

STEVEN J. BOYAJIAN

One Financial Plaza, 14th Floor
Providence, RI 02903-2485
Main (401) 709-3300
Fax (401) 709-3399
sboyajian@rc.com
Direct (401) 709-3359

Also admitted in Massachusetts

November 15, 2022

VIA HAND DELIVERY & ELECTRONIC MAIL

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

**RE: Docket No. 22-33-EE - 2023 Annual Energy Efficiency Plan
Responses to PUC Data Request – Set 3**

Dear Ms. Massaro:

On behalf of The Narragansett Electric Company d/b/a Rhode Island Energy (“Rhode Island Energy” or the “Company”), I have enclosed the Company’s responses to the Public Utilities Commission’s Third Set of Data Requests in the above-referenced docket.

Thank you for your attention to this matter. If you have any questions, please contact me at (401) 709-3359.

Sincerely,



Steven J. Boyajian

Enclosure

cc: Docket 22-33-EE Service List

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate were electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.



Heidi J. Seddon

November 15, 2022

Date

Docket No. 22-33-EE – Rhode Island Energy’s Energy Efficiency Plan 2023 Service list updated 10/24/22

Name /Address	E-mail Distribution List	Phone
The Narragansett Electric Company d/b/a Rhode Island Energy Andrew Marcaccio, Esq. 280 Melrose St. Providence, RI 02907	amarcaccio@pplweb.com ; cobrien@pplweb.com ; jhutchinson@pplweb.com ; jscanlon@pplweb.com ; dmmoreira@rienergy.com ; MOCrayne@rienergy.com ; BSFeldman@rienergy.com ; ACLi@rienergy.com ; DJTukey@rienergy.com ; SBriggs@pplweb.com ; BJPelletier@rienergy.com ; JKessler@rienergy.com ; JOliveira@pplweb.com ; mjshafer@pplweb.com ; kgrant@rienergy.com ; sboyajian@rc.com ; LPimentel@rc.com ; HSeddon@rc.com ;	401-784-4263
Leticia C. Pimentel, Esq. Steve Boyajian, Esq. Robinson & Cole LLP One Financial Plaza, 14th Floor Providence, RI 02903	(Continuation of email list from previous row)	(Continuation of phone number from previous row)

National Grid Brooke Skulley, Esq. 40 Sylvan Road Waltham, MA 02451	Brooke.Skulley@nationalgrid.com ;	
Division of Public Utilities and Carriers Margaret L. Hogan, Esq.	Margaret.L.Hogan@dpuc.ri.gov ;	401-780-2120
	Jon.hagopian@dpuc.ri.gov ;	
	john.bell@dpuc.ri.gov ;	
	Joel.munoz@dpuc.ri.gov ;	
	Machaela.Seaton@dpuc.ri.gov ;	
Synapse Energy Economics Tim Woolf Jennifer Kallay 22 Pearl Street Cambridge, MA 02139	twoolf@synapse-energy.com ;	
	jkallay@synapse-energy.com ;	
RI EERMC Marisa Desautel, Esq. Office of Marisa Desautel, LLC 55 Pine St. Providence, RI 02903	marisa@desautelesq.com ;	401-477-0023
	mdewey@desautelesq.com ;	
	Adrian.Caesar@nv5.com ;	
	Craig.Johnson@nv5.com ;	
	Samuel.Ross@nv5.com ;	
Acadia Center Hank Webster, Director & Staff Atty.	HWebster@acadiacenter.org ;	401-276-0600 x402
Office of Energy Resources (OER) Albert Vitali, Esq. Dept. of Administration Division of Legal Services One Capitol Hill, 4 th Floor Providence, RI 02908	Albert.Vitali@doa.ri.gov ;	401-222-8880
	Nancy.Russolino@doa.ri.gov ;	
	Christopher.Kearns@energy.ri.gov ;	
	Anika.Kreckel.CTR@energy.ri.gov ;	
	Steven.Chybowski@energy.ri.gov ;	
	Nathan.Cleveland@energy.ri.gov ;	
Original & 9 copies file w/: Luly E. Massaro, Commission Clerk John Harrington, Commission Counsel Public Utilities Commission 89 Jefferson Blvd. Warwick, RI 02888	Luly.massaro@puc.ri.gov ;	401-780-2107
	John.Harrington@puc.ri.gov ;	
	Alan.nault@puc.ri.gov ;	
	Todd.bianco@puc.ri.gov ;	
	Emma.Rodvien@puc.ri.gov ;	
Interested Party		
Dept. of Human Services Frederick Sneesby	Frederick.sneesby@dhs.ri.gov ;	

RI Infrastructure Bank Chris Vitale, Esq.,	cvitale@hvlawltd.com ;	
	SUatine@riib.org ;	
Green Energy Consumers Alliance Larry Chretien, Executive Director	Larry@massenergy.org ;	

PUC 3-1

Request:

Referencing the Company's response to PUC 1-2, what is the Company's position on whether a customer who receives federal energy efficiency funding should also be able to receive incentives through Rhode Island Energy's ratepayer-funded Energy Efficiency programs?

Response:

Federal energy efficiency funding streams may vary in terms of incentive amount, payment vehicle, measure eligibility criteria, recipient eligibility criteria, application process, among others. Without more specificity about the design characteristics of federal funding, the Company's general position is that a customer who receives federal energy efficiency funding should also be able to receive incentives through Rhode Island Energy's customer-funded energy efficiency programs, when appropriate. Appropriateness may refer to the braiding process, the incentive level, or other characteristics. The Company seeks to strike the right balance of braiding federal (or, more generally, non-customer funding) with customer funding based on market needs, net benefits, administrative logistics, and other considerations. A relevant example is braiding customer-funded energy efficiency measures in the single-family income-eligible program with federal funding for energy efficiency measures through the Weatherization Assistance Program.

PUC 3-2

Request:

In response to PUC 1-4, the Company explained that “the data showed that ... there tended to be more scope changes with the VHEAs.” When a project undergoes scope changes, does the Company incur incremental implementation costs (e.g. STAT or PPA)? Please explain.

Response:

If there is an increase in the overall cost of a project, there would be additional STAT costs. If there is a decrease in the overall cost of a project, there would be a reduction in STAT costs. This is because STAT is a percentage of overall project costs.

PUC 3-3

Request:

Please clarify the following questions regarding the Company's response to PUC 1-5:

- Why is there no budget for Virtual Home Energy Assessments in the 2023 Gas and Electric Plans?
- Are there any fixed costs (e.g. software licenses) associated with offering Virtual Home Energy Assessments? If yes, what are they?
- If there are fixed costs associated with Virtual Home Energy Assessments, where do those costs appear in the proposed Energy Efficiency program budget(s)?

Response:

- In the Company's response to PUC 1-5, there was no specific budget allocated to Virtual Home Energy Assessments ("VHEA"). All Assessments are budgeted together. In 2022, through the third quarter ended September 30, 2022, there have been nine VHEAs out of a total of 6,353 completed assessments. The customer selects whether they prefer a virtual or in-person assessment. Based on the relatively small number of VHEAs in 2022, the Company did not have a separate budget for VHEA.
- There are no fixed costs associated with offering VHEAs as they are offered currently or associated with the Company's plans to continue offering VHEAs in 2023.
- Please see the Company's response to the second part of this data request, above.

PUC 3-4

Request:

Please provide more information regarding the “large heat pump project from deliverable fuel” proposed for the 2023 Electric Income Eligible Multifamily program and referenced in the Company’s response to PUC 1-6. In your response, explain where the project is located, when the Company expects it to be completed, and whether the project is considered part of the newly proposed income-eligible heat pump replacement program.

Response:

The large heat pump project from deliverable fuel proposed for the 2023 Electric income Eligible Multifamily program that is referenced in the Company’s response to PUC 1-6 relates to a project proposed to the Company by a housing authority located in Jamestown, Rhode Island. There is no specific timing for when this project will be completed. The Company has been informed that the housing authority needs to arrange all necessary funding before the project can be completed. In addition to the heating system replacement, the housing authority also is looking to other funding sources for a necessary electrical upgrade because energy efficiency funds could not be applied on the electrical upgrade. The housing authority has requested federal funds to assist with both the electrical upgrade and the heating system. This project is an example of a project that could use the income eligible multifamily heat pump funds. If the funding were approved, the Company would look to work with properties that have near end-of-life equipment that would benefit from replacement with heat pumps. The housing authority project would be within the scope of the income-eligible heat pump measure, but completion would require that the project be ready to proceed in 2023.

PUC 3-5

Request:

In response to PUC 1-8, the Company writes that it “is exploring methods to estimate savings that require less time from customers and vendors. If a method can be established that provides sufficiently accurate savings calculations, the Company believes it will encourage greater participation from EMS vendors and a broader swath of customers.” Please define “sufficiently accurate savings calculations” and explain how the Company measures savings accuracy.

Response:

The Company does not have a specific definition of "sufficiently accurate savings calculations." While the Company always seeks to ensure savings calculations are as accurate as possible, there is inherent variability in measure performance that complicates savings calculations. In general, the Company spends more effort on larger projects and requires more rigorous savings calculations for these projects. This forces the Company to make tradeoffs between maximizing the accuracy of savings calculations and ensuring it does not institute overly burdensome and complex data gathering processes and requirements that discourage customers and vendors from leveraging incentives to help implement energy efficiency improvements, such as energy management systems (“EMS”).

EMS savings calculations for whole buildings are often extremely complex. These systems typically regulate temperature setpoints and schedules for numerous occupancy zones, as well as interacting with heating and cooling equipment, systems for distributing hot and cold air and water throughout the building, ventilation (or outdoor) systems. The calculations are further complicated based on occupancy patterns that change throughout the year, changes to control settings over time, new equipment that is added over time that impact system efficiency or operations, and other factors. Thus, while the systems have the potential to help customers achieve substantial savings, the verified savings in EM&V studies vary (higher or lower) from savings estimates.

The Company measures savings accuracy based on the percentage of estimated savings actually achieved by a project based on post-installation verification.

PUC 3-6

Request:

In response to PUC 1-8, the Company writes that it “has received anecdotal evidence of frustration from customers and contractors seeking program incentives that ... in some cases, the data collection process proves to be burdensome because it... is inconsistent depending upon among different projects, customers, Company engineering staff, and technical assistance vendors.” Regarding this sentence, please explain the following:

- If the Company has received anecdotal evidence that data collection is inconsistent across Company engineering staff, what specific measures has the Company undertaken to improve consistency among staff?
- If the Company has received anecdotal evidence that data collection is inconsistent across technical assistance vendors, what specific measures has the Company undertaken to improve consistency among vendors?
- If the Company has received anecdotal evidence that data collection is inconsistent across projects, what specific measures has the Company undertaken to improve consistency among projects?

Response:

- Regarding the anecdotal evidence the Company has received that data collection is inconsistent across Company engineering staff, the Company has undertaken the following specific measures to improve consistency among staff:
 - Standardized savings calculators for repeatable measures.
 - Standardized engineering requirements.
 - Standardized data collection processes.
 - Reviews of complex savings analyses or technical studies by additional engineers.
 - Periodic training on new processes and tools as well as refresher training on existing processes and tools to ensure both internal and external staff understand and adhere to these processes.
- Regarding the anecdotal evidence the Company has received that data collection is inconsistent across technical assistance vendors, please see the Company's response to the first bullet, above. In addition, the Company has undertaken discussions of savings calculation methodologies with external vendors before the analysis is developed.

The Company's C&I Energy Efficiency Program supports a very wide range of project types. The Company has taken many specific actions over time to improve consistency among internal staff and external vendors across this range of projects, especially for more complex custom projects, as described above.

PUC 3-7

Request:

In response to PUC 1-9, the Company writes “in 2023, deliverable fuel customers, which are funded by electric ratepayers, will receive a lower incentive. This change resulted in the cents/lifetime kWh decreasing in 2023.” Please explain the following:

- Please identify all delivered fuel measures across the whole Electric portfolio for which the Company is proposing to lower incentive levels in 2023 relative to 2022. For each measure, show the decrease in incentive level.
- Why did the Company decide to decrease incentive levels for delivered fuel measures?

Response:

The only delivered fuel measure that has a proposed lower incentive in 2023 compared to 2022 is the Wx – Oil measure in EnergyWise. The decrease in incentive is shown below.

2022 Measure	2023 Measure	Program	2022 Incentive	2023 Incentive	Incentive Difference
Wx - OIL	Wx - OIL	A03b Energywise	\$3,319.15	\$2,945.00	-\$374.15

The Company decreased incentive levels for EnergyWise delivered fuel weatherization to reduce program costs. The lower incentive for delivered fuel customers also acknowledges the fact that fewer kWh savings result from delivered fuel weatherization projects.

PUC 3-8

Request:

In response to PUC 1-16, the Company explained that it budgeted \$1.8 million for electric EM&V studies in the 2022 program year, but only expects to spend \$1.1 million during the 2022 program year. The Company explained that it is increasing its budget for electric EM&V studies in the 2023 program year to \$2.1 million primarily in response to 2022 studies being delayed. How confident is the Company that the proposed 2023 electric EM&V studies won't be delayed, leading to another year where actual EM&V spend is lower than planned?

Response:

Since submitting its response to PUC 1-16, the Company has communicated with its lead EM&V contractors, the EERMC consultant evaluation team, as well as the manager of evaluation for National Grid in Massachusetts. In these communications, the Company has raised the delays in the timely completion of planned evaluation studies and that those delays have jeopardized the Company's budget request and its ability to conduct future important evaluation work in Rhode Island. The Company has impressed upon these partners that measures should be taken to avoid delays in the future. Chief among process improvements that have been discussed is shortening the turnaround times in response to questions or data requests as well as shorter review times. The Company expects to revisit schedules with evaluation contractors to set and adhere to start dates. Based on these discussions, the Company is confident that the electric EM&V studies planned for 2023 will not be delayed.

In responding to this data request, the Company has updated its forecast of year-end electric evaluation spending. The updated forecast includes expenses paid through October (whereas the prior response used year-to-date expenses through September and an estimate for October). The updated forecast of spending for electric portfolio evaluation is \$1.365 million, or 75% of budget. The large increase from the prior estimate is due to billing for the number of C&I studies that were completed in August and September in time for their results to be included in 2023 planning.

PUC 3-9

Request:

In response to PUC 1-17, the Company explained that it budgeted \$588,000 for gas EM&V studies in the 2022 program year, but only expects to spend \$500,000 during the 2022 program year. The Company explained that it is increasing its budget for gas EM&V studies in the 2023 program year to \$768,000 primarily in response to 2022 studies being delayed. How confident is the Company that the proposed 2023 gas EM&V studies won't be delayed, leading to another year where actual EM&V spend is lower than planned?

Response:

Since submitting the response to PUC 1-17, the Company has communicated with its lead EM&V contractors, the EERMC consultant evaluation team, as well as the manager of evaluation for National Grid in Massachusetts. In these communications, the Company has raised the delays in the timely completion of planned evaluation studies and that those delays have jeopardized the Company's budget request and its ability to conduct future important evaluation work in Rhode Island. The Company has impressed upon these partners that measures should be taken to avoid delays in the future. Chief among process improvements that have been discussed is shortening turnaround times in response to questions or data requests as well as shorter review times. We expect to revisit schedules with evaluation contractors to set and adhere to start dates. Based on these discussions, the Company feels confident that the gas EM&V studies planned for 2023 will not be delayed.

In responding to this information request, the Company has updated its forecast of year-end gas evaluation spending. The updated forecast includes expenses paid through October (whereas the prior response used YTD expenses through September and an estimate for October). The updated forecast of spending for gas portfolio evaluation is \$464,000, or 79% of budget. The slight decrease from the prior estimate is due to actual October spending being less than forecast.

PUC 3-10

Request:

In response to PUC 1-24, the Company wrote “the Contractor [for the Economic Impact Study] will provide a draft report for Rhode Island Energy and external stakeholders to provide feedback.” Please explain which stakeholders will be involved in providing feedback on the draft report and the process through which they will do so.

Response:

The draft report will be distributed via email to the members of the Energy Efficiency Technical Working Group (“EE TWG”) and the Energy Efficiency and Resource Management Council (“EERMC”), and feedback will be solicited at the time of distribution. Additionally, the draft report may be discussed at the EE TWG and EERMC meetings held between delivery of the draft and final reports, providing an opportunity for external stakeholders to provide feedback in these forums.

PUC 3-11

Request:

In response to PUC 1-26, the Company wrote “the current program design is in response to how the Company is interpreting Commission feedback that energy efficiency should concentrate on returning electric and gas savings to customers.” Please explain what the Company means by this sentence, recognizing that it is proposing to increase oil and propane savings in the 2023 Plan relative to the 2022 Plan.

Response:

The focus in planning for the EnergyWise single family program was to increase electric and gas savings. For the 2023 program year, the cost per kWh for EnergyWise declined while the lifetime MWh increased. This outcome is what the Company was focused on producing with the EnergyWise electric planning. The oil and propane benefits also increased as a secondary benefit. To control costs, the program reduced incentives to deliverable fuel customers, which allowed more customers to be served and increased the overall oil and propane benefits.

The EnergyWise gas program is planning for increased lifetime MMBTU savings in 2023, but those came at a higher cost because of inflation. The gas program does not have any deliverable fuel incentives to reduce to offset overall costs.

PUC 3-12

Request:

In response to PUC 1-32, the Company explained how it identifies residential electric resistance heating customers. How many residential electric resistance heating customers is the Company aware of? For each of those customers, has the Company initiated communications regarding replacement of their resistance heating systems with heat pumps?

Response:

In its response to PUC 1-32, the Company mentions Energy Specialists identifying electric resistance heating customers during home energy assessments. Since 2017, there have been 3,132 customers identified in the EnergyWise single family program and 967 customers identified during home energy assessments at single family income eligible residences.

In 2021, all electric customers with email accounts received this link to an educational video (https://video.opower.com/ngri/index.html?url=https://video.opower.com/ngri/ngri_personalized.mp4) about the benefits of heat pumps for efficient heating and cooling. Customers also receive seasonal messages about energy efficiency opportunities for heating and cooling. A sample of information that was included on the home energy reports is shown below. The Company does not track the number of times that a customer receives targeted communications.

Save with rebates on a new cold-climate heat pump



Got a heating and/or cooling system that's starting to get old? It might be time to upgrade to the all-in-one convenience of a cold-climate heat pump. No matter the season, heat pump technology helps you stay cool in the summer and warm in the winter. Plus, we offer a variety of generous rebates, so you'll save even more when you upgrade.

[Find heat pump rebates](#)

PUC 3-13

Request:

Regarding the Company's response to PUC 1-34, please explain the following:

- The Company writes "three systems that failed were installed by contractors that are not qualified to offer enhanced rebates." What happened to the contractors as result of this inspection failure? What happened to the customers whose systems failed inspection (e.g. was the enhanced rebate clawed back)?
- The Company writes "two other systems replaced natural gas heat, which disqualified them from being eligible for an enhanced rebate." What happened to the contractors who installed these systems as result of this inspection failure? What happened to the customers whose systems failed inspection (e.g. was the enhanced rebate clawed back)?

Response:

- These were administrative inspections. The contractors were notified that enhanced incentives are not available until the heat pump training has been completed. Customers can receive the standard incentive for their installation. No incentives needed to be returned to the program because the inspection happened before the enhanced incentives were paid to the customers.
- Contractors who installed heat pumps for gas heat customers were reminded that those systems are not eligible for enhanced incentives. Customers received the standard cooling incentive for their equipment. No rebates needed to be clawed back because the inspection happened before the customers were paid an enhanced incentive.

The Narragansett Electric Company
d/b/a Rhode Island Energy
RIPUC Docket No. 22-33-EE
In Re: 2023 Annual Energy Efficiency Plan
Responses to the Commission’s Third Set of Data Requests
Issued on November 4, 2022

PUC 3-14

Request:

Please provide a table similar to the response table in PUC 1-73, with the following changes:

- Capture total lifetime energy savings (MMBtu), not just lifetime gas savings (MMBtu)
- Instead of just showing the 2023 program year, show the percentage breakdown for program years 2015 – 2023

Response:

Please see below for tables presented in reverse chronological order.

2023 Electric Plan				
Measure Life	Planned Total Net Lifetime MWh Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime MWh	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	27,390	4.0%	93,453	2.9%
2 to 5 years	40,881	6.0%	139,486	4.3%
6 to 10 years	272,881	39.8%	872,453	27.2%
Greater than 10 years	344,119	50.2%	2,106,317	65.6%
Total	685,270		3,211,710	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric, Oil, Gas, and Propane.

2022 Electric Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime MWh Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime MWh	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	29,694	3.6%	101,316	3.1%
2 to 5 years	27,039	3.2%	89,975	2.7%
6 to 10 years	343,798	41.2%	906,737	27.4%
Greater than 10 years	433,277	52.0%	2,210,073	66.8%
Total	833,808		3,308,102	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric, Oil, Gas, and Propane.

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2021 Electric Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime MWh Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime MWh	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	26,852	2.1%	91,619	2.1%
2 to 5 years	65,260	5.1%	168,898	4.0%
6 to 10 years	69,525	5.4%	268,658	6.3%
Greater than 10 years	1,128,824	87.5%	3,744,096	87.6%
Total	1,290,462		4,273,272	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric, Oil, Gas, and Propane.

2020 Electric Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime MWh Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime MWh	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	23,239	1.5%	79,292	1.5%
2 to 5 years	242,867	16.1%	435,797	8.5%
6 to 10 years	176,751	11.7%	575,307	11.2%
Greater than 10 years	1,064,467	70.6%	4,032,972	78.7%
Total	1,507,325		5,123,368	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric, Oil, Gas, and Propane.

2019 Electric Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime MWh Savings		Planned Total Net Lifetime MMBtu Savings^{1,2}	
	Total Net Lifetime MWh	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	24,130	1.4%	82,331	1.3%
2 to 5 years	225,020	13.3%	537,391	8.8%
6 to 10 years	291,770	17.2%	829,332	13.6%
Greater than 10 years	1,153,274	68.1%	4,665,471	76.3%
Total	1,694,194		6,114,524	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric, Oil, Gas, and Propane.

(2) In Table E-6 of the 2019 Electric Plan, Oil savings were only reported in instances where net Oil savings were positive at the program level, which is reflected in the total MMBtu value shown above.

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2018 Electric Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime MWh Savings		Planned Total Net Lifetime MMBtu Savings^{1,2}	
	Total Net Lifetime MWh	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	25,054	1.4%	85,483	1.4%
2 to 5 years	222,408	12.8%	554,857	9.0%
6 to 10 years	450,052	25.9%	1,449,567	23.5%
Greater than 10 years	1,037,959	59.8%	4,072,298	66.1%
Total	1,735,472		6,162,205	

- (1) Total Net Lifetime MMBtu Savings values include energy savings from Electric, Oil, Gas, and Propane.
(2) In Table E-6 of the 2018 Electric Plan, Oil savings were only reported in instances where net Oil savings were positive at the program level, which is reflected in the total MMBtu value shown above.

2017 Electric Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime MWh Savings		Planned Total Net Lifetime MMBtu Savings^{1,2}	
	Total Net Lifetime MWh	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	26,184	1.3%	89,340	1.5%
2 to 5 years	14,415	0.7%	49,184	0.8%
6 to 10 years	775,522	37.5%	2,265,616	36.9%
Greater than 10 years	1,249,581	60.5%	3,736,785	60.9%
Total	2,065,702		6,140,924	

- (1) Total Net Lifetime MMBtu Savings values include energy savings from Electric, Oil, Gas, and Propane.
(2) In Table E-6 of the 2017 Electric Plan, Oil savings were only reported in instances where net Oil savings were positive at the program level, which is reflected in the total MMBtu value shown above.

2016 Electric Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime MWh Savings		Planned Total Net Lifetime MMBtu Savings^{1,2}	
	Total Net Lifetime MWh	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	32,186	1.8%	109,818	2.0%
2 to 5 years	89,984	5.0%	307,024	5.7%
6 to 10 years	818,299	45.7%	2,491,128	46.1%
Greater than 10 years	851,962	47.5%	2,499,038	46.2%
Total	1,792,431		5,407,008	

- (1) Total Net Lifetime MMBtu Savings values include energy savings from Electric, Oil, Gas, and Propane.
(2) Table E-6 of the 2015 Electric Plan only reported MWh savings, but the Company has included Oil, Propane, and Gas savings as found in the BCR model.

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2015 Electric Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime MWh Savings		Planned Total Net Lifetime MMBtu Savings^{1,2}	
	Total Net Lifetime MWh	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	25,634	1.3%	87,464	1.3%
2 to 5 years	25,743	1.3%	87,836	1.3%
6 to 10 years	345,816	17.6%	1,045,553	15.1%
Greater than 10 years	1,569,269	79.8%	5,691,240	82.3%
Total	1,966,462		6,912,093	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric, Oil, Gas, and Propane.

(2) Table E-6 of the 2015 Electric Plan only reported MWh savings, but the Company has included Oil, Propane, and Gas savings as found in the BCR model.

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PUC 3-15

Request:

Please provide a table similar to the response table in PUC 1-74, with the following changes:

- Capture total lifetime energy savings (MMBtu), not just lifetime gas savings (MMBtu)
- Instead of just showing the 2023 program year, show the percentage breakdown for program years 2015 – 2023

Response:

Please see below for the tables presented in inverse chronological order.

2023 Gas Plan				
Measure Life	Planned Total Net Lifetime Gas MMBtu Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime Gas MMBtu	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	91,640	2.6%	91,640	2.6%
2 to 5 years	144,826	4.1%	144,826	4.1%
6 to 10 years	104,946	3.0%	104,900	2.9%
Greater than 10 years	3,196,422	90.3%	3,225,309	90.4%
Total	3,537,835		3,566,676	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric and Gas, as there are no associated Propane or Oil savings.

2022 Gas Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime Gas MMBtu Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime Gas MMBtu	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	93,548	2.3%	93,548	2.3%
2 to 5 years	56,542	1.4%	56,542	1.4%
6 to 10 years	994,110	24.5%	994,013	24.4%
Greater than 10 years	2,915,702	71.8%	2,930,738	71.9%
Total	4,059,902		4,074,841	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric and Gas, as there are no associated Propane or Oil savings.

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2021 Gas Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime Gas MMBtu Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime Gas MMBtu	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	93,548	2.3%	93,548	2.3%
2 to 5 years	50,758	1.2%	50,758	1.2%
6 to 10 years	1,281,470	31.5%	1,281,333	31.3%
Greater than 10 years	2,646,308	65.0%	2,662,948	65.1%
Total	4,072,084		4,088,586	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric and Gas, as there are no associated Propane or Oil savings.

2020 Gas Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime Gas MMBtu Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime Gas MMBtu	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	115,426	2.4%	115,426	2.4%
2 to 5 years	27,700	0.6%	27,700	0.6%
6 to 10 years	550,927	11.4%	550,804	11.4%
Greater than 10 years	4,122,209	85.6%	4,142,018	85.7%
Total	4,816,261		4,835,947	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric and Gas, as there are no associated Propane or Oil savings.

2019 Gas Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime Gas MMBtu Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime Gas MMBtu	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	115,520	2.6%	115,520	2.6%
2 to 5 years	14,824	0.3%	14,824	0.3%
6 to 10 years	1,407,011	31.8%	1,407,011	31.7%
Greater than 10 years	2,889,290	65.3%	2,894,697	65.3%
Total	4,426,644		4,432,051	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric and Gas, as there are no associated Propane or Oil savings.

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2018 Gas Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime Gas MMBtu Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime Gas MMBtu	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	77,220	1.6%	77,220	1.6%
2 to 5 years	11,562	0.2%	11,562	0.2%
6 to 10 years	1,852,225	38.9%	1,852,225	38.8%
Greater than 10 years	2,815,045	59.2%	2,830,542	59.3%
Total	4,756,052		4,771,550	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric and Gas, as there are no associated Propane or Oil savings.

2017 Gas Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime Gas MMBtu Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime Gas MMBtu	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	59,164	1.2%	59,164	1.2%
2 to 5 years	10,299	0.2%	10,299	0.2%
6 to 10 years	1,774,015	35.9%	1,774,015	35.8%
Greater than 10 years	3,102,086	62.7%	3,116,707	62.8%
Total	4,945,564		4,960,185	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric and Gas, as there are no associated Propane or Oil savings.

2016 Gas Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime Gas MMBtu Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime Gas MMBtu	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	53,989	1.1%	53,989	1.1%
2 to 5 years	33,560	0.7%	33,560	0.7%
6 to 10 years	944,543	19.1%	944,543	19.1%
Greater than 10 years	3,903,482	79.1%	3,917,910	79.1%
Total	4,935,572		4,950,001	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric and Gas, as there are no associated Propane or Oil savings.

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2015 Gas Plan - Compliance Filing				
Measure Life	Planned Total Net Lifetime Gas MMBtu Savings		Planned Total Net Lifetime MMBtu Savings¹	
	Total Net Lifetime Gas MMBtu	% of Portfolio	Total Net Lifetime MMBtu	% of Portfolio
1 year	50,806	1.0%	50,806	1.0%
2 to 5 years	58,031	1.2%	58,031	1.2%
6 to 10 years	825,032	16.9%	825,032	16.8%
Greater than 10 years	3,953,024	80.9%	3,964,395	80.9%
Total	4,886,893		4,898,264	

(1) Total Net Lifetime MMBtu Savings values include energy savings from Electric and Gas, as there are no associated Propane or Oil savings.

PUC 3-16

Request:

Table 2 on Bates page 143 indicates the Company plans on offering 4,200 “WiFi Tstat-cool and heat oil/propane” measures through the 2023 Energy Star HVAC program. The same table on Bates page 199 of the 2022 Electric Plan does not appear to contain that measure. Please explain the following:

- Is this a new measure? If so, what led the Company to offer it in the 2023 Plan?
- What are the savings from this measure?
- Why is the measure offered through the Energy Star HVAC program and not the EnergyWise program, through which other wifi thermostats are offered?

Response:

- This is not a new measure. In 2022, the comparable measure was named WiFi Tstat-cool only, Elec.
- Total net savings for this measure are shown below.

Program	Measure	Total Net Lifetime MWh	Total Net Annual Summer kW	Total Net Lifetime Oil MMBtu
Energy Star® HVAC	Wi-Fi Tstat-cool and heat oil/propane	4,820	509	208,815

- This measure is a prescriptive, downstream incentive for customers interested in purchasing a Wi-Fi thermostat and installing the device by themselves or hiring an electrician/contractor for the installation. The EnergyWise measure includes installation by the program. The Energy Star HVAC program is better suited for processing a large volume of prescriptive measures because there is a rebate processing vendor supporting the program.

PUC 3-17

Request:

Table 2 on Bates page 143 indicates the Company plans on completing 167 “Wx Other” measures through the 2023 EnergyWise program. The same table on Bates page 197 of the 2022 Electric Plan does not appear to contain that measure. Please explain the following:

- Is this a new measure? If so, what led the Company to offer it in the 2023 Plan?
- What are the savings from this measure?

Response:

- “Wx Other” is not a new measure being offered in Rhode Island; rather, it is a new measure line item in the 2023 Electric Plan. In the 2022 Plan, the Company planned for propane customers under the Wx-oil measure for cost purposes. Actual reporting is separated into oil and propane weatherization lines.

Wx Other was added in 2023 to provide additional clarity in the planning process.

- The savings from this measure in the 2023 Plan is shown in Table 1 below.

Table 1

Program	Measure	Quantity	Measure Life	Total Net Lifetime MWh	Total Net Annual Summer kW	Total Net Lifetime Propane MMBtu
EnergyWise	Wx Other	167	20	166.7	4.64	33,346.6

PUC 3-18

Request:

Please provide a table that lists each measure in the gas and electric programs from which the Company proposes to value greenhouse gas emissions reductions at the Marginal Abatement Cost. For each measure, provide the following information:

- Measure life
- Program through which the measure is delivered
- Planned number of installations in 2020
- Planned lifetime savings in 2020
- Planned number of installations in 2021
- Planned lifetime savings in 2021
- Planned number of installations in 2022
- Planned lifetime savings in 2022
- Planned number of installations in 2023
- Planned lifetime savings in 2023

Response:

Please see Attachment PUC 3-18 for the requested table. Because of the effort to refine and expand electric and gas measure lists, there are instances where a direct throughline from 2020 to 2023 cannot be made. Instances of this are noted in the attachment.

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Instances with an "N/A" signify that there is no measure to map to in prior EE plans.

Plan	Program	2020 Through 2022 Measure Name & Detail			2023 Planned Measures with GHG Emissions Reductions Valued at the Marginal Abatement Cost	Measure Life	Planned Quantity*				Planned Net Lifetime Savings (MMBtu)			
		2020	2021	2022			2023	2020	2021	2022	2023	2020	2021	2022
Electric	Income Eligible Multifamily	N/A			CUSTOM CHP	20	N/A	N/A	N/A	1	N/A	N/A	N/A	2,359
Electric	Income Eligible Single Family				Heating System Retrofit, Furnace, Other	19				8				1,216
Electric	Income Eligible Single Family	HEATSYSTEM			Heating System Retrofit, Boiler, Oil	7	396	407	430	200	57,267	58,858	62,175	11,991
Electric	Income Eligible Single Family				Heating System Retrofit, Boiler, Other	7				3				168
Electric	Income Eligible Single Family				Heating System Retrofit, Furnace, Oil	7				25				1,400
Electric	Income Eligible Single Family	AMPDHWOIL			DHWOIL	7	10	19	72	20	63	118	451	126
Gas	Energy Star HVAC	Boiler95			95% AFUE or greater forced-water boiler	18	275	358	460	375	58,201	75,662	67,599	55,108
Gas	Energy Star HVAC	COMBO CONDENSING 95			COMBO CONDENSING 95	23	1,100	1,430	1,350	1,300	189,094	274,743	204,877	266,920
Gas	Energy Star HVAC	ENERGY STAR COND WATER HEATER 0.80 UEF			Cond Water Heater UEF 0.80	15	5	5	5	5	525	525	406	406
Gas	Energy Star HVAC	Combination of 0.64 UEF and 0.68 UEF ENERGY STAR STORAGE WATER HEATER			ENERGY STAR STORAGE WATER HEATER	9	95	99	95	45	2,550	2,805	1,654	784
Gas	Energy Star HVAC	ENERGY STAR ON DEMAND WATER HEATER 0.87 UEF			ENERGY STAR ON DEMAND WATER HEATER	19	100	320	300	25	13,454	43,052	30,883	2,574
Gas	Energy Star HVAC	Furnace95ECM			Furnace (forced hot air) w/ ECM >=95%AFUE	17	325	390	340	375	34,012	44,104	21,169	33,076
Gas	Energy Star HVAC	Furnace97ECM			Furnace 97% AFUE with ECM	17	50	70	120	80	5,943	8,342	8,350	7,886
Gas	Energy Star HVAC	N/A			Furnace Combi AFUE97	17	N/A	N/A	N/A	10	N/A	N/A	N/A	3,522
Gas	Energy Star HVAC	Water Heater, Indirect, Gas			WATER HEATER - INDIRECT	20	200	150	187	170	10,880	8,160	11,579	10,526
Gas	EnergyWise Multifamily	N/A			HEATING - Custom	15	N/A	N/A	N/A	3	N/A	N/A	N/A	11,111
Gas	Income Eligible Single Family	HEATSYSTEM			Boiler	23	242	240	280	225	38,236	37,920	44,240	40,883
Gas	Income Eligible Single Family				FURNACE	17				32				4,298
Gas	C&I Multifamily	N/A			HEATING - Custom	15	N/A	N/A	N/A	11	N/A	N/A	N/A	49,358
Gas	C&I Small Business Direct Install				Condensing Boiler - All	15				5				56
Gas	C&I Small Business Direct Install				Condensing Boiler - Seasonal	15				5				56
Gas	C&I Small Business Direct Install				Condensing Boiler - Year Round	15				5				56
Gas	C&I Small Business Direct Install				CUSTOM - OTHER	15				3,000				33,727
Gas	C&I Small Business Direct Install				DHW	12				400				3,598
Gas	C&I Small Business Direct Install				HVAC Equipment	15				964				10,838
Gas	C&I Small Business Direct Install				Non-Condensing Boiler - All	15	2,559	5,411	6,770	5	17,662	48,861	91,700	56
Gas	C&I Small Business Direct Install				Non-Condensing Boiler - Seasonal	15				5				56
Gas	C&I Small Business Direct Install				Non-Condensing Boiler - Year Round	15				5				56
Gas	C&I Small Business Direct Install				OTHER	15				89				1,001
Gas	C&I Small Business Direct Install				Other Gas - Seasonal	12				89				800
Gas	C&I Small Business Direct Install				Other Gas - Year Round	13				89				1,334
Gas	C&I Small Business Direct Install				Verified Savings Project	13				89				867
Gas	Large C&I Retrofit				CUSTOM - OTHER	15				5,033				68,175
Gas	Large C&I Retrofit				HVAC Equipment	15				8,235				111,548
Gas	Large C&I Retrofit				OTHER	15	72,200	92,200	86,800	4,360	692,886	675,712	738,603	59,059
Gas	Large C&I Retrofit				Verified Savings Project	13				3,050				35,806
Gas	Large Commercial New Construction				Gas Cooling	15				5,106				36,616
Gas	Large Commercial New Construction				HEATING CUSTOM STEAM BOILER	20				591				5,651
Gas	Large Commercial New Construction				OTHER	15	23,375	20,143	51,059	5,106	361,611	166,078	408,913	36,616
Gas	Large Commercial New Construction				Other Gas - Seasonal	12				5,106				29,293
Gas	Large Commercial New Construction				Other Gas - Year Round	13				5,106				31,734
Gas	Large Commercial New Construction				COMBO COND BOLL/WTR HTR 95+	20	1,800	1,551	1,500	591	31,860	17,870	17,280	6,808
Gas	Large Commercial New Construction				Boiler95: 95% AFUE < 300 MBU	20				591				6,808
Gas	Large Commercial New Construction				Boiler96	20				591				6,808
Gas	Large Commercial New Construction				Condensing boiler <= 300 mbh	20				591				6,808
Gas	Large Commercial New Construction				Condensing boiler 1000-1700 mbh	20	6,100	6,100	4,964	591	134,963	70,272	57,180	6,808
Gas	Large Commercial New Construction				Condensing boiler 1701+ mbh	20				591				6,808
Gas	Large Commercial New Construction				Condensing boiler 300-499 mbh	20				591				6,808
Gas	Large Commercial New Construction				Condensing boiler 500-999 mbh	20				591				6,808
Gas	Large Commercial New Construction				Non Boiler Heating	17	300	239	918	5,106	4,699	2,336	9,522	49,998
Gas	Large Commercial New Construction				COND WATER HEATER 90%AMIN 75-800	15	N/A	N/A	N/A	1,661	N/A	N/A	N/A	7,225
Gas	Large Commercial New Construction				WATER HEATER - INDIRECT	15	1,083	1,083	228	291	4,874	4,711	1,231	1,571
Gas	Large Commercial New Construction				WATER HEATER - ON-DEMAND 90	20	N/A	N/A	N/A	1,478	N/A	N/A	N/A	13,006
Gas	Large Commercial New Construction				Water Heating Boiler - 94% TE	15	8,070	6,954	7,416	10,667	71,417	60,500	48,947	70,402
Gas	Large Commercial New Construction				ERV - Rotary Wheel UPSTR	20	N/A	N/A	N/A	2,000	N/A	N/A	N/A	32,000
Gas	Large Commercial New Construction				ERV - Fixed Plate UPSTR	20	N/A	N/A	N/A	2,000	N/A	N/A	N/A	32,000
Gas	Income Eligible Multifamily	CUST NON-LGT LI			CUST NON-LGT LI	15	110	9	113	45	97,281	7,959	99,934	39,797
Gas	Income Eligible Multifamily	N/A			HEATING - Custom LI	15	N/A	N/A	N/A	12	N/A	N/A	N/A	97,470
Gas	Residential New Construction	CP			Heating (CP)	25	10	10	15	10	2,216	2,216	3,424	2,218
Gas	Residential New Construction	Tier 1			Heating Tier 1	25	55	40	46	20	12,301	8,946	7,775	3,356
Gas	Residential New Construction	Tier 2			Heating Tier 2	25	85	100	98	95	23,988	28,222	20,711	20,110
Gas	Residential New Construction	Tier 3			Heating Tier 3	25	30	30	15	2	11,336	11,336	4,379	567
Gas	Residential New Construction	Adaptive Reuse			MFHR HEATING	25	100	100	83	50	3,424	3,424	2,842	2,850
Gas	Residential New Construction	RR CP-DHW			RR DHWCP GAS	15	5	5	9	5	43	43	74	40
Gas	Residential New Construction	RR Tier 1 - DHW			RR DHWTIER1 GAS	15	20	10	10	10	177	88	81	81
Gas	Residential New Construction	RR Tier 2 - DHW			RR DHWTIER2 GAS	15	10	20	10	25	133	266	123	306
Gas	Residential New Construction	RR Tier 3 - DHW			RR DHWTIER3 GAS	15	5	5	2	5	89	89	34	82
Gas	Residential New Construction	RR CP			RR HEATINGCP GAS	25	5	5	9	5	870	870	1,483	800
Gas	Residential New Construction	RR Tier 1			RR HEATINGTIER1 GAS	25	20	10	10	10	2,995	1,497	1,377	1,377
Gas	Residential New Construction	RR Tier 2			RR HEATINGTIER2 GAS	25	10	20	10	25	2,773	5,545	2,551	6,377
Gas	Residential New Construction	RR Tier 3			RR HEATINGTIER3 GAS	25	5	5	2	1	1,856	1,856	704	342
Gas	Residential New Construction	CP-DHW			Water Heating (CP)	15	10	10	15	10	194	194	300	194
Gas	Residential New Construction	Tier 1 - DHW			Water Heating Tier 1	15	55	40	46	20	627	456	396	171
Gas	Residential New Construction	Tier 2 - DHW			Water Heating Tier 2	15	85	100	98	95	1,358	1,597	1,172	1,138
Gas	Residential New Construction	Tier 3 - DHW			Water Heating Tier 3	15	30	30	15	2	642	642	248	32

*With the exception of C&I Multifamily, all Gas C&I measure quantities (in rows 29 through 66) are planned in terms of gross annual MMBtu of savings

PUC 3-19

Request:

In response to PUC 1-61, the Company described two gas measures (Custom: General and Controls) that it plans on expanding into multiple constituent measures in the 2023 Plan. For each measure, please describe why the Company decided to break down the measures into constituent measures and how it decided the appropriate number of constituent measures.

Response:

The decision to separate broader measure categories into constituent parts is part of a broader effort that was performed for all programs in the 2023 electric and gas plans to characterize available measures for effective planning and reporting.

The purpose of the Company’s decision to break down measures into their constituent measures, when applicable, is to (1) streamline year-end reporting and (2) take a more granular approach to planning for PIM-eligible benefits. Below is a more detailed explanation.

1. Year-end reporting involves the unification of several reports to translate achieved quantities and savings into realized benefits. Each measure within these reports is associated with a specific set of “impact groups.”¹ In BCR models from prior years, including 2022, measures listed in the BCR models did not match with these impact groups on a one-to-one basis. As a result, aligning benefits from planned measures with achieved measures/quantities was a manual reconciling effort. This alignment is necessary to ensure consistency between planned measures found in the BCR model and actual quantities/savings reported under impact groups. The Company decided that defining measures in the BCR models based on the impact groups found in program reports enables more efficient interpretation of data and better alignment with the benefits calculation methodology enclosed in the Plan.
2. Translating actual savings into benefits has implications for the PIM, and benefits calculations associated with the database do not consider eligibility and scaling nuances (e.g., 100% applicability for gas utility system benefits versus 50% applicability for resource benefits). A direct translation of savings from database query output into the BCR model benefits calculations enables an accurate calculation of PIM-eligible net

¹ “Impact groups” can be described as categorical labels attributed to specific measure line items that are equivalent in nature. For example, a measure line item such as “LOW FLOW FLIP AERATOR 2.5 GPM” entered by a vendor would be considered part of the “AeratorsGas” impact group along with “LOW FLOW FAUCET AERATOR 1.5 GP.” Alternatively, measure line items like “Unfaced fiberglass batt R-13” or “Polyvaport barrier” would fall under the “INSULATION” impact group.

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benefits used in determining the performance incentive payout (less service quality adjustments). The same logic applies to planning the performance incentive payout during the planning cycle where added granularity in planned measures provides a more precise profile of PIM-eligible benefits.

For all measures in the 2023 Plan, including Custom: General and Controls, the Company determined the appropriate number of measures by applying to following approach. First, all relevant impact groups were identified and extracted from the database. Then, measures from the 2022 BCR models were mapped to impact groups. In some cases, this resulted in a single measure code from the 2022 BCR model being divided into several measure codes in the 2023 model. In other cases, a one-to-one relationship remained. This mapping was informed primarily by consultation with program staff with knowledge of the planned measures, combined with deductions based on name, fuel type, "custom" or "prescriptive" labels , and prior-year versions of the BCR models to understand how new measures (based on impact group) were "aggregated" in those models (e.g., "Custom: General" and "Controls") via internal comments/notes. In this way, the appropriate number of constituent measures was decided by how many active impact groups in the database effectively mapped to a measure from the 2022 BCR model.

PUC 3-20

Request:

In response to PUC 1-62, the Company wrote “the [bill impact] models use current rates and avoided per unit infrastructure costs as inputs... but are not intended to align with actual ratemaking treatment and intra-class allocation of avoided infrastructure costs. Does the Company have plans to align the bill impact models with actual ratemaking treatment and intra-class allocation of avoided infrastructure costs?”

Response:

No. The Company currently has no plans to align the bill impact models with actual ratemaking treatment and intra-class allocation of avoided infrastructure costs.

PUC 3-21

Request:

Please confirm the total Innovation Pipeline budget included in the 2023 Electric and Gas Plans.

Response:

The total Innovation Pipeline budget included in the 2023 Electric and Gas Plans is \$187,500. The following table breaks out this budget by sector and fuel.

Sector	Electric	Gas	Total
Resi	\$ 62,500	\$ 62,500	\$125,000
C&I	\$ 31,250	\$ 31,250	\$ 62,500
Total	\$ 93,750	\$ 93,750	\$187,500

PUC 3-22

Request:

In response to PUC 1-65, the Company described the Innovation Pipeline as “not a specific demonstration but rather a budget to enable the Company to fund emerging ideas that arise during the course of the program year.” Please explain the following:

- What was the planned Innovation Pipeline budget in the 2022 Electric Plan, and what does the Company expect to actually spend in 2022?
- Provide a detailed explanation of the projects that have been funded through the 2022 electric Innovation Pipeline.
- What was the planned Innovation Pipeline budget in the 2022 Gas Plan, and what does the Company expect to actually spend in 2022?
- Provide a detailed explanation of the projects that have been funded through the 2022 gas Innovation Pipeline.

Response:

- The Electric Innovation Pipeline budget in the 2022 Plan was \$62,110. The Company plans to spend \$0.
- No projects have been or are expected to be funded through the 2022 electric Innovation Pipeline.
- The Gas Innovation Pipeline budget in the 2022 Plan was \$62,110. The Company plans to spend \$74,570 in 2022.
- The Company has funded the initial phases of a Gas Leak Survey demonstration through the Innovation Pipeline budget in 2022. This demonstration is described in detail in Attachment 8 of the Energy Efficiency Plan (Bates 354-355).

PUC 3-23

Request:

On Bates page 342 of the Plan, the Company writes “in 2023, although the Company is proposing a smaller overall budget for pilots, demonstrations, and assessments, a larger Innovation Pipeline budget has been proposed.” Why does the Company need a larger Innovation Pipeline budget in 2023 relative to 2022?

Response:

The Company needs a larger Innovation Pipeline budget in 2023 relative to 2022 because it scaled back its overall budget for pilots, demonstrations, and assessments (“PDAs”). In part, this was to focus on cost control; however, lean staffing levels in 2022 also inhibited the Company’s ability to plan and oversee this type of innovation. The Company has hired several new staff members in recent months, providing the Company greater capacity to plan and oversee this type of effort. Continuing to innovate is critical to the Company’s ability to operate successful energy efficiency programs.

To provide a sense of scale of the proposed increase in the Innovation Pipeline budget, as noted in the Company’s response to DIV 1-76, the Company proposed a net reduction of \$1,040,348 (59 percent) to the PDA budget, which includes the \$63,280 increase in the Innovation Pipeline budget. Also noted in the Company’s response to DIV 1-76, the Company will allow stakeholders an opportunity to vet and provide input on efforts that leverage the Innovation Pipeline budget prior to launching these efforts.

PUC 3-24

Request:

On Bates page 342 of the Plan, the Company explains that the Innovation Pipeline “will allow the Company to act with greater urgency and agility moving forward.” Please explain why “greater urgency” beyond the regular annual planning cycle for Pilots, Demonstrations, and Assessments is needed.

Response:

Although the text did not explicitly state that acting with greater urgency is “needed,” the Company believes that it is generally valuable to act with urgency (i.e., quickly) when opportunities arise, and planning Pilots, Demonstrations, and Assessments (“PDA’s”) is no exception. PDA’s are a means of promoting innovation within the energy efficiency (“EE”) programs by identifying new solutions that arise from opportunities presented by emerging technologies, new insights, and changing market conditions.

As explained in the Company’s response to DIV 1-76, the Company will allow stakeholders an opportunity to vet and provide input on efforts that leverage the Innovation Pipeline budget prior to launching these efforts.

One specific factor suggesting a need for urgency is that in 2022 the Office of Energy Resources announced plans to offer a High-efficiency Heat Pump Program to promote heating electrification. This is particularly targeted to residential and low-income customers (but Commercial and Industrial (“C&I”) as well), leveraging federal funding. Additional federal funding may be available for electrification in the near future through the Inflation Reduction Act of 2022, which will create further momentum on electrification.

Although the Company’s EE programs only support fuel switching in limited circumstances at the present time, they do support complementary measures, including but not limited to weatherization, ventilation, and building controls. While the Company’s programs already support these general categories of measures, there may be opportunities to support specific measures that pair effectively with electric heat pumps and either are not currently supported or have not yet been brought to scale. The PDA budget would be used to support research into assessing, and creating offerings to support, this type of measure. Given the upcoming OER initiative and growing momentum around electrification, there is an urgent need for the Company’s EE programs to build out additional offerings that support these measures.

PUC 3-25

Request:

On Bates page 266 of the 2023 Plan, the Company writes “due to the exceptions made for fossil fuel equipment in MA SB9, Massachusetts’ 2022-2024 Energy Efficiency Plan employs a hybrid approach for quantifying the non-embedded cost of carbon via the New England MAC (electric sector) and the updated value for SCC, where the lower New England MAC (electric sector) method is applied to measures that involve fossil fuel equipment being replaced by fossil fuel equipment (e.g., a new fossil fuel boiler) and the SCC method is applied to all other measures (e.g., insulation). As a result, measures that do not incentivize new fossil fuel equipment contribute greater nonembedded carbon benefits since the New England MAC (electric sector) approach results in less \$ per ton of carbon avoided than the SCC approach.” Commission staff interprets these statements as suggesting that the Company believes there is less carbon emissions reduction value from measures that install new fossil equipment than from all other measures. Please confirm if this interpretation is correct. If it is, please explain why the Company is proposing to effectuate this belief by using different methodologies to evaluate carbon emissions reductions from new fossil fuel measures vs. all other measures, as opposed to slowing or eliminating the installation of new fossil fuel measures in the Energy Efficiency program.

Response:

Commission staff’s interpretation of the Company’s position that, for the purposes of benefit-cost screening, there is less carbon emissions reduction value from measures that install new fossil equipment than from all other measures differential value is essentially correct. The Company’s rationale for this differential treatment is more fully explained in the Company’s response to PUC 1-51.

As explained in the response to PUC 1-51, there are still customers that are interested in installing high efficiency fossil fuel measures. The Company has elected to continue to meet this demand in 2023, the final year of the 2021-2023 Three-Year Plan, and may revisit the question of slowing or eliminating the installation of new fossil fuel measures as it plans for 2024-2026 through discussion with stakeholders.

PUC 3-26

Request:

Is the Company proposing to fund all of the 100% moderate income weatherization offerings in 2023 through RGGI, as it did in 2022?

Response:

Yes. Given the current expenditures of the RGGI funding on moderate income weatherization, the Company believes there is enough RGGI funding available to support the customer copay portion of moderate income weatherization during 2023.

PUC 3-27

Request:

On Bates page 110 of the Plan, the Company proposes that “non-participants in census tracts that have one or more of the RI DEM [environmental justice] criteria be allowed to participate in low and moderate income offerings without any income requirements.” Please explain the following:

- Has the Company already determined the specific census tracts? If yes, please provide them. If no, what is the Company's plan for determining the specific census tracts, using what criteria?
- How will the Company determine whether a customer actually resides in one of the targeted census tracts? Will the Company accept customer attestation, or will the Company verify?
- How will the Company advertise this new offering? In your response, explain whether the Company will actively market it to customers who reside in the targeted census tracts?
- Is the Company proposing that non-participants in census tracts that have one or more of the RI DEM criteria be able to receive Non-Income Eligible program offerings with zero customer contribution, or that they be able to receive Income Eligible program offerings, or something else?
- Has the Company adjusted the 2023 Income Eligible sector budgets to reflect greater participation from non-income qualified participants who reside in one of the targeted census tracts? If yes, explain how the Company has forecast demand and adjusted budgets accordingly. If no, explain why the Company has not made adjustments to the Income Eligible sector budgets.

Response:

- The Company has not determined specific census tracts. The preference is to use RI DEM's work for identifying environmental justice (“EJ”) communities and coordinate efforts, so residents receive the greatest impact.
- The Company has begun researching the approach of neighboring states in EJ efforts and from initial discussions, both Massachusetts and Connecticut have engaged external companies to map EJ communities to specific addresses. Once customer addresses have been noted as being within an EJ area, no additional attestation will be required in the other states.
- Based on the level of effort required and potential costs associated with building out this requirement, 2023 will most likely involve researching approaches on serving EJ communities, developing a budget for any necessary upgrades, and/or tracking of customers. It is premature currently to move to marketing to customers. The Company

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would look at how many customers there are within the determined EJ communities and how many have been served and develop targets for participation. These are all elements that would inform the final marketing approach.

- The Company is proposing that customers in EJ communities be served at an income eligible level, with no customer copays, without traditional income verification requirements. Further details will be determined closer to implementation and will be based on which programs have the capacity to serve customers in the timeliest manner. Currently, the market rate programs do have more capacity to serve additional customers than the income eligible programs. The Company appreciates any perspective that regulators have on introducing a non-verification qualification of the customer, but rather relying on the EJ community to determine qualification. This would be a new approach for the program.
- When customers are served through this process, they most likely will be counted on the market rate side similar to moderate income customers. In 2023, there has been no increase in the number of customers or budget. The Company is looking for Commission input before budgeting and scaling up for this effort.

PUC 3-28

Request:

In Table E-8C, the Company notes in Column K that the Non-Income Eligible Residential sector will have a Service Quality Metric. However, planned net eligible benefits from the sector appear to be positive (\$6.9 million). Why does Column K suggest a Service Quality Metric?

Response:

In Column K on Table E-8C, the Company has indicated incorrectly that the Non-Income Eligible Residential sector will have a Service Quality Metric. A "Yes" or "No" should have been displayed through a worksheet formula but was a hard input instead. The "Yes" or "No" is for illustrative purposes only and does not impact PIM calculations. This correction will be reflected in an updated set of BCR models and Attachment 5 and 6, which will be filed with the Public Utilities Commission at a later date.

PUC 3-29

Request:

Table E-8C shows a Maximum Service Adjustment of \$326,469 for the Income Eligible Residential sector. How did the Company calculate that Adjustment?

Response:

The 2023 Maximum Service Adjustment of \$326,469 for the electric income eligible residential sector was calculated by scaling the 2022 electric income eligible residential Maximum Service Adjustment of \$443,000 by the decrease in total electric income eligible residential PIM-eligible benefits between 2022 and 2023. Please see the calculations below.

2023 total electric income eligible residential PIM-eligible benefits = \$8,430,826

2022 total electric income eligible residential PIM-eligible benefits = \$11,447,904

$\$8,430,826 / \$11,447,904 = 0.74$

2022 electric income eligible residential Maximum Service Adjustment = \$443,300

$\$443,300 \times 0.74 = \$326,469 = 2023 \text{ electric income eligible residential Maximum Service Adjustment}$

PUC 3-30

Request:

Table G-8C (corrected) shows a Maximum Service Adjustment of \$344,262 for the Non-Income Eligible Residential sector. How did the Company calculate that Adjustment?

Response:

The 2023 Maximum Service Adjustment of \$344,262 for the gas non-income eligible residential sector was calculated by scaling the 2022 gas non-income eligible residential Maximum Service Adjustment of \$290,063 by the increase in total gas non-income eligible residential PIM-eligible benefits between 2022 and 2023. Please see the calculations below.

2023 total gas non-income eligible residential PIM-eligible benefits = \$13,039,679

2022 total gas non-income eligible residential PIM-eligible benefits = \$10,986,752

$\$13,039,679 / \$10,986,752 = 1.19$

2022 gas non-income eligible residential Maximum Service Adjustment = \$290,063

$\$290,063 \times 1.19 = \$344,262 = 2023 \text{ gas non-income eligible residential Maximum Service Adjustment}$

PUC 3-31

Request:

Table G-8C (corrected) shows a Maximum Service Adjustment of \$123,176 for the Income Eligible Residential sector. How did the Company calculate that Adjustment?

Response:

The 2023 Maximum Service Adjustment of \$123,176 for the gas income eligible residential sector was calculated by scaling the 2022 gas income eligible residential Maximum Service Adjustment of \$171,275 by the decrease in total gas income eligible residential PIM-eligible benefits between 2022 and 2023. Please see the calculations below.

2023 total gas income eligible residential PIM-eligible benefits = \$4,713,513

2022 total gas income eligible residential PIM-eligible benefits = \$3,389,827

$\$3,389,827 / \$4,713,513 = 0.72$

2022 gas income eligible residential Maximum Service Adjustment = \$171,275

$\$171,275 \times 0.72 = \$123,176 = 2023 \text{ gas income eligible residential Maximum Service Adjustment}$

PUC 3-32

Request:

Does any of the demand curtailment delivered by the Commercial ConnectedSolutions program come from battery storage, as it does in the Residential ConnectedSolutions program? If yes, how much of the proposed 36 MW of demand reduction in 2023 can be attributed to battery storage?

Response:

No. None of the current demand curtailment delivered by the Commercial ConnectedSolutions program comes from battery storage. Customers with battery storage may participate in the Commercial ConnectedSolutions Daily Dispatch offering, which is technology agnostic and open to any technology that can provide load reductions during the events called. 15 MW of the proposed 36 MW of demand reduction for the Commercial ConnectedSolutions program in 2023 is attributed to the Daily Dispatch offering. Because the offering is technology agnostic, this 15 MW may come from a mix of battery storage and other technologies. The Company has engaged in discussions with some vendors that are working with Rhode Island commercial and industrial customers to consider installing battery storage and participating in the program, but these measures are not expected to be installed until 2024.