

2020 Residential Energy Efficiency Solutions and Programs

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1. Introduction

The Company continues to implement its nationally recognized energy efficiency program¹ with a continued focus on developing new services that give customers control of their energy, improve financial well-being, and provide equity for all.

National Grid's Residential Energy Efficiency (EE) portfolio of solutions provides customers with incentives and support for their every-day energy choices. From ensuring customers are assigned the correct rates, to providing energy modeling to improve the design of a new home, to presenting the customer a visual of their energy use, to offering tried and true energy saving products in an online platform to ease the adoption process, the Company continues to evolve its offerings to help customers save energy.

The following sections cover these residential energy solutions, the energy saving goals the Company has set for 2020, and how the Company plans to achieve these goals in an ever-changing energy landscape.

The 2018-2020 Three-Year Plan details the following four central principles that encompass an advanced and innovative approach to serving all residential customers. The Company finds that these four principles are apparent in all aspects of the 2020 Residential EE Plan.

Customers - Deliver comprehensive services encompassing all market segments and customers. Such services will enable customers to control their energy use, reduce their bills, and help support their financial well-being.

Least Cost - Deliver energy efficiency services as cost-effectively as possible through optimizing finance and promoting upstream initiatives. Continuing to deliver cost effective energy saving under Least Cost Procurement will create cost savings to all customers, while creating economic benefits that create and maintain local jobs and businesses. Demand Response efforts will also contribute to cost savings to all customers.

Environment - Provide solutions that minimize greenhouse gas emissions and contribute to Rhode Island's clean energy policy goals, including the Resilient Rhode Island Act.

¹ <https://aceee.org/state-policy/scorecard>

Future – Innovate to capture savings from new technologies and strategies to position energy efficiency programs for the future, including the integration of energy efficiency with demand response, renewable energy, and smart grid technologies. This includes incorporating outcomes from the Rhode Island Power Sector Transformation Initiative and Docket 4600.

Figure 1: Annual MWh Savings Goals for Residential Electric Sector

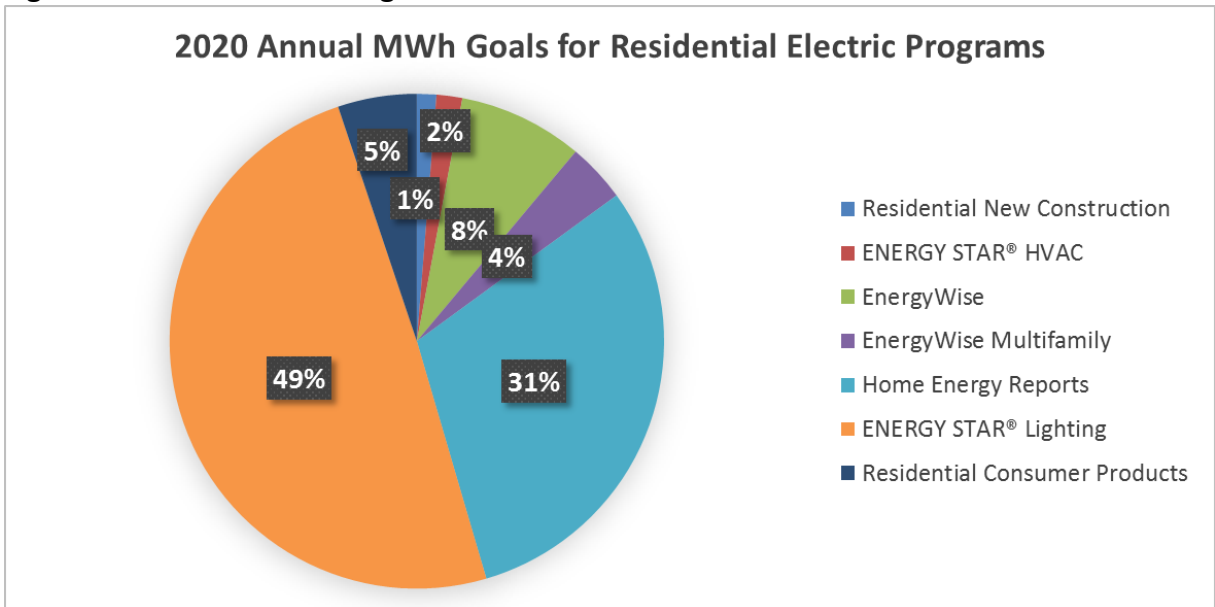


Figure 2: Lifetime MMBtu Savings Goals for Residential Electric Sector

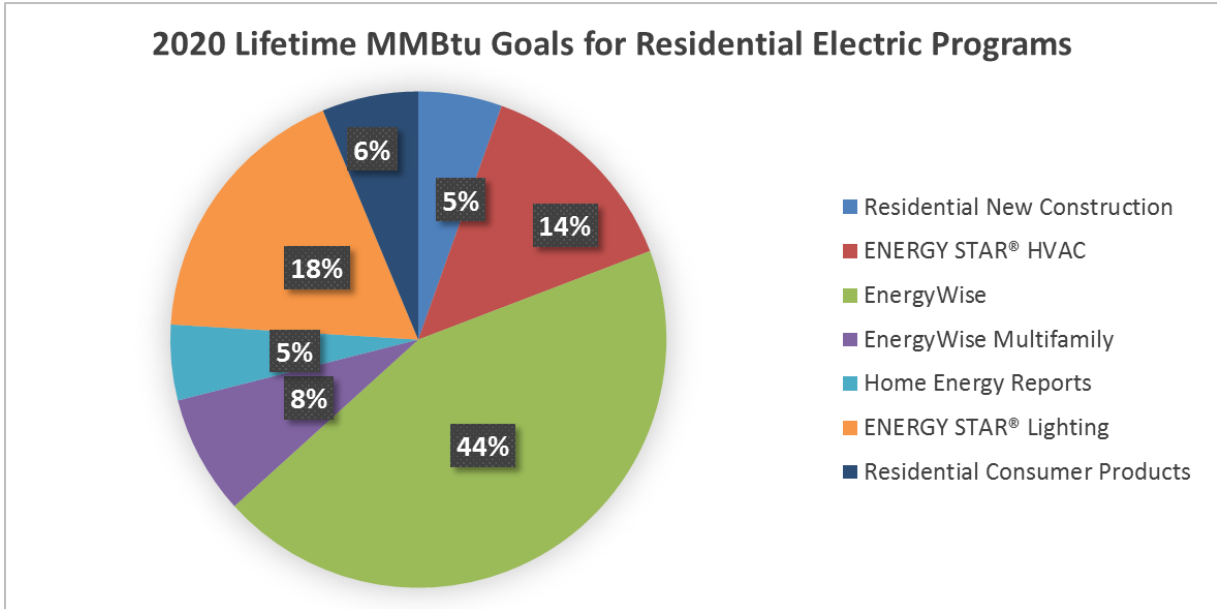


Figure 3: Annual MMBtu Savings Goals for Residential Gas Sector

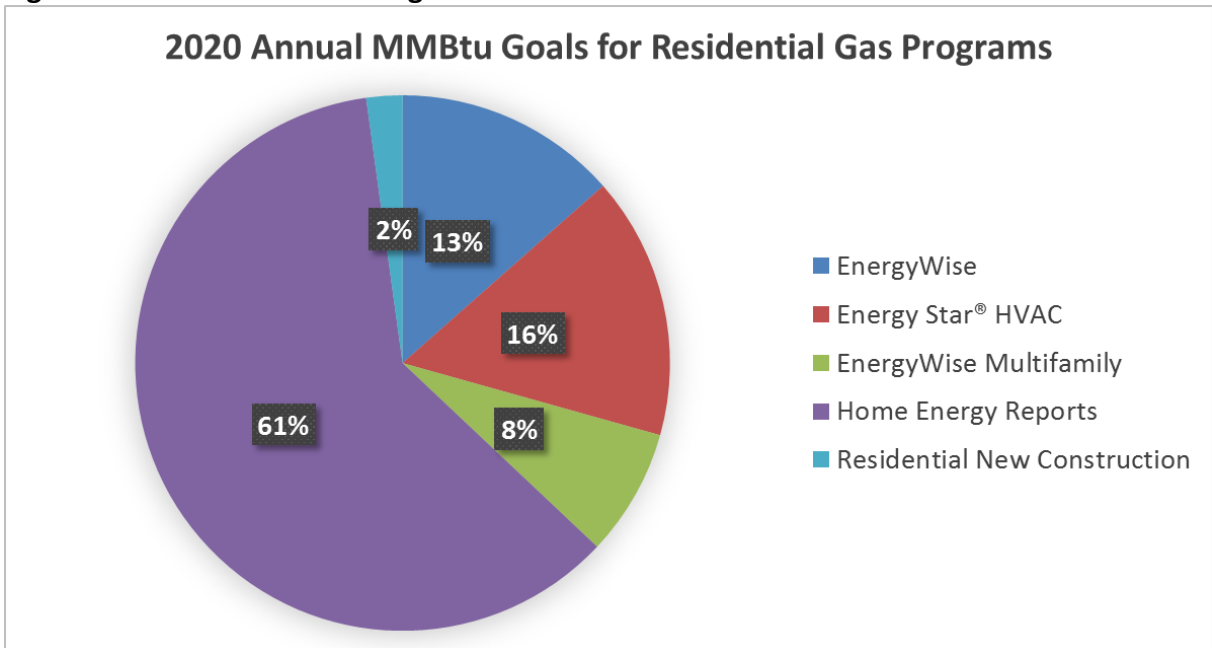


Figure 4: Lifetime MMBtu Savings Goals for Residential Gas Sector

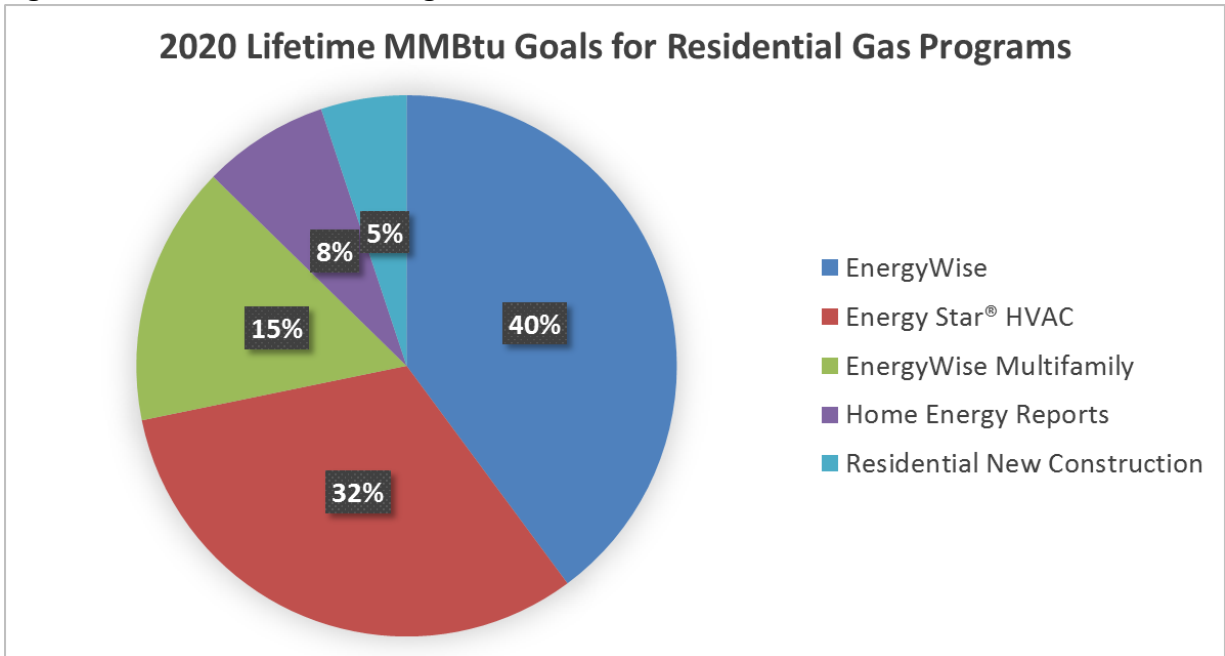


Figure 5: Annual MWh Savings Goals for Income Eligible Electric Sector

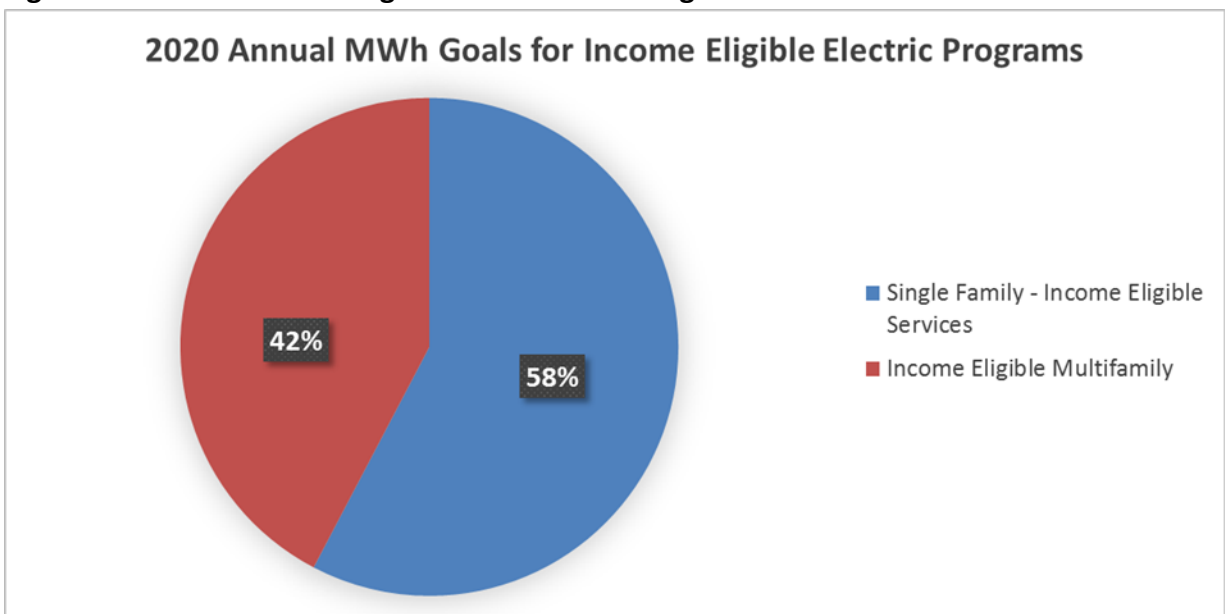


Figure 6: Lifetime MMBtu Savings Goals for Income Eligible Electric Sector

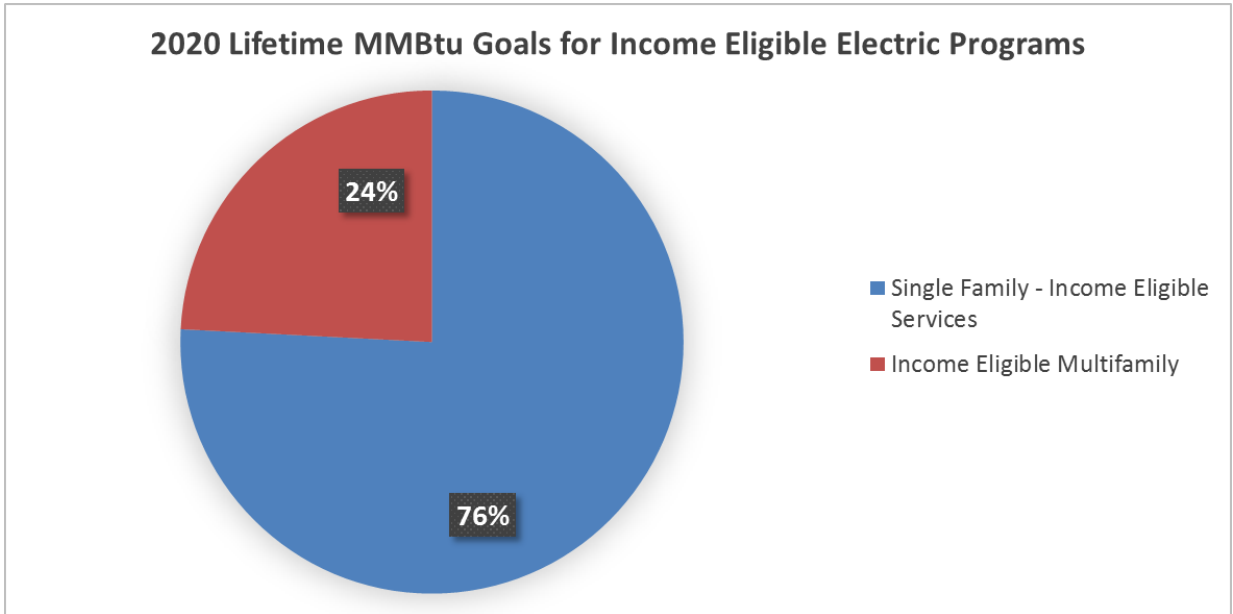


Figure 7: Annual MMBtu Savings Goals for Income Gas Eligible Sector

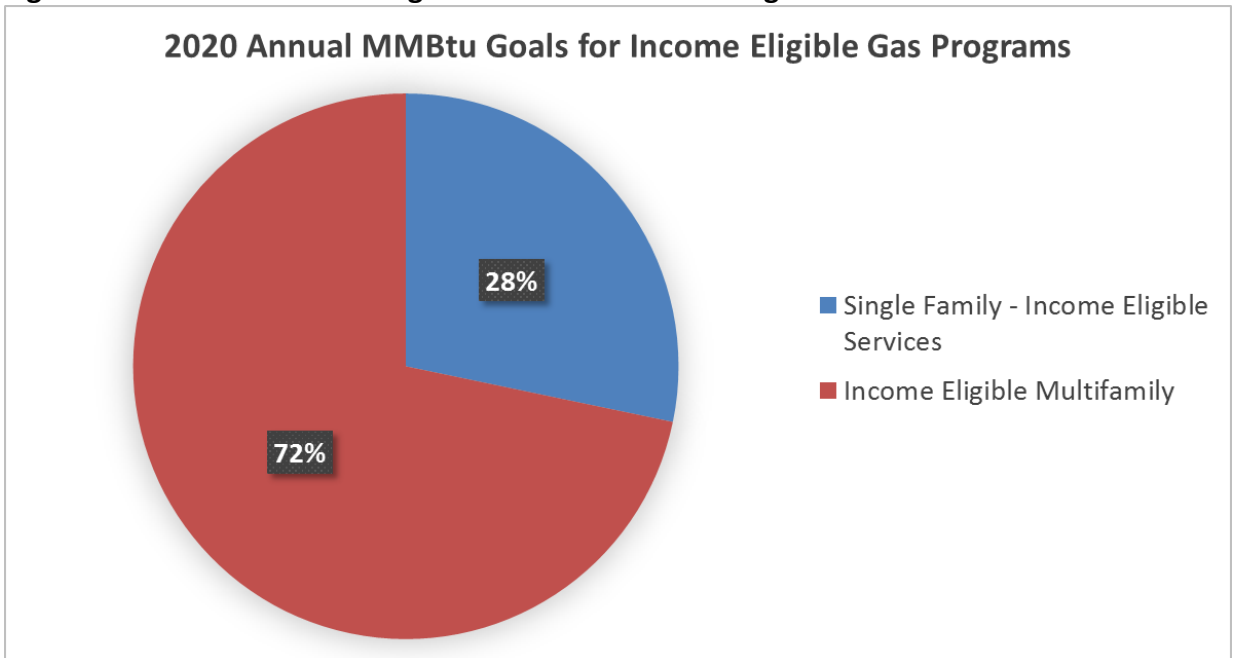
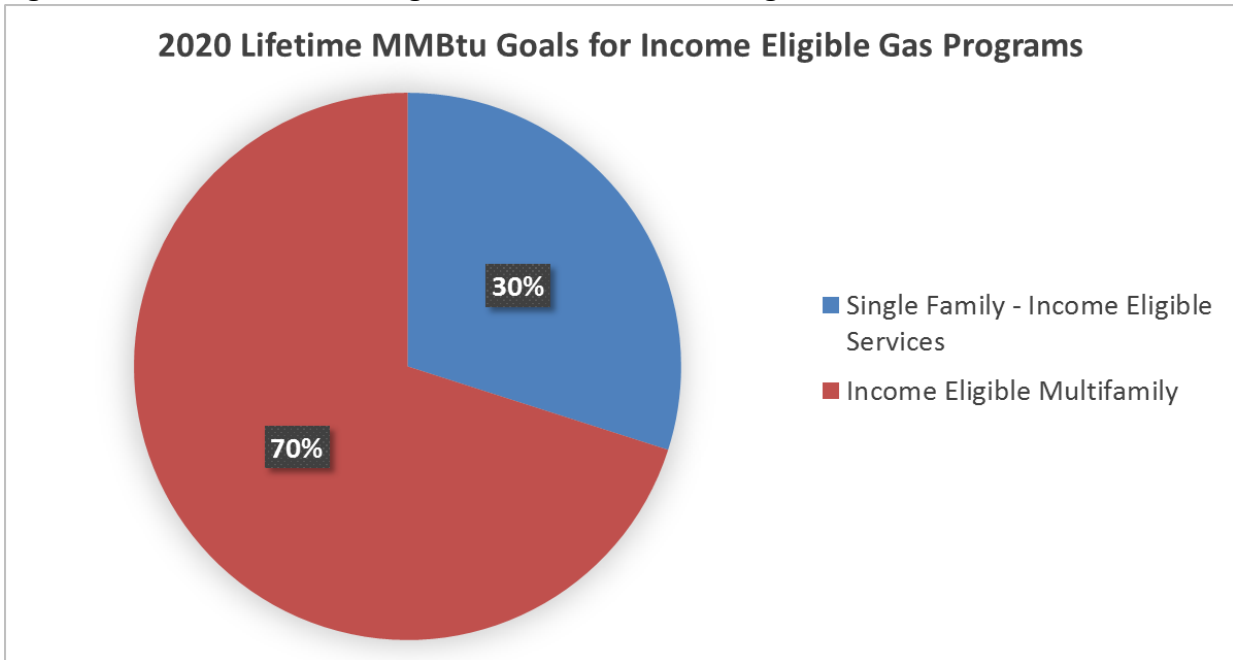


Figure 8: Annual MMBtu Savings Goals for Income Gas Eligible Sector



2. EnergyWise Single Family (Electric and Gas)

a. Overview

EnergyWise provides home energy assessments for single family, 1-4-unit buildings, non-income eligible customers. Education is provided for all customer energy management solutions as well as financing opportunities during the assessment.

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MWh (Electric)	Annual MMBtu (Gas, Oil, Propane)	Budget (\$000)
Electric	711,614	6,210	34,806	\$16,350

Fuel	Total Net Lifetime MMBtu	Annual MMBtu (Gas)	Annual MWh	Budget (\$000)
Gas	608,029	25,621	153	\$8,426

b. Program Delivery

During the assessment a customer learns how efficiently their home uses energy and discovers opportunities to improve the home's energy performance. A holistic, whole-house approach is used looking at major energy systems such as the heating and water heating systems, appliances, lighting, water saving measures, plug loads, and tightness of the building envelope. One of the most cost-efficient ways to improve a building's performance is to improve the shell of the residence and decrease the number of air leaks through air sealing and weatherization. The Energy Action Plan presented the end of the assessment recommends a path to upgrading the home's weatherization and any available incentives for the energy upgrades. Opportunities for financing the customer share of the project improvements are also provided at this time.

EnergyWise also identifies opportunities for other energy saving programs. Energy Specialists in the home capture age and condition of heating systems, heating fuel type, levels of floors in the home which are all used to identify if homes are candidates for electrification of heating systems. Likewise, information about whether a home has central air conditioning and the presence of a smart thermostat aligns well with the requirements for Connected Solutions.



What to Expect from a No-Cost Home Energy Assessment

HERE ARE 5 THINGS AN ENERGY SPECIALIST WILL DO IN YOUR HOME

- #### 1 Install Energy Saving Products

Install energy saving products like LED bulbs, thermostats, and low-flow showerheads during your assessment at no cost.

Wi-Fi enabled thermostats allow you to control temperatures with your smartphone and **save up to \$180 a year.**
- #### 2 Test Insulation

Identify areas that may need additional insulation. Adding insulation is an effective way to boost comfort and reduce heating and cooling costs.

You may be eligible for **75% (up to \$4,000) off** on insulation following your assessment.
- #### 3 Look for Drafts

Look for areas where your home might be leaking air, including door frames, walls, electrical outlets, and unfinished basements.

Air sealing and adding insulation can help **save up to 15% on heating and cooling bills.**
- #### 4 Check Appliances & Equipment

Inspect the condition of your heating, water heating, and cooling equipment as well as your appliances. Equipment loses efficiency as it ages.

National Grid offers rebates that can **save you hundreds of dollars on upgrades.**
- #### 5 Walk Through Results & Next Steps

You'll receive a prioritized list of energy saving opportunities, plus information on contractors, valuable rebates, and the chance to apply for 0% financing on eligible upgrades through the HEAT Loan program.

Call **888-633-7947** to schedule your no-cost Home Energy Assessment, or visit ngrid.com/ri-home

These programs are funded by the energy efficiency charge on all customers' gas and electric bills, in accordance with Rhode Island law. ©2016 National Grid.

c. Changes for 2020

2020 is planned with the largest number of home energy assessments and weatherization goals for this program. In planning to overcome the reduction of savings from the ENERGY STAR® Lighting program, EnergyWise is one strategic offering that will look for longer term energy savings opportunities. EnergyWise will increase savings by serving more customers. The Company will continue to build on efforts started in 2019 which include equity in incentives to RI customers regardless of heating fuel source and promoting the enhanced landlord incentive which will be evaluated in 2020. EnergyWise will also utilize systems developed with the customer contact center that promotes home energy assessments to new customers.

In 2020 the program will also continue to facilitate the adoption of smart thermostats and air source heat pumps which are cornerstone technologies for Connected Solutions and electrification of the heating sector. The Company will also support building asset labeling by investigating opportunities for creating a residential energy usage score based on software solutions that combine publicly available data with Company information. An evaluation is scheduled in 2020 that will look at customer satisfaction within the program and address how well the program performs as compared to other industry benchmarks.

3. Multifamily (Electric and Gas)

a. Overview

Comprehensive energy services for multifamily customers include energy assessments, incentives for heating and domestic hot water systems, cooling equipment, lighting, and appliances. Coordinated services will be offered for all types of multifamily properties.

Eligible Multifamily program participants are defined as the following:²

- Buildings with 5 or more units
- Properties consisting of four or more 1-4 unit buildings that meet both of the following requirements:

² Stand-alone 1-4 unit buildings that do not meet these requirements are considered “single-family” and are served traditionally through *EnergyWise* Single Family or Income Eligible Services Single Family programs, as appropriate.

- Are within a reasonable geographical distance³ from each other, or to a 5+ unit building, and
- Are owned by the same individual or firm.

Both market-rate and income-eligible multifamily properties are subject to the above-outlined multifamily eligibility requirements for coordinated services. For the income-eligible properties, co-payments for energy efficiency services and measures may 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 any type of low-income funds/subsidies from the state or federal government
- Consist of building units where a majority of customers qualify as income-eligible customers (receive utility service on the A-60 Low-Income rate and/or have a household income of less than 60% of the Area Median Income)

Furthermore, a multifamily property may be eligible for services and incentives under both residential and commercial programs. As an example, a building with 20 units 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. While this adds a layer of complexity for the Company, it is critical that the Company maintain accounting via these various program budgets in order to ensure equity for all customers funding energy efficiency through the energy efficiency program charge. In contrast, the customer will not need to deal with this added layer of complexity, and will instead receive a consolidated incentive for all efficiency work completed at the site.⁴

³ "Reasonable geographical 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.

⁴ For the past four years National Grid has offered a Multifamily Coordinator for RI customers looking to participate in the multifamily program to reduce any confusion and ensure a smooth enrollment process.

EnergyWise Multifamily

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MWh (Electric)	Annual MMBtu (Gas, Oil, Propane)	Budget (\$000)
Electric	125,408	2,943	1,235	\$2,822

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MMBtu (Gas)	Annual MWh	Budget (\$000)
Gas	237,079	14,599	0	\$1,504

Income Eligible Multifamily

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MWh (Electric)	Annual MMBtu (Gas, Oil, Propane)	Budget (\$000)
Electric	119,629	2,451	1,113	\$3,556

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MMBtu (Gas)	Annual MWh	Budget (\$000)
Gas	451,168	24,453	0	\$2,990

b. Program Delivery

The Rhode Island Market Rate and Income Eligible Multifamily programs continue to innovate and refine techniques to serve more customers with more measures. In 2018 the program began to offer cold climate mini-split heat pumps for customers with electric resistance heat and in 2019 facilities served by delivered fuels were a focus. In 2019 the electric multifamily programs have also been challenged from declining opportunities for lighting savings, the main source of annual MWh savings for the electric programs. The Company will continue to pursue all cost-effective lighting savings that remain. Given the overall decline in lighting savings opportunities and the proposed shift in goals from annual MWh to lifetime MMBtu, lighting savings will make up a smaller portion of the program's lifetime MMBtu goals moving forward. As such the multifamily program will increase its focus on measures with a longer measure life. For 2020, the company looks

to grow these efforts, with a special emphasis on the deployment of cold climate mini-split heat pumps. The program is planning to add heat pumps for market rate programs in addition to the income eligible program and remains committed to offering a comprehensive program that is cost effective. 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.

c. Changes for 2020

i. Increased marketing and Community focus

In 2020 the Company will review and assess multifamily marketing efforts to identify how the program can make improvements in its marketing efforts. Included in this will be outreach to Community Development Corporations (CDCs) to see how the Company and its vendor can best work with these organizations to identify additional project sites. The Company will also look at opportunities to expand services to smaller sites such as condominiums. Beyond this the Company will be more holistic in the delivery of the program beyond EE through efforts such as providing customers with information about community solar opportunities and other useful energy information.

ii. Optimizing Best Practices

The Company will continue its efforts to optimize and apply best practices to the Multifamily program. Specifically, the Company will consider best practices stemming from the Massachusetts Multifamily census study and Massachusetts' Program Administrator's recent program modifications. The Company will also consider what to study in the 2020 process and impact evaluations.

4. Income Eligible Services (Electric and Gas)

a. Overview

National Grid's Income Eligible Services Program (IES) is a fuel neutral Energy Efficiency program (electric, gas, oil and propane) available to customers who live in 1-4 unit residences and who qualify for the National Grid income-eligible discount utility rates (A-60 and or 1301 rates).⁵

⁵ These eligibility requirements are subject to change as a result of any regulatory directives, or as deemed necessary by the Company to enhance participation and/or savings.

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MWh (Electric)	Annual MMBtu (Gas, Oil, Propane)	Budget (\$000)
Electric	375,026	3,343	13,149	\$12,423

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MMBtu (Gas)	Annual MWh	Budget (\$000)
Gas	192,738	9,637	62	\$5,668

b. Program Delivery

The IES Program assists rate payers in addressing energy affordability burdens and improving overall comfort and safety for occupants by providing energy education, home energy assessments, insulation, air sealing, replacement of inefficient heating systems, appliances, lighting, smart power strips and domestic hot water instant savings measures.

The success of the Program can be attributed to several key elements of the program design:

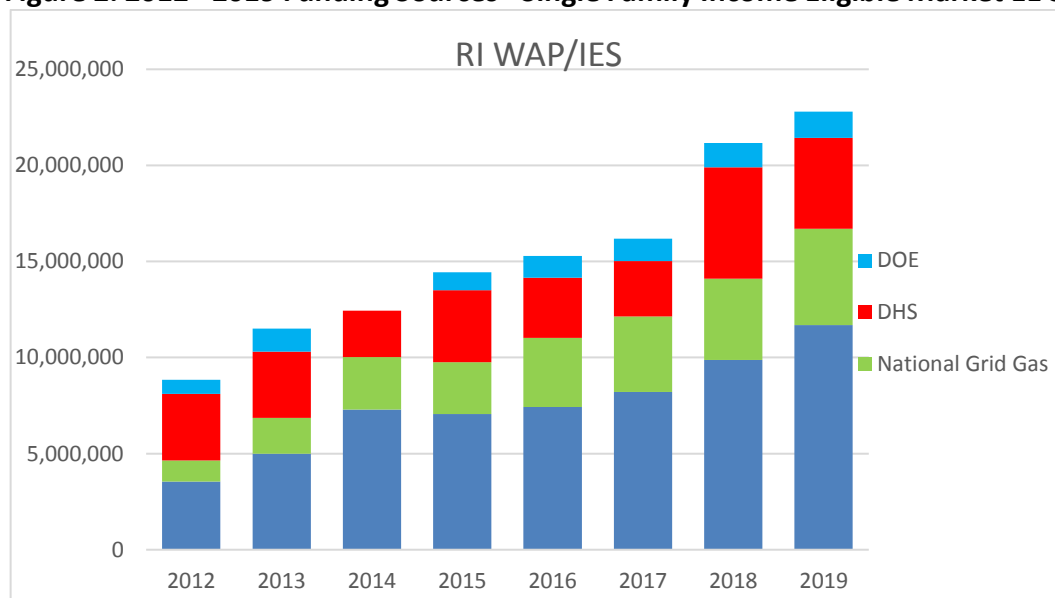
- Coordination of energy efficiency services through the lead vendor and delivered by the RI Community Action Programs (CAPs).
- Collaboration between National Grid and Rhode Island Department of Human Services (DHS) for leveraging funds and delivering energy efficiency services.
- Quarterly engagement of National Grid, the lead vendor, CAPs and DHS to ensure consistent implementation of IES best practices across Rhode Island.
- On-going customer feedback and communication.

The IES Program is administered through a lead vendor that is responsible for managing the implementation of IES work through the six Rhode Island geographically-based CAPs. The CAPs provide the full suite of services from customer education, income-eligibility verification, energy assessments, installation of instant savings measures, and coordination of home performance contractors that install weatherization and heating measures and quality assurance/quality control.

The IES program benefits from the opportunity to leverage complimentary funds managed by the State of Rhode Island Department of Human Services (DHS)

Weatherization Assistance Program (WAP)⁶ and the Low-Income Home Energy Assistance Program (LIHEAP)⁷. The amount of funds leveraged from these programs contribute approximately 35% 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, that if not remediated, would prevent a customer from receiving weatherization and/or heating system upgrades. Reducing non-energy related health and safety improvement expenses to rate payers by, using leveraged funds removes barriers allowing more customers to be served through both programs. See Figure 5, 6, and 7 below for illustrative examples that represent 2012 - 2019 Funding Sources, Allocation of funding sources, and Figure 7 for a breakout of services provided.

Figure 2: 2012 - 2019 Funding Sources - Single Family Income Eligible Market EE Services



⁶ overseen by the U.S. Department of Energy
⁷ overseen by the U.S. Department of Health and Human Services

Figure 6: 2012 - 2019 Allocation of Funding Sources - Single Family Income Eligible Market EE Services

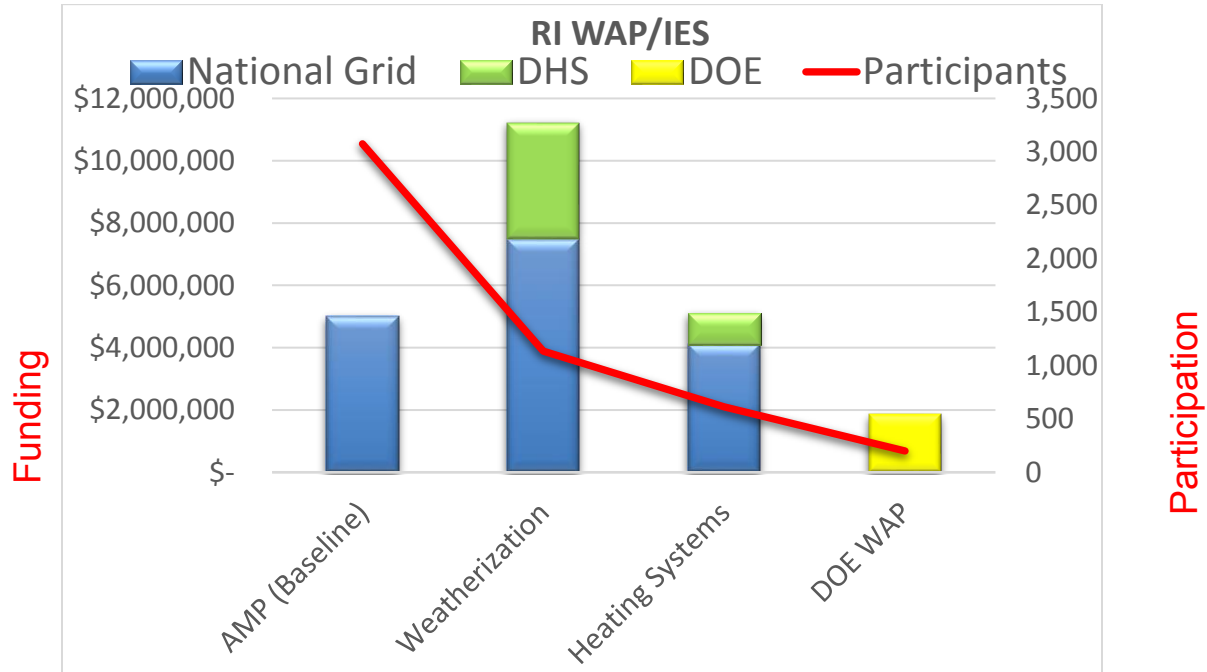


Table 1: Services Provided – IES Program and WAP/LIHEAP

Single-Family Income Eligible Services (IES) Program*	Federally-funded Weatherization Assistance Program (LIHEAP)*
<ul style="list-style-type: none"> • Conduct whole house Energy Assessment and provide customer education <ul style="list-style-type: none"> ○ Lighting and appliance (AMP) Assessment ○ Heating and Weatherization Assessment • Review utility bills • Replace incandescent and halogen light bulbs with LED light bulbs • Install smart power strips and domestic hot water measures • Talk with homeowner about opportunities to save energy and 	<ul style="list-style-type: none"> • Conduct whole house audit/ energy efficiency evaluation for Heating Systems and Weatherization (not appliances) • Install weatherization measures (insulation, air sealing, duct sealing) • Replace inefficient heating equipment if deemed eligible • Improve minor health and safety issues that are barriers to energy efficiency measures • Conduct field inspections and testing (quality assurance/quality control)

<p>money through weatherization and upgrading appliances and mechanical equipment.</p> <ul style="list-style-type: none"> • Coordinate the installation of weatherization measures and or heating system replacements if needed • Install weatherization measures if needed • Replace eligible appliances and heating, cooling and hot water systems (HPWH) • Conduct field inspections and testing, i.e., quality assurance / quality control. 	
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*Both IES and LIHEAP offer all services and products at no-cost to the customer.

In 2019, the IES Program added air source heat pumps to replace electric resistance heat and will continue in 2020. This offer provides customers with an opportunity to significantly reduce their electric costs.

c. Changes for 2020

Preparation for Growth of IES Program

i. Coordination with National Grid Income Eligible Income Eligible Outreach Strategy

Customer service representatives in the National Grid Customer Service Center (1-800-322-3223) help to encourage income-eligible customers to register for the income-eligible rates which qualify them for no-cost IES energy efficiency services. This approach is designed to be proactive to enroll customers onto the rates rather than assume a customer will take the necessary steps to access the programs. Resulting from this Customer Service program, the IES program is anticipating an increase in participation due to the increased numbers of customers on the income-eligible rates.

ii. Workforce Development

In 2020, the IES Program will collaborate with the CAPS and DHS to increase the number of qualified AMP/weatherization and heating auditors. The IES auditor training is available

through organizations including: RI Department of Labor and Training Workforce Development Services, YouthBuild, and vocational schools.

Process Improvement In 2020, the Company will continue to engage with local and national stakeholders and thought-leaders to discuss the interplay of benefits between energy efficiency, healthcare and renewable energy industries.

5. Residential New Construction (Electric and Gas)

a. Overview

The Residential New Construction (RNC) Program is a multi-faceted program that helps to influence project designs, improve construction practices, and prove the efficacy of both energy efficient design and construction. On average, the RNC program enrolls 40% of new residential construction projects in RI. The RNC program encompasses market rate and income eligible as well as single family and multifamily. The RNC program has helped to create market transformation as demonstrated by a steady increase in the number of homes that achieve high levels of energy efficiency, and zero energy and passive house projects are no longer just for the early adopters.

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MWh (Electric)	Annual MMBtu (Gas, Oil, Propane)	Budget (\$000)
Electric	87,985	966	1,398	\$906

Fuel	Total Net Lifetime MMBtu	Annual MMBtu (Gas)	Annual MWh	Budget (\$000)
Gas	78,090	4,143	0	\$673

b. Program Delivery

The RNC program utilizes the following resources to assist builders, developers, and owners to design and build energy-efficient single family (1-4 units) and multifamily homes (>5 units) with lower operating costs and increased durability, comfort and safety:

- Code compliance and technical trainings
- Design assistance and energy modeling
- In-field inspections

- HERS Rating
- Optional ENERGY STAR® Homes verification for projects seeking the EPA label
- Complimentary ENERGY STAR bulbs and WaterSense® showerheads
- Financial incentives based on the level of the energy efficiency of the structure⁸ and equipment.

Tier Level	2018	2019	2020
	% More Energy Efficient Than 2017 Baseline**	% More Energy Efficient Than 2017 Baseline**	% More Energy Efficient Than 2017 Baseline** + Additional Prescriptive Requirements
Tier I	15% - 30%	15-24%	15-24%
Tier II	31% - 44%	25-34%	25-34% 4 ACH50 (new in 2020)
Tier III	45% or more	35-44%	35-44% 3 ACH50 (new in 2020)
Tier IV		45%+	45%+ 3 ACH50 (new in 2020)
High Efficiency All-Electric			<ol style="list-style-type: none"> 1. Incentives based on KWH 2. Air leakage requirement of 3 ACH50 3. Meet minimum efficiency requirements for heating, cooling and hot water.

A significant number of projects that are already in the RNC pipeline for both single family and multifamily incorporate electric heat pump heat and hot water, a trend that we expect to continue to increase in 2020. This shift will require the need for more up-front design and technical assistance for project-teams, for contractors to be properly trained

⁸ Compared to the energy baseline of the average energy performance of a home built in RI, referred to as the 2017 User Defined Reference Home (UDRH).

to accurately size the equipment and homeowners to be educated on the use and performance of the equipment. The RNC team will collaborate with the HVAC Electric team to streamline training and necessary resources.

Adaptive Reuse, such as mill conversions, will continue to be an area of focus in 2020. This market sector provides a strong opportunity to influence larger projects and support the market transformation of the renovation and rehabilitation market to achieve energy efficient projects.

HERS training will continue in 2020 to encourage more HERS raters to become certified HERS raters.

The Company will continue to work closely with the Rhode Island Builders Association (RIBA) and the RI Code Commission to further refine RNC program offerings, co-sponsor training opportunities, promote program developments to the RI building community and deliver content and exhibits for the 2020 Energy Expo featured at RI Home Show.

c. Changes for 2020

High Efficiency All-Electric Incentive Level

The RNC Program will promote the construction of high efficiency, fossil fuel free buildings through a new High Efficiency All-Electric incentive path. This path will require homes to be all-electric, meet a stringent air leakage tightness standard and install high efficiency heating, cooling and hot water equipment. This incentive path will incentivize per kWh saved to promote reduced energy loads.

Air Leakage Requirements

In 2020 new air leakage requirements will be added to the existing tiered incentive structure for Tier 2 and above. This new requirement will encourage project teams to advance their project to tighter air leakage standards.

RNC Tier Level	# of Air Changes
Tier 1	5 ACH50
Tier 2	4 ACH50
Tier 3 & 4	3 ACH50

i. Path to Zero Energy Ready

In 2019, the “Path to Zero Energy Ready” demonstration program continued to be offered with the goal of supporting the adoption of the goals outlined in the [Rhode Island Residential Stretch Code](#), the [“Zero Energy Building Pathway to 2035, Whitepaper Report of the Rhode Island”](#), and the [“Energy 2035: Rhode Island State Energy Plan”](#). The “Path to Zero Energy Ready” program requires the project to meet Tier 3 or Tier 4 of the RNC tiered energy efficiency performance levels in addition to being fossil fuel free, and encourages project teams to achieve zero energy by offering additional incentives for:

- DOE Zero Energy Ready Home Certified⁹ or equivalent certification
- Passive House Certified¹⁰ or Compliant with Current Version of the RI Residential Stretch Code¹¹
- (PV) ready and Electric Vehicle (EV) ready + building certification Department of Energy (DOE Zero Energy Ready Homes, the Passivhaus Institut (PHI)/Passive House Institute U.S. (PHIUS), Leadership in Energy and Environmental Design Homes LEED-H, and Living Building Challenge or ENERGY STAR Certified Home as a minimum)

The Path to Zero Energy Ready will also include education and awareness, training, professional certification, project certification and marketing and a model home that will be used as a demonstration for a set period of time.

The Company will continue working with Rhode Island Housing (RIH) and Rhode Island OER on issuing an RFP to solicit a team to design and construct a Zero Energy Building (ZEB) housing unit(s) to serve moderate income/income eligible residents in Rhode Island. This project will enroll in the RNC Program and will receive technical design and in-field assistance as well as incentives. The project will be subject to data collection over 3 – 5 years which will be evaluated to determine actual savings.

d. Codes and Standards

See Appendix 2 (Commercial Programs) for additional detail regarding the Company’s Codes and Standards support initiatives.

⁹ <https://www.energy.gov/eere/buildings/zero-energy-ready-home>

¹⁰ <http://www.phius.org/home-page>

¹¹ <http://www.energy.ri.gov/policies-programs/lead-by-example/rhode-island-stretch-codes.php>

Savings listed below are included in the 2020 Goals listed for RNC. Note that these values are the ones established in the 2017 evaluation study and do not incorporate the November 2019 state energy code update: the new code baseline will be incorporated for the 2021-2023 Plans.

Electric: Energy Savings (Annual MWh)	Gas: Energy Savings (Annual MMBtu)
248	1,507

6. Home Energy Reports (Electric and Gas)

a. Overview

The Home Energy Reports (HER) program is the Company's key program to achieve energy savings through changes in customer behavior. This is achieved by presenting personalized energy usage data and encouraging desired behaviors to reduce energy consumption. Globally, over 15 million homes receive HERs from more than 100 utilities serviced by the Company's vendor. Since its launch in Rhode Island in April 2013, the HER program has helped the Company to achieve portfolio-wide savings goals while also maintaining cost efficiency.

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MWh (Electric)	Annual MMBtu (Gas, Oil, Propane)	Budget (\$000)
Electric	79,292	23,239	0	\$2,730

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MMBtu (Gas)	Annual MWh	Budget (\$000)
Gas	115,426	115,426	0	\$468

b. Program Delivery

The HER program is a territory-wide energy efficiency program that provides benefits for all Rhode Island residential customers. While over 288,000 customers receive HERs (i.e., the treatment group) by way of direct mail and/or e-mail, all account holders have access to insight into their energy consumption via the web tools located on the National Grid 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.

The program is administered by a Lead Vendor that developed and launched the first HERs in the country. Since 2013, the Company has employed the Lead Vendor to implement the HERs in all three of its jurisdictions (Massachusetts, New York, and Rhode Island). 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.

c. Changes for 2020

i. Target Rank Campaign

In addition to Summer and Winter editions rolled out in 2019, Rhode Island will take advantage of the Target Rank edition in 2020. Target rank is a sequence of email reports delivered over six months showing customers their energy use rank compared to 100 of their similar neighbors and set a target rank for the customer to achieve. Each report in the Target Rank program tracks the customer's progress towards reaching this rank and provides personalized tips for how to save more energy. Target Rank reports are designed to encourage consistently high users to lower their energy use by providing an alternative experience and an achievable goal

ii. Context Aware Tips and Personalized Savings

Customers want to be better educated on ways to save money and energy, and in response, context-aware tips and personalized tip savings estimates will be provided. Context aware tips will be added to the existing powerful, intelligent tip targeting algorithm in 2020. Context-aware tips tell customers why they are receiving a tip and thus help drive them to take further action. Additionally, personalized tip savings will be

launched in 2020. Personalized tip savings are calculated based on a customer’s total energy usage and estimated energy disaggregation to provide more accurate tip savings on a customer-by-customer basis, an improvement to the current territory-wide tip savings estimates.

Further, in addition to annual Customer Engagement Tracker (CET) that is run, a new user feedback module will be leveraged into reports to solicit feedback from the customers on usefulness of these reports to help to test and evaluate the experience that yields the best customer outcome.

7. ENERGY STAR® Lighting (Electric)

a. Overview

ENERGY STAR Lighting reduces the cost of energy efficient lighting to all residential RI customers. Pricing of efficient lighting is automatically discounted at the retail level to facilitate the consumer transaction. Decades of program support presents a marketplace that is nearing market transformation with remaining efforts on completing the transition in the final years of program support.

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MWh (Electric)	Annual MMBtu (Gas, Oil, Propane)	Budget (\$000)
Electric	286,331	37,627	-74,635	\$16,394

b. Program Delivery

The National Grid Rhode Island Lighting Market Assessment evaluation completed in 2018 shows that the RI residential lighting program efforts have increased saturation and penetration rates of lighting products in RI as compared to a state without continued program support. Savings in 2020 are reduced as a result of market transformation, but there are still cost-effective savings to pursue. An additional benefit of residential lighting is that it encompasses all residential customers, including income eligible and moderate-income communities. Lighting products have been distributed at Food Banks in RI for the past two years and there is a focus on hard-to-reach areas which include the following criteria:

Income Level: 60% - 120% of the state’s median income

Primary Language: Non-English

Ethnicity: Non-Caucasian, Ethnic Minorities

Education Level: Below 4-year college degree

c. Changes for 2020

The Company will focus on tracking policy changes to residential lighting standards and the market to adapt the ENERGY STAR lighting program appropriately. The goal is to support the market as needed without a negative impact to market transformation as incentives decline and ultimately are no longer required. As in prior years, the food banks and hard-to-reach opportunities will continue to be supported.

8. Residential Consumer Products (Electric)

a. Overview

Residential Consumer Products serves all residential customers by offering incentives on ENERGY STAR consumer appliances and electronics as well as other high use, energy saving devices. Customers can purchase items at retail stores and online to qualify for the incentives.

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MWh (Electric)	Annual MMBtu (Gas, Oil, Propane)	Budget (\$000)
Electric	101,392	3,934	624	\$2,073

b. Program Delivery

Residential Consumer Products incorporates both the federal Department of Energy and Environmental Protection Agency ENERGY STAR categories of consumer appliances and electronics as well as some energy savings items not included by the federal agencies. The largest savings element of the Consumer Products program comes from recycling older refrigerators, freezers, dehumidifiers. Low emissivity (low-e) storm windows also provide high individual savings, but the market demand for this product is moderately low. By removing these energy inefficient products from use, consumers can reduce household energy bills. The program also supports a combination of upstream and midstream incentives as well as post purchase consumer incentives. The upstream and midstream incentives encourage retailers and manufacturers to support ENERGY STAR with

production and availability of products. Consumer incentives are designed to bring efficient products costs in line with less efficient equipment, thereby encouraging the adoption of the more efficient item.

In 2020, the program will support dehumidifiers, dehumidifier recycling, dryers, including heat pump dryers, refrigerator and freezer recycling, room air cleaners, room air conditioners, advanced power strips, efficient shower heads, and low-emissivity storm windows. Historically, the program has been most successful when there is continuity in product lines as well as incentive levels to reduce both retailer and consumer confusion.

Lifetime MMBtu All Fuel	Annual MWh	Annual Gas MMBtu	Electric Budget	Gas Budget

c. Changes for 2020

In 2020, National Grid is planning to test instant consumer rebates. Consumers will be able to prequalify for a retailer's in store coupon and have the incentive applied during the sale transaction of select consumer products. The benefit is that post purchase consumer incentives will not be required along with the wait time that results with post purchase processing. The Company will also be continuing the low-e storm windows effort that began in late-2019. Finally, the Online Marketplace, which was refreshed in 2019, will include modules that assist the consumer in selecting more efficient consumer products.

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

a. Overview

The High-Efficiency Heating, Ventilation, Air Conditioning and Hot Water Programs (HVAC Programs) promote and incentivize the installation of high efficiency electric and gas equipment through customer rebates and contractor incentives. This program is cross-promoted through the Home Energy Assessment, Residential New Construction, Multifamily, Community and Home Energy Reports Programs. Training elements and best practices of the program are also provided to the Income Eligible Services Program.

Fuel	Total Net Adjusted Lifetime MMBtu	Annual MWh (Electric)	Annual MMBtu (Gas, Oil, Propane)	Budget (\$000)
Electric	221,768	1,286	9,870	\$2,418

Fuel	Total Net Lifetime MMBtu	Annual MMBtu (Gas)	Annual MWh	Budget (\$000)
Gas	487,067	30,089	49	\$2,097

b. Program Delivery

The HVAC program encompasses both electric and gas and offers incentive programs for high-efficiency heating, cooling and hot water equipment.

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.

Contractors are informed and trained via contractor breakfasts as well as content-specific trainings. Training opportunities focus on improving accuracy of equipment sizing, installation verification, distribution system improvements and customer education.

Customers are informed of the program when they receive their Home Energy Assessment, through their HVAC contractor, and during consultation with the Residential New Construction energy advisors about project design. In addition, customers receive marketing information through various channels including email, Home Energy Reports, bill inserts, radio and media advertisements.

As technology and/or policy advance, so does the equipment that is offered through the program. For example, the introduction of – and emphasis on – high efficiency heat pumps for electrification establishes opportunities for energy efficiency as well as priorities to reduce greenhouse gas emissions from the heating sector. Also, the way in which a product is offered changes based on preferred point of purchase/ ease of customer use for product adoption. The new RI Online Marketplace (<https://marketplace.nationalgridus.com>) is an example of how energy efficient equipment purchases can be made through National Grid’s website.

Electrification of Heat: The Company is proposing to increase the number of homes to be incentivized to displace their existing oil, propane, or electric resistance heat with high efficiency electric heat provided by air source heat pumps. Electrification of heating supports the goals of RI state policy, the Revised Standards and National Grid's Northeast 80 x 50 Pathway.

Increasing the number of homes will be reflected in the market rate, multifamily and income eligible markets to help customers save energy and money on their bills and to also provide a meaningful contribution to the state's climate goals. Through the existing electric HVAC program, the Company has strong vendor networks, training capabilities, and access to data that will help identify homes where air source heat pumps would be an ideal solution for displacing oil, propane or electric resistance.

Coordination and collaboration among the Company, RI OER, Oil Heat Institute, Northeast Energy Efficiency Partnerships (NEEP) and other stakeholders will strive to effectively accelerate electrification strategies across RI.

The program will continue to concentrate on the following program elements:

- Establishing a plan for accelerating electric heat adoption to meet State and utility greenhouse gas goals
- Training contractors on accurate sizing, installation and customer education
- Educating customer pre-purchase and post-installation
- Coordinating with National Grid Regulatory Strategy and the RI System Reliability Plan on locational benefits and incentives
- Supporting the advancement of effective integrated controls
- Supporting the development of customer-facing tools for choosing heating type
- Collaborating with stakeholders to accelerate the decarbonization of the residential heating sector by reducing barriers (National Grid EE, Gas Growth and Regulatory programs, RI OER, RI Oil Heat Institute, NEEP and manufacturers).
- Incorporating high efficiency electric heat as a metric in the Community challenge.

c. Changes for 2020

i. Online Marketplace

In 2019, National Grid launched the refreshed [Online Marketplace](#) as a channel for providing Rhode Island ratepayers an easy way to purchase energy efficient equipment. Products that will be offered for the first time via an on-line tool include:

- Water heater
- Thermostat
- Water Savings Equipment
- Heat Pump Water Heater

10. Residential Connected Solutions

a. Overview

Connected Solutions is National Grid’s demand reduction program that focuses on electric demand reduction during peak demand periods during the year. Consumers with controllable equipment can enroll to participate in active demand reduction while all consumers can participate in behavioral demand response.

Below Table to be updated in Second Draft

	# of devices	# of electric accounts	MW of Peak Load Reduced	# of Events Called
Thermostats	##	##	##	##
Batteries	##	##	##	##

b. Program Delivery

Consumers with specific equipment that can be controlled during peak event periods are eligible to enroll in Connected Solutions. Current program offerings include:

The thermostat program precools customers’ homes before demand response events, and then increases the thermostat setting during events to minimize central air-conditioner use during peak times. This resource is only available when the weather is hot enough for central air-conditioners to be in use and cannot be called too often due to avoid customer fatigue.

The battery program discharges the customers' batteries when the grid is at peak. This lowers the load on the grid. Calling on customer batteries does not inconvenience customers and is not weather dependent. So, more events can be called to create more system benefits.

The electric vehicle program (EVs) uses the onboard telematics available on most EVs to identify which customers often charge during peak times and measures savings when this behavior is changed. The challenge with this element of the program is receiving the necessary reporting elements needed to show performance from the manufacturers of EVs. Testing began in 2019 with anticipated savings available in 2020.

Behavioral demand response allows all customers with a valid email address to participate in peak demand reduction during peak days. Customers receive an email informing them of a peak period 24 hours before the event and advises them on actions that can benefit the system on the following day.

c. Changes for 2020

The electric vehicle program will be new for 2020 if the data reporting element can be accomplished. This offering was scoped in 2019 but was not feasible due to limited manufacturer data reporting. The program also grows by looking to add additional product manufacturers into the program.

11. Marketing

a. 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, while providing a positive customer experience. The Company uses an integrated approach to communications with design and message consistency, leveraging general awareness tactics (i.e. print ads and radio) as well as digital and direct one-to-one tactics (such as e-mail and direct mail) to generate interest and program participation. Face-to-face interactions at events provide an opportunity to educate customers at a personal level.

The Company promotes energy education to private and public schools and youth groups through the National Energy Education Development (N.E.E.D) Program. This program provides curriculum materials and training to students and teachers in grades K-12.

b. Delivery and 2019 Success

The Company has successfully driven strong residential familiarity levels of energy efficiency in Rhode Island, with year-to-date performance at 64.5% through May 2019. In 2019, National Grid launched multichannel product marketing campaigns to drive adoption of solutions across the portfolio. Marketing leveraged a centralized theme and messaging focused on improving a home's well-being and overall wellness. The Company continued to align marketing efforts with residential customer research, customer segmentation, propensity modeling, media habits research, and behavior data.

In 2019, marketing campaigns leveraged new residential segmentation to enable personalization and optimize a channel strategy based on customers' preferred communication channels. The Company targeted customers with specific solutions based on their needs as well as their general attitudes, energy attitudes, and product interest.

National Grid is a trusted advisor who truly cares about customers' needs. By presenting the Company as a friend through our communications and interactions, we can help drive effective, lasting connections with our customers. The Company has identified customer needs, the core assets National Grid provides to meet those needs, and the customer benefits of those solutions.

The National Grid website, www.ngrid.com/save, continues to serve as a resource for information on products and services as well as rebates available to customers. A new, comprehensive effort provided further support to Contact Center representatives in their communications with existing and new move customers alike. Turnkey marketing templates enabled Contact Center representatives to deploy follow-up letters and e-mails upon the conclusion of calls with customers, describing relevant energy efficiency products and solutions.

An enhanced, centralized online marketplace for Rhode Islanders launched in April 2019 at www.ngrid.com/shop. This online store, hosted by National Grid, offers energy efficient products at instantly discounted prices. It serves as a one-stop-shop for both year-round purchases as well as limited time ecommerce sales. Products include LED light bulbs, advanced power strips, low-flow showerheads, and smart thermostats. The marketplace is "Where healthier homes meet happier lives" as these products save customers energy, enhance their comfort, and bring peace of mind. By centralizing all online sales through one comprehensive platform, the Company expects a significant

uptick in return visits with customers completing multiple transactions and product purchases.

To facilitate brick and mortar sales, we continue to work with our vendors to execute point of sale marketing for lighting, products, and large heating equipment in retail stores.

In April 2019, National Grid participated in the annual Rhode Island Home Show and sponsored the Energy Expo. Our energy efficiency experts showcased whole-home solutions, from rooftop to basement, to over 25,000 event attendees. At our booth we promoted the Innovation Hub, Zero Net Energy Runway, and no-cost Home Energy Assessment, with more than 270 customers signing up for a Home Energy Assessment while at the Home Show.

Energy Innovation Hub: The Rhode Island Energy Innovation Hub (Hub), located in the southwest corner of the Dunkin' Donuts Center, Providence, RI, is a community engagement destination designed to expand customer education and outreach and enrich the customer's understanding of energy efficiency, renewable energy, demand response programs, electric vehicles, innovation happening in the energy market, storm management and core utility services. The exhibits are designed to encourage customers to take action and sign up for the many services and incentives offered to help reduce energy consumption. The Hub also serves as a convening space for gatherings to discuss, and elevate, energy-related issues.

The Hub is used for energy-related meetings, trainings, tours, events and field trips. The Hub is available on Thursdays for organizations to hold private meetings and events. The Company continues to reach out to organizations that have a role in the RI energy market to encourage them to visit the Hub as well as reserve the space for meetings:

- State and local government
- Elected Officials
- Non-Profit organizations
- Businesses (owners, developers, tenants)
- Residents
- Energy Thought Leaders
- Universities and Colleges, Technical/Vocational Schools, Schools K – 12
- Youth Organizations

- Trades
- Media
- Employees and Executives
- Economic Development

By partnering with local colleges and universities the Company envisions the Hub as a multi-faceted nexus thriving with innovation, excitement and passion. The Company employs local college students to work as interns and encourages the students to invite faculty and classmates to translate their traditional course work in ways that could benefit the energy market. The Company hopes that by engaging many levels of expertise that the Hub will serve as a platform to bring the topic of energy to everyday studies and elevate the conversation around creating clean energy solutions for the future.

12. Residential Measures and Incentives

The following tables list the groups of measures offered in the residential programs, their planned quantities and incentives. Each group may be comprised of many measures.

Electric Programs					
Program	Measure	Units	Incentive / Unit	Total Incentives	Shared Costs
EnergyWise Single Family	AC Timer	-			
	Aerator - Electric	40			
	Aerator - Oil	10			
	Aerator - Others	10			
	Air Sealing Kit - Oil	25			
	Air Sealing Kit - Electric	10			
	Air Sealing Kit - Others	10			
	LED Bulbs	130,900			
	LED Bulbs (EISA Exempt)	7,700			
	LED Bulbs Reflectors	15,400			
	LED Fixture	1,000			
	LED Outdoor Fixture	10			
	Pre-Wx	537			
	Refrigerator Rebate	25			
	Refrigerator Brush	9,000			
	Showerhead - Electric	24	Average Incentive based on measure mix and is applied per participant (see line below)		
	Showerhead - Oil	160			
	Showerhead - Others	15			
	Smart Strip	12,000			
	Programmable Thermostat - Electric	750			
	Programmable Thermostat - Oil	2,500			
	Programmable Thermostat - Other	100			
	LED Torchiere	-			
	Ventilation - Other	1			
	WiFi Thermostat - Electric	10			
	WiFi Thermostat - AC Only	-			
	WiFi Thermostat - Oil	300			
	WiFi Thermostat - Others	50			
	Wx - Oil	1,700			
	Wx Elec - Elec Heat Only	200			
	Pipe Insulation - Electric	350			
	Pipe Insulation - Oil	3,000			
Pipe Insulation - Others	100				
Participants	11,000		\$1,262	\$13,879,650	
Program Planning & Administration					\$358,498
Marketing					\$390,926
Sales, Technical Assistance & Training					\$1,578,734
Evaluation & Market Research					\$141,973

EnergyWise Multi Family	Aerator	500	Average Incentive based on measure mix and is applied per participant (see line below)		
	Aerator Oil	100			
	Air Sealing Electric With AC	1,000			
	Air Sealing Oil	50			
	Common Exterior LED Fixture	800			
	Common Exterior Reflector	100			
	Common Interior EISA Exempt	50			
	Common Interior LED Fixture	1,000			
	Common Interior Reflector	200			
	Dwelling Exterior LED Fixture	50			
	Dwelling Exterior Reflector	100			
	Dwelling Interior EISA Exempt	1,500			
	Dwelling Interior LED Fixture	-			
	Dwelling Interior Reflector	2,000			
	Heating System Retrofit-Boiler	-			
	Heating System Retrofit-Furnace	-			
	Insulation Electric With AC	1,000			
	Insulation Oil	120			
	Pipe Wrap DHW Elec	65			
	Pipe Wrap DHW Oil	-			
	Pipe Wrap Heating Oil	-			
	Refrigerator Rebate	25			
	Showerhead Elec	50			
	Showerhead Oil	80			
	Smart Strip	1,000			
	Thermostat Electric With AC	1,200			
	Thermostat Heat Pump	-			
	Thermostat Oil	20			
	TSV Showerhead Elec	65			
	TSV Showerhead Oil	-			
	Common Exterior LED Bulbs	1,301			
	Common Interior LED Bulbs	4,368			
	Dwelling Interior LED Bulbs	8,000			
Custom	31				
Vending Miser	1				
Participants	4,000	\$548	\$2,190,000		
Program Planning & Administration				\$82,182	
Marketing				\$43,240	
Sales, Technical Assistance & Training				\$405,116	
Evaluation & Market Research				\$101,812	

Electric Programs								
Program	Measure	Units	Incentive / Unit	Total Incentives	Shared Costs			
Residential New Construction	Codes and Standards	1	Average Incentive based on measure mix and is applied per participant (see line below)					
	CP Home	2						
	Clothes Washer	98						
	Dishwasher	423						
	Fixtures	150						
	LED Bulbs	7,150						
	Renovation Rehab CP	2						
	Refrigerator rebate	488						
	Renovation Rehab Tier 1 Home	5						
	Renovation Rehab Tier 2 Home	9						
	Renovation Rehab Tier 3 Home	8						
	Renovation Rehab Tier 4 Home	1						
	Showerhead	5						
	Tier 1 Home	80						
	Tier 2 Home	45						
	Tier 3 Home	65						
	Tier 4 Home	10						
	Adaptive Reuse	100						
	Participants	-				#DIV/0!	\$499,093	
	Program Planning & Administration							\$58,102
Marketing				\$2,249				
Sales, Technical Assistance & Training				\$296,973				
Evaluation & Market Research				\$49,718				

ENERGY STAR® HVAC	ACQIVES	25	\$175	\$4,375	
	ACS16SEER13EER	150	\$250	\$37,500	
	DOWNSIZE	20	\$250	\$5,000	
	ECM Pumps	5,100	\$100	\$510,000	
	HP Mini-split QIV	100	\$175	\$17,500	
	HPQIVES	60	\$100	\$6,000	
	HPTUNE	10	\$175	\$1,750	
	WiFi Thermostat - cooling and oil heating	120	\$75	\$9,000	
	WiFi Thermostat - cooling and gas heating	1,200	\$75	\$90,000	
	Water Heater, Heat Pump <55 gallon	600	\$750	\$450,000	
	Water Heater, Heat Pump >55 gallon, UEF 2.70	10	\$150	\$1,500	
	Central Ducted Heat Pump Fully Displacing Furnace - Oil	2	\$3,500	\$7,000	
	Central Ducted Heat Pump Fully Displacing Furnace - Propane	1	\$3,500	\$3,500	
	Central Ducted Heat Pump Partially Displacing Furnace - Oil	37	\$3,500	\$129,500	
	Central Ducted Heat Pump Partially Displacing Furnace - Propane	10	\$3,500	\$35,000	
	Central Ducted Heat Pump Partially Displacing Furnace w/o Controls - Oil	-	\$2,000	\$0	
	Central Ducted Heat Pump Partially Displacing Furnace w/o Controls - Propane	2	\$2,000	\$4,000	
	Ductless Mini-Split Fully Displacing Boiler - Oil	2	\$3,500	\$7,000	
	Ductless Mini-Split Fully Displacing Boiler - Propane	2	\$3,500	\$7,000	
	Ductless Mini-Split Replacing Electric Resistance	15	\$3,500	\$52,500	
	Ductless Mini-Split Partially Displacing Boiler w/o Controls - Oil	37	\$2,000	\$74,000	
	Ductless Mini-Split Partially Displacing Boiler w/o Controls - Propane	1	\$2,000	\$2,000	
	Ductless Mini-Split Partially Displacing Boiler with Integrated Controls - Oil	10	\$3,500	\$35,000	
	Ductless Mini-Split Partially Displacing Boiler with Integrated Controls - Propane	2	\$3,500	\$7,000	
	Program Planning & Administration				\$67,877
	Marketing				\$144,173
	Sales, Technical Assistance & Training				\$569,121
	Evaluation & Market Research				\$20,659

Program	Measure	Units	Incentive / Unit	Total Incentives	Shared Costs
ENERGY STAR® Products	Dehumidifier Rebate	1,400	\$30	\$42,000	
	Dehumidifier Recycling	500	\$30	\$15,000	
	Energy Star Dryer	792	\$50	\$39,600	
	Freezer Recycling	500	\$65	\$32,500	
	Ladybug Electric	60	\$11	\$660	
	Ladybug Gas	5	\$11	\$55	
	Ladybug Oil	-	\$0	\$0	
	Ladybug Other	5	\$11	\$55	
	Pool Pump - 2 speed	-	\$0	\$0	
	Pool Pump - variable	275	\$500	\$137,500	
	Refrigerator Recycling	1,500	\$65	\$97,500	
	Refrigerator Recycling (Primary)	2,200	\$65	\$143,000	
	Roadrunner Gas	7	\$15	\$105	
	Roadrunner II Electric	70	\$15	\$1,050	
	Roadrunner Oil	-	\$0	\$0	
	Roadrunner Other	330	\$15	\$4,950	
	Room Air Cleaners	340	\$40	\$13,600	
	Smart Strip	7,600	\$10	\$76,000	
	Tier 2 APS	7,000	\$35	\$245,000	
	Room Air Conditioners	346	\$40	\$13,840	
	Storm Windows	100	\$25	\$2,500	
	Storm Windows Electric	100	\$25	\$2,500	
	Storm Windows Others	100	\$25	\$2,500	
	Tier 2 APS OS	600	\$35	\$21,000	
	Program Planning & Administration				\$59,596
	Marketing				\$521,242
Sales, Technical Assistance & Training				\$715,794	
Evaluation & Market Research				\$3,118	
ENERGY STAR® Lighting	LED Bulb	960,000	\$3.00	\$2,880,000	
	LED Bulb (Specialty)	209,000	\$4.00	\$836,000	
	LED Bulb (Hard to Reach)	470,000	\$4.50	\$2,115,000	
	LED Bulb (Food Pantries)	160,000	\$6.00	\$960,000	
	LED Bulb (School Fundraiser)	8,500	\$6.00	\$51,000	
	LED Bulb (Reflectors)	377,549	\$5.00	\$1,887,745	
	LED Bulb (Linear LED)	186,100	\$9.00	\$1,674,900	
	LED Bulb (Fixture)	463,000	\$9.00	\$4,167,000	
	Program Planning & Administration				\$365,820
	Marketing				\$579,785
	Sales, Technical Assistance & Training				\$759,671
Evaluation & Market Research				\$117,538	
Home Energy Reports	New Mover electric	18,428	\$8.68	\$159,955	
	New movers dual fuel	10,342	\$8.68	\$89,769	
	Opt-out dual fuel	123,401	\$8.68	\$1,071,121	
	Opt-Out electric	171,077	\$8.68	\$1,484,948	
	Program Planning & Administration				\$77,226
	Marketing				\$10,644
	Sales, Technical Assistance & Training				\$10,071
Evaluation & Market Research				\$91,414	

Electric Programs					
Program	Measure	Units	Incentive / Unit	Total Incentives	Shared Costs
Single Family - Income Eligible Services	AC Replace	1,764	\$350	\$617,400	
	AP Remove	6	\$51	\$306	
	Dehumidifier Rebate	504	\$250	\$126,000	
	Early Retirement Clothes Washer Electric DHW & Electric Dryer	200	\$700	\$140,000	
	Early Retirement Clothes Washer Gas DHW & Electric Dryer	200	\$700	\$140,000	
	Early Retirement Clothes Washer Electric DHW & Gas Dryer	200	\$700	\$140,000	
	Early Retirement CW Oil DHW & Electric Dryer	200	\$700	\$140,000	
	Early Retirement CW Gas DHW & Gas Dryer	200	\$700	\$140,000	
	Early Retirement CW Propane DHW & Electric Dryer	200	\$700	\$140,000	
	DHW - Electric	10	\$10	\$100	
	DHW - Gas	10	\$10	\$100	
	DHW - Oil	10	\$10	\$100	
	Education - TLC	3,150	\$180	\$567,000	
	Fixtures	-	\$0	\$0	
	Freezer	233	\$550	\$128,205	
	Heating System	378	\$5,000	\$1,890,000	
	Heat Pump Water Heaters	5	\$2,750	\$13,750	
	LED Bulbs	44,100	\$9	\$396,900	
	Programmable Thermostat, Gas	10	\$125	\$1,250	
	Programmable Thermostat, Oil	10	\$125	\$1,250	
	Programmable Thermostat, Other	10	\$125	\$1,250	
	Refrigerator rebate	1,953	\$1,050	\$2,050,650	
	Smart Strip	4,410	\$20	\$88,200	
	Thermostat - Electric	10	\$200	\$2,000	
	WATERBED	2	\$650	\$1,300	
	Wx Delivered Fuel	504	\$4,500	\$2,268,000	
	Wx Electric	44	\$4,500	\$198,450	
	Minisplit Heat Pumps - Electric Resistance	20	\$15,000	\$300,000	
	Minisplit Heat Pumps - Oil Fuel Switching	20	\$15,000	\$300,000	
	Program Planning & Administration				\$296,797
	Marketing				\$144,019
	Sales, Technical Assistance & Training				\$2,080,301
Evaluation & Market Research				\$109,581	

EnergyWise Income Eligible Multifamily Retrofit	AERATOR Elec	130	Average Incentive based on measure mix and is applied per participant (see line below)		
	AERATOR Oil	100			
	AIR SEALING ELEC WITH AC	-			
	AIR SEALING OIL	50			
	Common Ext LED Fixture	1,100			
	Common Ext Reflector	100			
	Common Int LED Fixture	3,000			
	Common Int Reflector	65			
	Custom	46			
	Dwelling Ext LED Fixture	5			
	Dwelling Int LED Fixture	-			
	Heating System Retrofit-Boiler	-			
	Heating System Retrofit-Furnace	-			
	INSULATION ELEC WITH AC	-			
	INSULATION OIL	100			
	Participant (NEB)	4,800			
	Pipe Wrap DHW Elec	10			
	Pipe Wrap DHW Oil	10			
	Pipe Wrap Heating Oil	10			
	Refrig rebate	50			
	SHOWERHEAD Elec	100			
	SHOWERHEAD Oil	200			
	Smart Strip	-			
	Standalone WH Oil	-			
	Standalone WH Other	-			
	Tankless WH Oil	-			
	THERMOSTAT AC Only	-			
	THERMOSTAT Elec with AC	-			
	THERMOSTAT Heat Pump	50			
	THERMOSTAT OIL	-			
	TSV Showerhead Elec	-			
	Common Int EISA Exempt	50			
	Dwelling Ext Reflector	50			
Dwelling Int EISA Exempt	50				
Dwelling Int Reflector	200				
Common Ext LED Bulbs	200				
Common Int LED Bulbs	500				
Dwelling Int LED Bulbs	4				
Vending Miser	-				
Participants	5,000	\$586	\$2,928,000		
Program Planning & Administration				\$95,948	
Marketing				\$9,152	
Sales, Technical Assistance & Training				\$403,795	
Evaluation & Market Research				\$119,472	

Electric Programs					
Program	Measure	Units	Incentive / Unit	Total Incentives	Shared Costs
Residential ConnectedSolutions	Thermostats New	372	\$45	\$16,740	
	Thermostats Existing	2,214	\$20	\$44,280	
	Battery Daily (number of unit)	100	\$1,600	\$160,000	
	EVs Peak (customers)	37	\$100	\$3,700	
	Water Heater Daily (units)	0	\$0	\$0	
	Behavioral Peak (customers)	315,373	\$0	\$0	
	Program Planning & Administration				\$13,769
	Marketing				\$221
	Sales, Technical Assistance & Training				\$124,077
	Evaluation & Market Research				\$0

Gas Programs					
Program	Measure	Units	Incentive / Unit	Total Incentives	Shared Costs
EnergyStar® HVAC	Boiler Reset	30	\$100	\$3,000	
	Boiler90	75	\$450	\$33,750	
	Boiler95	165	\$800	\$132,000	
	Combo Condensing	25	\$600	\$15,000	
	Combo Condensing 95	850	\$1,200	\$1,020,000	
	Energy Star Cond Water Heater 0.80 UEF	5	\$250	\$1,250	
	Furnace95 ECM	200	\$300	\$60,000	
	Furnace97 ECM	35	\$500	\$17,500	
	Heat Recovery Vent	20	\$250	\$5,000	
	Energy Star Storage Water Heater .64 UEF (Med Draw)	80	\$100	\$8,000	
	Energy Star Storage Water Heater .68 UEF (High Draw)	70	\$100	\$7,000	
	Energy Star On Demand Water Heater 0.87 UEF	150	\$600	\$90,000	
	Low Flow Showerhead	0	\$0	\$0	
	TSV	0	\$0	\$0	
	TSV Showerhead	0	\$0	\$0	
	Wifi Thermostat - Cooling And Heating	500	\$75	\$37,500	
	Wifi Thermostat - Gas Heat Only	1,700	\$75	\$127,500	
	Programmable Thermostat	175	\$25	\$4,375	
	Combo Furnace	5	\$700	\$3,500	
	Water Heater, Indirect, Gas	50	\$400	\$20,000	
Program Planning & Administration					\$76,475
Marketing					\$169,539
Sales, Technical Assistance & Training					\$244,816
Evaluation & Market Research					\$20,948
EnergyWise	Aerator	100	Average Incentive based on measure mix and is applied per participant (see line below)		
	Weatherization	2,050			
	Air Sealing Kit (Gas)	575			
	Showerhead	325			
	Pipe Wrap	5,000			
	Thermostat	1,500			
	WiFi Thermostat	250			
	Participants	2,300	\$2,876	\$6,615,500	
	Program Planning & Administration				\$223,199
	Marketing				\$84,557
Sales, Technical Assistance & Training				\$1,348,314	
Evaluation & Market Research				\$154,008	

Gas Programs					
Program	Measure	Units	Incentive / Unit	Total Incentives	Shared Costs
EnergyWise Multifamily	Air Sealing	3,900	Average Incentive based on measure mix and is applied per participant (see line below)		
	cust non-lgt	58			
	Participant	4,000			
	Demand Circulator	0			
	Duct Sealing	10			
	Faucet Aerator	1,866			
	Insulation	3,200			
	Low-Flow Showerhead	0			
	Pipe Wrap (Heating)	0			
	Pipe Wrap (Water Heating)	882			
	Programmable Thermostat	400			
	Thermostatic Shut-off Valve	0			
	TSV Showerhead	200			
	WiFi thermostat gas	500			
	Participants	4,000			
	Program Planning & Administration				\$53,295
Marketing				\$34,878	
Sales, Technical Assistance & Training				\$152,119	
Evaluation & Market Research				\$47,307	
Home Energy Reports	New movers dual fuel	10,342	\$3	\$28,751	
	New movers gas only	0	\$0	\$0	
	Opt-out dual fuel	123,401	\$3	\$343,055	
	Opt-out gas only	18,581	\$3	\$51,655	
	Refill	0	\$0	\$0	
	Program Planning & Administration				\$18,521
	Marketing				\$1,007
	Sales, Technical Assistance & Training				\$5,029
Evaluation & Market Research				\$20,106	
Residential New Constructon	CODES AND STANDARDS	1	Average Incentive based on measure mix and is applied per participant (see line below)		
	CP	5			
	CP-DHW	5			
	RR CP	1			
	RR CP-DHW	1			
	RR Tier 1	13			
	RR Tier 1 - DHW	13			
	RR Tier 2	10			
	RR Tier 2 - DHW	10			
	RR Tier 3	5			
	RR Tier 3 - DHW	5			
	RR Tier 4	1			
	RR Tier 4 - DHW	1			
	SHOWERHEAD	10			
	Tier 1	51			
	Tier 1 - DHW	51			
	Tier 2	82			
	Tier 2 - DHW	82			
	Tier 3	30			
	Tier 3 - DHW	30			
	Tier 4	2			
	Tier 4 - DHW	2			
	Adaptive Reuse	100			
	Participants	313			
	Program Planning & Administration				\$32,014
Marketing				\$3,250	
Sales, Technical Assistance & Training				\$183,710	
Evaluation & Market Research				\$8,652	

Gas Programs					
Program	Measure	Units	Incentive / Unit	Total Incentives	Shared Costs
Single Family - Income Eligible Services	Heating System Replacement	231	\$5,000	\$1,155,000	
	Weatherization	630	\$5,000	\$3,150,000	
	Participants	732	\$5,881	\$4,305,000	
	Program Planning & Administration				\$149,765
	Marketing				\$32,987
	Sales, Technical Assistance & Training				\$1,125,366
	Evaluation & Market Research				\$54,841
Income Eligible Multifamily	Air Sealing	1,554			
	Boiler Commercial	32			
	Boiler	30			
	Cust Non-Lgt	110			
	Demand Circulator	0			
	Duct Sealing	0			
	Faucet Aerator	2,400			
	Furnace	0			
	Indirect	0			
	Insulation	3,884			
	Low-Flow Showerhead	500			
	On Demand Water Heater	0			
	Pipe Wrap (Heating)	0			
	Pipe Wrap (Water Heating)	700			
	Programmable Thermostat	450			
	Tank Water Heater	0			
	Thermostatic Shut-Off Valve	0			
	TSV Showerhead	100			
	WiFi Thermostat Gas	0			
	Participants	3,500		\$707	\$2,474,500
	Program Planning & Administration				\$86,830
	Marketing				\$11,394
	Sales, Technical Assistance & Training				\$309,683
	Evaluation & Market Research				\$107,294

Average Incentive based on measure mix and is applied per participant (see line below)