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Also admitted in Massachusetts

November 28, 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 4**

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 Fourth 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 28, 2022

Date

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

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PUC 4-1

Request:

In response to PUC 1-35, the Company explained that it defines primary heating source as “the majority heating costs for the customer,” but later described identifying the primary hearing source by reviewing energy usage data. Please clarify whether the determination of the primary heating source is based on cost or usage.

Response:

In current practice, the primary heating source is identified by the largest heating distribution system in the customer's home. Given this opportunity to reflect on the best method for identifying primary heating source, the Company would define the primary heating source as the system using the largest amount of energy. The Energy Efficiency programs are designed to reduce energy usage. Price is just a proxy for usage, but since price fluctuates, usage is a better and more consistent data point to use for identifying primary heating source.

PUC 4-2

Request:

At present, do any of the energy savings estimates included in the TRM assume a hybrid fuel usage baseline (e.g. a residence that has both a natural gas boiler and a mini split heat pump) or are they estimated assuming a single fuel usage baseline (e.g. the primary heating source)? Please describe.

Response:

The energy savings estimates in the TRM are estimated using a single fuel usage baseline. Each measure in the TRM that relies on a specific primary fuel is identified and associated with a primary fuel in its nomenclature. Primary fuels include electric, oil, gas, and propane. For example, weatherization measures are denoted in the TRM as follows:

- Weatherization, Oil
- Weatherization, Electric
- Weatherization, Others (propane only)
- Weatherization (gas only)

PUC 4-3

Request:

In response to PUC 1-35, the Company writes “generally, there is a primary central heating system used to provide heat. Occasionally, renovations or additions will add a localized heating system (e.g., electric resistance or mini-split) in the new space, which may or may not use the same fuel as the primary central system.” What percentage of total heating systems or total heating energy usage (whichever is easier to estimate) do renovations/additions that use a different heating fuel than the primary heating source represent?

Response:

The tracking system does not have the specificity to provide details on secondary heat for renovations/additions. There is an indicator in the tracking system for secondary heating system. From 2018 to 2022, the EnergyWise tracking system indicates that 12% of assessments have a secondary heating system.

PUC 4-4

Request:

In response to PUC 1-45, the Company explained that it now uses new, more conservative FCM bidding strategy. Please explain the new strategy in more detail, including how it differs from the prior strategy. In your response, address what will happen to FCM revenue in a year where the Company bid and secured a capacity supply obligation for a volume of EE capacity that is less than actual EE capacity delivered.

Response:

The original strategy of bidding relied on running a regression analysis on the historic MW of energy efficiency ("EE") measure installation savings and using this to forecast EE demand reduction. This process attempted to predict the EE savings approximately three years into the future, which aligns with the three-year forward planning process for the Forward Capacity Market ("FCM"). This strategy of basing future capacity on historic capacity that was actually delivered, net of known expirations, in itself is still reasonable; however, it failed to account properly for the impact of expiring measures and declining EE installations that would occur within the three-year period between qualifying new capacity supply obligations and the time when those obligations need to be met. Coincident with changes to the FCM tariff that more recently required new FCM resources be created each year instead of expanding existing resources incrementally, the FCM bidding strategy had to be revised.

The new strategy is more conservative. Rather than looking three years into the future, it looks at the next twelve-month block of time that would be eligible for fulfilling the new FCM resources' obligations from the next auction cycle. New measures must have an installation date after the annual Existing Capacity Qualification deadline to join a new resource. Therefore, the Company looks at the twelve-month period starting the month after the Existing Capacity Qualification deadline. This deadline typically occurs in the month of June prior to the primary Forward Capacity Auction ("FCA"). Similar to the old strategy, the Company looks at the forecasted installations for this period; however, by the time the auction takes place, over half of the months of forecasted installations have been actualized. This means the Company has already delivered a large portion of the necessary capacity, even before the auction has taken place.

The EE team is more involved in the new process to ensure the Company's bids are consistent with the EE plan and what the Company expects to be installed in the coming year. This approach minimizes the risk of obtaining a larger capacity supply obligation than the expected future savings can deliver. Based on this new short-term timeline, the Company expects to deliver the full capacity committed in each auction by the following summer, several years prior

PUC 4-4, Page 2

to the required delivery period thus mitigating the risk of failing to deliver on a committed obligation. The Company's new strategy also permits adaptation to avoid the instance where the Company bid in and secured a capacity supply obligation for a volume less than actual EE capacity delivered. In the FCA, the Company is committing capacity that partially has been delivered and also is considering the most up-to-date forecast for the remaining few months. In addition, the Company is planning for a contingency where the Company can pull from additional future months to meet that obligation. This approach ensures that minimal capacity remains without a capacity supply obligation.

For example, if the Company clears an FCA with a 10MW obligation, comprised of 4MW of savings from EE measures that already have been installed from the prior July-February period and an estimated 6MW to be delivered from EE measures yet to be installed from March to July of one year, the Company bids in enough capacity such that it will be delivered well before the capacity commitment period, but would not be fully commercialized between that calendar year's March and July. Any measures installed during that period would be too old to meet the next auction's Existing Capacity Qualification deadline. The adaptability of this strategy enables the Company to pull in measures from another month or two to meet the committed capacity, such as using March to August or March to September measures to meet this hypothetical 6 MW portion of the obligation before cutting over to the new resources' capacity obligations from the next FCA.

The strategy also starts out by qualifying a higher number of MWs at the start of the qualification process and then reducing the number of MW that the Company chooses to clear in the auction based on the combination of actual installed measure savings and an updated forecast of future installed measures. Having the difference between these two MW values that are qualified but uncleared mean that they end up on the "Critical Path Schedule Monitoring" with ISO-NE, which also allows the Company to increase the resource's obligation to account for the exact number of MW of installs. If the Company committed 10 MW but delivered 11MW by July following the auction, the Company could still take on that extra 1MW obligation in the reconfiguration auctions after ISO-NE audits that performance. This would allow the Company to monetize that additional capacity while minimizing the risk of nonperformance to avoid any penalties.

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 Fourth Set of Data Requests
Issued on November 14, 2022

PUC 4-5

Request:

Throughout the Company's responses to the PUC and Division's first sets of data requests, it identified multiple errors in the original Plan filing that artificially increased or decreased savings and benefits. Please file a consolidated set of corrected tables.

Response:

Please see attached for an updated version of Attachment 5 and Attachment 6.

Table E-1
Rhode Island Energy
Electric DSM Funding Sources in 2023 by Sector
\$(000)

	Income Eligible Residential	Projections by Sector Non-Income Eligible Residential	Commercial & Industrial	Total
(1) Projected Budget (from E-2):	\$16,488.8	\$34,151.9	\$52,020.9	\$102,661.7
Sources of Other Funding:				
(2) Projected DSM Commitments at Year-End 2022:	\$0.0	\$0.0	\$0.0	\$0.0
(3) Projected Year-End 2022 Fund Balance and Interest:	\$0.0	(\$788.0)	\$37,923.4	\$37,135.3
(4) Projected FCM Net Revenue from ISO-NE:	\$335.4	\$4,027.1	\$5,763.2	\$10,125.7
(5) Total Other Funding:	\$335.4	\$3,239.1	\$43,686.6	\$47,261.0
(6) Customer Funding Required:	\$16,153.4	\$30,912.8	\$8,334.4	\$55,400.7
(7) Forecasted kWh Sales:	242,679,671	2,913,872,824	4,170,068,344	7,326,620,839
(8) Energy Efficiency Program charge per kWh, excluding uncollectible recovery:				\$0.00756
(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:				\$0.00756
(11) Currently Effective Uncollectible Rate				1.30%
(12) Proposed Energy Efficiency Program Charge per kWh, including Uncollectible Recovery:				\$0.00765
(13) Currently Effective Energy Efficiency Program Charge per kwh				<u>\$0.01222</u>
(14) Proposed Adjustment to Reflect Fully Reconciling Funding Mechanism				(\$0.00457)

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 2023.
- (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 fund balance includes a \$1,859,499 credit from shareholder funds, with interest, to the fund balance which the Company made in January, May, and June, 2022 based on the Company's involvement in Docket 22-05-EE. The fund balance includes \$5,000,000 representing 2021 regulatory funds that were initially allocated to the Rhode Island Infrastructure Bank (RIIB) for program year 2021 but were not transferred to RIIB. The fund balance also assumes a transfer of \$5,000,000 to RIIB, approved in the 2022 Annual Plan, to be made in 2022. Note that these 2022 statutory funds have not yet been transferred to RIIB, however the Company anticipates transferring these funds in accordance with RI Gen. Laws § 39-2-1.2(n) prior to December 31, 2022.
- (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) Per Company Forecast
- (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. This is an 11 month rate that went into effect on February 1, 2022.
- (14) Line (12) - Line (13)

Table E-2
Rhode Island Energy
2023 Electric Energy Efficiency Program Budget (\$000)

	Program Planning & Administration	Marketing	Rebates and Other Customer Incentives	Sales, Tech Assist & Training	Evaluation & Market Research	Performance Incentive	Grand Total
Non-Income Eligible Residential							
Residential New Construction	\$124.6	\$23.9	\$835.5	\$525.2	\$98.4		\$1,607.5
ENERGY STAR® HVAC	\$259.9	\$278.3	\$3,918.5	\$831.2	\$242.6		\$5,530.5
EnergyWise	\$495.4	\$355.5	\$13,055.5	\$1,480.8	\$262.8		\$15,649.9
EnergyWise Multifamily	\$126.8	\$67.8	\$984.4	\$139.9	\$26.4		\$1,345.3
Residential Consumer Products	\$119.8	\$427.6	\$1,232.1	\$688.3	\$24.4		\$2,492.1
Home Energy Reports	\$49.0	\$13.2	\$0.0	\$2,062.4	\$22.6		\$2,147.2
Residential ConnectedSolutions	\$82.8	\$11.5	\$1,503.7	\$347.8	\$22.7		\$1,968.5
Energy Efficiency Education Programs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Residential Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Community Based Initiatives - Residential	\$37.1	\$137.7	\$105.8	\$0.0	\$0.0		\$280.6
Comprehensive Marketing - Residential	\$1.2	\$309.3	\$0.0	\$0.0	\$0.0		\$310.5
Residential Workforce Development	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Residential Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$622.5	\$622.5
Subtotal - Non-Income Eligible Residential	\$1,296.5	\$1,624.7	\$21,635.5	\$6,075.5	\$699.8	\$622.5	\$31,954.5
Income Eligible Residential							
Single Family - Income Eligible Services	\$453.2	\$132.1	\$9,496.5	\$1,890.9	\$81.2		\$12,053.9
Income Eligible Multifamily	\$165.2	\$14.3	\$3,502.1	\$531.9	\$38.5		\$4,252.0
Income Eligible Workforce Development	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Income Eligible Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Income Eligible Residential	\$618.4	\$146.4	\$12,998.6	\$2,422.8	\$119.7	\$0.0	\$16,305.8
Commercial & Industrial							
Large Commercial New Construction	\$223.3	\$214.2	\$5,737.8	\$1,737.6	\$418.5		\$8,331.3
Large Commercial Retrofit	\$712.8	\$159.8	\$16,216.7	\$4,524.7	\$775.5		\$22,389.4
Small Business Direct Install	\$259.9	\$164.9	\$6,739.7	\$298.8	\$104.1		\$7,567.3
Commercial ConnectedSolutions	\$168.4	\$6.8	\$5,340.0	\$158.2	\$0.0		\$5,673.4
Commercial Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0		\$0.0
Community Based Initiatives - C&I	\$12.3	\$45.8	\$35.3	\$0.0	\$0.0		\$93.5
Finance Costs	\$0.0	\$0.0	\$2,000.0	\$0.0	\$0.0		\$2,000.0
Commercial Workforce Development	\$0.0	\$0.0	\$0.0	\$157.5	\$0.0		\$157.5
Commercial & Industrial Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$2,663.8	\$2,663.8
Subtotal - Commercial & Industrial	\$1,376.7	\$591.5	\$36,069.4	\$6,876.7	\$1,298.2	\$2,663.8	\$48,876.3
Regulatory							
OER	\$965.4	\$0.0	\$0.0	\$0.0	\$0.0		\$965.4
EERMC	\$822.2	\$0.0	\$0.0	\$0.0	\$0.0		\$822.2
Rhode Island Infrastructure Bank	\$0.0	\$0.0	\$3,737.5	\$0.0	\$0.0		\$3,737.5
Subtotal - Regulatory	\$1,787.6	\$0.0	\$3,737.5	\$0.0	\$0.0	\$0.0	\$5,525.1
Grand Total	\$5,079.2	\$2,362.6	\$74,440.9	\$15,375.0	\$2,117.6	\$3,286.3	\$102,661.7

Notes:

- (1) 2023 Large Commercial Retrofit Commitments (\$000):
- (2) For more information on Finance Costs, please refer to Attachment 2, Section 9.
- (3) OER budget is equal to the SBC collections after zeroing out EERMC and OER budgets times 3% times 60%. EERMC budget was approved by the EERMC on November 22nd, 2022 for a total between gas and electric of \$1,096,299.14, 75% of that total has been allocated to the electric budget, in accordance with the proportions of the gas and electric budget.
- (4) Finance Costs are detailed in Table E-9. Finance Costs include an injection of \$2M into the Large C&I Revolving Loan Fund. Without this injection the Large C&I Revolving Loan Fund is projected to be negative by the end of 2023.
- (5) Demonstrations and Assessments budgets are included in specific program level budgets listed above. More information on Demonstration and Assessments descriptions, budgets, and which program level budget they are included in can be found in Attachment 8.

Table E-3
Rhode Island Energy
Derivation of the 2023 Eligible PIM and Implementation Budgets (\$000)

	Proposed 2023 Budget From E-2	Commitments	Regulatory Costs	Performance Incentive	Eligible Sector PIM Budget for Performance Incentive on E-8B	Implementation Expenses for Cost- Effectiveness on E-5
Non-Income Eligible Residential						
Residential New Construction	\$1,607.5					\$1,607.5
ENERGY STAR® HVAC	\$5,530.5					\$5,530.5
EnergyWise	\$15,649.9					\$15,649.9
EnergyWise Multifamily	\$1,345.3					\$1,345.3
Residential Consumer Products	\$2,492.1					\$2,492.1
Home Energy Reports	\$2,147.2					\$2,147.2
Residential ConnectedSolutions	\$1,968.5					\$1,968.5
Energy Efficiency Education Programs	\$0.0					\$0.0
Residential Pilots	\$0.0					\$0.0
Community Based Initiatives - Residential	\$280.6					\$280.6
Comprehensive Marketing - Residential	\$310.5					\$310.5
Residential Workforce Development	\$0.0					\$0.0
Residential Performance Incentive	\$622.5			\$622.5		\$0.0
Subtotal - Non-Income Eligible Residential	\$31,954.5	\$0.0	\$0.0	\$622.5	\$29,363.6	\$31,332.0
Income Eligible Residential						
Single Family - Income Eligible Services	\$12,053.9					\$12,053.9
Income Eligible Multifamily	\$4,252.0					\$4,252.0
Income Eligible Workforce Development	\$0.0					\$0.0
Income Eligible Performance Incentive	\$0.0			\$0.0		\$0.0
Subtotal - Income Eligible Residential	\$16,305.8	\$0.0	\$0.0	\$0.0	\$16,305.8	\$16,305.8
Commercial & Industrial						
Large Commercial New Construction	\$8,331.3	\$0.0				\$8,331.3
Large Commercial Retrofit	\$22,389.4	\$0.0				\$22,389.4
Small Business Direct Install	\$7,567.3	\$0.0				\$7,567.3
Commercial ConnectedSolutions	\$5,673.4					\$5,673.4
Commercial Pilots	\$0.0					\$0.0
Community Based Initiatives - C&I	\$93.5					\$93.5
Finance Costs	\$2,000.0					\$2,000.0
Commercial Workforce Development	\$157.5					\$157.5
Commercial & Industrial Performance Incentive	\$2,663.8			\$2,663.8		\$0.0
Subtotal - Commercial & Industrial	\$48,876.3	\$0.0	\$0.0	\$2,663.8	\$40,486.6	\$46,212.4
Regulatory						
OER	\$965.4		\$965.4			\$965.4
EERMC	\$822.2		\$822.2			\$822.2
Rhode Island Infrastructure Bank	\$3,737.5		\$3,737.5			\$3,737.5
Subtotal - Regulatory	\$5,525.1	\$0.0	\$5,525.1	\$0.0	\$0.0	\$5,525.1
Grand Total	\$102,661.7	\$0.0	\$5,525.1	\$3,286.3	\$86,156.0	\$99,375.4

Notes:

- (1) Eligible Sector Spending Budget = Total Budget from E-2 minus commitments, regulatory costs, pilots, assessments, Residential ConnectedSolutions, Commercial ConnectedSolutions, Performance Incentive
- (2) Eligible Sector Spending Budget does not include assessments, see Attachment 8 for assessments budgets.
- (3) Implementation Expenses = Total Budget from E-2 minus commitments and Performance Incentive.

Table E-4
Rhode Island Energy
Proposed 2023 Budget Compared to Approved 2022 Budget (\$000)

	Proposed Implementation Budget 2023	Approved Implementation Budget 2022	Difference
Non-Income Eligible Residential			
Residential New Construction	\$1,607.5	\$1,617.0	-\$9.4
ENERGY STAR® HVAC	\$5,530.5	\$4,684.4	\$846.2
EnergyWise	\$15,649.9	\$15,557.0	\$93.0
EnergyWise Multifamily	\$1,345.3	\$3,238.3	-\$1,893.0
Residential Consumer Products	\$2,492.1	\$2,796.0	-\$303.9
Home Energy Reports	\$2,147.2	\$2,639.1	-\$492.0
Residential ConnectedSolutions	\$1,968.5	\$1,822.6	\$145.9
Community Based Initiatives - Residential	\$280.6	\$255.1	\$25.5
Comprehensive Marketing - Residential	\$310.5	\$247.9	\$62.5
Subtotal - Non-Income Eligible Residential	\$31,332.0	\$32,857.4	-\$1,525.3
Income Eligible Residential			
Single Family - Income Eligible Services	\$12,053.9	\$13,275.3	-\$1,221.5
Income Eligible Multifamily	\$4,252.0	\$3,538.9	\$713.0
Subtotal - Income Eligible Residential	\$16,305.8	\$16,814.3	-\$508.4
Commercial & Industrial			
Large Commercial New Construction	\$8,331.3	\$9,034.1	-\$702.8
Large Commercial Retrofit	\$22,389.4	\$25,010.5	-\$2,621.1
Small Business Direct Install	\$7,567.3	\$8,883.3	-\$1,316.0
Commercial ConnectedSolutions	\$5,673.4	\$4,393.6	\$1,279.8
Community Based Initiatives - C&I	\$93.5	\$85.0	\$8.5
Commercial Pilots	\$0.0	\$0.0	\$0.0
Finance Costs	\$2,000.0	\$2,000.0	\$0.0
Commercial Workforce Development	\$157.5	\$157.5	\$0.0
Subtotal Commercial & Industrial	\$46,212.4	\$49,564.1	-\$3,351.6
Regulatory			
EERMC	\$822.2	\$766.2	\$56.0
OER	\$965.4	\$1,541.7	-\$576.3
Rhode Island Infrastructure Bank	\$3,737.5	\$3,737.5	\$0.0
Subtotal Regulatory	\$5,525.1	\$6,045.4	-\$520.3
TOTAL IMPLEMENTATION BUDGET	\$99,375.4	\$105,281.1	-\$5,905.7
OTHER EXPENSE ITEMS			
Commitments	\$0.0	\$0.0	\$0.0
Company Incentive	\$3,286.3	\$3,390.2	-\$103.8
Subtotal - Other Expense Items	\$3,286.3	\$3,390.2	-\$103.8
TOTAL BUDGET	\$102,661.7	\$108,671.3	-\$6,009.6

Notes:

- (1) Program Implementation Budget excludes Commitments, Company Incentive; derived on Table E-3
- (2) Total Budget includes Implementation, Commitments; illustrated on Table E-3

**Table E-5 - Primary
Rhode Island Energy
Calculation of 2023 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	1.79	\$4,003.5	\$1,607.5	\$634.6		¢17.1
ENERGY STAR® HVAC	2.72	\$21,708.5	\$5,530.5	\$2,464.5		¢11.3
EnergyWise	1.09	\$20,158.4	\$15,649.9	\$2,790.6		¢108.9
EnergyWise Multifamily	2.30	\$3,295.9	\$1,345.3	\$89.9		¢15.1
Home Energy Reports	2.73	\$5,862.7	\$2,147.2	\$0.0		¢8.8
Residential Consumer Products	2.29	\$7,261.1	\$2,492.1	\$683.3		¢10.0
Residential ConnectedSolutions	1.60	\$3,148.1	\$1,968.5	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			
Residential Pilots			\$0.0			
Community Based Initiatives - Residential			\$280.6			
Comprehensive Marketing - Residential			\$310.5			
Residential Workforce Development			\$0.0			
Non-Income Eligible Residential SUBTOTAL	1.69	\$65,438.1	\$31,332.0	\$6,662.9	\$622.5	¢22.8
Income Eligible Residential						
Single Family - Income Eligible Services	1.78	\$21,466.4	\$12,053.9	\$0.0		¢54.3
Income Eligible Multifamily	1.19	\$5,039.4	\$4,252.0	\$0.0		¢25.4
Income Eligible Workforce Development			\$0.0			
Income Eligible Residential SUBTOTAL	1.63	\$26,505.9	\$16,305.8	\$0.0	\$0.0	¢41.9
Commercial & Industrial						
Large Commercial New Construction	3.49	\$31,314.7	\$8,331.3	\$648.5		¢5.7
Large Commercial Retrofit	1.93	\$63,222.6	\$22,389.4	\$10,315.5		¢13.4
Small Business Direct Install	1.02	\$9,309.2	\$7,567.3	\$1,596.0		¢15.9
Commercial ConnectedSolutions	2.25	\$12,784.5	\$5,673.4	\$0.0		N/A
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$93.5			
Finance Costs			\$2,000.0			
Commercial Workforce Development			\$157.5			
C&I SUBTOTAL	1.90	\$116,631.0	\$46,212.4	\$12,560.0	\$2,663.8	¢12.8
Regulatory						
OER			\$965.4			
EERMC			\$822.2			
Rhode Island Infrastructure Bank			\$3,737.5			
Regulatory SUBTOTAL			\$5,525.1			
TOTAL	1.71	\$208,575.0	\$99,375	\$19,222.8	\$3,286.3	¢17.8

Notes:

- (1) RI Test B/C Test = Total Benefits from Table E-6 excluding Economic Benefits / Program Implementation Expenses from Table E-3 and Customer Contribution Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table E-3.

Table E-5 - Economic Benefits
Rhode Island Energy
Calculation of 2023 Economic Benefits and Job Years
All Dollar Values in (\$000)

	Program Implementation Expenses¹	RI Economic Multiplier (GDP/\$ Program Impl.)	Economic Benefits	RI Job Years Multiplier (Job Years/\$M Program Impl.)	Job Years
Non-Income Eligible Residential					
Residential New Construction	\$1,607.5	\$1.56	\$2,507.8	14.8	24
ENERGY STAR® HVAC	\$5,530.5	\$1.58	\$8,738.2	12.2	67
EnergyWise	\$15,649.9	\$1.05	\$16,432.4	12.3	192
EnergyWise Multifamily	\$1,345.3	\$1.45	\$1,950.6	14.8	20
Home Energy Reports	\$2,147.2	\$1.65	\$3,542.9	13.6	29
Residential Consumer Products	\$2,492.1	\$1.11	\$2,766.2	8.5	21
Residential ConnectedSolutions	\$1,968.5	\$0.83	\$1,633.8	6.9	14
Energy Efficiency Education Programs	\$0.0		\$0.0		-
Residential Pilots	\$0.0		\$0.0		-
Community Based Initiatives - Residential	\$280.6		\$0.0		-
Comprehensive Marketing - Residential	\$310.5		\$0.0		-
Residential Workforce Development	\$0.0		\$0.0		-
Non-Income Eligible Residential SUBTOTAL	\$31,332.0		\$37,571.9		368
Income Eligible Residential					
Single Family - Income Eligible Services	\$12,053.9	\$0.96	\$11,571.7	10.9	131
Income Eligible Multifamily	\$4,252.0	\$1.30	\$5,527.6	13.4	57
Income Eligible Workforce Development	\$0.0		\$0.0		-
Income Eligible Residential SUBTOTAL	\$16,305.8		\$17,099.3		188
Commercial & Industrial					
Large Commercial New Construction	\$8,331.3	\$2.74	\$22,827.8	19.0	158
Large Commercial Retrofit	\$22,389.4	\$5.28	\$118,216.1	51.4	1,151
Small Business Direct Install	\$7,567.3	\$1.53	\$11,578.0	12.3	93
Commercial ConnectedSolutions	\$5,673.4	\$2.19	\$12,424.8	17.5	99
Commercial Pilots	\$0.0		\$0.0		-
Community Based Initiatives - C&I	\$93.5		\$0.0		-
Finance Costs	\$2,000.0		\$0.0		-
Commercial Workforce Development	\$157.5		\$0.0		-
C&I SUBTOTAL	\$46,212.4		\$165,046.7		1,501
Regulatory					
OER	\$965.4		\$0.0		-
EERMC	\$822.2		\$0.0		-
Rhode Island Infrastructure Bank	\$3,737.5		\$0.0		-
Regulatory SUBTOTAL	\$5,525.1		\$0.0		-
TOTAL	\$99,375.4		\$219,717.9		2,057

Notes:

- (1) For Implementation Expenses derivation, see Table E-3.
- (2) RI Economic and Job Years Multipliers from "Economic Multipliers Update" filed by National Grid in Docket 5189.

Table E-5A
Rhode Island Energy
Calculation of 2023 Program Year Cost-Effectiveness with TRC Test
All Dollar Values in (\$000)

	TRC Benefit/ Cost¹	Total Benefit	Program Implementation Expenses²	Customer Contribution	Performance Incentive	¢/Lifetime kWh
Non-Income Eligible Residential						
Residential New Construction	1.45	\$3,248.6	\$1,607.5	\$634.6		17.1
ENERGY STAR® HVAC	2.12	\$16,958.2	\$5,530.5	\$2,464.5		11.3
EnergyWise	0.84	\$15,488.8	\$15,649.9	\$2,790.6		108.9
EnergyWise Multifamily	1.97	\$2,821.4	\$1,345.3	\$89.9		15.1
Home Energy Reports	1.94	\$4,159.5	\$2,147.2	\$0.0		8.8
Residential Consumer Products	1.74	\$5,512.4	\$2,492.1	\$683.3		10.0
Residential ConnectedSolutions	1.60	\$3,145.0	\$1,968.5	\$0.0		N/A
Energy Efficiency Education Programs			\$0.0			0.0
Residential Pilots			\$0.0			0.0
Community Based Initiatives - Residential			\$280.6			0.0
Comprehensive Marketing - Residential			\$310.5			0.0
Non-Income Eligible Residential SUBTOTAL	1.33	\$51,333.8	\$31,332.0	\$6,662.9	\$622.5	22.8
Income Eligible Residential						
Single Family - Income Eligible Services	1.54	\$18,557.5	\$12,053.9	\$0.0		54.3
Income Eligible Multifamily	0.98	\$4,158.8	\$4,252.0	\$0.0		25.4
Income Eligible Residential SUBTOTAL	1.39	\$22,716.3	\$16,305.8	\$0.0	\$0.0	41.9
Commercial & Industrial						
Large Commercial New Construction	2.78	\$24,948.0	\$8,331.3	\$648.5		5.7
Large Commercial Retrofit	1.54	\$50,442.1	\$22,389.4	\$10,315.5		13.4
Small Business Direct Install	0.71	\$6,537.3	\$7,567.3	\$1,596.0		15.9
Commercial ConnectedSolutions	2.25	\$12,784.5	\$5,673.4			N/A
Commercial Pilots			\$0.0			
Community Based Initiatives - C&I			\$93.5			
Finance Costs			\$2,000.0			
Commercial Workforce Development			\$157.5			
C&I SUBTOTAL	1.54	\$94,711.9	\$46,212.4	\$12,560.0	\$2,663.8	12.8
Regulatory						
OER			\$965.4			
EERMC			\$822.2			
Rhode Island Infrastructure Bank			\$3,737.5			
Regulatory SUBTOTAL			\$5,525.1			
TOTAL	1.38	\$168,762.0	\$99,375.4	\$19,222.8	\$3,286.3	17.8

Notes:

- (1) TRC B/C Test omits societal benefits that are monetized in the RI Test, including non-embedded emissions (CO2 and NOx). Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table E-3.

Table E-6
Rhode Island Energy
Summary of 2023 Benefits by Program (Energy Efficiency Measures)

	Benefits (000's)																		
	Total	Total (Economic Excluded)	Capacity					Energy				Non Electric				Societal			
			Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer		Electric Energy DRIPE	Natural Gas	Oil	Other Resource	Non Resource	Carbon	NOx	Economic
								Peak	Off Peak	Peak	Off Peak								
Non-Income Eligible Residential																			
Residential New Construction	\$6,511	\$4,004	\$13	\$13	\$28	\$31	\$0	\$391	\$514	\$88	\$71	\$271	\$0	\$353	\$1,396	\$80	\$728	\$27	\$2,508
ENERGY STAR® HVAC	\$30,447	\$21,708	\$582	\$514	\$1,221	\$1,387	\$6	\$2,198	\$2,740	\$341	\$287	\$1,672	-\$3	\$5,476	\$17	\$521	\$4,441	\$309	\$8,738
EnergyWise	\$36,591	\$20,158	\$166	\$227	\$365	\$414	\$3	\$383	\$397	\$217	\$188	\$396	\$0	\$10,400	\$1,688	\$646	\$4,145	\$525	\$16,432
EnergyWise Multifamily	\$5,247	\$3,296	\$59	\$66	\$126	\$144	\$1	\$180	\$211	\$152	\$133	\$203	\$0	\$247	\$52	\$1,248	\$457	\$18	\$1,951
Home Energy Reports	\$9,406	\$5,863	\$243	\$984	\$363	\$413	\$62	\$612	\$526	\$237	\$183	\$538	\$0	\$0	\$0	\$0	\$1,685	\$18	\$3,543
Residential Consumer Products	\$10,027	\$7,261	\$269	\$698	\$664	\$753	\$8	\$597	\$625	\$384	\$366	\$982	\$0	\$70	\$97	\$1	\$1,723	\$26	\$2,766
Non-Income Eligible Residential SUBTOTAL	\$98,228	\$62,290	\$1,332	\$2,501	\$2,767	\$3,141	\$80	\$4,361	\$5,012	\$1,418	\$1,228	\$4,062	-\$3	\$16,545	\$3,250	\$2,495	\$13,177	\$924	\$35,938
Income Eligible Residential																			
Single Family - Income Eligible Services	\$33,038	\$21,466	\$183	\$213	\$394	\$447	\$3	\$519	\$557	\$267	\$274	\$470	\$24	\$5,341	\$410	\$9,455	\$2,629	\$280	\$11,572
Income Eligible Multifamily	\$10,567	\$5,039	\$13	\$26	\$30	\$34	\$0	\$434	\$417	\$127	\$110	\$322	-\$40	\$924	\$45	\$1,716	\$831	\$50	\$5,528
Income Eligible Residential SUBTOTAL	\$43,605	\$26,506	\$196	\$239	\$424	\$481	\$3	\$953	\$974	\$394	\$384	\$792	-\$15	\$6,265	\$456	\$11,171	\$3,460	\$329	\$17,099
Commercial & Industrial																			
Large Commercial New Construction	\$54,143	\$31,315	\$990	\$1,048	\$2,109	\$2,394	\$13	\$4,259	\$2,725	\$2,633	\$1,630	\$3,702	-\$255	\$0	\$6	\$3,693	\$6,292	\$77	\$22,828
Large Commercial Retrofit	\$181,439	\$63,223	\$1,837	\$4,849	\$4,544	\$5,155	\$59	\$4,897	\$4,090	\$3,601	\$2,561	\$7,598	-\$284	-\$29	\$0	\$11,554	\$12,644	\$149	\$118,216
Small Business Direct Install	\$20,887	\$9,309	\$186	\$566	\$476	\$540	\$7	\$1,249	\$713	\$975	\$493	\$1,847	-\$113	-\$571	\$0	\$165	\$2,775	\$0	\$11,578
C&I SUBTOTAL	\$256,468	\$103,846	\$3,013	\$6,462	\$7,129	\$8,089	\$78	\$10,406	\$7,528	\$7,209	\$4,685	\$13,147	-\$653	-\$600	\$6	\$15,411	\$21,711	\$226	\$152,622
TOTAL	\$398,302	\$192,642	\$4,542	\$9,202	\$10,319	\$11,711	\$161	\$15,719	\$13,514	\$9,021	\$6,297	\$18,000	-\$671	\$22,210	\$3,711	\$29,078	\$38,348	\$1,480	\$205,659

Table E-6A
Rhode Island Energy
Summary of 2023 Impacts by Program (Energy Efficiency Measures)

	Electric Energy Savings						Gas Savings			Oil Saved			Propane Saved			Total Savings (Electric, Gas, Oil, Propane)			
	Load Reduction in kW		MWh		MMBtu		short tons CO ₂	MMBtu		short tons CO ₂	MMBtu		short tons CO ₂	MMBtu		short tons CO ₂	MMBtu		short tons CO ₂
	Summer	Winter	Annual	Lifetime	Annual	Lifetime	Annual ²	Annual	Lifetime	Annual ²	Annual	Lifetime	Annual ²	Annual	Lifetime	Annual ²	Annual	Lifetime	Annual ²
Non-Income Eligible Residential																			
Residential New Construction	16	39	689	13,144	2,352	44,848	335	-	-	-	533	13,331	47	1,284	32,102	115	4,170	90,281	497
ENERGY STAR® HVAC	640	838	4,175	71,055	14,244	242,438	1,799	(33)	(424)	(2)	11,799	211,751	959	29	429	2	26,039	454,194	2,758
EnergyWise	466	582	3,147	16,940	10,739	57,800	1,382	-	-	-	21,158	400,307	2,055	1,799	35,499	126	33,696	493,605	3,563
EnergyWise Multifamily	108	85	680	9,493	2,319	32,389	347	-	-	-	423	9,376	49	16	332	2	2,758	42,097	397
Home Energy Reports	3,348	5,174	24,350	83,081	24,350	83,081	9,597	-	-	-	-	-	-	-	-	-	83,081	83,081	9,597
Residential Consumer Products	885	481	4,473	31,684	15,261	108,105	2,784	-	-	-	159	2,711	13	57	808	4	15,478	111,624	2,801
Non-Income Eligible Residential SUBTOTAL	5,462	7,198	37,513	166,665	127,996	568,661	16,244	(33)	(424)	(2)	34,073	637,476	3,123	3,186	69,170	249	165,222	1,274,882	19,613
Income Eligible Residential																			
Single Family - Income Eligible Services	367	415	2,433	22,187	8,303	75,702	959	304	3,648	18	11,651	206,091	938	756	6,849	53	21,014	292,290	1,967
Income Eligible Multifamily	89	132	1,245	16,728	4,249	57,077	491	(291)	(5,813)	(17)	2,049	37,509	165	10	250	1	6,018	89,023	639
Income Eligible Residential SUBTOTAL	456	547	3,679	38,915	12,552	132,779	1,450	13	(2,165)	1	13,700	243,599	1,103	766	7,099	53	27,032	381,313	2,607
Commercial & Industrial																			
Large Commercial New Construction	1,306	1,100	10,481	157,598	35,762	537,725	5,778	(2,097)	(29,621)	(162)	-	-	-	-	-	-	33,665	508,104	5,616
Large Commercial Retrofit	6,143	5,659	35,260	244,962	120,308	835,809	21,279	(10,149)	(34,210)	(863)	(220)	(1,321)	(27)	-	-	-	109,939	800,278	20,388
Small Business Direct Install	708	646	9,260	57,778	31,594	197,138	4,178	(2,192)	(13,320)	(145)	(4,282)	(26,025)	(391)	-	-	-	25,120	157,794	3,642
C&I SUBTOTAL	8,157	7,405	55,001	460,338	187,663	1,570,672	31,235	(14,437)	(77,151)	(1,171)	(4,502)	(27,346)	(418)	-	-	-	168,724	1,466,175	29,646
TOTAL	14,076	15,151	96,193	665,918	328,211	2,272,112	48,929	(14,457)	(79,739)	(1,172)	43,271	853,729	3,808	3,952	76,269	302	360,977	3,122,371	51,866

Notes:
(1) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.
(2) Annual short tons CO₂ savings is based on gross annual energy savings in Year 1. The AESC 2021 study was used to inform the electric emissions factor for 2023, taking the average of summer/winter on/off-peak.

Table E-6B
Rhode Island Energy
Summary of 2023 Demand Response Benefits and Savings

	Benefits (000's)															Load Reduction (MW)	MWh Saved		
	Total	Total (Economic Excluded)	Summer Generation	Capacity				Energy					Non Electric Non Resource	Societal			Summer	Annual	Lifetime
				Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer		Energy DRIPE		Carbon	Economic				
								Peak	Off Peak	Peak	Off Peak								
Non-Income Eligible Residential																			
Residential Connected Solutions	\$4,782	\$3,148	\$232	\$939	\$854	\$971	\$145	\$0	\$0	\$2	\$1	\$1	\$0	\$3	\$1,634	7.9	0.1	0.1	
Commercial & Industrial																			
Commercial Connected Solutions	\$25,209	\$12,785	\$749	\$3,034	\$3,904	\$4,436	\$662	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,425	36.0	0.0	0.0	
TOTAL	\$29,991	\$15,933	\$980	\$3,973	\$4,759	\$5,406	\$807	\$0	\$0	\$2	\$1	\$1	\$0	\$3	\$14,059	43.9	0.1	0.1	

Table E-7
Rhode Island Energy
Comparison of 2023 and 2022 Goals and Tracking
17,990

	Proposed 2023 Goal		Proposed 2023 Tracking				Approved 2022				Difference			
	Lifetime Electric Energy Savings (MWh)	Active Demand Response (kW)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Total Net Lifetime Energy Savings (MMBtu)	Planned Unique Participants	Lifetime Electric Energy Savings (MWh)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Active Demand Response (kW)	Lifetime Electric Energy Savings (MWh)	Annual Electric Energy Savings (MWh)	Annual Passive Summer Demand Savings (kW)	Active Demand Response (kW)
Non-Income Eligible Residential														
Residential New Construction	13,144		689	16	90,281	410	14,947	867	74		-1,802	-177	-58	
ENERGY STAR® HVAC	71,055		4,175	640	454,194	6,371	77,717	4,620	240		-6,662	-445	400	
EnergyWise	16,940		3,147	466	493,605	9,465	13,472	2,789	424		3,468	359	42	
EnergyWise Multifamily	9,493		680	108	42,097	1,744	20,783	1,424	143		-11,290	-744	-35	
Home Energy Reports	24,350		24,350	3,348	83,081	276,390	26,852	26,852	3,692		-2,503	-2,503	-344	
ENERGY STAR® Lighting	0		0	0	0	0	0	0	0		0	0	0	
Residential Consumer Products	31,684		4,473	885	111,624	26,274	47,554	6,885	1,118		-15,871	-2,412	-233	
Residential ConnectedSolutions		7,878				6,900			7,365		0		513	
Non-Income Eligible Residential SUBTOTAL	166,665	7,878	37,513	5,462	1,274,882	327,554	201,325	43,435	5,691	7,365	-34,660	-5,922	-229	513
Income Eligible Residential														
Single Family - Income Eligible Services	22,187		2,433	367	292,290	3,111	38,506	3,314	480		-16,319	-880	-112	
Income Eligible Multifamily	16,728		1,245	89	89,023	2,786	24,309	1,538	49		-7,581	-292	40	
Income Eligible Residential SUBTOTAL	38,915	0	3,679	456	381,313	5,897	62,816	4,851	529	0	-23,900	-1,173	-73	0
Commercial & Industrial														
Large Commercial New Construction	157,598		10,481	1,306	508,104	45	192,343	12,589	1,745		-34,745	-2,108	-439	
Large Commercial Retrofit	244,962		35,260	6,143	800,278	2,142	312,931	41,132	8,490		-67,970	-5,872	-2,346	
Small Business Direct Install	57,778		9,260	708	157,794	339	64,394	9,976	904		-6,616	-716	-196	
Commercial ConnectedSolutions		36,000				216			32,400				3,600	
C&I SUBTOTAL	460,338	36,000	55,001	8,157	1,466,175	2,741	569,668	63,696	11,139	32,400	-109,330	-8,695	-2,981	3,600
TOTAL	665,918	43,878	96,193	14,076	3,122,371	336,192	833,808	111,983	17,359	39,765	-167,890	-15,790	-3,283	4,113

Notes:

- (1) Planned 2023 participation takes into account net-to-gross and estimates unique participation by taking into account 2021 unique customer accounts to savings ratios. Therefore the number of planned measures may be more than the estimated participants shown. For measure counts please view the widget tables in Attachments 1 and 2. Table E-7 no longer includes a comparison to the previous year's participation. Due to the way unique participation is calculated it is not possible to compare year-over-year results.
- (2) There are additional Low Income participants in Residential New Construction.
- (3) A customer can participate in more than one program, for example, Residential Consumer Products and Home Energy Reports, therefore the population reached can be more than 100%.

Table E-8A
Rhode Island Energy
2023 Electric PIM Benefits, Allocations, and Categorization (\$000)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Capacity				Energy				Utility NEIs		Non Electric				Societal			
	Summer Generation	Capacity DRIPE	Transmission	Distribution	Reliability	Winter Peak Energy	Winter Off Peak Energy	Summer Peak Energy	Summer Off Peak Energy	Electric Energy DRIPE	Utility NEIs	Natural Gas and DRIPE	Oil and Oil DRIPE	Propane and Water	Non Resource	Carbon	NOx	Economic
Non-Income Eligible Residential																		
Residential New Construction	\$13	\$13	\$28	\$31	\$0	\$391	\$514	\$88	\$71	\$271	\$0	\$0	\$353	\$1,396	\$80	\$728	\$27	\$2,508
ENERGY STAR® HVAC	\$582	\$514	\$1,221	\$1,387	\$6	\$2,198	\$2,740	\$341	\$287	\$1,672	\$0	-\$3	\$5,476	\$17	\$521	\$4,441	\$309	\$8,738
EnergyWise	\$166	\$227	\$365	\$414	\$3	\$383	\$397	\$217	\$188	\$396	\$0	\$0	\$10,400	\$1,688	\$646	\$4,145	\$525	\$16,432
EnergyWise Multifamily	\$59	\$66	\$126	\$144	\$1	\$180	\$211	\$152	\$133	\$203	\$0	\$0	\$247	\$52	\$1,248	\$457	\$18	\$1,951
Home Energy Reports	\$243	\$984	\$363	\$413	\$62	\$612	\$526	\$237	\$183	\$538	\$0	\$0	\$0	\$0	\$0	\$1,685	\$18	\$3,543
Residential Consumer Products	\$269	\$698	\$664	\$753	\$8	\$597	\$625	\$384	\$366	\$982	\$0	\$0	\$70	\$97	\$1	\$1,723	\$26	\$2,766
Non-Income Eligible Residential SUBTOTAL	\$1,332	\$2,501	\$2,767	\$3,141	\$80	\$4,361	\$5,012	\$1,418	\$1,228	\$4,062	\$0	-\$3	\$16,545	\$3,250	\$2,495	\$13,177	\$924	\$35,938
Income Eligible Residential																		
Single Family - Income Eligible Services	\$183	\$213	\$394	\$447	\$3	\$519	\$557	\$267	\$274	\$470	\$239	\$24	\$5,341	\$410	\$9,216	\$2,629	\$280	\$11,572
Income Eligible Multifamily	\$13	\$26	\$30	\$34	\$0	\$454	\$417	\$127	\$110	\$322	\$5	-\$40	\$924	\$45	\$1,711	\$831	\$50	\$5,528
Income Eligible Residential SUBTOTAL	\$196	\$239	\$424	\$481	\$3	\$953	\$974	\$394	\$384	\$792	\$244	-\$15	\$6,265	\$456	\$10,928	\$3,460	\$329	\$17,099
Commercial & Industrial																		
Large Commercial New Construction	\$990	\$1,048	\$2,109	\$2,394	\$13	\$4,259	\$2,725	\$2,633	\$1,630	\$3,702	\$0	-\$255	\$0	\$6	\$3,693	\$6,292	\$77	\$22,828
Large Commercial Retrofit	\$1,837	\$4,849	\$4,544	\$5,155	\$59	\$4,897	\$4,090	\$3,601	\$2,561	\$7,598	\$0	-\$284	-\$29	\$0	\$11,554	\$12,644	\$149	\$118,216
Small Business Direct Install	\$186	\$566	\$476	\$540	\$7	\$1,249	\$713	\$975	\$493	\$1,847	\$0	-\$113	-\$571	\$0	\$165	\$2,775	\$0	\$11,578
C&I SUBTOTAL	\$3,013	\$6,462	\$7,129	\$8,089	\$78	\$10,406	\$7,528	\$7,209	\$4,685	\$13,147	\$0	-\$653	-\$600	\$6	\$15,411	\$21,711	\$226	\$152,622
Included in PIM? (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
Percent Application in PIM	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	50%	50%	0%	0%	0%	0%
Category	Electric Utility System Benefits	Electric Utility System Benefits	Electric Utility System Benefits	Electric Utility System Benefits	Electric Utility System Benefits	Electric Utility System Benefits	Electric Utility System Benefits	Electric Utility System Benefits	Electric Utility System Benefits	Electric Utility System Benefits	Electric Utility System Benefits	Resource Benefits	Resource Benefits	Resource Benefits	NA	NA	NA	NA

Notes
From 2023 Benefit-Cost Model, Tab ESA-PIM Benefits

Table E-8B
Rhode Island Energy
2023 Electric PIM Costs

	(1)	(2)	(3)
	Costs (\$)		
	Eligible Spending Budget from Table E-3	Regulatory Costs	Total Costs for PIM Calculations
Non-Income Eligible Residential SUBTOTAL	\$29,364	\$274	\$29,638
Income Eligible Residential SUBTOTAL	\$16,306	\$274	\$16,580
C&I SUBTOTAL	\$40,487	\$274	\$40,761
Included in PIM? (Y/N)	Y	Y	Y

Notes

Source is 2023 Benefit-Cost Model, Tab E8B-PIM Costs. Regulatory costs allocated equally to each sector. OER and RIIB costs have been omitted from Regulatory Costs.

Table E-8C
Rhode Island Energy
2023 Electric PIM and SQA

Sector PI = min(Payout Cap(j), [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(i)])

Sector	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Performance Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	100% Electric Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)-(c)	Net benefits at which design incentive pool is achieved	Set by PUC	=(f)/(e)	Achievement levels at which the Payout Rate Adjustments in (i) will be applied—Set by PUC	Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)—Set by PUC	=1.25*(f)	Yes if (d) ≤ 0; No if (d) > 0
										Cap on sector payout regardless of achievement in sector	See Service Quality Table
Non-Income Eligible Residential	\$25,902,121	\$9,895,703	\$29,637,662	\$6,160,161	\$6,160,161	\$622,499	10.1%	a. Achievement < 25%	a. 0.0	\$778,124	No
Income Eligible Residential	\$5,083,335	\$3,352,694	\$16,579,911	-\$8,143,882	\$2,000,000	\$500,000	25.00%	b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement • Spending > Planned Eligible Costs	b. Achievement/100 + 0.1 c. Achievement/100 + 0.25 d. 1.0 • See Boundary Rules	\$625,000	Yes
Commercial & Industrial	\$67,744,918	-\$623,433	\$40,760,683	\$26,360,802	\$26,360,802	\$2,663,821	10.1%			\$3,329,776	No

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	100% Electric Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)	Maximum downward adjustment to earned incentive—Set by PUC	Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)	Factor to scale program achievement that fall within the ranges in (f)	Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Non-Income Eligible Residential	\$25,902,121	\$9,895,703	\$29,637,662	\$35,797,824	\$0	a. Adjusted Achievement < 65%	a. 1	Performance Variance = "Actual Benefits" / "Design Achievement" - "Spending" / "Planned Eligible Cost"
Income Eligible Residential	\$5,083,335	\$3,352,694	\$16,579,911	\$8,436,029	\$326,670	b. 65% ≤ Adjusted Achievement < 95%	b. (95-Adjusted Achievement)/30	If the absolute value (Performance Variance) ≤ 0.05, Then Adjusted Achievement = Actual Achievement
Commercial & Industrial	\$67,744,918	-\$623,433	\$40,760,683	\$67,121,485	\$0	c. 95% ≤ Adjusted Achievement	c. 0	Else Adjusted Achievement = Actual Achievement * (1+ Performance Variance)

Table E-9
Rhode Island Energy
Revolving Loan Fund Projections

Large C&I Revolving Loan Fund			Small Business Revolving Loan Fund		
(1)	Total Loan Fund Deposits Through 2022	\$ 20,547,780	(1)	Total Loan Fund Deposits Through 2022	\$ 3,303,570
(2)	Current Loan Fund Balance	\$ 4,360,123	(2)	Current Loan Fund Balance	\$ 2,726,897
	<i>Loans Paid Year-To-Date</i>	\$ 2,330,246		<i>Loans Paid Year-To-Date</i>	\$ 167,275
	<i>Repayments Year-To-Date</i>	\$ 2,572,300		<i>Repayments Year-To-Date</i>	\$ 328,808
(3)	Projected Additional Loans by Year End 2022	\$ 4,880,000	(3)	Projected Additional Loans by Year End 2022	\$ 504,725
(4)	Projected Additional Repayments by Year End 2022	\$ 4,561,651	(4)	Projected Additional Repayments by Year End 2022	\$ 317,402
(5)	Projected Year End Loan Fund Balance 2022	\$ 4,041,773	(5)	Projected Year End Loan Fund Balance 2022	\$ 2,539,574
(6)	2023 Fund Injection	\$ 2,000,000	(6)	2023 Fund Injection	\$ -
(7)	Projected Loan Fund Balance, January 2023	\$ 6,041,773	(7)	Projected Loan Fund Balance, January 2023	\$ 2,539,574
(8)	Projected Repayments throughout 2023	\$ 4,762,036	(8)	Projected Repayments throughout 2023	\$ 147,982
(9)	Estimated Loans in 2023	\$ 9,100,000	(9)	Estimated Loans in 2023	\$ 1,000,000
(10)	Projected Year End Loan Fund Balance 2023	\$ 1,703,810	(10)	Projected Year End Loan Fund Balance 2023	\$ 1,687,556
Public Sector Revolving Loan Fund			Efficient Buildings Fund		
(1)	Total Loan Fund Deposits Through 2022	\$ 53,994	(1)	Energy Efficiency Funds allocated to EBF through 202	\$ 22,087,113
(2)	Current Loan Fund Balance	\$ 46,798	(2)	Total EBF Loans Outstanding	\$ 55,075,045
	<i>Funds returned to OER</i>	\$ -			
	<i>Repayments Year-To-Date</i>	\$ 5,388			
(3)	Projected Additional Loans by Year End	\$ -			
(4)	Projected Additional Repayments by Year End	\$ -			
(5)	Projected Year End Loan Fund Balance 2022	\$ 46,798			
(6)	2023 Fund Injection	\$ -			
(7)	Projected Loan Fund Balance, January 2023	\$ 46,798			
(8)	Projected Repayments throughout 2023	\$ -			
(9)	Estimated Loans in 2023	\$ -			
(10)	Projected Year End Loan Fund Balance 2023	\$ 46,798			

Notes

- (1) Funding injections since loan funds began. Net of any adjustments.
- (2) Current Loan Fund Balance is through May 2022; it includes all loans and repayments made by May 2022. Public Sector Revolving Loan Fund reduced by transfers to RI PEP Incentives. EBF reports in terms of loans outstanding.
- (3) Projected Loans from May to Year-End 2022 is estimated based on projects currently under construction that are anticipated to be paid out by year-end. It is difficult to project this amount accurately due to the fact that projects could be delayed by a month or two resulting in payment occurring in 2023 instead of 2022.
- (4) Projected Repayments from June to Year-End 2022 is estimated based on the monthly average amount of repayments.
- (5) Equal to (2) - (3) + (4).
- (6) Fund injection of \$2M for the Large C&I Revolving Loan Fund is included under the Finance Cost line in Table E-2.
- (7) Equal to (5) + (6).
- (8) Assumption based on monthly average repayments in 2022 over 12 month period; repayments accumulate over time and may vary widely.
- (9) Amount projected to be lent to customers in 2023
- (10) Equal to (7) + (8) - (9).

The 2023 Annual Plan only includes two values for Efficient Buildings Fund (EBF): 1) The Energy Efficiency Funds allocated to EBF through 2021. 2) Total EBF Loans Outstanding as of July 2022. Additional information (11) is not available because RIIB has informed the Company that, commencing with the 2022 Plan, it will not be providing forward looking projections to the Company regarding EBF. The Company is therefore unable to provide any future projections in the 2023 Annual Plan regarding EBF. The state's System Reliability and Least Cost procurement statute (amended in 2021) directs that \$5M shall be transferred to RIIB. However, RIIB has not informed the Company the statutory \$5M transfer to RIIB in 2023 will go to EBF.

Table E-10
Rhode Island Energy
Rhode Island Electric Energy Efficiency 2003 - 2023
\$(000)

Electric	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 ⁽⁴⁾	2014	2015	2016	2017	2018	2019	2020	2021	2022 ⁽⁵⁾	2023 ⁽⁶⁾
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	\$116.8	\$108.7	\$102.7
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	\$104.8	\$93.0	\$86.2
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	\$88.2	\$94.6		
Incentive Percentage ⁽¹⁰⁾	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	N/A	N/A
Target Incentive	\$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	\$3,390,165	\$3,286,320
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	\$3,242,675	\$3,464,590		
Annual Summer Demand kW Savings Goal Achieved (%)				106%	106%	113%	142%	78%	71%	83%	114%	78%	112%	101%	103%	116%	98%	79%	83%		
Annual MWh Energy Savings Goal Achieved (%)				111%	102%	111%	115%	107%	94%	93%	99%	105%	115%	107%	115%	110%	98%	88%	95%		
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	\$0.01113	\$0.01213	\$0.00765
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	\$66.78	\$72.78	\$45.90
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	\$69.56	\$75.81	\$47.81

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 ConnectedSolutions 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) 2022 values are planned.
- (6) 2023 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. In 2022, the surcharge was in effect for an 11 month period beginning February 1, 2022.
- (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 and going forward due to new performance incentive mechanism developed for the 2021 Annual Plan. See Section 11 of the Main Text of the 2023 Annual Plan for additional details.

Table G-1
Rhode Island Energy
Gas DSM Funding Sources in 2023 by Sector
\$(000)

	<u>Projections by Sector</u>			Total
	Income Eligible Residential	Non-Income Eligible Residential	Commercial & Industrial	
(1) Projected Budget (from G-2):	\$8,742.0	\$17,185.5	\$10,970.5	\$36,897.988
Sources of Other Funding:				
(2) Projected Year-End 2022 Fund Balance and Interest:	\$0.0	(\$4,636)	\$5,891.7	\$1,255.6
(3) Total Other Funding:	\$0.0	(\$4,636.0)	\$5,891.7	\$1,255.6
(4) Customer Funding Required:	\$8,742.0	\$21,821.5	\$5,078.9	\$35,642.4
(5) Forecasted Firm Dth Volume	1,751,260	18,641,723	19,659,477	40,052,460
(6) Forecasted Non Firm Dth Volume			237,451	237,451
(7) Less: Exempt DG Customers			(1,562,431)	(1,562,431)
(8) Forecasted Dth Volume:	1,751,260	18,641,723	18,334,497	38,727,480
Average Energy Efficiency Program Charge per Dth				
(9) excluding Uncollectible Recovery:				\$0.920
(10) Proposed Energy Efficiency Program Charge per Dth excluding Uncollectible Recovery	\$1.177	\$1.177	\$0.634	
(11) Currently Effective Uncollectible Rate	<u>1.91%</u>	<u>1.91%</u>	<u>1.91%</u>	
(12) Proposed Energy Efficiency Program Charge per Dth, including Uncollectible Recovery:	\$1.199	\$1.199	\$0.6460	
(13) Currently Effective Energy Efficiency Program Charge per Dth	\$1.354	\$1.354	\$0.8860	
(14) Adjustment to Reflect Fully Reconciling Funding Mechanism	(\$0.155)	(\$0.155)	(\$0.240)	

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 2023 EE Plan Table G-1. The fund balance includes a \$562,736 credit from shareholder funds to the fund balance, with interest, which the Company made in May and June, 2022 based on the Company's involvement in Docket 22-05-EE.

(10) 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.

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

(13) This is an 11 month rate that went into effect February 1, 2022.

Table G-2
Rhode Island Energy
2023 Gas Energy Efficiency Program Budget (\$000)

	Program Planning & Administration	Marketing	Rebates and Other Customer Incentives	Sales, Tech Assist & Training	Evaluation & Market Research	Performance Incentive	Grand Total
Non-Income Eligible Residential:							
ENERGY STAR® HVAC	\$124.5	\$207.0	\$2,972.0	\$254.2	\$29.1	\$0.0	\$3,586.8
EnergyWise	\$280.3	\$62.4	\$8,021.6	\$1,388.0	\$175.8	\$0.0	\$9,928.1
EnergyWise Multifamily	\$71.2	\$50.8	\$1,167.3	\$180.6	\$15.5	\$0.0	\$1,485.4
Home Energy Reports	\$8.8	\$0.0	\$0.0	\$349.3	\$2.4	\$0.0	\$360.5
Residential Pilots	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Residential New Construction	\$55.2	\$2.1	\$358.5	\$166.5	\$39.2	\$0.0	\$621.5
Comprehensive Marketing - Residential	\$0.1	\$69.0	\$0.0	\$0.0	\$0.0	\$0.0	\$69.1
Community Based Initiatives - Residential	\$12.3	\$45.8	\$35.3	\$0.0	\$0.0	\$0.0	\$93.5
Residential Workforce Development	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Residential Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Non-Income Eligible Residential	\$552.5	\$437.2	\$12,554.6	\$2,338.6	\$261.9	\$0.0	\$16,144.8
Income Eligible Residential:							
Single Family - Income Eligible Services	\$193.0	\$22.0	\$4,164.3	\$1,015.4	\$34.1	\$0.0	\$5,428.9
Income Eligible Multifamily	\$114.4	\$8.6	\$2,653.7	\$410.7	\$28.0	\$0.0	\$3,215.3
Income Eligible Workforce Development	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Income Eligible Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Subtotal - Income Eligible Residential	\$307.4	\$30.7	\$6,818.0	\$1,426.1	\$62.0	\$0.0	\$8,644.2
Commercial & Industrial							
Large Commercial New Construction	\$100.8	\$104.7	\$1,524.9	\$863.2	\$225.0	\$0.0	\$2,818.6
Large Commercial Retrofit	\$223.4	\$172.8	\$2,272.5	\$1,761.7	\$209.2	\$0.0	\$4,639.5
Small Business Direct Install	\$13.0	\$16.2	\$598.6	\$59.6	\$2.4	\$0.0	\$689.8
Commercial & Industrial Multifamily	\$37.0	\$25.4	\$659.7	\$161.6	\$7.6	\$0.0	\$891.2
Commercial Pilots	\$2.4	\$0.0	\$0.0	\$10.0	\$0.0	\$0.0	\$12.4
Finance Costs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Community Based Initiatives - C&I	\$4.1	\$15.3	\$11.8	\$0.0	\$0.0	\$0.0	\$31.2
Commercial Workforce Development	\$0.0	\$0.0	\$0.0	\$67.5	\$0.0	\$0.0	\$67.5
Commercial & Industrial Performance Incentive	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$796.8	\$796.8
Subtotal - Commercial & Industrial	\$380.7	\$334.3	\$5,067.4	\$2,923.6	\$444.3	\$796.8	\$9,947.1
Regulatory							
EERMC	\$274.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$274.1
OER	\$625.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$625.3
Rhode Island Infrastructure Bank	\$0.0	\$0.0	\$1,262.5	\$0.0	\$0.0	\$0.0	\$1,262.5
Subtotal - Regulatory	\$899.4	\$0.0	\$1,262.5	\$0.0	\$0.0	\$0.0	\$2,161.9
Grand Total	\$2,139.9	\$802.1	\$25,702.6	\$6,688.3	\$768.2	\$796.8	\$36,898.0

Notes:

- (1) OER budget is equal to the SBC collections after zeroing out EERMC and OER budgets times 3% times 60%. EERMC budget was approved by the EERMC on November 22nd, 2022 for a total between gas and electric of \$1,096,299.14. 25% of that total has been allocated to the gas budget, in accordance with the proportions of the gas and electric budget.
- (2) Demonstrations and Assessments are included in specific program level budgets listed above. More information on Demonstration and Assessments descriptions, budgets, and which program level budget they are included in can be found in Attachment 8.
- (3) Based on the state's System Reliability and Least Cost procurement statute (amended in 2021), funds transferred to the Rhode Island Infrastructure Bank are now classified under Regulatory costs.

Table G-3
Rhode Island Energy
Derivation of the 2023 Eligible PIM & Implementation Budgets (\$000)

	Proposed 2023 Budget From G-2 (\$000)	Outside Finance and Stakeholder Oversight Costs (\$000)	Performance Incentive (\$000)	Eligible Sector PIM Budget for Performance Incentive on G-8 (\$000) ¹	Implementation Expenses for Cost-Effectiveness on G-5 (\$000) ²
Non-Income Eligible Residential					
ENERGY STAR® HVAC	\$3,586.8				\$3,586.8
EnergyWise	\$9,928.1				\$9,928.1
EnergyWise Multifamily	\$1,485.4				\$1,485.4
Home Energy Reports	\$360.5				\$360.5
Residential Pilots	\$0.0				\$0.0
Residential New Construction	\$621.5				\$621.5
Comprehensive Marketing - Residential	\$69.1				\$69.1
Community Based Initiatives - Residential	\$93.5				\$93.5
Residential Workforce Development	\$0.0				\$0.0
Residential Performance Incentive	\$0.0		\$0.0		\$0.0
Subtotal - Non-Income Eligible Residential	\$16,144.8	\$0.0	\$0.0	\$16,144.8	\$16,144.8
Income Eligible Residential					
Single Family - Income Eligible Services	\$5,428.9				\$5,428.9
Income Eligible Multifamily	\$3,215.3				\$3,215.3
Income Eligible Workforce Development	\$0.0				\$0.0
Income Eligible Performance Incentive	\$0.0		\$0.0		\$0.0
Subtotal - Income Eligible Residential	\$8,644.2	\$0.0	\$0.0	\$8,644.2	\$8,644.2
Commercial & Industrial					
Large Commercial New Construction	\$2,818.6				\$2,818.6
Large Commercial Retrofit	\$4,639.5				\$4,639.5
Small Business Direct Install	\$689.8				\$689.8
Commercial & Industrial Multifamily	\$891.2				\$891.2
Commercial Pilots	\$12.4				\$12.4
Finance Costs	\$0.0				\$0.0
Community Based Initiatives - C&I	\$31.2				\$31.2
Commercial Workforce Development	\$67.5				\$67.5
Commercial & Industrial Performance Incentive	\$796.8		\$796.8		\$0.0
Subtotal - Commercial & Industrial	\$9,947.1	\$0.0	\$796.8	\$9,085.4	\$9,150.3
Regulatory					
EERMC	\$274.1	\$274.1			\$274.1
OER	\$625.3	\$625.3			\$625.3
Rhode Island Infrastructure Bank	\$1,262.5	\$1,262.5			\$1,262.5
Subtotal - Regulatory	\$2,161.9	\$2,161.9			\$2,161.9
Grand Total	\$36,898.0	\$2,161.9	\$796.8	\$33,874.5	\$36,101.2

Notes:

- (1) Eligible Sector Spending Budget for Performance Incentive = Budget from G-2 minus Regulatory Costs, Pilots, Assessments, and Performance Incentive.
- (2) Implementation Expenses = Budget from G-2 minus Performance Incentive.
- (3) Eligible Sector Spending Budget does not include assessments, see Attachment 8 for assessments budgets.

Table G-4
Rhode Island Energy
Proposed 2023 Budget Compared to Approved 2022 Budget (\$000)

	Proposed Implementation Budget 2023	Approved Implementation Budget 2022	Difference
Non-Income Eligible Residential			
ENERGY STAR® HVAC	\$3,586.8	\$3,650.5	-\$63.7
EnergyWise	\$9,928.1	\$8,575.0	\$1,353.1
EnergyWise Multifamily	\$1,485.4	\$1,488.6	-\$3.3
Home Energy Reports	\$360.5	\$441.5	-\$81.0
Residential Pilots	\$0.0	\$0.0	\$0.0
Residential New Construction	\$621.5	\$566.4	\$55.1
Comprehensive Marketing - Residential	\$69.1	\$68.0	\$1.1
Community Based Initiatives - Residential	\$93.5	\$85.0	\$8.5
Residential Performance Incentive	\$0.0	\$0.0	\$0.0
Subtotal - Non-Income Eligible Residential	\$16,144.8	\$14,875.0	\$1,269.8
Income Eligible Residential			
Single Family - Income Eligible Services	\$5,428.9	\$6,370.0	-\$941.2
Income Eligible Multifamily	\$3,215.3	\$2,947.5	\$267.8
Income Eligible Performance Incentive	\$0.0	\$0.0	\$0.0
Subtotal - Income Eligible Residential	\$8,644.2	\$9,317.6	-\$673.4
Commercial & Industrial			
Large Commercial New Construction	\$2,818.6	\$3,140.9	-\$322.3
Large Commercial Retrofit	\$4,639.5	\$4,672.1	-\$32.6
Small Business Direct Install	\$689.8	\$354.1	\$335.7
Commercial & Industrial Multifamily	\$891.2	\$957.0	-\$65.8
Commercial Pilots	\$12.4	\$215.8	-\$203.4
Finance Costs	\$0.0	\$0.0	\$0.0
Community Based Initiatives - C&I	\$31.2	\$28.3	\$2.8
Commercial Workforce Development	\$67.5	\$67.5	\$0.0
Commercial & Industrial Performance Incentive	\$796.8	\$1,000.0	-\$203.2
Subtotal Commercial & Industrial	\$9,947.1	\$10,435.7	-\$488.6
Regulatory			
EERMC	\$274.1	\$259.5	\$14.6
OER	\$625.3	\$755.6	-\$130.3
Rhode Island Infrastructure Bank	\$1,262.5	\$1,262.5	\$0.0
Subtotal Regulatory	\$2,161.9	\$2,277.6	-\$115.8
TOTAL BUDGET	\$36,898.0	\$36,906.0	-\$8.0

Notes:

- (1) Program Implementation Budget excludes Commitments, Company Incentive; derived on Table G-3
- (2) Total Budget includes Implementation, Commitments; illustrated on Table G-3
- (3) Performance Incentive is allocated to the C&I Sector Consistent with the final PIM approved in Docket 5076.

**Table G-5 - Primary
Rhode Island Energy
Calculation of 2023 Program Year Cost-Effectiveness
All Dollar Values in (\$000)**

	Rhode Island Benefit/ Cost ¹	Total Benefit	Program Implementation Expenses ²	Customer Contribution	Performance Incentive	\$/Lifetime MMBtu
Non-Income Eligible Residential						
Energy Star® HVAC	1.42	\$10,389.4	\$3,586.8	\$3,718.7		\$14.11
EnergyWise	1.02	\$10,970.1	\$9,928.1	\$872.1		\$22.04
EnergyWise MultiFamily	3.87	\$5,172.4	\$1,485.4	-\$150.1		\$12.09
Home Energy Reports	4.72	\$1,701.9	\$360.5	\$0.0		\$3.93
Residential New Construction	1.52	\$1,400.9	\$621.5	\$301.1		\$15.78
Comprehensive Marketing - Residential			\$69.1			
Community Based Initiatives - Residential			\$93.5			
Residential Pilots			\$0.0			
Non-Income Eligible Residential Subtotal	1.42	\$29,634.7	\$16,144.8	\$4,741.8	\$0.0	\$16.47
Income Eligible Residential						
Single Family - Income Eligible Services	1.87	\$10,138.9	\$5,428.9	\$0.0		\$32.09
Income Eligible Multifamily	3.05	\$9,807.3	\$3,215.3	\$0.0		\$18.64
Income Eligible Residential Subtotal	2.31	\$19,946.2	\$8,644.2	\$0.0	\$0.0	\$25.30
Large Commercial & Industrial						
Large Commercial New Construction	6.09	\$17,538.9	\$2,818.6	\$60.5		\$4.02
Large Commercial Retrofit	2.35	\$16,873.4	\$4,639.5	\$2,537.2		\$7.06
Small Business Direct Install	2.77	\$2,372.2	\$689.8	\$166.3		\$6.58
Commercial & Industrial Multifamily	4.93	\$5,917.1	\$891.2	\$309.9		\$18.58
Commercial Pilots			\$12.4			
Community Based Initiatives - C&I			\$31.2			
Finance Costs			\$0.0			
Commercial Workforce Development			\$67.5			
Commercial & Industrial Subtotal	3.28	\$42,701.7	\$9,150.3	\$3,073.9	\$796.8	\$6.34
Regulatory						
EERMC			\$274.1			
OER			\$625.3			
Rhode Island Infrastructure Bank			\$1,262.5			
Regulatory Subtotal			\$2,161.9			
Grand Total	2.06	\$92,282.6	\$36,101	\$7,815.7	\$796.8	\$12.41

Notes:

- (1) RI Test B/C Test = Total Benefits from Table G-6 excluding Economic Benefits / Program Implementation Expenses from Table G-3 and Customer Contribution. Also includes effects of free-ridership and spillover.
- (2) For Implementation Expenses derivation, see Table G-3.

Table G-5 - Economic Benefits
Rhode Island Energy
Calculation of 2023 Economic Benefits and Job Years
All Dollar Values in (\$000)

	Program Implementation Expenses¹	RI Economic Multiplier (GDP/\$ Program Impl.)	Economic Benefits	RI Job Years Multiplier (Job Years/\$M Program Impl.)	Job Years
Non-Income Eligible Residential					
Energy Star® HVAC	\$3,587	\$0.97	\$3,479.2	6.9	25
EnergyWise	\$9,928	\$1.08	\$10,722.4	11.9	118
EnergyWise MultiFamily	\$1,485	\$1.70	\$2,525.1	16.5	25
Home Energy Reports	\$361	\$1.12	\$403.8	7.5	3
Residential New Construction	\$622	\$0.34	\$211.3	2.4	1
Comprehensive Marketing - Residential	\$69		\$0.0		
Community Based Initiatives - Residential	\$93		\$0.0		
Residential Pilots	\$0		\$0.0		
Non-Income Eligible Residential SUBTOTAL	\$16,145		\$17,341.8		172
Income Eligible Residential					
Single Family - Income Eligible Services	\$5,429	\$1.05	\$5,700.3	12.1	66
Income Eligible Multifamily	\$3,215	\$1.62	\$5,208.9	16.0	51
Income Eligible Residential SUBTOTAL	\$8,644		\$10,909.2		117
Commercial & Industrial					
Large Commercial New Construction	\$2,819	\$0.74	\$2,085.8	1.2	3
Large Commercial Retrofit	\$4,640	\$2.10	\$9,743.0	16.4	76
Small Business Direct Install	\$690	\$1.39	\$958.8	13.4	9
Commercial & Industrial Multifamily	\$891	\$1.55	\$1,381.4	11.0	10
Commercial Pilots	\$12		\$0.0		
Community Based Initiatives - C&I	\$31		\$0.0		
Finance Costs	\$0		\$0.0		
Commercial Workforce Development	\$68		\$0.0		
C&I SUBTOTAL	\$9,150		\$14,169.0		99
Regulatory					
OER	\$625		\$0.0		-
EERMC	\$274		\$0.0		-
Rhode Island Infrastructure Bank	\$1,263		\$0.0		-
Regulatory SUBTOTAL	\$2,162		\$0.0		-
TOTAL	\$36,101		\$42,419.9		387

Notes:

(1) For Implementation Expenses derivation, see Table G-3.

(2) RI Economic and Job Years Multipliers from "Economic Multipliers Update" filed by National Grid in Docket 5189.

Table G-5A
Rhode Island Energy
Calculation of 2023 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	0.95	\$6,930.7	\$3,586.8	\$3,718.7		\$14.1
EnergyWise	0.75	\$8,120.0	\$9,928.1	\$872.1		\$22.0
EnergyWise MultiFamily	3.37	\$4,497.5	\$1,485.4	-\$150.1		\$12.1
Home Energy Reports	2.02	\$726.6	\$360.5	\$0.0		\$3.9
Residential New Construction	1.12	\$1,032.1	\$621.5	\$301.1		\$15.8
Comprehensive Marketing - Residential			\$69.1			
Community Based Initiatives - Residential			\$93.5			
Residential Pilots			\$0.0			
Residential Workforce Development			\$0.0			
Non-Income Eligible Residential Subtotal	1.02	\$21,306.9	\$16,144.8	\$4,741.8	\$0.0	\$16.5
Income Eligible Residential						
Single Family - Income Eligible Services	1.67	\$9,062.6	\$5,428.9	\$0.0		\$32.1
Income Eligible Multifamily	2.67	\$8,596.0	\$3,215.3	\$0.0		\$18.6
Income Eligible Workforce Development			\$0.0			\$0.0
Income Eligible Residential Subtotal	2.04	\$17,658.6	\$8,644.2	\$0.0	\$0.0	\$25.3
Large Commercial & Industrial						
Large Commercial New Construction	4.31	\$12,404.2	\$2,818.6	\$60.5		\$4.0
Large Commercial Retrofit	1.28	\$9,203.4	\$4,639.5	\$2,537.2		\$7.1
Small Business Direct Install	1.66	\$1,420.4	\$689.8	\$166.3		\$6.6
Commercial & Industrial Multifamily	4.54	\$5,453.4	\$891.2	\$309.9		\$18.6
Commercial Pilots			\$12.4	\$0.0		
Community Based Initiatives - C&I			\$31.2	\$0.0		
Finance Costs			\$0.0	\$0.0		
Commercial Workforce Development			\$67.5	\$0.0		
Commercial & Industrial Subtotal	2.19	\$28,481.5	\$9,150.3	\$3,073.9	\$796.8	\$6.3
Regulatory						
EERMC			\$274.1			
OER			\$625.3			
Rhode Island Infrastructure Bank			\$1,262.5			
Regulatory Subtotal			\$2,161.9			
Grand Total	1.51	\$67,446.9	\$36,101.2	\$7,815.7	\$796.8	\$12.4

Notes:

(1) TRC B/C Test = (Energy + Capacity + Resource Benefits) / (Program Implementation + Customer Contribution + Performance Incentive)

Also includes effects of free-ridership and spillover.

(2) For Implementation Expenses derivation, see Table G-3.

Table G-6
Rhode Island Energy
Summary of 2023 Benefits by Program

	Benefits (\$000)																			
	Total	Total (Economic Excluded)	Natural Gas Benefits		Electric Capacity					Electric Energy				Non-Electric and Non-Gas			Societal			
			Natural Gas	Natural Gas DRIPE	Summer Generation	Capacity DRIPE	Trans	Dist	Reliability	Winter		Summer		Electric Energy DRIPE	Oil and Oil DRIPE	Other Resource	Non Resource	Carbon	NOx	Economic
										Winter Peak	Winter Off Peak	Summer Peak	Summer Off Peak							
Non-Income Eligible Residential																				
EnergyWise	\$21,693	\$10,970	\$4,431	\$28	\$61	\$106	\$82	\$101	\$5	\$52	\$59	\$54	\$47	\$38	\$0	\$75	\$2,982	\$2,518	\$332	\$10,722
Energy Star® HVAC	\$13,869	\$10,389	\$4,690	\$37	\$173	\$466	\$240	\$296	\$23	\$16	\$5	\$129	\$108	\$73	\$0	\$44	\$629	\$3,101	\$357	\$3,479
EnergyWise Multifamily	\$7,698	\$5,172	\$990	\$7	\$6	\$13	\$8	\$10	\$1	\$1	\$0	\$5	\$4	\$2	\$0	\$42	\$3,407	\$600	\$75	\$2,525
Home Energy Reports	\$2,106	\$1,702	\$696	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$912	\$64	\$404
Residential New Construction	\$1,612	\$1,401	\$526	\$4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7	\$494	\$329	\$40	\$211
Non-Income Eligible Residential SUBTOTAL	\$46,976	\$29,635	\$11,334	\$106	\$240	\$584	\$331	\$407	\$29	\$68	\$64	\$188	\$159	\$113	\$0	\$169	\$7,513	\$7,459	\$868	\$17,342
Income Eligible Residential																				
Single Family - Income Eligible Services	\$15,839	\$10,139	\$1,552	\$11	\$18	\$35	\$24	\$30	\$2	\$20	\$23	\$15	\$13	\$16	\$0	\$0	\$7,304	\$960	\$117	\$5,700
Income Eligible Multifamily	\$15,016	\$9,807	\$1,556	\$15	\$7	\$22	\$10	\$12	\$1	\$1	\$1	\$5	\$4	\$4	\$0	\$24	\$6,933	\$1,093	\$118	\$5,209
Income Eligible Residential SUBTOTAL	\$30,855	\$19,946	\$3,108	\$26	\$25	\$57	\$34	\$42	\$3	\$21	\$24	\$20	\$17	\$20	\$0	\$24	\$14,237	\$2,053	\$235	\$10,909
Commercial & Industrial																				
Large Commercial New Construction	\$19,625	\$17,539	\$5,443	\$51	\$79	\$157	\$108	\$132	\$8	\$0	\$0	\$0	\$0	\$0	\$0	\$148	\$6,279	\$4,613	\$522	\$2,086
Large Commercial Retrofit	\$26,616	\$16,873	\$8,295	\$113	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$796	\$6,924	\$746	\$9,743
Small Business Direct Install	\$3,331	\$2,372	\$1,023	\$11	\$0	\$0	\$0	\$0	\$0	\$4	\$3	\$1	\$1	\$3	\$0	\$317	\$58	\$856	\$96	\$959
Commercial & Industrial Multifamily	\$7,299	\$5,917	\$548	\$6	\$3	\$10	\$4	\$5	\$0	\$0	\$0	\$2	\$2	\$2	\$0	\$4	\$4,866	\$417	\$47	\$1,381
Commercial & Industrial SUBTOTAL	\$56,871	\$42,702	\$15,308	\$181	\$82	\$166	\$112	\$138	\$8	\$4	\$3	\$3	\$3	\$5	\$0	\$469	\$11,998	\$12,809	\$1,411	\$14,169
Grand Total	\$134,703	\$92,283	\$29,750	\$313	\$347	\$808	\$477	\$586	\$41	\$94	\$92	\$212	\$179	\$138	\$0	\$662	\$33,748	\$22,321	\$2,514	\$42,420

Table G-6A
Rhode Island Energy
Summary of 2023 Impacts by Program

	Gas Savings			Electric Energy Savings					Total Savings (Gas, Electric)		Total Carbon Savings
	MMBtu		short tons CO ₂	MWh		MMBtu		short tons CO ₂	MMBtu		short tons CO ₂
	Annual	Lifetime	Annual ¹	Annual	Lifetime	Annual	Lifetime	Annual ¹	Annual	Lifetime	Annual ¹
Non-Income Eligible Residential											
EnergyWise	20,697	490,013	1,422	116	2,713	394	9,258	55	21,092	499,271	1,477
Energy Star® HVAC	27,030	517,571	1,978	281	4,173	957	14,238	128	27,987	531,809	2,106
EnergyWise Multifamily	5,358	110,428	440	9	158	29	540	6	5,387	110,968	446
Home Energy Reports	91,640	91,640	5,361	-	-	-	-	-	91,640	91,640	5,361
Residential New Construction	3,287	58,476	215	-	-	-	-	-	3,287	58,476	215
Non-Income Eligible Residential SUBTOTAL	148,013	1,268,128	9,416	405	7,045	1,380	24,036	188	149,393	1,292,165	9,604
Income Eligible Residential											
Single Family - Income Eligible Services	8,230	169,180	481	51	1,022	173	3,485	20	8,403	172,665	501
Income Eligible Multifamily	11,075	172,464	648	15	189	49	643	5	11,125	173,107	653
Income Eligible Residential SUBTOTAL	19,305	341,644	1,129	65	1,210	222	4,129	25	19,528	345,773	1,155
Commercial & Industrial											
Large Commercial New Construction	48,823	716,705	5,075	-	-	-	-	-	48,823	716,705	5,075
Large Commercial Retrofit	94,766	1,016,519	5,095	-	-	-	-	-	94,766	1,016,519	5,095
Small Business Direct Install	9,723	130,193	630	8	116	26	395	3	9,750	130,588	633
Commercial & Industrial Multifamily	4,249	64,645	275	6	82	22	281	4	4,270	64,927	279
Commercial & Industrial SUBTOTAL	157,561	1,928,063	11,074	14	198	48	676	8	157,609	1,928,739	11,082
Grand Total	324,879	3,537,835	21,619	484	8,453	1,650	28,841	222	326,529	3,566,676	21,841

Notes:

1) Lifetime savings are equal to annual savings multiplied by the expected life of measures expected to be installed in each program.

(2) Annual short tons CO₂ savings is based on gross annual energy savings in Year 1. The AESC 2021 study was used to inform the electric emissions factor for 2023, taking the average of summer/winter on/off-peak

Table G-7
Rhode Island Energy
Comparison of 2023 and 2022 Goals

	Proposed 2023 Goal	Proposed 2023 Tracking		Approved 2022		Difference	
	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)	Planned Unique Participants	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)	Lifetime Energy Savings (MMBtu Natural Gas)	Annual Energy Savings (MMBtu Natural Gas)
Non-Income Eligible Residential							
EnergyWise	490,013	20,697	1,716	478,550	20,850	11,463	-152
Energy Star® HVAC	517,571	27,030	2,904	439,717	26,740	77,854	289
EnergyWise Multifamily	110,428	5,358	3,453	147,064	8,279	-36,636	-2,921
Home Energy Reports	91,640	91,640	130,585	93,548	93,548	-1,907	-1,907
Residential New Construction	58,476	3,287	460	64,899	3,610	-6,423	-323
Non-Income Eligible Residential SUBTOTAL	1,268,128	148,013	139,117	1,223,778	153,027	44,350	-5,014
Income Eligible Residential							
Single Family - Income Eligible Services	169,180	8,230	797	218,847	10,942	-49,667	-2,712
Income Eligible Multifamily	172,464	11,075	2,742	273,085	14,700	-100,621	-3,625
Income Eligible Residential SUBTOTAL	341,644	19,305	3,539	491,932	25,642	-150,288	-6,337
Commercial & Industrial							
Large Commercial New Construction	716,705	48,823	62	788,763	52,956	-72,058	-4,133
Large Commercial Retrofit	1,016,519	94,766	59	1,332,508	142,888	-315,989	-48,122
Small Business Direct Install	130,193	9,723	146	91,700	6,113	38,494	3,610
Commercial & Industrial Multifamily	64,645	4,249	488	131,220	8,803	-66,575	-4,554
Commercial & Industrial SUBTOTAL	1,928,063	157,561	755	2,344,192	210,760	-416,129	-53,200
TOTAL	3,537,835	324,879	143,411	4,059,902	389,430	-522,067	-64,551

Notes:

- (1) Participants can participate in more than one program, for example Home Energy Reports and EnergyWise.
- (2) Planned 2023 participation takes into account net-to-gross and estimates unique participation by taking into account 2021 unique customer accounts to savings ratios. Therefore the number of planned measures may be more than the planned participants. For measure counts please view the widgets tables at the end of the Residential and C&I text sections. Table G-7 no longer includes a comparison to the previous year's participation. Due to the way unique participation is calculated it is not possible to compare year-over-year results.

Table G-8A
Rhode Island Energy
2023 Gas PIM Benefits, Allocations, and Categorization (\$000)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
	Natural Gas Benefits		Utility NEIs	Electric Capacity				Electric Energy				Non-Electric and Non-Gas				Societal			
	Natural Gas	Natural Gas	Utility NEIs	Summer Generation	Capacity	Trans	Dist	Reliability	Winter		Summer		Electric Energy	Oil and Oil	Other Resource	Non Resource	Carbon	NOx	Economic
		DRiPE							DRiPE	Peak	Winter Off Peak	Summer Peak							
Non-Income Eligible Residential																			
EnergyWise	\$4,431	\$28	\$0	\$61	\$106	\$82	\$101	\$5	\$52	\$59	\$54	\$47	\$38	\$0	\$75	\$2,982	\$2,518	\$332	\$10,722
Energy Star® HVAC	\$4,690	\$37	\$0	\$173	\$466	\$240	\$296	\$23	\$16	\$5	\$129	\$108	\$73	\$0	\$44	\$629	\$3,101	\$357	\$3,479
EnergyWise Multifamily	\$990	\$7	\$0	\$6	\$13	\$8	\$10	\$1	\$1	\$0	\$5	\$4	\$2	\$0	\$42	\$3,407	\$600	\$75	\$2,525
Home Energy Reports	\$696	\$30	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$912	\$64	\$404
Residential New Construction	\$526	\$4	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7	\$494	\$329	\$40	\$211
Non-Income Eligible Residential SUBTOTAL	\$11,334	\$106	\$0	\$240	\$584	\$331	\$407	\$29	\$68	\$64	\$188	\$159	\$113	\$0	\$169	\$7,513	\$7,459	\$868	\$17,342
Income Eligible Residential																			
Single Family - Income Eligible Services	\$1,552	\$11	\$79	\$18	\$35	\$24	\$30	\$2	\$20	\$23	\$15	\$13	\$16	\$0	\$0	\$7,225	\$960	\$117	\$5,700
Income Eligible Multifamily	\$1,556	\$15	\$33	\$7	\$22	\$10	\$12	\$1	\$1	\$1	\$5	\$4	\$4	\$0	\$24	\$6,901	\$1,093	\$118	\$5,209
Income Eligible Residential SUBTOTAL	\$3,108	\$26	\$112	\$25	\$57	\$34	\$42	\$3	\$21	\$24	\$20	\$17	\$20	\$0	\$24	\$14,125	\$2,053	\$235	\$10,909
Commercial & Industrial																			
Large Commercial New Construction	\$5,443	\$51	\$0	\$79	\$157	\$108	\$132	\$8	\$0	\$0	\$0	\$0	\$0	\$0	\$148	\$6,279	\$4,613	\$522	\$2,086
Large Commercial Retrofit	\$8,295	\$113	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$796	\$6,924	\$746	\$9,743
Small Business Direct Install	\$1,023	\$11	\$0	\$0	\$0	\$0	\$0	\$0	\$4	\$3	\$1	\$1	\$3	\$0	\$317	\$58	\$856	\$96	\$959
Commercial & Industrial Multifamily	\$548	\$6	\$0	\$3	\$10	\$4	\$5	\$0	\$0	\$0	\$2	\$2	\$2	\$0	\$4	\$4,866	\$417	\$47	\$1,381
Commercial & Industrial SUBTOTAL	\$15,308	\$181	\$0	\$82	\$166	\$112	\$138	\$8	\$4	\$3	\$3	\$3	\$5	\$0	\$469	\$11,998	\$12,809	\$1,411	\$14,169
Grand Total	\$29,750	\$313	\$112	\$347	\$808	\$477	\$586	\$41	\$94	\$92	\$212	\$179	\$138	\$0	\$662	\$33,636	\$22,321	\$2,514	\$42,420
Included in PIM? (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
Percent Application in PIM	100%	100%	100%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	0%	0%	0%	0%
Category	Gas Utility System Benefits	Gas Utility System Benefits	Gas Utility System Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	Resource Benefits	NA	NA	NA	NA

Notes
From 2023 Benefit-Cost Model, reflects benefits in Table G-6.

Table G-8B - Compliance Filing
Rhode Island Energy
2023 Gas PIM Costs (\$000)

	(1)	(2)	(3)
	Costs (\$)		
	Eligible Spending Budget from Table G-3	Regulatory Costs	Total Costs for PIM Calculations
Non-Income Eligible Residential SUBTOTAL	\$16,145	\$91	\$16,236
Income Eligible Residential SUBTOTAL	\$8,644	\$91	\$8,736
Commercial & Industrial SUBTOTAL	\$9,085	\$91	\$9,177
Included in PIM? (Y/N)	Y	Y	Y

Notes

Source is Table G-2 and G-3. Regulatory costs allocated equally to each sector. OER and RIIB costs have been omitted from Regulatory Costs.

Table G-8C
Rhode Island Energy
2023 Gas PIM and SQA

Sector PI = min{ Payout Cap(i), [Actual Net Benefits* Design Payout Rate(g) * Payout Rate Adjustment(i)] }

Sector	Planned Eligible Benefits		Planned Eligible Costs	Planned Eligible Net Benefits (4)	Design Performance Achievement	Design Payout	Design Payout Rate	Design Payout Rate Thresholds	Payout Rate Adjustments	Payout Cap	Service Quality Metric
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
	100% Gas Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)-(c)	Net benefits at which design incentive pool is achieved	Set by PUC	=(f)/(e)	Achievement levels at which the Payout Rate Adjustments in (i) will be applied—Set by PUC	Factor to adjust Design Payout Rate for if final program achievement fall within the ranges in (h)—Set by PUC	=1.25*(f)	Yes if (d) ≤ 0; No if (d) >0
										Cap on sector payout regardless of achievement in sector	See Service Quality Table
Non-income Eligible Residential	\$11,439,970	\$1,177,002	\$16,236,203	-\$3,619,231	\$2,000,000	\$500,000	25.0%	a. Achievement < 25% b. 25% ≤ Achievement < 50% c. 50% ≤ Achievement < 75% d. 75% ≤ Achievement • Spending > Planned Eligible Costs	a. 0.0 b. Achievement/100 + 0.1 c. Achievement/100 + 0.25 d. 0.0 • See Boundary Rules	\$625,000	Yes
Income Eligible Residential	\$3,246,250	\$143,577	\$8,735,561	-\$5,345,734	\$2,000,000	\$500,000	25.0%			\$625,000	Yes
Commercial & Industrial	\$15,489,323	\$496,890	\$9,176,769	\$6,809,445	\$6,809,445	\$796,811	11.7%			\$996,013	No

Sector SQA = Maximum Service Adjustment(e) * Service Achievement Scaling Factor(g)

	Planned Eligible Benefits		Planned Eligible Costs	Design Service Achievement	Maximum Service Adjustment	Service Adjustment Thresholds	Service Achievement Scaling Factors	Achievement Cost Adjustment
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	100% Gas Utility System Benefits	50% Resource Benefits	Eligible Spending Budget + Regulatory Costs	=(a)+(b)	Maximum downward adjustment to earned incentive	Adjusted Achievement levels at which the Service Adjustments in (e) will be applied; adjustment is calculated in (h)	Factor to scale program achievement that fall within the ranges in (f)	Actual-cost-based adjustment factor applied to achievement. Result is if the difference between achievement and cost variances are greater than 5%, the Actual Achievement will be adjusted for use in
Non-Income Eligible Residential	\$11,439,970	\$1,177,002	\$16,236,203	\$12,616,972	\$333,102	a. Adjusted Achievement < 65% b. 65% ≤ Adjusted Achievement < 95% c. 95% ≤ Adjusted Achievement	a. 0 b. 0.95-Adjusted Achievement/30 c. 0	Performance Variance = "Actual Benefits" / "Design Achievement" - "Spending" / "Planned Eligible Cost" If the absolute value (Performance Variance) ≤ 0.05, Then Adjusted Achievement = Actual Achievement Else Adjusted Achievement = Actual Achievement * (1+ Performance Variance)
Income Eligible Residential	\$3,246,250	\$143,577	\$8,735,561	\$3,389,827	\$123,176			
Commercial & Industrial	\$15,489,323	\$496,890	\$9,176,769	\$15,986,213	\$0			

Table G-9
Rhode Island Energy
Revolving Loan Fund Projections

Large C&I Revolving Loan Fund

(1)	Total Loan Fund Deposits Through 2022	\$ 3,590,440
(2)	Current Loan Fund Balance	\$ 2,481,254
(3)	Projected Loans by Year End 2022	\$ 1,200,000
(4)	Projected Repayments by Year End 2022	\$ 311,389
(5)	Projected Year End Loan Fund Balance 2022	\$ 1,592,643
(6)	2023 Fund Injection	\$ -
(7)	Projected Loan Fund Balance, January 2023	\$ 1,592,643
(8)	Projected Repayments throughout 2023	\$ 309,469
(9)	Estimated Loans in 2023	\$ 1,200,000
(10)	Projected Year End Loan Fund Balance 2023	\$ 702,112

Notes

- 1 Funding injections since loan funds began. Net of any adjustments.
- 2 Current Loan Fund Balance is through May 2022
- 3 Projected Loans by Year End 2022 is estimated based on current commitments
Projected Repayments by Year End 2022 is estimated based on projected loans
- 4 by year end and repayment schedules
- 5 Equal to (2) - (3) + (4)
- 6 Fund Injection, as budgeted on G-2
- 7 Equal to (5) + (6)
- 8 Assumption based on average repayments over 12 months; repayments accumulate over time and may vary widely.

Table G-10
Rhode Island Energy
Rhode Island Gas Energy Efficiency 2003 - 2023
\$(000)

Gas	2007 ⁽⁴⁾	2008	2009	2010	2011 ⁽⁵⁾	2012	2013 ⁽⁶⁾	2014	2015	2016	2017	2018	2019	2020 ⁽⁷⁾	2021 ⁽⁸⁾	2022 ⁽⁹⁾	2023 ⁽¹⁰⁾
Energy Efficiency Budget (\$Million) ⁽¹⁾	-	\$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	\$35.0	\$36.9	\$36.9
Spending Budget (\$Million) ⁽²⁾	-	\$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	\$32.4	\$33.4	\$33.9
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	\$24.6			
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% NA	NA	NA	NA
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	\$1,000,000	\$796,811
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	\$347,732			
Annual MMBtu Energy Savings Goal Achieved (%)	-	109%	139%	127%	117%	99%	109%	124%	111%	106%	113%	120%	104%	71%			
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	\$0.0748	\$0.0888	\$0.0869	\$0.0715	\$0.1011	\$0.0871	\$0.1271	\$0.1271	\$0.1199
C&I System Benefits Charge (\$/therm)	-	-	-	-	-	-	\$0.0492	\$0.0637	\$0.0487	\$0.0726	\$0.0671	\$0.0420	\$0.0704	\$0.0596	\$0.0846	\$0.0846	\$0.0646
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	\$73.69	\$107.53	\$101.44
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	\$75.97	\$110.86	\$104.58

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 ConnectedSolutions 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) 2021 values are planned.
- (8) 2022 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 2022 due to new performance incentive mechanism developed for the 2022 Annual Plan. See Section 11 of the Main Text of the 2022 Annual Plan for additional details.

PUC 4-6

Request:

The Summary table on Page 2 of Attachment PUC 1-60 lists “incremental investments in distribution system caused by load growth” as being \$248,172,575. The Distribution Investment table on Page 3 of Attachment PUC 1-60 breaks down the \$248,172,575 into two categories: \$70,215,249 of “historical incremental investments caused by load growth” and \$177,957,325 of “forecasting incremental investments caused by load growth. Please explain where the Company got these numbers and explain why they are so much higher than the annual System Capacity and Performance ISR budgets (depicted on page 57 of Section 2 of the FY2023 Electric ISR Plan).

Response:

The \$70,215,249 of “historical incremental investments caused by load growth” was determined by summing five years of historical annual distribution investments and multiplying by the percentage of distribution investments related to increasing load. The historical annual distribution investments originated from the Company’s FERC Form 1 for the years 2017 through 2021. The percentage of distribution investments related to increasing load (i.e., 14.3%) was determined from the Fiscal Year (“FY”) 2023 Electric Infrastructure, Safety, and Reliability (“ISR”) Plan, Section 2, Page 57 by dividing the System Capacity and Performance category total capital spending by the Grand Total capital spending.

The \$177,957,325 of “forecasting incremental investments caused by load growth” was determined by summing current year and five years of forecast annual distribution investments and multiplying by the percentage of distribution investments related to increasing load. The forecast annual distribution investments for Rhode Island were received from National Grid’s Financial Planning and Analysis department. The Company used the National Grid forecast, which covered the full six-year forecast period needed for the model. The FY 2023 Electric ISR Plan forecast only contains two forecast years (one present year and one forecast year). The percentage of distribution investments related to increasing load is the same value described in the paragraph above. The \$70,215,249 represents five years (2017-2021) of FERC Form 1 historical annual investments related to increasing load. To compare this to the data from the FY 2023 Electric ISR Plan, five years of historical annual investments from 2017-2021 equals \$506,547,000. Subsequently, \$506,547,000 multiplied by the 14.3% percentage of distribution investments related to increasing load (described above) equals \$72,508,130, which is very close to \$70,215,249. The \$177,957,325 represents six years of annual investments (2022-2027). The FY Electric 2023 ISR Plan does not have forecast values from 2024-2027. Therefore, no comparison in forecast investments can be made.

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 Fourth Set of Data Requests
Issued on November 14, 2022

PUC 4-7

Request:

Referencing the "Transmission Investment" tab of the Company's response (excel file) to PUC 1-54, the column headers reference both NEP and NECO. In developing this table, did the Company adjust the "historical incremental investments caused by load growth" and "forecast incremental investments caused by load growth" values for any NEP non-PTF investments that will no longer be charged to Rhode Island ratepayers once RIE/NECO becomes the local transmission provider?

Response:

Yes. In the model, the Company adjusted forecast incremental investments caused by load growth to reflect the acquisition of the Company by PPL Rhode Island Holdings, LLC. More specifically, after 2022, all New England Power Company non-PTF investments automatically are zero in the "Transmission Investment" tab of the model.

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 Fourth Set of Data Requests
Issued on November 14, 2022

PUC 4-8

Request:

In Docket No. 5189, the Commission directed that EERMC transfer the balance of the client account to Rhode Island Energy. Please provide the amount of funds that were transferred, and an accounting of any expenses paid from the transferred funds. Please include the current balance of the transferred client account funds.

Response:

A total of \$285,923 was transferred in May 2022 and an additional \$14 in interest was transferred in June 2022. Those funds have remained in the EERMC accounts that the Company maintains and approved EERMC costs have been paid from it. The current balance in the EERMC accounts is \$906,830. A summary of those transactions is provided below.

EERMC TRANSACTIONS - 2022

TYPE	DESCRIPTION	DATE	AMOUNT
Revenue	Budgeted in 2022 Plan	1/1/2022	\$1,025,763
Revenue	Refunded Client Fund	5/26/2022	\$285,923
Revenue	Refunded Client Fund Interest	6/9/2022	\$14
<hr style="border-top: 1px dashed black;"/>			
Expense	Desautel Law	4/13/2022	-\$20,610
Expense	Desautel Law	4/13/2022	-\$3,708
Expense	Optimal Energy	4/13/2022	-\$62,463
Expense	Desautel Law	4/14/2022	-\$1,550
Expense	Optimal Energy	5/2/2022	-\$33,798
Expense	Desautel Law	5/24/2022	-\$3,215
Expense	Optimal Energy	6/21/2022	-\$45,731
Expense	Optimal Energy	6/21/2022	-\$38,225
Expense	Desautel Law	7/6/2022	-\$1,791
Expense	Desautel Law	7/22/2022	-\$1,659
Expense	Optimal Energy	8/1/2022	-\$30,635
Expense	Optimal Energy	8/1/2022	-\$3,000
Expense	Green Building Research Institute	8/1/2022	-\$30,315
Expense	Desautel Law	9/7/2022	-\$4,903
Expense	Green Building Research Institute	9/15/2022	-\$11,000
Expense	Optimal Energy	10/11/2022	-\$46,403
Expense	Regine Printing	10/13/2022	-\$1,695
Expense	Desautel Law	10/13/2022	-\$2,185
Expense	Optimal Energy	10/13/2022	-\$61,988
BALANCE			\$906,830