

2023 Residential and Income Eligible Energy Efficiency Solutions and Programs

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1. Overview

The goal of the 2023 Plan is to support an equitable transition from inefficient homes to energy efficient homes by maximizing the potential of weatherization, heating/cooling/hot water systems, efficient appliances, and Wi-Fi controls, with a particular focus on customer segments that have been previously underserved. Attainment of the energy efficiency savings goal is supported through high-efficiency equipment and well-trained energy experts and service providers. This vision is for all homes to be well weatherized, have safe and efficient heating, cooling and hot water systems, for customers to see their home as a comprehensive system, and transform the residential new construction industry to a Zero Net Energy market. 2023 therefore builds on the transition away from lighting by concentrating on longer energy savings benefits in the residential portfolio and equitable access to the programs for all Rhode Island customers.

To achieve this vision, the Company will rely heavily on the findings of the participant, multifamily census, and non-participant studies that relied on survey data and interviews to identify opportunities to remove barriers to participation in the residential programs, improve program outreach, and reach customer segments who have previously been underserved to increase the equity of the programs. These findings have been integrated into the 2023 plan with the intention of increasing outreach and participation equitably in the state.

The detailed program descriptions provided in Attachment 1 offers a snapshot of how programs are continuously evolving, building from one Plan year to the next. It shows how high-level strategies are translated into specific actions and activities that secure savings for customers; help to contextualize specific program innovations and enhancements described only briefly in the main text of the Annual Plan; and demonstrate how key strategies cross multiple program designs and end use targets while cross promoting other programs.

What to look for in 2023

The Company has focused heavily on weatherization, efficient heating, and equity across all residential programs. The elevation of these three critical areas reflects stakeholder priorities and opportunities identified during the planning process. The innovations and enhancements also reflect many ideas and insights that have evolved from the close collaboration with the Energy Efficiency & Resource Management Council (EERMC) and its consulting team, the Office of Energy Resources (OER), the Division of Public Utilities and Carriers (the Division), Energy Efficiency Technical Working Group Stakeholders, our vendors, and customer feedback. There are electric heat opportunities introduced in more programs and enhancements that make participation in multiple programs easier or more attractive, and reduced barriers to adoption of comprehensive measures.

Equity opportunities have been applied across all residential programs to ensure all Rhode Islanders have access to program opportunities. A Comprehensive Energy Efficiency Campaign will focus on increasing awareness in the state and will be conducted in English and Spanish. Five communities identified from the non-participant study, will be the focus of additional direct marketing and engagement to increase program activity. These five towns are Central Falls, East Providence, Pawtucket, Providence, and Woonsocket. The Company is committed to continuing efforts to enhance equity in our energy efficiency programs. The non-participant market barriers study shows that the groups less likely to participate in the energy efficiency programs include those who are low income, renters or landlords, non-English speakers, non-white persons, and immigrants. While the Company will be working to increase participation statewide, the plan includes enhanced outreach and focus in communities where the greatest number of non-participating customers live.

Using both the non-participant study and census data, a rate of participation and non-participation was identified for the state as well as for each municipality. Overall, there is a 15% rate of participation (for the five-years studied) in the state. Of the 37 municipalities served, there are 17 municipalities with a rate less than the average rate of participation. To determine which of the 17 towns would warrant additional targeting in 2023, towns with fewer than 5,000 total non-participants were removed to optimize the number of customers reached leaving ten remaining towns. These towns were then ranked from highest to lowest based on a priority score- the priority score gave a higher weight (60%) to towns with more income eligible non-participating customers. The top five towns that resulted from this screening were Providence, Pawtucket, East Providence, Woonsocket and Westerly. Finally, the Company decided to focus on Central Falls rather than Westerly in 2023 for the follow reasons. Central Falls ranked towards the bottom of the list because they have a relatively small population, however, they have the highest percentage of renters, non-English speakers, and non-white customers in the state which the data showed had lower participation levels. Central Falls is the municipality with the lowest participation rate in the state at 4% and had the highest poverty rate.

Providence, Pawtucket, East Providence, Woonsocket, and Central Falls are all included in RI Department of Environmental Management's (RI DEM) list of Environmental Justice Focus Areas. This allows the Company to coordinate efforts with other outreach in these municipalities. The Company is also proposing that in order to reduce friction in participation, non-participants in census tracts that have one or more of the RI DEM criteria be allowed to participate in low and moderate income offerings without any income requirements. Mapping the RI DEM census tracts to specific addresses within RI will take time to develop. Looking at efforts in neighboring states, this can sometimes be a multi-year effort to define specific areas. The Company will look to adopt best practices used in other states where applicable. The RI DEM Environment Justice criteria include:

- Annual median household income is not more than sixty-five percent (65%) of the statewide annual median household income;
- Minority population is equal to or greater than forty percent (40%) of the population;

- Twenty-five percent (25%) or more of the households lack English language proficiency, or
- Minorities comprise twenty-five percent (25%) or more of the population and the annual median household income of the municipality in which the proposed area does not exceed one hundred fifty percent (150%) of the statewide annual median household income.

Low and no-cost opportunities will be communicated for customers including income eligible, moderate income, and landlord/renter opportunities. The Income Eligible Services (IES) program is working closely with the Company's discount rate program to introduce newly enrolled customers on the discount rates to the income eligible efficiency program where 100% of energy upgrade costs are covered.

The residential programs support workforce development of high growth, long-term, energy jobs through trainings and education. This effort supports the shift to high performance homes and technologies, air source heat pump (ASHP) design and installation, and Zero Net Energy New Construction buildings. Trainings are planned to help expand the workforce and to support the emphasis on deeper home energy upgrades.

The Residential Energy Efficiency Programs have benefitted from the Rhode Island Builder's Association (RIBA) and Residential Construction Workforce Partnership (RCWP) first cohort of weatherization focused training (completed in Spring 2022) with Energy Efficiency vendor partners hiring or in the process of hiring eight of the eighteen graduates. The Energy Efficiency Programs support the RIBA and RCWP with curriculum development, weatherization and new construction specific trainings, and mentorship. Support of this workforce development effort aligns with Least Cost Procurement's (LCP) standard, which states, "The distribution company shall include wherever possible and practical partnerships with existing educational and job training entities." Additional training cohorts have been slower to deploy for the RIBA and RCWP due to funding gaps. Since this training program has resulted in a direct increase in the energy efficiency workforce, the 2023 energy efficiency budget has included a modest budget to assist in funding these trainings.

Inflation and equipment shortages are external factors that apply pressure to program cost effectiveness and affordability of the offerings to customers. The programs are adjusting to cost increases and working to adapt to equipment shortages, but the Company is impacted by global supply chain issues as are others nationally and worldwide.

Residential and Income Eligible Programs

The Company offers the below overarching programs to provide comprehensive services to two regulatorily defined sectors, market rate and income eligible:

Table 1. Residential and Income Eligible Programs

Market Rate Residential Sector	Income Eligible Sector
EnergyWise Single Family	Income Eligible Single Family
Multifamily	Income Eligible Multifamily
Residential New Construction	
Home Energy Reports	
Residential Consumer Products	
Residential High Efficiency Heating and Hot Water	
Residential Connected Solutions	

This attachment provides detailed descriptions of the residential energy efficiency and active demand programs, including detail on the market (customer/building types) targeted, eligibility requirements, offers, the implementation and delivery design, and new items for 2023. There are several market rate residential programs where market rate and income eligible customers can participate, although the program is listed under market rate residential. These programs include Residential New Construction, Residential Consumer Products, Residential High Efficiency Heating and Hot Water, Home Energy Reports, and Residential Connected Solutions.

Program Description Structure

In order to streamline review of program information in the 2023 Annual Plan, the Company has adopted the following structure for each of the programs:

- a. Description of offering
- b. Eligibility criteria
- c. Delivery
- d. Changes for 2023
- e. Other considerations/research

2. EnergyWise Single Family (Electric and Gas)

2.1. Offerings

EnergyWise offers comprehensive energy efficiency services using a whole-house approach to identify energy saving opportunities in all major energy systems and uses, including heating, cooling, water heating systems, , lighting, water saving measures, plug loads, and building envelope leaks. 12,500 home energy assessments are planned for 2023. EnergyWise provides in-home services in two phases: home energy assessment and weatherization.

Home Energy Assessment

Continuing in 2023, customers will be able to choose whether to have an in-person assessment or a virtual home energy assessment (VHEA). In 2022, less than one percent of customers have selected a

VHEA over the in-person assessment. Although this is a small percentage, the VHEA is an excellent option for customers who are hesitant to commit to an in-person appointment.

During the in-home assessment, an energy specialist(s), a Building Performance Institute certified building analyst will look for immediate energy saving opportunities that can quickly be addressed during the visit as well as identify deeper, energy saving opportunities. Applying a comprehensive, whole-house approach, the energy specialist will evaluate all major energy systems including the heating and water heating systems, appliances, lighting, water saving measures, plug loads, and tightness of the building envelope which is separating between the interior and exterior of the home.

Virtual assessments were introduced in 2020. The virtual assessment provides multiple options to communicate energy savings information depending on customer familiarity with smart phone and video calling technologies. A video call can be used to guide the customer around their home so an energy specialist can assess the home's energy use. If the customer is not able to use video, the specialist will have the customer send in pictures (before or after the VHEA) of important areas such as the attic, heating and water heating system, and basement crawl spaces while walking through the assessment by phone. An Energy Action Plan is presented to the customer at the end of the assessment. The Energy Action Plan gives the customer a clear roadmap for upgrading their home, including a recommended path to weatherization (air-sealing, insulation, and duct sealing) and associated costs, including available incentives and customer costs. The Energy Action Plan also provides the customer a streamlined path to engage a qualified independent insulation contractor to perform the weatherization work. The Energy Action Plan details additional potential energy upgrades and incentives the customer may be eligible for, including heating and hot water systems. Opportunities for financing the customer share of the weatherization (as well as other upgrades) are also provided at this time. If a customer accepts the Energy Action Plan recommendations and wants to move forward with weatherization, the customer signs a contract with the Lead Vendor. The work will then be assigned to a weatherization contractor who will contact the customer directly to schedule a date for weatherization work.

Weatherization

The energy specialist's primary focus during an in-home assessment is to examine the opportunity to increase the home's building envelope through air sealing (decreasing air leaks), duct sealing, and increasing insulation, collectively referred to as "weatherization." Weatherization is a cost-effective way to improve a building's performance. It also offers customers a healthier and more comfortable home that will passively remain cooler in the summer and warmer in the winter, helping reduce energy bills for customers. Many health and safety considerations are addressed when weatherizing, such as adding attic ventilation or using mechanical fans to ensure a healthy air exchange rate. The basic EnergyWise incentive currently covers 50% or more of the project cost depending on the customer's primary heating fuel. EnergyWise will continue to offer the 100% landlord weatherization incentive which encourages landlords to weatherize homes by removing any direct costs for the landlord. Renters then benefit with

lower energy bills and a more comfortable home. The program will also continue offering 100% moderate income incentives for customers with a household income up to 80% of State Median Income.

One of the largest impediments to customers proceeding with weatherization are pre-existing health and safety issues or physical barriers, which prevent the continuation of weatherization until remediated; collectively these issues are referred to as pre-weatherization barriers. At this time, EnergyWise does not substantially pay for remediation of the pre-weatherization barriers, nor are they included in the weatherization scope of work to be implemented by program contractors. The Company recognizes, however, that if a customer learns that additional work not included in the weatherization scope is required before weatherization can proceed, customers may become confused or disheartened. Therefore, the program provides a \$250 incentive to customers that certify that pre-weatherization barriers have been remediated by appropriate licensed professionals. Some of the lower cost barriers can be addressed with the \$250 incentive such as cleaning and tuning of the heating system. Pre-weatherization costs for knob and tube wiring, vermiculite, and asbestos can be included in the HEAT Loan. Additionally, in 2022, the lead vendor began including more information on addressing pre-weatherization barriers for customers who face these constraints. This includes information on types of contractors to call (with a list of contractors for some barriers) and information on available grants and loans. The information packet also emphasizes the importance of addressing pre-weatherization barriers for reasons other than continuing with the weatherization process to further persuade customers to move forward with the process.

2.2. Eligibility Criteria

EnergyWise is the flagship in-home comprehensive energy efficiency offering for all Rhode Islanders in single family residences (defined as one to four units) that are not candidates for Income Eligible Services. All market rate customers with either an electric or gas Rhode Island Energy account can participate. Homeowners, renters, and landlords are all encouraged to participate. Customers with any heating fuel type, including delivered fuels, are served as long as they have a Rhode Island Energy account.

2.3. Implementation and Delivery

EnergyWise is delivered through a Lead Vendor model where the Lead Vendor provides assessments and schedules weatherization projects with the Independent Insulation Contractors that provide weatherization services. The Lead Vendor provides program oversight of all weatherization work. Before the insulation contractor closes the job, the Lead Vendor verifies the completion of all contracted work. This process minimizes return visits and complaints from customers. Spanish and Portuguese speaking energy specialists are available by request and a translation service is available for other languages.

The Lead Vendor model facilitates consistent assessments for customers and allows the program to incorporate testing of new concepts as well as generating leads for other programs. The RI program

design has consistently been recognized as best in class with seven years of ENERGY STAR® Partner of the Year awards for program implementation.

The customer can apply for 0% financing through the Heat Loan to finance the customer costs associated with the upgrade(s). Financing the energy upgrades requires selecting an approved lender and applying for the loan. For customers with lower credit scores, there is a lender that specializes in financial coaching and approves Heat Loans for energy upgrades.

An independent third-party company provides quality control and quality assurance to at least 5% of all assessments and weatherization projects.

2.4. Changes for 2023

Leveraging the Participant/Nonparticipant Studies

In 2023, the Company plans to leverage the results of the non-participant and participant study research to identify previously underserved geographic areas in the state to target program outreach.

Underrepresented areas are more likely to be non-English speaking households, lower to moderate income brackets (some of which fall under the income eligible program), and renters. Targeting these geographic areas will increase access to the programs and improve equity. The program will also take advantage of statewide promotion of the energy efficiency programs, targeted landlord outreach, promotion of the landlord/renter and moderate income offerings, and direct community engagement through the contractor network. Contractors will be able to directly market to customers within the underserved areas and tag these customers for the contractor's weatherization services when the customer is ready to proceed with these services. This enables these contractors to directly build their customer base and business.

Facilitating connections to contractors and grant/loan funding for pre-weatherization barriers

Upwards of 45% of all home energy assessments have some type of pre-weatherization barrier that prevents the customer from moving forward with the weatherization project. If the customer does not have a contractor with whom they are comfortable working, it can take additional time to obtain multiple quotes for a remediation project. To help customers remediate these barriers, the program will provide customers with more information about the pre-weatherization barriers they are facing, the type of contractor they need to contact, a list of pre-approved RI contractors (where applicable), and detailed information on local and state loans or grants available for financing this work. The Program will also encourage customers to use the HEAT loan to finance these upgrades. Lastly, while the Program does not provide substantial funding for pre-weatherization barriers, it will continue to offer a \$250 pre-weatherization incentive for addressing any issues identified.

2.5. Other Considerations

Connecting Customers with Additional Opportunities

The EnergyWise assessment process also identifies opportunities to engage the customer in additional energy saving programs including HVAC, Consumer Products, and Connected Solutions. During home visit or virtual visit, energy specialists capture or gather information on the age and condition of heating systems, the heating fuel type, and verify the number of stories in the home. This data is used to identify if homes are good candidates for high efficiency heating, cooling, and hot water systems such as air source heat pumps and heat pump water heaters. Homes with current electric heating and/or water heating systems are provided information about enhanced incentives for air source heat pump systems and automatically referred to the HVAC program for follow up.

The EnergyWise assessment can identify if a home has central air conditioning and a smart thermostat, which allows the Company to offer these customers the opportunity to participate in the Connected Solutions program.

3. Multifamily (Electric and Gas)

3.1. Offerings

The Multifamily program offers comprehensive energy services for multifamily customers including:

- Energy assessments.
- Incentives for efficient electricity, natural gas, or delivered fuels equipment including heating and domestic hot water systems, cooling equipment, lighting, thermostats, smart strips, water saving measures, and eligible air source heat pumps.
- Coordination for all services will be offered for multifamily properties that participate in the Market-Rate and Income Eligible Multifamily Programs.

3.2. Eligibility Criteria

Eligible multifamily program participants are defined as the following:

- Buildings with five or more dwelling units
- Properties consisting of four or more one- to-four-unit buildings that meet both of the following requirements:

- Are within a reasonable geographical distance¹ from each other, or to a five plus unit building, and
- Are owned by the same individual or firm.

Both market-rate and income eligible multifamily properties are subject to the above multifamily eligibility requirements for coordinated services. Customers with any heating fuel type, including delivered fuels, are served as long as they have a Rhode Island Energy account.

For income-eligible properties, co-payments for energy efficiency services and measures will be waived. The income-eligible multifamily sector is defined by properties that meet one of the following criteria:

- Owned by public housing authorities or community development corporations;
- Receive affordable housing tax credits or other types of low-income funds/subsidies from the state or federal government; or
- Consist of building units where 50% or more of occupants receive utility service on the A-60 Low-Income rate.)

Moderate income customers (customers that are at 80% or below the state median income) may receive services through the Income Eligible Multifamily Program as they are represented in other units of an income eligible multifamily property that may not meet the eligibility criteria for low-income customers. For example, if a multifamily property has a total of 20 units, and 12 of which qualify as income eligible, the moderate income customers could make up the remaining 8 units of the property and therefore be eligible to participate in the Income Eligible Multifamily Program offerings.

A multifamily property may be eligible for services and incentives under both residential and commercial programs. As an example, a building with 20 dwellings that is electrically sub-metered (20 residential accounts) with a commercial electric account for common areas and one commercial gas account serving a central heating/hot water system will likely qualify for incentives through both Multifamily and the Commercial & Industrial Multifamily programs (see section 6 of Attachment 2). While this adds a layer of complexity for the Company, it is critical that the Company maintain accounting via these various program budgets to ensure equity for all customers, funding energy efficiency through the energy efficiency program charge. In contrast, customers do not experience this added layer of complexity and receive a consolidated incentive for all efficiency work completed at the site. The Programs' Lead Vendor is well versed in managing projects with multiple types of multifamily designations and can help the customer navigate the process of participating in both programs.

¹ "Reasonable geographic distance" is determined at the discretion of the vendor. The prior program guidelines required buildings to be neighboring each other. This revised guideline will allow the vendor to treat more units for a single owner where those units may be located down the street from each other.

3.3. Implementation and Delivery

The Rhode Island Multifamily Program has a single Lead Vendor that utilizes a network of Rhode Island sub-contractors to serve all customers, including income eligible customers. A customer can learn about the Company's Multifamily Program offerings in a myriad of ways ranging from communicating directly with the Lead Vendor, the Rhode Island Energy website, direct mail and print marketing, and digital marketing campaigns. The lead vendor also conducts direct outreach to help enroll customers in the programs and increase participation.

If the customer is interested in starting the process, the Lead Vendor would do an eligibility assessment and then schedule a home energy assessment. The Lead Vendor then conducts post site screening to identify which measures pass a benefit/cost (B/C) screening on a project level basis. If a measure does not pass, customers can still include it in the project without an incentive. Projects may participate in the Multifamily Program as long as the overall program remains cost-effective.

A final proposal is then presented to the customer that includes the scope of work, costs, available incentives, and an estimated time frame. The customer is made aware of financing options available to them as well. If the customer decides to proceed with the project, installation work is then scheduled.

Once installation work is completed, a final walk through with the customer is done. A completion report is then created and presented to the site's authorized representative and signed off on. A customer survey is also conducted once work is complete.

Individual condo owners within the multifamily program are eligible for financing under the Heat loan. An on-bill financing offer to multifamily C&I gas customers is being initiated in 2022 and will be offered during the 2023 program year.

An independent third-party company provides quality control and quality assurance to at least 5% of all assessments and weatherization projects.

3.4. Changes for 2023

Leverage data from the Residential Non-participant Study and multifamily census to identify and reach new customers, particularly non-participants who have been previously underserved. In 2023, the Company plans to leverage the results of the non-participant and participant/multifamily census studies to expand program participation through targeted outreach.

The Company plans to leverage the information from the studies in a few ways. The first is to use information from the studies to better understand and increase outreach to certain nonparticipant groups.

First, the Company will identify the customers that have the greatest savings potential and highest propensity to participate, since additional outreach to these customers is the most likely to increase

program participation and yield higher savings. This outreach will be done through direct mail and email campaigns and the program's Lead Vendor will utilize this data to perform direct outreach to the customers with the greatest savings potential.

The Company also plans to target historically underserved customers, many of whom have low propensity scores. To do so, the Company will use focus additional outreach to the five equity target communities for 2023. There will also be additional campaigns specifically to landlords.

Lastly, like for EWSF, the Company plans to target outreach to electric heat customers to encourage the deployment of heat pumps.

Research moderate income solutions

In 2023, the Company will develop moderate income incentives for the Multifamily program and research the best solution for determining eligibility for multifamily customers. With this complete, a moderate income offer can be implemented in 2024.

Performing income verification for all residents of a multifamily property would present logistical challenges, so the multifamily program will need to create eligibility criteria for multifamily properties that will best target customers who meet the definition of moderate income.

Finally, as part of the equity recommendations, specific census tracts within the target focus communities of Providence, Pawtucket, East Providence, Woonsocket, and Central Falls could be served as income eligible without the standard income eligibility requirements. The census tracts are all included in RI Department of Environmental Management's (RI DEM) list of Environmental Justice Focus Areas. This allows the Company to coordinate efforts with other outreach in these municipalities. Mapping the RI DEM census tracts to specific addresses within RI will take time to develop. Looking at efforts in neighboring states, this can sometimes be a multi-year effort to define specific areas. The Company will look to adopt best practices used in other states where applicable. The RI DEM Environment Justice criteria include:

- Annual median household income is not more than sixty-five percent (65%) of the statewide annual median household income;
- Minority population is equal to or greater than forty percent (40%) of the population;
- Twenty-five percent (25%) or more of the households lack English language proficiency, or
- Minorities comprise twenty-five percent (25%) or more of the population and the annual median household income of the municipality in which the proposed area does not exceed one hundred fifty percent (150%) of the statewide annual median household income.

Low and no-cost opportunities will be communicated for customers including income eligible, moderate income, and landlord/renter opportunities. The Income Eligible Services (IES) program is working closely

with the Company's discount rate program to introduce newly enrolled customers on the discount rates to the income eligible efficiency program where 100% of energy upgrade costs are covered.

Income Eligible Heating system replacements

In 2023, the Company is proposing that upgrades from the oil/propane heating systems that are identified as near end-of-life be replaced with efficient electric heat pump systems, when feasible, in the income eligible multifamily area. The Energy Efficiency funding will be used to support these heating system replacements and leveraged funding will also be deployed if available. The Company will work with supporting stakeholders (RI OER, DHS, DOE, and others) to identify funding that can be leveraged to replace oil/propane heating systems with high efficiency heat pumps. This need has been presented to the programs as many RI housing authorities find original heating systems from the 1960's entering the end of useful life. It would benefit the residents of the housing authorities with lower heating costs while lowering climate emissions as supported by the Rhode Island Act on Climate. While the Company was approached by one housing authority with a specific failed heating system, other similar systems at the remaining housing authorities may also be approaching end of useful life.

4. Income Eligible Services (Electric and Gas)

4.1. Offerings

Income Eligible Services (IES) consists of two, no-cost², in-home or virtual services to increase comfort in the home and decrease a customer's energy costs.

Appliance Management Program (AMP) Assessment

- The energy specialist educates the homeowner or tenant about their energy bill and monthly usage; assesses the home and learns about the day-to-day activities that consume energy in the home; discusses ways the customer can save energy and money, educates the customer to properly operate energy efficient equipment and how to identify signs that indicate if weatherization or heating system replacement is needed.
- Upgrades of instant energy savings measures such as energy efficient LED bulbs, advanced power strips, water saving measures (faucet aerators and low-flow showerheads) and thermostats.

² 100% incentive via the systems benefit charge (SBC) that funds all Rhode Island Energy's energy efficiency programs. Customer incurs no cost for audit, weatherization, or equipment replacement.

- Evaluation of existing appliances: refrigerator, freezer, window air conditioning unit(s), clothes washer, and dehumidifier to determine energy efficiency and eligibility for a no-cost replacement with an energy efficient appliance model (including delivery and installation)³.

Weatherization and Heating System Assessment

- An industry-certified energy specialist conducts a comprehensive assessment of the building envelope and heating and cooling systems including visual and equipment-required inspections, infrared camera thermal imaging, and combustion safety testing of heating and water heating systems.
- Air sealing, duct sealing, and insulation upgrades in attics, walls, and basements.
- No-cost replacement of eligible heating or cooling systems if they are determined to be inefficient or unsafe. Applicable to all existing heating/cooling systems: electric, gas, oil, and propane.
- If home has existing electric resistance heat, the customer will be offered a replacement to no cost energy efficient air source heat pumps (ASHP) that provide both heating and cooling.

4.2 Eligibility Criteria

The Income Eligible Services (IES) Program serves Rhode Island homeowners, renters, and landlords, who have a Rhode Island Energy account and meet any of the following criteria:

- Household income equal to, or less than, 60% of Rhode Island's State Median Income Levels which are set each program year⁴ **or** enrolled in Rhode Island Energy's fuel discount rate plans, Electric A-60 rate and/or Gas 11, 13 rates⁵.
- Customers enrolled in the Low-Income Home Energy Assistance Program (LIHEAP)⁶, also known as "fuel assistance".
- Homeowners and renters who live in a one to four unit building with either an electric or gas RI Energy Discount Rate account can participate, including customers with delivered fuel heat (oil, propane, wood, or coal) if they have an electric account.

³ All appliances are purchased/supplied through a central organization, SMOC, a nonprofit agency, to ensure that all delivery personnel meet Rhode Island Energy's security and liability criteria, and all appliances meet IES Program requirements, warranty calls are handled expeditiously and properly documented and non-efficient appliances are removed and recycled safely and properly.

⁴ <http://www.dhs.ri.gov/Programs/LowIncomeGuidelines.php>.

⁵ <https://www.nationalgridus.com/RI-Home/Bill-Help/Payment-Assistance-Programs>

⁶ <https://www.benefits.gov/benefit/1572>

Additional eligibility criteria, including the 50% rule,⁷ shelter and group home eligibility, renter eligibility and repair or replacement eligibility are available in the RI Weatherization Assistance Program (WAP/IES) Operations Manual. All criteria adhere to 10 CFR 440 requirements.

4.3 Implementation and Delivery

Program Delivery

IES Program is administered through a Lead Vendor (LV) that is responsible for managing the implementation of IES work through the six Rhode Island geographically-based Community Action Program (CAP) Agencies. In addition, the LV is engaged with all customers as they conduct post-inspections when jobs are complete for 100% of the customers. The CAP Agencies serve as a trusted entity where income eligible customers can obtain essential resources within their respective community.

The IES Program is marketed through the Program's marketing specialist as well as cross marketed at Community Expos, via the Consumer Advocates dedicated to the RI IES consumers, and the Company's call center. The primary point for customers to enroll in the IES Program is through the CAP Agencies as they provide income verification and comprehensive resources for income eligible customers.

The LV monitors the work of the CAP agencies. If the CAP Agency determines they cannot complete their pipeline of weatherization jobs, the CAP will refer the job to another CAP agency who can or to a third-party entity to do the weatherization. The LV works closely with the CAPs to regularly review weatherization pipeline and timeliness of job completion. The referred jobs will get accounted for in the referring CAP Agencies participation and job completion goals.

Key Performance Metrics (KPIs) are tracked to measure/improve consistency of Program delivery as well as drive performance of the CAPs. KPIs include: timeliness of administrative reporting, monthly/year to date spending compared to goals, participation numbers for AMP, electric & gas weatherization and heating system installations and cost.

Quarterly IES Best Practices meetings are held with the Company, the Lead Vendor, the CAPs, DHS, program vendors (i.e., lighting vendor, appliance delivery vendor), or speakers to address a pertinent topic.

⁷ Customers that are not on the income eligible rate but live in a two- to four-unit building where more than 50% of the units are income eligible are also eligible to receive weatherization and health and safety services. This exception is referred to as the "50% rule".

Monthly engagement of the Company, the Lead Vendor, Executive Directors of the CAPs, and DHS to review the overall performance of the IES Program and coordination of best practices across the CAPs.

The LV also coordinates home performance/HVAC contractors and appliance vendors that install weatherization, heating (space and hot water), window air conditioners, and appliance measures.

Customer Journey:

- A customer begins the process for a no-cost home energy assessment by contacting (call/in-person) their local CAP Agency to submit their information to determine if they meet the income eligibility requirements for participation in IES. Customers learn about the program through outreach from their local CAP agency or from Rhode Island Energy.
- After the CAP Agency verifies income eligibility, the CAP will schedule a no-cost AMP or virtual AMP and/or Weatherization/Heating System assessment. In some cases, the AMP and Weatherization/Heating System assessments are separate due to the customer's past assessments, renting vs. owning, time availability, or the CAP Agency's availability of two-person assessment teams.
- CAPs provide the full suite of energy efficiency services including:
 - Income-eligibility verification
 - Customer education regarding energy and cost savings opportunities
 - Energy assessments
 - Installation of instant energy savings measures
 - Recommendations for energy savings measures
- Energy education is provided to the customer regarding the pre- and post-energy assessment process, opportunities to save energy, processes for receiving appliance or heating/cooling system upgrades and/or weatherization.
- If needed, health and safety services will be provided including replacing smoke and carbon monoxide detectors if non-functioning or expired, clean and tune heating systems, and address conditions such as mold before the EE work is able to be completed. The program leverages funding sources from LIHEAP and others to help reduce pre-weatherization expenses that customers face.
- The CAP Agency will schedule all necessary follow-up services for insulation, air sealing, appliance and heating/cooling system replacements. All services and appliance and heating/cooling system replacement are provided at no cost to the customer.

- Customer receives a “comment card” to provide their feedback on all aspects of their journey through the IES Program.

An independent third-party company provides quality control and quality assurance to at least 5% of all assessments and weatherization projects.

4.4 Changes for 2023

Reaching new income eligible customers is of high priority in 2023 given global rising energy costs and inflation. With these concerns in mind, the Company is working to improve outreach to these customers.

Increasing Participation in the Income Eligible Program through Referrals

The primary impediment to income eligible participation during prior program years was an insufficient number of qualified staff at the Community Action Agencies (CAPs) to perform assessments. However, there have been numerous hires in 2022 which will increase the CAP workforce and number of customers served in 2023.

During the past several years, CAP agency budgets were tied to their assigned communities and could not be moved to other CAP communities. The purpose of this restriction was to ensure that each community receives an equitable amount of funding that is tied to its population size. While ensuring equity in the communities served, this rule prevents over-performing CAP agencies from taking on additional work in their territories by leveraging unused funds from other territories. Ultimately, by not reallocating funds, income eligible customers are not served that could be. In 2022, the program realigned the budgets to serve more customers with two additional options. First, CAPs that are overperforming will be allowed to overspend their budget allocation while there are still customers awaiting services in their territories. Second, an Inter-Agency Referral program is being established to assist CAPs that do not have staffing capacity to meet their goals. CAPs that can assist in the other under-resourced areas will receive referral services to serve customers in an under-resourced service area. The Company will continue both of these pathways in 2023.

The inter-agency referral process enables entire communities assigned to a particular CAP to be reassigned to a different CAP that is able to complete the work while preserving the equity of the program by keeping the budget tied to the community.

The inter-agency referral program is expected to increase budget utilization, enable the CAP agencies to reach more customers, achieve greater energy savings, improve the health and wellness of many income-eligible households, and create a more equitable program.

Focused communication and engagement with landlords on behalf of interested tenants

The Company will continue efforts to increase renter participation, via landlord outreach, to effectively improve the focused communication and engagement with landlords. Landlord participation in the IES Program is important for the success of reaching potentially older homes that often have deferred maintenance. Without landlord commitment to the IES Program, renters cannot gain the benefits of energy efficiency which causes an issue with equity of program resources.

Landlords can use the Heat loan to support tenant upgrades. Income Eligible qualified customers receive all program services at no-cost to the customer.

Using the nonparticipant study results and landlord specific contact lists, the Company plans to run landlord outreach campaigns with additional outreach in the five equity target communities. Additionally, the Energy Efficiency Customer Advocate will also be engaging with organizations within the equity communities to expand outreach with a local, trusted resource.

4.5 Other Considerations

Leveraged Funding and Coordination with Other State Programs

The IES Program collaborates with the State of Rhode Island Department of Human Services (DHS) Weatherization Assistance Program (WAP)⁸ and the Low-Income Home Energy Assistance Program (LIHEAP)⁹ to create synergy between the programs, which improves outcomes of all the programs.

The IES Program benefits from leveraging LIHEAP funds, resulting in more customers being served. The amount of funds leveraged is approximately 25% of total customer incentive benefits for weatherization and heating system replacements. The LIHEAP funds also help pay for the remediation of non-energy related health and safety improvements (aka pre-weatherization barriers or deferred projects), that if not remediated, would prevent a customer from receiving weatherization and/or heating system upgrades, i.e., roof repair and/or replacement, knob and tube wiring removal, glass repair/replacement, and carpentry. Conversations with DHS indicate an additional \$3 million of federal funds available for weatherization in 2023. This will allow the Company to coordinate resources and serve more customers. The challenge will still exist with finding commensurate funding to overcome pre-weatherization barriers that allow weatherization work to proceed.

Other elements of coordination are

- Starting in 2021, WAP (DOE) funding became available for leveraging IES funding for IES energy efficiency measures. DHS provides training and equipment to weatherization auditors.

⁸ Overseen by the U.S. Department of Energy. <http://www.dhs.ri.gov/Programs/WAPProgramInfo.php>

⁹ Overseen by the U.S. Department of Health and Human Services. <https://www.benefits.gov/benefit/1572>

- DHS provides the IES Program with important operational data including demographics, participation, amount of DHS funding leveraged with IES Program funds, and customer data for those on fuel assistance (LIHEAP), but not the RI Energy discount rate.

Emergency heating system replacements

The Company wants to 1) reduce the number of emergency oil/propane heating system replacements in Income Eligible dwellings (replacing oil/propane heat systems with high efficiency oil/heat systems), and 2) identify funding that can offset the cost of fuel switching from oil/propane to high efficiency heat pumps heating systems. In order to achieve this, the IES Program has developed a list of oil/propane systems that are identified during on-site and virtual energy assessments that are ideal candidates for replacement to electric heat pumps. In 2023, the Company is proposing that upgrades from the oil/propane heating systems that are identified as near end-of-life be replaced with efficient electric heat pump systems. Energy Efficiency funding will be used to support these heating system replacements and leveraged funding will also be deployed when available. The Company will work with supporting stakeholders (RI OER, DHS, DOE, and others) to identify funding that can be leveraged to replace oil/propane heating systems with high efficiency heat pumps.

Currently, if an income eligible customer heats their home with oil or propane and they have a heating system failure or the system is deemed unsafe, the original oil or propane heating system is replaced with a more efficient oil or propane heating system. This 1:1 replacement is the quickest solution to satisfy the emergency nature of a customer's heating needs. Ideally the Program would prefer to upgrade the oil/propane heat systems with more energy efficiency heat pumps, but the time to design and install a completely different system takes many weeks, and a customer cannot be without heat for many weeks in the winter. This wait time is compounded by current equipment supply shortages. It is important to note other barriers for heat pumps as not all homes are well-suited for ASHPs; the IES Program pays for 100% of equipment, labor and inspection costs, which can become very expensive for changing heating system design from a boiler or furnace system to a heat pump system. The PUC recommended that the Company look into possible solutions to stop the installation of new oil/propane heating systems for emergency heating system replacements as they perpetuate the burning of carbon-intensive fuels. The first step in moving customers towards more efficient and cost effective heating is the proposal to upgrade near end-of-life deliverable fuel heating systems with efficient electric heating systems. Rhode Island energy also plans to work with OER to leverage funding from the newly approved heat pump program when that funding becomes available.

5. Residential New Construction (Electric and Gas)

5.1 Offerings

Design and Construction Assistance

- Energy modeling and design assistance to verify compliance with the Residential New Construction (RNC) requirements and determination of respective incentives.
- In-field training and inspections to verify compliance with the RNC requirements and promote efficiency in subsequent projects.

Market Development

- Technical training on high efficiency and Zero Energy building practices, as well as energy code compliance, to build necessary market capacities.
- Training and certifying Home Energy Rating System (HERS) raters to increase the number of qualified raters based in RI.
- Rating and certification services, including HERS, DOE Zero Energy Ready Home, Passive House, and ENERGY STAR, to promote visibility of energy efficiency in the marketplace and support increased use of the RI Residential Stretch Code.

Incentives

- Whole-home efficiency incentives for buildings based on achieved level of efficiency and number of units.
 - Path to Energy Efficiency incentives ranging from \$200 to \$4,000 per home.
 - Three efficiency tiers, with an entry threshold of 15% more efficient than baseline and progressive maximum air leakage requirements.
 - Additional incentive options of \$250-\$1,000 per home for all-electric home and \$100-\$200 per home for ENERGY STAR® certification.
 - Path to Zero Energy Ready incentives ranging from \$500-\$1,500 per home in addition to Path to Energy Efficiency.
 - Projects must meet a minimum base efficiency level, be all-electric, and achieve DOE Zero Energy Ready Home, Passive House, or equivalent certification.
 - Projects with >75 units are eligible for custom incentives.
 - Adaptive Reuse projects are incentivized based on a separate set of prescriptive measures tailored to mill conversion projects.
- Certification incentives provided to support third-party verification of energy efficiency measures.
- Equipment rebates for qualifying high efficiency heating, cooling, and hot water equipment.
- Complimentary WaterSense showerheads.

5.2 Eligibility

The Residential New Construction (RNC) program is designed to advance the Rhode Island housing market toward Zero Energy homes. The program provides technical services, inspection services, and project incentives for new construction, additions, and major renovations to both one to four unit and

five plus unit buildings. The program also supports major renovation of adaptive reuse projects (e.g. mill building conversions). The RNC program supports both market rate and income eligible housing units.

5.3 Implementation and Delivery

Design and Construction Assistance, Incentives: The RNC project pipeline is developed primarily through coordination with RI permitting departments, engagement of the building industry, and referrals from EnergyWise and Rhode Island Housing. A participating customer/project team begins the process by calling or emailing the RNC program. The project team meets with the RNC program team (led by a Lead Vendor) to discuss the project design, learn how to modify design or mechanical systems to improve energy efficiency, and initiate energy modeling of the project to determine the potential for incentives. Once construction has begun, RNC staff provides on-site training as needed and conducts inspections of the completed project to determine energy efficiency and respective incentives. When the project is complete and has met program requirements, the performance and equipment incentives are issued.

Market Development: RNC identifies opportunities to build necessary market capacities to advance toward Zero Energy Homes and delivers education and outreach programming designed to achieve this goal.

5.4 Changes for 2023

Lighting is no longer an eligible component in Residential New Construction program. RNC is being evaluated in 2023. Recommendations from that evaluation will inform in program year enhancements.

5.5 Other Considerations

Rhode Island Energy is currently conducting research on new all-electric construction called Closing the Gas Gap for All Electric Homes that was detailed in the 2022 plan. The goal of this assessment is to examine how the programs can promote new construction of all-electric buildings (without a gas connection) in part through incentivizing the electric alternative of these appliances. The assessment will examine high-efficiency options for electric appliances as alternatives to less-efficient electric equipment or gas equipment.

The Company plans to use the results of this assessment, together with the results of the Residential New Construction and Code Compliance study also underway, to consider a transition to electric-only new construction.

6. Home Energy Reports (Electric and Gas)

6.1 Offerings

The HER program is a state-wide energy efficiency program that provides benefits for Rhode Island residential customers through the mailing and emailing of customer-specific energy usage reports and insights. While over 300,000 customers receive HERs (i.e., the treatment group) by way of direct mail and/or e-mail, all account holders have access to insights of their energy consumption via the web tools located on the RI Energy website. The program has evolved since 2013 from offering only mailed insights to now being integrated into the Company's website with online assessment tools, sending Non-Advanced Metering Infrastructure (AMI) High Usage Alerts, and utilizing segmentation to target different populations with relevant messaging.

6.2 Eligibility

The majority of Rhode Island residential Electric and Gas customers are eligible for the Home Energy Reports (HER) program. Customers with an email address on record will also receive an electronic version of the report (eHER). All customers have access to the online home energy assessment and related insights. Randomly compiled control and treatment groups are necessary for accurate savings reporting. Thus, some customers will not receive print or electronic reports (control group), while others receive both print and electronic HERs (treatment group).

6.3 Implementation and Delivery

The program is administered by a Lead Vendor, a company with subject matter expertise selected by the Company to deliver the program. The Lead Vendor is responsible for maintaining HER distribution groups, tracking data, managing the Web Portal, and documenting energy savings. The Lead Vendor works with the Company to craft the messaging and delivery of the HERs, and also works with the Company to introduce additional program enhancements, aligning with the Company's state-wide comprehensive marketing efforts.

All eligible customers will receive a up to 6 print versions of the report a year and up to 4 gas specific reports in the winter season. All customers with email on record will receive up to 12 reports a year. The reports include marketing messages informing customers of other program opportunities so that they may be made aware of the most current and relevant energy efficiency offerings. For customers interested in learning more about energy saving tips and their home's energy consumption, they may log into the online portal and use the available tools.

7. Residential Consumer Products (Electric)

7.1 Offerings

Residential Consumer Products incorporates both the federal Environmental Protection Agency (EPA) ENERGY STAR and Department of Energy (DOE) ENERGY STAR® categories of consumer appliances, select building products, and some energy saving items not included by the federal agencies. The largest savings elements of the Consumer Products program come from recycling older refrigerators and freezers. In 2023 the program will also support dehumidifiers, dehumidifier recycling, clothes dryers, ENERGY STAR most efficient clothes washers and refrigerators, refrigerator and freezer recycling, room air cleaners, room air conditioners, efficient shower heads, pool pumps, advanced power strips, and low-emissivity storm windows. Consumers can purchase products at a local retailer, online through any online retailer as long as the product meets product specifications and there is a receipt, or at the marketplace (<https://rienergymarketplace.com/>). The RI Energy Marketplace is a streamlined portal on which customers can buy efficient products with the rebate already applied, eliminating the need for the customer or contractor to apply for the rebate post-sale. Only products that can be installed by the customer (e.g., room air cleaners, water fixtures, advanced power strips) are available on the marketplace.

In 2022, the Company began offering midstream incentives with the introduction of ENERGY STAR® most efficient clothes washers and refrigerators, two products that previously did not receive incentives. This midstream incentive is being tested with one big box store, to understand the ability of incentives to influence retailer stocking practices.

7.2 Eligibility

Residential Consumer Products serves all residential customers by offering incentives on electronics, ENERGY STAR® consumer appliances, dehumidifier, refrigerator, freezer recycling and other high use energy saving devices.

7.3 Implementation and Delivery

There is a Lead Vendor for this program that works with retailers, so they are knowledgeable about the products and ensure proper signage within the retail stores. The Lead Vendor also jointly staffs customer outreach events and customer information tables at retailer locations. The program supports a combination of upstream and midstream incentives as well as post-purchase consumer incentives. The upstream, negotiated with manufacturers and distributors, and midstream, working with retailers, incentives encourage retailers and manufacturers to support ENERGY STAR with increased production and availability of products. In 2023, measures offered upstream and midstream are advanced power strips, pool pumps, and most efficient clothes washers and dryers. Consumer incentives are designed to bring efficient product costs in line with less efficient equipment, thereby encouraging the adoption of the more efficient items.

A rebate processing vendor verifies and processes post-consumer incentives which can be submitted electronically or by traditional mail. This vendor also processes upstream, midstream, and recycling incentives.

The recycling vendor collects refrigerator, freezer, and dehumidifier from customer residences or central recycling location and transports them to the recycling facility in compliance with the EPA's Responsible Appliance Disposal Program (RAD).

7.4 Changes for 2023

Midstream Delivery

The Company will continue to assess the success of midstream incentives with the two measures at one big box store as mentioned above. Takeaways will influence decisions on whether to continue these midstream incentives, expand the program to more stores, expand the program to more products, or adopt the ENERGY STAR Retail Products Platform (ESRPP). ESRPP aims to transform markets by streamlining and harmonizing energy efficiency programs with retailers, making them less complex and more cost effective. While this platform could allow the program to reduce incentive and administration costs and increase savings via higher adoption, assessment of the success of the currently limited midstream incentive program will facilitate a better understanding of the ESRPP's cost effectiveness.

8. Residential High-Efficiency Heating, Cooling, and Hot Water (Electric and Gas)

8.1 Offerings

The High-Efficiency Heating, Cooling, Ventilation and Hot Water Programs (HVAC Programs) promote and incentivize the installation of high efficiency electric and gas equipment through:

Customer rebates on energy efficient equipment

- Boilers
- Combined condensing boilers and furnaces
- Furnaces
- Triple-paned windows
- Hot water heaters
- Heat recovery ventilators
- Air source heat pumps (space and water heating)
- Central Air Conditioners
- Smart thermostats
- Water saving devices

Contractor Services

- Quality Installation Verification
- Contractor training
- Contractor incentives
- Upstream incentives (discount taken at the distributor level)

The HVAC Electric and Gas Program is cross-promoted through the EnergyWise Home Energy Assessment, Multifamily, Residential New Construction, Community-Based Initiative and Home Energy Reports Programs. Training elements and best practices of the Program are also provided to the Income Eligible Services Program to maintain consistency in contractor skills for accurate sizing, design, installation and performance verification of the high efficiency HVAC systems.

8.2 Eligibility

Residential High-Efficiency Heating, Cooling, Ventilation and Hot Water (ENERGY STAR® HVAC) serves all residential customers by offering incentives on high-efficiency building space conditioning and water heating equipment and equipment maintenance. Energy efficient equipment must be installed by a licensed heating or cooling contractor or plumber.

8.3 Implementation and Delivery

The program is administered by a Lead Vendor that is responsible for contractor training, maintaining distributor relationships, tracking data, providing content for marketing, and documenting monthly, quarterly, and annual energy savings. The Lead Vendor works closely with the Company to deliver the HVAC Program and provide strategic insight for program improvements.

Contractor training and education is a primary component of the program to ensure accurate sizing, design, installation and performance verification of heating, cooling, and hot water equipment and results in energy savings and customer satisfaction.

The Lead Vendor provides regular communication and in-store visits with distributors to provide training and information on the equipment and solicit feedback on customer interactions. The Lead Vendor also ensures distributors have proper promotions and marketing signage within the distribution stores.

The Company and Lead Vendor work with manufacturers to develop special offers, or “flash sales”, to further incentivize customers to participate in the Program to gain the benefit of the energy savings.

Product channels for ease of customer use and for product adoption:

- HVAC contractors during routine maintenance service, emergency service, or contractors’ marketing communications
- Residential New Construction/Major Renovation energy advisors during project design consultation.

- Upstream and midstream incentives
- Comprehensive RI Energy marketing channels including emails, Home Energy Reports, bill inserts, and radio and media advertisements.
- RI Online Marketplace <https://rienergymarketplace.com/> offers customers the ability to purchase instant discount rebates on energy efficient thermostats and water fixtures.
- The program supports a combination of upstream and midstream incentives as well as post-purchase consumer incentives. The upstream and midstream incentives encourage retailers, distributors, and manufacturers to support ENERGY STAR products with increased production and availability of products. Consumer incentives are designed to bring efficient product costs in line with less efficient equipment, thereby encouraging the adoption of the more efficient item.
- Home Energy Reports sends communications to electric customers promoting air source heat pumps as an energy efficiency solution.
- The Company markets to all residential customers to make them aware of incentives available for heat pump water heaters and updates HVAC contractors on the offering.

A rebate processing vendor verifies and processes post-consumer incentives which can be submitted electronically or by traditional mail. This vendor also processes upstream and midstream incentives.

Customers who complete a Home Energy Assessment through the EnergyWise Program can apply for 0% Heat Loan financing for qualified high-efficiency space heating and hot water equipment upgrades.

8.4 Changes for 2023

Triple-Paned Windows

Triple-paned windows are a new offering for customers in 2023. Customers that have single paned windows and upgrade to triple paned windows will be eligible for the incentive. Windows will need to be installed by a contractor.

Heat Pumps

The Rhode Island legislature recently approved the use of approximately \$25 million in federal funding for residential and small commercial heat pump deployment. The state program will provide incentives for fuel switching, which will complement RIE's incentives for customers with existing electric resistance heaters. RI Energy plans to work to align with the state's program and take advantage of synergies where possible. This coordination may include outreach to HVAC contractors, synchronization of incentives, and coordination on how this program can be leveraged and marketed given interactions with other RI Energy program elements, such as weatherization improvements and home energy assessments.

Cross-Promotion

The HVAC Electric and Gas Program is cross-promoted through the EnergyWise, Residential New Construction, Community-Based Initiative, and Home Energy Reports Programs.

The Electric HVAC Program and the Residential New Construction and the Major Renovations component of Residential New Construction will work closely together to develop and implement an HVAC contractor training for the design and installation of heating/cooling/ventilation/hot water systems in projects striving to meet Zero Net Energy and Passive House.

Communications

The HVAC Program will coordinate on strategic communication and technical support to assist HVAC contractors engage with Zero Net Energy and Passive House projects to ensure the mechanical system is ideally designed and installed to meet the very low energy requirements of the homes. Consideration of requirements for contractors to participate in Zero Net Energy and Passive House training or successful completion of a project to be listed as a Zero Net Energy and Passive House participating HVAC contractor.

HVAC Contractors will be listed on the Program's webpage as having completed the training and/or for the completing Zero Net Energy and Passive House projects.

HVAC Contractors are still the primary pathway to the HVAC program. Feedback from the contractor community is that consistency of incentives is valuable throughout the year. Contractors are busy with installations and changing incentives creates additional work to very busy schedules.

Customer Feedback

The Company's HVAC Lead Vendor has quality assurance (QA)/quality control (QC) staff who perform onsite inspections and engage with customers to obtain feedback and respond to questions. Staff often have extended discussions with customers about their new system and how to best operate and maintain it for optimal performance. The QA/QC staff also frequently meet with HVAC service technicians and installation crews on project sites. LV also provides Air Source Heat Pump (ASHP) Installation and Operation Best Practices for contractors and customers. The purposes of these visits are to perform QA/QC inspections, test the equipment and installation, capture customer feedback, and provide additional 1:1 training. The QA/QC staff frequently meet with HVAC distributors at their distribution centers to share new program information and provide feedback from contractors, customers, and the Company. Finally, the LV leads larger HVAC contractor trainings and annual contractor meetings where the lessons learned from field visits are shared. The program's central focus is on these frequent direct interactions with customers, contractors, and distributors to obtain feedback and share lessons learned from the field, while mentoring and training HVAC service providers.

9 Residential ConnectedSolutions

9.1 Offerings

Thermostats

The Company has offered an ENERGY STAR certified Smart thermostat-based demand response program since the summer of 2016. There are nine different smart thermostat manufacturers supported in the program.

This program precools the customers' home before the grid peak and then sets back the thermostat setting during peak periods. This lowers the chance of customers' central air conditioning units running during grid peaks. A customer may opt out of the program or events at any time. Customers receive an initial enrollment incentive and an annual incentive for staying in the program.

Batteries

The Company has offered a battery-enabled demand response program since 2019. There are six different smart inverter manufacturers supported in the program. The Company added two more inverter manufacturers since the summer of 2020. The inverters control the battery systems.

This program sets batteries to discharge during grid peaks. Often, this means that power is being exported to the grid during peak times, which reduces the load on the grid. This export is supported in both the Net Metering and RE-Growth programs.

Customers may apply for a seven-year, 0% interest HEAT Loan for the cost of the battery system. Customers receive no other upfront incentives from the program. Customers are incentivized based on the average performance (kW) of their battery system over the 30 to 60 summer events each year.

Pool Pumps

The Company is working with its vendor to integrate internet enabled pool pumps into its Connected Solutions program. This work is projected to be completed in late 2022 and should be ready for the 2023 summer season. This program will control internet connected pool pumps to automatically stop pumps when the electric grid is at or near its annual peak. These peak events will be called on the same dates and times as the battery-based demand response program.

This program will control internet connected pool pumps. Customers will earn an enrollment incentive and an annual incentive for staying in the program.

Solar Inverters

The Company completed the Solar Inverter Demonstration in 2022. Based on the results of the study, the Company will offer this as a ConnectedSolutions measure in 2023 with kW savings only.

The ConnectedSolutions program will enroll customers who already have a supported solar inverter or who are installing a new solar photovoltaic system with an inverter from a supported inverter manufacturer. Customers will earn an enrollment incentive and annual incentive for staying in the program.

9.2 Eligibility

ConnectedSolutions is an active demand reduction program that focuses on electric demand reduction during peak demand periods during the year. Consumers with eligible controllable equipment can enroll to participate in active demand reduction.

9.3 Implementation and Delivery

Thermostats

In this BYOD (Bring-Your-Own-Device) program, customers are free to purchase a thermostat from any of the nine supported manufacturers and can participate if they have central air conditioning. After purchase, thermostat manufacturers send emails and in-app notifications to customers inviting them to enroll in the ConnectedSolutions program. Enrollments in smart thermostat-based demand response options have historically exceeded expectations. In 2023, approximately 7,200 enrollments are planned.

The enrollment incentive for thermostats is \$25 per device. Once enrolled, there is an additional annual incentive of \$20 per thermostat. There is no performance incentive per demand response event. Thermostat participants are not eligible for a HEAT Loan.

Batteries

In this BYOD program, customers are free to purchase an inverter from any of the supported inverter manufacturers and have it installed by the customer's preferred installer. Inverters control the battery systems. In 2022 there were over 400 batteries enrolled in the program. 2023 is looking for over 520 batteries to be enrolled.

There are no enrollment or annual incentives for batteries. There is a performance incentive of \$400/kW-year of demand reduction provided. Battery participants are eligible for a HEAT Loan.

Pool Pumps

The pool pump demand response program will also be new in 2023. In 2021 Guidehouse completed a report showing that pool pumps could cost effectively be added to the Company's demand response programs¹⁰.

¹⁰ https://ma-eeac.org/wp-content/uploads/2021-Cost-Effectiveness-of-ADR-for-Residential-End-Uses-Final-Report-2021-07-19_CLEAN-1.pdf

In this BYOD program, customers earn an incentive for signing up for the program and for each year they stay in the program. In 2022 only one pool pump manufacturer may be supported by the Company's distributed energy resource management system (DERMs). However, the Company expects this number to grow in 2023.

The Company has set the goal of enrolling 25 customers into the pool pump program in 2023. Marketing for this program will be mostly through the pool pump manufacturer to customers who already have a supported internet connected pool pump, and to new customers considering the purchase of a new pool pump. The incentives will help to offset the incremental cost of customers installing an internet connected pool pump instead of a standard pool pump.

The enrollment incentive for pool pumps is \$100 per account with an additional annual incentive of \$20 per account. There is no performance incentive per demand response event. Pool pump participants are not eligible for a HEAT Loan.

Solar Inverters

The Company will work with some of the inverter manufacturers already in the ConnectedSolutions battery measure to email customers to opt-in to updating their inverter settings. Customers will receive an enrollment incentive and an annual incentive for staying in the program. Customers may leave the program at any time. The Company will receive data from every inverter to quantify how often and how much power factor was corrected. If the customer's solar generation (kWh) is decreased by more than the annual incentive, the customer will be given an additional incentive to guarantee they are not penalized for their participation in this demonstration.

The Company's Electric Business Unit (EBU) has provided the preferred setpoints for power factor correction. The EBU will use sensors on the grid to monitor this demonstration for any negative effects or unintended consequences. The EBU may periodically change the preferred inverter setpoints, which will be pushed out to all participating inverters by our inverter manufacturer partners.

9.4 Changes for 2023

Pool pump and Solar Inverter enrollment

In 2023 the company will launch a pool pump-based and solar inverter demand response program. Additional detail about these new offerings is described in Offerings above. These devices can act as actively controlled distributed energy resources to shape the use of electricity to reduce the cost of running the grid for all customers.

9.5 Other Considerations

Program Expansion

The program is planning to achieve demand reductions above the set Targets for Active demand response (i.e. the maximum scenario in the Market Potential Study). The Company is identifying and pursuing opportunities beyond what was identified by the Market Potential Study.

The solar inverter demonstration study was started in 2021 and will continue into 2022 with an expected completion in the summer of 2022. This study looks to verify the energy savings in kWh and determine customer acceptance of the offering if converted to a full program offering in the future.

Feedback

Feedback from customers and vendors is used to continuously improve all the Company's programs. This is especially important for new measures such as the batteries and pool pump demand response measures.

10 Marketing, Outreach & Education

10.1 Overview

The goals of the Company's marketing efforts are to build awareness of and drive participation in the Company's efficiency offerings and services among residential customers, while providing a positive customer experience. The Company uses an integrated, multichannel approach featuring consistent messaging and visual design elements (as appropriate) across communications. General awareness tactics (i.e., print ads and radio) as well as digital and direct one-to-one tactics (such as e-mail, online banner ads, social media, and direct mail) generate customer interest and program participation. All ratepayers receive bill inserts and quarterly 'We Connect' printed newsletters and can access www.rienergy.com at any time (provided they have internet access).

10.2 Delivery, and New for 2023

Rhode Island Energy uses a multichannel marketing approach to generate interest and drive adoption of solutions across the portfolio, as well the use of residential segmentation to enable personalization and optimize a channel strategy based on customers' preferred communication channels. The Company aligns marketing efforts with residential customer research, customer segmentation, propensity modeling, media habits research, and behavior data. The Company's ecommerce Marketplace at www.rienergymarketplace.com serves as the online destination for customers to purchase top branded energy-efficient products at instantly discounted prices. Rhode Island Energy's website remains an important resource for information on products and services as well as rebates available to customers. The Company's social media advertisements and messages on Facebook, Instagram, Twitter, Snapchat, and NextDoor ensure customers are learning about energy efficiency opportunities while they are online with their family, friends, and neighbors.

Across marketing campaigns, messaging focuses on the benefits of energy efficiency products and programs while aligning with overall Company communications and demonstrating an understanding of

current customer sentiment and needs based on internal research. Core to our messaging is helping customers save energy and money and lower their environmental footprint. Where appropriate, messaging around safety is incorporated into marketing materials given health and safety concerns. Overall messaging tone is helpful, empathetic, and informative to ensure the information reflects the Company's role as a trusted advisor who truly cares about customers' needs.

Rhode Island Energy's newest energy efficiency education/awareness campaign complements all programmatic marketing efforts. The omni-channel outreach plan includes a mix of owned and paid tactics and channels. Ads are intended to be informational while providing tangible ways to take action. Core to the campaign is an interactive landing page that captures the essence of the whole-home approach and serves as the destination for customers to comprehensively understand the value of the energy efficiency programs. This webpage allows customers to learn more about the various programs, potential savings and energy efficiency measures they can take, as well as link to more program details. Customers can also access a library of seasonal and year-long energy saving tips and information about energy efficiency offers and rebates.

New for 2023

The participant and non-participant studies, which concluded in 2022, provided the company with valuable insights on participation trends and barriers. These studies analyzed residential program participation between 2016 and 2020, identified and compared nonparticipants to participants to model propensity scores, and conducted interviews with nonparticipants to better understand programmatic barriers and ways to address them.

The research identified key barriers to participation as low awareness of energy efficiency and its value, a lack of trust and understanding of why an energy company would engage in promoting less use of energy, and limited access to program information that meets their needs (such as availability in their language). A statewide comprehensive campaign will be deployed in 2023 to provide a consistent message of both the purpose of energy efficiency and the availability for customers.

Using lessons learned from a 2021 Spanish-language campaign that was created for fridge recycling, the Company will scale its multi-cultural educational efforts through the creation of a new in-language and in-culture campaign in 2023. The goal will be to increase awareness and participation of the energy efficiency programs among multicultural customers. Initially the campaign will begin with Hispanic customers and expand to other multicultural groups. Aside from this campaign, the Company will also be more consistently sending its direct mail and emails in both English and Spanish.

The Company participated as a major sponsor at the annual Rhode Island Home Show in April 2022. Participation will be evaluated for 2023 as well. Participation in these events enables the Company to market directly to residential customers.

11. Residential Measures and Incentives

Table 2 below lists the planned measures for the electric Residential programs, by program, along with the estimated annual net savings, incentives per unit of savings and total incentives. The Residential ConnectedSolutions program is planned at the net kW level. All other electric Residential programs are planned at the gross kWh level. Table 3 shows planned costs in non-incentive cost categories for each program that are not allocated at the measure level. Table 4 and Table 5 show the same information for the planned Gas programs, respectively.

Table 2. Planned Measures for Electric Residential Programs

Electric Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
ENERGY STAR® HVAC	Central AC	220	\$50.00	\$11,000
	Wi-Fi Tstat-cool and heat oil/propane	4,200	\$75.00	\$315,000
	ACQIVES	20	\$175.00	\$3,500
	DOWNSIZE	59	\$250.00	\$14,750
	HP Mini-split QIV	646	\$175.00	\$113,050
	HPQIVES	35	\$175.00	\$6,125
	Mini-Split Heat Pump	1,625	\$350.00	\$568,750
	Elec Res to MSHP	337	\$4,000.00	\$1,348,000
	Central Heat Pump	35	\$350.00	\$12,250
	ECM Pumps	4,300	\$100.00	\$430,000
	Window - Electric Resistance	135	\$75.00	\$10,125
	Window - Oil	627	\$75.00	\$47,025
	Window - Propane	90	\$75.00	\$6,750
	HPWH <= 55 gallon	350	\$750.00	\$262,500

Electric Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
	HPWH > 55 gallon	15	\$300.00	\$4,500
	Window - Heat Pump	45	\$75.00	\$3,375
	HPTUNE	15	\$175.00	\$2,625
EnergyWise	Wx - OIL	1,800	\$2,945.00	\$5,301,000
	Wx Other	167	\$2,945.00	\$491,815
	Wx Elec	200	\$3,080.00	\$616,000
	THERMOSTATOIL	2,600	\$100.00	\$260,000
	THERMOSTATOTHER	65	\$100.00	\$6,500
	THERMOSTATELEC	380	\$100.00	\$38,000
	Minisplit Heat Pumps - Electric Resistance	18	\$4,200.00	\$75,600
	ShowerheadsOil	1,300	\$30.00	\$39,000
	ShowerheadsOther	50	\$30.00	\$1,500
	ShowerheadsElec	900	\$30.00	\$27,000
	WI-FI THERMOSTAT, OIL	200	\$200.00	\$40,000
	WI-FI THERMOSTAT, OTHER	10	\$200.00	\$2,000
	WIFI T-Stat - Electric	400	\$200.00	\$80,000
	Participants	12,500	\$375.00	\$4,687,500
	AeratorsOil	650	\$7.00	\$4,550
	AeratorsOther	10	\$7.00	\$70
	Pipe Insulation - Oil	4,250	\$7.00	\$29,750
	Pipe Insulation - Others	50	\$7.00	\$350
	AeratorsElec	200	\$7.00	\$1,400
	Pipe Insulation - Electric	500	\$7.00	\$3,500

Electric Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
	Smart Strip	12,500	\$22.00	\$275,000
	Refrigerator Brush	7,000	\$5.00	\$35,000
	Pre-Wx	620	\$250.00	\$155,000
	LED Bulbs	95,000	\$3.00	\$285,000
EnergyWise Multifamily	INSULATION, Oil	60	\$52.50	\$3,150
	INSULATION, Other	10	\$52.50	\$525
	INSULATION	1,200	\$52.50	\$63,000
	AIRSEAL, Oil	20	\$178.00	\$3,560
	AIRSEAL, Other	5	\$0.00	\$0
	AIR SEALING ELEC WITH AC	850	\$178.00	\$151,300
	Heat Pumps	20	\$19,500.00	\$390,000
	CUSTOM CIRCULATOR	2	\$4,800.00	\$9,600
	CUST NON-LGT	2	\$9,000.00	\$18,000
	Pipe Wrap DHW Other	2	\$3.00	\$6
	SHOWERHEAD Oil	40	\$25.00	\$1,000
	SHOWERHEAD Other	5	\$25.00	\$125
	VFD	10	\$12,000.00	\$120,000
	Pipe Wrap DHW Oil	20	\$3.00	\$60
	TSV Showerhead Oil	10	\$40.00	\$400
	Pipe Wrap DHW Elec	225	\$3.00	\$675
	SHOWERHEAD	120	\$25.00	\$3,000
	TSV Showerhead	30	\$40.00	\$1,200
	TSV Showerhead Other	2	\$40.00	\$80

Electric Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
	Thermostats	800	\$125.00	\$100,000
	THERMOSTAT, Oil	20	\$125.00	\$2,500
	AERATOR Oil	50	\$5.00	\$250
	AERATOR	300	\$5.00	\$1,500
	Smart Strip	1,200	\$23.00	\$27,600
	LED Bulbs	2,000	\$3.00	\$6,000
Home Energy Reports	ElecOnly	162,785	\$0.00	\$0
	DualFuel	98,515	\$0.00	\$0
	New Mover electric	17,245	\$0.00	\$0
	New movers dual fuel	9,735	\$0.00	\$0
Income Eligible Multifamily	INSULATION	100	\$230.00	\$23,000
	INSULATION, Oil	50	\$230.00	\$11,500
	INSULATION, Other	10	\$230.00	\$2,300
	CUSTOM CHP	1	\$275,000.00	\$275,000
	AIRSEAL, Oil	10	\$70.00	\$700
	AIRSEAL, Other	5	\$70.00	\$350
	AIR SEALING ELEC WITH AC	30	\$70.00	\$2,100
	Thermostats	75	\$125.00	\$9,375
	Heat Pumps	5	\$300,000.00	\$1,500,000
	Heat Pumps - Oil	35	\$25,714.29	\$900,000
	CUST NON-LGT	1	\$300,000.00	\$300,000
	CUSTOM CIRCULATOR	2	\$8,000.00	\$16,000
	SHOWERHEAD	100	\$25.00	\$2,500

Electric Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
	TSV Showerhead	10	\$40.00	\$400
	VFD	12	\$28,000.00	\$336,000
	SHOWERHEAD Oil	100	\$25.00	\$2,500
	Refrig rebate	50	\$3.00	\$150
	AERATOR	100	\$4.50	\$450
	AERATOR Oil	20	\$4.50	\$90
	Smart Strip	200	\$23.00	\$4,600
	Common Ext LED Fixture	80	\$330.00	\$26,400
	Common Int LED Fixture	370	\$95.00	\$35,150
	Common Int Linear LED Fixture	500	\$95.00	\$47,500
	LED Bulbs	2,000	\$3.00	\$6,000
Residential ConnectedSolutions	Solar Inverters, New	200	\$45.00	\$9,000
	Solar Inverters, Existing	1,000	\$20.00	\$20,000
	Thermostats Existing	6,773	\$20.00	\$135,460
	Thermostats New	427	\$45.00	\$19,215
	Battery Daily (savings)	500	\$2,640.00	\$1,320,000
Residential Consumer Products	Low-E Storm Windows Electric	122	\$25.00	\$3,050
	Low-E Storm Windows Others	101	\$35.00	\$3,535
	Dehumidifier Rebate	1,700	\$30.00	\$51,000
	Energy Star Dryer	675	\$50.00	\$33,750
	Low-Flow Showerhead with TSV, Oil	75	\$15.00	\$1,125
	Low-Flow Showerhead with TSV, Other	55	\$15.00	\$825
	Low-Flow Showerhead with TSV, Electric	152	\$15.00	\$2,280

Residential Measures and Incentives

Electric Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
	Refrigerator Most Efficient	1,190	\$25.00	\$29,750
	Room Air Conditioner 10.8	862	\$40.00	\$34,480
	Clothes Washer Most Efficient	1,000	\$25.00	\$25,000
	Room Air Cleaners	561	\$40.00	\$22,440
	REFRIG RECYCLING	3,893	\$95.00	\$369,835
	Freezer Recycling	325	\$95.00	\$30,875
	Thermostatic Shut-off Valve Oil	23	\$11.50	\$265
	Thermostatic Shut-off Valve Other	23	\$11.50	\$265
	Thermostatic Shutoff Valve, Elec	23	\$11.50	\$265
	Pool Pump - variable	584	\$500.00	\$292,000
	Smart Strip	7,500	\$10.00	\$75,000
	Tier 2 APS	6,500	\$35.00	\$227,500
	Tier 2 APS OS	310	\$35.00	\$10,850
	Dehumidifier Recycling	600	\$30.00	\$18,000
Residential New Construction	MFHR_COOLING	135	\$700.00	\$94,500
	MFHR_HEATING	135	\$700.00	\$94,500
	HEATINGCP	15	\$345.00	\$5,175
	HEATINGTIER1	110	\$885.00	\$97,350
	HEATINGTIER2	159	\$1,525.00	\$242,475
	HEATINGTIER3	15	\$3,718.00	\$55,770
	RR_COOLINGTIER1_ELEC	26	\$0.00	\$0
	RR_COOLINGTIER2_ELEC	12	\$0.00	\$0
	RR_COOLINGTIER3_ELEC	2	\$0.00	\$0

Electric Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
	RR_DHWTIER1_ELEC	26	\$0.00	\$0
	RR_DHWTIER2_ELEC	12	\$0.00	\$0
	RR_DHWTIER3_ELEC	2	\$0.00	\$0
	RR_HEATINGTIER1_ELEC	25	\$900.00	\$22,500
	RR_HEATINGTIER2_ELEC	12	\$1,520.00	\$18,240
	RR_HEATINGTIER3_ELEC	2	\$2,643.00	\$5,286
	RR_COOLINGCP_ELEC	15	\$0.00	\$0
	RR_DHWCP_ELEC	15	\$0.00	\$0
	RR_HEATINGCP_ELEC	15	\$345.00	\$5,175
	COOLINGCP	15	\$0.00	\$0
	COOLINGTIER1	110	\$0.00	\$0
	COOLINGTIER2	159	\$0.00	\$0
	COOLINGTIER3	15	\$0.00	\$0
	DHWCP	15	\$0.00	\$0
	DHWTIER1	110	\$0.00	\$0
	DHWTIER2	159	\$0.00	\$0
	DHWTIER3	15	\$0.00	\$0
	MFHR-DHW	135	\$700.00	\$94,500
	SHOWERHEAD	35	\$0.00	\$0
	CODES AND STANDARDS	1	\$0.00	\$0
	Refrig rebate	606	\$0.00	\$0
	CWASHER	121	\$0.00	\$0
	DISHWASH	526	\$0.00	\$0

Electric Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
Single Family - Income Eligible Services	Wx Elec	35	\$5,500.00	\$192,500
	Wx DelFuel	650	\$5,500.00	\$3,575,000
	Heating System Retrofit, Furnace, Other	8	\$5,500.00	\$44,000
	Refrig rebate	1,400	\$1,100.00	\$1,540,000
	THERMOSTATOIL	25	\$150.00	\$3,750
	THERMOSTATOTHER	25	\$150.00	\$3,750
	FREEZER	100	\$600.00	\$60,000
	THERMOSTATELEC	25	\$150.00	\$3,750
	WI-FI THERMOSTAT, OTHER	5	\$275.00	\$1,375
	Minisplit Heat Pumps - Oil Fuel Switching	12	\$16,000.00	\$192,000
	HEATSYSTEM	230	\$5,500.00	\$1,265,000
	Minisplit Heat Pumps - Electric Resistance	20	\$16,000.00	\$320,000
	Dehumidifier Rebate	150	\$275.00	\$41,250
	WI-FI THERMOSTAT, AC ONLY	5	\$275.00	\$1,375
	WI-FI THERMOSTAT, OIL	5	\$275.00	\$1,375
	ACREPLACE	1,100	\$385.00	\$423,500
	ERCW, Elec DHW & Elec Dryer_RETIRE	75	\$770.00	\$57,750
	ERCW, Gas DHW & Elec Dryer_RETIRE	150	\$770.00	\$115,500
	ERCW, Oil DHW & Elec Dryer_RETIRE	70	\$770.00	\$53,900
	ERCW, Gas DHW & Gas Dryer_RETIRE	50	\$770.00	\$38,500
ERCW, Propane DHW & Elec Dryer_RETIRE	2	\$770.00	\$1,540	
HP Water Heaters	2	\$1,800.00	\$3,600	
Heating System Retrofit, Boiler, Oil	200	\$5,500.00	\$1,100,000	

Electric Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
	Heating System Retrofit, Boiler, Other	3	\$5,500.00	\$16,500
	Heating System Retrofit, Furnace, Oil	25	\$5,500.00	\$137,500
	Wx Other	50	\$5,500.00	\$275,000
	DHWOIL	20	\$20.00	\$400
	EDUC - TLC	3,200	\$180.00	\$576,000
	Smart Strip	4,000	\$20.00	\$80,000
	LED Bulbs	53,000	\$8.50	\$450,500

Table 3. Shared and Other Costs for Electric Residential Programs

Program	Shared Costs				Non-Measure-Specific Incentives
	Program Planning & Administration	Marketing	Sales, Tech Assist & Training	Evaluation & Market Research	Heat Loans & HVAC Financing
Income Eligible Multifamily	\$160,762	\$14,289	\$395,782	\$38,483	
Single Family - Income Eligible Services	\$476,485	\$132,093	\$2,992,591	\$81,211	
Home Energy Reports	\$48,967	\$13,223	\$2,062,418	\$22,574	
EnergyWise Multifamily	\$126,929	\$67,821	\$121,578	\$26,373	\$80,000
EnergyWise	\$517,387	\$355,468	\$1,480,154	\$262,786	\$600,000
ENERGY STAR® HVAC	\$265,412	\$278,322	\$831,067	\$242,585	\$813,900
Residential New Construction	\$126,073	\$23,885	\$525,142	\$98,401	
Residential Consumer Products	\$121,995	\$427,579	\$688,204	\$24,354	
Residential ConnectedSolutions	\$85,452	\$11,480	\$347,715	\$22,715	

Table 4. Planned Measures for Gas Residential Programs

Gas Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
ENERGY STAR® HVAC	95% AFUE or greater forced-water boiler	375	\$1,000.00	\$375,000
	BOILER RESET	32	\$225.00	\$7,200

Gas Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
	COMBO CONDENSING 95	1,300	\$1,400.00	\$1,820,000
	Cond Water Heater UEF 0.80	5	\$250.00	\$1,250
	ENERGY STAR STORAGE WATER HEATER	45	\$125.00	\$5,625
	ENERGY STAR ON DEMAND WATER HEATER 0.87 UEF	25	\$600.00	\$15,000
	Furnace (forced hot air) w/ ECM >=95%AFUE	375	\$350.00	\$131,250
	Furnace 97% AFUE with ECM	80	\$600.00	\$48,000
	Furnace CombiAFUE97	10	\$700.00	\$7,000
	HEAT RECOVERY VENT	45	\$500.00	\$22,500
	LFShowerhead	125	\$7.00	\$875
	Room Response Control - Gas	45	\$75.00	\$3,375
	Thermostats	65	\$25.00	\$1,625
	TSV Showerhead	65	\$15.00	\$975
	TSVs	65	\$11.50	\$748
	WATER HEATER - INDIRECT	170	\$425.00	\$72,250
	Wi-Fi Thermostat - Gas Cooling and Htg	3,200	\$75.00	\$240,000
	Triple Pane Windows	325	\$75.00	\$24,375
EnergyWise	Thermostats	1,700	\$100.00	\$170,000
	Participants (Unique Account Numbers)	2,200	\$0.00	\$0
	Pipe Insulation - Gas	1,500	\$7.00	\$10,500
	WEATHERIZATION	2,000	\$3,800.00	\$7,600,000
	WiFi Thermostat	100	\$200.00	\$20,000
	ShowerheadsGas	700	\$30.00	\$21,000
	AeratorsGas	600	\$7.00	\$4,200

Gas Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
EnergyWise Multifamily	Aerator_MF	500	\$5.00	\$2,500
	Air Sealing_MF	1,400	\$355.00	\$497,000
	CUSTOM CIRCULATOR	1	\$1,800.00	\$1,800
	Duct Insulation_MF	100	\$3.00	\$300
	Duct Sealing_MF	200	\$0.25	\$50
	HEATING_Custom	3	\$28,200.00	\$84,600
	INSULATION_MF	3,600	\$138.00	\$496,800
	Pipe Wrap DHW_MF	100	\$3.00	\$300
	Showerhead_MF	200	\$25.00	\$5,000
	THERMOSTAT_MF	500	\$125.00	\$62,500
	TSTAT_WIFI_HEATING	50	\$300.00	\$15,000
	TSV Showerhead_MF	35	\$40.00	\$1,400
Home Energy Reports	DualFuel	120,421	\$0.00	\$0
	gas only	18,470	\$0.00	\$0
	New movers dual fuel	10,342	\$0.00	\$0
Income Eligible Multifamily	Aerator_LI	400	\$5.00	\$2,000
	Air Sealing_LI	50	\$785.00	\$39,250
	CUST NON-LGT_LI	45	\$15,900.00	\$715,500
	HEATING_Custom_LI	12	\$135,000.00	\$1,620,000
	INSULATION_LI	650	\$325.00	\$211,250
	Pipe Wrap DHW_LI	100	\$3.00	\$300
	Showerhead_LI	115	\$25.00	\$2,875
	THERMOSTAT_LI	500	\$125.00	\$62,500

Gas Residential Programs				
Program	Measure	Units	Incentive/Unit	Total Incentives
Residential New Construction	Codes and Standards	1	\$0.00	\$0
	Heating (CP)	10	\$310.00	\$3,100
	Heating Tier 1	20	\$1,050.00	\$21,000
	Heating Tier 2	95	\$1,975.00	\$187,625
	Heating Tier 3	2	\$2,300.00	\$4,600
	MFHR_HEATING	50	\$700.00	\$35,000
	MFHR_WATER_HEATING	50	\$700.00	\$35,000
	RR_DHWCP_GAS	5	\$50.00	\$250
	RR_DHWTIER1_GAS	10	\$50.00	\$500
	RR_DHWTIER2_GAS	25	\$150.00	\$3,750
	RR_DHWTIER3_GAS	5	\$150.00	\$750
	RR_HEATINGCP_GAS	5	\$310.00	\$1,550
	RR_HEATINGTIER1_GAS	10	\$1,050.00	\$10,500
	RR_HEATINGTIER2_GAS	25	\$1,450.00	\$36,250
	RR_HEATINGTIER3_GAS	1	\$2,535.00	\$2,535
	SHOWERHEAD	20	\$0.00	\$0
	Water Heating (CP)	10	\$50.00	\$500
	Water Heating Tier 1	20	\$50.00	\$1,000
	Water Heating Tier 2	95	\$150.00	\$14,250
	Water Heating Tier 3	2	\$150.00	\$300
Single Family - Income Eligible Services	Boiler	225	\$5,500.00	\$1,237,500
	FURNACE	32	\$5,500.00	\$176,000
	Weatherization	500	\$5,500.00	\$2,750,000

Table 5. Shared Costs for Gas Residential Programs

Program	Shared Costs			
	Program Planning & Administration	Marketing	Rebates and Other Customer Incentives	Sales, Tech Assist & Training
ENERGY STAR® HVAC	\$130,768	\$206,962	\$2,970,798	\$253,454
EnergyWise	\$297,247	\$62,396	\$8,021,610	\$1,384,564
Income Eligible Multifamily	\$119,976	\$8,642	\$2,653,675	\$409,574
EnergyWise Multifamily	\$73,656	\$50,811	\$1,167,250	\$180,107
Home Energy Reports	\$8,835	\$3	\$0	\$347,990
Residential New Construction	\$55,961	\$2,144	\$357,710	\$166,157
Single Family - Income Eligible Services	\$201,806	\$22,009	\$4,164,333	\$1,011,835