00	\$0.50	\$12.48	2.6%	0.0%	0.1%	2.7%	2.3%
Line Item on Bill																	
Proposed Rates effective January 1, 2021																	
(s)																	
(t)																	
Line Item on Bill																	
Customer Charge																	
LIHEAP Enhancement Charge																	
RE Growth Program																	
Distribution Energy Charge																	
Renewable Energy Distribution Charge																	
Transmission Charge																	
Transition Charge																	
Energy Efficiency Programs																	
Supply Services Energy Charge																	
Customer Charge																	
LIHEAP Enhancement Charge																	
RE Growth Program																	
Distribution Energy Charge																	
Transition Charge																	
Energy Efficiency Programs																	
Renewable Energy Distribution Charge																	
Supply Services Energy Charge																	

Column (s): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (t): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022 (Bates page 150) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Proposed Rates effective January 1, 2021						Proposed Rates effective January 1, 2022						\$ Increase (Decrease)			Increase (Decrease) % of Total Bill		Percentage of Customers	
	Delivery Services (b)	Supply Services (c)	Discount (d) = (b) x .25	Total Discounted (e) = (b) + (c) + (d)	GET (f)	Total (g) = (e) + (f)	Delivery Services (i)	Supply Services (j)	Discount (k) = (j) x .25	Total Discounted (l) = (h) + (i) + (k)	GET (m)	Total (n) = (k) + (l)	Delivery Services (n) = (h) + (i) + (k) + (m)	Supply Services (o) = (j) + (k) + (m)	GET (p) = (l) + (o)	Total (q) = (n) + (o) + (p)			
150	\$25.53	\$15.56	(\$10.27)	\$30.82	\$1.28	\$32.10	\$26.43	\$15.56	(\$10.50)	\$31.49	\$1.31	\$32.80	\$0.67	\$0.00	\$0.70	2.1%	0.0%	2.2%	32.1%
300	\$42.10	\$31.11	(\$18.30)	\$54.91	\$2.29	\$57.20	\$43.90	\$31.11	(\$18.75)	\$56.26	\$2.34	\$58.60	\$1.35	\$0.00	\$1.40	2.4%	0.0%	2.4%	15.4%
400	\$53.14	\$41.48	(\$23.66)	\$70.96	\$2.96	\$73.92	\$55.54	\$41.48	(\$24.26)	\$72.76	\$3.03	\$75.79	\$1.80	\$0.00	\$1.87	2.4%	0.0%	2.5%	12.5%
500	\$64.19	\$51.85	(\$29.01)	\$87.03	\$3.63	\$90.66	\$67.19	\$51.85	(\$29.76)	\$89.28	\$3.72	\$93.00	\$2.25	\$0.00	\$2.34	2.5%	0.0%	2.6%	9.6%
600	\$75.24	\$62.22	(\$34.37)	\$103.09	\$4.30	\$107.39	\$78.83	\$62.22	(\$35.26)	\$105.79	\$4.41	\$110.20	\$2.70	\$0.00	\$2.81	2.5%	0.0%	2.6%	7.2%
700	\$86.28	\$72.59	(\$39.72)	\$119.15	\$4.96	\$124.11	\$90.48	\$72.59	(\$40.77)	\$122.30	\$5.10	\$127.40	\$3.15	\$0.00	\$3.29	2.5%	0.0%	2.7%	16.4%
1,200	\$141.51	\$124.44	(\$66.49)	\$199.46	\$8.31	\$207.77	\$148.70	\$124.44	(\$68.29)	\$204.85	\$8.54	\$213.39	\$5.39	\$0.00	\$5.62	2.6%	0.0%	2.7%	5.2%
2,000	\$229.88	\$207.40	(\$109.32)	\$327.96	\$13.67	\$341.63	\$241.86	\$207.40	(\$112.32)	\$336.94	\$14.04	\$350.98	\$8.98	\$0.00	\$9.35	2.6%	0.0%	2.7%	1.6%

Proposed Rates effective January 1, 2021

- (1) Distribution Customer Charge
- (2) LIHEAP Enhancement Charge
- (3) Renewable Energy Growth Program Charge
- (4) Distribution Charge (per kWh)
- (5) Operating & Maintenance Expense Charge
- (6) Operating & Maintenance Expense Reconciliation Factor
- (7) CapEx Factor Charge
- (8) CapEx Reconciliation Factor
- (9) Revenue Decoupling Adjustment Factor
- (10) Pension Adjustment Factor
- (11) Storm Fund Replenishment Factor
- (12) Acreage Management Adjustment Factor
- (13) Performance Incentive Factor
- (14) Low Income Discount Recovery Factor
- (15) Long-term Contracting for Renewable Energy Charge
- (16) Net Metering Charge
- (17) Base Transmission Charge
- (18) Transmission Adjustment Factor
- (19) Transmission Uncollectible Factor
- (20) Base Transition Charge
- (21) Transition Adjustment
- (22) Energy Efficiency Program Charge
- (23) Standard Offer Service Base Charge
- (24) SOS Adjustment Factor
- (25) SOS Administrative Cost Adjustment Factor
- (26) Renewable Energy Standard Charge

(1)	\$6.00
(2)	\$0.80
(3)	\$2.16
(4)	\$0.04580
(5)	\$0.00212
(6)	\$0.00002
(7)	\$0.00396
(8)	\$0.00090
(9)	\$0.00118
(10)	\$0.00073
(11)	\$0.00288
(12)	\$0.00015
(13)	\$0.00005
(14)	\$0.00000
(15)	\$0.00931
(16)	\$0.00266
(17)	\$0.03096
(18)	\$0.00189
(19)	\$0.00338
(20)	\$0.00074
(21)	\$0.00008
(22)	\$0.01353
(23)	\$0.09568
(24)	\$0.00294
(25)	\$0.00230
(26)	\$0.00866

- (27) Live Run on Bill
- (28) Customer Charge
- (29) LIHEAP Enhancement Charge
- (30) RE Growth Program
- (31) Transmission Charge
- (32) Distribution Energy Charge
- (33) Energy Efficiency Programs
- (34) Renewable Energy Distribution Charge
- (35) Supply Services Energy Charge
- (36) Discount percentage

(27)	\$6.00
(28)	\$0.80
(29)	\$2.16
(30)	\$0.02945
(31)	\$0.05633
(32)	\$0.00082
(33)	\$0.01353
(34)	\$0.01197
(35)	\$0.10370
(36)	25%

Proposed Rates effective January 1, 2022

- (3) Customer Charge
- (29) LIHEAP Enhancement Charge
- (30) RE Growth Program
- (31) Distribution Energy Charge
- (32) Transition Charge
- (33) Energy Efficiency Programs
- (34) Supply Services Energy Charge

(3)	\$6.00
(29)	\$0.80
(30)	\$2.16
(31)	\$0.04580
(32)	\$0.00212
(33)	\$0.00002
(34)	\$0.00396
(35)	\$0.00090
(36)	\$0.00118
(37)	\$0.00073
(38)	\$0.00288
(39)	\$0.00015
(40)	\$0.00005
(41)	\$0.00000
(42)	\$0.00931
(43)	\$0.00266
(44)	\$0.03096
(45)	\$0.00189
(46)	\$0.00338
(47)	\$0.00074
(48)	\$0.00008
(49)	\$0.01952
(50)	\$0.09568
(51)	\$0.00294
(52)	\$0.00230
(53)	\$0.00866

Column (w): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020
Column (x): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022
(Bates page 150) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Proposed Rates effective January 1, 2021					Proposed Rates effective January 1, 2022					\$ Increase (Decrease)					Increase (Decrease) % of Total Bill		Percentage of Customers			
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (b)+(c) x .30	Discounted Total (e) = (b) + (c) + (d)	GET (f)	Total (g) = (e) + (f)	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (b)+(c) x .30	Discounted Total (e) = (b) + (c) + (d)	GET (f)	Total (m) = (k) + (l)	Delivery Services (n) = (b)+(d)+(f) - (b)+(d)	Supply Services (o) = (c) - (d)	GET (p) = (l) - (f)	Total (q) = (m) + (o) + (p)					
150	\$25.53	\$15.56	(\$12.33)	\$28.76	\$1.20	\$29.96	\$26.43	\$15.56	(\$12.60)	\$29.39	\$1.22	\$30.61	\$0.63	\$0.00	\$0.02	\$0.65	2.1%	0.0%	0.1%	2.2%	32.1%
300	\$42.10	\$31.11	(\$21.96)	\$51.25	\$2.14	\$53.39	\$43.90	\$31.11	(\$22.50)	\$52.51	\$2.19	\$54.70	\$1.26	\$0.00	\$0.05	\$1.31	2.4%	0.0%	0.1%	2.5%	15.4%
400	\$53.14	\$41.48	(\$28.39)	\$66.23	\$2.76	\$68.99	\$55.54	\$41.48	(\$29.11)	\$67.91	\$2.83	\$70.74	\$1.68	\$0.00	\$0.07	\$1.75	2.4%	0.0%	0.1%	2.5%	12.5%
500	\$64.19	\$51.85	(\$34.81)	\$81.23	\$3.38	\$84.61	\$67.19	\$51.85	(\$35.71)	\$83.33	\$3.47	\$86.80	\$2.10	\$0.00	\$0.09	\$2.19	2.5%	0.0%	0.1%	2.6%	9.6%
600	\$75.24	\$62.22	(\$41.24)	\$96.22	\$4.01	\$100.23	\$78.83	\$62.22	(\$42.32)	\$98.73	\$4.11	\$102.84	\$2.51	\$0.00	\$0.10	\$2.61	2.5%	0.0%	0.1%	2.6%	7.2%
700	\$86.28	\$72.59	(\$47.66)	\$111.21	\$4.63	\$115.84	\$90.48	\$72.59	(\$48.92)	\$114.15	\$4.76	\$118.91	\$2.94	\$0.00	\$0.13	\$3.07	2.5%	0.0%	0.1%	2.7%	16.4%
1,200	\$141.51	\$124.44	(\$79.79)	\$186.16	\$7.76	\$193.92	\$148.70	\$124.44	(\$81.94)	\$191.20	\$7.97	\$199.17	\$5.04	\$0.00	\$0.21	\$5.25	2.6%	0.0%	0.1%	2.7%	5.2%
2,000	\$229.88	\$207.40	(\$131.18)	\$306.10	\$12.75	\$318.85	\$241.86	\$207.40	(\$134.78)	\$314.48	\$13.10	\$327.58	\$8.38	\$0.00	\$0.35	\$8.73	2.6%	0.0%	0.1%	2.7%	1.6%
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Column (w): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006, effective 10/1/2020
Column (x): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022
(Bates page 150) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to C-06 Rate Customers

Monthly kWh (a)	Proposed Rates effective January 1, 2021				Proposed Rates effective January 1, 2022				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				Percentage of Customers (n)
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)	Total (m)	
250	\$41.13	\$23.34	\$2.69	\$67.16	\$42.63	\$23.34	\$2.75	\$68.72	\$1.50	\$0.00	\$0.06	\$1.56	2.2%	0.0%	0.1%	2.3%	56.3%
500	\$68.11	\$46.67	\$4.78	\$119.56	\$71.10	\$46.67	\$4.91	\$122.68	\$2.99	\$0.00	\$0.13	\$3.12	2.5%	0.0%	0.1%	2.6%	16.9%
1,000	\$122.06	\$93.34	\$8.98	\$224.38	\$128.05	\$93.34	\$9.22	\$230.61	\$5.99	\$0.00	\$0.24	\$6.23	2.7%	0.0%	0.1%	2.8%	8.1%
1,500	\$176.02	\$140.01	\$13.17	\$329.20	\$185.00	\$140.01	\$13.54	\$338.55	\$8.98	\$0.00	\$0.37	\$9.35	2.7%	0.0%	0.1%	2.8%	5.0%
2,000	\$229.97	\$186.68	\$17.36	\$434.01	\$241.95	\$186.68	\$17.86	\$446.49	\$11.98	\$0.00	\$0.50	\$12.48	2.8%	0.0%	0.1%	2.9%	13.6%

Line Item on Bill	Proposed Rates effective January 1, 2021				Proposed Rates effective January 1, 2022				Line Item on Bill			
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)				
(1) Distribution Customer Charge									Customer Charge			
(2) LIHEAP Enhancement Charge				\$10.00				\$10.00	LIHEAP Enhancement Charge			
(3) Renewable Energy Growth Program Charge				\$3.35				\$3.35	RE Growth Program			
(4) Distribution Charge (per kWh)				\$0.04482				\$0.04482				
(5) Operating & Maintenance Expense Charge				\$0.00212				\$0.00212				
(6) Operating & Maintenance Expense Reconciliation Factor				\$0.00002				\$0.00002				
(7) CapEx Factor Charge				\$0.00339				\$0.00339				
(8) CapEx Reconciliation Factor				\$0.00085				\$0.00085				
(9) Revenue Decoupling Adjustment Factor				\$0.00118				\$0.00118				
(10) Pension Adjustment Factor				(\$0.00073)				(\$0.00073)				
(11) Storm Fund Replenishment Factor				\$0.00288				\$0.00288				
(12) Arrangement Management Adjustment Factor				\$0.00015				\$0.00015				
(13) Performance Incentive Factor				\$0.00005				\$0.00005				
(14) Low Income Discount Recovery Factor				\$0.00176				\$0.00176				
(15) Long-term Contracting for Renewable Energy Charge				\$0.00931				\$0.00931				
(16) Net Metering Charge				\$0.00266				\$0.00266	Renewable Energy Distribution Charge			
(17) Base Transmission Charge				\$0.03110				\$0.03110				
(18) Transmission Adjustment Factor				(\$0.00467)				(\$0.00467)	Transmission Charge			
(19) Transmission Uncollectible Factor				\$0.00031				\$0.00031				
(20) Base Transition Charge				(\$0.00074)				(\$0.00074)	Transition Charge			
(21) Transition Adjustment				(\$0.00088)				(\$0.00088)				
(22) Energy Efficiency Program Charge				\$0.01353				\$0.01353	Energy Efficiency Programs			
(23) Standard Offer Service Base Charge				\$0.08150				\$0.08150				
(24) SOS Adjustment Factor				\$0.00094				\$0.00094				
(25) SOS Administrative Cost Adjustment Factor				\$0.00224				\$0.00224	Supply Services Energy Charge			
(26) Renewable Energy Standard Charge				\$0.00866				\$0.00866				
Line Item on Bill												
(27) Customer Charge				\$10.00				\$10.00				
(28) LIHEAP Enhancement Charge				\$0.80				\$0.80				
(29) RE Growth Program				\$3.35				\$3.35				
(30) Transmission Charge				\$0.02674				\$0.02674				
(31) Distribution Energy Charge				\$0.05649				\$0.05649				
(32) Transition Charge				(\$0.00082)				(\$0.00082)				
(33) Energy Efficiency Programs				\$0.01353				\$0.01353				
(34) Renewable Energy Distribution Charge				\$0.01197				\$0.01197				
(35) Supply Services Energy Charge				\$0.09334				\$0.09334				

Column (a): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006, effective 10/1/2020
Column (b): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006, effective 10/1/2020, Line (22)
Per Docket 5076, Schedule A, Line (17), Year 2022 (Bates page 150) + \$0.00030 for renewables charge

Line Item on Bill	
(29) Customer Charge	\$145.00
(31) LIHEAP Enhancement Charge	\$0.80
(30) RE Growth Program	\$32.45
(32) Transmission Adjustment	\$0.00845
(33) Distribution Energy Charge	\$0.01240
(34) Distribution Demand Charge	\$7.87
(35) Transmission Demand Charge	\$4.37
(34) Transition Charge	(\$0.00082)
(35) Energy Efficiency Programs	\$0.01353
(36) Renewable Energy Distribution Charge	\$0.01197
(37) Supply Services Energy Charge	\$0.09334

Column (c): per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020. Column (d): All lines except Line (c-4) for Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (24) Per Docket 9076, Schedule A, Line 177, 2017, 2018, 2019, 2020, 2021, 2022 (Rates page 150) and 50.000030 for Renewable charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Summary of Rates for Residential Customers
Rates Applicable to G-32 Rate Customers

Proposed Rates effective January 1, 2021				Proposed Rates effective January 1, 2022				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill			
KW	Monthly Power Hours Use (a)	Delivery Services (b)	Total (c)	Delivery Services (b)	Supply Services (d)	GET (e)	Total (f)	Delivery Services (b)	Supply Services (d)	GET (e)	Total (f)	Delivery Services (b)	Supply Services (d)	GET (e)	Total (f)
200	200	40,000	\$4,172.35	\$2,951.60	\$296.83	\$7,420.78	\$4,411.95	\$2,951.60	\$296.83	\$777.44	\$5,936.83	\$239.60	\$0.00	\$99.88	\$249.58
750	200	150,000	\$15,316.45	\$11,068.50	\$1,099.37	\$27,484.32	\$16,214.95	\$11,068.50	\$1,136.81	\$284,202.26	\$889.50	\$0.00	\$0.00	\$37.44	\$935.94
1,000	200	200,000	\$20,381.95	\$14,758.00	\$1,464.16	\$36,604.11	\$21,579.95	\$14,758.00	\$1,514.08	\$375,873.03	\$1,198.00	\$0.00	\$0.00	\$49.92	\$1,247.92
1,500	200	300,000	\$30,421.95	\$22,137.00	\$2,193.75	\$54,843.70	\$32,309.95	\$22,137.00	\$2,288.62	\$574,871.87	\$2,799.00	\$0.00	\$0.00	\$74.87	\$2,873.87
2,000	200	400,000	\$40,461.95	\$29,586.00	\$2,952.91	\$73,000.86	\$42,541.95	\$29,586.00	\$3,077.71	\$804,446.66	\$3,699.00	\$0.00	\$0.00	\$109.80	\$3,808.80
2,500	200	500,000	\$50,501.95	\$37,036.00	\$3,652.91	\$91,322.86	\$52,586.95	\$37,036.00	\$3,868.85	\$1,004,446.66	\$4,599.00	\$0.00	\$0.00	\$139.80	\$4,738.80
3,000	200	600,000	\$60,541.95	\$44,486.00	\$4,453.91	\$109,481.86	\$62,586.95	\$44,486.00	\$4,618.81	\$1,114,446.66	\$5,499.00	\$0.00	\$0.00	\$169.80	\$5,668.80
3,500	200	700,000	\$70,581.95	\$51,936.00	\$5,180.91	\$127,721.86	\$72,586.95	\$51,936.00	\$5,298.81	\$1,224,446.66	\$6,399.00	\$0.00	\$0.00	\$199.80	\$6,598.80
4,000	200	800,000	\$80,621.95	\$59,386.00	\$5,915.91	\$145,961.86	\$82,586.95	\$59,386.00	\$6,018.81	\$1,334,446.66	\$7,299.00	\$0.00	\$0.00	\$229.80	\$7,528.80
4,500	200	900,000	\$90,661.95	\$66,836.00	\$6,645.91	\$164,201.86	\$92,586.95	\$66,836.00	\$6,138.81	\$1,444,446.66	\$8,199.00	\$0.00	\$0.00	\$259.80	\$8,458.80
5,000	200	1,000,000	\$100,701.95	\$74,286.00	\$7,370.91	\$182,441.86	\$102,586.95	\$74,286.00	\$7,258.81	\$1,554,446.66	\$9,099.00	\$0.00	\$0.00	\$289.80	\$9,388.80
5,500	200	1,100,000	\$110,741.95	\$81,736.00	\$8,100.91	\$200,681.86	\$112,586.95	\$81,736.00	\$8,178.81	\$1,664,446.66	\$9,999.00	\$0.00	\$0.00	\$319.80	\$10,318.80
6,000	200	1,200,000	\$120,781.95	\$89,186.00	\$8,830.91	\$218,921.86	\$122,586.95	\$89,186.00	\$8,258.81	\$1,774,446.66	\$10,899.00	\$0.00	\$0.00	\$349.80	\$11,248.80
6,500	200	1,300,000	\$130,821.95	\$96,636.00	\$9,560.91	\$237,161.86	\$134,586.95	\$96,636.00	\$8,338.81	\$1,884,446.66	\$11,799.00	\$0.00	\$0.00	\$379.80	\$12,178.80
7,000	200	1,400,000	\$140,861.95	\$104,086.00	\$10,290.91	\$255,401.86	\$146,586.95	\$104,086.00	\$8,418.81	\$1,994,446.66	\$12,699.00	\$0.00	\$0.00	\$409.80	\$13,108.80
7,500	200	1,500,000	\$150,901.95	\$111,536.00	\$11,020.91	\$273,641.86	\$158,586.95	\$111,536.00	\$8,498.81	\$2,104,446.66	\$13,599.00	\$0.00	\$0.00	\$439.80	\$14,038.80
8,000	200	1,600,000	\$160,941.95	\$118,986.00	\$11,750.91	\$291,881.86	\$166,586.95	\$118,986.00	\$8,578.81	\$2,214,446.66	\$14,499.00	\$0.00	\$0.00	\$469.80	\$14,968.80
8,500	200	1,700,000	\$170,981.95	\$126,436.00	\$12,480.91	\$310,121.86	\$174,586.95	\$126,436.00	\$8,658.81	\$2,324,446.66	\$15,399.00	\$0.00	\$0.00	\$499.80	\$15,898.80
9,000	200	1,800,000	\$181,021.95	\$133,886.00	\$13,210.91	\$328,361.86	\$182,586.95	\$133,886.00	\$8,738.81	\$2,434,446.66	\$16,299.00	\$0.00	\$0.00	\$529.80	\$16,828.80
9,500	200	1,900,000	\$191,061.95	\$141,336.00	\$13,940.91	\$346,601.86	\$190,586.95	\$141,336.00	\$8,818.81	\$2,544,446.66	\$17,199.00	\$0.00	\$0.00	\$559.80	\$17,758.80
10,000	200	2,000,000	\$201,101.95	\$148,786.00	\$14,670.91	\$364,841.86	\$202,586.95	\$148,786.00	\$8,898.81	\$2,654,446.66	\$18,099.00	\$0.00	\$0.00	\$589.80	\$18,688.80
10,500	200	2,100,000	\$211,141.95	\$156,236.00	\$15,400.91	\$383,081.86	\$214,586.95	\$156,236.00	\$8,978.81	\$2,764,446.66	\$18,999.00	\$0.00	\$0.00	\$619.80	\$19,618.80
11,000	200	2,200,000	\$221,181.95	\$163,686.00	\$16,130.91	\$401,321.86	\$226,586.95	\$163,686.00	\$9,058.81	\$2,874,446.66	\$19,899.00	\$0.00	\$0.00	\$649.80	\$20,548.80
11,500	200	2,300,000	\$231,221.95	\$171,136.00	\$16,860.91	\$419,561.86	\$238,586.95	\$171,136.00	\$9,138.81	\$2,984,446.66	\$20,799.00	\$0.00	\$0.00	\$679.80	\$21,478.80
12,000	200	2,400,000	\$241,261.95	\$178,586.00	\$17,590.91	\$437,801.86	\$246,586.95	\$178,586.00	\$9,218.81	\$3,094,446.66	\$21,699.00	\$0.00	\$0.00	\$709.80	\$22,408.80
12,500	200	2,500,000	\$251,301.95	\$186,036.00	\$18,320.91	\$456,041.86	\$258,586.95	\$186,036.00	\$9,298.81	\$3,204,446.66	\$22,599.00	\$0.00	\$0.00	\$739.80	\$23,338.80
13,000	200	2,600,000	\$261,341.95	\$193,486.00	\$19,050.91	\$474,281.86	\$270,586.95	\$193,486.00	\$9,378.81	\$3,314,446.66	\$23,499.00	\$0.00	\$0.00	\$769.80	\$24,268.80
13,500	200	2,700,000	\$271,381.95	\$200,936.00	\$19,780.91	\$492,521.86	\$282,586.95	\$200,936.00	\$9,458.81	\$3,424,446.66	\$24,399.00	\$0.00	\$0.00	\$799.80	\$25,198.80
14,000	200	2,800,000	\$281,421.95	\$208,386.00	\$20,510.91	\$510,761.86	\$294,586.95	\$208,386.00	\$9,538.81	\$3,534,446.66	\$25,299.00	\$0.00	\$0.00	\$829.80	\$26,128.80
14,500	200	2,900,000	\$291,461.95	\$215,836.00	\$21,240.91	\$529,001.86	\$306,586.95	\$215,836.00	\$9,618.81	\$3,644,446.66	\$26,199.00	\$0.00	\$0.00	\$859.80	\$27,058.80
15,000	200	3,000,000	\$301,501.95	\$223,286.00	\$21,970.91	\$547,241.86	\$318,586.95	\$223,286.00	\$9,698.81	\$3,754,446.66	\$27,099.00	\$0.00	\$0.00	\$889.80	\$27,988.80
15,500	200	3,100,000	\$311,541.95	\$230,736.00	\$22,700.91	\$565,481.86	\$330,586.95	\$230,736.00	\$9,778.81	\$3,864,446.66	\$27,999.00	\$0.00	\$0.00	\$919.80	\$28,918.80
16,000	200	3,200,000	\$321,581.95	\$238,186.00	\$23,430.91	\$583,721.86	\$342,586.95	\$238,186.00	\$9,858.81	\$3,974,446.66	\$28,899.00	\$0.00	\$0.00	\$949.80	\$29,848.80
16,500	200	3,300,000	\$331,621.95	\$245,636.00	\$24,160.91	\$601,961.86	\$354,586.95	\$245,636.00	\$9,938.81	\$4,084,446.66	\$29,799.00	\$0.00	\$0.00	\$979.80	\$30,778.80
17,000	200	3,400,000	\$341,661.95	\$253,086.00	\$24,890.91	\$620,201.86	\$366,586.95	\$253,086.00	\$10,018.81	\$4,194,446.66	\$30,699.00	\$0.00	\$0.00	\$1,009.80	\$31,708.80
17,500	200	3,500,000	\$351,701.95	\$260,536.00	\$25,620.91	\$638,441.86	\$378,586.95	\$260,536.00	\$10,098.81	\$4,304,446.66	\$31,599.00	\$0.00	\$0.00	\$1,039.80	\$32,638.80
18,000	200	3,600,000	\$361,741.95	\$267,986.00	\$26,350.91	\$656,681.86	\$390,586.95	\$267,986.00	\$10,178.81	\$4,414,446.66	\$32,499.00	\$0.00	\$0.00	\$1,069.80	\$33,568.80
18,500	200	3,700,000	\$371,781.95	\$275,436.00	\$27,080.91	\$674,921.86	\$402,586.95	\$275,436.00	\$10,258.81	\$4,524,446.66	\$33,399.00	\$0.00	\$0.00	\$1,099.80	\$34,498.80
19,000	200	3,800,000	\$381,821.95	\$282,886.00	\$27,810.91	\$693,161.86	\$414,586.95	\$282,886.00	\$10,338.81	\$4,634,446.66	\$34,299.00	\$0.00	\$0.00	\$1,129.80	\$35,428.80
19,500	200	3,900,000	\$391,861.95	\$290,336.00	\$28,540.91	\$711,401.86	\$426,586.95	\$290,336.00	\$10,418.81	\$4,744,446.66	\$35,199.00	\$0.00	\$0.00	\$1,159.80	\$36,358.80
20,000	200	4,000,000	\$401,901.95	\$297,786.00	\$29,270.91	\$729,641.86	\$438,586.95	\$297,786.00	\$10,498.81	\$4,854,446.66	\$36,099.00	\$0.00	\$0.00	\$1,189.80	\$37,288.80
20,500	200	4,100,000	\$411,941.95	\$305,236.00	\$30,000.91	\$747,881.86	\$450,586.95	\$305,236.00	\$10,578.81	\$4,964,446.66	\$36,999.00	\$0.00	\$0.00	\$1,219.80	\$38,218.80
21,000	200	4,200,000	\$421,981.95	\$312,686.00	\$30,730.91	\$766,121.86	\$462,586.95	\$312,686.00	\$10,658.81	\$5,074,446.66	\$37,899.00	\$0.00	\$0.00	\$1,249.80	\$39,148.80
21,500	200	4,300,000	\$432,021.95	\$320,136.00	\$31,460.91	\$784,361.86	\$474,586.95	\$320,136.00	\$10,738.81	\$5,184,446.66	\$38,799.00	\$0.00	\$0.00	\$1,279.80	\$40,078.80
22,000	200	4,400,000	\$442,061.95	\$327,586.00	\$32,190.91	\$802,601.86	\$486,586.95	\$327,586.00	\$10,818.81	\$5,294,446.66	\$39,699.00	\$0.00	\$0.00	\$1,309.80	\$41,008.80
22,500	200	4,500,000	\$452,101.95	\$335,036.00	\$32,920.91	\$820,841.86	\$498,586.95	\$335,036.00	\$10,898.81	\$5,404,446.66	\$40,599.00	\$0.00	\$0.00	\$1,339.80	\$41,938.80
23,000	200	4,600,000	\$462,141.95	\$342,486.00	\$33,650.91	\$839,081.86	\$510,586.95	\$342,486.00	\$10,978.81	\$5,514,446.66	\$41,499.00	\$0.00	\$0.00	\$1,369.80	\$42,868.80
23,500	200	4,700,000	\$472,181.95	\$349,936.00	\$34,380.91	\$857,321.86	\$522,586.95	\$349,936.00	\$11,058.81	\$5,624,446.66	\$42,399.00	\$0.00	\$0.00	\$1,399.80	\$43,798.80
24,000	200	4,800,000	\$482,221.95	\$357,386.00	\$35,110.91	\$875,561.86	\$534,586.95	\$357,386.00	\$11,138.81	\$5,734,446.66	\$43,299.00	\$0.00	\$0.00	\$1,429.80	\$44,728.80
24,500	200	4,900,000	\$492,261.95	\$364,836.00	\$35,840.91	\$893,801.86	\$546,586.95	\$364,836.00	\$11,218.81	\$5,844,446.66	\$44,199.00	\$0.00	\$0.00	\$1,459.80	\$45,658.80
25,000	200	5,000,000	\$502,301.95	\$372,286.00	\$36,570.91	\$912,041.86	\$558,586.95	\$372,286.00	\$11,298.81	\$5,954,446.66	\$45,099.00	\$0.00	\$0.00	\$1,489.80	\$46,588.80
25,500	200	5,100,000	\$512,341.95	\$379,736.00	\$37,300.91	\$930,281.86	\$570,586.95	\$379,736.00	\$11,378.81	\$6,064,446.66	\$45,999.00	\$0.00	\$0.00	\$1,519.80	\$47,518.80
26,000	200	5,200,000	\$522,381.95	\$387,186.00	\$38,030.91	\$948,521.86	\$582,586.95	\$387,186.00	\$11,458.81	\$6,174,446.66	\$46,899.00	\$0.00	\$0.00	\$1,549.80	\$48,448.80
26,500	200	5,300,000	\$532,421.95	\$394,636.00	\$38,760.91	\$966,761.86	\$594,586.95	\$394,636.00	\$11,538.81	\$6,284,446.66	\$47,799.00	\$0.00	\$0.00	\$1,579.80	\$49,378.80
27,000	200	5,4													

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-16 Rate Customers

Monthly kWh (a)	Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				Percentage of Customers (r)
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e) = (a) + (b) + (c)	Delivery Services (f) = (b) - (b)	Supply Services (g)	GET (h)	Total (i) = (f) + (g) + (h)	Delivery Services (j) = (f) - (b)	Supply Services (k) = (g) - (c)	GET (l) = (h) - (d)	Total (m) = (j) + (k) + (l)	Delivery Services (n) = (j) / (e)	Supply Services (o) = (g) / (e)	GET (p) = (h) / (e)	Total (q) = (m) / (e)	
150	\$26.69	\$15.56	\$1.76	\$44.01	\$27.23	\$15.56	\$1.78	\$44.57	\$0.54	\$0.00	\$0.02	\$0.56	1.2%	0.0%	0.0%	1.3%	30.1%
300	\$44.42	\$31.11	\$3.15	\$78.68	\$45.50	\$31.11	\$3.19	\$79.80	\$1.08	\$0.00	\$0.04	\$1.12	1.4%	0.0%	0.1%	1.4%	12.9%
400	\$56.24	\$41.48	\$4.07	\$101.79	\$57.68	\$41.48	\$4.13	\$103.29	\$1.44	\$0.00	\$0.06	\$1.50	1.4%	0.0%	0.1%	1.5%	11.6%
500	\$68.07	\$51.85	\$5.00	\$124.92	\$69.86	\$51.85	\$5.07	\$126.78	\$1.79	\$0.00	\$0.07	\$1.86	1.4%	0.0%	0.1%	1.5%	9.6%
600	\$79.89	\$62.22	\$5.92	\$148.03	\$82.04	\$62.22	\$6.01	\$150.27	\$2.15	\$0.00	\$0.09	\$2.24	1.5%	0.0%	0.1%	1.5%	7.7%
700	\$91.71	\$72.59	\$6.85	\$171.15	\$94.22	\$72.59	\$6.95	\$173.76	\$2.51	\$0.00	\$0.10	\$2.61	1.5%	0.0%	0.1%	1.5%	19.0%
1,200	\$150.81	\$124.44	\$11.47	\$286.72	\$155.12	\$124.44	\$11.65	\$291.21	\$4.31	\$0.00	\$0.18	\$4.49	1.5%	0.0%	0.1%	1.6%	6.8%
2,000	\$245.38	\$207.40	\$18.87	\$471.65	\$252.56	\$207.40	\$19.17	\$479.13	\$7.18	\$0.00	\$0.30	\$7.48	1.5%	0.0%	0.1%	1.6%	2.3%

Proposed Rates effective January 1, 2022
(s)

Proposed Rates effective January 1, 2022 (s)		Proposed Rates effective January 1, 2023 (t)	
(1) Distribution Customer Charge	\$6.00	Customer Charge	\$6.00
(2) LIHEAP Enhancement Charge	\$0.80	LIHEAP Enhancement Charge	\$0.80
(3) Renewable Energy Growth Program Charge	\$2.16	RE Growth Program	\$2.16
(4) Distribution Charge (per kWh)	\$0.04580		\$0.04580
(5) Operating & Maintenance Expense Charge	\$0.00212		\$0.00212
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002		\$0.00002
(7) CapEx Factor Charge	\$0.00396		\$0.00396
(8) CapEx Reconciliation Factor	\$0.00090		\$0.00090
(9) Revenue Decoupling Adjustment Factor	\$0.00118		\$0.00118
(10) Pension Adjustment Factor	(\$0.00073)		(\$0.00073)
(11) Storm Fund Replenishment Factor	\$0.00288		\$0.00288
(12) Rate Management Adjustment Factor	\$0.00015		\$0.00015
(13) Performance Incentive Factor	\$0.00005		\$0.00005
(14) Low Income Discount Recovery Factor	\$0.00176		\$0.00176
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931	Renewable Energy Distribution Charge	\$0.00931
(16) Net Metering Charge	\$0.00266		\$0.00266
(17) Base Transmission Charge	\$0.03096		\$0.03096
(18) Transmission Adjustment Factor	(\$0.00189)	Transmission Charge	(\$0.00189)
(19) Transmission Uncollectible Factor	\$0.00038		\$0.00038
(20) Base Transition Charge	(\$0.00074)		(\$0.00074)
(21) Transition Adjustment	(\$0.00008)	Transition Charge	(\$0.00008)
(22) Energy Efficiency Program Charge	\$0.01952	Energy Efficiency Programs	\$0.02311
(23) Standard Offer Service Base Charge	\$0.09568		\$0.09568
(24) SOS Adjustment Factor	(\$0.00294)		(\$0.00294)
(25) SOS Administrative Cost Adjustment Factor	\$0.00230	Supply Services Energy Charge	\$0.00230
(26) Renewable Energy Standard Charge	\$0.00866		\$0.00866

Line Item on Bill

(27) Customer Charge	\$6.00
(28) LIHEAP Enhancement Charge	\$0.80
(29) RE Growth Program	\$2.16
(30) Transmission Charge	KWh x \$0.02945
(31) Distribution Energy Charge	KWh x \$0.05809
(32) Transition Charge	KWh x (\$0.00082)
(33) Energy Efficiency Programs	KWh x \$0.01952
(34) Renewable Energy Distribution Charge	KWh x \$0.0197
(35) Supply Services Energy Charge	KWh x \$0.10370

Column (s): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022 (Bates page 150) + \$0.00030 for renewables charge
Column (t): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2023 (Bates page 150) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Proposed Rates effective January 1, 2022					Proposed Rates effective January 1, 2023					\$ Increase (Decrease)					Increase (Decrease) % of Total Bill		Percentage of Customers
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = [(b)+(c)] x .25	Total (e) = (b) + (c) + (d)	GET (f)	Total (g) = (e) + (f)	Delivery Services (h)	Supply Services (i)	Low Income Discount (j) = [(h)+(i)] x .25	Total (k) = (h) + (i) + (j)	GET (l)	Total (m) = (k) + (l)	Delivery Services (n) = (h)+(i)+(j) (nb)+(nd)	Supply Services (o) = (i) - (c) (o) = (i) - (c)	GET (p) = (l) - (f)	Total (q) = (m) + (o) + (p)		
150	\$26.43	\$15.56	(\$10.50)	\$31.49	\$1.31	\$32.80	\$26.97	\$15.56	(\$10.63)	\$31.90	\$1.33	\$33.23	\$0.41	\$0.00	\$0.02	\$0.43	1.3%	32.1%
300	\$43.90	\$31.11	(\$18.75)	\$56.26	\$2.34	\$58.60	\$44.97	\$31.11	(\$19.02)	\$57.06	\$2.38	\$59.44	\$0.80	\$0.00	\$0.04	\$0.84	1.4%	15.4%
400	\$55.54	\$41.48	(\$24.26)	\$72.76	\$3.03	\$75.79	\$56.98	\$41.48	(\$24.62)	\$73.84	\$3.08	\$76.92	\$1.08	\$0.00	\$0.05	\$1.13	1.4%	12.5%
500	\$67.19	\$51.85	(\$29.76)	\$89.28	\$3.72	\$93.00	\$68.98	\$51.85	(\$30.21)	\$90.62	\$3.78	\$94.40	\$1.34	\$0.00	\$0.06	\$1.40	1.4%	9.6%
600	\$78.83	\$62.22	(\$35.26)	\$105.79	\$4.41	\$110.20	\$80.98	\$62.22	(\$35.80)	\$107.40	\$4.48	\$111.88	\$1.61	\$0.00	\$0.07	\$1.68	1.5%	7.2%
700	\$90.48	\$72.59	(\$40.77)	\$122.30	\$5.10	\$127.40	\$92.99	\$72.59	(\$41.40)	\$124.18	\$5.17	\$129.35	\$1.88	\$0.00	\$0.07	\$1.95	1.5%	16.4%
1,200	\$148.70	\$124.44	(\$68.29)	\$204.85	\$8.54	\$213.39	\$153.01	\$124.44	(\$69.36)	\$208.09	\$8.67	\$216.76	\$3.24	\$0.00	\$0.13	\$3.37	1.5%	5.2%
2,000	\$241.86	\$207.40	(\$112.32)	\$336.94	\$14.04	\$350.98	\$249.04	\$207.40	(\$114.11)	\$342.33	\$14.26	\$356.59	\$5.39	\$0.00	\$0.22	\$5.61	1.6%	1.6%
Line Item on Bill																		
Proposed Rates effective January 1, 2022																		
(w)																		
(1) Distribution Customer Charge																		
(2) LIHEAP Enhancement Charge																		
(3) Renewable Energy Growth Program Charge																		
(4) Distribution Charge (per kWh)																		
(5) Operating & Maintenance Expense Charge																		
(6) Operating & Maintenance Expense Reconciliation Factor																		
(7) CapEx Factor Charge																		
(8) CapEx Reconciliation Factor																		
(9) Revenue Decoupling Adjustment Factor																		
(10) Pension Adjustment Factor																		
(11) Storm Fund Replenishment Factor																		
(12) Asset Management Adjustment Factor																		
(13) Performance Incentive Factor																		
(14) Low Income Discount Recovery Factor																		
(15) Long-term Contracting for Renewable Energy Charge																		
(16) Net Metering Charge																		
(17) Base Transmission Charge																		
(18) Transmission Adjustment Factor																		
(19) Transmission Uncollectible Factor																		
(20) Base Transition Charge																		
(21) Transition Adjustment																		
(22) Transition Adjustment																		
(23) Energy Efficiency Program Charge																		
(24) Standard Offer Service Base Charge																		
(25) SCS Adjustment Factor																		
(26) SCS Administrative Cost Adjustment Factor																		
(27) Renewable Energy Standard Charge																		
Line Item on Bill																		
(27) Customer Charge																		
(28) LIHEAP Enhancement Charge																		
(29) RE Growth Program																		
(30) Transmission Charge																		
(31) Distribution Charge																		
(32) Transition Charge																		
(33) Energy Efficiency Programs																		
(34) Renewable Energy Distribution Charge																		
(35) Supply Services Energy Charge																		
(36) Discount percentage																		

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to A-60 Rate Customers

Monthly kWh	Proposed Rates effective January 1, 2022					Proposed Rates effective January 1, 2023					\$ Increase (Decrease)			Increase (Decrease) % of Total Bill			Percentage of Customers
	Delivery Services (b)	Supply Services (c)	Low Income Discount (d) = (c) x x:30	Total Discounted (e) = (b) + (c) + (d)	GET (f)	Total (g) = (e) + (f)	Delivery Services (h)	Supply Services (i)	Low Income Discount (j) = (i) x x:30	Total Discounted (k) = (h) + (i) + (j)	GET (l)	Total (m) = (k) + (l)	Delivery Services (n) = (b)+(i) (b)+(i)	Supply Services (o) = (j) + (l) (j)+(o)	(s) = (n) ÷ (b)+(i)	(t) = (p) ÷ (f) (u) = (q) ÷ (g)	
(a)																	(v)
150	\$26.43	\$15.56	(\$12.60)	\$29.39	\$1.22	\$30.61	\$26.97	\$15.56	(\$12.76)	\$29.77	\$1.24	\$31.01	\$0.38	\$0.00	1.2%	0.0%	1.3%
300	\$43.90	\$31.11	(\$22.50)	\$52.51	\$2.19	\$54.70	\$44.97	\$31.11	(\$22.82)	\$53.26	\$2.22	\$55.48	\$0.75	\$0.00	1.4%	0.0%	1.5%
400	\$55.54	\$41.48	(\$29.11)	\$67.91	\$2.83	\$70.74	\$56.98	\$41.48	(\$29.54)	\$68.92	\$2.87	\$71.79	\$1.01	\$0.00	1.4%	0.0%	1.5%
500	\$67.19	\$51.85	(\$35.71)	\$83.33	\$3.47	\$86.80	\$68.98	\$51.85	(\$36.25)	\$84.58	\$3.52	\$88.10	\$1.25	\$0.00	1.4%	0.0%	1.5%
600	\$78.83	\$62.22	(\$42.32)	\$98.73	\$4.11	\$102.84	\$80.98	\$62.22	(\$42.96)	\$100.24	\$4.18	\$104.42	\$1.51	\$0.00	1.5%	0.0%	1.5%
700	\$90.48	\$72.59	(\$48.92)	\$114.15	\$4.76	\$118.91	\$92.99	\$72.59	(\$49.67)	\$115.91	\$4.83	\$120.74	\$1.76	\$0.00	1.5%	0.0%	1.5%
1,200	\$148.70	\$124.44	(\$81.94)	\$191.20	\$7.97	\$199.17	\$153.01	\$124.44	(\$83.24)	\$194.21	\$8.09	\$202.30	\$3.01	\$0.00	1.5%	0.0%	1.6%
2,000	\$241.86	\$207.40	(\$134.78)	\$314.48	\$13.10	\$327.58	\$249.04	\$207.40	(\$136.93)	\$319.51	\$13.31	\$332.82	\$5.03	\$0.00	1.5%	0.0%	1.6%

Proposed Rates effective January 1, 2022

Proposed Rates effective January 1, 2023

Line Item on Bill

(1) Distribution Customer Charge	(w)	(x)	
(2) LIHEAP Enhancement Charge	\$6.00	\$6.00	Customer Charge
(3) Renewable Energy Growth Program Charge	\$0.80	\$0.80	LIHEAP Enhancement Charge
(4) Distribution Charge (per kWh)	\$2.16	\$2.16	RE Growth Program
(5) Operating & Maintenance Expense Reconciliation Factor	\$0.04580	\$0.04580	
(6) CapEx Factor Charge	\$0.00212	\$0.00212	
(7) CapEx Reconciliation Factor	\$0.00002	\$0.00002	
(8) Revenue Decoupling Adjustment Factor	\$0.00396	\$0.00396	
(9) Pension Fund Replenishment Factor	\$0.00090	\$0.00090	
(10) Storm Fund Replenishment Factor	\$0.00118	\$0.00118	
(11) Average Management Adjustment Factor	(\$0.00073)	(\$0.00073)	Distribution Energy Charge
(12) Performance Incentive Factor	\$0.00288	\$0.00288	
(13) Low Income Discount Recovery Factor	\$0.00015	\$0.00015	
(14) Long-term Contracting for Renewable Energy Charge	\$0.00005	\$0.00005	
(15) Net Metering Charge	\$0.00000	\$0.00000	
(16) Base Transmission Charge	\$0.00931	\$0.00931	Renewable Energy Distribution Charge
(17) Base Transmission Charge	\$0.00266	\$0.00266	
(18) Transmission Adjustment Factor	\$0.03096	\$0.03096	
(19) Transmission Uncollectible Factor	(\$0.00189)	(\$0.00189)	Transmission Charge
(20) Base Transition Charge	\$0.00038	\$0.00038	
(21) Transition Adjustment	(\$0.00074)	(\$0.00074)	Transition Charge
(22) Energy Efficiency Program Charge	(\$0.00008)	(\$0.00008)	Energy Efficiency Programs
(23) Standard Offer Service Base Charge	\$0.01952	\$0.01952	
(24) SOS Adjustment Factor	\$0.09568	\$0.09568	Supply Services Energy Charge
(25) SOS Administrative Cost Adjustment Factor	(\$0.00294)	(\$0.00294)	
(26) Renewable Energy Standard Charge	\$0.00230	\$0.00230	
Live Item on Bill	\$0.00866	\$0.00866	
(27) Customer Charge	\$6.00	\$6.00	
(28) LIHEAP Enhancement Charge	\$0.80	\$0.80	
(29) RE Growth Program	\$2.16	\$2.16	
(30) Transmission Charge	\$0.02945	\$0.02945	
(31) Distribution Energy Charge	\$0.05633	\$0.05633	
(32) Transition Charge	(\$0.00082)	(\$0.00082)	
(33) Energy Efficiency Programs	\$0.01952	\$0.01952	
(34) Renewable Energy Distribution Charge	\$0.01197	\$0.01197	
(35) Supply Services Energy Charge	\$0.10370	\$0.10370	
(36) Discount percentage	30%	30%	

Column (w): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022
(Bates page 150) + \$0.00030 for renewables charge
Column (x): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. 2095 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2096, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022
(Bates page 150) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to C-06 Rate Customers

Monthly kWh (a)	Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				Percentage of Customers (n)
	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)	Total (m)	
250	\$42.63	\$23.34	\$2.75	\$68.72	\$43.52	\$23.34	\$2.79	\$69.65	\$0.89	\$0.00	\$0.04	\$0.93	1.3%	0.0%	0.1%	1.4%	56.3%
500	\$71.10	\$46.67	\$4.91	\$122.68	\$72.90	\$46.67	\$4.98	\$124.55	\$1.80	\$0.00	\$0.07	\$1.87	1.5%	0.0%	0.1%	1.5%	16.9%
1,000	\$128.05	\$93.34	\$9.22	\$230.61	\$131.64	\$93.34	\$9.37	\$234.35	\$3.59	\$0.00	\$0.15	\$3.74	1.6%	0.0%	0.1%	1.6%	8.1%
1,500	\$185.00	\$140.01	\$13.54	\$338.55	\$190.39	\$140.01	\$13.77	\$344.17	\$5.39	\$0.00	\$0.23	\$5.62	1.6%	0.0%	0.1%	1.7%	5.0%
2,000	\$241.95	\$186.68	\$17.86	\$446.49	\$249.13	\$186.68	\$18.16	\$453.97	\$7.18	\$0.00	\$0.30	\$7.48	1.6%	0.0%	0.1%	1.7%	13.6%

Proposed Rates effective January 1, 2022

Proposed Rates effective January 1, 2023

Line Item on Bill

	(o)	(p)
(1) Distribution Customer Charge	\$10.00	\$10.00
(2) LIHEAP Enhancement Charge	\$0.80	\$0.80
(3) Renewable Energy Growth Program Charge	\$3.35	\$3.35
(4) Distribution Charge (per kWh)	\$0.04482	\$0.04482
(5) Operating & Maintenance Expense Charge	\$0.00212	\$0.00212
(6) Operating & Maintenance Expense Reconciliation Factor	\$0.00002	\$0.00002
(7) CapEx Factor Charge	\$0.00339	\$0.00339
(8) CapEx Reconciliation Factor	\$0.00085	\$0.00085
(9) Revenue Decoupling Adjustment Factor	\$0.00118	\$0.00118
(10) Pension Adjustment Factor	(\$0.00073)	(\$0.00073)
(11) Storm Fund Replenishment Factor	\$0.00288	\$0.00288
(12) Arrerange Management Adjustment Factor	\$0.00015	\$0.00015
(13) Performance Incentive Factor	\$0.00005	\$0.00005
(14) Low Income Discount Recovery Factor	\$0.00176	\$0.00176
(15) Long-term Contracting for Renewable Energy Charge	\$0.00931	\$0.00931
(16) Net Metering Charge	\$0.00266	\$0.00266
(17) Base Transmission Charge	\$0.03110	\$0.03110
(18) Transmission Adjustment Factor	(\$0.00467)	(\$0.00467)
(19) Transmission Uncollectible Factor	\$0.00031	\$0.00031
(20) Base Transition Charge	(\$0.00074)	(\$0.00074)
(21) Transition Adjustment	(\$0.00088)	(\$0.00088)
(22) Energy Efficiency Program Charge	\$0.01952	\$0.02311
(23) Standard Offer Service Base Charge	\$0.08150	\$0.08150
(24) SOS Adjustment Factor	\$0.00094	\$0.00094
(25) SOS Administrative Cost Adjustment Factor	\$0.00224	\$0.00224
(26) Renewable Energy Standard Charge	\$0.00866	\$0.00866
Line Item on Bill		
(27) Customer Charge	\$10.00	\$10.00
(28) LIHEAP Enhancement Charge	\$0.80	\$0.80
(29) RE Growth Program	\$3.35	\$3.35
(30) Transmission Charge	\$0.02674	\$0.02674
(31) Distribution Energy Charge	\$0.05649	\$0.05649
(32) Transition Charge	(\$0.00082)	(\$0.00082)
(33) Energy Efficiency Programs	\$0.01952	\$0.02311
(34) Renewable Energy Distribution Charge	\$0.01197	\$0.01197
(35) Supply Services Energy Charge	\$0.09334	\$0.09334

Column (o): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2022 (Bates page 150) + \$0.00030 for renewables charge
Column (p): All lines except Line (22) per Summary of Retail Delivery Service Rates, R.I.P.U.C. No. 2005 effective 10/1/2020, and Summary of Rates Standard Offer Service tariff, R.I.P.U.C. No. 2006, effective 10/1/2020; Line (22) Per Docket 5076, Schedule A, Line (17), Year 2023 (Bates page 150) + \$0.00030 for renewables charge

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Total Bill Impact of Proposed
Rates Applicable to G&D Rate Customers

Monthly Power		Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023				\$ Increase (Decrease)				Increase (Decrease) % of Total Bill				
kW	Hours Use	kWh	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (b)	Supply Services (c)	GET (d)	Total (e)	Delivery Services (f)	Supply Services (g)	GET (h)	Total (i)	Delivery Services (j)	Supply Services (k)	GET (l)	Total (m)
20	200	4,000	\$550.43	\$373.36	\$38.49	\$962.28	\$564.79	\$373.36	\$39.09	\$977.24	\$14.36	\$0.00	\$0.60	\$14.96	1.5%	0.0%	0.1%	1.6%
50	200	10,000	\$1,226.75	\$933.40	\$90.01	\$2,250.16	\$1,262.65	\$933.40	\$91.50	\$2,287.55	\$35.90	\$0.00	\$1.49	\$37.39	1.6%	0.0%	0.1%	1.7%
100	200	20,000	\$2,353.95	\$1,866.80	\$175.86	\$4,396.61	\$2,425.75	\$1,866.80	\$178.86	\$4,471.41	\$71.80	\$0.00	\$3.00	\$74.80	1.6%	0.0%	0.1%	1.7%
150	200	30,000	\$3,481.15	\$2,800.20	\$261.72	\$6,543.07	\$3,588.85	\$2,800.20	\$266.21	\$6,655.26	\$107.70	\$0.00	\$4.49	\$112.19	1.6%	0.0%	0.1%	1.7%
20	300	6,000	\$653.47	\$560.04	\$505.36	\$1,264.07	\$675.01	\$560.04	\$51.46	\$1,286.51	\$21.54	\$0.00	\$0.90	\$22.44	1.7%	0.0%	0.1%	1.8%
50	300	15,000	\$1,484.35	\$1,400.10	\$1,210.19	\$3,004.64	\$1,538.20	\$1,400.10	\$122.43	\$3,060.73	\$53.85	\$0.00	\$2.24	\$56.09	1.8%	0.0%	0.1%	1.9%
100	300	30,000	\$2,869.15	\$2,800.20	\$2,362.22	\$5,905.57	\$2,976.85	\$2,800.20	\$240.71	\$6,017.76	\$107.70	\$0.00	\$4.49	\$112.19	1.8%	0.0%	0.1%	1.9%
150	300	45,000	\$4,253.95	\$4,200.30	\$3,522.26	\$8,806.51	\$4,415.50	\$4,200.30	\$338.99	\$8,974.79	\$161.55	\$0.00	\$6.73	\$168.28	1.8%	0.0%	0.1%	1.9%
20	400	8,000	\$756.51	\$746.72	\$62.63	\$1,565.86	\$785.23	\$746.72	\$63.83	\$1,595.78	\$28.72	\$0.00	\$1.20	\$29.92	1.8%	0.0%	0.1%	1.9%
50	400	20,000	\$1,741.95	\$1,866.80	\$1,503.36	\$3,759.11	\$1,813.75	\$1,866.80	\$153.36	\$3,833.91	\$71.80	\$0.00	\$3.00	\$74.80	1.9%	0.0%	0.1%	2.0%
100	400	40,000	\$3,384.35	\$3,733.60	\$2,965.87	\$7,144.53	\$3,527.95	\$3,733.60	\$302.56	\$7,564.11	\$143.60	\$0.00	\$5.98	\$149.58	1.9%	0.0%	0.1%	2.0%
150	400	60,000	\$5,026.75	\$5,600.40	\$4,422.80	\$11,069.95	\$5,242.15	\$5,600.40	\$451.77	\$11,294.32	\$215.40	\$0.00	\$8.97	\$224.37	1.9%	0.0%	0.1%	2.0%
20	500	10,000	\$859.55	\$933.40	\$74.71	\$1,867.66	\$895.45	\$933.40	\$76.20	\$1,905.05	\$35.90	\$0.00	\$1.49	\$37.39	1.9%	0.0%	0.1%	2.0%
50	500	25,000	\$1,999.55	\$2,333.50	\$180.54	\$4,513.59	\$2,089.30	\$2,333.50	\$184.28	\$4,607.08	\$89.75	\$0.00	\$3.74	\$93.49	2.0%	0.0%	0.1%	2.1%
100	500	50,000	\$3,899.55	\$4,667.00	\$356.94	\$8,923.49	\$4,079.05	\$4,667.00	\$364.42	\$9,110.47	\$179.50	\$0.00	\$7.48	\$186.98	2.0%	0.0%	0.1%	2.1%
150	500	75,000	\$5,799.55	\$7,000.50	\$533.34	\$13,333.39	\$6,068.80	\$7,000.50	\$544.55	\$13,613.85	\$269.25	\$0.00	\$11.21	\$280.46	2.0%	0.0%	0.1%	2.1%
20	600	12,000	\$962.59	\$1,120.08	\$86.78	\$2,169.45	\$1,005.67	\$1,120.08	\$88.57	\$2,214.32	\$43.08	\$0.00	\$1.79	\$44.87	2.0%	0.0%	0.1%	2.1%
50	600	30,000	\$2,257.15	\$2,800.20	\$210.72	\$5,268.07	\$2,364.85	\$2,800.20	\$215.21	\$5,380.26	\$107.70	\$0.00	\$4.49	\$112.19	2.0%	0.0%	0.1%	2.1%
100	600	60,000	\$4,414.75	\$5,600.40	\$417.30	\$10,432.45	\$4,630.15	\$5,600.40	\$426.27	\$10,658.82	\$215.40	\$0.00	\$8.97	\$224.37	2.1%	0.0%	0.1%	2.2%
150	600	90,000	\$6,572.35	\$8,400.60	\$623.87	\$15,596.82	\$6,895.45	\$8,400.60	\$637.34	\$15,933.39	\$323.10	\$0.00	\$13.47	\$336.57	2.1%	0.0%	0.1%	2.2%
Line Item on Bill																		
Proposed Rates effective January 1, 2022																		
(o)																		
Proposed Rates effective January 1, 2023																		
(p)																		
Line Item on Bill																		
Customer Charge																		
LIHEAP Enhancement Charge																		
LIHEAP Enhancement Charge																		
RE Growth Program																		
Distribution Demand Charge																		
CapEx Factor Demand Charge (per kW > 10kW)																		
Distribution Charge (per kWh)																		
Operating & Maintenance Expense Charge																		
Operating & Maintenance Expense Reconciliation Factor																		
CapEx Reconciliation Factor																		
Revenue Decoupling Adjustment Factor																		
Pension Adjustment Factor																		
Storm Fund Replenishment Factor																		
Arrangement Management Adjustment Factor																		
Performance Incentive Factor																		
Low Income Discount Recovery Factor																		
Long-term Contracting for Renewable Energy Charge																		
Net Metering Charge																		
Transmission Demand Charge																		
Base Transmission Charge																		
Transmission Adjustment Factor																		
Transmission Uncollectible Factor																		
Base Transition Charge																		
Transition Adjustment																		
Energy Efficiency Program Charge																		
Standard Offer Service Base Charge																		
SOS Adjustment Factor																		
SOS Administrative Cost Adjustment Factor																		
Renewable Energy Standard Charge																		
Line Item on Bill																		
Customer Charge																		
LIHEAP Enhancement Charge																		
RE Growth Program																		
Distribution Demand Charge																		
Energy Efficiency Programs																		
Energy Efficiency Programs																		
Renewable Energy Distribution Charge																		
Supply Services Energy Charge																		
Supply Services Energy Charge																		

The Narragansett Electric Company
Calculation of Monthly Typical Bill
Summary of Rates for Residential Customers
Rates Applicable to G-32 Rate Customers

Monthly Power Usage			Proposed Rates effective January 1, 2022				Proposed Rates effective January 1, 2023				\$ Increase (Decrease)			Increase (Decrease) % of Total Bill		
kW	kWh	Delivery Services Charge	GET	Total	Delivery Services	GET	Total	Delivery Services	GET	Total	Delivery Services	GET	Total	Delivery Services	GET	Total
200	200	40,000	\$4,411.95	\$2,951.60	\$7,363.55	\$7,670.36	\$306.81	\$312.80	\$728.95	\$143.60	\$0.00	\$5.99	\$149.59	1.9%	0.0%	1.9%
750	200	190,000	\$16,214.95	\$11,068.50	\$15,168.81	\$28,420.26	\$16,735.45	\$11,199.25	\$28,981.20	\$538.50	\$0.00	\$22.44	\$560.94	1.9%	0.0%	1.9%
1,000	200	200,000	\$21,579.95	\$14,738.00	\$15,140.88	\$37,852.03	\$22,297.95	\$15,444.00	\$38,599.95	\$718.00	\$0.00	\$29.92	\$747.92	1.9%	0.0%	1.9%
1,500	200	300,000	\$31,769.95	\$22,137.00	\$22,862.62	\$56,715.57	\$33,386.95	\$22,137.00	\$56,523.95	\$1,077.00	\$0.00	\$44.88	\$1,121.88	1.9%	0.0%	1.9%
2,000	200	400,000	\$41,959.95	\$30,000.00	\$37,777.71	\$94,442.66	\$45,560.95	\$31,109.95	\$71,700.50	\$2,592.50	\$0.00	\$74.79	\$1,869.79	1.9%	0.0%	1.9%
2,500	200	500,000	\$52,149.95	\$38,865.00	\$47,777.71	\$113,333.33	\$57,777.71	\$40,000.00	\$97,777.71	\$3,388.50	\$0.00	\$99.79	\$2,692.29	1.9%	0.0%	1.9%
3,000	200	600,000	\$62,339.95	\$47,777.71	\$57,777.71	\$133,333.33	\$67,777.71	\$50,000.00	\$107,777.71	\$4,184.50	\$0.00	\$124.79	\$3,513.29	1.9%	0.0%	1.9%
3,500	200	700,000	\$72,529.95	\$56,666.67	\$67,777.71	\$153,333.33	\$77,777.71	\$60,000.00	\$117,777.71	\$4,980.50	\$0.00	\$149.79	\$4,334.29	1.9%	0.0%	1.9%
4,000	200	800,000	\$82,719.95	\$65,555.56	\$77,777.71	\$173,333.33	\$87,777.71	\$70,000.00	\$127,777.71	\$5,776.50	\$0.00	\$174.79	\$5,155.29	1.9%	0.0%	1.9%
4,500	200	900,000	\$92,909.95	\$74,444.44	\$87,777.71	\$193,333.33	\$97,777.71	\$80,000.00	\$137,777.71	\$6,572.50	\$0.00	\$199.79	\$5,976.29	1.9%	0.0%	1.9%
5,000	200	1,000,000	\$103,099.95	\$83,333.33	\$97,777.71	\$213,333.33	\$107,777.71	\$90,000.00	\$157,777.71	\$7,368.50	\$0.00	\$224.79	\$6,797.29	1.9%	0.0%	1.9%
5,500	200	1,100,000	\$113,289.95	\$92,222.22	\$107,777.71	\$233,333.33	\$117,777.71	\$100,000.00	\$177,777.71	\$8,164.50	\$0.00	\$249.79	\$7,618.29	1.9%	0.0%	1.9%
6,000	200	1,200,000	\$123,479.95	\$101,111.11	\$117,777.71	\$253,333.33	\$127,777.71	\$110,000.00	\$197,777.71	\$8,960.50	\$0.00	\$274.79	\$8,439.29	1.9%	0.0%	1.9%
6,500	200	1,300,000	\$133,669.95	\$110,000.00	\$127,777.71	\$273,333.33	\$137,777.71	\$120,000.00	\$217,777.71	\$9,756.50	\$0.00	\$299.79	\$9,260.29	1.9%	0.0%	1.9%
7,000	200	1,400,000	\$143,859.95	\$118,888.89	\$137,777.71	\$293,333.33	\$147,777.71	\$130,000.00	\$237,777.71	\$10,552.50	\$0.00	\$324.79	\$10,081.29	1.9%	0.0%	1.9%
7,500	200	1,500,000	\$154,049.95	\$127,777.78	\$147,777.71	\$313,333.33	\$157,777.71	\$140,000.00	\$257,777.71	\$11,348.50	\$0.00	\$349.79	\$10,902.29	1.9%	0.0%	1.9%
8,000	200	1,600,000	\$164,239.95	\$136,666.67	\$157,777.71	\$333,333.33	\$167,777.71	\$150,000.00	\$277,777.71	\$12,144.50	\$0.00	\$374.79	\$11,723.29	1.9%	0.0%	1.9%
8,500	200	1,700,000	\$174,429.95	\$145,555.56	\$167,777.71	\$353,333.33	\$177,777.71	\$160,000.00	\$297,777.71	\$12,940.50	\$0.00	\$399.79	\$12,544.29	1.9%	0.0%	1.9%
9,000	200	1,800,000	\$184,619.95	\$154,444.44	\$177,777.71	\$373,333.33	\$187,777.71	\$170,000.00	\$317,777.71	\$13,736.50	\$0.00	\$424.79	\$13,365.29	1.9%	0.0%	1.9%
9,500	200	1,900,000	\$194,809.95	\$163,333.33	\$187,777.71	\$393,333.33	\$197,777.71	\$180,000.00	\$337,777.71	\$14,532.50	\$0.00	\$449.79	\$14,186.29	1.9%	0.0%	1.9%
10,000	200	2,000,000	\$204,999.95	\$172,222.22	\$197,777.71	\$413,333.33	\$207,777.71	\$190,000.00	\$357,777.71	\$15,328.50	\$0.00	\$474.79	\$15,007.29	1.9%	0.0%	1.9%
10,500	200	2,100,000	\$215,189.95	\$181,111.11	\$207,777.71	\$433,333.33	\$217,777.71	\$200,000.00	\$377,777.71	\$16,124.50	\$0.00	\$499.79	\$15,828.29	1.9%	0.0%	1.9%
11,000	200	2,200,000	\$225,379.95	\$190,000.00	\$217,777.71	\$453,333.33	\$227,777.71	\$210,000.00	\$397,777.71	\$16,920.50	\$0.00	\$524.79	\$16,649.29	1.9%	0.0%	1.9%
11,500	200	2,300,000	\$235,569.95	\$198,888.89	\$227,777.71	\$473,333.33	\$237,777.71	\$220,000.00	\$417,777.71	\$17,716.50	\$0.00	\$549.79	\$17,470.29	1.9%	0.0%	1.9%
12,000	200	2,400,000	\$245,759.95	\$207,777.78	\$237,777.71	\$493,333.33	\$247,777.71	\$230,000.00	\$437,777.71	\$18,512.50	\$0.00	\$574.79	\$18,291.29	1.9%	0.0%	1.9%
12,500	200	2,500,000	\$255,949.95	\$216,666.67	\$247,777.71	\$513,333.33	\$257,777.71	\$240,000.00	\$457,777.71	\$19,308.50	\$0.00	\$599.79	\$19,112.29	1.9%	0.0%	1.9%
13,000	200	2,600,000	\$266,139.95	\$225,555.56	\$257,777.71	\$533,333.33	\$267,777.71	\$250,000.00	\$477,777.71	\$20,104.50	\$0.00	\$624.79	\$19,933.29	1.9%	0.0%	1.9%
13,500	200	2,700,000	\$276,329.95	\$234,444.44	\$267,777.71	\$553,333.33	\$277,777.71	\$260,000.00	\$497,777.71	\$20,900.50	\$0.00	\$649.79	\$20,754.29	1.9%	0.0%	1.9%
14,000	200	2,800,000	\$286,519.95	\$243,333.33	\$277,777.71	\$573,333.33	\$287,777.71	\$270,000.00	\$517,777.71	\$21,696.50	\$0.00	\$674.79	\$21,575.29	1.9%	0.0%	1.9%
14,500	200	2,900,000	\$296,709.95	\$252,222.22	\$287,777.71	\$593,333.33	\$297,777.71	\$280,000.00	\$537,777.71	\$22,492.50	\$0.00	\$699.79	\$22,396.29	1.9%	0.0%	1.9%
15,000	200	3,000,000	\$306,899.95	\$261,111.11	\$297,777.71	\$613,333.33	\$307,777.71	\$290,000.00	\$557,777.71	\$23,288.50	\$0.00	\$724.79	\$23,217.29	1.9%	0.0%	1.9%
15,500	200	3,100,000	\$317,089.95	\$270,000.00	\$307,777.71	\$633,333.33	\$317,777.71	\$300,000.00	\$577,777.71	\$24,084.50	\$0.00	\$749.79	\$24,048.29	1.9%	0.0%	1.9%
16,000	200	3,200,000	\$327,279.95	\$278,888.89	\$317,777.71	\$653,333.33	\$327,777.71	\$310,000.00	\$597,777.71	\$24,880.50	\$0.00	\$774.79	\$24,879.29	1.9%	0.0%	1.9%
16,500	200	3,300,000	\$337,469.95	\$287,777.78	\$327,777.71	\$673,333.33	\$337,777.71	\$320,000.00	\$617,777.71	\$25,676.50	\$0.00	\$799.79	\$25,700.29	1.9%	0.0%	1.9%
17,000	200	3,400,000	\$347,659.95	\$296,666.67	\$337,777.71	\$693,333.33	\$347,777.71	\$330,000.00	\$637,777.71	\$26,472.50	\$0.00	\$824.79	\$26,522.29	1.9%	0.0%	1.9%
17,500	200	3,500,000	\$357,849.95	\$305,555.56	\$347,777.71	\$713,333.33	\$357,777.71	\$340,000.00	\$657,777.71	\$27,268.50	\$0.00	\$849.79	\$27,317.29	1.9%	0.0%	1.9%
18,000	200	3,600,000	\$368,039.95	\$314,444.44	\$357,777.71	\$733,333.33	\$367,777.71	\$350,000.00	\$677,777.71	\$28,064.50	\$0.00	\$874.79	\$28,148.29	1.9%	0.0%	1.9%
18,500	200	3,700,000	\$378,229.95	\$323,333.33	\$367,777.71	\$753,333.33	\$377,777.71	\$360,000.00	\$697,777.71	\$28,860.50	\$0.00	\$899.79	\$28,969.29	1.9%	0.0%	1.9%
19,000	200	3,800,000	\$388,419.95	\$332,222.22	\$377,777.71	\$773,333.33	\$387,777.71	\$370,000.00	\$717,777.71	\$29,656.50	\$0.00	\$924.79	\$29,760.29	1.9%	0.0%	1.9%
19,500	200	3,900,000	\$398,609.95	\$341,111.11	\$387,777.71	\$793,333.33	\$397,777.71	\$380,000.00	\$737,777.71	\$30,452.50	\$0.00	\$949.79	\$30,561.29	1.9%	0.0%	1.9%
20,000	200	4,000,000	\$408,799.95	\$350,000.00	\$397,777.71	\$813,333.33	\$407,777.71	\$390,000.00	\$757,777.71	\$31,248.50	\$0.00	\$974.79	\$31,370.29	1.9%	0.0%	1.9%
20,500	200	4,100,000	\$418,989.95	\$358,888.89	\$407,777.71	\$833,333.33	\$417,777.71	\$400,000.00	\$777,777.71	\$32,044.50	\$0.00	\$999.79	\$32,071.29	1.9%	0.0%	1.9%
21,000	200	4,200,000	\$429,179.95	\$367,777.78	\$417,777.71	\$853,333.33	\$427,777.71	\$410,000.00	\$797,777.71	\$32,840.50	\$0.00	\$1,024.79	\$32,896.29	1.9%	0.0%	1.9%
21,500	200	4,300,000	\$439,369.95	\$376,666.67	\$427,777.71	\$873,333.33	\$437,777.71	\$420,000.00	\$817,777.71	\$33,636.50	\$0.00	\$1,049.79	\$33,727.29	1.9%	0.0%	1.9%
22,000	200	4,400,000	\$449,559.95	\$385,555.56	\$437,777.71	\$893,333.33	\$447,777.71	\$430,000.00	\$837,777.71	\$34,432.50	\$0.00	\$1,074.79	\$34,358.29	1.9%	0.0%	1.9%
22,500	200	4,500,000	\$459,749.95	\$394,444.44	\$447,777.71	\$913,333.33	\$457,777.71	\$440,000.00	\$857,777.71	\$35,228.50	\$0.00	\$1,099.79	\$35,189.29	1.9%	0.0%	1.9%
23,000	200	4,600,000	\$469,939.95	\$403,333.33	\$457,777.71	\$933,333.33	\$467,777.71	\$450,000.00	\$877,777.71	\$36,024.50	\$0.00	\$1,124.79	\$36,110.29	1.9%	0.0%	1.9%
23,500	200	4,700,000	\$480,129.95	\$412,222.22	\$467,777.71	\$953,333.33	\$477,777.71	\$460,000.00	\$897,777.71	\$36,820.50	\$0.00	\$1,149.79	\$36,931.29	1.9%	0.0%	1.9%
24,000	200	4,800,000	\$490,319.95	\$421,111.11	\$477,777.71	\$973,333.33	\$487,777.71	\$470,000.00	\$917,777.71	\$37,616.50	\$0.00	\$1,174.79	\$37,752.29	1.9%	0.0%	1.9%
24,500	200	4,900,000	\$500,509.95	\$430,000.00	\$487,777.71	\$993,333.33	\$497,777.71	\$480,000.00	\$937,777.71	\$38,412.50	\$0.00	\$1,199.79	\$38,573.29	1.9%	0.0%	1.9%
25,000	200	5,000,000	\$510,699.95	\$438,888.89	\$497,777.71	\$1,013,333.33	\$507,777.71	\$490,000.00	\$957,777.71	\$39,208.50	\$0.00	\$1,224.79	\$39,334.29	1.9%	0.0%	1.9%
25,500	200	5,100,000	\$520,889.95	\$447,777.78	\$507,777.71	\$1,033,333.33	\$517,777.71	\$500,000.00	\$977,777.71	\$40,004.50	\$0.00	\$1,249.79	\$40,155.29	1.9%	0.0%	1.9%
26,000	200	5,200,000	\$531,079.95	\$456,666.67	\$517,777.71	\$1,053,333.33	\$527,777.71	\$510,000.00	\$997,777.71	\$40,800.50	\$0.00	\$1,274.79	\$40,976.29	1.9%	0.0%	1.9%
26,500	200	5,300,000	\$541,269.95	\$465,555.56	\$527,777.71	\$1,073,333.33	\$537,777.71	\$520,000.00	\$1,017,777.71	\$41,596.50	\$0.00	\$1,299.79	\$41,797.29	1.9%	0.0%	1.9%
27,000	200	5,400,000	\$551,459.95	\$474,444.444												

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 1

Residential Heating:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	Difference due to:			
						Base DAC	DAC	ISR	EE
(1)									
(2)									
(3)									
(4)									
(5)	548	\$930.14	\$930.14	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(6)	608	\$1,011.94	\$1,011.94	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(7)	667	\$1,092.40	\$1,092.40	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(8)	726	\$1,172.87	\$1,172.87	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(9)	785	\$1,253.20	\$1,253.20	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(10)	845	\$1,335.02	\$1,335.02	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(11)	905	\$1,416.83	\$1,416.83	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(12)	964	\$1,497.23	\$1,497.23	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(13)	1,023	\$1,577.64	\$1,577.64	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(14)	1,082	\$1,658.09	\$1,658.09	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(15)	1,142	\$1,739.92	\$1,739.92	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00

Residential Heating Low Income:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	Difference due to:			
						Base DAC	DAC	ISR	EE
(16)									
(17)									
(18)									
(19)									
(20)	548	\$691.15	\$691.15	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(21)	608	\$751.81	\$751.81	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(22)	667	\$811.46	\$811.46	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(23)	726	\$871.12	\$871.12	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(24)	785	\$930.67	\$930.67	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(25)	845	\$991.33	\$991.33	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(26)	905	\$1,051.98	\$1,051.98	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(27)	964	\$1,111.58	\$1,111.58	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(28)	1,023	\$1,171.22	\$1,171.22	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(29)	1,082	\$1,230.84	\$1,230.84	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(30)	1,142	\$1,291.53	\$1,291.53	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 1

Residential Non-Heating:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Difference due to:			
							Base DAC	ISR	EE	LIHEAP
										GET
(31)										
(32)										
(33)										
(34)										
(35)	144	\$391.60	\$391.60	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(36)	158	\$411.85	\$411.85	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(37)	172	\$432.15	\$432.15	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(38)	189	\$456.76	\$456.76	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(39)	202	\$475.61	\$475.61	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(40)	220	\$501.64	\$501.64	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(41)	238	\$527.71	\$527.71	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(42)	251	\$546.56	\$546.56	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(43)	268	\$571.12	\$571.12	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(44)	282	\$591.40	\$591.40	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(45)	297	\$613.14	\$613.14	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Residential Non-Heating Low Income:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Total Bill Discount	Difference due to:			
								Base DAC	ISR	EE	LIHEAP
											GET
(46)											
(47)											
(48)											
(49)											
(50)	144	\$292.01	\$292.01	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(51)	158	\$307.03	\$307.03	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(52)	172	\$322.09	\$322.09	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(53)	189	\$340.33	\$340.33	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(54)	202	\$354.34	\$354.34	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(55)	220	\$373.64	\$373.64	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(56)	238	\$392.96	\$392.96	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(57)	251	\$406.96	\$406.96	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(58)	268	\$425.20	\$425.20	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(59)	282	\$440.23	\$440.23	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(60)	297	\$456.37	\$456.37	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 1**

C & I Small:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Difference due to:				LIHEAP	GET
							DAC		EE	ISR		
							Base DAC					
(61)	830	\$1,363.85	\$1,363.85	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(62)	919	\$1,475.78	\$1,475.78	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(63)	1,010	\$1,590.33	\$1,590.33	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(64)	1,099	\$1,702.35	\$1,702.35	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(65)	1,187	\$1,813.18	\$1,813.18	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(66)	1,277	\$1,926.42	\$1,926.42	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(67)	1,367	\$2,039.65	\$2,039.65	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(68)	1,456	\$2,151.68	\$2,151.68	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(69)	1,544	\$2,262.48	\$2,262.48	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(70)	1,635	\$2,376.99	\$2,376.99	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(71)	1,725	\$2,490.23	\$2,490.23	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

C & I Medium:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Difference due to:				LIHEAP	GET
							DAC		EE			
							Base DAC	ISR				
(76)	6,907	\$8,506.77	\$8,506.77	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(77)	7,650	\$9,307.87	\$9,307.87	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(78)	8,391	\$10,106.29	\$10,106.29	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(79)	9,136	\$10,909.32	\$10,909.32	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(80)	9,880	\$11,711.37	\$11,711.37	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(81)	10,623	\$12,512.44	\$12,512.44	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(82)	11,366	\$13,313.50	\$13,313.50	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(83)	12,111	\$14,116.52	\$14,116.52	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(84)	12,855	\$14,918.56	\$14,918.56	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(85)	13,596	\$15,716.98	\$15,716.98	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(86)	14,340	\$16,519.01	\$16,519.01	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 1

C & I LLLF Large:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(91)												
(92)												
(93)												
(94)												
(95)	37,587	\$43,834.92	\$43,834.92	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(96)	41,634	\$48,286.83	\$48,286.83	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(97)	45,683	\$52,741.30	\$52,741.30	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(98)	49,731	\$57,194.89	\$57,194.89	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(99)	53,777	\$61,645.80	\$61,645.80	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(100)	57,825	\$66,099.35	\$66,099.35	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(101)	61,873	\$70,552.86	\$70,552.86	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(102)	65,920	\$75,004.75	\$75,004.75	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(103)	69,967	\$79,457.35	\$79,457.35	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(104)	74,016	\$83,911.82	\$83,911.82	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(105)	78,063	\$88,363.73	\$88,363.73	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

C & I HLF Large:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(106)												
(107)												
(108)												
(109)												
(110)	41,956	\$40,397.22	\$40,397.22	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(111)	46,471	\$44,477.32	\$44,477.32	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(112)	50,991	\$48,561.52	\$48,561.52	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(113)	55,507	\$52,642.41	\$52,642.41	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(114)	60,028	\$56,727.39	\$56,727.39	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(115)	64,545	\$60,809.11	\$60,809.11	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(116)	69,062	\$64,890.83	\$64,890.83	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(117)	73,583	\$68,975.78	\$68,975.78	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(118)	78,099	\$73,056.69	\$73,056.69	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(119)	82,619	\$77,140.84	\$77,140.84	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(120)	87,137	\$81,224.31	\$81,224.31	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 1**

C & I LLLF Extra-Large:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(121)												
(122)												
(123)												
(124)												
(125)	233,835	\$203,062.47	\$203,062.47	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(126)	259,019	\$224,264.75	\$224,264.75	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(127)	284,197	\$245,462.70	\$245,462.70	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(128)	309,381	\$266,664.94	\$266,664.94	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(129)	334,562	\$287,865.04	\$287,865.04	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(130)	359,745	\$309,066.64	\$309,066.64	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(131)	384,928	\$330,268.21	\$330,268.21	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(132)	410,110	\$351,469.01	\$351,469.01	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(133)	435,293	\$372,670.55	\$372,670.55	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(134)	460,471	\$393,868.47	\$393,868.47	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(135)	485,655	\$415,070.76	\$415,070.76	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

C & I HLLF Extra-Large:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(136)												
(137)												
(138)												
(139)												
(140)	486,528	\$365,615.01	\$365,615.01	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(141)	538,924	\$404,322.55	\$404,322.55	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(142)	591,320	\$443,029.28	\$443,029.28	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(143)	643,718	\$481,738.03	\$481,738.03	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(144)	696,109	\$520,441.45	\$520,441.45	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(145)	748,506	\$559,149.58	\$559,149.58	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(146)	800,903	\$597,857.75	\$597,857.75	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(147)	853,294	\$636,561.09	\$636,561.09	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(148)	905,692	\$675,269.90	\$675,269.90	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(149)	958,088	\$713,976.59	\$713,976.59	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(150)	1,010,485	\$752,684.72	\$752,684.72	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 2

Residential Heating:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	Difference due to:			
						DAC		EE	
						Base DAC	ISR	LIHEAP	GET
(1)									
(2)									
(3)									
(4)									
(5)	548	\$942.72	\$930.14	\$12.59	1.4%	\$0.00	\$0.00	\$12.21	\$0.38
(6)	608	\$1,025.93	\$1,011.94	\$13.99	1.4%	\$0.00	\$0.00	\$13.57	\$0.42
(7)	667	\$1,107.72	\$1,092.40	\$15.32	1.4%	\$0.00	\$0.00	\$14.86	\$0.46
(8)	726	\$1,189.54	\$1,172.87	\$16.67	1.4%	\$0.00	\$0.00	\$16.17	\$0.50
(9)	785	\$1,271.24	\$1,253.20	\$18.04	1.4%	\$0.00	\$0.00	\$17.50	\$0.54
(10)	845	\$1,354.45	\$1,335.02	\$19.42	1.5%	\$0.00	\$0.00	\$18.84	\$0.58
(11)	905	\$1,437.65	\$1,416.83	\$20.82	1.5%	\$0.00	\$0.00	\$20.20	\$0.62
(12)	964	\$1,519.37	\$1,497.23	\$22.14	1.5%	\$0.00	\$0.00	\$21.48	\$0.66
(13)	1,023	\$1,601.16	\$1,577.64	\$23.52	1.5%	\$0.00	\$0.00	\$22.81	\$0.71
(14)	1,082	\$1,682.95	\$1,658.09	\$24.87	1.5%	\$0.00	\$0.00	\$24.12	\$0.75
(15)	1,142	\$1,766.18	\$1,739.92	\$26.26	1.5%	\$0.00	\$0.00	\$25.47	\$0.79

Residential Heating Low Income:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Total Bill		Difference due to:		EE	LIHEAP	GET
							Discount	Base DAC	DAC	ISR			
(16)													
(17)													
(18)													
(19)													
(20)	548	\$700.59	\$691.15	\$9.44	1.4%	\$0.00	(\$3.05)	\$0.00	\$0.00	\$0.00	\$12.21	\$0.00	\$0.28
(21)	608	\$762.30	\$751.81	\$10.49	1.4%	\$0.00	(\$3.39)	\$0.00	\$0.00	\$0.00	\$13.57	\$0.00	\$0.31
(22)	667	\$822.95	\$811.46	\$11.49	1.4%	\$0.00	(\$3.72)	\$0.00	\$0.00	\$0.00	\$14.86	\$0.00	\$0.34
(23)	726	\$883.62	\$871.12	\$12.50	1.4%	\$0.00	(\$4.04)	\$0.00	\$0.00	\$0.00	\$16.17	\$0.00	\$0.38
(24)	785	\$944.21	\$930.67	\$13.53	1.5%	\$0.00	(\$4.37)	\$0.00	\$0.00	\$0.00	\$17.50	\$0.00	\$0.41
(25)	845	\$1,005.90	\$991.33	\$14.57	1.5%	\$0.00	(\$4.71)	\$0.00	\$0.00	\$0.00	\$18.84	\$0.00	\$0.44
(26)	905	\$1,067.60	\$1,051.98	\$15.62	1.5%	\$0.00	(\$5.05)	\$0.00	\$0.00	\$0.00	\$20.20	\$0.00	\$0.47
(27)	964	\$1,128.19	\$1,111.58	\$16.61	1.5%	\$0.00	(\$5.37)	\$0.00	\$0.00	\$0.00	\$21.48	\$0.00	\$0.50
(28)	1,023	\$1,188.85	\$1,171.22	\$17.64	1.5%	\$0.00	(\$5.70)	\$0.00	\$0.00	\$0.00	\$22.81	\$0.00	\$0.53
(29)	1,082	\$1,249.49	\$1,230.84	\$18.65	1.5%	\$0.00	(\$6.03)	\$0.00	\$0.00	\$0.00	\$24.12	\$0.00	\$0.56
(30)	1,142	\$1,311.22	\$1,291.53	\$19.69	1.5%	\$0.00	(\$6.37)	\$0.00	\$0.00	\$0.00	\$25.47	\$0.00	\$0.59

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 2

Residential Non-Heating:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	Difference due to:			
						DAC		EE	
						Base DAC	ISR	EE	LIHEAP
									GET
(31)									
(32)									
(33)									
(34)									
(35)	144	\$394.88	\$391.60	\$3.29	0.8%	\$0.00	\$0.00	\$3.19	\$0.00
(36)	158	\$415.45	\$411.85	\$3.61	0.9%	\$0.00	\$0.00	\$3.50	\$0.00
(37)	172	\$436.10	\$432.15	\$3.95	0.9%	\$0.00	\$0.00	\$3.83	\$0.00
(38)	189	\$461.09	\$456.76	\$4.33	0.9%	\$0.00	\$0.00	\$4.20	\$0.00
(39)	202	\$480.25	\$475.61	\$4.64	1.0%	\$0.00	\$0.00	\$4.50	\$0.00
(40)	220	\$506.69	\$501.64	\$5.05	1.0%	\$0.00	\$0.00	\$4.90	\$0.00
(41)	238	\$533.18	\$527.71	\$5.46	1.0%	\$0.00	\$0.00	\$5.30	\$0.00
(42)	251	\$552.33	\$546.56	\$5.77	1.1%	\$0.00	\$0.00	\$5.60	\$0.00
(43)	268	\$577.28	\$571.12	\$6.16	1.1%	\$0.00	\$0.00	\$5.98	\$0.00
(44)	282	\$597.88	\$591.40	\$6.47	1.1%	\$0.00	\$0.00	\$6.28	\$0.00
(45)	297	\$619.98	\$613.14	\$6.84	1.1%	\$0.00	\$0.00	\$6.63	\$0.00

Residential Non-Heating Low Income:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Total Bill		Difference due to:		EE	LIHEAP	GET
							Discount	Base DAC	DAC	ISR			
(46)													
(47)													
(48)													
(49)													
(50)	144	\$294.48	\$292.01	\$2.47	0.8%	\$0.00	(\$0.80)	\$0.00	\$0.00	\$0.00	\$3.19	\$0.00	\$0.07
(51)	158	\$309.74	\$307.03	\$2.71	0.9%	\$0.00	(\$0.88)	\$0.00	\$0.00	\$0.00	\$3.50	\$0.00	\$0.08
(52)	172	\$325.05	\$322.09	\$2.96	0.9%	\$0.00	(\$0.96)	\$0.00	\$0.00	\$0.00	\$3.83	\$0.00	\$0.09
(53)	189	\$343.58	\$340.33	\$3.25	1.0%	\$0.00	(\$1.05)	\$0.00	\$0.00	\$0.00	\$4.20	\$0.00	\$0.10
(54)	202	\$357.82	\$354.34	\$3.48	1.0%	\$0.00	(\$1.13)	\$0.00	\$0.00	\$0.00	\$4.50	\$0.00	\$0.10
(55)	220	\$377.43	\$373.64	\$3.79	1.0%	\$0.00	(\$1.22)	\$0.00	\$0.00	\$0.00	\$4.90	\$0.00	\$0.11
(56)	238	\$397.06	\$392.96	\$4.10	1.0%	\$0.00	(\$1.32)	\$0.00	\$0.00	\$0.00	\$5.30	\$0.00	\$0.12
(57)	251	\$411.29	\$406.96	\$4.33	1.1%	\$0.00	(\$1.40)	\$0.00	\$0.00	\$0.00	\$5.60	\$0.00	\$0.13
(58)	268	\$429.82	\$425.20	\$4.62	1.1%	\$0.00	(\$1.50)	\$0.00	\$0.00	\$0.00	\$5.98	\$0.00	\$0.14
(59)	282	\$445.09	\$440.23	\$4.86	1.1%	\$0.00	(\$1.57)	\$0.00	\$0.00	\$0.00	\$6.28	\$0.00	\$0.15
(60)	297	\$461.49	\$456.37	\$5.13	1.1%	\$0.00	(\$1.66)	\$0.00	\$0.00	\$0.00	\$6.63	\$0.00	\$0.15

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 2

C & I Small:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(61)												
(62)												
(63)												
(64)												
(65)	830	\$1,377.07	\$1,363.85	\$13.22	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$12.82	\$0.00	\$0.40
(66)	919	\$1,490.45	\$1,475.78	\$14.67	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$14.23	\$0.00	\$0.44
(67)	1,010	\$1,606.46	\$1,590.33	\$16.13	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$15.65	\$0.00	\$0.48
(68)	1,099	\$1,719.92	\$1,702.35	\$17.58	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$17.05	\$0.00	\$0.53
(69)	1,187	\$1,832.15	\$1,813.18	\$18.97	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$18.40	\$0.00	\$0.57
(70)	1,277	\$1,946.80	\$1,926.42	\$20.38	1.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$19.77	\$0.00	\$0.61
(71)	1,367	\$2,061.50	\$2,039.65	\$21.85	1.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$21.19	\$0.00	\$0.66
(72)	1,456	\$2,174.93	\$2,151.68	\$23.25	1.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$22.55	\$0.00	\$0.70
(73)	1,544	\$2,287.16	\$2,262.48	\$24.68	1.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$23.94	\$0.00	\$0.74
(74)	1,635	\$2,403.15	\$2,376.99	\$26.15	1.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$25.37	\$0.00	\$0.78
(75)	1,725	\$2,517.81	\$2,490.23	\$27.59	1.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$26.76	\$0.00	\$0.83

C & I Medium:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(76)												
(77)												
(78)												
(79)												
(80)	6,907	\$8,617.14	\$8,506.77	\$110.37	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$107.06	\$0.00	\$3.31
(81)	7,650	\$9,430.11	\$9,307.87	\$122.24	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$118.57	\$0.00	\$3.67
(82)	8,391	\$10,240.40	\$10,106.29	\$134.10	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$130.08	\$0.00	\$4.02
(83)	9,136	\$11,055.30	\$10,909.32	\$145.99	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$141.61	\$0.00	\$4.38
(84)	9,880	\$11,869.23	\$11,711.37	\$157.87	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$153.13	\$0.00	\$4.74
(85)	10,623	\$12,682.18	\$12,512.44	\$169.74	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$164.65	\$0.00	\$5.09
(86)	11,366	\$13,495.09	\$13,313.50	\$181.60	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$176.15	\$0.00	\$5.45
(87)	12,111	\$14,310.04	\$14,116.52	\$193.53	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$187.72	\$0.00	\$5.81
(88)	12,855	\$15,123.98	\$14,918.56	\$205.42	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$199.26	\$0.00	\$6.16
(89)	13,596	\$15,934.26	\$15,716.98	\$217.28	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$210.76	\$0.00	\$6.52
(90)	14,340	\$16,748.17	\$16,519.01	\$229.15	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$222.28	\$0.00	\$6.87

**National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 2**

C & I HLF Large:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(91)												
(92)												
(93)												
(94)												
(95)	37,587	\$44,435.54	\$43,834.92	\$600.62	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$582.60	\$0.00	\$18.02
(96)	41,634	\$48,952.11	\$48,286.83	\$665.28	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$645.32	\$0.00	\$19.96
(97)	45,683	\$53,471.30	\$52,741.30	\$730.00	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$708.10	\$0.00	\$21.90
(98)	49,731	\$57,989.56	\$57,194.89	\$794.67	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$770.83	\$0.00	\$23.84
(99)	53,777	\$62,505.13	\$61,645.80	\$859.33	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$833.55	\$0.00	\$25.78
(100)	57,825	\$67,023.34	\$66,099.35	\$923.99	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$896.27	\$0.00	\$27.72
(101)	61,873	\$71,541.55	\$70,552.86	\$988.69	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$959.03	\$0.00	\$29.66
(102)	65,920	\$76,058.13	\$75,004.75	\$1,053.38	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,021.78	\$0.00	\$31.60
(103)	69,967	\$80,575.38	\$79,457.35	\$1,118.03	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,084.49	\$0.00	\$33.54
(104)	74,016	\$85,094.58	\$83,911.82	\$1,182.75	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,147.27	\$0.00	\$35.48
(105)	78,063	\$89,611.11	\$88,363.73	\$1,247.38	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,209.96	\$0.00	\$37.42

C & I HLF Large:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(106)												
(107)												
(108)												
(109)												
(110)	41,956	\$41,067.65	\$40,397.22	\$670.43	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$650.32	\$0.00	\$20.11
(111)	46,471	\$45,219.90	\$44,477.32	\$742.58	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$720.30	\$0.00	\$22.28
(112)	50,991	\$49,376.31	\$48,561.52	\$814.79	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$790.35	\$0.00	\$24.44
(113)	55,507	\$53,529.36	\$52,642.41	\$886.95	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$860.34	\$0.00	\$26.61
(114)	60,028	\$57,686.60	\$56,727.39	\$959.22	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$930.44	\$0.00	\$28.78
(115)	64,545	\$61,840.50	\$60,809.11	\$1,031.39	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,000.45	\$0.00	\$30.94
(116)	69,062	\$65,994.41	\$64,890.83	\$1,103.58	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,070.47	\$0.00	\$33.11
(117)	73,583	\$70,151.57	\$68,975.78	\$1,175.79	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,140.52	\$0.00	\$35.27
(118)	78,099	\$74,304.64	\$73,056.69	\$1,247.95	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,210.51	\$0.00	\$37.44
(119)	82,619	\$78,461.04	\$77,140.84	\$1,320.21	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,280.60	\$0.00	\$39.61
(120)	87,137	\$82,616.72	\$81,224.31	\$1,392.41	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,350.64	\$0.00	\$41.77

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 2

C & I HLF Extra-Large:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(121)												
(122)												
(123)												
(124)												
(125)	233,835	\$206,799.01	\$203,062.47	\$3,736.54	1.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$3,624.44	\$0.00	\$112.10
(126)	259,019	\$228,403.74	\$224,264.75	\$4,138.99	1.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$4,014.82	\$0.00	\$124.17
(127)	284,197	\$250,003.99	\$245,462.70	\$4,541.29	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$4,405.05	\$0.00	\$136.24
(128)	309,381	\$271,608.65	\$266,664.94	\$4,943.70	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$4,795.39	\$0.00	\$148.31
(129)	334,562	\$293,211.13	\$287,865.04	\$5,346.09	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$5,185.71	\$0.00	\$160.38
(130)	359,745	\$314,815.15	\$309,066.64	\$5,748.52	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$5,576.06	\$0.00	\$172.46
(131)	384,928	\$336,419.08	\$330,268.21	\$6,150.88	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$5,966.35	\$0.00	\$184.53
(132)	410,110	\$358,022.32	\$351,469.01	\$6,553.31	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$6,356.71	\$0.00	\$196.60
(133)	435,293	\$379,626.25	\$372,670.55	\$6,955.70	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$6,747.03	\$0.00	\$208.67
(134)	460,471	\$401,226.51	\$393,868.47	\$7,358.04	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$7,137.30	\$0.00	\$220.74
(135)	485,655	\$422,831.22	\$415,070.76	\$7,760.46	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$7,527.65	\$0.00	\$232.81

C & I HLF Extra-Large:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(136)												
(137)												
(138)												
(139)												
(140)	486,528	\$373,389.46	\$365,615.01	\$7,774.45	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$7,541.22	\$0.00	\$233.23
(141)	538,924	\$412,934.24	\$404,322.55	\$8,611.69	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$8,353.34	\$0.00	\$258.35
(142)	591,320	\$452,478.19	\$443,029.28	\$9,448.91	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$9,165.44	\$0.00	\$283.47
(143)	643,718	\$492,024.23	\$481,738.03	\$10,286.20	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$9,977.61	\$0.00	\$308.59
(144)	696,109	\$531,564.85	\$520,441.45	\$11,123.40	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$10,789.70	\$0.00	\$333.70
(145)	748,506	\$571,110.23	\$559,149.58	\$11,960.65	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$11,601.83	\$0.00	\$358.82
(146)	800,903	\$610,655.71	\$597,857.75	\$12,797.96	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$12,414.02	\$0.00	\$383.94
(147)	853,294	\$650,196.20	\$636,561.09	\$13,635.11	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$13,226.06	\$0.00	\$409.05
(148)	905,692	\$689,742.30	\$675,269.90	\$14,472.39	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$14,038.22	\$0.00	\$434.17
(149)	958,088	\$729,286.24	\$713,976.59	\$15,309.65	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$14,850.36	\$0.00	\$459.29
(150)	1,010,485	\$768,831.69	\$752,684.72	\$16,146.97	2.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$15,662.56	\$0.00	\$484.41

National Grid - RI Gas Energy Efficiency Program Plan Bill Impact Analysis with Various Levels of Consumption Base Case - Year 3

Residential Heating:

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)	(64)	(65)	(66)	(67)	(68)	(69)	(70)	(71)	(72)	(73)	(74)	(75)	(76)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(99)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)	(108)	(109)	(110)	(111)	(112)	(113)	(114)	(115)	(116)	(117)	(118)	(119)	(120)	(121)	(122)	(123)	(124)	(125)	(126)	(127)	(128)	(129)	(130)	(131)	(132)	(133)	(134)	(135)	(136)	(137)	(138)	(139)	(140)	(141)	(142)	(143)	(144)	(145)	(146)	(147)	(148)	(149)	(150)	(151)	(152)	(153)	(154)	(155)	(156)	(157)	(158)	(159)	(160)	(161)	(162)	(163)	(164)	(165)	(166)	(167)	(168)	(169)	(170)	(171)	(172)	(173)	(174)	(175)	(176)	(177)	(178)	(179)	(180)	(181)	(182)	(183)	(184)	(185)	(186)	(187)	(188)	(189)	(190)	(191)	(192)	(193)	(194)	(195)	(196)	(197)	(198)	(199)	(200)	(201)	(202)	(203)	(204)	(205)	(206)	(207)	(208)	(209)	(210)	(211)	(212)	(213)	(214)	(215)	(216)	(217)	(218)	(219)	(220)	(221)	(222)	(223)	(224)	(225)	(226)	(227)	(228)	(229)	(230)	(231)	(232)	(233)	(234)	(235)	(236)	(237)	(238)	(239)	(240)	(241)	(242)	(243)	(244)	(245)	(246)	(247)	(248)	(249)	(250)	(251)	(252)	(253)	(254)	(255)	(256)	(257)	(258)	(259)	(260)	(261)	(262)	(263)	(264)	(265)	(266)	(267)	(268)	(269)	(270)	(271)	(272)	(273)	(274)	(275)	(276)	(277)	(278)	(279)	(280)	(281)	(282)	(283)	(284)	(285)	(286)	(287)	(288)	(289)	(290)	(291)	(292)	(293)	(294)	(295)	(296)	(297)	(298)	(299)	(300)	(301)	(302)	(303)	(304)	(305)	(306)	(307)	(308)	(309)	(310)	(311)	(312)	(313)	(314)	(315)	(316)	(317)	(318)	(319)	(320)	(321)	(322)	(323)	(324)	(325)	(326)	(327)	(328)	(329)	(330)	(331)	(332)	(333)	(334)	(335)	(336)	(337)	(338)	(339)	(340)	(341)	(342)	(343)	(344)	(345)	(346)	(347)	(348)	(349)	(350)	(351)	(352)	(353)	(354)	(355)	(356)	(357)	(358)	(359)	(360)	(361)	(362)	(363)	(364)	(365)	(366)	(367)	(368)	(369)	(370)	(371)	(372)	(373)	(374)	(375)	(376)	(377)	(378)	(379)	(380)	(381)	(382)	(383)	(384)	(385)	(386)	(387)	(388)	(389)	(390)	(391)	(392)	(393)	(394)	(395)	(396)	(397)	(398)	(399)	(400)	(401)	(402)	(403)	(404)	(405)	(406)	(407)	(408)	(409)	(410)	(411)	(412)	(413)	(414)	(415)	(416)	(417)	(418)	(419)	(420)	(421)	(422)	(423)	(424)	(425)	(426)	(427)	(428)	(429)	(430)	(431)	(432)	(433)	(434)	(435)	(436)	(437)	(438)	(439)	(440)	(441)	(442)	(443)	(444)	(445)	(446)	(447)	(448)	(449)	(450)	(451)	(452)	(453)	(454)	(455)	(456)	(457)	(458)	(459)	(460)	(461)	(462)	(463)	(464)	(465)	(466)	(467)	(468)	(469)	(470)	(471)	(472)	(473)	(474)	(475)	(476)	(477)	(478)	(479)	(480)	(481)	(482)	(483)	(484)	(485)	(486)	(487)	(488)	(489)	(490)	(491)	(492)	(493)	(494)	(495)	(496)	(497)	(498)	(499)	(500)	(501)	(502)	(503)	(504)	(505)	(506)	(507)	(508)	(509)	(510)	(511)	(512)	(513)	(514)	(515)	(516)	(517)	(518)	(519)	(520)	(521)	(522)	(523)	(524)	(525)	(526)	(527)	(528)	(529)	(530)	(531)	(532)	(533)	(534)	(535)	(536)	(537)	(538)	(539)	(540)	(541)	(542)	(543)	(544)	(545)	(546)	(547)	(548)	(549)	(550)	(551)	(552)	(553)	(554)	(555)	(556)	(557)	(558)	(559)	(560)	(561)	(562)	(563)	(564)	(565)	(566)	(567)	(568)	(569)	(570)	(571)	(572)	(573)	(574)	(575)	(576)	(577)	(578)	(579)	(580)	(581)	(582)	(583)	(584)	(585)	(586)	(587)	(588)	(589)	(590)	(591)	(592)	(593)	(594)	(595)	(596)	(597)	(598)	(599)	(600)	(601)	(602)	(603)	(604)	(605)	(606)	(607)	(608)	(609)	(610)	(611)	(612)	(613)	(614)	(615)	(616)	(617)	(618)	(619)	(620)	(621)	(622)	(623)	(624)	(625)	(626)	(627)	(628)	(629)	(630)	(631)	(632)	(633)	(634)	(635)	(636)	(637)	(638)	(639)	(640)	(641)	(642)	(643)	(644)	(645)	(646)	(647)	(648)	(649)	(650)	(651)	(652)	(653)	(654)	(655)	(656)	(657)	(658)	(659)	(660)	(661)	(662)	(663)	(664)	(665)	(666)	(667)	(668)	(669)	(670)	(671)	(672)	(673)	(674)	(675)	(676)	(677)	(678)	(679)	(680)	(681)	(682)	(683)	(684)	(685)	(686)	(687)	(688)	(689)	(690)	(691)	(692)	(693)	(694)	(695)	(696)	(697)	(698)	(699)	(700)	(701)	(702)	(703)	(704)	(705)	(706)	(707)	(708)	(709)	(710)	(711)	(712)	(713)	(714)	(715)	(716)	(717)	(718)	(719)	(720)	(721)	(722)	(723)	(724)	(725)	(726)	(727)	(728)	(729)	(730)	(731)	(732)	(733)	(734)	(735)	(736)	(737)	(738)	(739)	(740)	(741)	(742)	(743)	(744)	(745)	(746)	(747)	(748)	(749)	(750)	(751)	(752)	(753)	(754)	(755)	(756)	(757)	(758)	(759)	(760)	(761)	(762)	(763)	(764)	(765)	(766)	(767)	(768)	(769)	(770)	(771)	(772)	(773)	(774)	(775)	(776)	(777)	(778)	(779)	(780)	(781)	(782)	(783)	(784)	(785)	(786)	(787)	(788)	(789)	(790)	(791)	(792)	(793)	(794)	(795)	(796)	(797)	(798)	(799)	(800)	(801)	(802)	(803)	(804)	(805)	(806)	(807)	(808)	(809)	(810)	(811)	(812)	(813)	(814)	(815)	(816)	(817)	(818)	(819)	(820)	(821)	(822)	(823)	(824)	(825)	(826)	(827)	(828)	(829)	(830)	(831)	(832)	(833)	(834)	(835)	(836)	(837)	(838)	(839)	(840)	(841)	(842)	(843)	(844)	(845)	(846)	(847)	(848)	(849)	(850)	(851)	(852)	(853)	(854)	(855)	(856)	(857)	(858)	(859)	(860)	(861)	(862)	(863)	(864)	(865)	(866)	(867)	(868)	(869)	(870)	(871)	(872)	(873)	(874)	(875)	(876)	(877)	(878)	(879)	(880)	(881)	(882)	(883)	(884)	(885)	(886)	(887)	(888)	(889)	(890)	(891)	(892)	(893)	(894)	(895)	(896)	(897)	(898)	(899)	(900)	(901)	(902)	(903)	(904)	(905)	(906)	(907)	(908)	(909)	(910)	(911)	(912)	(913)	(914)	(915)	(916)	(917)	(918)	(919)	(920)	(921)	(922)	(923)	(924)	(925)	(926)	(927)	(928)	(929)	(930)	(931)	(932)	(933)	(934)	(935)	(936)	(937)	(938)	(939)	(940)	(941)	(942)	(943)	(944)	(945)	(946)	(947)	(948)	(949)	(950)	(951)	(952)	(953)	(954)	(955)	(956)	(957)	(958)	(959)	(960)	(961)	(962)	(963)	(964)	(965)	(966)	(967)	(968)	(969)	(970)	(971)	(972)	(973)	(974)	(975)	(976)	(977)	(978)	(979)	(980)	(981)	(982)	(983)	(984)	(985)	(986)	(987)	(988)	(989)	(990)	(991)	(992)	(993)	(994)	(995)	(996)	(997)	(998)	(999)	(1000)	(1001)	(1002)	(1003)	(1004)	(1005)	(1006)	(1007)	(1008)	(1009)	(1010)	(1011)	(1012)	(1013)	(1014)	(1015)	(1016)	(1017)	(1018)	(1019)	(1020)	(1021)	(1022)	(1023)	(1024)	(1025)	(1026)	(1027)	(1028)	(1029)	(1030)	(1031)	(1032)	(1033)	(1034)	(1035)	(1036)	(1037)	(1038)	(1039)	(1040)	(1041)	(1042)	(1043)	(1044)	(1045)	(1046)	(1047)	(1048)	(1049)	(1050)	(1051)	(1052)	(1053)	(1054)	(1055)	(1056)	(1057)	(1058)	(1059)	(1060)	(1061)	(1062)	(1063)	(1064)	(1065)	(1066)	(1067)	(1068)	(1069)	(1070)	(1071)	(1072)	(1073)	(1074)	(1075)	(1076)	(1077)	(1078)	(1079)	(1080)	(1081)	(1082)	(1083)	(1084)	(1085)	(1086)	(1087)	(1088)	(1089)	(1090)	(1091)	(1092)	(1093)	(1094)	(1095)	(1096)	(1097)	(1098)	(1099)	(1100)	(1101)	(1102)	(1103)	(1104)	(1105)	(1106)	(1107)	(1108)	(1109)	(1110)	(1111)	(1112)	(1113)	(1114)	(1115)	(1116)	(1117)	(1118)	(1119)	(1120)	(1121)	(1122)	(1123)	(1124)
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Residential Heating Low Income:

	Consumption (Therms)	Annual	Proposed		Difference	% Chg	GCR	Total Bill Discount	Difference due to:			EE	LI/HEAP	GET
			2023 EE Rates	Proposed 2022 EE Rates					Base DAC	DAC	ISR			
(16)		548	\$707.75	\$700.59	\$7.17	1.0%	\$0.00	(\$2.32)	\$0.00	\$0.00	\$9.27	\$0.00	\$0.22	
(17)		608	\$770.24	\$762.30	\$7.93	1.0%	\$0.00	(\$2.57)	\$0.00	\$0.00	\$10.26	\$0.00	\$0.24	
(18)		667	\$831.66	\$822.95	\$8.71	1.1%	\$0.00	(\$2.82)	\$0.00	\$0.00	\$11.26	\$0.00	\$0.26	
(19)		726	\$893.11	\$883.62	\$9.49	1.1%	\$0.00	(\$3.07)	\$0.00	\$0.00	\$12.27	\$0.00	\$0.28	
(20)		785	\$954.49	\$944.21	\$10.28	1.1%	\$0.00	(\$3.32)	\$0.00	\$0.00	\$13.30	\$0.00	\$0.31	
(21)		845	\$1,016.96	\$1,005.90	\$11.06	1.1%	\$0.00	(\$3.58)	\$0.00	\$0.00	\$14.31	\$0.00	\$0.33	
(22)		905	\$1,079.44	\$1,067.60	\$11.84	1.1%	\$0.00	(\$3.83)	\$0.00	\$0.00	\$15.31	\$0.00	\$0.36	
(23)		964	\$1,140.80	\$1,128.19	\$12.61	1.1%	\$0.00	(\$4.08)	\$0.00	\$0.00	\$16.31	\$0.00	\$0.38	
(24)		1,023	\$1,202.23	\$1,188.85	\$13.38	1.1%	\$0.00	(\$4.32)	\$0.00	\$0.00	\$17.30	\$0.00	\$0.40	
(25)		1,082	\$1,263.64	\$1,249.49	\$14.15	1.1%	\$0.00	(\$4.57)	\$0.00	\$0.00	\$18.30	\$0.00	\$0.42	
(26)		1,142	\$1,326.14	\$1,311.22	\$14.92	1.1%	\$0.00	(\$4.83)	\$0.00	\$0.00	\$19.30	\$0.00	\$0.43	

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 3

Residential Non-Heating:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	Difference due to:			
						DAC		EE	
						Base DAC	ISR	EE	GET
(31)									
(32)									
(33)									
(34)									
(35)	144	\$397.39	\$394.88	\$2.51	0.6%	\$0.00	\$0.00	\$2.43	\$0.08
(36)	158	\$418.22	\$415.45	\$2.76	0.7%	\$0.00	\$0.00	\$2.68	\$0.08
(37)	172	\$439.10	\$436.10	\$3.00	0.7%	\$0.00	\$0.00	\$2.91	\$0.09
(38)	189	\$464.39	\$461.09	\$3.30	0.7%	\$0.00	\$0.00	\$3.20	\$0.10
(39)	202	\$483.75	\$480.25	\$3.51	0.7%	\$0.00	\$0.00	\$3.40	\$0.11
(40)	220	\$510.53	\$506.69	\$3.84	0.8%	\$0.00	\$0.00	\$3.72	\$0.12
(41)	238	\$537.33	\$533.18	\$4.15	0.8%	\$0.00	\$0.00	\$4.03	\$0.12
(42)	251	\$556.69	\$552.33	\$4.36	0.8%	\$0.00	\$0.00	\$4.23	\$0.13
(43)	268	\$581.94	\$577.28	\$4.66	0.8%	\$0.00	\$0.00	\$4.52	\$0.14
(44)	282	\$602.78	\$597.88	\$4.91	0.8%	\$0.00	\$0.00	\$4.76	\$0.15
(45)	297	\$625.13	\$619.98	\$5.15	0.8%	\$0.00	\$0.00	\$5.00	\$0.15

Residential Non-Heating Low Income:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Total Bill Discount	Difference due to:			EE	LIHEAP	GET
								Base DAC	DAC	ISR			
(46)													
(47)													
(48)													
(49)													
(50)	144	\$296.36	\$294.48	\$1.88	0.6%	\$0.00	(\$0.61)	\$0.00	\$0.00	\$2.43	\$0.00	\$0.06	
(51)	158	\$311.81	\$309.74	\$2.07	0.7%	\$0.00	(\$0.67)	\$0.00	\$0.00	\$2.68	\$0.00	\$0.06	
(52)	172	\$327.30	\$325.05	\$2.25	0.7%	\$0.00	(\$0.73)	\$0.00	\$0.00	\$2.91	\$0.00	\$0.07	
(53)	189	\$346.05	\$343.58	\$2.47	0.7%	\$0.00	(\$0.80)	\$0.00	\$0.00	\$3.20	\$0.00	\$0.07	
(54)	202	\$360.45	\$357.82	\$2.63	0.7%	\$0.00	(\$0.85)	\$0.00	\$0.00	\$3.40	\$0.00	\$0.08	
(55)	220	\$380.30	\$377.43	\$2.88	0.8%	\$0.00	(\$0.93)	\$0.00	\$0.00	\$3.72	\$0.00	\$0.09	
(56)	238	\$400.18	\$397.06	\$3.12	0.8%	\$0.00	(\$1.01)	\$0.00	\$0.00	\$4.03	\$0.00	\$0.09	
(57)	251	\$414.56	\$411.29	\$3.27	0.8%	\$0.00	(\$1.06)	\$0.00	\$0.00	\$4.23	\$0.00	\$0.10	
(58)	268	\$433.32	\$429.82	\$3.49	0.8%	\$0.00	(\$1.13)	\$0.00	\$0.00	\$4.52	\$0.00	\$0.10	
(59)	282	\$448.77	\$445.09	\$3.68	0.8%	\$0.00	(\$1.19)	\$0.00	\$0.00	\$4.76	\$0.00	\$0.11	
(60)	297	\$465.36	\$461.49	\$3.87	0.8%	\$0.00	(\$1.25)	\$0.00	\$0.00	\$5.00	\$0.00	\$0.12	

**National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 3**

C & I Small:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(61)												
(62)												
(63)												
(64)												
(65)	830	\$1,387.17	\$1,377.07	\$10.10	0.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$9.80	\$0.00	\$0.30
(66)	919	\$1,501.64	\$1,490.45	\$11.19	0.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$10.85	\$0.00	\$0.34
(67)	1,010	\$1,618.75	\$1,606.46	\$12.29	0.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$11.92	\$0.00	\$0.37
(68)	1,099	\$1,733.29	\$1,719.92	\$13.37	0.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$12.97	\$0.00	\$0.40
(69)	1,187	\$1,846.60	\$1,832.15	\$14.44	0.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$14.01	\$0.00	\$0.43
(70)	1,277	\$1,962.33	\$1,946.80	\$15.53	0.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$15.06	\$0.00	\$0.47
(71)	1,367	\$2,078.15	\$2,061.50	\$16.65	0.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$16.15	\$0.00	\$0.50
(72)	1,456	\$2,192.65	\$2,174.93	\$17.72	0.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$17.19	\$0.00	\$0.53
(73)	1,544	\$2,305.94	\$2,287.16	\$18.78	0.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$18.22	\$0.00	\$0.56
(74)	1,635	\$2,423.03	\$2,403.15	\$19.89	0.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$19.29	\$0.00	\$0.60
(75)	1,725	\$2,538.79	\$2,517.81	\$20.98	0.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$20.35	\$0.00	\$0.63

C & I Medium:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(76)												
(77)												
(78)												
(79)												
(80)	6,907	\$8,701.16	\$8,617.14	\$84.02	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$81.50	\$0.00	\$2.52
(81)	7,650	\$9,523.16	\$9,430.11	\$93.05	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$90.26	\$0.00	\$2.79
(82)	8,391	\$10,342.46	\$10,240.40	\$102.06	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$99.00	\$0.00	\$3.06
(83)	9,136	\$11,166.44	\$11,055.30	\$111.13	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$107.80	\$0.00	\$3.33
(84)	9,880	\$11,989.43	\$11,869.23	\$120.20	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$116.59	\$0.00	\$3.61
(85)	10,623	\$12,811.42	\$12,682.18	\$129.24	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$125.36	\$0.00	\$3.88
(86)	11,366	\$13,633.38	\$13,495.09	\$138.29	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$134.14	\$0.00	\$4.15
(87)	12,111	\$14,457.37	\$14,310.04	\$147.33	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$142.91	\$0.00	\$4.42
(88)	12,855	\$15,280.35	\$15,123.98	\$156.37	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$151.68	\$0.00	\$4.69
(89)	13,596	\$16,099.65	\$15,934.26	\$165.39	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$160.43	\$0.00	\$4.96
(90)	14,340	\$16,922.62	\$16,748.17	\$174.45	1.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$169.22	\$0.00	\$5.23

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 3

C & I HLF Large:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	Difference due to:						
						GCR	Base DAC	ISR	EE	LIHEAP	GET	
(91)												
(92)												
(93)												
(94)												
(95)	37,587	\$44,892.78	\$44,435.54	\$457.24	1.0%	\$0.00	\$0.00	\$0.00	\$443.52	\$0.00	\$13.72	
(96)	41,634	\$49,458.58	\$48,952.11	\$506.47	1.0%	\$0.00	\$0.00	\$0.00	\$491.28	\$0.00	\$15.19	
(97)	45,683	\$54,027.03	\$53,471.30	\$555.73	1.0%	\$0.00	\$0.00	\$0.00	\$539.06	\$0.00	\$16.67	
(98)	49,731	\$58,594.54	\$57,989.56	\$604.98	1.0%	\$0.00	\$0.00	\$0.00	\$586.83	\$0.00	\$18.15	
(99)	53,777	\$63,159.31	\$62,505.13	\$654.19	1.0%	\$0.00	\$0.00	\$0.00	\$634.56	\$0.00	\$19.63	
(100)	57,825	\$67,726.77	\$67,023.34	\$703.43	1.0%	\$0.00	\$0.00	\$0.00	\$682.33	\$0.00	\$21.10	
(101)	61,873	\$72,294.24	\$71,541.55	\$752.69	1.1%	\$0.00	\$0.00	\$0.00	\$730.11	\$0.00	\$22.58	
(102)	65,920	\$76,860.05	\$76,058.13	\$801.92	1.1%	\$0.00	\$0.00	\$0.00	\$777.86	\$0.00	\$24.06	
(103)	69,967	\$81,426.52	\$80,575.38	\$851.14	1.1%	\$0.00	\$0.00	\$0.00	\$825.61	\$0.00	\$25.53	
(104)	74,016	\$85,994.98	\$85,094.58	\$900.40	1.1%	\$0.00	\$0.00	\$0.00	\$873.39	\$0.00	\$27.01	
(105)	78,063	\$90,560.75	\$89,611.11	\$949.64	1.1%	\$0.00	\$0.00	\$0.00	\$921.15	\$0.00	\$28.49	

C & I HLF Large:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	Difference due to:							
						GCR	DAC		ISR	EE	LIHEAP	GET	
							Base DAC						
(106)	41,956	\$41,578.02	\$41,067.65	\$510.37	1.2%	\$0.00	\$0.00	\$0.00	\$0.00	\$495.06	\$0.00	\$15.31	
(107)	46,471	\$45,785.22	\$45,219.90	\$565.32	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$548.36	\$0.00	\$16.96	
(108)	50,991	\$49,996.61	\$49,376.31	\$620.30	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$601.69	\$0.00	\$18.61	
(109)	55,507	\$54,204.61	\$53,529.36	\$675.25	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$654.99	\$0.00	\$20.26	
(110)	60,028	\$58,416.85	\$57,686.60	\$730.25	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$708.34	\$0.00	\$21.91	
(111)	64,545	\$62,625.67	\$61,840.50	\$785.16	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$761.61	\$0.00	\$23.55	
(112)	69,062	\$66,834.53	\$65,994.41	\$840.12	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$814.92	\$0.00	\$25.20	
(113)	73,583	\$71,046.70	\$70,151.57	\$895.12	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$868.27	\$0.00	\$26.85	
(114)	78,099	\$75,254.73	\$74,304.64	\$950.09	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$921.59	\$0.00	\$28.50	
(115)	82,619	\$79,466.09	\$78,461.04	\$1,005.05	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$974.90	\$0.00	\$30.15	
(116)	87,137	\$83,676.72	\$82,616.72	\$1,060.00	1.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$1,028.20	\$0.00	\$31.80	

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
Base Case – Year 3

C & I HLF Extra-Large:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(121)												
(122)												
(123)												
(124)												
(125)	233,835	\$209,643.59	\$206,799.01	\$2,844.58	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$2,759.24	\$0.00	\$85.34
(126)	259,019	\$231,554.69	\$228,403.74	\$3,150.95	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$3,056.42	\$0.00	\$94.53
(127)	284,197	\$253,461.23	\$250,003.99	\$3,457.24	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$3,353.52	\$0.00	\$103.72
(128)	309,381	\$275,372.25	\$271,608.65	\$3,763.61	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$3,650.70	\$0.00	\$112.91
(129)	334,562	\$297,281.06	\$293,211.13	\$4,069.93	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$3,947.83	\$0.00	\$122.10
(130)	359,745	\$319,191.41	\$314,815.15	\$4,376.26	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$4,244.97	\$0.00	\$131.29
(131)	384,928	\$341,101.72	\$336,419.08	\$4,682.64	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$4,542.16	\$0.00	\$140.48
(132)	410,110	\$363,011.29	\$358,022.32	\$4,988.97	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$4,839.30	\$0.00	\$149.67
(133)	435,293	\$384,921.56	\$379,626.25	\$5,295.31	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$5,136.45	\$0.00	\$158.86
(134)	460,471	\$406,828.11	\$401,226.51	\$5,601.60	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$5,433.55	\$0.00	\$168.05
(135)	485,655	\$428,739.21	\$422,831.22	\$5,907.99	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$5,730.75	\$0.00	\$177.24

C & I HLF Extra-Large:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(136)												
(137)												
(138)												
(139)												
(140)	486,528	\$379,308.04	\$373,389.46	\$5,918.58	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$5,741.02	\$0.00	\$177.56
(141)	538,924	\$419,490.22	\$412,934.24	\$6,555.98	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$6,359.30	\$0.00	\$196.68
(142)	591,320	\$459,671.56	\$452,478.19	\$7,193.37	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$6,977.57	\$0.00	\$215.80
(143)	643,718	\$499,855.01	\$492,024.23	\$7,830.78	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$7,595.86	\$0.00	\$234.92
(144)	696,109	\$540,032.97	\$531,564.85	\$8,468.12	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$8,214.08	\$0.00	\$254.04
(145)	748,506	\$580,215.77	\$571,110.23	\$9,105.55	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$8,832.38	\$0.00	\$273.17
(146)	800,903	\$620,398.66	\$610,655.71	\$9,742.96	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$9,450.67	\$0.00	\$292.29
(147)	853,294	\$660,576.46	\$650,196.20	\$10,380.26	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$10,068.85	\$0.00	\$311.41
(148)	905,692	\$700,760.01	\$689,742.30	\$11,017.71	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$10,687.18	\$0.00	\$330.53
(149)	958,088	\$740,941.35	\$729,286.24	\$11,655.10	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$11,305.45	\$0.00	\$349.65
(150)	1,010,485	\$781,124.16	\$768,831.69	\$12,292.46	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$11,923.69	\$0.00	\$368.77

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario – Year 1

Residential Heating:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	Difference due to:			
						DAC		EE	
						Base	ISR	LIHEAP	GET
						DAC			
(1)									
(2)									
(3)									
(4)									
(5)	548	\$930.14	\$930.14	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(6)	608	\$1,011.94	\$1,011.94	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(7)	667	\$1,092.40	\$1,092.40	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(8)	726	\$1,172.87	\$1,172.87	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(9)	785	\$1,253.20	\$1,253.20	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(10)	845	\$1,335.02	\$1,335.02	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(11)	905	\$1,416.83	\$1,416.83	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(12)	964	\$1,497.23	\$1,497.23	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(13)	1,023	\$1,577.64	\$1,577.64	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(14)	1,082	\$1,658.09	\$1,658.09	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00
(15)	1,142	\$1,739.92	\$1,739.92	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00

Residential Heating Low Income:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Total Bill Discount	Difference due to:			EE	LIHEAP	GET
								Base DAC	DAC	ISR			
(16)	548	\$691.15	\$691.15	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(17)	608	\$751.81	\$751.81	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(18)	667	\$811.46	\$811.46	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(19)	726	\$871.12	\$871.12	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(20)	785	\$930.67	\$930.67	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(21)	845	\$991.33	\$991.33	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(22)	905	\$1,051.98	\$1,051.98	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(23)	964	\$1,111.58	\$1,111.58	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(24)	1,023	\$1,171.22	\$1,171.22	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(25)	1,082	\$1,230.84	\$1,230.84	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(26)	1,142	\$1,291.53	\$1,291.53	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario - Year 1

Residential Non-Heating:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Difference due to:			
							Base DAC	DAC	ISR	EE
(31)										
(32)										
(33)										
(34)										
(35)	144	\$391.60	\$391.60	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(36)	158	\$411.85	\$411.85	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(37)	172	\$432.15	\$432.15	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(38)	189	\$456.76	\$456.76	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(39)	202	\$475.61	\$475.61	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(40)	220	\$501.64	\$501.64	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(41)	238	\$527.71	\$527.71	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(42)	251	\$546.56	\$546.56	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(43)	268	\$571.12	\$571.12	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(44)	282	\$591.40	\$591.40	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(45)	297	\$613.14	\$613.14	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Residential Non-Heating Low Income:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Total Bill Discount	Difference due to:			
								Base DAC	DAC	ISR	EE
(46)											
(47)											
(48)											
(49)											
(50)	144	\$292.01	\$292.01	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(51)	158	\$307.03	\$307.03	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(52)	172	\$322.09	\$322.09	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(53)	189	\$340.33	\$340.33	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(54)	202	\$354.34	\$354.34	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(55)	220	\$373.64	\$373.64	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(56)	238	\$392.96	\$392.96	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(57)	251	\$406.96	\$406.96	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(58)	268	\$425.20	\$425.20	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(59)	282	\$440.23	\$440.23	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(60)	297	\$456.37	\$456.37	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario - Year 1

C & I Small:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(61)												
(62)												
(63)												
(64)												
(65)	830	\$1,363.85	\$1,363.85	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(66)	919	\$1,475.78	\$1,475.78	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(67)	1,010	\$1,590.33	\$1,590.33	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(68)	1,099	\$1,702.35	\$1,702.35	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(69)	1,187	\$1,813.18	\$1,813.18	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(70)	1,277	\$1,926.42	\$1,926.42	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(71)	1,367	\$2,039.65	\$2,039.65	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(72)	1,456	\$2,151.68	\$2,151.68	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(73)	1,544	\$2,262.48	\$2,262.48	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(74)	1,635	\$2,376.99	\$2,376.99	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(75)	1,725	\$2,490.23	\$2,490.23	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

C & I Medium:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(76)												
(77)												
(78)												
(79)												
(80)	6,907	\$8,506.77	\$8,506.77	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(81)	7,650	\$9,307.87	\$9,307.87	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(82)	8,391	\$10,106.29	\$10,106.29	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(83)	9,136	\$10,909.32	\$10,909.32	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(84)	9,880	\$11,711.37	\$11,711.37	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(85)	10,623	\$12,512.44	\$12,512.44	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(86)	11,366	\$13,313.50	\$13,313.50	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(87)	12,111	\$14,116.52	\$14,116.52	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(88)	12,855	\$14,918.56	\$14,918.56	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(89)	13,596	\$15,716.98	\$15,716.98	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(90)	14,340	\$16,519.01	\$16,519.01	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario - Year 1**

C & I LLLF Large:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(91)												
(92)												
(93)												
(94)												
(95)	37,587	\$43,834.92	\$43,834.92	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(96)	41,634	\$48,286.83	\$48,286.83	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(97)	45,683	\$52,741.30	\$52,741.30	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(98)	49,731	\$57,194.89	\$57,194.89	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(99)	53,777	\$61,645.80	\$61,645.80	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(100)	57,825	\$66,099.35	\$66,099.35	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(101)	61,873	\$70,552.86	\$70,552.86	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(102)	65,920	\$75,004.75	\$75,004.75	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(103)	69,967	\$79,457.35	\$79,457.35	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(104)	74,016	\$83,911.82	\$83,911.82	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(105)	78,063	\$88,363.73	\$88,363.73	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

C & I HLF Large:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(106)												
(107)												
(108)												
(109)												
(110)	41,956	\$40,397.22	\$40,397.22	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(111)	46,471	\$44,477.32	\$44,477.32	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(112)	50,991	\$48,561.52	\$48,561.52	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(113)	55,507	\$52,642.41	\$52,642.41	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(114)	60,028	\$56,727.39	\$56,727.39	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(115)	64,545	\$60,809.11	\$60,809.11	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(116)	69,062	\$64,890.83	\$64,890.83	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(117)	73,583	\$68,975.78	\$68,975.78	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(118)	78,099	\$73,056.69	\$73,056.69	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(119)	82,619	\$77,140.84	\$77,140.84	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(120)	87,137	\$81,224.31	\$81,224.31	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario - Year 1

C & I LLLF Extra-Large:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(121)												
(122)												
(123)												
(124)												
(125)	233,835	\$203,062.47	\$203,062.47	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(126)	259,019	\$224,264.75	\$224,264.75	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(127)	284,197	\$245,462.70	\$245,462.70	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(128)	309,381	\$266,664.94	\$266,664.94	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(129)	334,562	\$287,865.04	\$287,865.04	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(130)	359,745	\$309,066.64	\$309,066.64	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(131)	384,928	\$330,268.21	\$330,268.21	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(132)	410,110	\$351,469.01	\$351,469.01	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(133)	435,293	\$372,670.55	\$372,670.55	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(134)	460,471	\$393,868.47	\$393,868.47	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(135)	485,655	\$415,070.76	\$415,070.76	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

C & I HLLF Extra-Large:

	Annual Consumption (Therms)	Proposed 2021 EE Rates	Current 2020 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(136)												
(137)												
(138)												
(139)												
(140)	486,528	\$365,615.01	\$365,615.01	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(141)	538,924	\$404,322.55	\$404,322.55	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(142)	591,320	\$443,029.28	\$443,029.28	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(143)	643,718	\$481,738.03	\$481,738.03	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(144)	696,109	\$520,441.45	\$520,441.45	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(145)	748,506	\$559,149.58	\$559,149.58	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(146)	800,903	\$597,857.75	\$597,857.75	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(147)	853,294	\$636,561.09	\$636,561.09	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(148)	905,692	\$675,269.90	\$675,269.90	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(149)	958,088	\$713,976.59	\$713,976.59	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
(150)	1,010,485	\$752,684.72	\$752,684.72	\$0.00	0.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario – Year 2

Residential Heating:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)		Difference due to:					GET
		Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates														Base DAC	ISR	EE	LIHEAP	GET
		548	\$952.68	\$930.14														\$0.00	\$0.00	\$21.87	\$0.00	\$0.68
		608	\$1,036.95	\$1,011.94														\$0.00	\$0.00	\$24.26	\$0.00	\$0.75
		667	\$1,119.82	\$1,092.40														\$0.00	\$0.00	\$26.60	\$0.00	\$0.82
		726	\$1,202.73	\$1,172.87														\$0.00	\$0.00	\$28.96	\$0.00	\$0.90
		785	\$1,285.52	\$1,253.20														\$0.00	\$0.00	\$31.35	\$0.00	\$0.97
		845	\$1,369.78	\$1,335.02														\$0.00	\$0.00	\$33.71	\$0.00	\$1.04
		905	\$1,454.09	\$1,416.83														\$0.00	\$0.00	\$36.14	\$0.00	\$1.12
		964	\$1,536.87	\$1,497.23														\$0.00	\$0.00	\$38.46	\$0.00	\$1.19
		1,023	\$1,619.71	\$1,577.64														\$0.00	\$0.00	\$40.80	\$0.00	\$1.26
		1,082	\$1,702.59	\$1,658.09														\$0.00	\$0.00	\$43.17	\$0.00	\$1.34
		1,142	\$1,786.89	\$1,739.92														\$0.00	\$0.00	\$45.56	\$0.00	\$1.41

Residential Heating Low Income:

	Consumption (Therms)	Annual	Proposed		Difference	% Chg	GCR	Total Bill Discount	Difference due to:			EE	LIHEAP	GET
			2022 EE Rates	2021 EE Rates					DAC					
									Base DAC	ISR				
(16)	548		\$708.06	\$691.15	\$16.91	2.4%	\$0.00	(\$5.47)	\$0.00	\$0.00	\$21.87	\$0.00	\$0.51	
(17)	608		\$770.57	\$751.81	\$18.76	2.5%	\$0.00	(\$6.06)	\$0.00	\$0.00	\$24.26	\$0.00	\$0.56	
(18)	667		\$832.03	\$811.46	\$20.57	2.5%	\$0.00	(\$6.65)	\$0.00	\$0.00	\$26.60	\$0.00	\$0.62	
(19)	726		\$893.51	\$871.12	\$22.39	2.6%	\$0.00	(\$7.24)	\$0.00	\$0.00	\$28.96	\$0.00	\$0.67	
(20)	785		\$954.91	\$930.67	\$24.24	2.6%	\$0.00	(\$7.84)	\$0.00	\$0.00	\$31.35	\$0.00	\$0.73	
(21)	845		\$1,017.40	\$991.33	\$26.06	2.6%	\$0.00	(\$8.43)	\$0.00	\$0.00	\$33.71	\$0.00	\$0.78	
(22)	905		\$1,079.92	\$1,051.98	\$27.94	2.7%	\$0.00	(\$9.04)	\$0.00	\$0.00	\$36.14	\$0.00	\$0.84	
(23)	964		\$1,141.32	\$1,111.58	\$29.74	2.7%	\$0.00	(\$9.61)	\$0.00	\$0.00	\$38.46	\$0.00	\$0.89	
(24)	1,023		\$1,202.76	\$1,171.22	\$31.55	2.7%	\$0.00	(\$10.20)	\$0.00	\$0.00	\$40.80	\$0.00	\$0.95	
(25)	1,082		\$1,264.22	\$1,230.84	\$33.38	2.7%	\$0.00	(\$10.79)	\$0.00	\$0.00	\$43.17	\$0.00	\$1.00	
(26)	1,142		\$1,326.75	\$1,291.53	\$35.23	2.7%	\$0.00	(\$11.39)	\$0.00	\$0.00	\$45.56	\$0.00	\$1.06	

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario – Year 2

Residential Non-Heating:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Difference due to:			
							Base DAC	DAC	ISR	EE
										LIHEAP
										GET
(31)										
(32)										
(33)										
(34)										
(35)	144	\$397.51	\$391.60	\$5.92	1.5%	\$0.00	\$0.00	\$0.00	\$0.00	\$5.74
(36)	158	\$418.36	\$411.85	\$6.52	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$6.32
(37)	172	\$439.23	\$432.15	\$7.08	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$6.87
(38)	189	\$464.54	\$456.76	\$7.77	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$7.54
(39)	202	\$483.91	\$475.61	\$8.30	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$8.05
(40)	220	\$510.71	\$501.64	\$9.07	1.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$8.80
(41)	238	\$537.52	\$527.71	\$9.80	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$9.51
(42)	251	\$556.88	\$546.56	\$10.32	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$10.01
(43)	268	\$582.14	\$571.12	\$11.02	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$10.69
(44)	282	\$603.01	\$591.40	\$11.61	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$11.26
(45)	297	\$625.37	\$613.14	\$12.23	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$11.86

Residential Non-Heating Low Income:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Difference due to:			
							Base DAC	DAC	ISR	EE
										LIHEAP
										GET
(46)										
(47)										
(48)										
(49)										
(50)	144	\$296.45	\$292.01	\$4.44	1.5%	\$0.00	(\$1.44)	\$0.00	\$0.00	\$5.74
(51)	158	\$311.92	\$307.03	\$4.89	1.6%	\$0.00	(\$1.58)	\$0.00	\$0.00	\$6.32
(52)	172	\$327.40	\$322.09	\$5.31	1.6%	\$0.00	(\$1.72)	\$0.00	\$0.00	\$6.87
(53)	189	\$346.16	\$340.33	\$5.83	1.7%	\$0.00	(\$1.89)	\$0.00	\$0.00	\$7.54
(54)	202	\$360.56	\$354.34	\$6.22	1.8%	\$0.00	(\$2.01)	\$0.00	\$0.00	\$8.05
(55)	220	\$380.44	\$373.64	\$6.80	1.8%	\$0.00	(\$2.20)	\$0.00	\$0.00	\$8.80
(56)	238	\$400.32	\$392.96	\$7.35	1.9%	\$0.00	(\$2.38)	\$0.00	\$0.00	\$9.51
(57)	251	\$414.70	\$406.96	\$7.74	1.9%	\$0.00	(\$2.50)	\$0.00	\$0.00	\$10.01
(58)	268	\$433.47	\$425.20	\$8.27	1.9%	\$0.00	(\$2.67)	\$0.00	\$0.00	\$10.69
(59)	282	\$448.94	\$440.23	\$8.71	2.0%	\$0.00	(\$2.82)	\$0.00	\$0.00	\$11.26
(60)	297	\$465.54	\$456.37	\$9.17	2.0%	\$0.00	(\$2.96)	\$0.00	\$0.00	\$11.86

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario - Year 2

C & I Small:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(61)												
(62)												
(63)												
(64)												
(65)	830	\$1,387.61	\$1,363.85	\$23.76	1.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$23.05	\$0.00	\$0.71
(66)	919	\$1,502.12	\$1,475.78	\$26.34	1.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$25.55	\$0.00	\$0.79
(67)	1,010	\$1,619.27	\$1,590.33	\$28.94	1.8%	\$0.00	\$0.00	\$0.00	\$0.00	\$28.07	\$0.00	\$0.87
(68)	1,099	\$1,733.87	\$1,702.35	\$31.53	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$30.58	\$0.00	\$0.95
(69)	1,187	\$1,847.20	\$1,813.18	\$34.02	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$33.00	\$0.00	\$1.02
(70)	1,277	\$1,962.99	\$1,926.42	\$36.57	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$35.47	\$0.00	\$1.10
(71)	1,367	\$2,078.84	\$2,039.65	\$39.19	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$38.01	\$0.00	\$1.18
(72)	1,456	\$2,193.41	\$2,151.68	\$41.73	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$40.48	\$0.00	\$1.25
(73)	1,544	\$2,306.75	\$2,262.48	\$44.28	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$42.95	\$0.00	\$1.33
(74)	1,635	\$2,423.86	\$2,376.99	\$46.87	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$45.46	\$0.00	\$1.41
(75)	1,725	\$2,539.67	\$2,490.23	\$49.44	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$47.96	\$0.00	\$1.48

C & I Medium:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(76)												
(77)												
(78)												
(79)												
(80)	6,907	\$8,704.73	\$8,506.77	\$197.96	2.3%	\$0.00	\$0.00	\$0.00	\$0.00	\$192.02	\$0.00	\$5.94
(81)	7,650	\$9,527.13	\$9,307.87	\$219.26	2.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$212.68	\$0.00	\$6.58
(82)	8,391	\$10,346.81	\$10,106.29	\$240.52	2.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$233.30	\$0.00	\$7.22
(83)	9,136	\$11,171.16	\$10,909.32	\$261.85	2.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$253.99	\$0.00	\$7.86
(84)	9,880	\$11,994.53	\$11,711.37	\$283.16	2.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$274.67	\$0.00	\$8.49
(85)	10,623	\$12,816.89	\$12,512.44	\$304.45	2.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$295.32	\$0.00	\$9.13
(86)	11,366	\$13,639.22	\$13,313.50	\$325.72	2.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$315.95	\$0.00	\$9.77
(87)	12,111	\$14,463.59	\$14,116.52	\$347.07	2.5%	\$0.00	\$0.00	\$0.00	\$0.00	\$336.66	\$0.00	\$10.41
(88)	12,855	\$15,286.99	\$14,918.56	\$368.43	2.5%	\$0.00	\$0.00	\$0.00	\$0.00	\$357.38	\$0.00	\$11.05
(89)	13,596	\$16,106.65	\$15,716.98	\$389.67	2.5%	\$0.00	\$0.00	\$0.00	\$0.00	\$377.98	\$0.00	\$11.69
(90)	14,340	\$16,930.00	\$16,519.01	\$410.99	2.5%	\$0.00	\$0.00	\$0.00	\$0.00	\$398.66	\$0.00	\$12.33

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario - Year 2

C & I HLF Large:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	Difference due to:			
						GCR	Base DAC	DAC	EE
								ISR	LIHEAP
									GET
(91)	37,587	\$44,912.15	\$43,834.92	\$1,077.23	2.5%	\$0.00	\$0.00	\$0.00	\$0.00
(92)	41,634	\$49,480.04	\$48,286.83	\$1,193.22	2.5%	\$0.00	\$0.00	\$0.00	\$0.00
(93)	45,683	\$54,050.57	\$52,741.30	\$1,309.27	2.5%	\$0.00	\$0.00	\$0.00	\$0.00
(94)	49,731	\$58,620.16	\$57,194.89	\$1,425.28	2.5%	\$0.00	\$0.00	\$0.00	\$0.00
(95)	53,777	\$63,187.02	\$61,645.80	\$1,541.23	2.5%	\$0.00	\$0.00	\$0.00	\$0.00
(96)	57,825	\$67,756.58	\$66,099.35	\$1,657.23	2.5%	\$0.00	\$0.00	\$0.00	\$0.00
(97)	61,873	\$72,326.13	\$70,552.86	\$1,773.27	2.5%	\$0.00	\$0.00	\$0.00	\$0.00
(98)	65,920	\$76,894.02	\$75,004.75	\$1,889.27	2.5%	\$0.00	\$0.00	\$0.00	\$0.00
(99)	69,967	\$81,462.58	\$79,457.35	\$2,005.23	2.5%	\$0.00	\$0.00	\$0.00	\$0.00
(100)	74,016	\$86,033.11	\$83,911.82	\$2,121.29	2.5%	\$0.00	\$0.00	\$0.00	\$0.00
(101)	78,063	\$90,600.98	\$88,363.73	\$2,237.25	2.5%	\$0.00	\$0.00	\$0.00	\$0.00

C & I HLF Large:

	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	Difference due to:			
						GCR	Base DAC	DAC	EE
								ISR	LIHEAP
									GET
(106)	41,956	\$41,599.66	\$40,397.22	\$1,202.44	3.0%	\$0.00	\$0.00	\$0.00	\$0.00
(107)	46,471	\$45,809.16	\$44,477.32	\$1,331.84	3.0%	\$0.00	\$0.00	\$0.00	\$0.00
(108)	50,991	\$50,022.90	\$48,561.52	\$1,461.38	3.0%	\$0.00	\$0.00	\$0.00	\$0.00
(109)	55,507	\$54,233.22	\$52,642.41	\$1,590.81	3.0%	\$0.00	\$0.00	\$0.00	\$0.00
(110)	60,028	\$58,447.79	\$56,727.39	\$1,720.40	3.0%	\$0.00	\$0.00	\$0.00	\$0.00
(111)	64,545	\$62,658.93	\$60,809.11	\$1,849.82	3.0%	\$0.00	\$0.00	\$0.00	\$0.00
(112)	69,062	\$66,870.16	\$64,890.83	\$1,979.33	3.1%	\$0.00	\$0.00	\$0.00	\$0.00
(113)	73,583	\$71,084.63	\$68,975.78	\$2,108.86	3.1%	\$0.00	\$0.00	\$0.00	\$0.00
(114)	78,099	\$75,294.97	\$73,056.69	\$2,238.28	3.1%	\$0.00	\$0.00	\$0.00	\$0.00
(115)	82,619	\$79,508.70	\$77,140.84	\$2,367.87	3.1%	\$0.00	\$0.00	\$0.00	\$0.00
(116)	87,137	\$83,721.61	\$81,224.31	\$2,497.31	3.1%	\$0.00	\$0.00	\$0.00	\$0.00

C & I L L F Extra-Large:											
	Annual Consumption (Therms)	Proposed 2022 EE Rates	Proposed 2021 EE Rates	Difference	% Chg	GCR	Difference due to:				
							Base DAC	DAC			
								ISR	EE		
									LIHEAP		
									GET		
(121)	233,835	\$209,764.13	\$203,062.47	\$6,701.66	3.3%	\$0.00	\$0.00	\$0.00	\$6,500.61	\$0.00	\$201.05
(122)	259,019	\$231,688.21	\$224,264.75	\$7,423.46	3.3%	\$0.00	\$0.00	\$0.00	\$7,200.76	\$0.00	\$222.70
(123)	284,197	\$253,607.73	\$245,462.70	\$8,145.03	3.3%	\$0.00	\$0.00	\$0.00	\$7,900.68	\$0.00	\$244.35
(124)	309,381	\$275,531.71	\$266,664.94	\$8,866.76	3.3%	\$0.00	\$0.00	\$0.00	\$8,600.76	\$0.00	\$266.00
(125)	334,562	\$297,453.52	\$287,865.04	\$9,588.47	3.3%	\$0.00	\$0.00	\$0.00	\$9,300.82	\$0.00	\$287.65
(126)	359,745	\$319,376.85	\$309,066.64	\$10,310.22	3.3%	\$0.00	\$0.00	\$0.00	\$10,000.91	\$0.00	\$309.31
(127)	384,928	\$341,300.15	\$330,268.21	\$11,031.94	3.3%	\$0.00	\$0.00	\$0.00	\$10,700.98	\$0.00	\$330.96
(128)	410,110	\$363,222.69	\$351,469.01	\$11,753.68	3.3%	\$0.00	\$0.00	\$0.00	\$11,401.07	\$0.00	\$352.61
(129)	435,293	\$385,145.96	\$372,670.55	\$12,475.41	3.3%	\$0.00	\$0.00	\$0.00	\$12,101.15	\$0.00	\$374.26
(130)	460,471	\$407,065.47	\$393,868.47	\$13,197.00	3.4%	\$0.00	\$0.00	\$0.00	\$12,801.09	\$0.00	\$395.91
(131)	485,655	\$428,989.53	\$415,070.76	\$13,918.77	3.4%	\$0.00	\$0.00	\$0.00	\$13,501.21	\$0.00	\$417.56

C & I HLF Extra-Large:														
	Consumption (Therms)	Annual	Proposed		Difference	% Chg	Difference due to:							
			2022 EE Rates	2021 EE Rates			DAC		GCR	Base DAC	ISR	EE	LIHEAP	GET
(136)														
(137)														
(138)														
(139)														
(140)	486,528	\$379,558.84	\$365,615.01	\$13,943.84	3.8%	\$0.00	\$0.00	\$0.00	\$13,525.52	\$0.00	\$0.00	\$418.32		
(141)	538,924	\$419,768.01	\$404,322.55	\$15,445.46	3.8%	\$0.00	\$0.00	\$0.00	\$14,982.10	\$0.00	\$0.00	\$463.36		
(142)	591,320	\$459,976.38	\$443,029.28	\$16,947.10	3.8%	\$0.00	\$0.00	\$0.00	\$16,438.69	\$0.00	\$0.00	\$508.41		
(143)	643,718	\$500,186.84	\$481,738.03	\$18,448.81	3.8%	\$0.00	\$0.00	\$0.00	\$17,895.35	\$0.00	\$0.00	\$553.46		
(144)	696,109	\$540,391.78	\$520,441.45	\$19,950.33	3.8%	\$0.00	\$0.00	\$0.00	\$19,351.82	\$0.00	\$0.00	\$598.51		
(145)	748,506	\$580,601.61	\$559,149.58	\$21,452.03	3.8%	\$0.00	\$0.00	\$0.00	\$20,808.47	\$0.00	\$0.00	\$643.56		
(146)	800,903	\$620,811.49	\$597,857.75	\$22,953.74	3.8%	\$0.00	\$0.00	\$0.00	\$22,265.13	\$0.00	\$0.00	\$688.61		
(147)	853,294	\$661,016.30	\$636,561.09	\$24,455.21	3.8%	\$0.00	\$0.00	\$0.00	\$23,721.55	\$0.00	\$0.00	\$733.66		
(148)	905,692	\$701,226.84	\$675,269.90	\$25,956.94	3.8%	\$0.00	\$0.00	\$0.00	\$25,178.23	\$0.00	\$0.00	\$778.71		
(149)	958,088	\$741,435.21	\$713,976.59	\$27,458.62	3.8%	\$0.00	\$0.00	\$0.00	\$26,634.86	\$0.00	\$0.00	\$823.76		
(150)	1,010,485	\$781,645.04	\$752,684.72	\$28,960.32	3.8%	\$0.00	\$0.00	\$0.00	\$28,091.51	\$0.00	\$0.00	\$868.81		

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket 5067
Attachment 1-37 (12)
High Scenario Year 3
Page 1 of 5

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	(52)	(53)	(54)	(55)	(56)	(57)	(58)	(59)	(60)	(61)	(62)	(63)	(64)	(65)	(66)	(67)	(68)	(69)	(70)	(71)	(72)	(73)	(74)	(75)	(76)	(77)	(78)	(79)	(80)	(81)	(82)	(83)	(84)	(85)	(86)	(87)	(88)	(89)	(90)	(91)	(92)	(93)	(94)	(95)	(96)	(97)	(98)	(99)	(100)	(101)	(102)	(103)	(104)	(105)	(106)	(107)	(108)	(109)	(110)	(111)	(112)	(113)	(114)	(115)	(116)	(117)	(118)	(119)	(120)	(121)	(122)	(123)	(124)	(125)	(126)	(127)	(128)	(129)	(130)	(131)	(132)	(133)	(134)	(135)	(136)	(137)	(138)	(139)	(140)	(141)	(142)	(143)	(144)	(145)	(146)	(147)	(148)	(149)	(150)	(151)	(152)	(153)	(154)	(155)	(156)	(157)	(158)	(159)	(160)	(161)	(162)	(163)	(164)	(165)	(166)	(167)	(168)	(169)	(170)	(171)	(172)	(173)	(174)	(175)	(176)	(177)	(178)	(179)	(180)	(181)	(182)	(183)	(184)	(185)	(186)	(187)	(188)	(189)	(190)	(191)	(192)	(193)	(194)	(195)	(196)	(197)	(198)	(199)	(200)	(201)	(202)	(203)	(204)	(205)	(206)	(207)	(208)	(209)	(210)	(211)	(212)	(213)	(214)	(215)	(216)	(217)	(218)	(219)	(220)	(221)	(222)	(223)	(224)	(225)	(226)	(227)	(228)	(229)	(230)	(231)	(232)	(233)	(234)	(235)	(236)	(237)	(238)	(239)	(240)	(241)	(242)	(243)	(244)	(245)	(246)	(247)	(248)	(249)	(250)	(251)	(252)	(253)	(254)	(255)	(256)	(257)	(258)	(259)	(260)	(261)	(262)	(263)	(264)	(265)	(266)	(267)	(268)	(269)	(270)	(271)	(272)	(273)	(274)	(275)	(276)	(277)	(278)	(279)	(280)	(281)	(282)	(283)	(284)	(285)	(286)	(287)	(288)	(289)	(290)	(291)	(292)	(293)	(294)	(295)	(296)	(297)	(298)	(299)	(300)	(301)	(302)	(303)	(304)	(305)	(306)	(307)	(308)	(309)	(310)	(311)	(312)	(313)	(314)	(315)	(316)	(317)	(318)	(319)	(320)	(321)	(322)	(323)	(324)	(325)	(326)	(327)	(328)	(329)	(330)	(331)	(332)	(333)	(334)	(335)	(336)	(337)	(338)	(339)	(340)	(341)	(342)	(343)	(344)	(345)	(346)	(347)	(348)	(349)	(350)	(351)	(352)	(353)	(354)	(355)	(356)	(357)	(358)	(359)	(360)	(361)	(362)	(363)	(364)	(365)	(366)	(367)	(368)	(369)	(370)	(371)	(372)	(373)	(374)	(375)	(376)	(377)	(378)	(379)	(380)	(381)	(382)</
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	Consumption (Therms)	Annual	Proposed		Difference	% Chg	GCR	Total Bill Discount	Difference due to:			LIHEAP	GET
			2023 EE Rates	2022 EE Rates					DAC				
									Base DAC	ISR	EE		
(16)		548	\$722.17	\$708.06	\$14.11	2.0%	\$0.00	(\$4.56)	\$0.00	\$0.00	\$18.25	\$0.00	\$0.42
(17)		608	\$786.23	\$770.57	\$15.66	2.0%	\$0.00	(\$5.06)	\$0.00	\$0.00	\$20.26	\$0.00	\$0.47
(18)		667	\$849.19	\$832.03	\$17.16	2.1%	\$0.00	(\$5.55)	\$0.00	\$0.00	\$22.20	\$0.00	\$0.51
(19)		726	\$912.18	\$893.51	\$18.67	2.1%	\$0.00	(\$6.04)	\$0.00	\$0.00	\$24.15	\$0.00	\$0.56
(20)		785	\$975.10	\$954.91	\$20.19	2.1%	\$0.00	(\$6.53)	\$0.00	\$0.00	\$26.11	\$0.00	\$0.61
(21)		845	\$1,039.15	\$1,017.40	\$21.76	2.1%	\$0.00	(\$7.04)	\$0.00	\$0.00	\$28.14	\$0.00	\$0.65
(22)		905	\$1,103.22	\$1,079.92	\$23.30	2.2%	\$0.00	(\$7.53)	\$0.00	\$0.00	\$30.13	\$0.00	\$0.70
(23)		964	\$1,166.15	\$1,141.32	\$24.83	2.2%	\$0.00	(\$8.03)	\$0.00	\$0.00	\$32.11	\$0.00	\$0.74
(24)		1,023	\$1,229.12	\$1,202.76	\$26.35	2.2%	\$0.00	(\$8.52)	\$0.00	\$0.00	\$34.08	\$0.00	\$0.79
(25)		1,082	\$1,292.07	\$1,264.22	\$27.85	2.2%	\$0.00	(\$9.01)	\$0.00	\$0.00	\$36.02	\$0.00	\$0.84
(26)		1,142	\$1,356.15	\$1,326.75	\$29.40	2.2%	\$0.00	(\$9.51)	\$0.00	\$0.00	\$38.02	\$0.00	\$0.88

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario – Year 3

Residential Non-Heating:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Difference due to:			
							Base DAC	ISR	EE	LIHEAP
										GET
(31)										
(32)										
(33)										
(34)										
(35)	144	\$402.44	\$397.51	\$4.93	1.2%	\$0.00	\$0.00	\$0.00	\$4.78	\$0.00
(36)	158	\$423.78	\$418.36	\$5.42	1.3%	\$0.00	\$0.00	\$0.00	\$5.26	\$0.00
(37)	172	\$445.12	\$439.23	\$5.89	1.3%	\$0.00	\$0.00	\$0.00	\$5.71	\$0.00
(38)	189	\$471.00	\$464.54	\$6.46	1.4%	\$0.00	\$0.00	\$0.00	\$6.27	\$0.00
(39)	202	\$490.82	\$483.91	\$6.92	1.4%	\$0.00	\$0.00	\$0.00	\$6.71	\$0.00
(40)	220	\$518.23	\$510.71	\$7.52	1.5%	\$0.00	\$0.00	\$0.00	\$7.29	\$0.00
(41)	238	\$545.68	\$537.52	\$8.16	1.5%	\$0.00	\$0.00	\$0.00	\$7.92	\$0.00
(42)	251	\$565.49	\$556.88	\$8.62	1.5%	\$0.00	\$0.00	\$0.00	\$8.36	\$0.00
(43)	268	\$591.35	\$582.14	\$9.21	1.6%	\$0.00	\$0.00	\$0.00	\$8.93	\$0.00
(44)	282	\$612.67	\$603.01	\$9.66	1.6%	\$0.00	\$0.00	\$0.00	\$9.37	\$0.00
(45)	297	\$635.55	\$625.37	\$10.19	1.6%	\$0.00	\$0.00	\$0.00	\$9.88	\$0.00

Residential Non-Heating Low Income:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Difference due to:			
							Base DAC	ISR	EE	LIHEAP
										GET
(46)										
(47)										
(48)										
(49)										
(50)	144	\$300.15	\$296.45	\$3.70	1.2%	\$0.00	(\$1.19)	\$0.00	\$0.00	\$0.00
(51)	158	\$315.98	\$311.92	\$4.07	1.3%	\$0.00	(\$1.31)	\$0.00	\$0.00	\$0.00
(52)	172	\$331.81	\$327.40	\$4.41	1.3%	\$0.00	(\$1.43)	\$0.00	\$0.00	\$0.00
(53)	189	\$351.01	\$346.16	\$4.85	1.4%	\$0.00	(\$1.57)	\$0.00	\$0.00	\$0.00
(54)	202	\$365.75	\$360.56	\$5.19	1.4%	\$0.00	(\$1.68)	\$0.00	\$0.00	\$0.00
(55)	220	\$386.08	\$380.44	\$5.64	1.5%	\$0.00	(\$1.82)	\$0.00	\$0.00	\$0.00
(56)	238	\$406.44	\$400.32	\$6.12	1.5%	\$0.00	(\$1.98)	\$0.00	\$0.00	\$0.00
(57)	251	\$421.16	\$414.70	\$6.46	1.6%	\$0.00	(\$2.09)	\$0.00	\$0.00	\$0.00
(58)	268	\$440.37	\$433.47	\$6.90	1.6%	\$0.00	(\$2.23)	\$0.00	\$0.00	\$0.00
(59)	282	\$456.18	\$448.94	\$7.24	1.6%	\$0.00	(\$2.34)	\$0.00	\$0.00	\$0.00
(60)	297	\$473.18	\$465.54	\$7.64	1.6%	\$0.00	(\$2.47)	\$0.00	\$0.00	\$0.00

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario - Year 3

C & I Small:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(61)												
(62)												
(63)												
(64)												
(65)	830	\$1,407.47	\$1,387.61	\$19.86	1.4%	\$0.00	\$0.00	\$0.00	\$0.00	\$19.26	\$0.00	\$0.60
(66)	919	\$1,524.10	\$1,502.12	\$21.98	1.5%	\$0.00	\$0.00	\$0.00	\$0.00	\$21.32	\$0.00	\$0.66
(67)	1,010	\$1,643.43	\$1,619.27	\$24.16	1.5%	\$0.00	\$0.00	\$0.00	\$0.00	\$23.44	\$0.00	\$0.72
(68)	1,099	\$1,760.14	\$1,733.87	\$26.27	1.5%	\$0.00	\$0.00	\$0.00	\$0.00	\$25.48	\$0.00	\$0.79
(69)	1,187	\$1,875.59	\$1,847.20	\$28.38	1.5%	\$0.00	\$0.00	\$0.00	\$0.00	\$27.53	\$0.00	\$0.85
(70)	1,277	\$1,993.54	\$1,962.99	\$30.56	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$29.64	\$0.00	\$0.92
(71)	1,367	\$2,111.55	\$2,078.84	\$32.71	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$31.73	\$0.00	\$0.98
(72)	1,456	\$2,228.22	\$2,193.41	\$34.81	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$33.77	\$0.00	\$1.04
(73)	1,544	\$2,343.67	\$2,306.75	\$36.92	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$35.81	\$0.00	\$1.11
(74)	1,635	\$2,462.98	\$2,423.86	\$39.12	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$37.95	\$0.00	\$1.17
(75)	1,725	\$2,580.91	\$2,539.67	\$41.24	1.6%	\$0.00	\$0.00	\$0.00	\$0.00	\$40.00	\$0.00	\$1.24

C & I Medium:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(76)												
(77)												
(78)												
(79)												
(80)	6,907	\$8,869.90	\$8,704.73	\$165.18	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$160.22	\$0.00	\$4.96
(81)	7,650	\$9,710.10	\$9,527.13	\$182.97	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$177.48	\$0.00	\$5.49
(82)	8,391	\$10,547.48	\$10,346.81	\$200.67	1.9%	\$0.00	\$0.00	\$0.00	\$0.00	\$194.65	\$0.00	\$6.02
(83)	9,136	\$11,389.63	\$11,171.16	\$218.47	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$211.92	\$0.00	\$6.55
(84)	9,880	\$12,230.82	\$11,994.53	\$236.29	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$229.20	\$0.00	\$7.09
(85)	10,623	\$13,070.96	\$12,816.89	\$254.07	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$246.45	\$0.00	\$7.62
(86)	11,366	\$13,911.08	\$13,639.22	\$271.87	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$263.71	\$0.00	\$8.16
(87)	12,111	\$14,753.25	\$14,463.59	\$289.66	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$280.97	\$0.00	\$8.69
(88)	12,855	\$15,594.46	\$15,286.99	\$307.46	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$298.24	\$0.00	\$9.22
(89)	13,596	\$16,431.83	\$16,106.65	\$325.18	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$315.42	\$0.00	\$9.76
(90)	14,340	\$17,272.98	\$16,930.00	\$342.98	2.0%	\$0.00	\$0.00	\$0.00	\$0.00	\$332.69	\$0.00	\$10.29

**National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario – Year 3**

C & I HLF Large:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	Difference due to:						
						GCR	Base DAC	ISR	EE	LIHEAP	GET	
(91)												
(92)												
(93)												
(94)												
(95)	37,587	\$45,811.12	\$44,912.15	\$898.97	2.0%	\$0.00	\$0.00	\$0.00	\$872.00	\$0.00	\$26.97	
(96)	41,634	\$50,475.83	\$49,480.04	\$995.78	2.0%	\$0.00	\$0.00	\$0.00	\$965.91	\$0.00	\$29.87	
(97)	45,683	\$55,143.23	\$54,050.57	\$1,092.66	2.0%	\$0.00	\$0.00	\$0.00	\$1,059.88	\$0.00	\$32.78	
(98)	49,731	\$59,809.60	\$58,620.16	\$1,189.43	2.0%	\$0.00	\$0.00	\$0.00	\$1,153.75	\$0.00	\$35.68	
(99)	53,777	\$64,473.24	\$63,187.02	\$1,286.22	2.0%	\$0.00	\$0.00	\$0.00	\$1,247.63	\$0.00	\$38.59	
(100)	57,825	\$69,139.61	\$67,756.58	\$1,383.03	2.0%	\$0.00	\$0.00	\$0.00	\$1,341.54	\$0.00	\$41.49	
(101)	61,873	\$73,805.97	\$72,326.13	\$1,479.84	2.0%	\$0.00	\$0.00	\$0.00	\$1,435.44	\$0.00	\$44.40	
(102)	65,920	\$78,470.67	\$76,894.02	\$1,576.65	2.1%	\$0.00	\$0.00	\$0.00	\$1,529.35	\$0.00	\$47.30	
(103)	69,967	\$83,136.01	\$81,462.58	\$1,673.43	2.1%	\$0.00	\$0.00	\$0.00	\$1,623.23	\$0.00	\$50.20	
(104)	74,016	\$87,803.40	\$86,033.11	\$1,770.29	2.1%	\$0.00	\$0.00	\$0.00	\$1,717.18	\$0.00	\$53.11	
(105)	78,063	\$92,468.06	\$90,600.98	\$1,867.08	2.1%	\$0.00	\$0.00	\$0.00	\$1,811.07	\$0.00	\$56.01	

C & I HLF Large:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	Difference due to:					GET	
						GCR	Base DAC	ISR	EE	LIHEAP		
(106)												
(107)												
(108)												
(109)												
(110)	41,956	\$42,603.16	\$41,599.66	\$1,003.49	2.4%	\$0.00	\$0.00	\$0.00	\$973.39	\$0.00	\$30.10	
(111)	46,471	\$46,920.62	\$45,809.16	\$1,111.46	2.4%	\$0.00	\$0.00	\$0.00	\$1,078.12	\$0.00	\$33.34	
(112)	50,991	\$51,242.48	\$50,022.90	\$1,219.58	2.4%	\$0.00	\$0.00	\$0.00	\$1,182.99	\$0.00	\$36.59	
(113)	55,507	\$55,560.81	\$54,233.22	\$1,327.59	2.4%	\$0.00	\$0.00	\$0.00	\$1,287.76	\$0.00	\$39.83	
(114)	60,028	\$59,883.50	\$58,447.79	\$1,435.71	2.5%	\$0.00	\$0.00	\$0.00	\$1,392.64	\$0.00	\$43.07	
(115)	64,545	\$64,202.72	\$62,658.93	\$1,543.78	2.5%	\$0.00	\$0.00	\$0.00	\$1,497.47	\$0.00	\$46.31	
(116)	69,062	\$68,521.92	\$66,870.16	\$1,651.76	2.5%	\$0.00	\$0.00	\$0.00	\$1,602.21	\$0.00	\$49.55	
(117)	73,583	\$72,844.54	\$71,084.63	\$1,759.91	2.5%	\$0.00	\$0.00	\$0.00	\$1,707.11	\$0.00	\$52.80	
(118)	78,099	\$77,162.90	\$75,294.97	\$1,867.93	2.5%	\$0.00	\$0.00	\$0.00	\$1,811.89	\$0.00	\$56.04	
(119)	82,619	\$81,484.74	\$79,508.70	\$1,976.04	2.5%	\$0.00	\$0.00	\$0.00	\$1,916.76	\$0.00	\$59.28	
(120)	87,137	\$85,805.74	\$83,721.61	\$2,084.12	2.5%	\$0.00	\$0.00	\$0.00	\$2,021.60	\$0.00	\$62.52	

National Grid – RI Gas
Energy Efficiency Program Plan
Bill Impact Analysis with Various Levels of Consumption
High Scenario – Year 3

C & I HLF Extra-Large:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(121)												
(122)												
(123)												
(124)												
(125)	233,835	\$215,356.88	\$209,764.13	\$5,592.74	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$5,424.96	\$0.00	\$167.78
(126)	259,019	\$237,883.31	\$231,688.21	\$6,195.09	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$6,009.24	\$0.00	\$185.85
(127)	284,197	\$260,405.02	\$253,607.73	\$6,797.29	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$6,593.37	\$0.00	\$203.92
(128)	309,381	\$282,931.36	\$275,531.71	\$7,399.65	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$7,177.66	\$0.00	\$221.99
(129)	334,562	\$305,455.40	\$297,453.52	\$8,001.89	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$7,761.83	\$0.00	\$240.06
(130)	359,745	\$327,981.08	\$319,376.85	\$8,604.23	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$8,346.10	\$0.00	\$258.13
(131)	384,928	\$350,506.68	\$341,300.15	\$9,206.54	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$8,930.34	\$0.00	\$276.20
(132)	410,110	\$373,031.50	\$363,222.69	\$9,808.81	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$9,514.55	\$0.00	\$294.26
(133)	435,293	\$395,557.05	\$385,145.96	\$10,411.08	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$10,098.75	\$0.00	\$312.33
(134)	460,471	\$418,078.81	\$407,065.47	\$11,013.34	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$10,682.94	\$0.00	\$330.40
(135)	485,655	\$440,605.21	\$428,989.53	\$11,615.68	2.7%	\$0.00	\$0.00	\$0.00	\$0.00	\$11,267.21	\$0.00	\$348.47

C & I HLF Extra-Large:

	Annual Consumption (Therms)	Proposed 2023 EE Rates	Proposed 2022 EE Rates	Difference	% Chg	GCR	Base DAC	DAC	ISR	EE	LIHEAP	GET
(136)												
(137)												
(138)												
(139)												
(140)	486,528	\$391,195.39	\$379,558.84	\$11,636.55	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$11,287.45	\$0.00	\$349.10
(141)	538,924	\$432,657.72	\$419,768.01	\$12,889.71	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$12,503.02	\$0.00	\$386.69
(142)	591,320	\$474,119.27	\$459,976.38	\$14,142.89	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$13,718.60	\$0.00	\$424.29
(143)	643,718	\$515,582.99	\$500,186.84	\$15,396.14	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$14,934.26	\$0.00	\$461.88
(144)	696,109	\$557,040.98	\$540,391.78	\$16,649.21	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$16,149.73	\$0.00	\$499.48
(145)	748,506	\$598,503.99	\$580,601.61	\$17,902.38	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$17,365.31	\$0.00	\$537.07
(146)	800,903	\$639,967.10	\$620,811.49	\$19,155.61	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$18,580.94	\$0.00	\$574.67
(147)	853,294	\$681,425.01	\$661,016.30	\$20,408.71	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$19,796.45	\$0.00	\$612.26
(148)	905,692	\$722,888.76	\$701,226.84	\$21,661.92	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$21,012.06	\$0.00	\$649.86
(149)	958,088	\$764,350.31	\$741,435.21	\$22,915.09	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$22,227.64	\$0.00	\$687.45
(150)	1,010,485	\$805,813.34	\$781,645.04	\$24,168.30	3.1%	\$0.00	\$0.00	\$0.00	\$0.00	\$23,443.25	\$0.00	\$725.05

PUC 1-38

Request:

Referring to Attachment 1, Table 2, please provide a short (i.e., about one sentence) description of each measure, including a description of how it saves electricity relative to a baseline technology. Please note if the measure only saves delivered fuels.

Response:

Based on the wording of this request, the Company interpreted this question to mean "Referring to Attachment 1, Table 3" as opposed to Table 2.

Please see Attachment PUC 1-38 for the requested information.

Electric Programs			
Program	Measure	Measure Description	Only Saves Delivered Fuels
EnergyWise Single Family	Aerator - Electric	The installation of a low flow faucet aerator. Savings are achieved by replacing an existing high flow rate faucet aerator with a low flow faucet aerator.	No
	Aerator - Oil	The installation of a low flow faucet aerator. Savings are achieved by replacing an existing high flow rate faucet aerator with a low flow faucet aerator.	Yes
	Aerator - Others	The installation of a low flow faucet aerator. Savings are achieved by replacing an existing high flow rate faucet aerator with a low flow faucet aerator.	Yes
	Air Sealing Kit - Oil	The installation of recessed lighting cans that provide air sealing benefits. Savings are achieved by replacing leaky recessed lighting cans in the participating household.	Yes
	Air Sealing Kit - Electric	The installation of recessed lighting cans that provide air sealing benefits. Savings are achieved by replacing leaky recessed lighting cans in the participating household.	No
	Air Sealing Kit - Others	The installation of recessed lighting cans that provide air sealing benefits. Savings are achieved by replacing leaky recessed lighting cans in the participating household.	Yes
	LED Bulbs	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	LED Bulbs (EISA Exempt)	The installation of ENERGY STAR rated Light-Emitting Diode (LED) specialty screw-in bulbs. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	LED Bulbs Reflectors	The installation of ENERGY STAR rated Light-Emitting Diode (LED) reflector bulb. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	LED Fixture	The installation of ENERGY STAR rated Light-Emitting Diode (LED) fixtures. Savings are achieved by replacing existing inefficient fixtures.	No
	LED Outdoor Fixture	The installation of ENERGY STAR rated Light-Emitting Diode (LED) fixtures. Savings are achieved by replacing existing inefficient fixtures.	No
	Pre-Wx	This captures non-energy related measures such as asbestos removal or remove knob and tube wiring to make a home ready for weatherization. There is no savings claimed for this measure.	No
	Refrigerator Brush	The refrigerator brush for cleaning refrigerator coil to help refrigerator operate more efficiently. The baseline is uncleaned refrigerator coil.	No
	Showerhead - Electric	The installation of a low flow showerhead or a low flow showerhead with a control that limits flow once the water is heated. Savings are based on electric heating.	No
	Showerhead - Oil	The installation of a low flow showerhead or a low flow showerhead with a control that limits flow once the water is heated. Savings are based on oil heating.	Yes
	Showerhead - Others	The installation of a low flow showerhead or a low flow showerhead with a control that limits flow once the water is heated. Savings are based on propane heating.	Yes
	Smart Strip	A smart strip use current sensors and switching devices which turn off plug load when devices are not in use. Savings are achieved by eliminating standby power draw.	No
	Programmable Thermostat - Electric	Installation of a programmable thermostat, which gives the ability to adjust electric heating or air-conditioning operating times according to a preset schedule. Baseline is a without a programmable thermostats installed.	No
	Programmable Thermostat - Oil	Installation of a programmable thermostat, which gives the ability to adjust oil heating or air-conditioning operating times according to a preset schedule.	No
	Programmable Thermostat - Other	Installation of a programmable thermostat, which gives the ability to adjust propane heating or air-conditioning operating times according to a preset schedule.	No
	WiFi Thermostat - Electric	The installation of Wi-Fi thermostat with the ability to adjust electric heating or air-conditioning operating times according to a pre-set schedule to meet occupancy needs and also be able to remotely adjust schedules when not at home. Baseline is a blend of manual thermostats and programmable thermostat.	No
	WiFi Thermostat - Oil	The installation of Wi-Fi thermostat with the ability to adjust oil heating or air-conditioning operating times according to a pre-set schedule to meet occupancy needs and also be able to remotely adjust schedules when not at home. Baseline is a blend of manual thermostats and programmable thermostat.	No
	WiFi Thermostat - Others	The installation of Wi-Fi thermostat with the ability to adjust propane heating or air-conditioning operating times according to a pre-set schedule to meet occupancy needs and also be able to remotely adjust schedules when not at home. Baseline is a blend of manual thermostats and programmable thermostat.	No
	Wx - Oil	The installation of weatherization measures in oil heated homes. Savings are achieved by applying insulation upgrades, air sealing to minimize infiltration of outside air through cracks and leaks in the existing home shell, and duct sealing of leaky HVAC ducts.	No
	Wx Elec - Elec Heat Only	The installation of weatherization measures in electric heated homes. Savings are achieved by applying insulation upgrades or air sealing to minimize infiltration of outside air through cracks and leaks in the existing home shell.	No
	Pipe Insulation - Electric	The installation of domestic hot water pipe wrap to reduce electric water heating. Savings are achieved by applying insulation in existing equipment without pipe insulation.	No
	Pipe Insulation - Oil	The installation of domestic hot water pipe wrap to reduce oil water heating. Savings are achieved by applying insulation in existing equipment without pipe insulation.	Yes
	Pipe Insulation - Others	The installation of domestic hot water pipe wrap to reduce propane water heating. Savings are achieved by applying insulation in existing equipment without pipe insulation.	Yes
	Participants	This measure tracks program participation and does not have an associated energy savings value.	No
	Heat Loans	This is not a measure but is the Heat Loan budget for this program and included in the Rebates and Other Incentives budget for this program listed in table E-2.	N/A
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table E-2.	N/A
	Marketing	This is not a measure but is the Marketing budget listed for the program in table E-2.	N/A
	Sales, Technical Assistance & Training	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table E-2.	N/A
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table E-2.	N/A

Program	Measure	Measure Description	Only Saves Delivered Fuels
EnergyWise Multifamily	Aerator	The installation of a low flow faucet aerator. Savings are achieved by replacing an existing high flow rate faucet aerator with a low flow faucet aerator.	No
	Aerator Oil	The installation of a low flow faucet aerator. Savings are achieved by replacing an existing high flow rate faucet aerator with a low flow faucet aerator.	Yes
	Air Sealing Electric With AC	Thermal shell air leaks are sealed through strategic use and location of air-tight materials. The baseline efficiency case is the existing building before the air sealing measure is implemented. The baseline building is characterized by the existing air changes per hour (ACHPRE).	No
	Air Sealing Oil	Thermal shell air leaks are sealed through strategic use and location of air-tight materials. The baseline efficiency case is the existing building before the air sealing measure is implemented. The baseline building is characterized by the existing air changes per hour (ACHPRE).	Yes
	Common Exterior LED Fixture	The installation of ENERGY STAR rated Light-Emitting Diode (LED) fixtures in outdoor common-areas. Savings are achieved by replacing existing inefficient fixtures.	No
	Common Exterior Reflector	The installation of ENERGY STAR rated Light-Emitting Diode (LED) reflector bulb in outdoor common-areas. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Common Interior EISA Exempt	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs in indoor common areas. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Common Interior LED Fixture	The installation of ENERGY STAR rated Light-Emitting Diode (LED) fixtures in indoor common-areas. Savings are achieved by replacing existing inefficient fixtures.	No
	Common Interior Reflector	The installation of ENERGY STAR rated Light-Emitting Diode (LED) reflector bulb in indoor common-areas. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Dwelling Exterior LED Fixture	The installation of ENERGY STAR rated Light-Emitting Diode (LED) fixtures in outdoor dwelling units. Savings are achieved by replacing existing inefficient fixtures.	No
	Dwelling Exterior Reflector	The installation of ENERGY STAR rated Light-Emitting Diode (LED) reflector bulb in outdoor dwelling-units. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Dwelling Interior EISA Exempt	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs in indoor dwelling units. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Dwelling Interior Reflector	The installation of ENERGY STAR rated Light-Emitting Diode (LED) reflector bulb in indoor dwelling units. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Insulation Electric With AC	Shell insulation upgrades applied in existing facilities including improved insulation in attics, basements and sidewalls. The baseline efficiency case is an existing home shell measures.	No
	Insulation Oil	Shell insulation upgrades applied in existing facilities including improved insulation in attics, basements and sidewalls. The baseline efficiency case is an existing home shell measures.	Yes
	Pipe Wrap DHW Elec	The installation of domestic hot water pipe wrap to reduce electric water heating. Savings are achieved by applying insulation in existing equipment without pipe insulation.	No
	Refrigerator Rebate	The installation of a high efficiency refrigerator. Savings are achieved by replacing existing inefficient refrigerator with a new refrigerator.	No
	Showerhead Elec	The installation of a low flow showerhead with a control that limits flow once the water is heated. Savings are based on electric heating.	No
	Showerhead Oil	The installation of a low flow showerhead with a control that limits flow once the water is heated. Savings are based on oil heating.	Yes
	Smart Strip	A smart strip use current sensors and switching devices which turn off plug load when devices are not in use. Savings are achieved by eliminating stand-by power draw.	No
	Thermostat Electric With AC	Installation of a programmable thermostat, which gives the ability to adjust electric heating or air-conditioning operating times according to a preset schedule. The baseline is without programmable thermostats installed.	No
	Thermostat Oil	Installation of a programmable thermostat, which gives the ability to adjust oil heating or air-conditioning operating times according to a preset schedule. The baseline is without programmable thermostats installed.	Yes
	TSV Showerhead Elec	The high efficiency measures is a thermostatic shutoff valve combined with a low flow showerhead. The baseline is a federal code showerhead. Savings are realized due to the combination of a reduction in hot water usage associated with the shut valve associated with a person waiting for the shower temperature to heat up and the lower flowrate associated with the low flow showerhead.	No
	TSV Showerhead Oil	The high efficiency measures is a thermostatic shutoff valve combined with a low flow showerhead. The baseline is a federal code showerhead. Savings are realized due to the combination of a reduction in hot water usage associated with the shut valve associated with a person waiting for the shower temperature to heat up and the lower flowrate associated with the low flow showerhead.	Yes
	Common Exterior LED Bulbs	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs in outdoor common-areas. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Common Interior LED Bulbs	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs in indoor common-areas. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Dwelling Interior LED Bulbs	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs in indoor dwelling units. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Custom	Vendors install a variety of high-efficient electric measures at multifamily facilities within common areas and dwelling units. Measures include lighting, HVAC, water heating, and insulation.	No
	Vending Miser	The installation of Vending Miser controls to help reduce the energy consumption of vending machine lighting and refrigeration systems. The baseline efficiency case is a standard efficiency refrigerated beverage vending machine without a control system capable of powering down lighting and refrigeration systems during periods of inactivity.	No
	Participants	This measure tracks program participation and does not have an associated energy savings value.	No
	Heat Loans	This is not a measure but is the Heat Loan budget for this program and included in the Rebates and Other Incentives budget for this program listed in table E-2.	N/A
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table E-2.	N/A
	Marketing	This is not a measure but is the Marketing budget listed for the program in table E-2.	N/A
	Sales, Technical Assistance & Training	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table E-2.	N/A
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table E-2.	N/A
Residential New Construction	Codes and Standards	Energy efficiency code trainings and advocacy work to improve energy efficiency of buildings and equipment within Rhode Island. Savings are claimed by increasing the percentage of code compliant residential homes.	No
	CP Home - Heating	Electric savings resulting from Energy Star Homes Code Plus projects which have a custom mix of measures and improvements. Code Plus projects are positioned below Tier 1 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the heating system when compared to the base case of the URDH.	No
	CP Home - Cooling	Electric savings resulting from Energy Star Homes Code Plus projects which have a custom mix of measures and improvements. Code Plus projects are positioned below Tier 1 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the cooling system when compared to the base case of the URDH.	No
	CP Home - Water Heating	Electric savings resulting from Energy Star Homes Code Plus projects which have a custom mix of measures and improvements. Code Plus projects are positioned below Tier 1 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the water heating system when compared to the base case of the URDH.	No
	Clothes Washer	The installation of an Energy Star Clotheswasher in a Residential New Construction home. Savings are achieved by replacing a standard/inefficient clotheswasher.	No
	Dishwasher	The installation of an Energy Star Dishwasher in a Residential New Construction home. Savings are achieved by replacing a standard/inefficient dishwasher.	No
	LED Bulbs	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Renovation Rehab CP	Electric savings resulting from Renovation Rehab Code Plus projects which have a custom mix of measures and improvements. Renovation Rehab Code Plus projects are positioned below Tier 1 Renovation Rehab projects and above current URDH. This measure saves energy by increasing the efficiency when compared to the base case of the URDH.	No
	Refrigerator rebate	The installation of high efficiency refrigerator. Savings are achieved by replacing existing inefficient refrigerator with a new refrigerator.	No
	Renovation Rehab Tier 1 Home	Electric savings resulting from Renovation Rehab projects which includes a custom mix of replacement measures. This measure saves energy by increasing the efficiency when compared to the base case of the URDH.	No
	Renovation Rehab Tier 2 Home	Electric savings resulting from Renovation Rehab projects which includes a custom mix of replacement measures. This measure saves energy by increasing the efficiency when compared to the base case of the URDH.	No
	Renovation Rehab Tier 3 Home	Electric savings resulting from Renovation Rehab projects which includes a custom mix of replacement measures. This measure saves energy by increasing the efficiency when compared to the base case of the URDH.	No
	Showerhead	The installation of a low flow showerhead with a control that limits flow once the water is heated.	No
	Tier 1 Home - Heating	Electric savings resulting from Energy Star Homes Tier 1 projects which have a custom mix of measures and improvements. Tier 1 projects are positioned below Tier 2 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the heating system when compared to the base case of the URDH.	No
	Tier 1 Home - Cooling	Electric savings resulting from Energy Star Homes Tier 1 projects which have a custom mix of measures and improvements. Tier 1 projects are positioned below Tier 2 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the cooling system when compared to the base case of the URDH.	No
	Tier 1 Home - Water Heating	Electric savings resulting from Energy Star Homes Tier 1 projects which have a custom mix of measures and improvements. Tier 1 projects are positioned below Tier 2 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the water heating system when compared to the base case of the URDH.	No
	Tier 2 Home - Heating	Electric savings resulting from Energy Star Homes Tier 2 projects which have a custom mix of measures and improvements. Tier 2 projects are positioned below Tier 3 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the heating system when compared to the base case of the URDH.	No
	Tier 2 Home - Cooling	Electric savings resulting from Energy Star Homes Tier 2 projects which have a custom mix of measures and improvements. Tier 2 projects are positioned below Tier 3 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the cooling system when compared to the base case of the URDH.	No
	Tier 2 Home - Water Heating	Electric savings resulting from Energy Star Homes Tier 2 projects which have a custom mix of measures and improvements. Tier 2 projects are positioned below Tier 3 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the water heating system when compared to the base case of the URDH.	No
	Tier 3 Home - Heating	Electric savings resulting from Energy Star Homes Tier 3 projects which have a custom mix of measures and improvements. Tier 3 projects are positioned below Tier 4 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the heating system when compared to the base case of the URDH.	No
	Tier 3 Home - Cooling	Electric savings resulting from Energy Star Homes Tier 3 projects which have a custom mix of measures and improvements. Tier 3 projects are positioned below Tier 4 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the cooling system when compared to the base case of the URDH.	No

Program	Measure	Measure Description	Only Saves Delivered Fuels
	Tier 3 Home - Water Heating	Electric savings resulting from Energy Star Homes Tier 3 projects which have a custom mix of measures and improvements. Tier 3 projects are positioned below Tier 4 Energy Star Homes and above the current URDH. This measure saves energy by increasing the efficiency of the water heating system when compared to the base case of the URDH.	No
	Tier 4 Home	Electric savings resulting from Energy Star Homes projects which includes a custom mix of measures and improvements. This measure saves energy by increasing the efficiency when compared to the base case of the URDH.	No
	Adaptive Reuse	Electric savings resulting from converting abandoned mills and factory buildings into multifamily residences. Adaptive Reuse projects include a custom mix of measures and improvements.	No
	Participants	This measure tracks program participation and does not have an associated energy savings value.	No
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table E-2.	N/A
	Marketing	This is not a measure but is the Marketing budget listed for the program in table E-2.	N/A
	Sales, Technical Assistance & Training	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table E-2.	N/A
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table E-2.	N/A

Program	Measure	Measure Description	Only Saves Delivered Fuels
ENERGY STAR® HVAC	ACQIVES	Savings are achieved by properly installing a central AC system compared to a standard installation. Check to make sure refrigerant levels are correct and adjust as needed.	No
	ACSI6SEER13EER	The purchase and installation of high efficiency central air-conditioning (CAC) unit rather than a standard CAC system. The savings is achieved through the higher level of efficiency for these units.	No
	DOWNSIZE	Reduction in system size consistent with manual J calculations for a new central AC installation.	No
	Central Heat Pump	The installation of a high efficiency rated heat pump compared to a standard heat pump. Savings achieved through higher level of efficiencies both for heating and cooling.	No
	Mini-Split Heat Pump	The installation of a more efficient rated Ductless MiniSplit system compared to a standard mini-split heat pump. Savings achieved through higher level of efficiencies both for heating and cooling.	No
	ECM Pumps	Heating hot water circulation retrofit projects replacing the existing hot water circulation systems with ECM pumps and zone valves. ECM pumps will work more efficiently than standard circulator pumps.	No
	HP Mini-split QIV	Savings are achieved by properly installing a mini-split heat pump compared to a standard installation. Check to make sure refrigerant levels are correct and adjust as needed.	No
	HPQIVES	Savings are achieved by properly installing a central ducted heat pump compared to a standard installation. Check to make sure refrigerant levels are correct and adjust as needed.	No
	HPTUNE	Savings are achieved by tuning up an existing heat pump to bring the existing equipment back up to its rated efficiency. This involved changing filters at checking the refrigerant flow to make sure it is still at the proper levels.	No
	WiFi Thermostat - cooling and oil heating	Installation of Wi-Fi thermostat with the ability to adjust heating or air-conditioning operating times according to a pre-set schedule to meet occupancy needs and minimize redundant HVAC operation and also be able to remotely adjust schedules when not at home. Baseline is a blend of manual thermostats and programmable thermostats. Measure has both oil savings for the heating season and electric savings for cooling season.	No
	WiFi Thermostat - cooling and gas heating	Installation of Wi-Fi thermostat with the ability to adjust heating or air-conditioning operating times according to a pre-set schedule to meet occupancy needs and minimize redundant HVAC operation and also be able to remotely adjust schedules when not at home. Baseline is a blend of manual thermostats and programmable thermostats. Measure has both gas savings for the heating season and electric savings for cooling season.	No
	Water Heater, Heat Pump <55 gallon	Installation of a heat pump water heater (HPWH) instead of a standard electric resistance water heater. Savings achieved through the higher efficiency for heat pumps. All units must be smaller than 55 gallons.	No
	Water Heater, Heat Pump >55 gallon, UEF 2.70	Installation of a high efficiency heat pump water heater (HPWH) instead of a standard heat pump water heater. Savings achieved through the higher efficiency of the incentivized heat pump. All units must be greater than or equal to 55 gallons.	No
	Ductless Mini-Split Replacing Electric Resistance	The installation of high efficiency mini-split heat pumps fully replacing a electric resistance heaters. Savings are achieved through the higher efficiency of the mini-split heat pumps when compared to the electric resistance heating.	No
	HVAC Financing	This is not a measure but is the HVAC Financing for this program and is included in the Rebates and Other Incentives budget for this program listed in table E-2.	N/A
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table E-2.	N/A
	Marketing	This is not a measure but is the Marketing budget listed for the program in table E-2.	N/A
	Sales, Technical Assistance & Training	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table E-2.	N/A
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table E-2.	N/A
ENERGY STAR® Products	Dehumidifier Rebate	The Installation of high efficiency dehumidifiers compared to a standard efficiency dehumidifier.	No
	Dehumidifier Recycling	Recycling and/or removal of an old dehumidifier. Savings are based on the federal standard from approximately 8 years ago.	No
	Energy Star Dryer	Installation of an Energy Star dryer compared to a standard efficiency dryer	No
	Freezer Recycling	The retirement and recycling of old, inefficient freezers and no replacement.	No
	Ladybug Electric	A showerhead adapter is attached to your existing showerhead. When the shower is initially turned on the Ladybug device monitors the water temperature. When the water temperature reaches bathing temperature the conservation mode is activated and the device triggers a trickle. Savings are based on electric water heating.	No
	Ladybug Oil	A showerhead adapter is attached to your existing showerhead. When the shower is initially turned on the Ladybug device monitors the water temperature. When the water temperature reaches bathing temperature the conservation mode is activated and the device triggers a trickle. Savings are based on oil water heating.	Yes
	Ladybug Other	A showerhead adapter is attached to your existing showerhead. When the shower is initially turned on the Ladybug device monitors the water temperature. When the water temperature reaches bathing temperature the conservation mode is activated and the device triggers a trickle. Savings are based on propane water heating.	Yes
	Pool Pump - variable	The installation of a variable speed drive pool pump. Operating a pool pump for a longer period of time at a lower wattage can move the same amount of water using significantly less energy.	No
	Refrigerator Recycling	The retirement and recycling of an old inefficient refrigerator. Savings are a weighted between primary and secondary recycled units.	No
	Roadrunner II Electric	A showerhead with a control that limits flow once water is heated. Savings are based on electric water heating.	No
	Roadrunner Other	A showerhead with a control that limits flow once water is heated. Savings are based on propane water heating.	Yes
	Room Air Cleaners	Installation of an Energy Star room air cleaner compared to a standard efficiency room air cleaner.	No
	Smart Strip	Switches off plug load using current sensors and switching devices which turn off plug load when electrical current drops below threshold low levels.	No
	Tier 2 APS	Shuts devices off after it no longer senses activity from its infrared controls.	No
	Room Air Conditioners	The installation of ENERGY STAR® qualified room air conditioners. ENERGY STAR® qualified air conditioners are typically 10% more efficient than models meeting federal standards.	No
	Storm Windows	The installation of Low E storm windows over existing windows. Savings are based on gas heating.	No
	Storm Windows Electric	The installation of Low E storm windows over existing windows. Savings are based on electric heating.	No
	Storm Windows Others	The installation of Low E storm windows over existing windows. Savings are based on oil heating.	No
	Tier 2 APS OS	Shuts devices off after it no longer senses activity from its occupancy sensor.	No
ENERGY STAR® Lighting	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table E-2.	N/A
	Marketing	This is not a measure but is the Marketing budget listed for the program in table E-2.	N/A
	Sales, Technical Assistance & Training	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table E-2.	N/A
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table E-2.	N/A
	LED Bulb	The installation of Light-Emitting Diode (LED) screw-in bulbs and fixtures. Savings are based on a baseline of a combination of incandescent, halogen and CFL bulbs.	No
	LED Bulb (Specialty)	The installation of Light-Emitting Diode (LED) screw-in bulbs and fixtures. Savings are based on a baseline of a combination of incandescent, halogen and CFL bulbs. "Specialty" refers to 3-way bulbs or candle-style based bulbs.	No
	LED Bulb (Hard to Reach)	The installation of Light-Emitting Diode (LED) screw-in bulbs and fixtures. Savings are based on a baseline of a combination of incandescent, halogen and CFL bulbs. Hard to Reach refers to LEDs sold in retailers that are located in hard to reach areas.	No
	LED Bulb (Food Pantries)	The installation of Light-Emitting Diode (LED) screw-in bulbs and fixtures. Savings are based on a baseline of a combination of incandescent, halogen and CFL bulbs. These bulbs are distributed in food pantries.	No
	LED Bulb (School Fundraiser)	The installation of Light-Emitting Diode (LED) screw-in bulbs and fixtures. Savings are based on a baseline of a combination of incandescent, halogen and CFL bulbs. These bulbs are sold through school fundraisers.	No
	LED Bulb (Linear LED)	The installation of Light-Emitting Diode (LED) screw-in bulbs and fixtures. Savings are based on a baseline of a combination of incandescent, halogen and CFL bulbs.	No
Home Energy Reports	LED Bulb (Fixture)	The installation of Light-Emitting Diode (LED) screw-in bulbs and fixtures. Savings are based on a baseline of a combination of incandescent, halogen and CFL bulbs.	No
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table E-2.	N/A
	Marketing	This is not a measure but is the Marketing budget listed for the program in table E-2.	N/A
	Sales, Technical Assistance & Training	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table E-2.	N/A
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table E-2.	N/A
	New Mover electric	A Home Energy Report sent to recently activated electric only customers that displays home energy consumption in comparison with peers and prompts energy conserving behavior. The baseline is a control group of homes that does not receive Home Energy Reports.	No
	New movers dual fuel	A Home Energy Report sent to recently activated electric and gas customers that displays home energy consumption in comparison with peers and prompts energy conserving behavior. The baseline is a control group of homes that does not receive Home Energy Reports. Customer could have moved several years ago, but was a new mover at the time the grouping was developed.	No
	Opt-out dual fuel	A Home Energy Report sent to electric and gas customers that displays home energy consumption in comparison with peers and prompts energy conserving behavior. The baseline is a control group of homes that does not receive Home Energy Reports.	No
	Opt-Out electric	A Home Energy Report sent to electric only customers that displays home energy consumption in comparison with peers and prompts energy conserving behavior. The baseline is a control group of homes that does not receive Home Energy Reports.	No
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table E-2.	N/A
	Marketing	This is not a measure but is the Marketing budget listed for the program in table E-2.	N/A
	Sales, Technical Assistance & Training	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table E-2.	N/A
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table E-2.	N/A
	AC Replace	Replacement of existing inefficient room air conditioners with more efficient models. Savings are achieved by replacing an existing air conditioning unit with a more efficient unit.	No
	AP Remove	The removal of inefficient refrigerator. Savings are achieved by replacing an existing inefficient refrigerator with a new efficient refrigerator.	No
	Dehumidifier Rebate	The installation of high efficiency dehumidifiers and the turn-in of existing inefficient dehumidifiers. Savings are achieved by replacing an existing inefficient dehumidifier with a high efficient one.	No
	Early Retirement Clothes Washer Electric DHW & Electric Dryer	The replacement and recycling of an inefficient clothes washer/dryer with an Energy Star rated washing machine.	No
	Early Retirement Clothes Washer Gas DHW & Electric Dryer	The replacement and recycling of an inefficient clothes washer/dryer with an Energy Star rated washing machine.	No
	Early Retirement Clothes Washer Electric DHW & Gas Dryer	The replacement and recycling of an inefficient clothes washer/dryer with an Energy Star rated washing machine.	No
	Early Retirement CW Oil DHW & Electric Dryer	The replacement and recycling of an inefficient clothes washer/dryer with an Energy Star rated washing machine.	No
	Early Retirement CW Gas DHW & Gas Dryer	The replacement and recycling of an inefficient clothes washer/dryer with an Energy Star rated washing machine.	No
	Early Retirement CW Propane DHW & Electric Dryer	The replacement and recycling of an inefficient clothes washer/dryer with an Energy Star rated washing machine.	No
	DHW - Electric	Domestic hot water measures include replacing high flow showerheads/faucet aerators with high-efficiency low-flow showerheads and faucet aerators. Savings are based on electric water heating.	No
	DHW - Gas	Domestic hot water measures include replacing high flow showerheads/faucet aerators with high-efficiency low-flow showerheads and faucet aerators. Savings are based on gas water heating.	No

Program	Measure	Measure Description	Only Saves Delivered Fuels
Single Family - Income Eligible Services	DHW - Oil	Domestic hot water measures include replacing high flow showerheads/faucet aerators with high-efficiency low-flow showerheads and faucet aerators. Savings are based on oil water heating.	Yes
	Education - TLC	Basic educational measures and TLC kit that includes refrigerator thermometer, LED nightlight, refrigerator coil brush and outlet/switch gaskets provided during an audit to help customers become more aware of energy efficiency.	No
	Freezer	This measure covers the replacement of an existing inefficient freezer with a new energy efficient model.	No
	Heating System	The installation of high efficiency heating. Savings are achieved by replacing an existing inefficient heating system with a high efficient one.	No
	Heat Pump Water Heaters	Installation of a heat pump water heater (HPWH) instead of an electric resistance water heater.	No
	LED Bulbs	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Programmable Thermostat, Gas	Installation of a programmable thermostat, which gives the ability to adjust gas heating or air-conditioning operating times according to a preset schedule.	No
	Programmable Thermostat, Oil	Installation of a programmable thermostat, which gives the ability to adjust oil heating or air-conditioning operating times according to a preset schedule.	No
	Programmable Thermostat, Other	Installation of a programmable thermostat, which gives the ability to adjust propane heating or air-conditioning operating times according to a preset schedule.	No
	Refrigerator rebate	This measure covers the replacement of an existing inefficient refrigerator with a new ENERGY STAR® rated refrigerator.	No
	Smart Strip	A smart strip use current sensors and switching devices which turn off plug load when devices are not in use. Savings are achieved by eliminating standby power draw.	No
	Thermostat - Electric	Installation of a programmable thermostat, which gives the ability to adjust electric heating or air-conditioning operating times according to a preset schedule. Baseline is a without a programmable thermostats installed.	No
	WATERBED	Replacement of waterbed mattress with a standard mattress.	No
	Wx Delivered Fuel	The installation of weatherization measures in delivered fuel heated homes. Savings are achieved by applying insulation upgrades or air sealing to minimize infiltration of outside air through cracks and leaks in the existing home shell.	No
	Wx Electric	The installation of weatherization measures in electric heated homes. Savings are achieved by applying insulation upgrades or air sealing to minimize infiltration of outside air through cracks and leaks in the existing home shell.	No
	Minisplit Heat Pumps - Electric Resistance	The installation of high efficiency mini-split heat pumps fully replacing a electric resistance heaters. Savings are achieved through the higher efficiency of the mini-split heat pumps when compared to the electric resistance heating.	No
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table E-2.	N/A
	Marketing	This is not a measure but is the Marketing budget listed for the program in table E-2.	N/A
	Sales, Technical Assistance & Training	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table E-2.	N/A
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table E-2.	N/A

Program	Measure	Measure Description	Only Saves Delivered Fuels
Income Eligible Multifamily	AERATOR Elec	The installation of a low flow faucet aerator. Savings are achieved by replacing an existing high flow rate faucet aerator with a low flow faucet aerator.	No
	AERATOR Oil	The installation of a low flow faucet aerator. Savings are achieved by replacing an existing high flow rate faucet aerator with a low flow faucet aerator.	Yes
	AIR SEALING ELEC WITH AC	Thermal shell air leaks are sealed through strategic use and location of air-tight materials. The baseline efficiency case is the existing building before the air sealing measure is implemented. The baseline building is characterized by the existing air changes per hour (ACHPRE).	No
	AIR SEALING OIL	Thermal shell air leaks are sealed through strategic use and location of air-tight materials. The baseline efficiency case is the existing building before the air sealing measure is implemented. The baseline building is characterized by the existing air changes per hour (ACHPRE).	Yes
	Common Ext LED Fixture	The installation of ENERGY STAR rated Light-Emitting Diode (LED) fixtures in outdoor common-areas. Savings are achieved by replacing existing inefficient fixtures.	No
	Common Ext Reflector	The installation of ENERGY STAR rated Light-Emitting Diode (LED) reflector bulb in outdoor common-areas. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Common Int LED Fixture	The installation of ENERGY STAR rated Light-Emitting Diode (LED) fixtures in indoor common-areas. Savings are achieved by replacing existing inefficient fixtures.	No
	Common Int Reflector	The installation of ENERGY STAR rated Light-Emitting Diode (LED) reflector bulb in indoor common-areas. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Custom	Vendors install a variety of high-efficient electric measures at multifamily facilities within common areas and dwelling units. Measures include lighting, HVAC, water heating, and insulation.	No
	INSULATION ELEC WITH AC	Shell insulation upgrades applied in existing facilities including improved insulation in attics, basements and sidewalls. The baseline efficiency case is a existing home shell measures.	No
	INSULATION OIL	Shell insulation upgrades applied in existing facilities including improved insulation in attics, basements and sidewalls. The baseline efficiency case is a existing home shell measures.	Yes
	Participant (NEB)	This measure tracks program participation and does not have an associated energy savings value.	No
	Refrig rebate	The installation of high efficiency refrigerator. Savings are achieved by replacing existing inefficient refrigerator with a new refrigerator.	No
	SHOWERHEAD Elec	The installation of a low flow showerhead with a control that limits flow once the water is heated. Savings are based on electric heating.	No
	SHOWERHEAD Oil	The installation of a low flow showerhead with a control that limits flow once the water is heated. Savings are based on oil heating.	Yes
	Smart Strip	A smart strip use current sensors and switching devices which turn off plug load when devices are not in use. Savings are achieved by eliminating stand-by power draw.	No
	THERMOSTAT OIL	Installation of a programmable thermostat, which gives the ability to adjust oil heating or air-conditioning operating times according to a preset schedule.	Yes
	TSV Showerhead Elec	The high efficiency measures is a thermostatic shutoff valve combined with a low flow showerhead. The baseline is a federal code showerhead. Savings are realized due to the combination of a reduction in hot water usage associated with the shut valve associated with a person waiting for the shower to temporarily heat up and the lower flowrate associated with the low flow showerhead.	No
	Common Int EISA Exempt	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs in indoor common areas. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Dwelling Ext Reflector	The installation of ENERGY STAR rated Light-Emitting Diode (LED) reflector bulb in outdoor dwelling-units. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Dwelling Int EISA Exempt	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs in indoor dwelling units. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Dwelling Int Reflector	The installation of ENERGY STAR rated Light-Emitting Diode (LED) reflector bulb in indoor dwelling-units. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Common Ext LED Bulbs	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs in outdoor common-areas. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Common Int LED Bulbs	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs in indoor common-areas. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Dwelling Int LED Bulbs	The installation of ENERGY STAR rated Light-Emitting Diode (LED) screw-in bulbs in indoor dwelling units. Savings are achieved by replacing existing inefficient incandescent and halogen bulbs.	No
	Vending Miser	The installation of Vending Miser controls to help reduce the energy consumption of vending machine lighting and refrigeration systems. The baseline efficiency case is a standard efficiency refrigerated beverage vending machine without a control system capable of powering down lighting and refrigeration systems during periods of inactivity.	No
	Participants	This measure tracks program participation and does not have an associated energy savings value.	No
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table E-2.	N/A
	Marketing	This is not a measure but is the Marketing budget listed for the program in table E-2.	N/A
	Sales, Technical Assistance & Training	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table E-2.	N/A
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table E-2.	N/A
Residential ConnectedSolutions	Thermostats New	Peak loads are reduced by increasing the thermostat settings during peak hours of peak days. Nine different thermostat manufacturers are currently supported in this BYOD (Bring Your Own Device) program. Customers can opt out of the program or individual events at any time.	No
	Thermostats Existing	Peak loads are reduced by increasing the thermostat settings during peak hours of peak days. Nine different thermostat manufacturers are currently supported in this BYOD (Bring Your Own Device) program. Customers can opt out of the program or individual events at any time.	No
	Battery Daily (number of unit)	Peak loads are reduced by discharging battery systems during peak hours of peak days. Five different battery integrators are currently supported in their BYOD (Bring Your Own Device) program. Customers can opt out of the program or individual events at any time.	No
	EVs Peak (customers)	Peak loads are reduced by turning off EV charging customers during peak hours of peak days. Customers can opt out of the program or individual events at any time.	No
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table E-2.	N/A
	Marketing	This is not a measure but is the Marketing budget listed for the program in table E-2.	N/A
	Sales, Technical Assistance & Training	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table E-2.	N/A
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table E-2.	N/A

PUC 1-39

Request:

Referring to Attachment 1, Table 3, please provide a short (i.e., about one sentence) description of each measure, including a description of how it saves natural gas relative to a baseline technology. Please note if the measure only saves delivered fuels.

Response:

Based on the wording of this request, the Company interpreted this question to mean "Referring to Attachment 1, Table 4" as opposed to Table 3.

Please see Attachment PUC 1-39 for the above requested information.

Because measures listed in Table 4 refer to natural gas program level measures, none of the measures listed only save delivered fuels.

Gas Programs		
Program	Measure	Measure Description
EnergyStar® HVAC	Boiler Reset	Boiler reset controls are devices that improve the efficiency of an existing boiler system by modulating the hot water temperature set point. Reset controls automatically control boiler water temperature based on outdoor temperature using a software program; load controls sense the thermal demand of the heating system and resets the water temperature based on the demand.
	Boiler90	The high efficiency case is a boiler with an AFUE greater than or equal to 90% while the baseline has an AFUE of 85%. The savings is due to an increase in efficiency.
	Boiler95	The high efficiency case is a boiler with an AFUE greater than or equal to 95% while the baseline has an AFUE of 85%. The savings is due to an increase in efficiency.
	Combo Condensing	The high efficiency case is a combo-boiler with an AFUE greater than or equal to 90% while the baseline has an AFUE of 85%. The savings is due to an increase in efficiency.
	Combo Condensing 95	The high efficiency case is a combo-boiler with an AFUE greater than or equal to 95% while the baseline has an AFUE of 85%. The savings is due to an increase in efficiency.
	Energy Star Cond Water Heater 0.80 UEF	Measure is a high efficiency condensing water heater replacing a federal code gas water heater. Savings is due to the higher efficiency associated with condensing water heaters.
	Furnace95 ECM	Measure is a high efficiency space heating gas-fired furnace greater than or equal to 95% AFUE with an electronically commutated motor (ECM) for the fan. baseline is an 85% AFUE furnace without an ECM motor. Savings is due to the increase in efficiency associated with the 95% AFUE furnace.
	Furnace97 ECM	Measure is a high efficiency space heating gas-fired furnace greater than or equal to 97% AFUE with an electronically commutated motor (ECM) for the fan. baseline is an 85% AFUE furnace without an ECM motor. Savings is due to the increase in efficiency associated with the 97% AFUE furnace.
	Heat Recovery Vent	Heat Recovery Ventilators (HRV) can help make mechanical ventilation more cost effective by reclaiming energy from exhaust airflows. An electric penalty results due to the increased electricity consumed by the system fans. The baseline efficiency case is an ASHRAE 62.2-compliant exhaust fan system with no heat recovery.
	Energy Star Storage Water Heater .64 UEF (Med Draw)	The high efficiency case is a stand-alone gas storage water heater with a unified energy factor ≥ 0.64 . The baseline is a federal code gas water heater. Savings is due to the increase in efficiency associated with the 0.64 UEF water heater.
	Energy Star Storage Water Heater .68 UEF (High Draw)	The high efficiency case is a stand-alone gas storage water heater with a unified energy factor ≥ 0.68 . The baseline is a federal code gas water heater. Savings is due to the increase in efficiency associated with the 0.68 UEF water heater.
	Energy Star On Demand Water Heater 0.87 UEF	The high efficiency case is a gas tankless water heater with a unified energy factor ≥ 0.87 . The baseline is a federal code gas water heater. Savings is due to the increase in efficiency associated with the 0.87 UEF tankless water heater.
	Low Flow Showerhead	The high efficiency measures is a low-flow showerhead with a flowrate of 1.75 GPD or less. Savings is due to the lower flow rate when compared to a federal standard showerhead.
	TSV	The high efficiency measures is a thermostatic shutoff valve that automatically shuts off the water when the temperature of shower becomes warm before a person is taking a shower. The baseline is a federal code showerhead., Savings is realized due to the reduction in hot water usage associated with a person waiting for the shower temperature to heat up.
	TSV Showerhead	The high efficiency measures is a thermostatic shutoff valve combined with a low flow showerhead. The baseline is a federal code showerhead. Savings is realized due to the combination of a reduction in hot water usage associated with a person waiting for the shower temp to heat up and the lower flowrate associated with the low flow showerhead.

Gas Programs		
Program	Measure	Measure Description
EnergyWise	Wifi Thermostat - Cooling And Heating	Installation of a Wi-Fi programmable thermostat which gives the ability to adjust heating and air-conditioning operating times according to a pre-set schedule and can be adjusted remotely. The baseline is a measure mix of programmable thermostats and manual thermostats. Savings occur due to the combination of being able to set your thermostat and also being able to adjust your thermostat while not at home.
	Wifi Thermostat - Gas Heat Only	Installation of a Wi-Fi programmable thermostat which gives the ability to adjust heating operating times according to a pre-set schedule and can be adjusted remotely. The baseline is a measure mix of programmable thermostats and manual thermostats. Savings occur due to the combination of being able to set your thermostat and also being able to adjust your thermostat while not at home.
	Programmable Thermostat	Installation of a programmable thermostat which gives the ability to adjust heating or air-conditioning operating times according to a pre-set schedule. The baseline is a manual thermostat. Savings occur due to the ability to pre-set your schedule eliminating the need to manually adjust when either going to bed or leaving your house.
	Combo Furnace	This measure promotes the installation of a combined condensing high-efficiency furnace and water heating unit. Combined furnace and water heating systems are more efficient than separate systems because they eliminate the standby heat losses of an additional tank. Savings occur both due to the increased efficiency of the furnace and the elimination of the storage tank which would have standby losses.
	Water Heater, Indirect, Gas	Installation of high efficiency gas water heaters: Indirect water heaters use storage tank that is heated by the main boiler. The energy stored by the water tank allows the boiler to turn off and on less often, saving energy.
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table G-2.
	Marketing	This is not a measure but is the Marketing budget listed for the program in table G-2.
	Sales, Technical Assistance & Evaluation & Market Research	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table G-2.
	Aerator	This is not a measure but is the Evaluation & Market Research budget listed for the program in table G-2.
	Weatherization	The installation of a low flow faucet aerator. Savings are achieved by replacing an existing high flow rate faucet aerator with a low flow faucet aerator.
	Air Sealing Kit (Gas)	The installation of weatherization measures in natural gas heated homes. Savings are achieved by applying insulation upgrades, air sealing to minimize infiltration of outside air through cracks and leaks in the existing home shell, and duct sealing of leaking duct ventilation.
	Showerhead	The installation of recessed lighting cans that provide air sealing benefits. Savings are achieved by replacing leaky recessed lighting cans in the participating household. Savings for natural gas comes from reduced usage of the heating system.
	Pipe Wrap	The installation of a low flow showerhead with a control that limits flow once the water is heated. Savings are based on gas heating.
	Thermostat	The installation of domestic hot water pipe wrap to reduce gas water heating losses. Savings are achieved by applying insulation in existing equipment without pipe insulation.
	Wi-Fi Thermostat	Installation of a programmable thermostat, which gives the ability to adjust gas heating operating times according to a preset schedule.
	Participants	The installation of Wi-Fi thermostat with the ability to adjust gas heating operating times according to a pre-set schedule to meet occupancy needs and also be able to remotely adjust schedules when not at home. Baseline is a blend of manual thermostats and programmable thermostats.
	Program Planning & Administration	This measure tracks program participation and does not have an associated energy savings value.
	Marketing	This is not a measure but is the Program Planning & Administration budget listed for the program in table G-2.
	Sales, Technical Assistance & Evaluation & Market Research	This is not a measure but is the Marketing budget listed for the program in table G-2.
		This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table G-2.
		This is not a measure but is the Evaluation & Market Research budget listed for the program in table G-2.

Gas Programs		
Program	Measure	Measure Description
EnergyWise Multifamily	Air Sealing	Thermal shell air leaks are sealed through strategic use and location of air-tight materials. The baseline efficiency case is the existing building before the air sealing measure is implemented. The baseline building is characterized by the existing air changes per hour (ACHPRE).
	cust non-lgt	Vendors who install a variety of non-lighting gas measures at multifamily facilities within common areas and dwelling units. Gas measures include HVAC, insulation, and domestic hot water equipment and measures.
	Duct Sealing	Ducts are sealed by reconnecting disconnected duct joints and sealing gaps or seams with mastic and fiber-mesh tape as appropriate. The baseline efficiency case is the existing facility or equipment prior to the implementation of duct sealing.
	Faucet Aerator	The installation of a low flow faucet aerator. Savings are achieved by replacing an existing high flow rate faucet aerator with a low flow faucet aerator.
	Insulation	This relates to insulation upgrades which are applied in existing multifamily facilities. The baseline efficiency case is characterized by the total R-value of the existing attic, basement or sidewall.
	Pipe Wrap (Water Heating)	The installation of domestic hot water pipe wrap to reduce gas water heating. Savings are achieved by applying insulation in existing equipment without pipe insulation.
	Programmable Thermostat	Installation of a programmable thermostat which gives the ability to adjust heating or air-conditioning operating times according to a pre-set schedule. For the installation of a programmable thermostat, the baseline efficiency case is an HVAC system using natural gas to provide space heating without a programmable thermostat.
	TSV Showerhead	The high efficiency measures is a thermostatic shutoff valve combined with a low flow showerhead. The baseline is a federal code showerhead. Savings are realized due to the combination of a reduction in hot water usage associated with a person waiting for the shower temp to heat up and the lower flowrate associated with the low flow showerhead.
	WiFi thermostat gas	Installation of a Wi-Fi programmable thermostat which gives the ability to adjust heating operating times according to a pre-set schedule and can be adjusted remotely. The baseline is a measure mix of programmable thermostats and manual thermostats. Savings occur due to the combination of being able to set your thermostat and also being able to adjust your thermostat while not at home.
	Participants	This measure tracks program participation and does not have an associated energy savings value.
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table G-2.
	Marketing	This is not a measure but is the Marketing budget listed for the program in table G-2.
	Sales, Technical Assistance & Evaluation & Market Research	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table G-2.
Home Energy Reports	New movers dual fuel	This is not a measure but is the Evaluation & Market Research budget listed for the program in table G-2.
	Opt-out dual fuel	A Home Energy Report sent to recently activated electric and gas customers that displays home energy consumption in comparison with peers and prompts energy conserving behavior. The baseline is a control group of homes that does not receive Home Energy Reports. Although this is referred to as a new mover, the customer might have been new to their home many years ago when the grouping was initiated.
	Opt-out gas only	A Home Energy Report sent to electric and gas customers that displays home energy consumption in comparison with peers and prompts energy conserving behavior. The baseline is a control group of homes that does not receive Home Energy Reports.
	Refill	A Home Energy Report sent to gas customers that displays home energy consumption in comparison with peers and prompts energy conserving behavior. The baseline is a control group of homes that does not receive Home Energy Reports.
	Program Planning & Administration	This category is no longer used.
	Marketing	This is not a measure but is the Program Planning & Administration budget listed for the program in table G-2.
	Sales, Technical Assistance & Evaluation & Market Research	This is not a measure but is the Marketing budget listed for the program in table G-2.

Gas Programs		
Program	Measure	Measure Description
Residential New Construction	CODES AND STANDARDS	Energy efficiency code trainings and advocacy work to improve energy efficiency of buildings and equipment within Rhode Island. Savings are claimed by increasing the percentage of code compliant residential homes.
	CP	Heating savings resulting from Energy Star Homes Code Plus projects with high efficient heating equipment, insulation, and infiltration. Code Plus projects are positioned below Tier 1 Energy Star Homes and above current URDH. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	CP-DHW	DHW savings resulting from Energy Star Homes Code Plus projects with high efficient water heating equipment. Code Plus projects are positioned below Tier 1 Energy Star Homes and above current URDH. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	RR CP	Heating savings resulting from Renovation Rehab Code Plus projects with replacement high efficient heating equipment, insulation, and infiltration. Renovation Rehab Code Plus projects are positioned below Tier 1 Energy Star Homes and above current URDH. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	RR CP-DHW	DHW savings resulting from Energy Star Homes Code Plus projects with replacement high efficient water heating equipment. Code Plus projects are positioned below Tier 1 Energy Star Homes and above current URDH. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	RR Tier 1	Heating savings resulting from Renovation Rehab projects with replacement high efficient heating equipment, insulation, and infiltration. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	RR Tier 1 - DHW	DHW savings resulting from Renovation Rehab projects with replacement high efficient water heating equipment. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	RR Tier 2	Heating savings resulting from Renovation Rehab projects with replacement high efficient heating equipment, insulation, and infiltration. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	RR Tier 2 - DHW	DHW savings resulting from Renovation Rehab projects with replacement high efficient water heating equipment. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	RR Tier 3	Heating savings resulting from Renovation Rehab projects with replacement high efficient heating equipment, insulation, and infiltration. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	RR Tier 3 - DHW	DHW savings resulting from Renovation Rehab projects with replacement high efficient water heating equipment. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	RR Tier 4	Heating savings resulting from Renovation Rehab projects with replacement high efficient heating equipment, insulation, and infiltration. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	RR Tier 4 - DHW	DHW savings resulting from Renovation Rehab projects with replacement high efficient water heating equipment. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	SHOWERHEAD	The installation of a low flow showerhead with a control that limits flow once the water is heated.
	Tier 1	Heating savings resulting from Energy Star Homes projects with high efficient heating equipment, insulation, and infiltration. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	Tier 1 - DHW	DHW savings resulting from Energy Star Homes projects with high efficient water heating equipment. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	Tier 2	Heating savings resulting from Energy Star Homes projects with high efficient heating equipment, insulation, and infiltration. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	Tier 2 - DHW	DHW savings resulting from Energy Star Homes projects with high efficient water heating equipment. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	Tier 3	Heating savings resulting from Energy Star Homes projects with high efficient heating equipment, insulation, and infiltration. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.

Gas Programs		
Program	Measure	Measure Description
Single Family - Income Eligible Services	Tier 3 - DHW	DHW savings resulting from Energy Star Homes projects with high efficient water heating equipment. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	Tier 4	Heating savings resulting from Energy Star Homes projects with high efficient heating equipment, insulation, and infiltration. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	Tier 4 - DHW	DHW savings resulting from Energy Star Homes projects with high efficient water heating equipment. This measure saves energy by increasing the efficiency when compared to the base case of the UDRH.
	Adaptive Reuse	Gas savings resulting from converting abandoned mills and factory buildings into multifamily residences. Adaptive Reuse projects include a custom mix of measures and improvements.
	Participants	This measure tracks program participation and does not have an associated energy savings value.
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table G-2.
	Marketing	This is not a measure but is the Marketing budget listed for the program in table G-2.
	Sales, Technical Assistance &	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table G-2.
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table G-2.
	Heating System Replacement	The installation of high efficiency heating . Savings are achieved by replacing an existing inefficient heating system with a high efficient one.
	Weatherization	The installation of weatherization measures in electric heated homes. Savings are achieved by applying insulation upgrades or air sealing to minimize infiltration of outside air through cracks and leaks in the existing home shell.
	Participants	This measure tracks program participation and does not have an associated energy savings value.
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table G-2.
	Marketing	This is not a measure but is the Marketing budget listed for the program in table G-2.
Income Eligible Multifamily	Sales, Technical Assistance & Evaluation & Market Research	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table G-2.
	Air Sealing	This is not a measure but is the Evaluation & Market Research budget listed for the program in table G-2.
	Boiler Commercial	Thermal shell air leaks are sealed through strategic use and location of air-tight materials. The baseline efficiency case is the existing building before the air sealing measure is implemented. The baseline building is characterized by the existing air changes per hour (ACHPRE)
	Boiler	The installation of a high efficiency natural gas fired condensing hot water boiler. High-efficiency condensing boilers can take advantage of improved design, sealed combustion and condensing flue gases in a second heat exchanger to achieve improved efficiency. The baseline efficiency is determined based on the type of existing heating equipment installed.
	Boiler	The installation of high efficiency boiler to replace the existing inefficient furnace, hydronic boiler or steam boiler. The baseline efficiency is determined based on the type of existing heating equipment installed.
	Cust Non-Lgt	Vendors install a variety of non-lighting gas measures at multifamily facilities within common areas and dwelling units. Gas measures include HVAC, insulation, and domestic hot water equipment and measures.
	Faucet Aerator	The installation of a low flow faucet aerator. Savings are achieved by replacing an existing high flow rate faucet aerator with a low flow faucet aerator.
	Insulation	This relates to insulation upgrades which are applied in existing multifamily facilities. The baseline efficiency case is characterized by the total R-value of the existing attic, basement or sidewall.
	Pipe Wrap (Water Heating)	The installation of domestic hot water pipe wrap to reduce gas water heating. Savings are achieved by applying insulation in existing equipment without pipe insulation.

Gas Programs		
Program	Measure	Measure Description
	Programmable Thermostat	Installation of a programmable thermostat which gives the ability to adjust heating or air-conditioning operating times according to a pre-set schedule. For the installation of a programmable thermostat, the baseline efficiency case is an HVAC system using natural gas to provide space heating without a programmable thermostat.
	TSV Showerhead	The high efficiency measures is a thermostatic shutoff valve combined with a low flow showerhead. The baseline is a federal code showerhead. Savings is realized due to the combination of a reduction in hot water usage associated with a person waiting for the shower temp to heat up and the lower flowrate associated with the low flow showerhead.
	Participants	This measure tracks program participation and does not have an associated energy savings value.
	Program Planning & Administration	This is not a measure but is the Program Planning & Administration budget listed for the program in table G-2.
	Marketing	This is not a measure but is the Marketing budget listed for the program in table G-2.
	Sales, Technical Assistance &	This is not a measure but is the Sales, Technical Assistance & Training budget listed for the program in table G-2.
	Evaluation & Market Research	This is not a measure but is the Evaluation & Market Research budget listed for the program in table G-2.

PUC 1-40

Request:

Please explain if there are electric savings associated with weatherization of delivered-fuel homes. If so, please explain if these savings have typically counted towards National Grid's achievement of kWh and kW savings targets and actual performance in previous plans.

Response:

There are secondary electric savings associated with weatherization of delivered-fuel homes. Delivered-fuel home weatherization incentives are supported by the electric energy efficiency system benefit charge for the Company's electric customers. The electric kWh and kW savings have been included in both savings targets and actual performance calculations in previous plans. The electric savings from weatherizing homes that heat with delivered fuels come from reduced electrical use by heating system fans, as well as through reduced cooling load.

PUC 1-41

Request:

Please provide a single table with rows indicating all pilots, assessments, and demonstrations.
Please make the columns the following:

- a. Cost
- b. Savings
- c. Years operated
- d. Report filed (yes/no)

Response:

Please refer to Attachment PUC 1-41.

Attachment PUC 1-41

Fuel	Sector	PDA Type	Name	a.) Budget (2021)	Savings Estimation from 2021 Plan*	b.) Estimate for Claimed Savings (2021)	c.) Years Operated	d.) Report filed (Y/N)**
Gas	C&I	Pilot	Gas Demand Response Pilot	\$ 215,780	27,280 Therms (projected for 2021)	27,280 Therms	2018-2021	Y
		Demonstration	Continuous Energy Improvement (CEI)	\$ 179,200	75,000 Therms (projected for 2021)	75,000 Therms	2018-2021	Y
			Network Lighting Controls Plus HVAC (NLC+)	\$ 64,154	0.012 Therms/sqft	960 Therms	2020-2021	Y
			Smart Valves	\$ 59,250	23,000 Therms (projected for 2021)	23,000 Therms	2021	N
			Kitchen Exhaust	\$ 134,593	67,000 Therms (potential)	2900 Therms	2020-2021	Y
			Gas Heat Pumps	\$ 233,287	15,000-20,000 Therms (for a 400-600 mbh unit)	80,000 Therms	2020-2022	Y
		Assessment	Shared Laundry Facility Clothes Washers and Dryers	\$ 19,441	Unknown	N/A	2021	N
			Use of Submetering to Support EE Opportunities	\$ 25,921	Unknown	N/A	2021	N
	Residential	Demonstration	New Air Sealing and Insulation Products	\$ 77,762	0.1 Therm/sqft		2021-2022	N
			Gas Heat Pumps	\$ 201,445	250 Therms/unit	2,500 therms	2021-2022	N
		Assessment	Pre-Fab Whole House Energy Refurbishment	\$ 19,441	Unknown	N/A	2021	N
Electric	C&I	Demonstration	Continuous Energy Improvement (CEI)	\$ 380,800	976 MWh (projected for 2021)	976 MWh	2018-2021	Y
			Network Lighting Controls Plus HVAC (NLC+)	\$ 201,000	1.44 kWh/SF	115 MWh	2020-2021	Y
			Kitchen Exhaust	\$ 66,292	27 MWh (potential)	15 MWh	2020-2021	Y
			Smart Valves	\$ 177,750	300 MWh (projected for 2021)	300 MWh	2021	N
			Enzyme-based HVAC Coil Cleaning	\$ 85,538	6-10% of HVAC consumption		2021	N
		Assessment	Shared Laundry Facility Clothes Washers and Dryers	\$ 6,480	Unknown	N/A	2021	N
			Use of Submetering to Support EE Opportunities	\$ 25,921	Unknown	N/A	2021	N
			Refrigerant Leak Survey and Repair	\$ 25,921	Unknown	N/A	2021	N
			HVAC Automation for Demand Response	\$ 25,921	Unknown	N/A	2021	N
	Residential	Demonstration	New Air Sealing and Insulation Products	\$ 25,921	0.05 kWh/sqft		2021-2022	N
			Solar Inverter Direct Load Control	\$ 254,570	102.5 kWh/ inverter	180 MWh	2021-2023	N
		Assessment	Pre-Fab Whole House Energy Refurbishment	\$ 6,480	Unknown	N/A	2021	N

* Savings Estimate from Attachment 8 of the 2021 Annual Plan

** Reported in the Energy Efficiency Quarterly Reports during 2020. All Pilots, Demonstrations, and Assessments will continue to be included in Energy Efficiency Quarterly Reports during 2021.

PUC 1-42

Request:

For each pilot, assessment, and demonstration, please provide the following:

- a. A short (e.g., about a single sentence) stating what question or issue is being tested.
- b. A list of the specific tests used to answer the question or issue above, the costs associated with each test, and how each test is designed to achieves [sic] new and useful information.
- c. A list of costs necessary to support the specific activities above.
- d. The timing of when results will be delivered for each activity.
- e. The format in which results will be delivered for each activity.

Response:

The Company has a proposed total of 15 pilots, demonstrations, and assessments (PDAs) in 2021. The sections below provide the requested details for each pilot, demonstration, or assessment included in the RI 2021 Annual Plan. All costs are associated with costs that are expected in 2021, even in cases where the PDA may continue into 2022.

The amount of detail for each PDA differs depending on where the PDA is in its development and what types of tests are used in the analysis. Some PDAs that are proposed in the 2021 Annual Plan have not been fully approved, and therefore have not been fully scoped. In this case we are not able to provide granular detail on costs associated with each test and have therefore provided the estimated cost for the PDA in 2021. Some PDAs have been scoped, but we are not able to isolate or allocate costs for each test due to limitations in budget estimates or because the tests are interconnected. There are some PDAs that do have the level of requested granularity and it is provided in the response. However, because these PDAs will have costs associated with tasks outside of the specific tests, such as administrative costs or incentives, the costs will not match Attachment 8.

C&I Pilot - Gas Demand Response

- a) The pilot is answering if customers will continue to alter their gas usage sufficiently to demonstrate gas system peak reductions dependably over multiple winter seasons.
- b) With Gas Demand Response, the Company will identify or test claiming distribution system benefits by a reduction of gas system peak demand and customer adoption of gas DR and incentive levels to drive participation. Additional information on these tests is in the table below.

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- c) Costs are not available for each individual test since the tests are interconnected and overlapping. The cost provided in the table is the total budget for 2021.

Test	b) Description	c) Cost of Activity
1	<u>Customer Interest</u> : The company expects to retain the customer enrollments recruited in the previous seasons.	\$215,780
2	<u>Incentive Levels</u> : Will customers remain enrolled at or below the performance incentive rates.	
3	<u>System Benefits</u> : Continuing to search for and identify system benefits from calling gas DR events.	
4	<u>Program Scale</u> : Which customers are most likely to participate, how many of them are there, and what does "at scale" look like.	

- d) Learnings from the winter 2020/2021 will be available at the end of the Winter Gas DR season – Q2 of 2021.
- e) Updates on the pilot deliverables and results will be provided as part of the quarterly Energy Efficiency Quarterly Reports filed with the PUC.

C&I Demonstration - Enzyme-based HVAC Coil Cleaning

- a) The primary test questions for the Enzyme-based Coil Cleaning demonstration are the following:
- Conventional power washing of HVAC coils leads to small but well-understood savings. Do recently developed approaches to coil cleaning, such as removing dirt and biofilm from coils with a chemical enzyme, lead to measurably increased savings?
 - Does this novel approach justify its increased costs? Are there other non-energy impacts, such indoor air quality improvements, or sanitation improvements?
- b) This demonstration will identify three to four customer sites and install submetering with roof-top units. It will also contract a vendor such as Blue Box Air to perform its enzyme-based cleaning process with individual RTUs at these sites, while also separately contracting conventional pressure-washing with other RTUs at these sites. This will demonstrate the potential improvement of cooling efficiency with an enzyme-based cleaning process. The company will monitor the performance of these systems and efficiency improvements over a three-to-six-month period through vendor evaluation, also monitoring IAQ improvement.

PUC 1-42, page 3

- c) Costs are provided in the table below. Note that this demonstration does not have cost estimates for each individual test. The value provided represents the 2021 budget for the Enzyme-based HVAC Coil Cleaning demonstration.

Test	b) Description	c) Cost of Activity
1	<u>Enzyme cleaning vs. pressure washing:</u> By performing different cleanings on individual RTUs at the same sites, incremental savings improvements will be quantified	\$85,538
2	<u>Monitoring IAQ:</u> Measuring particulate matter and microbial presence will validate the sanitation and IAQ benefits of enzyme-based cleaning.	

- d) The enzyme-based cleaning is planned to occur in Q1-Q2, in order to precede peak summer cooling load, though exact timing depends on site recruitment and project implementation. Ongoing measurement and verification, including measurement of indoor air quality, will continue throughout 2021, with the final report delivered by the end of 2021.
- e) Updates on the demonstration deliverables and results will be provided as part of the quarterly Energy Efficiency Quarterly Reports filed with the PUC. The final demonstration results will be compiled in a final report and presentation.

C&I Demonstration - Strategic Energy Management (SEM)/Continuous Energy Improvement (CEI)

- a) The primary test questions for the Strategic Energy Management/Continuous Energy Improvement are the following:
- Can a series of energy efficiency interventions, including individual and group coaching, result in increased operation and maintenance energy efficiency actions in the short-term, and energy efficiency capital measures in the medium-term?
 - Can a series of energy efficiency interventions, including individual and group coaching, lead to increased energy efficiency actions over the long-term?
- b) The Strategic Energy Management/Continuous Energy Improvement demonstration will be assessed in two phases:
- By comparing and analyzing the customer's operation and maintenance energy efficiency installations, and the capital energy efficiency savings during the test period and comparing the number and value of those installations against the customer's actions before the intervention occurred.

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- By comparing, analyzing, and monitoring energy efficiency actions of the participating customers after the demonstration has completed to determine if the coaching and education has resulted in continuous energy efficiency improvement, increased energy efficiency installations, and increased energy efficiency savings.
- c) The SEM/CEI demonstration cost of activity for program year 2021 is projected to be \$380,800 for electric and \$179,200 for gas. These costs are associated with training, workshops, assistance, quality assurance and quality control, and program management.
- d) Electric savings from SEM/CEI are claimed annually in December. Gas savings from SEM/CEI are claimed annually in March.
- e) The savings results come in the form of a Customer Energy Savings Report memo, an Energy Modeling Report, and a Data Workbook. Updates on the demonstration deliverables and results will be provided as part of the quarterly Energy Efficiency Quarterly Reports filed with the PUC.

C&I Demonstration - Network Lighting Controls Plus HVAC

- a) The primary research questions for the Network Lighting Controls Plus HVAC demonstration are:
 - What are the benefits and costs associated with integrating NLC systems with BAS, particularly regarding increased HVAC control savings?
 - What is the capacity in RI market to support integrated controls projects?
- b) The NLC+HVAC demonstration was designed in two phases. Phase I, completed in 2020, deployed 22 interviews with program staff, customers, lighting industry representatives, and HVAC industry representatives. Phase II will include 4 customer installation projects, likely to be initiated in 2021. Customer installations will include problem solving integration issues, M&V of energy savings, customer and vendor experience interviews. The tasks associated with Phase II, relevant to the 2021 Plan, are provided in the table below.
- c) Costs associated with each test are provided in the table below. These estimates represent costs associated with each test in 2021. These will not match the values provided in Attachment 8, which includes other demonstration costs like incentives and administrative costs.

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Test	b) Description of Test and Purpose	c) Cost of Activity
1	<u>Problem solving integration issues</u> : Identify areas where contractors need training or coordination, facilitate successful completion of integration. Identify common barriers or pain points in project implementation	\$115,000
2	<u>M&V of savings</u> : Quantify and verify actual realized savings at each site. Compare estimated savings to actual, understand proportion of savings from lighting vs. HVAC integration	\$18,000
3	<u>Interviews</u> : The interviews will be a key component of the demonstration, helping understand how an effective program should be designed to address project pain points and market barriers.	\$9,600

- d) The timing of each deliverable depends on the time required for customer recruitment and project implementation. It's expected that projects will be implemented in 2021, with problem solving and integration lessons learned available by the end of the year. Savings verification and experience interviews will take place concurrent and after project implementation, with the final report and presentation available in 2022.
- e) Updates on the demonstration deliverables and results will be provided as part of the quarterly Energy Efficiency Quarterly Reports filed with the PUC. The final demonstration results will be compiled in a final report and presentation.

C&I Demonstration - Kitchen Exhaust

- a) The primary research questions for the kitchen exhaust demonstration include:
 - What is the savings potential of three kitchen exhaust measures in the RI market- demand control ventilation, energy recovery, and electrostatic filtration?
 - What are the individual and interactive realized savings for these three measures?
 - What are the target customers and market barriers for these products?
- b) Phase I of this demonstration, completed in 2020, estimated the overall potential of these products in commercial kitchens in RI through market research, interviews, and modeling. Phase II will include 4 customer installations of energy recovery and electrostatic filtration products. Demand control ventilation is not included in Phase II since it has already been included in the National Grid programs and is well understood.
- c) Costs are provided in the table below. Note that this demonstration does not have cost estimates for each individual test. The value provided represents the 2021 budget for the Kitchen Exhaust demonstration.

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Test	b) Description	c) Cost of Activity
1	<u>Problem solving installations</u> : identify areas where contractors need training or coordination. Identify common barriers or pain points in project implementation	\$200,886
2	<u>M&V of savings</u> : Quantify and verify actual realized savings at each site. Understand the individual and interactive savings when multiple measures installed.	
3	<u>Interviews</u> : The interviews will be a key component of the demonstration, helping understand how an effective program should be designed to address project pain points and market barriers.	

- d) The timing of each deliverable depends on the time required for customer recruitment and project implementation. It's expected that projects will be implemented in Q1 and Q2 of 2021. Savings verification and experience interviews will take place concurrent and after project implementation, with the final report and presentation available by the end of 2021.
- e) Updates on the demonstration deliverables and results will be provided as part of the quarterly Energy Efficiency Quarterly Reports filed with the PUC. The final demonstration results will be compiled in a final report and presentation.

C&I Demonstration - Smart Valves on Chilled Water Systems

- a) Smart valve measures on chilled water systems have not been offered or tested through the RI energy efficiency programs. This demonstration will quantify the overall potential of the valve, estimate the energy savings associated with each installation, identify best practices, and identify target customer types.
- b) The demonstration will include three to four customer installations with M&V and characterize the energy savings for the device. Additional detail is provided in the table below.
- c) The costs for these tests are provided in the table below. This planned demonstration has not been fully scoped, so there is not detail on how much of the budget will be associated with each test. The value in the table represents the total demonstration budget for the study for 2021.

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Test	b) Description	c) Cost of Activity
1	<u>Installation and optimization</u> : Install 3-4 projects to identify best practices for installation, including how smart valves may be used in plant optimization.	\$237,000
2	<u>M&V</u> : Savings will be verified at each installation site using trend data as available and additional metering as needed.	
3	<u>Modeling</u> : Energy savings will be modeled to test for energy drivers and understand the range of possible savings under different conditions. This information will inform recommendations for building or system types that would benefit most from these devices.	

- d) The timing of each deliverable depends on the time required for customer recruitment and project implementation. It's expected that projects will be implemented by the end of 2021. Savings verification and experience interviews will take place concurrent and after project implementation, with the final report and presentation available by the end of 2021.
- e) Updates on the demonstration deliverables and results will be provided as part of the quarterly Energy Efficiency Quarterly Reports filed with the PUC.

C&I Demonstration - Gas Heat Pumps

- a) Gas engine heat pumps perform with a comparable mechanism (though significantly lower efficiency) than convention electric heat pumps. More recent products rely on a novel absorption thermodynamic cycle, which is not yet validated on the basis of performance, either for heating and cooling. This demonstration will seek to validate that performance.
- b) Gas heat pumps will be installed at three to four customer sites, including those with primarily high heating loads, as well as locations with both heating and cooling loads such as food and beverage processing, hotels, and multi-unit apartment buildings. Tests will evaluate average coefficients of performance, ongoing maintenance costs, and performance with cold outdoor temperatures.
- c) The costs for these tests are provided in the table below. This planned demonstration has not been fully scoped, so there is not detail on how much of the budget will be associated

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- d) with each test. The value in the table represents the total demonstration budget for the study for 2021 through 2022.

Test	b) Description	c) Cost of Activity
1	<u>Heating and Cooling Balance</u> : Through implementation at various sites, the demonstration will validate whether improved efficiency is possible through serving simultaneous heating and cooling load.	\$233,287
2	<u>Maintenance costs</u> : Limited validation of long-term repair costs is possible through the demonstration, but the demonstration will seek to quantify the costs of regular maintenance.	
3	<u>Cold weather performance</u> : Limited performance data is available for absorption heat pumps in cold climates; the demonstration will assess the impact of winter temperatures on COP	

- e) The activities will be developed concurrently, though serving cooling load will be measured in summer months, and analyzing coefficient of performance in cold weather (activity 3) will take place primarily over winter months. Beginning activities will depend on customer recruitment, as well as vendor/installer arrangements. It is expected that projects will be implemented by the end of 2021, with evaluation occurring from late 2021 through 2022. The final report and presentation will be delivered by the end of 2022.
- f) Updates on the demonstration deliverables and results will be provided as part of the Energy Efficiency Quarterly Reports filed with the PUC. The final demonstration results will be compiled in a final report and presentation.

C&I Assessment - HVAC Automation for Demand Response

- a) The assessment of HVAC Automation for Demand Response will explore the role of incentivizing advanced communications and control infrastructure in enabling increased demand response-ready capacity. Specifically, it will answer the question of whether incentivization for certain standards of communication and control lead to greater participation in demand response.

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- b) This is a research and interview-based assessment, without field testing. The Company has investigated and will investigate comparable incentive programs, such as the OpenADR standard in California, as well as interview demand response infrastructure manufacturers and the curtailment service providers that participate in Connected Solutions.
- c) The cost of the assessment is listed in the table below. The planned assessment is not yet fully scoped, so a detailed cost breakout for individual activities is not yet available. The value in the table represents total assessment budget for 2021.

Test	b) Description	c) Cost of Activity
1	<u>Researching standards:</u> Understanding whether setting a common standard or incentivizing DR-ready infrastructure more effectively enables participation	\$25,921
2	<u>DR-enabler interviews:</u> Interviewing the controls and communications vendors, as well as interviewing curtailment providers, including those active in other territories with a range of alternative incentive schemes, to judge best pathways to DR enablement.	

- d) The timing of this assessment (due to a lack of field testing) is not subject to typical project management delays; interviews and research will occur through Q3 2021.
- e) Updates on the deliverables and assessment will be provided through the Energy Efficiency Quarterly Reports filed with the PUC, followed by a final memo with conclusions in Q3 2021.

C&I Assessment - Shared Laundry Facility Clothes Washers and Dryers

- a) This assessment will research the feasibility of a midstream or upstream commercial laundry offering to promote the installation of higher efficiency shared washers and dryers. The focus of this assessment will be to understand the feasibility of a potential upstream offering.
- b) This will be a research-based assessment, with no in field testing. The assessment will be made based on research and analysis on whether the program would be cost effective and whether there is a pathway for the programs to meaningfully change customer behavior at any point in the product life cycle.

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- c) The cost of the assessment is listed in the table below. The planned assessment is not yet fully scoped, so a detailed cost breakout for individual activities is not yet available. The value in the table represents total assessment budget for 2021.

Test	b) Description	c) Cost of Activity
1	<u>Cost Effectiveness</u> : Research on savings and costs between standard and high efficiency equipment. The standard RI benefit cost test will be performed.	\$25,921
2	<u>Leverage Points</u> : Research and interviews will be conducted to understand the market, other energy efficiency programs in this area, and how effective an offering might be.	

- d) The internal research activities will be completed by the end of 2021.
- e) Updates on the demonstration deliverables and results will be provided as part of the quarterly Energy Efficiency Quarterly Reports filed with the PUC. The findings will be summarized in a memo as well.

C&I Assessment - Use of Submetering to Support Energy Efficiency Opportunities

- a) This assessment will research and document the costs and opportunities associated with supporting installation of submetering through the energy efficiency programs. The research will examine whether or not offering or encouraging submetering in the programs is a cost-effective way to encourage, produce, and claim new energy savings through the energy efficiency programs.
- b) This will be a research and interview-based assessment. No field installations will be performed. The research will assess different types of submetering, what savings opportunities or other benefits they support, costs, and persistence of savings.
- c) There are no costs specifically associated with the two tests listed in the table below. The costs included represent expected 2021 spending on this assessment.

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Test	b) Description	c) Cost of Activity
1	<u>Lit review of submetering practices</u> : this review will summarize and compile information about ways in which submetering is used, how it produces savings, overlap with other program models (such as pay for performance), costs, and benefits of submetering. The review will also revisit past program policies.	\$51,841
2	<u>Discussion</u> : This assessment will coordinate with stakeholders, program staff, and experts to facilitate a discussion about whether the programs should support submetering through the programs and to what extent.	

- d) The internal research activities will be completed by the end of 2021.
- e) Updates on the demonstration deliverables and results will be provided as part of the quarterly Energy Efficiency Quarterly Reports filed with the PUC. The findings will be summarized in a memo as well.

C&I Assessment - Refrigeration Leak Survey and Repair

- a) The assessment will answer whether a refrigeration leak survey and repair offering would be cost effective.
- b) The assessment will perform research and interviews to quantify the energy and GHG savings associated with refrigeration leak survey and repair above regulatory requirements.
- c) The costs for this assessment are estimated in the table below.

Test	b) Description	c) Cost of Activity
1	<u>Cost Effectiveness</u> : Research and interviews will be performed to assess a potential program's cost effectiveness. Research will be performed to identify programs in other states and the savings potential of the program.	\$25,921

- d) The internal research activities will be completed by Q3 of 2021.
- e) Updates on the demonstration deliverables and results will be provided as part of the quarterly Energy Efficiency Quarterly Reports filed with the PUC. The findings will be summarized in a memo as well.

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Residential Demonstration - New Air Sealing and Insulation Products

- a) The demonstration will investigate an airborne acrylic spray technology used in new construction and in renovations to reduce infiltration, as measured by a simultaneous blower door test. It will also investigate a polyurethane injection foam which improves building envelope insulation in new construction and in renovations.
- b) Both technologies will be tested with six homes. Testing will evaluate the infiltration and insulation improvements of each technology, as well as two homes with both technologies implemented, with the final measurements of air infiltration rate and R-value, as well as measuring off-gassing and toxicity concerns for the injection foam technology.
- c) The cost of the demonstration is listed in the table below. This planned demonstration has not been fully scoped, so there is not detail on how much of the budget will be associated with each test. The value in the table represents the total demonstration budget for the study for 2021 through 2022.

Test	b) Description	c) Cost of Activity
1	<u>Air infiltration rate:</u> The demonstration will measure the reduced infiltration from the airborne acrylic spray.	\$103,683
2	<u>R-value:</u> The demonstration will measure improved insulation from the injection foam, as well as testing for health hazards from the foam	

- d) Demonstration activity timing will depend on customer recruitment and project implementation. However, the products are expected to be tested with the customer sites by Q1 2022, measurement and evaluation will occur through 2022, and the final report will be available by Q4 2022.
- e) Updates on the demonstration deliverables and results will be provided as part of the Energy Efficiency Quarterly Reports filed with the PUC. The final demonstration results will be compiled in a final report and presentation.

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Residential Demonstration - Solar Inverter Direct Load Control

- a) Can a BYOD (Bring-your-own-device) type offering targeting customer-owned and connected inverter optimization demonstrate measurable energy and/or demand reduction while being beneficial to grid operation.
- b) The demonstration would recruit installed customer-owned solar inverters to connect and participate to explore how the demand response program utilizes this existing functionality of customer solar inverters to benefit the grid by working with customers to promote the most beneficial inverter settings. The demonstration would test recruitment, communication, setting adjustment, and measure impact.
- c) The costs for these tests are provided in the table below. This planned demonstration has not been fully scoped, so there is not detail on how much of the budget will be associated with each test. The value in the table represents the total demonstration budget for the study for 2021.

Test	b) Description	c) Cost of Activity
1	<u>Customer Recruitment</u> : While we have been able to recruit high numbers of Connected Solutions customers, this equipment user is a new type and will they sign up similarly	\$111,650
2	<u>Device Communication</u> : Does direct device communication operate similarly to existing direct load control?	\$42,920
3	<u>Inverter Setting Adjustment</u> : Do customers and inverter manufacturers accept setting adjustment of their equipment?	
4	<u>Measure Impact</u> : Will adjustments made to inverter setpoints result in measurable energy or demand reductions?	\$100,000

- d) The timing of each deliverable depends on the time required for customer recruitment and project implementation. It is expected that recruitment, device communication, and setting adjustment would occur in Q2 2021 and measure impact measured by the end of Q4 2021.
- e) Updates on the demonstration deliverables and results will be provided as part of the quarterly Energy Efficiency Quarterly Reports filed with the PUC. The final demonstration results will be compiled in a final report and presentation.

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Residential Demonstration - Gas Heat Pumps

- a) Conventional gas heat pumps are typically not transferrable to residential scale, due to an engine-based designs. Novel gas absorption heat pumps rely on a different thermodynamic cycle and can possibly be scaled down to residential scale. This demonstration, similarly to the commercial-scale demonstration, will determine gas heat pump efficiency in a residential context.
- b) As with the commercial-scale demonstration, this test will validate cost and performance for gas heat pumps at two to three residential single-family sites, evaluating the difference in performance between systems providing heating and systems which provide heating and cooling. Maintenance costs will also be measured throughout the demonstration, and the demonstration will measure heat pump performance in cold temperatures.
- c) The costs for these tests are provided in the table below. This planned demonstration has not been fully scoped, so there is not detail on how much of the budget will be associated with each test. The value in the table represents the total demonstration budget for the study for 2021 through 2022.

Test	b) Description	c) Cost of Activity
1	<u>Heating and Cooling Balance</u> : Through implementation at various sites, the demonstration will validate whether serving both space heating and cooling loads reduces overall efficiency, as opposed to simply providing space heating and/or hot water heating.	\$201,445
2	<u>Maintenance costs</u> : Limited validation of long-term repair costs is possible through the demonstration, but the demonstration will seek to quantify the costs of regular maintenance.	
3	<u>Cold weather performance</u> : Limited performance data is available for absorption heat pumps in cold climates; the demonstration will assess the impact of winter temperatures on COP	

- d) The activities will be developed concurrently, though serving cooling load will be measured in summer months, and analyzing coefficient of performance in cold weather (activity 3) will take place primarily over winter months. Beginning activities will depend on customer recruitment, as well as vendor/installer arrangements. It is expected that projects will be implemented by the end of 2021, with evaluation occurring from late 2021 through 2022. The final report and presentation will be delivered by the end of 2022.

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- e) Updates on the demonstration deliverables and results will be provided as part of the Energy Efficiency Quarterly Reports filed with the PUC. The final demonstration results will be compiled in a final report and presentation.

Residential Assessment - Pre-Fab Whole House Energy Refurbishment

- a) The assessment will research and document the capability in the Rhode Island building supply chain to specify, design, and deliver prefabricated exterior improvements to substantially improve housing while residents continue to live in the structures.
- b) This will be a research and interview-based assessment. No field installations will be performed. The assessment will perform research and interviews to assess the capability of the Rhode Island building market to deliver prefabricated whole home energy refurbishments. The research will look at the building lifecycle “trigger event”, the ability to aggregate owner demand and market power, the building industry capability, and building owner financing opportunities for interventions of this sort.
- c) The costs for these tests are provided in the table below.

Test	b) Description	c) Cost of Activity
1	<u>Research & Interviews</u> : The primary focus of this assessment will be to understand and baseline the current status of Rhode Island components needed to support whole-home exterior retrofits. After the baseline condition is understood, and if the components and capability exist, the Company will estimate overall savings potential for this measure and roadmap necessary to promote this approach.	\$25,921

- d) The internal research activities will be completed by the end of 2021.
- e) Updates on the assessment deliverables and results will be provided as part of the Energy Efficiency Quarterly Reports filed with the PUC.

PUC 1-43

Request:

Please list all demand response (DR) pilots that are focused on shifting energy use to times when energy can be procured at a lower cost, rather than DR that is focused on offsetting or eliminating the need for capital investment. Please list all DR pilots that are focused on offsetting or eliminating the need for capital investment.

Response:

There is one DR pilot (and one DR demonstration - Solar Inverter Direct Load Control) planned for 2021. The DR pilot is Gas Demand Response which is entering its third demonstration season. This pilot is not exclusively focused on either time shifting for cost avoidance or offsetting/eliminating the need for capital investment. The pilot is designed to test a gas demand response program's ability to provide both. The Company believes that gas demand response has the potential to reduce Company gas procurement costs through allowing for a lesser volume of gas supplies to be purchased at times when those costs are high. Additionally, at sufficient scale and with sufficiently demonstrated reliability (both dimensions which the proposed pilot expansion is designed to inform), gas demand response also offers the potential for offsetting or eliminating the need for capital investment in gas infrastructure.

PUC 1-44

Request:

Since 2003, on a whole, has the diversity of electric measures increased, decreased, or stayed the same, and has the Company's experience with those electric measures increased, decreased, or stayed the same?

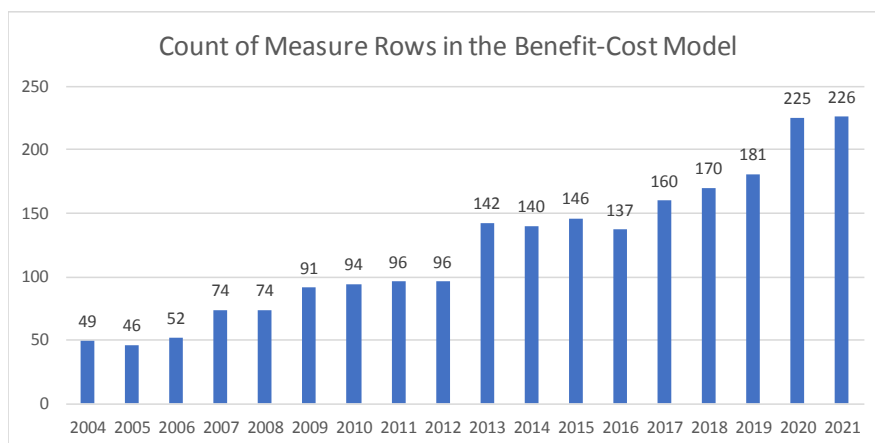
Response:

On a whole, the diversity in the number of measures included in the electric portfolio of programs has increased in the Company's experience over the past 17 years. The Company generally has sought to include new measures and market approaches through the programs due to changes in code, as new technologies come to the market, and in response to new priorities from stakeholders.

To illustrate the changing diversity of measures over time the Company extracted the count of measure types included in the benefit cost analysis models for the electric portfolio since 2004.¹ While these counts do not reflect one-to-one the measures offered in the programs because categories in the benefit-cost model can include multiple subcategories of measures in actual implementation, they are illustrative of the level of detail at which the programs were planned over time and are a proxy for the measures included in the programs over time. While this is one way to view the diversity of measures, even in 2003 the Company had experience with many of the measures that are currently offered due to earlier programs. While efficiency levels of measures and exact technologies have changed, the Company generally has a long track record with a variety of measures offered through the programs.

¹ Information from the benefit-cost model for 2003 was not available.

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Over the past five years within the Commercial and Industrial sector the level of concentration of savings within specific programs has generally increased compared to prior years. In the C&I sector, the savings from Large Commercial Retrofit represented the largest share of within-sector savings for the past five years and an increasing trend of concentration of sector savings in that program over time.

Year	Percentage of Within-Sector Savings from top C&I program by year
2019	72%
2018	77%
2017	77%
2016	74%
2015	53%
2014	69%
2013	41%
2012	49%
2011	52%
2010	61%
2009	65%
2008	48%
2007	49%
2006	63%
2005	51%
2004	51%
2003	57%

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In the Residential sector, in the past six years (2014 – 2019) the top two programs in terms of contribution to annual sector electric energy savings have been EnergyStar® Lighting and Home Energy Reports. In years 2003 – 2013 the top two programs in terms of savings were EnergyStar® Lighting and EnergyWise. These two programs have accounted for the following percentages of within-sector savings for the past five years:

Year	Percentage of Within-Sector Savings from top two Residential programs by year
2019	81%
2018	82%
2017	84%
2016	77%
2015	71%
2014	73%
2013	69%
2012	81%
2011	79%
2010	78%
2009	80%
2008	88%
2007	93%
2006	87%
2005	93%
2004	90%
2003	93%

Over time, as measures have been offered for longer periods of time, the Company has generally become more experienced with those measures. At the same time, the Company continues to look for opportunities to introduce new products to the programs and to develop markets for those products as savings have become concentrated in a few areas of the portfolio. New measures and offerings allow for opportunities for the Company to learn how those measures are received by customers and further refinements to those measure offerings can be made based on experience. For example, the Company has added new technologies like WiFi thermostats to programs as they have entered the market. Also, as code advances measures may be removed from the programs and more efficient offerings that fit the same product category can be added.

PUC 1-45

Request:

Referring to Bates 253, the company states if it is determined in the December 1st filing the 2020 carryover is projected to be less than projected in the October 15th filing, the SBC will not be increased. If this occurs, what programs will be cut to avoid an increase in the SBC?

Response:

Should the anticipated year-end 2020 fund balance reported in the December 1st update be less than the fund balance anticipated in the initial plan filing, the Company does not intend to reduce planned 2021 implementation budgets (or to cut any programs) to avoid an increase in the SBC.

Rather, in this scenario, the Company would propose holding the planned 2021 SBC surcharges constant, and effectively plan on and project a negative year-end 2021 fund balance. The impact of this would, holding all else equal, require larger 2022 SBC surcharges in order to meet not only 2022 implementation expense funding requirements, but also to fully reconcile any resulting 2021 under-collections.

PUC 1-46

Request:

Please provide a table in which the first column is all the benefits and costs in the RI Benefit Cost Framework, the second columns identifies if the benefits/cost category is quantified or qualified in the Plan, the third column is the quantification or qualification of the category, and the fourth column includes any notes National Grid would like to offer on the category or response

Response:

Please see Attachment PUC 1-46, replicated from Bates 548 – 557 of the Filing.

Attachment PUC 1-46
Docket 4600 Benefit-Cost Matrix as Applied to the 2021 Electric Energy Efficiency and Demand Response Portfolio

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost
Power System Level	1	Energy Supply & Transmission Operating Value of Energy Provided or Saved	Quantified	\$27,764,262	Energy Efficiency Measures: Winter peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of winter peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit
				\$-	Active Demand Response Measures: The Active Demand Response program (ConnectedSolutions) only operates during the Summer at system peak times, therefore there are no winter energy benefits.	No Value
			Quantified	\$21,710,457	Energy Efficiency Measures: Winter off-peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of winter off-peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit
				\$-	Active Demand Response Measures: The Active Demand Response program (ConnectedSolutions) only operates during the Summer at system peak times, therefore there are no winter energy benefits.	No Value
			Quantified	\$18,443,703	Energy Efficiency Measures: Summer peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit
				\$1,741	Active Demand Response Measures: Summer peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	
			Quantified	\$11,689,649	Energy Efficiency Measures: Summer off-peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer off-peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	Benefit
				\$1,413	Active Demand Response Measures: Summer off-peak electric energy (kWh) savings are monetized for winter peak by multiplying savings during this period by the avoided retail cost of Summer off-peak energy from Appendix B of the avoided cost schedules in the AESC 2018 study.	
			Quantified	\$17,193,202	Energy Efficiency Measures: Value of avoided summer generation capacity benefit is monetized by the AESC 2018 study avoided costs	Benefit
				\$1,109,695	Active Demand Response Measures: Value of avoided summer generation capacity benefit is monetized by the AESC 2018 study avoided costs	Benefit
	2	Renewable Energy Credit Cost / Value	Quantified	See Notes	Wholesale cost of REC's is included in the winter peak, winter off-peak, summer peak, and summer off-peak retail energy costs from the preceding category.	Benefit
	3	Retail Supplier Risk Premium	Quantified	See Notes	Wholesale Risk Premium is built into the retail costs of electric energy and electric capacity sourced from the AESC 2018 study and used to calculate the benefits of avoided energy and capacity.	Benefit
	4	Forward Commitment: Capacity Value	Quantified	See Notes	Forward capacity avoided costs are included in capacity benefits.	Benefit
	5	Forward Commitment: Avoided Ancillary Services Value	Not applicable	See Notes	Not applicable to energy efficiency	Not Applicable
	6	Utility / Third Party Developer Renewable Energy, Efficiency, or DER costs	Quantified	\$116,806,026	National Grid costs to implement the energy efficiency portfolio (including active demand response measures). Total budget includes costs for Program Planning & Administration; Marketing; Customer Incentives; Sales Technical Assistance and Training; and Evaluation & Market Research	Cost
	7	Electric Transmission Capacity Costs / Value	Quantified	\$22,819,412	Energy Efficiency: Electric transmission capacity benefits are quantified by multiplying a statewide Pooled Transmission Facility (PTF) transmission value from AESC 2018 study by the summer kW saved from efficiency measures	Benefit
				\$4,320,887	Active Demand Response: Electric transmission capacity benefits are quantified by multiplying a statewide Pooled Transmission Facility (PTF) transmission value from AESC 2018 study by the summer kW saved from active Demand Response measures	Benefit
			Quantified	\$19,816,620	Energy Efficiency: Electric distribution capacity benefits are quantified by multiplying a Company-generated distribution value (\$/kW) by the summer kW saved from efficiency measures.	Benefit
				\$3,752,279	Active Demand Response: Electric distribution capacity benefits are quantified by multiplying a Company-generated distribution value (\$/kW) by the summer kW saved from active Demand Response measures	Benefit
	8	Electric transmission infrastructure costs for Site Specific Resources	Not applicable	See Notes	Currently no location-specific energy efficiency included, all measures offered across service territory.	Not Applicable
	9	Net risk benefits to utility system operations (generation, transmission, distribution)	Quantified	See Notes	Value of Improved Reliability benefit calculated based on reliability value from the AESC 2018 study multiplied by the avoided summer kW savings. Applies to both energy efficiency measures and active demand response measures. Values included in the row "Distribution system and customer reliability / resilience impacts"	Benefit
	10	Option value of individual resources	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs	Undetermined
	11	Investment under Uncertainty: Real Options Cost / Value	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs	Undetermined
	12	Energy Demand Reduction Induced Price Effect	Quantified	\$38,763,007	Energy Efficiency measures: Electric Energy (kWh) DRIPE values quantified based on the energy DRIPE values included in the AESC 2018 study. Calculated for each of winter peak, winter off-peak, summer peak, and summer off-peak.	Benefit
				\$1,532	Demand Response measures: Electric Energy (kWh) DRIPE values quantified based on the energy DRIPE values included in the AESC 2018 study. Calculated for each of winter peak, winter off-peak, summer peak, and summer off-peak.	Benefit
			Quantified	\$2,349,055	Energy Efficiency measures: Electric Generation Capacity (kW) DRIPE value quantified by multiplying avoided summer kW by applicable capacity DRIPE values (\$/kW) from the AESC 2018 study.	Benefit
			Quantified	\$23,595,443	Demand Response measures: Electric Generation Capacity (kW) DRIPE value quantified by multiplying avoided summer kW by applicable capacity DRIPE values (\$/kW) from the AESC 2018 study.	Benefit
			Quantified	See Fuel benefits	Additional DRIPE benefits for oil fuel savings from energy efficiency measures are quantified by multiplying oil fuel savings (MMBtu) by applicable oil DRIPE values (\$/MMBtu) from the AESC 2018 study. These benefits are included in the category "Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water". Active demand response measures do not have oil fuel savings and therefore do not have oil DRIPE benefits.	
			Quantified	See notes	Gas Resource Benefits in the Electric energy efficiency Benefit Cost Model includes Gas Supply DRIPE and Gas-Electric Cross DRIPE monetized by multiplying the gas savings attributable to the electric portfolio measures by applicable avoided cost series from the AESC 2018 study. These benefits are included in the category "Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water". Active demand response measures do not have gas savings and therefore do not have gas DRIPE benefits.	
	13	Greenhouse gas compliance costs	Quantified	See notes	Cost of compliance with criteria air pollutant regulations are included in the wholesale electric energy commodity costs from the AESC 2018 study and are included in the calculation of the energy benefits in the category "Energy Supply & Transmission Operating Value of Energy Provided or Saved"	
	14	Criteria air pollutant and other environmental compliance costs	Quantified	See notes	Cost of compliance with criteria air pollutant regulations are included in the wholesale electric energy commodity costs from the AESC 2018 study and are included in the calculation of the energy benefits in the category "Energy Supply & Transmission Operating Value of Energy Provided or Saved"	
	15	Innovation and Learning by Doing	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs. Likely a minimal value in comparison to other benefits included in RI Test, but possible value due to pilots, demonstrations, and assessments included in programs.	Benefit
	16	Distribution capacity costs	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined
	17	Distribution delivery costs	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined
	18	Distribution system safety loss/gain	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined
	19	Distribution system performance	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined
	20	Utility low income	Quantified	See Notes	Bad-debt writeoffs and reduced arrearages are included as NEIs for income eligible programs. Aggregated with other NEIs in row "Program participant / prosumer benefits / costs"	Benefit

Category Level	Cat. #	Mixed Benefit-Cost, Cost, or Benefit Category	Treatment in Benefit-Cost Analysis (Quantified, Qualified, Not Treated)	Present Value or Qualitative Description	Description and Notes	Benefit or Cost
	21	Distribution system and customer reliability / resilience impacts	Quantified	\$100,836	Value of Improved Reliability benefit calculated based on reliability value from the AESC 2018 study multiplied by the avoided summer kW savings. Applies to both energy efficiency measures and active demand response measures.	Benefit
				\$523,690		Benefit
	22	Distribution system safety loss/gain	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined
Customer Level	23	Program participant / prosumer benefits / costs	Quantified	\$18,435,780	Energy Efficiency measures: Participant contribution cost is the direct cost of the measure that is not covered by the customer rebate/incentive for energy efficiency measures.	Cost
				\$	Active demand response measures: There is no customer cost for the ConnectedSolutions Active Demand Response program.	Cost
			Quantified	\$47,968,696	Quantifiable non-resource, non-energy impacts are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan. Non resource, non-energy impacts may include but are not limited to labor, material, facility use, health and safety, materials handling, national security, property values, and transportation.	Benefit
	24	Participant non-energy costs/benefits: Oil, Gas, Water, Waste Water	Quantified	\$12,179,491	Energy Efficiency measures: Quantification of Resource Benefits from: Natural Gas, Oil, Propane, Water & Sewage. Natural Gas Benefits are based on Appendix C of the 2018 AESC study, Oil and Propane Benefits are based on Appendix D of the 2018 AESC study, Water & Sewage Benefits are derived from an internet survey of rates posted to the RI PUC website.	Benefit
				\$	Active demand response measures: no corresponding benefits for oil, gas, water, wastewater in the Active Demand Response benefit cost analysis so this value is zero	Benefit
	25	Low-Income Participant Benefits	Quantified	See Notes	Low-Income Participant Benefits benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan. See the category "Program participant / prosumer benefits / costs" for these benefits	Benefit
	26	Consumer Empowerment & Choice	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined
	27	Non-participant (equity) rate and bill impacts	Quantified	See Notes	External to cost effectiveness analysis. Bill Impacts model the effects of efficiency programs on annual customer bills by aggregating rate and consumption changes, including non-participants. Electric and natural gas rate and bill impact models included in Attachment 7 of the 2021 Annual Plan	Benefit (but not included in BCA screening)
Societal Level	28	Greenhouse gas externality costs	Quantified	\$36,202,413	Energy Efficiency measures: Quantified Non-embedded Greenhouse gas reduction benefits obtained from the 2018 AESC Study. Non-embedded CO2 values are sourced from the following tables in the 2018 AESC Study: Table 154 for electric savings and Table 156 for gas savings and oil savings.	Benefit
				\$1,670	Active Demand Response measures: Quantified Non-embedded Greenhouse gas reduction benefits obtained from the 2018 AESC Study. Non-embedded CO2 values are sourced from the following tables in the 2018 AESC Study: Table 154 for electric savings and Table 156 for gas savings and oil savings.	Benefit
	29	Criteria air pollutant and other environmental externality costs	Quantified	\$1,739,435	Quantified Non-embedded NOx reduction benefits obtained from the 2018 AESC Study. Additional research would be required to determine other benefit streams from air pollutants and other environmental externalities	Benefit
	30	Conservation and community benefits	Not Quantified or Qualified	See Notes	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs.	Undetermined
	31	Non-energy costs/benefits: Economic Development	Quantified	\$286,266,811	Energy efficiency measures: Quantified Economic Development Benefits based on the methodology described in the 2021 Annual Plan	Benefit
				\$8,174,903	Active demand response measures: Quantified Economic Development Benefits based on the methodology described in the 2021 Annual Plan	Benefit
	32	Innovation and knowledge spillover (Related to demonstration projects and other RD&D preceding larger scale deployment)	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for cost effectiveness screening of energy efficiency programs. The portfolio of programs includes pilots, demonstrations and assessments and these likely generate benefits to further program and market development. The value of these innovation and knowledge spillover benefits is unknown but is estimated to be small in comparison to the overall magnitude of benefits currently included in the screening of the electric portfolio.	Benefit
	33	Societal Low-Income Impacts	Not Quantified or Qualified	See Notes	Low-Income Benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan however they are aggregated with other Non-Energy Impacts and therefore their value is not broken out here. These NEIs are included in the Program participant / prosumer benefits / costs category	Undetermined
	34	Public Health	Quantified	See Notes	Health Benefits are included within the calculation of Non-Energy Impacts as described within the Non-Energy Impacts section of the 2021 Annual Plan however they are aggregated with other Non-Energy Impacts and therefore their value is not broken out here. These NEIs are included in the Program participant / prosumer benefits / costs category	Benefit
	35	National Security and US international influence	Qualified	Likely minimal value	Additional research necessary to determine applicability and qualitative/quantitative impacts for this category. To the degree that the efficiency portfolio investments reduce reliance on foreign sources of energy there can be benefit. Those effects are unknown and estimated to be small in comparison to the overall magnitude of benefits currently included in the screening of the electric portfolio.	Benefit

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Request:

Please provide a chart showing what measures do not meet the cost of supply test. Please identify the program that each measure falls under and provide the cost of supply for each measure.

Response:

In completing this response, the Company utilized its standard benefit cost models to produce estimates of the cost of supply at the measure level for the measures within the electric and natural gas portfolios as included in the 2021 Annual Energy Efficiency Plan.

Typically, within the benefit-cost model the costs attributed to a measure will include both incentives and rebates to customers as well as customer contributions, while associated savings and benefits are also calculated at the measure level. However, in some cases, programs plan incentives and customer contributions at a higher level, e.g., a “participant” line item. This is most typically done when the program offers a suite of measures that are often delivered together to customers, such as in the EnergyWise program. “Participant” covers the home energy assessment visit, walk through of the home with the customer, identification of weatherization and/or appliance opportunities, and any necessary combustion safety testing. In the benefit-cost analysis, this break-out allows quick identification of how many customers the program anticipates serving.

Additionally, other programmatic cost categories are planned at the level of programs, sectors, or, in some cases, at the portfolio overall. In order to assess the cost of supply at measure level, the Company took several additional data processing steps to allocate these costs of supply and costs of energy efficiency to the measure level. These steps are outlined below.

- If a measure has only incentives and customer costs planned at the measure level in the BC models, they are allocated and aligned at the measure level.
- If a program (such as EnergyWise multi-family) has all incentives and customer costs planned at a single “participant” measure in the BC model, those costs are distributed to individual measures in proportion to the benefits that make up the total cost of supply for each component measure in the program. This is a simplifying assumption for the purposes of this analysis. Similarly, if a program has its “arrearage” cost of supply

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component planned at the single “participant” measure in the BC model, that category was also distributed to individual measures in proportion to the benefits that make up the total other costs of supply for each component measure in the program. The same approach applied if corresponding Participant Costs (Customer Contributions) were planned at a “participant” level.

- If a program (such as EnergyWise single family) has incentives and customer costs planned at both the individual measure and the “participant” measure, the costs that are planned at the measure level were kept at the measure level at which they are planned, and the incentive costs that are planned at the “participant” measure level were distributed among the measures in the program in proportion to the benefits that make up the total cost of supply for each component measure in the program. As with the other cost allocation approaches identified above, this is a simplifying assumption for the purposes of this analysis.
- If a program has measures that are disaggregated in savings (and benefits) for planning purposes and have their associated customer incentive and customer contribution on only one line item, but reflect a combined offering (such as the cooling, heating, and water heating line items in Tier 1, 2, and 3 homes in the Residential New Construction program), the benefits and costs associated with those measures were collapsed to one line item for this analysis.
- In the case of the Home Energy Reports program, where incentives and customer costs are not planned at the measure level, programmatic costs were distributed to the measures in the program in proportion to their benefits included as costs of supply.

With respect to program-level, sector-level, and portfolio-level costs, further steps were taken to distribute costs to measure level. As with the preceding steps, the steps used to distribute costs to measures from higher levels of aggregation represent a simplifying assumption for the purposes of this analysis. These further distributions were made in an attempt to answer this request as completely as possible, by accounting for all costs of the energy efficiency portfolios in the analysis.

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- Program-level costs: These costs were distributed to measures by multiplying the portion of a program's total costs (that are not already captured by the incentives and rebates category) by the ratio of a measure's benefits divided by the total benefits for that program.
- Sector-level costs: Sector-level costs were distributed to measures by multiplying the total sector-level costs for the sector (residential, income eligible, or commercial and industrial) by the ratio of a measure's program costs (as described in the prior step) to the total of all program costs for that sector. Categories of costs that fit this category include the following, with the sectors in which they apply indicated in parentheses:
 - Electric portfolio:
 - Community based initiatives (commercial & industrial, residential), pilots (commercial & industrial, residential), financing (commercial & industrial), workforce development (commercial & industrial, residential, income eligible), energy efficiency education (residential), and comprehensive marketing (residential).
 - Natural gas portfolio:
 - Community based initiatives (commercial & industrial, residential), pilots (commercial & industrial, residential), workforce development (commercial & industrial, residential, income eligible), and comprehensive marketing (commercial & industrial, residential).
 - Performance Incentive: The performance incentive is planned and measured at the sector level in the proposed mechanism. Its costs were distributed to measures by multiplying the performance incentive total for a sector by the ratio of a measure's program costs (as described in the prior step) to the total of all program costs for that sector. Performance incentive was not allocated to the residential and commercial ConnectedSolutions programs as those are not eligible for the energy efficiency performance incentive.
- Portfolio-level costs: Portfolio-level costs are the regulatory costs for OER and EERMC that are included in each of the electric and natural gas portfolios. These costs were distributed to all measures by multiplying the total portfolio-level costs by the ratio of a measure's program costs to the total program costs for all programs.

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Please refer to Attachments PUC 1-47-1 and 1-47-2 for the summaries of measure-level cost of supply, for the electric and natural gas portfolios respectively, indicating which measures included in the 2021 Annual Energy Efficiency Plan do not meet the cost of supply test, following from the methodology as outlined above and utilizing the categories of costs of supply and costs of energy efficiency as shown in Table 36 (Bates 117) of the Three-Year Energy Efficiency Plan.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-47-1

Summary of Measures Not Meeting Cost of Supply for the Proposed 2021 Electric Portfolio

	Sector	Program	Measure	Cost of Supply	Cost of Energy Efficiency	Difference
Ref	a	b	c	d	e	f = d - e
1	Residential	Residential New Construction	Renovation Rehab Tier 3 Home	\$ 29,631	\$ 63,613	\$ (33,982)
2	Residential	Residential New Construction	Tier 4 Home	\$ 167,576	\$ 220,813	\$ (53,237)
3	Residential	EnergyStar HVAC	ACS16SEER13EER	\$ 128,292	\$ 156,740	\$ (28,449)
4	Residential	EnergyStar HVAC	HPWH >=55 gallon UEF 2.0	\$ 3,481	\$ 4,747	\$ (1,266)
5	Residential	EnergyWise	Wx - Oil	\$ 10,458,929	\$ 13,242,695	\$ (2,783,766)
6	Residential	EnergyWise	Wx Elec - Elec Heat only	\$ 595,284	\$ 1,164,745	\$ (569,462)
7	Residential	EnergyWise	Wifi thermostat - Electric	\$ 3,764	\$ 4,112	\$ (348)
8	Residential	EnergyWise	LED Bulbs	\$ 593,655	\$ 1,035,103	\$ (441,448)
9	Residential	EnergyWise	LED Bulbs (EISA Exempt)	\$ 29,101	\$ 57,285	\$ (28,185)
10	Residential	EnergyWise	LED Bulbs Reflectors	\$ 73,722	\$ 124,179	\$ (50,457)
11	Residential	EnergyWise	LED Indoor Fixture	\$ 8,566	\$ 50,303	\$ (41,737)
12	Residential	EnergyWise	LED Outdoor Fixture	\$ 86	\$ 503	\$ (417)
13	Residential	EnergyWise	Refrigerator Brush	\$ 100,860	\$ 113,424	\$ (12,564)
14	Residential	EnergyWise Multi Family	AIR SEALING ELEC WITH AC	\$ 381,784	\$ 564,947	\$ (183,163)
15	Residential	EnergyWise Multi Family	AIR SEALING OIL	\$ 9,565	\$ 14,154	\$ (4,589)
16	Residential	EnergyWise Multi Family	INSULATION ELEC WITH AC	\$ 307,545	\$ 455,092	\$ (147,547)
17	Residential	EnergyWise Multi Family	INSULATION OIL	\$ 774,772	\$ 1,146,473	\$ (371,702)
18	Residential	EnergyWise Multi Family	AERATOR	\$ 11,243	\$ 16,637	\$ (5,394)
19	Residential	EnergyWise Multi Family	AERATOR OIL	\$ 1,759	\$ 2,603	\$ (844)
20	Residential	EnergyWise Multi Family	Pipe Wrap DHW Elec	\$ 10,019	\$ 14,826	\$ (4,807)
21	Residential	EnergyWise Multi Family	SHOWERHEAD Elec	\$ 43,993	\$ 65,099	\$ (21,106)
22	Residential	EnergyWise Multi Family	SHOWERHEAD Oil	\$ 5,458	\$ 8,076	\$ (2,618)
23	Residential	EnergyWise Multi Family	TSV Showerhead Elec	\$ 20,193	\$ 29,880	\$ (9,688)
24	Residential	EnergyWise Multi Family	TSV Showerhead Oil	\$ 2,990	\$ 4,425	\$ (1,435)
25	Residential	EnergyWise Multi Family	THERMOSTAT Elec with AC	\$ 617,043	\$ 913,073	\$ (296,030)
26	Residential	EnergyWise Multi Family	THERMOSTAT OIL	\$ 10,694	\$ 15,825	\$ (5,131)
27	Residential	EnergyWise Multi Family	Common Ext LED Bulbs	\$ 31,686	\$ 46,888	\$ (15,202)
28	Residential	EnergyWise Multi Family	Common Ext LED Fixture	\$ 43,440	\$ 64,281	\$ (20,841)
29	Residential	EnergyWise Multi Family	Common Ext Reflector	\$ 3,613	\$ 5,347	\$ (1,733)
30	Residential	EnergyWise Multi Family	Common Int EISA Exempt	\$ 1,202	\$ 1,778	\$ (577)
31	Residential	EnergyWise Multi Family	Common Int LED Bulbs	\$ 80,351	\$ 118,900	\$ (38,549)
32	Residential	EnergyWise Multi Family	Common Int LED Fixture	\$ 58,018	\$ 85,852	\$ (27,834)
33	Residential	EnergyWise Multi Family	Common Int Reflector	\$ 2,011	\$ 2,976	\$ (965)
34	Residential	EnergyWise Multi Family	Dwelling Ext LED Fixture	\$ 743	\$ 1,099	\$ (356)
35	Residential	EnergyWise Multi Family	Dwelling Ext Reflector	\$ 366	\$ 542	\$ (176)
36	Residential	EnergyWise Multi Family	Dwelling Int EISA Exempt	\$ 4,337	\$ 6,417	\$ (2,081)
37	Residential	EnergyWise Multi Family	Dwelling Int LED Bulbs	\$ 18,977	\$ 28,081	\$ (9,104)
38	Residential	EnergyWise Multi Family	Dwelling Int Reflector	\$ 7,324	\$ 10,838	\$ (3,514)
39	Residential	EnergyWise Multi Family	Smart Strip	\$ 50,623	\$ 74,909	\$ (24,287)
40	Residential	EnergyWise Multi Family	Refrig rebate	\$ 45,118	\$ 66,763	\$ (21,645)
41	Residential	EnergyWise Multi Family	Vending Miser	\$ 5,165	\$ 7,644	\$ (2,478)
42	Residential	EnergyStar Lighting	LED Bulb (Fixture)	\$ 1,834,955	\$ 2,222,253	\$ (387,297)
43	Residential	EnergyStar Lighting	LED Bulb (Food Pantries)	\$ 136,976	\$ 144,920	\$ (7,943)
44	Residential	EnergyStar Lighting	LED Bulb (School Fundraiser)	\$ 7,277	\$ 7,699	\$ (422)
45	Residential	EnergyStar Appliances	Energy Star ProductsTier 2 APS	\$ 1,098,976	\$ 1,108,571	\$ (9,595)
46	Residential	EnergyStar Appliances	Energy Star ProductsTier 2 APS OS	\$ 941,980	\$ 950,204	\$ (8,224)
47	Income Eligible	Low Income Single Family	AMPEDUC - TLC	\$ 115,413	\$ 689,827	\$ (574,414)
48	Income Eligible	Low Income Single Family	AMPWx Elec	\$ 167,374	\$ 234,327	\$ (66,953)
49	Income Eligible	Low Income Single Family	Early Retirement CW Elec DHW & Gas Dryer	\$ 263,934	\$ 325,249	\$ (61,315)
50	Income Eligible	Low Income Single Family	AMPACREPLACE	\$ 420,970	\$ 797,868	\$ (376,898)
51	Income Eligible	Low Income Single Family	AMPHEATSYSTEM	\$ 1,980,590	\$ 2,803,122	\$ (822,533)
52	Income Eligible	Low Income Single Family	AMPMinisplit Heat Pumps - Electric Resistance	\$ 645,849	\$ 953,846	\$ (307,997)
53	Income Eligible	Low Income Single Family	AMPLED Bulbs	\$ 359,264	\$ 514,507	\$ (155,243)
54	Income Eligible	Low Income Single Family	Early Retirement CW Gas DHW & Elec Dryer	\$ 4,130	\$ 4,687	\$ (557)
55	Income Eligible	Low Income Single Family	Early Retirement CW Gas DHW & Gas Dryer	\$ 103,951	\$ 195,234	\$ (91,283)
56	Income Eligible	Low Income Single Family	AMPRefrig rebate	\$ 2,593,485	\$ 2,803,723	\$ (210,238)
57	Income Eligible	Low Income Multi Family	Custom	\$ 45,561	\$ 145,702	\$ (100,140)
58	Income Eligible	Low Income Multi Family	AIR SEALING ELEC WITH AC	\$ 30,854	\$ 98,669	\$ (67,815)
59	Income Eligible	Low Income Multi Family	AIR SEALING OIL	\$ 153,755	\$ 491,697	\$ (337,942)
60	Income Eligible	Low Income Multi Family	INSULATION ELEC WITH AC	\$ 56,339	\$ 180,167	\$ (123,828)
61	Income Eligible	Low Income Multi Family	INSULATION OIL	\$ 622,718	\$ 1,991,401	\$ (1,368,683)
62	Income Eligible	Low Income Multi Family	AERATOR Elec	\$ 4,444	\$ 14,212	\$ (9,768)
63	Income Eligible	Low Income Multi Family	AERATOR Oil	\$ 4,135	\$ 13,224	\$ (9,089)
64	Income Eligible	Low Income Multi Family	SHOWERHEAD Elec	\$ 52,244	\$ 167,071	\$ (114,827)
65	Income Eligible	Low Income Multi Family	SHOWERHEAD Oil	\$ 64,150	\$ 205,145	\$ (140,996)
66	Income Eligible	Low Income Multi Family	TSV Showerhead Elec	\$ 36,839	\$ 117,808	\$ (80,969)
67	Income Eligible	Low Income Multi Family	THERMOSTAT Elec with AC	\$ 201,629	\$ 644,792	\$ (443,164)
68	Income Eligible	Low Income Multi Family	THERMOSTAT OIL	\$ 54,866	\$ 175,458	\$ (120,592)
69	Income Eligible	Low Income Multi Family	Common Ext LED Bulbs	\$ 10,186	\$ 32,574	\$ (22,388)
70	Income Eligible	Low Income Multi Family	Common Ext LED Fixture	\$ 31,627	\$ 101,140	\$ (69,513)
71	Income Eligible	Low Income Multi Family	Common Ext Reflector	\$ 485	\$ 1,552	\$ (1,067)
72	Income Eligible	Low Income Multi Family	Common Int LED Bulbs	\$ 11,255	\$ 35,992	\$ (24,737)
73	Income Eligible	Low Income Multi Family	Common Int LED Fixture	\$ 74,477	\$ 238,171	\$ (163,694)
74	Income Eligible	Low Income Multi Family	Common Int Reflector	\$ 647	\$ 2,070	\$ (1,423)
75	Income Eligible	Low Income Multi Family	Dwelling Ext Reflector	\$ 88	\$ 281	\$ (193)
76	Income Eligible	Low Income Multi Family	Dwelling Int EISA Exempt	\$ 173	\$ 554	\$ (381)
77	Income Eligible	Low Income Multi Family	Dwelling Int LED Bulbs	\$ 2,829	\$ 9,048	\$ (6,219)
78	Income Eligible	Low Income Multi Family	Dwelling Int Reflector	\$ 88	\$ 281	\$ (193)
79	Income Eligible	Low Income Multi Family	Smart Strip	\$ 18,846	\$ 60,270	\$ (41,423)
80	Income Eligible	Low Income Multi Family	Refrig rebate	\$ 99,525	\$ 318,273	\$ (218,748)
81	Income Eligible	Low Income Multi Family	Vending Miser	\$ 5,305	\$ 16,966	\$ (11,661)
82	Commercial & Industrial	Direct Install	Lighting controls	\$ 1,047,684	\$ 1,340,323	\$ (292,639)

Notes: Cost of Supply and Cost of Energy Efficiency sums the relevant categories as indicated in Table 36 (Bates 117) of the Three-Year Energy Efficiency Plan Filing, with additional calculations as indicated in the response text to PUC 1-47 in order to calculate at measure-level.

The Narragansett Electric Company
d/b/a National Grid
RIPUC Docket No. 5076
Attachment PUC 1-47-2

Summary of Measures Not Meeting Cost of Supply for the Proposed 2021 Natural Gas Portfolio

	Sector	Program	Measure	Cost of Supply	Cost of Energy Efficiency	Difference
Ref	a	b	c	d	e	f = d - e
1	Residential	EnergyStar HVAC	Boiler90	\$ 161,063	\$ 193,249	\$ (32,186)
2	Residential	EnergyStar HVAC	Boiler95	\$ 1,095,654	\$ 1,153,353	\$ (57,699)
3	Residential	EnergyStar HVAC	COMBO CONDENSING	\$ 78,358	\$ 111,244	\$ (32,886)
4	Residential	EnergyStar HVAC	COMBO CONDENSING 95	\$ 3,978,545	\$ 4,619,776	\$ (641,230)
5	Residential	EnergyStar HVAC	ENERGY STAR COND WATER HEATER 0.80 UEF	\$ 6,468	\$ 7,046	\$ (578)
6	Residential	EnergyWise	Aerator	\$ 1,047	\$ 1,203	\$ (155)
7	Residential	EnergyWise	Weatherization	\$ 7,219,118	\$ 10,857,463	\$ (3,638,345)
8	Residential	Residential New Construction	CP-DHW	\$ 2,566	\$ 4,488	\$ (1,921)
9	Residential	Residential New Construction	RR CP-DHW	\$ 571	\$ 4,044	\$ (3,473)
10	Residential	Residential New Construction	RR Tier 1	\$ 21,487	\$ 22,457	\$ (970)
11	Residential	Residential New Construction	RR Tier 1 - DHW	\$ 1,168	\$ 4,222	\$ (3,054)
12	Residential	Residential New Construction	RR Tier 2 - DHW	\$ 3,519	\$ 8,668	\$ (5,150)
13	Residential	Residential New Construction	RR Tier 3	\$ 26,639	\$ 51,711	\$ (25,072)
14	Residential	Residential New Construction	RR Tier 3 - DHW	\$ 1,178	\$ 2,224	\$ (1,046)
15	Residential	Residential New Construction	RR Tier 4	\$ 7,023	\$ 14,329	\$ (7,307)
16	Residential	Residential New Construction	RR Tier 4 - DHW	\$ 145	\$ 428	\$ (282)
17	Residential	Residential New Construction	Tier 1 - DHW	\$ 6,022	\$ 17,144	\$ (11,122)
18	Residential	Residential New Construction	Tier 2	\$ 405,006	\$ 562,965	\$ (157,959)
19	Residential	Residential New Construction	Tier 2 - DHW	\$ 21,092	\$ 44,007	\$ (22,915)
20	Residential	Residential New Construction	Tier 3	\$ 162,689	\$ 261,546	\$ (98,857)
21	Residential	Residential New Construction	Tier 3 - DHW	\$ 8,472	\$ 13,610	\$ (5,137)
22	Residential	Residential New Construction	Tier 4	\$ 11,310	\$ 25,525	\$ (14,215)
23	Residential	Residential New Construction	Tier 4 - DHW	\$ 621	\$ 918	\$ (297)
24	Residential	Residential New Construction	Adaptive Reuse	\$ 49,948	\$ 127,189	\$ (77,241)
25	Income Eligible	Single Family - Income Eligible Services	HEATSYSTEM	\$ 691,096	\$ 1,872,974	\$ (1,181,878)
26	Income Eligible	Single Family - Income Eligible Services	WEATHER	\$ 2,891,777	\$ 5,316,179	\$ (2,424,402)
27	Commercial & Industrial	Large Commercial Retrofit	Custom: SEM	\$ 319,402	\$ 498,407	\$ (179,005)
28	Commercial & Industrial	Large Commercial New Construction	COOKING-CONVECTION OVEN 1	\$ 3,837	\$ 5,231	\$ (1,394)
29	Commercial & Industrial	Large Commercial New Construction	COOKING-CONVECTION OVEN 1- Upstream	\$ 124,632	\$ 154,898	\$ (30,265)

Notes: Cost of Supply and Cost of Energy Efficiency sums the relevant categories as indicated in Table 36 (Bates 117) of the Three-Year Energy Efficiency Plan Filing, with additional calculations as indicated in the response text to PUC 1-47 in order to calculate at measure-level.

PUC 1-48

Request:

When a natural gas customer receives a rebate for weatherization services, is that rebate funded solely by the gas energy efficiency budget? Are there electric savings that result from the weatherization? If so, how are those savings claimed? the cooling savings from weatherization?

Response:

Natural gas weatherization services are funded solely by the gas energy efficiency budget. Electric savings that result from weatherization are a secondary benefit that contribute to the gas portfolio benefit cost ratio, but are not claimed as electric savings in the electric portfolio.

PUC 1-49

Request:

Please reproduce each of the Tables in Attachments 1 and 2 of Schedule A of the 2021-23 EE Plan with a column added 1) between “Total benefit” and “Program Implementation Expenses”) to show the amount of benefits for each row and 2) a column added between “Program Implementation Expenses” and “Customer Contribution” to show the amount of expenses that are used in calculating the “Planned Net Benefits (ex-Macroeconomic Multiplier)” in the Performance Incentive Mechanism.

Response:

Please see PUC Attachment 1-49-1 for the reproduction of the tables in Attachment 2 of Schedule A of the 2021-23 EE plan for electric.

Please see PUC Attachment 1-49-2 for the reproduction of the tables in Attachment 2 of Schedule A of the 2021-23 EE plan for gas.

PUC 1-49-1
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
2021 RHODE ISLAND BENEFIT COST TEST
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/Cost	Total Benefit	Total Benefit Ex. Macroeconomic Multiplier	Program Implementation Expenses	Budget for Performance Incentive Calculation	Customer Contribution	Shareholder Incentive
Large Commercial & Industrial							
Commercial New Construction	6.24	\$58,649.1	\$32,213.6	\$8,500.17	\$8,467.77	\$893.1	
Commercial Retrofit	7.52	\$329,117.0	\$146,524.0	\$31,930.24	\$31,878.40	\$11,821.8	
Direct Install	3.35	\$36,190.8	\$18,690.2	\$8,883.56	\$8,883.56	\$1,922.8	
Commercial ConnectedSolutions	9.85	\$29,465.0	\$0.0	\$2,990.11	\$0.00	\$0.0	
Community Based Initiatives - C&I				\$74.53	\$74.53		
Commercial Pilots				\$0.00	\$0.00		
C&I Financing				\$5,000.00	\$5,000.00		
Commercial Workforce Development				\$468.69	\$468.69		
C&I SUBTOTAL	6.05	\$453,421.9	\$197,427.7	\$57,847.3	\$54,773.0	\$14,637.7	\$2,475.0
Low Income							
Low Income Single Family	2.65	\$36,501.8	\$24,668.8	\$13,759.32	\$13,759.32	\$0.0	
Low Income Multi Family	1.76	\$8,502.4	\$2,753.7	\$4,830.80	\$4,830.80	\$0.0	
Income Eligible Workforce Development				\$114.19	\$114.19		
Low Income Residential SUBTOTAL	2.27	\$45,004.2	\$27,422.6	\$18,704.3	\$18,704.3	\$0.0	\$1,100.0
Residential Programs							
Residential New Construction	2.69	\$6,445.3	\$4,283.2	\$1,544.34	\$1,537.85	\$855.7	
EnergyStar HVAC	2.77	\$13,306.5	\$8,353.8	\$3,487.80	\$3,487.80	\$1,311.6	
EnergyWise	1.89	\$33,615.8	\$17,774.8	\$17,033.34	\$17,033.34	\$790.4	
EnergyWise Multi Family	2.44	\$8,756.5	\$4,660.4	\$3,056.84	\$3,056.84	\$532.0	
Behavior Feedback	3.23	\$8,530.8	\$5,889.1	\$2,641.68	\$2,641.68	\$0.0	
EnergyStar Lighting	3.29	\$14,018.2	\$5,631.3	\$5,274.75	\$5,274.75	-\$1,012.9	
EnergyStar Appliances	2.84	\$11,372.7	\$7,297.3	\$2,681.24	\$2,681.24	\$1,321.2	
Residential ConnectedSolutions	6.13	\$12,018.6	\$0.0	\$1,959.72	\$0.00	\$0.0	
Energy Efficiency Education				\$40.00	\$40.00		
Community Based Initiatives - Residential				\$226.16	\$226.16		
Residential Pilots				\$0.00	\$0.00		
Comprehensive Marketing - Residential				\$332.71	\$332.71		
Residential Workforce Development				\$284.72	\$284.72		
Non-low income Residential SUBTOTAL	2.44	\$108,064.5	\$53,889.9	\$38,563.3	\$36,597.1	\$3,798.1	\$1,925.0
OER				\$845.56			
EERMC				\$845.56			
TOTAL	4.31	\$606,490.7	\$278,740.2	\$116,806.0	\$110,074.4	\$18,435.8	\$5,500.0

Notes:

- (1) The ConnectedSolutions programs are not covered by the proposed EE Performance Incentive Mechanism.
- (2) "Budget for Performance Incentive Calculation" includes the budget categories used to calculate the "Planned Net Benefits (ex-Macroeconomic Multiplier)" in the Performance Incentive Mechanism. This column removes planned spending on assessments that are included in programmatic line items, pilots, and OER and EERMC line items. Costs of the ConnectedSolutions programs are also omitted as those programs are not covered by the proposed EE Performance Incentive Mechanism.

PUC 1-49-1
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
2022 RHODE ISLAND BENEFIT COST TEST
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/Cost	Total Benefit	Total Benefit Ex. Macroeconomic Multiplier	Program Implementation Expenses	Budget for Performance Incentive Calculation	Customer Contribution	Shareholder Incentive
Large Commercial & Industrial							
Commercial New Construction	6.02	\$65,945.8	\$35,325.1	\$9,845.88	\$9,813.48	\$1,111.4	
Commercial Retrofit	5.93	\$360,199.2	\$150,628.9	\$44,260.47	\$44,208.63	\$16,430.7	
Direct Install	3.48	\$36,058.5	\$19,217.7	\$8,548.65	\$8,548.65	\$1,811.5	
Commercial ConnectedSolutions	9.90	\$34,981.4	\$0.0	\$3,534.38	\$0.00	\$0.0	
Community Based Initiatives - C&I				\$84.96	\$84.96		
Commercial Pilots				\$0.00	\$0.00		
C&I Financing				\$5,000.00	\$5,000.00		
Commercial Workforce Development				\$544.63	\$544.63		
C&I SUBTOTAL	5.31	\$497,185.0	\$205,171.8	\$71,819.0	\$68,200.4	\$19,353.6	\$2,475.0
Low Income							
Low Income Single Family	2.67	\$40,243.8	\$27,258.3	\$15,099.47	\$15,099.47	\$0.0	
Low Income Multi Family	1.83	\$7,715.5	\$2,700.8	\$4,214.05	\$4,214.05	\$0.0	
Income Eligible Workforce Development				\$156.18	\$156.18		
Low Income Residential SUBTOTAL	2.33	\$47,959.4	\$29,959.1	\$19,469.7	\$19,469.7	\$0.0	\$1,100.0
Residential Programs							
Residential New Construction	2.87	\$6,408.7	\$4,421.4	\$1,419.48	\$1,413.00	\$812.8	
EnergyStar HVAC	2.84	\$17,605.1	\$11,018.7	\$4,638.34	\$4,638.34	\$1,560.3	
EnergyWise	1.92	\$35,700.9	\$18,952.8	\$18,008.68	\$18,008.68	\$585.4	
EnergyWise Multi Family	2.39	\$9,368.7	\$4,569.7	\$3,581.30	\$3,581.30	\$332.0	
Behavior Feedback	1.62	\$8,360.3	\$5,736.3	\$2,624.01	\$2,624.01	\$2,540.7	
EnergyStar Lighting	N/A	\$0.0	\$0.0	\$0.00	\$0.00	\$0.0	
EnergyStar Appliances	2.88	\$12,053.8	\$7,719.0	\$2,851.88	\$2,851.88	\$1,340.1	
Residential ConnectedSolutions	7.40	\$18,715.0	\$0.0	\$2,527.45	\$0.00	\$0.0	
Energy Efficiency Education				\$40.00	\$40.00		
Community Based Initiatives - Residential				\$257.46	\$257.46		
Residential Pilots				\$0.00	\$0.00		
Comprehensive Marketing - Residential				\$507.71	\$507.71		
Residential Workforce Development				\$246.06	\$246.06		
Non-low income Residential SUBTOTAL	2.36	\$108,212.5	\$52,417.9	\$36,702.4	\$34,168.4	\$7,171.4	\$1,925.0
OER				\$1,188.44			
EERMC				\$1,188.44			
TOTAL	4.02	\$653,356.8	\$287,548.8	\$130,367.9	\$121,838.5	\$26,525.0	\$5,500.0

Notes:

- (1) The ConnectedSolutions programs are not covered by the proposed EE Performance Incentive Mechanism.
(2) "Budget for Performance Incentive Calculation" includes the budget categories used to calculate the "Planned Net Benefits (ex-Macroeconomic Multiplier)" in the Performance Incentive Mechanism. This column removes planned spending on assessments that are included in programmatic line items, pilots, and OER and EERMC line items. Costs of the ConnectedSolutions programs are also omitted as those programs are not covered by the proposed EE Performance Incentive Mechanism.

PUC 1-49-1
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
2022 RHODE ISLAND BENEFIT COST TEST - HIGH SCENARIO
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/Cost	Total Benefit	Total Benefit Ex. Macroeconomic Multiplier	Program Implementation Expenses	Budget for Performance Incentive Calculation	Customer Contribution	Shareholder Incentive
Large Commercial & Industrial							
Commercial New Construction	6.02	\$69,243.1	\$37,091.4	\$10,338.2	\$10,304.16	\$1,167.0	
Commercial Retrofit	5.96	\$379,636.2	\$157,891.0	\$46,473.5	\$46,419.06	\$17,252.2	
Direct Install	3.48	\$37,861.5	\$20,178.6	\$8,976.1	\$8,976.08	\$1,902.1	
Commercial ConnectedSolutions	9.90	\$47,224.9	\$0.0	\$4,771.4	\$0.00	\$0.0	
Community Based Initiatives - C&I				\$89.2	\$89.21		
Commercial Pilots				\$0.0	\$0.00		
C&I Financing				\$5,250.0	\$5,250.00		
Commercial Workforce Development				\$571.9	\$571.86		
C&I SUBTOTAL	5.38	\$533,965.7	\$215,161.0	\$76,470.2	\$71,610.4	\$20,321.2	\$2,475.0
Low Income							
Low Income Single Family	2.67	\$42,256.0	\$28,621.2	\$15,854.4	\$15,854.45	\$0.0	
Low Income Multi Family	1.83	\$8,101.3	\$2,835.9	\$4,424.8	\$4,424.75	\$0.0	
Income Eligible Workforce Development				\$164.0	\$163.99		
Low Income Residential SUBTOTAL	2.34	\$50,357.3	\$31,457.1	\$20,443.2	\$20,443.2	\$0.0	\$1,100.0
Residential Programs							
Residential New Construction	2.87	\$6,729.1	\$4,642.5	\$1,490.5	\$1,483.65	\$853.4	
EnergyStar HVAC	2.84	\$18,485.4	\$11,569.6	\$4,870.3	\$4,870.26	\$1,638.3	
EnergyWise	1.92	\$37,486.0	\$19,900.5	\$18,909.1	\$18,909.11	\$614.7	
EnergyWise Multi Family	2.39	\$9,837.1	\$4,798.2	\$3,760.4	\$3,760.37	\$348.6	
Behavior Feedback	1.62	\$8,360.3	\$5,736.3	\$2,624.0	\$2,624.01	\$2,540.7	
EnergyStar Lighting	N/A	\$0.0	\$0.0	\$0.0	\$0.00	\$0.0	
EnergyStar Appliances	2.88	\$12,656.5	\$8,104.9	\$2,994.5	\$2,994.47	\$1,407.2	
Residential ConnectedSolutions	7.40	\$18,715.0	\$0.0	\$2,527.4	\$0.00	\$0.0	
Energy Efficiency Education				\$42.0	\$42.00		
Community Based Initiatives - Residential				\$270.3	\$270.34		
Residential Pilots				\$0.0	\$0.00		
Comprehensive Marketing - Residential				\$533.1	\$533.09		
Residential Workforce Development				\$258.4	\$258.36		
Non-low income Residential SUBTOTAL	2.36	\$112,269.4	\$54,752.0	\$38,279.9	\$35,745.7	\$7,402.9	\$1,925.0
OER				\$1,247.9			
EERMC				\$1,247.9			
TOTAL	4.08	\$696,592.4	\$301,370.0	\$137,689.1	\$127,799.2	\$27,724.2	\$5,500.0

Notes:

- (1) The ConnectedSolutions programs are not covered by the proposed EE Performance Incentive Mechanism.
- (2) "Budget for Performance Incentive Calculation" includes the budget categories used to calculate the "Planned Net Benefits (ex-Macroeconomic Multiplier)" in the Performance Incentive Mechanism. This column removes planned spending on assessments that are included in programmatic line items, pilots, and OER and EERMC line items. Costs of the ConnectedSolutions programs are also omitted as those programs are not covered by the proposed EE Performance Incentive Mechanism.

PUC 1-49-1
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
2023 RHODE ISLAND BENEFIT COST TEST - BASE CASE
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/Cost	Total Benefit	Total Benefit Ex. Macroeconomic Multiplier	Program Implementation Expenses	Budget for Performance Incentive Calculation	Customer Contribution	Shareholder Incentive
Large Commercial & Industrial							
Commercial New Construction	5.90	\$58,831.6	\$30,957.6	\$8,962.7	\$8,930.31	\$1,004.6	
Commercial Retrofit	6.23	\$404,700.2	\$165,539.4	\$47,649.2	\$47,597.33	\$17,355.9	
Direct Install	3.49	\$39,102.9	\$20,927.8	\$9,225.9	\$9,225.95	\$1,969.8	
Commercial ConnectedSolutions	9.83	\$40,431.6	\$0.0	\$4,111.5	\$0.00	\$0.0	
Community Based Initiatives - C&I				\$93.5	\$93.46		
Commercial Pilots				\$0.0	\$0.00		
C&I Financing				\$5,000.0	\$5,000.00		
Commercial Workforce Development				\$581.0	\$580.99		
C&I SUBTOTAL	5.52	\$543,066.4	\$217,424.8	\$75,623.8	\$71,428.0	\$20,330.3	\$2,475.0
Low Income							
Low Income Single Family	2.68	\$44,619.3	\$30,324.1	\$16,622.3	\$16,622.27	\$0.0	
Low Income Multi Family	1.76	\$8,009.3	\$2,585.9	\$4,557.5	\$4,557.46	\$0.0	
Income Eligible Workforce Development				\$172.8	\$172.82		
Low Income Residential SUBTOTAL	2.34	\$52,628.6	\$32,910.0	\$21,352.5	\$21,352.5	\$0.0	\$1,100.0
Residential Programs							
Residential New Construction	2.93	\$6,919.4	\$4,815.5	\$1,502.7	\$1,496.27	\$860.2	
EnergyStar HVAC	3.04	\$21,610.2	\$13,036.1	\$6,038.1	\$6,038.11	\$1,064.5	
EnergyWise	1.91	\$43,071.3	\$22,875.1	\$21,716.3	\$21,716.29	\$778.3	
EnergyWise Multi Family	2.35	\$9,056.7	\$4,335.3	\$3,523.5	\$3,523.48	\$332.0	
Behavior Feedback	1.62	\$8,349.1	\$5,725.1	\$2,624.0	\$2,624.00	\$2,540.7	
EnergyStar Lighting	N/A	\$0.0	\$0.0	\$0.0	\$0.00	\$0.0	
EnergyStar Appliances	2.93	\$15,971.5	\$10,479.1	\$3,613.4	\$3,613.39	\$1,830.9	
Residential ConnectedSolutions	8.50	\$26,059.7	\$0.0	\$3,064.8	\$0.00	\$0.0	
Energy Efficiency Education				\$40.0	\$40.00		
Community Based Initiatives - Residential				\$283.0	\$282.95		
Residential Pilots				\$0.0	\$0.00		
Comprehensive Marketing - Residential				\$507.7	\$507.71		
Residential Workforce Development				\$303.8	\$303.78		
Non-low income Residential SUBTOTAL	2.49	\$131,037.8	\$61,266.2	\$43,217.3	\$40,146.0	\$7,406.7	\$1,925.0
OER				\$1,355.4			
EERMC				\$1,355.4			
TOTAL	4.13	\$726,732.8	\$311,601.1	\$142,904.5	\$132,926.6	\$27,737.0	\$5,500.0

Notes:

- (1) The ConnectedSolutions programs are not covered by the proposed EE Performance Incentive Mechanism.
- (2) "Budget for Performance Incentive Calculation" includes the budget categories used to calculate the "Planned Net Benefits (ex-Macroeconomic Multiplier)" in the Performance Incentive Mechanism. This column removes planned spending on assessments that are included in programmatic line items, pilots, and OER and EERMC line items. Costs of the ConnectedSolutions programs are also omitted as those programs are not covered by the proposed EE Performance Incentive Mechanism.

PUC 1-49-1
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
2023 RHODE ISLAND BENEFIT COST TEST - HIGH SCENARIO
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/Cost	Total Benefit	Total Benefit Ex. Macroeconomic Multiplier	Program Implementation Expenses	Budget for Performance Incentive Calculation	Customer Contribution	Shareholder Incentive
Large Commercial & Industrial							
Commercial New Construction	5.90	\$66,009.1	\$34,734.4	\$10,056.2	\$10,019.81	\$1,127.1	
Commercial Retrofit	6.26	\$456,852.9	\$184,856.5	\$53,462.4	\$53,404.22	\$19,473.4	
Direct Install	3.49	\$43,873.5	\$23,481.0	\$10,351.5	\$10,351.52	\$2,210.1	
Commercial ConnectedSolutions	9.83	\$62,115.1	\$0.0	\$6,316.5	\$0.00	\$0.0	
Community Based Initiatives - C&I				\$104.9	\$104.86		
Commercial Pilots				\$0.0	\$0.00		
C&I Financing				\$5,610.0	\$5,610.00		
Commercial Workforce Development				\$651.9	\$651.87		
C&I SUBTOTAL	5.62	\$628,850.6	\$243,071.9	\$86,553.3	\$80,142.3	\$22,810.6	\$2,475.0
Low Income							
Low Income Single Family	2.68	\$50,062.9	\$34,023.7	\$18,650.2	\$18,650.20	\$0.0	
Low Income Multi Family	1.76	\$8,986.4	\$2,901.4	\$5,113.5	\$5,113.47	\$0.0	
Income Eligible Workforce Development				\$193.9	\$193.90		
Low Income Residential SUBTOTAL	2.36	\$59,049.3	\$36,925.1	\$23,957.6	\$23,957.6	\$0.0	\$1,100.0
Residential Programs							
Residential New Construction	2.93	\$7,763.6	\$5,403.0	\$1,686.1	\$1,678.81	\$965.2	
EnergyStar HVAC	3.04	\$24,246.7	\$14,626.5	\$6,774.8	\$6,774.76	\$1,194.4	
EnergyWise	1.91	\$48,326.0	\$25,665.9	\$24,365.7	\$24,365.69	\$873.3	
EnergyWise Multi Family	2.35	\$10,161.6	\$4,864.2	\$3,953.3	\$3,953.34	\$372.5	
Behavior Feedback	1.62	\$8,349.1	\$5,725.1	\$2,624.0	\$2,624.00	\$2,540.7	
EnergyStar Lighting	N/A	\$0.0	\$0.0	\$0.0	\$0.00	\$0.0	
EnergyStar Appliances	2.93	\$17,920.0	\$11,757.6	\$4,054.2	\$4,054.23	\$2,054.3	
Residential ConnectedSolutions	8.50	\$26,059.7	\$0.0	\$3,064.8	\$0.00	\$0.0	
Energy Efficiency Education				\$44.9	\$44.88		
Community Based Initiatives - Residential				\$317.5	\$317.47		
Residential Pilots				\$0.0	\$0.00		
Comprehensive Marketing - Residential				\$569.6	\$569.65		
Residential Workforce Development				\$340.8	\$340.84		
Non-low income Residential SUBTOTAL	2.47	\$142,826.6	\$68,042.3	\$47,795.8	\$44,723.7	\$8,000.3	\$1,925.0
OER				\$1,520.8			
EERMC				\$1,520.8			
TOTAL	4.20	\$830,726.4	\$348,039.3	\$161,348.3	\$148,823.5	\$30,810.9	\$5,500.0

Notes:

- (1) The ConnectedSolutions programs are not covered by the proposed EE Performance Incentive Mechanism.
- (2) "Budget for Performance Incentive Calculation" includes the budget categories used to calculate the "Planned Net Benefits (ex-Macroeconomic Multiplier)" in the Performance Incentive Mechanism. This column removes planned spending on assessments that are included in programmatic line items, pilots, and OER and EERMC line items. Costs of the ConnectedSolutions programs are also omitted as those programs are not covered by the proposed EE Performance Incentive Mechanism.

PUC 1-49-2
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
2021 RHODE ISLAND BENEFIT COST TEST
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/Cost	Total Benefit	Total Benefit Ex. Macroeconomic Multiplier	Program Implementation Expenses	Budget for Performance Incentive Calculation	Customer Contribution	Shareholder Incentive
Large Commercial & Industrial							
Large Commercial New Construction	4.86	\$12,599.7	\$8,681.7	\$2,759.2	\$2,739.7	-\$166.4	
Large Commercial Retrofit	5.27	\$45,068.7	\$31,990.8	\$5,169.1	\$5,143.2	\$3,387.0	
Small Business Direct Install	3.83	\$1,539.9	\$957.8	\$332.7	\$332.7	\$69.4	
Commercial & Industrial Multifamily	4.75	\$4,922.8	\$3,121.2	\$953.2	\$953.2	\$84.0	
Comprehensive Marketing - Commercial and Industrial				\$0.0	\$0.0		
Commercial Pilots				\$215.8	\$0.0		
Community Based Initiatives - C&I				\$24.8	\$24.8		
Finance Costs				\$0.0	\$0.0		
Commercial Workforce Development				\$164.5	\$164.5		
Commercial & Industrial Subtotal	4.94	\$64,131.1	\$44,751.6	\$9,619.3	\$9,358.1	\$3,374.0	\$680.0
Income Eligible Programs							
Single Family - Income Eligible Services	2.94	\$19,830.4	\$13,159.1	\$6,738.8	\$6,738.8	\$0.0	
Income Eligible Multifamily	4.21	\$13,690.7	\$8,646.9	\$3,254.1	\$3,254.1	\$0.0	
Income Eligible Workforce Development				\$49.6	\$49.6		
Income Eligible Residential Subtotal	3.34	\$33,521.1	\$21,805.9	\$10,042.5	\$10,042.5	\$0.0	\$425.0
Residential Programs							
Energy Star® HVAC	1.66	\$13,615.7	\$10,567.1	\$3,673.0	\$3,673.0	\$4,539.3	
EnergyWise	2.01	\$21,873.6	\$11,709.7	\$10,063.2	\$10,063.2	\$816.5	
EnergyWise Multifamily	4.70	\$8,630.2	\$6,198.9	\$1,491.6	\$1,491.6	\$344.0	
Home Energy Reports	4.05	\$1,825.1	\$1,347.2	\$450.9	\$450.9	\$0.0	
Residential New Construction	1.02	\$1,378.3	\$1,229.8	\$674.8	\$655.4	\$670.9	
Comprehensive Marketing - Residential				\$64.8	\$64.8		
Residential Pilots				\$0.0	\$0.0		
Community Based Initiatives - Residential				\$75.8	\$75.8		
Residential Workforce Development				\$118.3	\$118.3		
Non-Income Eligible Residential Subtotal	2.06	\$47,322.9	\$31,052.7	\$16,612.4	\$16,593.0	\$6,370.8	\$595.0
EERMC				\$321.2	\$0.00		
OER				\$321.2	\$0.00		
Grand Total	3.00	\$144,975.1	\$97,610.2	\$36,916.6	\$35,993.6	\$9,744.8	\$1,700.0

Notes:

(1) "Budget for Performance Incentive Calculation" includes the budget categories used to calculate the "Planned Net Benefits (ex-Macroeconomic Multiplier)" in the Performance Incentive Mechanism. This column removes planned spending on assessments that are included in programmatic line items, pilots, and OER and EERMC line items.

PUC 1-49-2
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
2022 RHODE ISLAND BENEFIT COST TEST - BASE CASE
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/Cost	Total Benefit	Total Benefit Ex. Macroeconomic Multiplier	Program Implementation Expenses	Budget for Performance Incentive Calculation	Customer Contribution	Shareholder Incentive
Large Commercial & Industrial							
Large Commercial New Construction	5.52	\$15,640.5	\$11,358.0	\$3,015.9	\$2,996.4	-\$184.0	
Large Commercial Retrofit	5.52	\$47,717.7	\$34,402.3	\$5,263.0	\$5,237.1	\$3,383.9	
Small Business Direct Install	3.33	\$2,548.0	\$1,446.5	\$629.4	\$629.4	\$136.5	
Commercial & Industrial Multifamily	4.56	\$5,066.7	\$3,126.1	\$1,026.8	\$1,026.8	\$84.0	
Comprehensive Marketing - Commercial and Industrial				\$0.0	\$0.0		
Commercial Pilots				\$219.0	\$0.0		
Community Based Initiatives - C&I				\$28.3	\$28.3		
Finance Costs				\$0.0	\$0.0		
Commercial Workforce Development				\$55.6	\$55.6		
Commercial & Industrial Subtotal	4.95	\$70,972.9	\$50,332.8	\$10,238.0	\$9,973.6	\$3,420.4	\$680.0
Income Eligible Programs							
Single Family - Income Eligible Services	2.95	\$21,786.3	\$14,482.0	\$7,378.1	\$7,378.1	\$0.0	
Income Eligible Multifamily	4.24	\$13,653.9	\$8,657.4	\$3,223.6	\$3,223.6	\$0.0	
Income Eligible Workforce Development				\$84.4	\$84.4		
Income Eligible Residential Subtotal	3.19	\$35,440.3	\$23,139.4	\$10,686.1	\$10,686.1	\$0.0	\$425.0
Residential Programs							
Energy Star® HVAC	1.66	\$17,385.5	\$13,594.1	\$4,568.0	\$4,568.0	\$5,924.8	
EnergyWise	2.03	\$22,169.7	\$12,063.9	\$10,005.8	\$10,005.8	\$903.1	
EnergyWise Multifamily	4.71	\$8,629.1	\$6,205.3	\$1,487.0	\$1,487.0	\$344.0	
Home Energy Reports	4.10	\$1,807.3	\$1,339.5	\$441.3	\$441.3	\$0.0	
Residential New Construction	1.10	\$1,292.4	\$1,158.3	\$609.6	\$590.1	\$562.0	
Comprehensive Marketing - Residential				\$79.8	\$79.8		
Residential Pilots				\$0.0	\$0.0		
Community Based Initiatives - Residential				\$86.3	\$86.3		
Residential Workforce Development				\$137.3	\$137.3		
Non-Income Eligible Residential Subtotal	1.99	\$51,284.0	\$34,361.1	\$17,414.9	\$17,395.5	\$7,733.9	\$595.0
EERMC				\$400.0	\$0.00		
OER				\$400.0	\$0.00		
Grand Total	3.03	\$157,697.1	\$107,833.3	\$39,139.2	\$38,055.3	\$11,154.3	\$1,700.0

Notes:

(1) "Budget for Performance Incentive Calculation" includes the budget categories used to calculate the "Planned Net Benefits (ex-Macroeconomic Multiplier)" in the Performance Incentive Mechanism. This column removes planned spending on assessments that are included in programmatic line items, pilots, and OER and EERMC line items.

PUC 1-49-2
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
2022 RHODE ISLAND BENEFIT COST TEST - HIGH SCENARIO
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/Cost	Total Benefit	Total Benefit Ex. Macroeconomic Multiplier	Program Implementation Expenses	Budget for Performance Incentive Calculation	Customer Contribution	Shareholder Incentive
Large Commercial & Industrial							
Large Commercial New Construction	5.52	\$17,986.6	\$13,061.7	\$3,468.2	\$3,445.9	-\$211.6	
Large Commercial Retrofit	5.52	\$54,875.3	\$39,562.6	\$6,052.5	\$6,022.7	\$3,891.5	
Small Business Direct Install	3.33	\$2,930.2	\$1,663.4	\$723.9	\$723.9	\$156.9	
Commercial & Industrial Multifamily	4.56	\$5,826.7	\$3,595.0	\$1,180.8	\$1,180.8	\$96.6	
Comprehensive Marketing - Commercial and Industrial				\$0.0	\$0.0		
Commercial Pilots				\$251.9	\$0.0		
Community Based Initiatives - C&I				\$32.6	\$32.6		
Finance Costs				\$0.0	\$0.0		
Commercial Workforce Development				\$63.9	\$63.9		
Commercial & Industrial Subtotal	4.98	\$81,618.8	\$57,882.8	\$11,773.7	\$11,469.7	\$3,933.5	\$680.0
Income Eligible Programs							
Single Family - Income Eligible Services	2.95	\$25,054.3	\$16,654.3	\$8,484.8	\$8,484.8	\$0.0	
Income Eligible Multifamily	4.24	\$15,702.0	\$9,956.0	\$3,707.1	\$3,707.1	\$0.0	
Income Eligible Workforce Development				\$97.1	\$97.1		
Income Eligible Residential Subtotal	3.21	\$40,756.3	\$26,610.3	\$12,289.0	\$12,289.0	\$0.0	\$425.0
Residential Programs							
Energy Star® HVAC	1.66	\$19,993.4	\$15,633.2	\$5,253.2	\$5,253.2	\$6,813.6	
EnergyWise	2.03	\$25,495.1	\$13,873.4	\$11,506.6	\$11,506.6	\$1,038.5	
EnergyWise Multifamily	4.71	\$9,923.4	\$7,136.1	\$1,710.0	\$1,710.0	\$395.6	
Home Energy Reports	4.10	\$1,807.3	\$1,339.5	\$441.3	\$441.3	\$0.0	
Residential New Construction	1.10	\$1,486.3	\$1,332.1	\$701.0	\$678.7	\$646.3	
Comprehensive Marketing - Residential				\$91.7	\$91.7		
Residential Pilots				\$0.0	\$0.0		
Community Based Initiatives - Residential				\$99.2	\$99.2		
Residential Workforce Development				\$157.9	\$157.9		
Non-Income Eligible Residential Subtotal	1.99	\$58,705.5	\$39,314.3	\$19,961.0	\$19,938.6	\$8,894.0	\$595.0
EERMC				\$460.1	\$0.00		
OER				\$460.1	\$0.00		
Grand Total	3.04	\$181,080.6	\$123,807.4	\$44,943.9	\$43,697.4	\$12,827.4	\$1,700.0

Notes:

(1) "Budget for Performance Incentive Calculation" includes the budget categories used to calculate the "Planned Net Benefits (ex-Macroeconomic Multiplier)" in the Performance Incentive Mechanism. This column removes planned spending on assessments that are included in programmatic line items, pilots, and OER and EERMC line items.

PUC 1-49-2
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
2023 RHODE ISLAND BENEFIT COST TEST - BASE CASE
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/Cost	Total Benefit	Total Benefit Ex. Macroeconomic Multiplier	Program Implementation Expenses	Budget for Performance Incentive Calculation	Customer Contribution	Shareholder Incentive
Large Commercial & Industrial							
Large Commercial New Construction	5.62	\$17,025.6	\$12,428.2	\$3,237.6	\$3,218.2	-\$205.7	
Large Commercial Retrofit	5.73	\$61,704.8	\$45,811.5	\$6,281.9	\$6,256.0	\$4,495.1	
Small Business Direct Install	3.23	\$3,789.2	\$2,113.9	\$957.3	\$957.3	\$217.2	
Commercial & Industrial Multifamily	4.60	\$5,051.0	\$3,132.2	\$1,015.2	\$1,015.2	\$84.0	
Comprehensive Marketing - Commercial and Industrial				\$0.0	\$0.0		
Commercial Pilots				\$222.3	\$0.0		
Community Based Initiatives - C&I				\$31.2	\$31.2		
Finance Costs				\$0.0	\$0.0		
Commercial Workforce Development				\$70.1	\$70.1		
Commercial & Industrial Subtotal	5.13	\$87,570.6	\$63,485.8	\$11,815.6	\$11,548.0	\$4,590.6	\$680.0
Income Eligible Programs							
Single Family - Income Eligible Services	2.97	\$23,938.6	\$15,949.9	\$8,069.4	\$8,069.4	\$0.0	
Income Eligible Multifamily	4.25	\$13,651.0	\$8,669.9	\$3,213.7	\$3,213.7	\$0.0	
Income Eligible Workforce Development				\$90.2	\$90.2		
Income Eligible Residential Subtotal	3.19	\$37,589.6	\$24,619.7	\$11,373.3	\$11,373.3	\$0.0	\$425.0
Residential Programs							
Energy Star® HVAC	1.68	\$21,218.1	\$16,490.5	\$5,695.9	\$5,695.9	\$6,937.3	
EnergyWise	1.98	\$29,030.1	\$15,498.0	\$13,398.1	\$13,398.1	\$1,239.3	
EnergyWise Multifamily	4.72	\$8,629.1	\$6,212.9	\$1,482.3	\$1,482.3	\$344.0	
Home Energy Reports	4.10	\$1,807.8	\$1,340.0	\$441.3	\$441.3	\$0.0	
Residential New Construction	1.03	\$1,225.3	\$1,090.7	\$611.8	\$592.4	\$580.3	
Comprehensive Marketing - Residential				\$79.8	\$79.8		
Residential Pilots				\$0.0	\$0.0		
Community Based Initiatives - Residential				\$94.8	\$94.8		
Residential Workforce Development				\$176.9	\$176.9		
Non-Income Eligible Residential Subtotal	1.95	\$61,910.3	\$40,632.0	\$21,980.9	\$21,961.5	\$9,100.9	\$595.0
EERMC				\$468.4	\$0.00		
OER				\$468.4	\$0.00		
Grand Total	3.04	\$187,070.5	\$128,737.6	\$46,106.6	\$44,882.8	\$13,691.5	\$1,700.0

Notes:

(1) "Budget for Performance Incentive Calculation" includes the budget categories used to calculate the "Planned Net Benefits (ex-Macroeconomic Multiplier)" in the Performance Incentive Mechanism. This column removes planned spending on assessments that are included in programmatic line items, pilots, and OER and EERMC line items.

PUC 1-49-2
THE NARRAGANSETT ELECTRIC COMPANY d/b/a NATIONAL GRID
2023 RHODE ISLAND BENEFIT COST TEST - HIGH SCENARIO
Summary of Benefit, Expenses, Evaluation Costs (\$000)

	Rhode Island Benefit/Cost	Total Benefit	Total Benefit Ex. Macroeconomic Multiplier	Program Implementation Expenses	Budget for Performance Incentive Calculation	Customer Contribution	Shareholder Incentive
Large Commercial & Industrial							
Large Commercial New Construction	5.62	\$21,346.4	\$15,582.2	\$4,059.3	\$4,034.9	-\$257.9	
Large Commercial Retrofit	5.73	\$77,364.2	\$57,437.6	\$7,876.1	\$7,843.6	\$5,635.8	
Small Business Direct Install	3.23	\$4,750.8	\$2,650.3	\$1,200.3	\$1,200.3	\$272.3	
Commercial & Industrial Multifamily	4.60	\$6,332.8	\$3,927.1	\$1,272.9	\$1,272.9	\$105.3	
Comprehensive Marketing - Commercial and Industrial				\$0.0	\$0.0		
Commercial Pilots				\$278.7	\$0.0		
Community Based Initiatives - C&I				\$39.1	\$39.1		
Finance Costs				\$0.0	\$0.0		
Commercial Workforce Development				\$87.9	\$87.9		
Commercial & Industrial Subtotal	5.17	\$109,794.2	\$79,597.2	\$14,814.2	\$14,478.6	\$5,755.6	\$680.0
Income Eligible Programs							
Single Family - Income Eligible Services	2.97	\$30,013.7	\$19,997.6	\$10,117.3	\$10,117.3	\$0.0	
Income Eligible Multifamily	4.25	\$17,115.4	\$10,870.1	\$4,029.2	\$4,029.2	\$0.0	
Income Eligible Workforce Development				\$113.1	\$113.1		
Income Eligible Residential Subtotal	3.21	\$47,129.1	\$30,867.7	\$14,259.6	\$14,259.6	\$0.0	\$425.0
Residential Programs							
Energy Star® HVAC	1.68	\$26,602.8	\$20,675.5	\$7,141.4	\$7,141.4	\$8,697.8	
EnergyWise	1.98	\$36,397.3	\$19,431.0	\$16,798.3	\$16,798.3	\$1,553.8	
EnergyWise Multifamily	4.72	\$10,818.9	\$7,789.6	\$1,858.5	\$1,858.5	\$431.3	
Home Energy Reports	4.10	\$1,807.8	\$1,340.0	\$441.3	\$441.3	\$0.0	
Residential New Construction	1.03	\$1,536.2	\$1,367.5	\$767.1	\$742.7	\$727.6	
Comprehensive Marketing - Residential				\$100.0	\$100.0		
Residential Pilots				\$0.0	\$0.0		
Community Based Initiatives - Residential				\$118.8	\$118.8		
Residential Workforce Development				\$221.8	\$221.8		
Non-Income Eligible Residential Subtotal	1.96	\$77,163.1	\$50,603.6	\$27,447.2	\$27,422.8	\$11,410.5	\$595.0
EERMC				\$587.2	\$0.00		
OER				\$587.2	\$0.00		
Grand Total	3.06	\$234,086.4	\$161,068.5	\$57,695.5	\$56,161.1	\$17,166.1	\$1,700.0

Notes:

(1) "Budget for Performance Incentive Calculation" includes the budget categories used to calculate the "Planned Net Benefits (ex-Macroeconomic Multiplier)" in the Performance Incentive Mechanism. This column removes planned spending on assessments that are included in programmatic line items, pilots, and OER and EERMC line items.

PUC 1-50

Request:

Please explain the apparent discrepancy between the Performance Incentive Payout Rate in Table 24 (Bates 261) and Table G-8 (Bates 579).

Response:

In preparing this response the Company compared the Tables on Bates 261 to Tables E-8 (Bates 567) and G-8 (Bates 579) and determined Tables 23 and 24 on Bates 261 were incorrectly stated. Tables E-8 and G-8 are correct.

Corrected Tables 23 and 24 are listed below, to align with Tables E-8 and G-8.

Table 23 (Bates 261) Revision: PI Earning Rates by Sector – Electric Portfolio

Sector	Planned Net Benefits (ex-Macroeconomic Multiplier)	Design level Incentive Pool Allocation	Performance Incentive Payout Rate
Residential	\$17,292,828	\$1,925,000	11.132%
Income Eligible	\$8,718,256	\$1,100,000	12.617%
Commercial and Industrial	\$142,654,797	\$2,475,000	1.735%

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Table 24. (Bates 261) Revision: PI Earning Rates by Sector – Gas Portfolio

Sector	Planned Net Benefits (ex-Macroeconomic Multiplier)	Design level Incentive Pool Allocation	Performance Incentive Payout Rate
Residential	\$14,459,738	\$595,000	4.115%
Income Eligible	\$11,763,446	\$425,000	3.613%
Commercial and Industrial	\$35,393,410	\$680,000	1.921%

PUC 1-51

Request:

Please provide a table showing the incentive National Grid would have earned in each of the previous five years had the proposed incentive design been in place. Please compute the same assuming that National Grid met the targets each year, and showing what National Grid would have earned with the proposed incentive design with both its actual performance and having met the target. For clarity, the table should have 4 columns or rows showing:

- a. The incentive National Grid earned;
- b. The incentive National Grid could have earned if it met the targets;
- c. The incentive National Grid would have earned with the proposed incentive design and actual performance; and
- d. The incentive National Grid would have earned with the proposed incentive design and having met the target.

Response:

For this response, the Company calculated the performance for the past five years (2015 – 2019) using the earning threshold, cap on earnings and performance incentive payout rates defined in Tables E-8 (567) and G-8 (579) of the 2021 Annual Plan. In responding to this question, there are few caveats related to the analysis that are worth noting.

The analysis assumes that the payout rates as defined in the 2021 Annual Plan and shown in Column 4 of Tables E-8 (Bates 567) and G-8 (Bates 579) would have applied in earlier Annual Plan years.

In reality, however, the Company does not anticipate that payout rates will remain constant in future years (nor should they be applied on a constant basis when doing historical comparisons). Rather, the Company anticipates that design level incentive pools will typically be established as an input into each Annual Plan, and that payout rates will be calculated as a function of planned benefits and design level incentive pools, and reflective of the composition of the portfolio between sectors in each year.

Because payout rates are expected to vary by year, the comparison against incentive earnings under past design and the proposed mechanism is of limited value. Applying the proposed 2021 payout rates to past years does not account for the fact that the absolute incentive earning in a past year is influenced by the overall magnitude of net benefits, and the distribution of planned and realized benefits among sectors. The historical calculated absolute performance incentive

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earnings for past years are not necessarily reflective of what would have been earned if the payout had been determined on an annual basis.

2015 – 2019 Performance Incentive Analysis under Existing and Newly-Proposed Mechanism: Electric Energy Efficiency Portfolio

	a) Earned Incentive, with actual performance	b) Earned Incentive, if target met (Design Level Performance Incentive)	c) Earned Incentive, with 2021 Proposed Mechanism and actual performance	d) Earned Incentive, if target met (Design Level Performance Incentive), with 2021 Proposed Mechanism
2015	\$4,533,360	\$3,867,352	\$13,266,969	\$10,948,005
2016	\$4,128,034	\$3,878,087	\$7,576,453	\$6,229,628
2017	\$4,829,847	\$4,425,528	\$8,241,725	\$8,711,719
2018	\$4,940,402	\$4,346,672	\$10,481,986	\$9,023,642
2019	\$3,290,237	\$4,892,346	\$15,537,627	\$15,366,640
Source	Annual Report Table E-4, for each year. See sources table for links to each Annual Report	Annual Plan Table E-9 and Annual Report Table E-4, for each year. See sources table for links to each Annual Plan	Source: Calculation based on 2021 proposed earning rate and planned and achieved 2015-2019 benefits and expenditures	Source: Calculation based on 2021 proposed earning rate and planned and achieved 2015-2019 benefits and expenditures

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**2015 – 2019 Performance Incentive Analysis under Existing and Newly-Proposed
Mechanism: Natural Gas Energy Efficiency Portfolio**

	a) Earned Incentive, with actual performance	b) Earned Incentive, if target met (Design Level Performance Incentive)	c) Earned Incentive, with 2021 Proposed Mechanism and actual performance	d) Earned Incentive, if target met (Design Level Performance Incentive), with 2021 Proposed Mechanism
2015	\$1,387,079	\$1,119,839	\$1,510,999	\$1,213,198
2016	\$1,496,869	\$1,251,654	\$996,382	\$1,033,332
2017	\$1,633,531	\$1,387,550	\$1,202,748	\$1,160,732
2018	\$1,541,255	\$1,286,647	\$1,934,925	\$1,663,986
2019	\$1,580,119	\$1,460,570	\$1,940,704	\$1,931,726
Source	Annual Report Table G-4, for each year. See sources table for links to each Annual Report	Annual Plan Table G-9 and Annual Report Table G-4, for each year. See sources table for links to each Annual Plan	Source: Calculation based on 2021 proposed earning rate and planned and achieved 2015-2019 benefits and expenditures	Source: Calculation based on 2021 proposed earning rate and planned and achieved 2015-2019 benefits and expenditures

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Sources:

Year	Fuel	Goal or Achieved	PUC Filings
2015	Electric	Goals	http://www.ripuc.ri.gov/eventsactions/docket/4527-NGrid-2015-EEPP(10-31-14).pdf
2015	Electric	Achieved	http://www.ripuc.ri.gov/eventsactions/docket/4527-NGrid-YrEndRept(5-2-16).pdf
2016	Electric	Goals	http://www.ripuc.ri.gov/eventsactions/docket/4580-NGrid-2016-EEPP(10-15-15).pdf
2016	Electric	Achieved	http://www.ripuc.ri.gov/eventsactions/docket/4580-NGrid-2016AnnualRept(5-1-17).pdf
2017	Electric	Goals	http://www.ripuc.ri.gov/eventsactions/docket/4654-NGrid-EEPP-2017(10-17-16).pdf
2017	Electric	Achieved	http://www.ripuc.ri.gov/eventsactions/docket/4654-NGrid-YearEndRept2017_5-1-18.pdf
2018	Electric	Goals	http://www.ripuc.ri.gov/eventsactions/docket/4755-NGrid-Rev2018EEPlan_12-26-17.pdf
2018	Electric	Achieved	http://www.ripuc.ri.gov/eventsactions/docket/4755-NGrid-Year-End%20Report%202018%20(5-15-19).pdf
2019	Electric	Goals	http://www.ripuc.ri.gov/eventsactions/docket/4888-NGrid-Updated%20E1%20and%20G1%20Tables%20(PUC%2012-3-18).pdf http://www.ripuc.ri.gov/eventsactions/docket/4888-NGrid-EEPP2019(10-15-18).pdf
2019	Electric	Achieved	http://www.ripuc.ri.gov/eventsactions/docket/4888-NGrid-Year-End%20Report%202019%20(5-15-20).pdf
2015	Gas	Goals	http://www.ripuc.ri.gov/eventsactions/docket/4527-NGrid-2015-EEPP(10-31-14).pdf
2015	Gas	Achieved	http://www.ripuc.ri.gov/eventsactions/docket/4527-NGrid-YrEndRept(5-2-16).pdf
2016	Gas	Goals	http://www.ripuc.ri.gov/eventsactions/docket/4580-NGrid-2016-EEPP(10-15-15).pdf
2016	Gas	Achieved	http://www.ripuc.ri.gov/eventsactions/docket/4580-NGrid-2016AnnualRept(5-1-17).pdf
2017	Gas	Goals	http://www.ripuc.ri.gov/eventsactions/docket/4654-NGrid-EEPP-2017(10-17-16).pdf
2017	Gas	Achieved	http://www.ripuc.ri.gov/eventsactions/docket/4654-NGrid-YearEndRept2017_5-1-18.pdf

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Year	Fuel	Goal or Achieved	PUC Filings
2018	Gas	Goals	http://www.ripuc.ri.gov/eventsactions/docket/4755-NGrid-Rev2018EEPlan_12-26-17.pdf
2018	Gas	Achieved	http://www.ripuc.ri.gov/eventsactions/docket/4755-NGrid-Year-End%20Report%202018%20(5-15-19).pdf
2019	Gas	Goals	http://www.ripuc.ri.gov/eventsactions/docket/4888-NGrid-Updated%20E1%20and%20G1%20Tables%20(PUC%2012-3-18).pdf http://www.ripuc.ri.gov/eventsactions/docket/4888-NGrid-EEPP2019(10-15-18).pdf
2019	Gas	Achieved	http://www.ripuc.ri.gov/eventsactions/docket/4888-NGrid-Year-End%20Report%202019%20(5-15-20).pdf

PUC 1-52

Request:

Please list in a table all measures, programs, pilots, etc. that are eligible to count toward the System Efficiency performance incentive. Include columns that show the demand reduction expected, the performance incentive, total costs, total benefits, and the benefit-to-cost ratio. Please include the expected shareholder incentive from the System Efficiency performance incentive in total costs.

Response:

Please see Attachment PUC 1-52 for the requested table.

Attachment PUC 1-52-1

PUC 1-52-1

	Demand Response Measure	Demand Reduction Expected (Annual Net Summer kW)	Performance Incentive	Incentive Costs	Incentive Costs + Other Costs	Total Costs Performance Incentive (1)	Benefit-to-Cost Ratio (2)
Ref	(a)	(b)	(c)	(d)	(e)	(f)	(g)
						(f) = (c) + (e)	
1	Thermostats New	872.61	\$ 944,141	\$ 66,555			20.91
2	Thermostats Existing	2,908.70		\$ 98,600			47.04
3	Batteries	1,650.00		\$ 660,000			5.57
4	EVs	307.40		\$ 10,585			64.73
5	Residential Subtotal	5,738.71		\$ 835,740	\$ 1,959,725		6.13
6	C&I Targeted Dispatch	4,000.00		\$ 1,480,000			9.46
7	C&I Daily Dispatch	29,600.00		\$ 1,200,000			7.43
8	C&I Subtotal	33,600.00		\$ 2,680,000	\$ 2,990,106		9.85
9	Total	39,338.71	\$ 944,141	\$ 3,515,740	\$ 4,949,831	\$ 5,893,972	

Notes:

(1) Programmatic costs are not allocated at the measure level, so total costs and programmatic benefit-cost ratios are shown at the program or pilot level.

(2) Benefit-Cost Ratio at the measure level omits economic benefits and programmatic non-incentive costs, as these are defined at the program level. The Benefit-Cost Ratio for the Residential Subtotal and the Commercial Subtotal include these full benefits and costs. BC ratio does not account for the System Efficiency Performance Incentive.

PUC 1-53

Request:

Please provide the status of the development of the common reporting platform for the Efficient Buildings Fund.

Response:

Since the Company's response to PUC 1-61, RIPUC Docket No. 4979, where the establishment of a data sharing platform is described, the vendor has completed the file sharing site, and OER has completed the file structure development and has uploaded relevant program documents.

Early in 2020 the Company began the assessment of the digital risk and security criteria necessary for the sharing of these documents but was delayed in furthering the process once the COVID-19 pandemic affected the United States in March. The Company intends to re-engage in this security analysis in December of 2020.

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PUC 1-54

Request:

Please provide the total amount of money ratepayers have provided to support the RIIB and the total amount of money RIIB has loaned for energy efficiency projects.

Response:

This response was prepared, in part, on the basis of information provided to the Company by RIIB.

Please see the tables below, which include the amount and date of all transfers of program dollars to the Rhode Island Infrastructure Bank (RIIB) in support of the Efficient Buildings Fund (EBF) and the total EBF energy efficiency borrowers and amounts loaned.

Transfers of Program Dollars to RIIB for EBF

Year	Amount	Date of Transfer
2016	\$ 1,870,447.00	11/1/2016
2017	\$ 5,000,000.00	10/31/2017
2018	\$ 5,000,000.00	10/12/2018
2019	\$ 5,000,000.00	3/13/2019
2020	\$ 5,216,666.00	10/1/2020
Total	\$ 22,087,113.00	

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Total EBF Energy Efficiency Borrowers and Amounts Loaned

Borrower	EE Amount Loaned
City of Cranston	\$ 2,240,000.00
Town of North Kingstown	\$ 935,000.00
City of Newport	\$ 228,038.00
Town of Westerly	\$ 1,041,965.00
Town of West Warwick	\$ 1,300,000.00
City of East Providence	\$ 24,000,000.00
Pascoag Utility District	\$ 1,419,045.00
Town of Cumberland	\$ 1,343,000.00
Town of Hopkinton	\$ 221,000.00
Town of Warren	\$ 504,000.00
City of Pawtucket	\$ 1,000,000.00
Town of Barrington	\$ 2,500,000.00
City of East Providence	\$ 2,370,000.00
City of Pawtucket	\$ 3,915,000.00
City of Providence	\$ 1,252,000.00
Town of Westerly	\$ 250,000.00
City of Warwick	\$ 3,200,000.00
Total	\$ 47,719,048.00

PUC 1-55

Request:

Please update the Company's response to PUC Post-Decision Data Request 2-3 in Docket #4979 which read:

Please complete the accompanying Excel worksheet RIIB EBF Cash Flow Statement by Funding Source.xls.

- Feel free to add columns or rows as necessary.
- The worksheet should include all funding sources for EBF (including bond proceeds)
- If there are additional funding sources for the EBF not listed, please add as appropriate.
- Include all inflows and outflows.
- The balances in the total column should equal the cash balance in the EBF at the appropriate point in time (i.e. the 12/31/19 balance on the worksheet should equal the 12/31/19 cash balance as reported in the bank statement(s).
- Please provide estimates of 2020 activity.
- Add any additional information (either as part of the worksheet or in written form) that would provide a clear, understandable and complete picture of the activity taking place within the EBF.

Please include in the update a forecast of the 2021 activity.

Response:

This response was prepared on the basis of information provided to the Company by RIIB.

Please see an updated version of the RIIB's EBF cash flow statement included here as Attachment PUC 1-55.

Rhode Island Infrastructure Bank
Efficient Buildings Fund
Cash Flow
Amounts in \$ millions

Date	Description	SBC (including legislative transfer)	Recycled Funds Available	Bond Revenue Account	Bond Debt	Bond Anticipation Note Debt	R.G.G.I funds & R.G.G.I. revolved funds	EBF Loan Balance (Committed Funds)	RIIB Contribution	Total
12/30/2015	Balance	-	-	-	-	-	-	-	-	-
4/20/2016	RGGI Transfer						3.00			3.00
7/8/2016	BAN cost of issuance					(0.15)				(0.15)
7/8/2016	6 loans closed; with BANS (ultimately 2 SBC, 4 bond proceeds)					(17.18)		17.18		0.00
11/2/2016	Transfer from NGrid EE	1.87								1.87
11/4/2016	RGGI Transfer						2.00			2.00
12/31/2016	Balance	1.87	0.00	0.00	0.00	(17.33)	5.00	17.18	0.00	6.73
3/1/2017	year		0.01		0.19		0.00			0.21
11/1/2017	Loan principal repayment available	0.00			0.06		0.00	(0.06)		0.00
11/1/2017	Transfer from NGrid EE	5.00								5.00
12/13/2017	5 loans closed; with BANS (ultimately, 3 RGGI, 1 SBC, 1 bond proceeds)	(2.37)				(6.02)	(2.07)	10.45		0.00
12/28/2017	1 loan closed with SBC	(0.25)						0.25		0.00
12/31/2017	Balance	4.25	0.01	0.00	0.25	(23.35)	2.93	27.83	0.00	11.93
3/1/2018	year		0.09		0.32		0.00			0.41
10/1/2018	BAN interest repayment				(0.17)					(0.17)
10/1/2018	Bond cost of issuance (and rounding)				(0.38)					(0.38)
10/5/2018	1 loan closed with SBC/N Grid funds	(2.50)						2.50		0.00
10/16/2018	Transfer from NGrid EE	5.00								5.00
11/1/2018	Loan principal repayment available		0.48		0.76		0.02	(1.25)		0.00
11/29/2018	BAN principle repayment and DSRF established	(5.13)			(18.86)	23.35	(0.74)		(1.22)	(2.60)
11/29/2018	1 loan closed with Bond proceeds				(0.94)			0.94		0.00
	Interest on Funds (R.G.G.I. approx)	0.07	0.00				0.04			0.11
12/31/2018	Balance	1.69	0.59	0.00	(19.02)	0.00	2.25	30.01	(1.22)	14.30
3/1/2019	year			0.19	0.36		0.04			0.59
4/1/2019	2018A Bond debt service payment - interest			(0.28)						(0.28)
10/1/2019	2018A Bond debt service payment - principal and interest			(1.46)	1.05					(0.42)
11/2019	Transfer from NGrid EE	5.00								5.00
11/1/2019	Loan principal repayment available			1.96			0.18	(2.13)		0.00
10/8/2019	RGGI Transfer						1.00			1.00
	Interest on Funds (R.G.G.I. approx)	0.04	0.00				0.04			0.08
12/31/2019	Balance	6.73	0.59	0.40	(17.61)	0.00	3.50	27.88	(1.22)	20.27
3/1/2020	Loan interest repayment available			0.29						0.29
4/1/2020	2018A Bond debt service payment - interest			(0.40)						(0.40)
5/12/2020	Loan - Closed	(0.45)	(0.55)					1.00		0.00
6/1/2020	Loan - Closed						(1.42)	1.42		0.00
	Account reconciliation		(0.04)	0.06	0.20					0.22
	Interest on Funds (approx)	0.03					0.02			0.05
6/30/2020	Balance	6.31	0.00	0.34	(17.41)	0.00	2.10	30.30	(1.22)	20.43
9/1/2020	Loan principal repayment (not available until after bond debt service payment on 10/1)			2.42				(2.42)		0.00
9/1/2020	Loan interest repayment (not available until after bond debt service payment on 10/1)			0.30						0.30
	Interest on Funds (approx)	0.00	0.00				0.00			0.00
9/30/2020	Balance	6.31	0.00	3.06	(17.41)	0.00	2.10	27.88	(1.22)	20.73
2020 Q4 Activity (Including Expected Activity)										
10/1/2020	Transfer from NGrid EE	5.23								5.23
10/1/2020	2018A Bond debt service payment - principal and interest			(1.56)	1.16					(0.40)
10/29/2020	Loans closed as part of 2020A bond issue	(3.20)						3.20		0.00
10/29/2020	Loans closed as part of 2020A bond issue	(8.24)			(15.76)			24.00		0.00
	Interest on Funds (approx)	0.00					0.02			
12/31/2020	Balance (Estimate)	0.10	0.00	1.50	(32.02)	0.00	2.12	55.08	(1.22)	25.55

2021 Activity Forecast

3/1/2021	Loan interest repayment (available after bond debt service)			0.42				0.42
4/1/2021	2018A Bond debt service payment - interest			(0.38)				(0.38)
4/1/2021	2020A Bond debt service payment - interest			(0.22)				(0.22)
4/1/2021	Transfer from NGrid EE	5.00						5.00
5/1/2021	Loan closing - Energy efficiency	(5.00)				5.00		0.00
10/1/2021	2018A Bond debt service payment - principal and interest			(1.59)	1.21			(0.38)
10/1/2021	2020A Bond debt service payment - principal and interest			(0.86)	0.61			(0.26)
11/1/2021	Loan principal and interest repayment available			4.32		(4.32)		0.00
10/1/2021	Loan closing - Renewable energy					(2.00)	2.00	0.00
10/1/2021	Loan closing - Energy efficiency			(3.00)			3.00	0.00
10/1/2021	Loan closing as part of 2021A Bond (bond size dependent on need and SBC capital available)				(13.88)		13.88	0.00
	Interest on Funds							
12/31/2021	Balance (Estimate)	0.10	0.00	0.19	(44.08)	0.00	0.12	74.63
								(1.22)
								29.74

Note: The Bond Revenue account contains loan repayments after the EBF 2018A bond issue. Revenue funds can be deallocated and made available for new loans annually. First deallocation is expected in 2021; exact amount to be determined.

PUC 1-55 (Revised)

Request:

Please update the Company's response to PUC Post-Decision Data Request 2-3 in Docket #4979 which read:

Please complete the accompanying Excel worksheet RIIB EBF Cash Flow Statement by Funding Source.xls.

- Feel free to add columns or rows as necessary.
- The worksheet should include all funding sources for EBF (including bond proceeds)
- If there are additional funding sources for the EBF not listed, please add as appropriate.
- Include all inflows and outflows.
- The balances in the total column should equal the cash balance in the EBF at the appropriate point in time (i.e. the 12/31/19 balance on the worksheet should equal the 12/31/19 cash balance as reported in the bank statement(s).
- Please provide estimates of 2020 activity.
- Add any additional information (either as part of the worksheet or in written form) that would provide a clear, understandable and complete picture of the activity taking place within the EBF.

Please include in the update a forecast of the 2021 activity.

Original Response:

This response was prepared on the basis of information provided to the Company by RIIB.

Please see an updated version of the RIIB's EBF cash flow statement included here as Attachment PUC 1-55.

Revised Response:

This response represents a revised version of the Company's original response to PUC 1-55 that was submitted on November 10, 2020. (See above for original response.)

This response was prepared on the basis of information provided to the Company by RIIB.

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In this revised response, the Company is providing an updated version of the RIIB EBF cash flow statement as Attachment PUC 1-55 (Revised). Attachment PUC 1-55 (Revised) matches the template used in the Company's responses to Post Decision Data Requests in Docket No. 4979.

As permitted by the question presented above, an additional column titled "Bond Revenue Account" has been added to the Docket No. 4979 template to better reflect the location of recycled funds repaid to the Bank after the first bond issue.

The Company can confirm the annual SBC transfer amounts to the Bank as listed in Attachment 1-55 (Revised) and has general insight into the most recent two loans closed on October 29, 2020 in the amounts of \$3,200,000 and \$24,000,000 as the Company engages in bi-weekly to monthly progress calls with the Office of Energy Resources (OER) and RIIB. Regarding the 2021 Activity Forecast shown in Attachment 1-55 (Revised), the Company cannot confirm the specific dates of the loan closings proposed but has received a list of potential projects from RIIB for years 2021 to 2023 and has weighted the likelihood of those projects and potential savings at Bates 415-417 of Attachment 2 of the 2021 Annual Energy Efficiency Program Plan.

Rhode Island Infrastructure Bank
Efficient Buildings Fund
Cash Flow
Amounts in \$

Date	Description	SBC			SBC Repayments / Recycled Funds Available		Bond Revenue Account (see note 1)	Bond Debt	Bond Anticipation Note Debt	R.G.G.I. funds & R.G.G.I. revolved funds	EBF Loan Balance (Committed Funds)	RIIB Contribution	Total
		SBC	SBC - Legislative Transfer										
12/30/2015	Balance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4/20/2016	RGGI Transfer									\$ 3,000,000.00			\$ 3,000,000.00
7/8/2016	BAN cost of issuance												\$ (145,430.00)
	6 loans closed; with BANS (ultimately 2 SBC,												
	4 bond proceeds)												\$ -
7/8/2016	Transfer from NGrid EE		\$ 1,870,447.00								\$ 17,183,000.00		\$ 1,870,447.00
11/2/2016	RGGI Transfer									\$ 2,000,000.00			\$ 2,000,000.00
12/31/2016	Balance	\$ -	\$ 1,870,447.00	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (17,328,430.00)	\$ 5,000,000.00	\$ 17,183,000.00	\$ -	\$ 6,725,017.00
3/1/2017	Loan interest repayment available - whole year				\$ 14,805.17			\$ 194,448.81		\$ -			\$ 209,253.98
11/1/2017	Loan principal repayment available							\$ 59,570.00			\$ (59,570.00)		\$ -
11/1/2017	Transfer from NGrid EE	\$ 5,000,000.00											\$ 5,000,000.00
12/13/2017	5 loans closed; with BANS (ultimately, 3 RGGI,												\$ -
	1 SBC, 1 bond proceeds)	\$ (2,370,000.00)							\$ (6,016,570.00)	\$ (2,068,000.00)	\$ 10,454,570.00		\$ -
12/28/2017	1 loan closed with SBC	\$ (250,000.00)									\$ 250,000.00		\$ -
12/31/2017	Balance	\$ 2,380,000.00	\$ 1,870,447.00	\$ 14,805.17	\$ 14,805.17	\$ -	\$ -	\$ 254,018.81	\$ (23,345,000.00)	\$ 2,932,000.00	\$ 27,828,000.00	\$ -	\$ 11,934,270.98
3/1/2018	Loan interest repayment available - whole year				\$ 93,005.75			\$ 317,160.56		\$ 3,001.40			\$ 413,167.71
10/1/2018	BAN interest repayment							\$ (172,772.67)					\$ (172,772.67)
10/1/2018	Bond cost of issuance (and rounding)							\$ (380,061.00)					\$ (380,061.00)
10/5/2018	1 loan closed with SBC/N Grid funds	\$ (2,406,378.00)	\$ (93,622.00)								\$ 2,500,000.00		\$ -
10/16/2018	Transfer from NGrid EE	\$ 5,000,000.00											\$ 5,000,000.00
11/1/2018	Loan principal repayment available			\$ 475,000.00				\$ 757,000.00		\$ 20,000.00	\$ (1,252,000.00)		\$ -
11/29/2018	BAN principle repayment and DSRF established	\$ (3,326,530.14)	\$ (1,803,569.86)					\$ (18,859,967.00)	\$ 23,345,000.00	\$ (739,933.00)		\$ (1,215,000.00)	\$ (2,600,000.00)
11/29/2018	1 loan closed with Bond proceeds							\$ (935,000.00)			\$ 935,000.00		\$ -
	Interest on Funds (R.G.G.I. approx)	\$ 39,535.24	\$ 29,673.45	\$ 2,431.32						\$ 35,000.00			\$ 106,640.01
12/31/2018	Balance	\$ 1,686,627.10	\$ 2,928.59	\$ 585,242.24	\$ 585,242.24	\$ -	\$ -	\$ (19,019,621.30)	\$ (23,345,000.00)	\$ 2,250,068.40	\$ 30,011,000.00	\$ (1,215,000.00)	\$ 14,301,245.03
3/1/2019	Loan interest repayment available - whole year							\$ 185,186.63		\$ 39,268.88			\$ 588,079.18
4/1/2019	2018A Bond debt service payment - interest							\$ (282,446.94)					\$ (282,446.94)
10/1/2019	2018A Bond debt service payment - principal and interest							\$ (1,461,725.00)					\$ (416,725.00)
11/1/2019	Transfer from NGrid EE	\$ 5,000,000.00						\$ 1,957,000.00			\$ (2,132,000.00)		\$ 5,000,000.00
11/1/2019	Loan principal repayment available												\$ -
10/8/2019	RGGI Transfer												\$ 1,000,000.00
	Interest on Funds (R.G.G.I. approx)	\$ 38,666.02	\$ 34.24	\$ 2,431.32						\$ 39,517.92			\$ 80,649.50
12/31/2019	Balance	\$ 6,725,293.12	\$ 2,962.83	\$ 587,673.56	\$ 587,673.56	\$ 398,014.69	\$ -	\$ (17,610,997.63)	\$ -	\$ 3,503,855.20	\$ 27,879,000.00	\$ (1,215,000.00)	\$ 20,270,801.77

Date	Description	SBC		SBC - Legislative Transfer		SBC Repayments / Recycled Funds Available		Bond Revenue Account (see note 1)		Bond Debt		Bond Anticipation Note Debt		R.G.G.I funds & R.G.G.I. revolved funds		EBF Loan Balance (Committed Funds)		RIBB Contribution		Total	
3/1/2020	Loan interest repayment available																			\$ 285,334.18	
4/1/2020	2018A Bond debt service payment - interest							\$ 285,334.18												\$ (401,050.00)	
5/12/2020	Loan - Closed							\$ (401,050.00)												\$ -	
6/1/2020	Loan - Closed							\$ (550,986.37)												\$ -	
	Account reconciliation																			\$ -	
	Interest on Funds (approx)							\$ (36,488.84)												\$ 222,262.79	
								\$ 59,754.00												\$ 51,223.55	
6/30/2020	Balance	\$ 6,309,521.42	\$ 2,962.83	\$ 198.35	\$ 342,052.87	\$ (17,412,000.00)	\$ -	\$ 2,102,791.82	\$ 30,298,045.00	\$ (1,215,000.00)	\$ 20,428,572.29										
9/1/2020	Loan principal repayment (not available until after bond debt service payment on 10/1)							\$ 2,423,000.00												\$ -	
9/1/2020	Loan interest repayment (not available until after bond debt service payment on 10/1)							\$ 295,128.97												\$ 295,128.97	
	Interest on Funds (approx)							\$ 87.78												\$ 2,114.24	
9/30/2020	Balance	\$ 6,310,835.93	\$ 2,962.83	\$ 286.13	\$ 3,060,181.84	\$ (17,412,000.00)	\$ -	\$ 2,103,503.77	\$ 27,875,045.00	\$ (1,215,000.00)	\$ 20,725,815.50										
2020 Q4 Activity (Including Expected Activity)																					
10/1/2020	Transfer from NGrid EE																			\$ 5,216,666.00	
10/1/2020	2018A Bond debt service payment - principal and interest							\$ (1,556,050.00)												\$ (401,050.00)	
10/29/2020	Loans closed as part of 2020A bond issue																			\$ -	
10/29/2020	Loans closed as part of 2020A bond issue							\$ (8,240,105.00)												\$ -	
	Interest on Funds (approx)							\$ 1,800.00												\$ -	
12/31/2020	Balance (Estimate, Amounts as of 11/16/20)	\$ 89,196.93	\$ 2,962.83	\$ 286.13	\$ 1,504,131.84	\$ (32,016,895.00)	\$ -	\$ 2,121,503.77	\$ 55,075,045.00	\$ (1,215,000.00)	\$ 25,541,431.50										
2021 Activity Forecast																					
3/1/2021	Loan interest repayment (available after bond debt service)							\$ 421,674.42												\$ 421,674.42	
4/1/2021	2018A Bond debt service payment - interest							\$ (377,950.00)												\$ (377,950.00)	
4/1/2021	2020A Bond debt service payment - interest							\$ (218,880.00)												\$ (218,880.00)	
4/1/2021	Transfer from NGrid EE																			\$ 5,000,000.00	
5/1/2021	Loan closing - Energy efficiency																			\$ -	
	2018A Bond debt service payment - principal and interest																			\$ -	
10/1/2021	2020A Bond debt service payment - principal and interest							\$ (1,587,950.00)												\$ (377,950.00)	
10/1/2021	Loan principal and interest repayment available							\$ (864,200.00)												\$ (259,200.00)	
11/1/2021	Loan closing - Renewable energy							\$ 4,315,674.42												\$ -	
10/1/2021	Loan closing - Energy efficiency																			\$ -	
10/1/2021	Loan closing as part of 2021A Bond (bond size dependent on need and SBC capital available)							\$ (3,000,000.00)												\$ -	
10/1/2021	Interest on Funds																			\$ -	
12/31/2021	Balance (Estimate)	\$ 89,196.93	\$ 2,962.83	\$ 286.13	\$ 192,500.67	\$ (44,076,895.00)	\$ -	\$ 121,503.77	\$ 74,634,370.59	\$ (1,215,000.00)	\$ 29,729,125.92										

Note 1: The Bond Revenue account contains loan repayments after the EBF 2018A bond issue. Revenue funds can be deallocated and made available for new loans annually. First deallocation is expected in 2021; exact amount to be determined.

PUC 1-56

Request:

Please explain how the Program Leverage Ratio of 2.18x is calculated in Table 8 on Bates 414.

Response:

This response was prepared on the basis of information provided to the Company by RIIB.

The Program Leverage Ratio of 2.18x was determined by dividing the expected total EE loans to be issued, as of December 2020 (\$47,777,618), by the expected SBC funds to be received to date (\$21,997,113).

In the month of October 2020, EBF closed \$27.2 million in energy efficiency loans and National Grid transferred \$5,216,666. The EE loan total became \$47,719,048 and the SBC funds received to date totaled \$22,097,113. Therefore, the updated Program Leverage Ratio is 2.16x. The Bank and Company used \$5.1 MM as the transfer in the initial calculation.

PUC 1-57

Request:

Please explain the source of the funds expected to be used to fund the two loans totaling \$27.2 million that are expected to close in November 2020 (described on Bates 414).

Response:

This response was prepared on the basis of information provided to the Company by RIIB.

The two loans closed on 10/29/20 as part of a 2020A EBF bond issue. Loan #1, for \$3.2 million, was funded completely with SBC funds for Warwick's streetlight LED conversion project. Loan #2, for \$24 million, was funded with \$8,240,105 of SBC funds and \$15,759,895 of bond proceeds for East Providence's energy efficiency projects as part of the new construction of a high school.

PUC 1-58

Request:

Please explain the source of funds expected to be used to fund the loans in the Forecasted 2021 Pipeline (described on Bates 416).

Response:

This response was prepared on the basis of information provided to the Company by RIIB.

SBC funds (both recycled and new dollars) will be used for energy efficiency loans. The 2021 energy efficiency pipeline includes energy efficiency work in North Kingstown, which has ongoing energy construction projects with financing needed in May. Additionally, municipalities have passed bonds for public building improvements in the November election including Pawtucket for \$8 million, Cranston for \$5 million and Jamestown for \$1.5 million. Municipalities who have recently obtained borrowing authority have strongly signaled their intent to move forward with proposed projects and use the EBF program to access below market interest rate financing.

RGGI funds will be used to fund renewable energy loans. The renewable energy pipeline includes Cranston, which passed a \$5 million Renewable Energy Improvement Bond in the November election (this number also includes energy efficiency), and Warren, which has engaged RIIB and OER in discussion of solar energy on their wastewater treatment facility.

The November election also saw municipalities pass school construction bonds. The total amount approved by the voters was \$457 million. Using the East Providence new high school construction project as an example and model for municipalities to integrate EBF financing into their capital stack, we expect a significant amount of energy efficiency projects to come from school projects. Due to the complexity of these projects, we expect to see these financed over a three year time horizon which is in line with the East Providence experience.

Limited bond funds may also be used for new loans in the 2021 pipeline.

PUC 1-59

Request:

Please explain why the loans expected to be closed in November 2020 and the Forecasted 2021 Pipeline cannot be funded with proceeds of bonds and/or recycled funds.

Response:

This response was prepared on the basis of information provided to the Company by RIIB.

A portion of the two loans closed on 10/29/2020 were funded with bond funds and recycled funds.

As stated in PUC 1-57, two loans closed on 10/29/20 as part of a 2020A EBF bond issue. Loan #1, for \$3.2 million, was funded with SBC funds for Warwick's streetlight LED conversion project. Loan #2, for \$24 million, was funded with \$8,240,105 of SBC funds and \$15,759,895 of bond proceeds for East Providence's energy efficiency projects as part of the new construction of a high school.

The 2020A bond was issued with a par value of \$13,970,000 and had an issue premium of \$2,063,589.10. The bond proceeds covered \$15,759,895 of the \$24 million loan along with \$273,694.10 of bond-associated delivery date expenses. The 2020A bond used the debt service reserve fund originally created as part of the 2018A bond and so a new debt service reserve fund was not needed, increasing funding effectiveness.

Additionally, while recycled SBC dollars were used, they were not sufficient to accommodate the full amount of the loans. The cash flow spreadsheet that was submitted as part of PUC 1-55 contains additional details of how funds were used.

A major goal of bond issuances is to achieve a AAA credit rating for EBF bonds, which results in the lowest interest rates to our borrowers. At this time, due to the infancy of the program and small amount of projects overall, the EBF program has achieved a AA credit rating. As the program continues to grow and diversify, we would expect a rating upgrade and thus lower interest costs for EBF projects.

To meet the needs of future projects, the Bank is constrained from issuing unlimited new debt due to meeting debt service coverage ratios and other required financing covenants for the Bank's bond holders. To increase the amount of debt the EBF program can issue, more capital

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would need to be contributed, over and above the \$5MM in SBC capital along with recycled funds.

The rating is dependent on 1) the debt service coverage ratio of the bond and 2) the available cash on hand, among other factors. Both factors benefit from SBC capital. Receiving SBC capital enables bond issues and allows the program to grow.

Given the robust pipeline identified for 2021, a 2021 bond issue may be necessary. However, the size of the bond issue will be constrained by the available capital and a 2021 SBC transfer will be imperative to lowering the cost of critical construction projects in Rhode Island.