2020 Residential Energy Efficiency Solutions and Programs

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1. Introduction

The Company continues to implement its nationally recognized energy efficiency program[1] 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.

In order to streamline PUC, stakeholder, and reader access to the most pertinent program information in the 2020 annual plan, the Company has adopted the following structure for each of the programs:

Eligibility Criteria	
Offerings	
Process	
Customer Feedback	
Changes for 2020	
Rationale for Changes	
Upcoming Evaluations	

Program - 2020 Goals, Metrics, Budgets, Participation

[1] https://aceee.org/state-policy/scorecard

Fuel	Annual MWh (Electric)	Annual kW (Electric)	Annual MMBtu (Gas, Oil, Propane)	Total Net Lifetime MMBtu (Electric Gas, Oil, Propane)	Budget ($000)	Participation
Electric						
Fuel	Annual MMBtu (Gas)	Annual MWh	N/A	Total Net Lifetime MMBtu	Budget ($000)	Participation
Gas						

Figure 1: Annual MWh Savings Goals for Residential Electric Sector

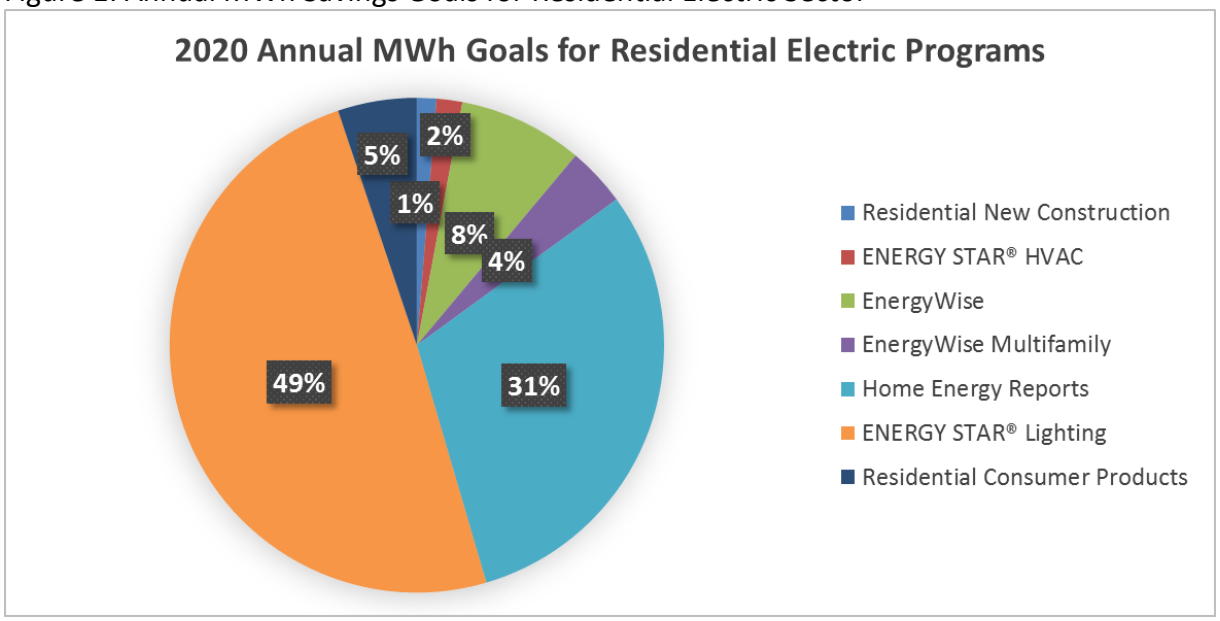


Figure 2: Lifetime MMBtu Savings Goals for Residential Electric Sector

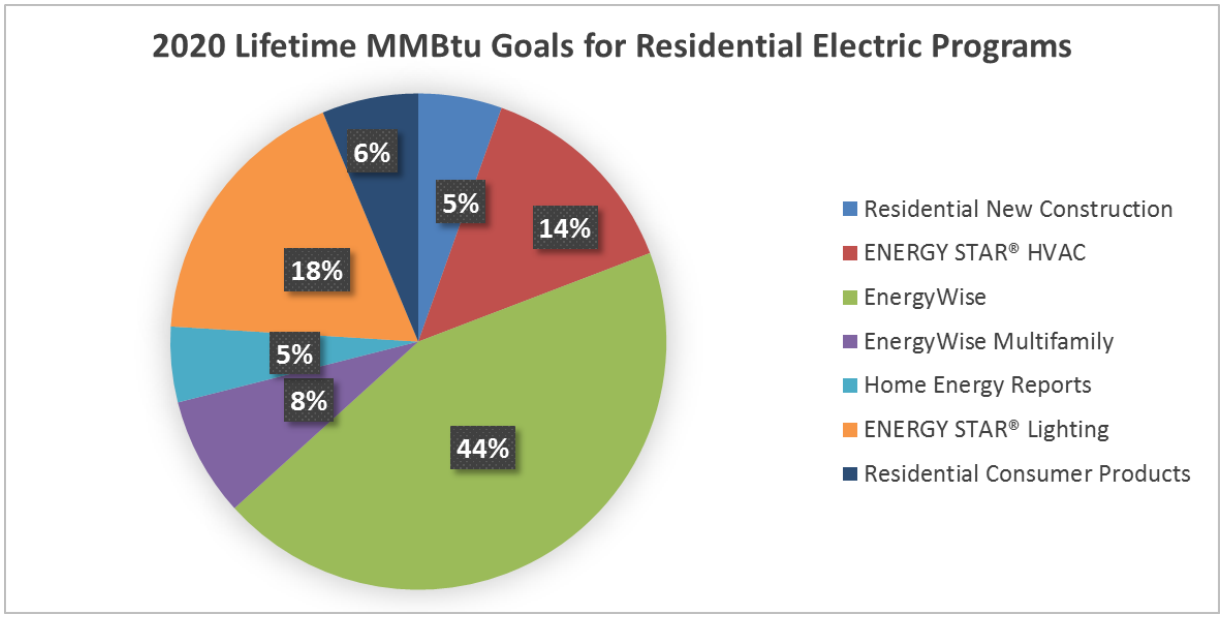


Figure 3: Annual MMBtu Savings Goals for Residential Gas Sector

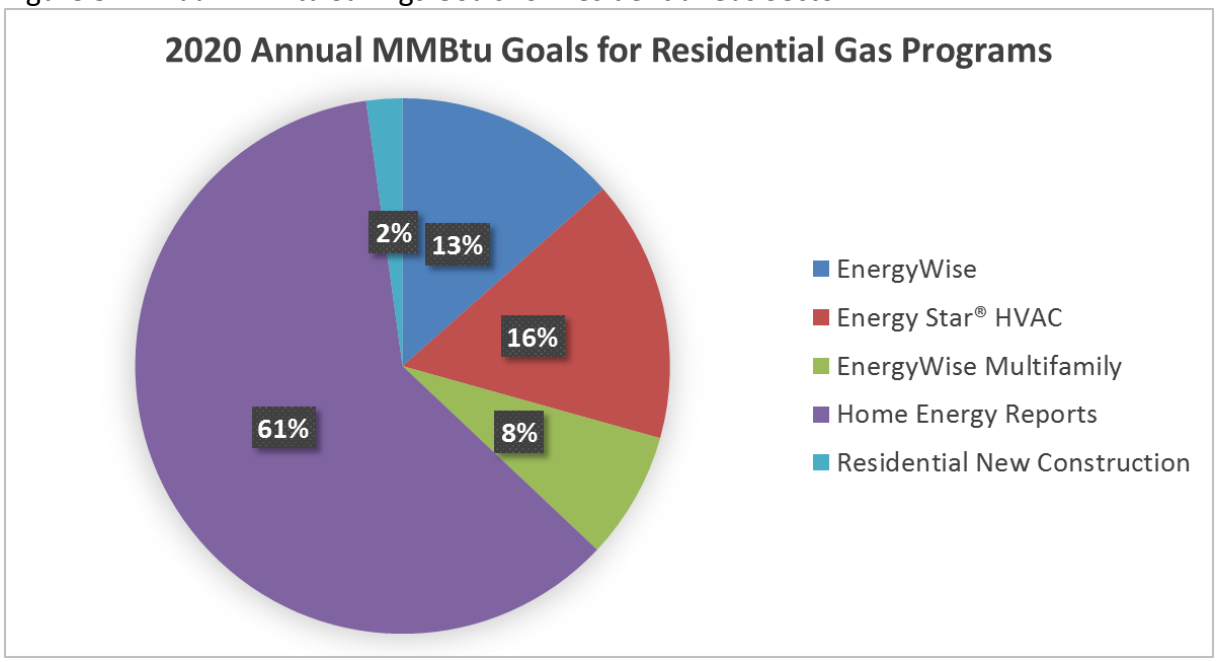


Figure 4: Lifetime MMBtu Savings Goals for Residential Gas Sector

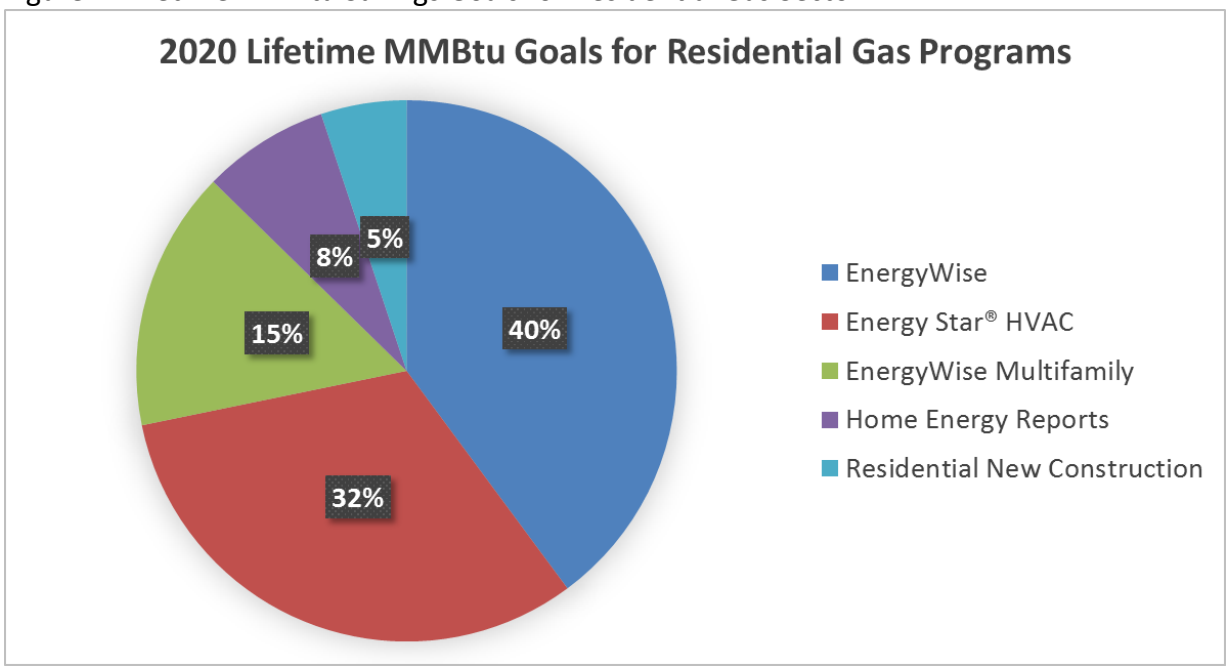


Figure 5: Annual MWh Savings Goals for Income Eligible Electric Sector

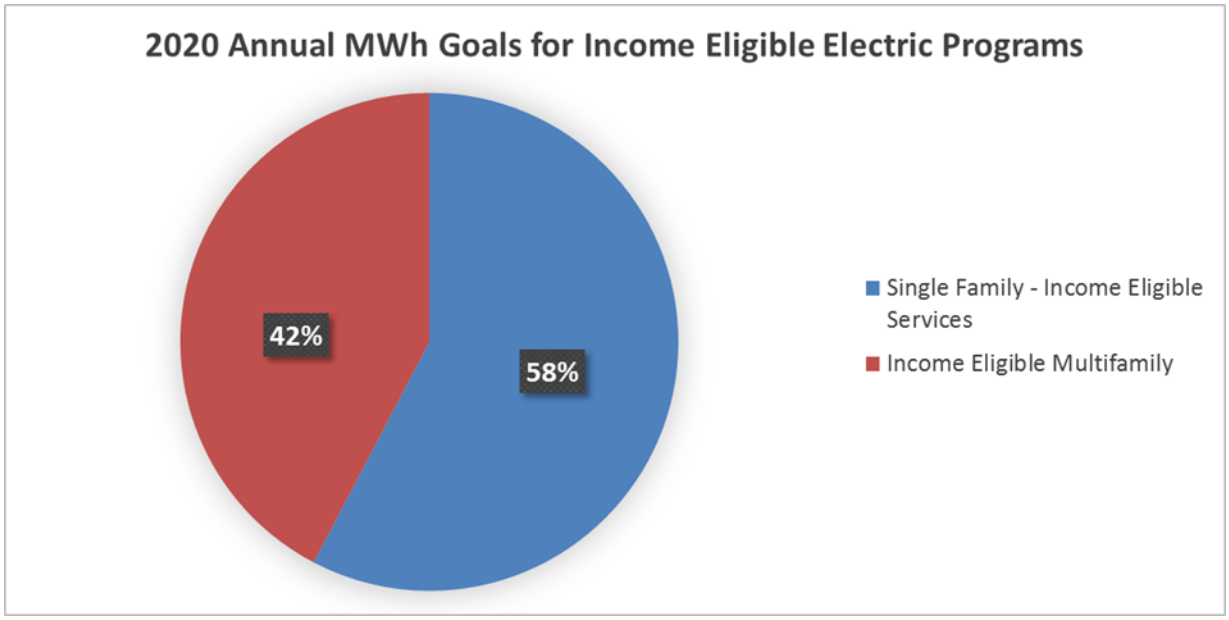


Figure 6: Lifetime MMBtu Savings Goals for Income Eligible Electric Sector

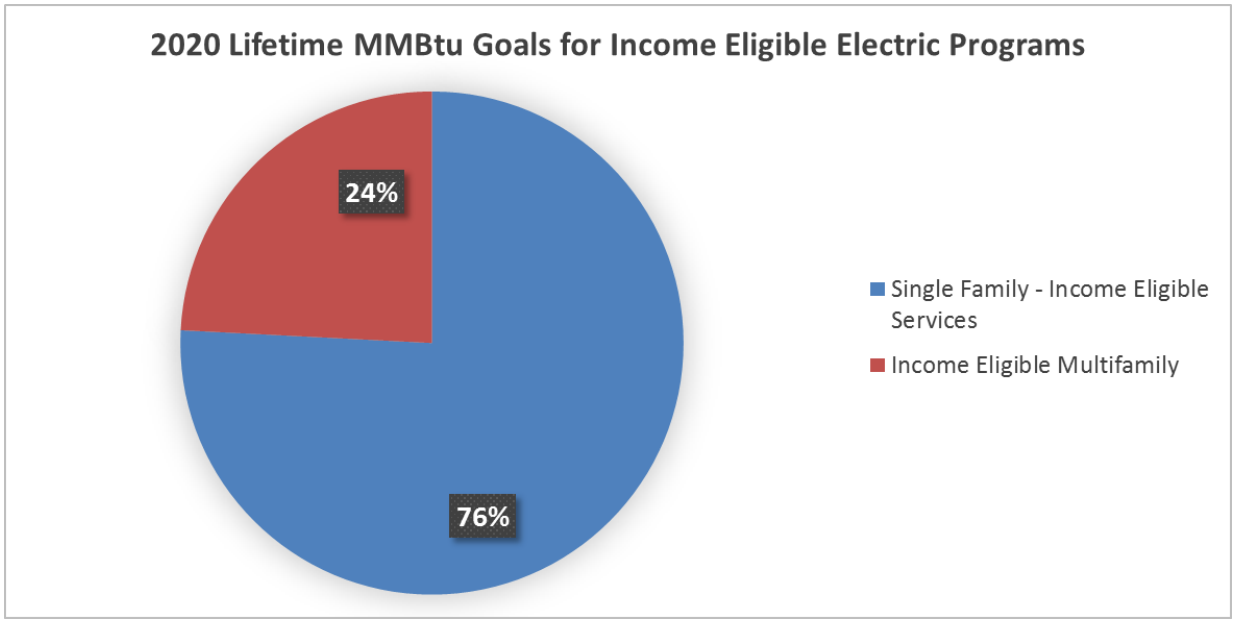


Figure 7: Annual MMBtu Savings Goals for Income Gas Eligible Sector

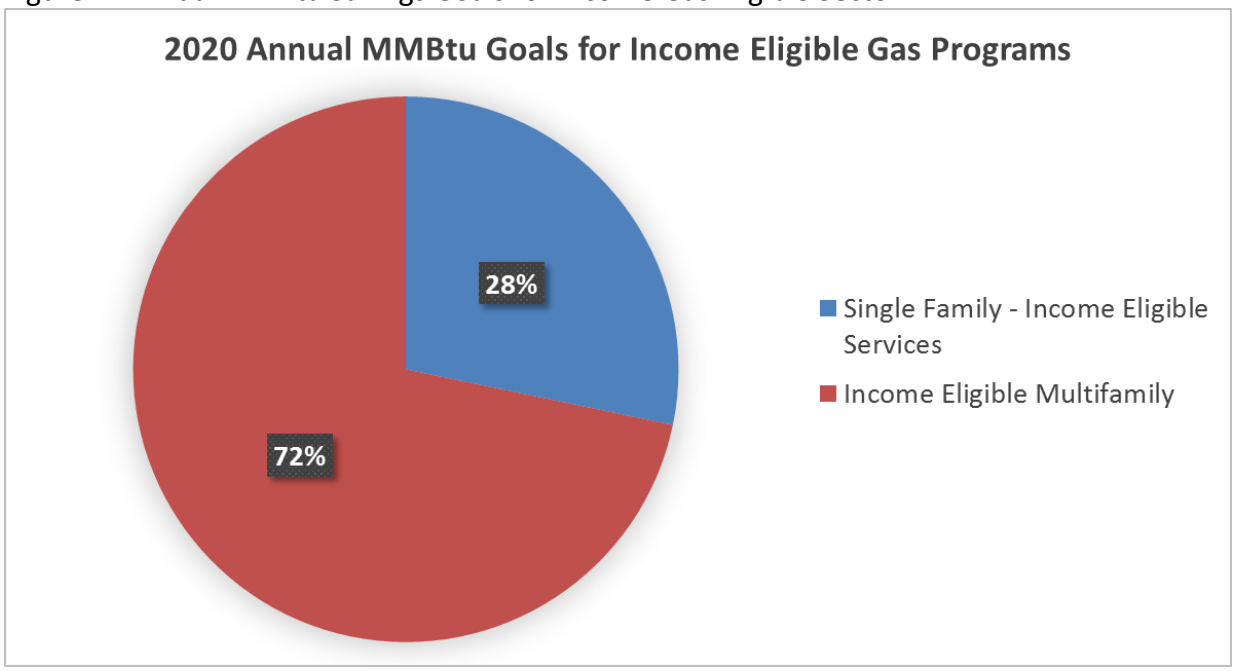
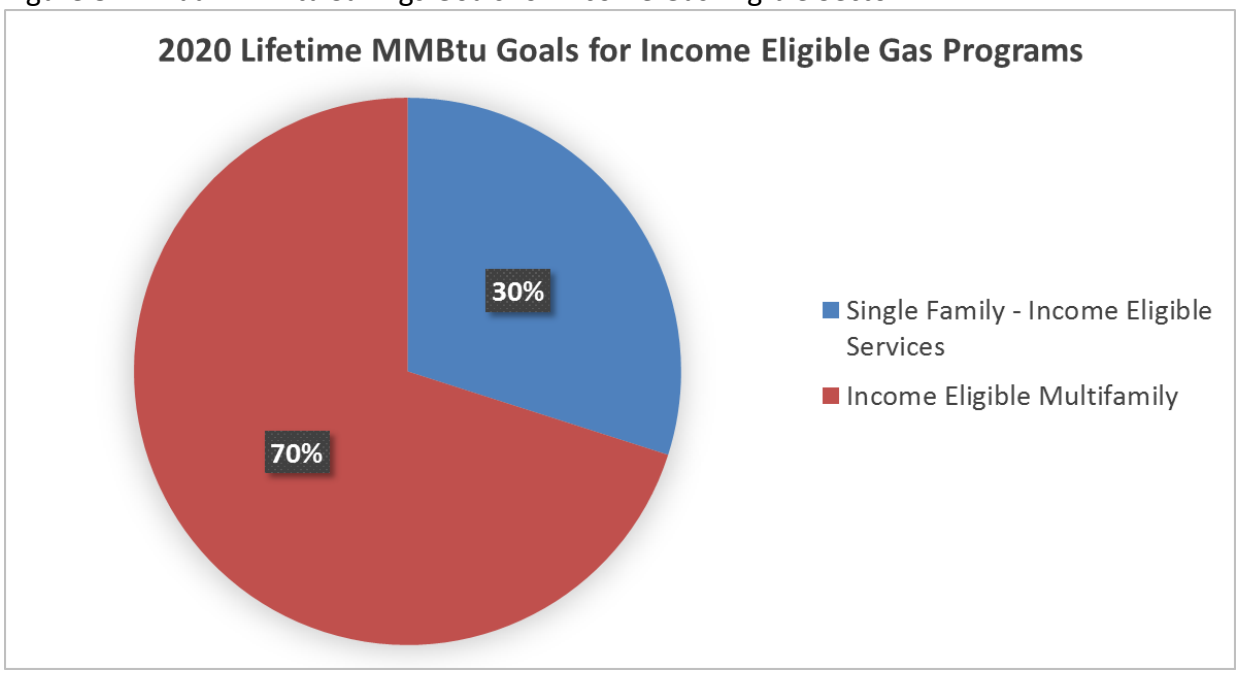


Figure 8: Annual MMBtu Savings Goals for Income Gas Eligible Sector



2. Energy*Wise* Single Family (Electric and Gas)

Eligibility criteria	EnergyWise is a program that serves market rate customers living in single family residences with 1-4 units.
Offerings	EnergyWise consists of two major components. The first is a no-cost, in-home energy assessment that focuses on educating participants on the home's energy use and addresses opportunities for energy upgrades. During this initial visit, the energy specialist(s) will upgrade lighting, provide advanced power strips, and look for water saving opportunities. A comprehensive, 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 at 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. If a customer decides to weatherize the home, an independent insulation contractor will be recommended, and the customer will schedule a date for weatherization work. 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 and water 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. The energy specialist will also do a quick survey to assess whether the home is a good candidate for solar.
Process	A customer begins the process for a home energy assessment by either calling, emailing, or mailing an expression of interest for a home energy assessment and the first visit will be scheduled. The home energy assessment generally takes 2-3 hours with an energy specialist(s) going through the home with the customer, so they can learn about how the home is currently operating and understand the areas where upgrades are recommended. At the completion of the assessment, participants can decide whether to take action on recommended energy upgrades. If the customer proceeds to

	weatherization, another visit will be established for the upgrades. Prior to the actual weatherization day, communication occurs with the customer to ensure their home is prepared for the activity. Most importantly, the insulation contractors will need access to the attic, basement and exterior walls with all personal items removed from those areas. An adult is required to be at home during the work in case questions arise about specific work. Before work is completed, there is a quality assurance check of all weatherization work to verify that all work has been completed. This process has minimized return visits and complaints from customers.
Customer feedback	Customer satisfaction surveys are sent to customers both after assessments and weatherization and both programs show respondents ranking satisfaction at or above 97% out of 100%. In 2019 there was public feedback that wait times for an audit was considered long. Customers are generally pleased with the upgrades provided during the assessment and impressed with professionalism and care taken by the insulation contractors. Immediate actions were taken to hire more energy specialists to reduce the wait time and in the interim communication was set up to let customers know they were still on the list to receive a home energy assessment while also receiving other energy saving tips.
Changes for 2020	In 2020 National Grid is planning to serve 11,000 participants in the program, the largest planned number in the program's history. In 2019, the program has seen a decrease in per home electric savings due to a decrease in available lighting sockets that can be upgraded. Lighting transformation will continue to decrease the electric savings available through the home and in anticipation of this opportunity disappearing, this program has strategically increased participation to capture available potential. EnergyWise is still seeing a high percentage of customers moving from the assessment to weatherization. Through June of 2019, over 40% of customers that received an assessment had proceeded to weatherize their homes. This movement from assessment to weatherization is a primary goal of the program to ensure that the benefits of a properly weatherized home continues to provide energy and health benefits for decades into the future. EnergyWise will continue to work as a source of energy information for other energy saving programs. For example, energy specialists can verify the presence of central air conditioning and Smart thermostats, two criteria that needed for Connected Solutions participation. Also, homeowners that have homes meeting the design and heating fuel types that make the residence a good candidate for the electrification of the heating

	and water heating are provided information about the systems and automatically referred to the HVAC program for follow up. New program elements that began in 2019 will also continue in 2020 until they can be evaluated. These offerings include an enhanced landlord incentive, optimizing the customer contact center so that qualified customers can sign up for a home energy assessment, and testing airborne duct sealing. 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.
Rationale for proposed changes	The increased target participation allows the Company to capture lighting savings while still available but also provides actual insight into a home's energy operations. Energy information is then used to provide the customer with additional follow on services that increase homeowner's comfort while assisting the state achieve greenhouse gas goals. The Company will continue to monitor that an increased number of assessments align with desired weatherization outcomes. Program elements that began in 2019 will continue until evaluated or until there is enough data to determine overall impact to the program.
Upcoming evaluations	Both a process and impact evaluation are planned in 2020 for the EnergyWise program. Prior year tests of the Department of Energy Home Energy Score and 100% landlord incentive will also be assessed.

Fuel	Annual MWh (Electric)	Annual kW (Electric)	Annual MMBtu (Gas, Oil, Propane)	Total Net Lifetime MMBtu (Electric Gas, Oil, Propane)	Budget ($000)	Participation
Electric	6,210	985	34806	711,614	$15,833.9	11,000

Fuel	Annual MMBtu (Gas)	Annual MWh	N/A	Total Net Lifetime MMBtu	Budget ($000)	Participation
Gas	25,621	153		608,029	$8,036.3	2,050

3. Multifamily (Electric and Gas)

Eligibility criteria	Eligible Multifamily program participants are defined as the following:[2] • Buildings with 5 or more dwelling units • Properties consisting of four or more 1-4 unit dwelling buildings that meet both of the following requirements: o Are within a reasonable geographical distance[3] from each other, or to a 5+ unit building, and o 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/subsides 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

[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.

[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.

	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]
Offerings	The program offers comprehensive energy services for multifamily customers including energy assessments, incentives for heating and domestic hot water systems, cooling equipment, lighting, appliances and air source heat pumps. Coordinated services will be offered for all types of multifamily properties. 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.
Process	A customer contacts the EnergyWise Multifamily vendor to express interest in receiving an energy assessment. A "pre-assessment" is done over the phone or in person to determine if the customer is eligible for participation in the program based on the criteria in the section above. An energy assessment is then scheduled with the facility's authorized representative. An energy assessment is completed by an energy specialist to identify ways to conserve electricity, natural gas, or delivered fuels. 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. 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.

[4] For the past four years the vendor has offered a Multifamily Coordinator for RI customers interested in participating in the multifamily program to reduce any confusion and ensure a smooth enrollment process.

Customer feedback	Post project customer surveys are conducted and have high satisfaction results.
Changes for 2020	Commitment to Examine Program Redesign In 2020 the Company is committed to examining a redesign of the Multifamily program based on research and evidence. Contributing to this will be the results of the Rhode Island Potential Study that will inform the savings goals of the program in the future. In addition, the impact and process evaluations will also help inform this potential program redesign. The Company will examine the possibility of moving up the completion date of these evaluations in 2020. This data will also help inform a Request for Proposal (RFP) for the Rhode Island multifamily programs for the upcoming three-year plan (2021-2023). Rebalancing energy savings targets, 2019 vs. 2020 Recognizing that opportunities for lighting savings identified by the vendor have been declining at a faster pace than anticipated, the Multifamily market rate electric program and the Multifamily Income Eligible electric program have lowered their goals for energy savings attributable to lighting. The Company will continue to pursue all cost-effective lighting savings that remain. To help balance this decline in savings from lighting, the program has increased its energy goals for custom projects. Included within this are increased goals for Air Source Heat Pumps (ASHPs). Specifically, increasing the multifamily income eligible goal from 75 to 125 and the multifamily market rate goal from 0 to 50. Examine a tiered incentive approach A tiered incentive approach would encourage building owners and facility managers to include more residential unit owners in multifamily projects. Offering an additional incentive for additional residential units to participate would benefit the program as a whole and help to increase customer participation and energy savings. Providing greater customer choice to the Condominium Market As the program shifts from more lighting offerings which are easier to install, to deeper, more custom measures that are more complex and take a longer period to install, serving certain segments becomes more challenging. One such segment are condominium customers. When working with a condominium association, not all individual condominium owners may wish to participate. Arranging contracts with individual

	owners can slow down work progress. Therefore, being investigated in 2019, and tentatively planned for 2020 based on results, the multifamily vendor, in addition to providing a turnkey project approach, is also exploring allowing customers to choose their own preferred HVAC contractor. In these instances, the vendor facilitates participation in the multifamily program by allowing customers to select and contract directly with any licensed contractor of their choice. Taking this step would provide customers with greater choice, open energy efficiency project opportunities to more contractors, and may increase participation among townhouse condominium sites. 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, green leases, EV programs, and other useful energy information. 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.
Rationale for Changes	In 2018 and 2019 the Multifamily program's electric energy goals have been challenged based on vendor feedback of a more rapid decline in opportunities for lighting savings than was anticipated. Energy savings from LED lighting makes up the majority of the electric energy savings goals for the multifamily programs. In 2018, this led to underperformance of the multifamily market rate electric program (achieving 67% of the annual MWh goal) and the multifamily Income Eligible electric program (achieving 75% of the annual MWh goal). In 2019, early signs indicate that the multifamily Income Eligible electric program will finish the year closer to its annual MWh goal, however the market rate electric program is on track to perform similar to 2019 levels.

	Given these challenges faced by the program, the Company has proposed the changes for 2020 in the section above.
Upcoming evaluations	In 2020 Impact and Process Evaluations of the EnergyWise Market rate and EnergyWise Income Eligible Multifamily programs will take place. The purpose of the impact evaluations is to verify energy and demand savings estimates for measures offered through the programs. The purpose of the process evaluations is to examine customer participation, vendor participation, and overall program processes. For more information on these evaluations see Attachment 3, 3.2.c. – 3.2.f. The completion of these evaluations will help to inform program design and goal setting for the multifamily programs starting in 2021. These results will help supplement the results of the RI Potential Study due to be completed in early 2020.

Market rate Multifamily – 2020 Goals, Tracking Metrics, Budgets, Participation

Fuel	Annual MWh (Electric)	Annual kW (Electric)	Annual MMBtu (Gas, Oil, Propane)	Total Net Lifetime MMBtu (Electric Gas, Oil, Propane)	Budget ($000)	Participation
Electric	2,943	384	1,235	128,555	$2,819	4,000

Fuel	Annual MMBtu (Gas)	Annual MWh	N/A	Total Net Lifetime MMBtu	Budget ($000)	Participation
Gas	14,561	0	N/A	225,076	$1,502	4,360

Income Eligible Multifamily - 2020 Goals, Budgets, Participation

Fuel	Annual MWh (Electric)	Annual kW (Electric)	Annual MMBtu (Gas, Oil, Propane)	Total Net Lifetime MMBtu (Electric Gas, Oil, Propane)	Budget ($000)	Participation
Electric	2,392	155	1,119	131,137	$3,552	4,800

Fuel	Annual MMBtu (Gas)	Annual MWh	N/A	Total Net Lifetime MMBtu	Budget ($000)	Participation
Gas	24,413	0	N/A	447,962	$2,987	3,500

4. Income Eligible Services (Electric and Gas)

Eligibility criteria	The Income Eligible Services (IES) Program serves homeowners and renters who live in a 1 – 4 unit building and is heated with oil, natural gas, electricity, wood, coal, or propane. Households must meet 60% of Rhode Island's Median Income Levels which are set each program year. The current income guidelines: http://www.dhs.ri.gov/Programs/LowIncomeGuidelines.php.
Offerings	IES consists of two major components that offer no-cost energy education, assessments and energy upgrades to increase the comfort in the home and decrease a customer's energy costs. Appliance Management Program (AMP) Assessment: An in-home energy assessment provides a comprehensive assessment of the energy efficiency of the electric components of the home. During the assessment, the customer is provided with ways to save energy and will receive light emitting diode light bulbs to replace all compact fluorescent light bulbs, in addition to refrigerator brushes and faucet aerators. If the electric components of the home (refrigerator, freezer, dehumidifier) are determined to inefficient they will be replaced at no cost. In addition, the IES program conducts an assessment on the building envelope and heating system. The IES will provide weatherization and heating system replacement for electric, gas, oil and propane at no cost to the customer. If appropriate, the customer will be presented with an opportunity to upgrade existing electric resistance heat with a new air source heat pump system that provides both heating and cooling.
Process	A customer begins the process for a home energy assessment by going to their local Community Action Program Agency to submit their information to determine if they meet the income eligibility requirements for participation in IES. The CAP Agency will then schedule an energy assessment, and all necessary follow-up services for insulation, air sealing, equipment and heating/cooling system replacements.
Customer feedback	Customers are very happy with the improvements made to their homes and reduction in their energy bills.

Changes for 2020	Working with a few CAPS on utilizing two-person energy assessment teams to streamline the IES program and complete both the AMP and weatherization/heating system assessment at the same time. Offering Smart thermostats to homes with central air conditioning to improve efficiency and operability and align with the possible connection with Connected Solutions.
Rationale for proposed changes	CAPS would like to maintain excellent energy efficiency services for customers but move away from the stringent and time-consuming DOE requirements.
Upcoming evaluations	None planned for 2020.

Fuel	Annual MWh (Electric)	Annual kW (Electric)	Annual MMBtu (Gas, Oil, Propane)	Total Net Lifetime MMBtu (Electric Gas, Oil, Propane)	Budget ($000)	Participation
Electric	3,343	542	13,149	375,026	$12,423	3,150

Fuel	Annual MMBtu (Gas)	Annual MWh	N/A	Total Net Lifetime MMBtu	Budget ($000)	Participation
Gas	9,637	62		192738	$5,664	861

a. 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. 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.

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

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

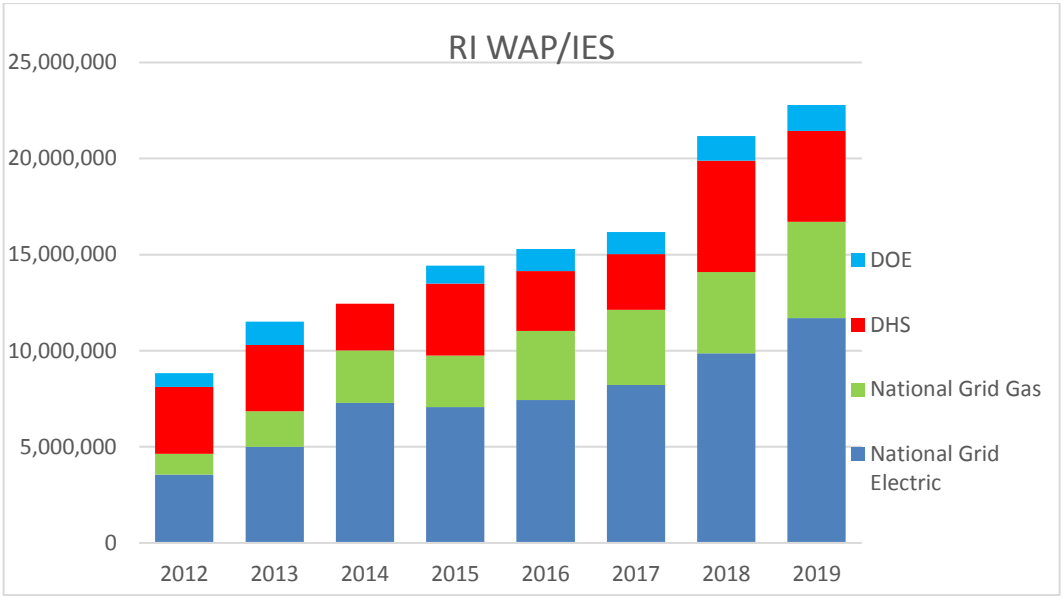


Figure 6: 2012 - 2019 Allocation of Funding Sources - Single Family Income Eligible Market EE Services

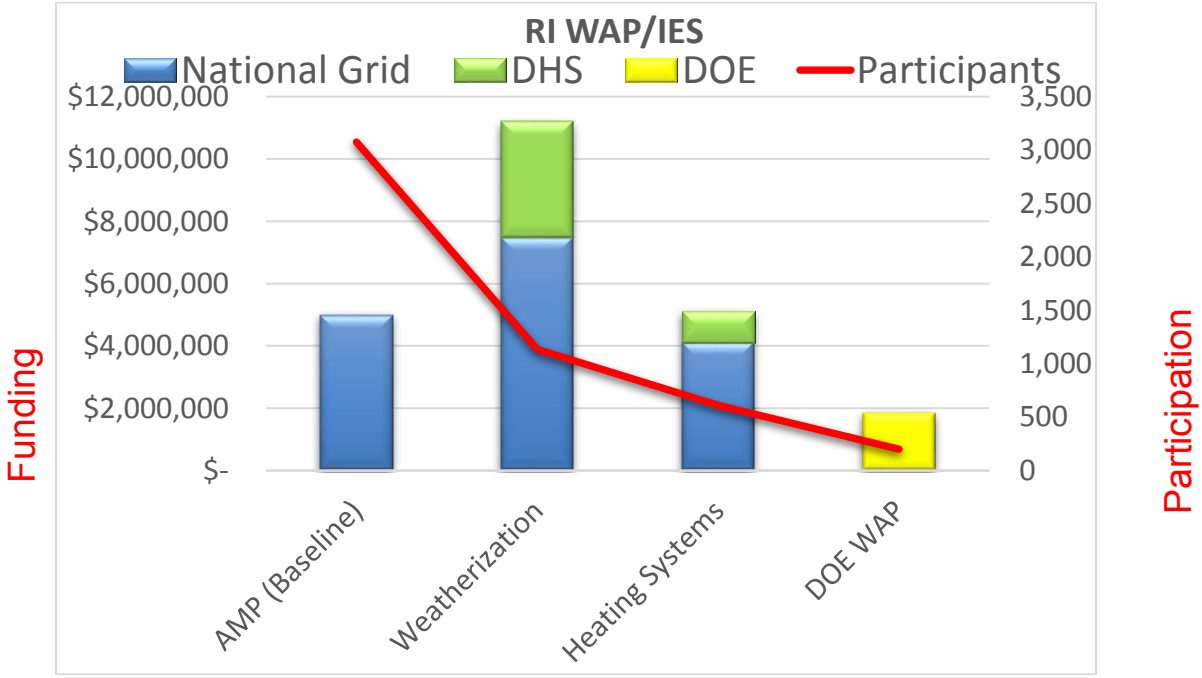


Table 1: Services Provided – IES Program and WAP/LIHEAP

Single-Family Income Eligible Services (IES) Program*	Federally-funded Weatherization Assistance Program (LIHEAP)*

• Conduct whole house Energy Assessment and provide customer education
  ○ 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 money through weatherization and upgrading appliances and mechanical equipment.
• 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.
	• 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)

*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.

b. 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.

iii. Process Improvement

In 2020, the IES Program will develop new assessment protocols with DHS and the CAPs to streamline the Appliance Management Program (AMP) assessment, weatherization, and appliance/heating system replacement processes. The new assessment protocols will be delivered by a two-person team to streamline the process, reduce the time impact on the customer, and to increase the number of audits that can be done in a day.

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)

Eligibility criteria	Residential New Construction (RNC) is a program that serves market rate and income eligible new construction, gut rehabilitation and major renovations, up to four units. The Program also supports major renovation of adaptive re-use projects (e.g. mill building conversions).
Offerings	RNC consists of two major components. 1. Design and Construction Assistance: Working in partnership with the builder and/or owner, the Residential New Construction (RNC) Program offers energy modeling, design assistance and in-field training and inspections to help customers achieve energy efficient homes. Energy modeling is used to verify compliance with the RNC requirements and will justify the respective incentives. 2. Incentives: Projects are incentivized based on whole-house performance incentives ranging from $200 to $4,000 per home in addition to rebates for qualifying high efficiency heating, cooling and hot water equipment. Projects with >50 units are eligible for custom incentives.
Process	A customer/project team begins the process for working with the RNC team by calling or emailing the RNC program. The project team will meet with the RNC team to discuss the project design, learn how to modify design or mechanical systems to improve energy efficiency, and to initiate the energy modeling of the project to determine the potential for incentives for the project. Once construction has begun, the RNC team will provide on-site training as needed and will conduct an insulation inspection as well as an inspection of the completed project to determine energy efficiency. The project will receive a HERS rating indicating the efficiency of the completed project will determine the level of incentive for the project.
Findings from 2019 program year activity	Customer interest in the 2019 EnergyWise program has been outstanding with forecasts that year end will exceed planned 2019 goals.

Customer feedback	Customer feedback about the program focused on the more stringent savings baseline that went into effect in 2018 and resulted in a 30% decrease in heating, cooling and hot water savings per home. In response, the Program instituted a new Tier IV to keep project teams engaged in the program and maintain participation, minimize the impact on better performing projects and provide achievable steps to facilitate performance improvement.
Changes for 2020	
Rationale for proposed changes	
Upcoming evaluations	

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	Annual MWh (Electric)	Annual kW (Electric)	Annual MMBtu (Gas, Oil, Propane)	Total Net Lifetime MMBtu (Electric Gas, Oil, Propane)	Budget ($000)	Participation
Electric	966	74	1676	95,950	$973.1	627

Fuel	Annual MMBtu (Gas)	Annual MWh	N/A	Total Net Lifetime MMBtu	Budget ($000)	Participation
Gas	4,270	0		81,136	673	300

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 structure[8] and equipment compared to the 2017 Baseline.

Tier Level	2018 % More Energy Efficient Than 2017 Baseline**	2019 % More Energy Efficient Than 2017 Baseline**	2020 % 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)

[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).
** 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).

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			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 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 Certified[9] or equivalent certification

[9] https://www.energy.gov/eere/buildings/zero-energy-ready-home

- Passive House Certified[10] or Compliant with Current Version of the RI Residential Stretch Code[11]
- (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

Overview

As mentioned in the Main Text, the Code Compliance Enhancement Initiative (CCEI) includes robust stakeholder engagement and industry group outreach, in-person classroom and hands-on trainings, project-specific technical assistance circuit riding, development and dissemination of documentation/compliance tools, and other services.

DeliverySavings listed below are included in the 2020 Goals listed for RNC. Note that these values are the ones established in the 2017 evaluation study[12] and do not incorporate the November 2019 state energy code update: the energy savings potential from improving code compliance increases only slightly under the state's

[10]http://www.phius.org/home-page
[11] http://www.energy.ri.gov/policies-programs/lead-by-example/rhode-island-stretch-codes.php
[12] NMR. Rhode Island Code Compliance Enhancement Initiative Attribution and Savings Study. Dec 2017. http://rieermc.ri.gov/wp-content/uploads/2018/03/ri-ccei-attribution-and-savings-final-report-12-12-17-clean.pdf

new code (less than one percent before considering local amendments[13]), so the previously projected 2012 IECC-based savings values are a reasonable, conservative estimate of the savings that will be realized in 2020 from CCEI activities. 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

Changes in 2020

Program content will be refreshed reflecting the state's code update.

[13] Pacific Northwest National Lab. 2015 IECC: Energy Savings Analysis. May 2015. https://www.energycodes.gov/sites/default/files/documents/2015_IECC_FinalDeterminationAnalysis.pdf

6. Home Energy Reports (Electric and Gas)

Eligibility criteria	All Rhode Island residential Electric and Gas customers are eligible for the Home Energy Reports program. Customers with an email address on record will also receive an electronic version of the report. All customers have access to the online home energy assessment and related insights. A control group and treatment group are necessary for accurate savings and thus, some customers will not receive print or electronic reports.
Offerings	The HER program is a territory-wide energy efficiency program that provides benefits for all Rhode Island residential customers. 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 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.
Process	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. All eligible customers will receive a minimum of 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. For customers interested in learing more about energy saving tips and their home's energy consumption, they may log into the online portal and use the available tools.
Customer feedback	The Company's Customer Energy Management team has worked with the Customer Contact Center to ensure that customer complaints are addressed. There are several avenues printed on the reports that direct customers how to opt-out of the reports or contact the Company to learn more. In 2019, the Frequently Asked Question (FAQ) component of the report was updated to address customer feedback given through the contact center. Customers also stated they would like a different experience for when

	they consistently use more energy than their neighbors. The Changes for 2020 address this feedback. Further, in addition to annual Customer Engagement Tracker (CET) that is conducted, a new user feedback module will be used in 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.
Changes for 2020	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 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 within the electronic and print reports. 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.
Rationale for proposed changes	Both updates to the report are in response to customer feedback requesting a more unique experience to their living circumstances. For example, in order to keep customers encouraged who may consistently find themselves using more energy than their neighbors, the Company proposed the "Target Rank" campaign in order to give the customer an achievable number to reach for and see how they performed against their own historical usage.

Upcoming evaluations	Impact Evaluation

Fuel	Annual MWh (Electric)	Annual kW (Electric)	Annual MMBtu (Gas, Oil, Propane)	Total Net Lifetime MMBtu (Electric Gas, Oil, Propane)	Budget ($000)	Participation
Electric	23,239	3,195	0	79,292	$2,726.9	323,248

Fuel	Annual MMBtu (Gas)	Annual MWh	N/A	Total Net Lifetime MMBtu	Budget ($000)	Participation
Gas	115,426	0		115,426	$467.8	152,324

7. ENERGY STAR® Lighting (Electric)

Eligibility criteria	ENERGY STAR Lighting serves all residential customers in Rhode Island. Special areas of concentration are with Food Banks, Schools, and designated hard to reach areas.
Offerings	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. Any ENERGY STAR qualified lighting product can apply for an incentive through this program. The original three-year Energy Efficiency plan had 2020 slated as a transition year where the majority of residential lighting products would be required to meet the Energy Independence and Security Act (EISA) 2007 legislation that granted the Department of Energy (DOE) the authority to improve the efficiency of light products. There was a two-step approach to implement lighting efficiency. The first step was to increase efficiency of general service lamps (GSL) to approximately 25% more efficiency during the 2012 to 2014 period. Step two improved standards for all GSLs to an automatic backstop standard of 45 lumens/Watt by January 2020. In January 2017, DOE published rules that implemented the 45 lumens/Watt backstop and expanded the range of light bulbs included in GSL definition. In early July of 2019, DOE sent its final rule on GSL definition which withdraws seven categories of lightbulbs from the GSL definition. The Office of Management and Budget has up to 90 days to review and release the final rule. The policy update indicates that there is uncertainty in the specific federal ruling for efficient lighting with a definitive ruling unavailable during the 2020 planning timeline. In RI, the *Rhode Island 2017 Lighting Sales Data Analysis* evaluation completed in 2019 reported the following findings: • "Sales data analysis strongly suggest that the ENERGY STAR Lighting Program continued to have a positive impact on the energy efficient bulb market in 2017." • Market share of LEDs is highest in reflector and A-Line categories at 60% and 41% respectively. Candelabra and Globe LEDS are at 13% and 29% of market share. • LED sales dominate in lumen (a measurement of brightness) ranges that are most closely associated with 60-Watt and 40-Watt incandescent bulbs. In contrast, lumen

	ranges that are exempt from EISA, including really low lumen and really high lumen ranges, only have 3% of LED bulb sales collectively. Given the uncertainty on the regulatory level, ENERGY STAR Lighting is proposing a robust ENERGY STAR lighting program in 2020. Even with reduced savings that adjusts lighting attribution for natural market transformation, lighting remains the most cost-effective residential program. It is still an important offering in capturing all cost-effective savings.
Process	ENERGY STAR Lighting products are promoted in retail stores, offered at no cost in RI Food Banks (two bulbs per customer with a pamphlet indicating other income eligible energy efficiency services), at RI schools as a fundraising activity along with an educational energy efficiency orientation, online through the National Grid marketplace at ngrid.com/shop, and through a pop-up retailer that brings lighting sale opportunities to non-traditional retail locations. The Program brings down LED lighting products pricing through a negotiated cooperative promotion (NCP) process. The NCPs require manufacturers and retailers to work together and present proposals for products and quantities that will be sold for either short promotional periods or for the calendar year. Customers pay the final incentivized price and are not required to apply external coupons or rebates. The Lead Vendor organizes the NCPs and conducts retailer support and training through in-store visits, online training, and customer outreach events. A rebate processor manages tracking of sales and incentives to the parties entered in the NCP. A pop-up retailer works with businesses and staffs special events where lighting and product sales can be offered. Finally, there is a vendor that manages National Grid's online marketplace where customers receive instant incentives and the convenience of online shopping. National Grid will continue to offer short term flash sales of specially priced products to customers throughout the year on the marketplace.
Customer feedback	Much of the customer feedback for this program comes from our Lead Vendor as they work with retailers and staff customer educational events at the retail locations and through the pop-up retailer. In general, customers are pleased with the quality of lighting produced from LEDs. One initial concern was a desire to purchase lighting with a similar color as incandescent lighting. The pop-up retailer offers both bright white and daylight options at all events they attend, and retailers are now carrying a range of color options.
Changes for 2020	In 2019 ENERGY STAR lighting tested marketing campaigns that promoted short term sales at retail locations through electronic means such as email and online paid search ads. These promotions will continue in 2020 to support local retail partners. 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.
Rationale for proposed changes	
Upcoming evaluation	Residential lighting market assessment will be conducted in 2020.

Fuel	Annual MWh (Electric)	Annual kW (Electric)	Annual MMBtu (Gas, Oil, Propane)	Total Net Lifetime MMBtu (Electric Gas, Oil, Propane)	Budget ($000)	Participation
Electric	38,093	6,201	-75,518	289,960	$15,137.3	256,082

8. Residential Consumer Products (Electric)

Eligibility criteria	Residential Consumer Products serves all residential customers by offering incentives on electronics, ENERGY STAR® consumer appliances as well as other high use, energy saving devices.
Offerings	Residential Consumer Products incorporates both the federal Environmental Protection Agency (EPA) ENERGY STAR and Department of Energy (DOE) 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 and the sale of new advanced power strips that assist in removing the standby power load from devices that are plugged into wall sockets. In 2020 the program will also support dehumidifiers, dehumidifier recycling, dryers, refrigerator and freezer recycling, room air cleaners, room air conditioners, efficient shower heads, pool pumps, 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 National Grid marketplace (ngrid.com/shop).
Process	Similar to the ENERGY STAR Lighting program, 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 stores. The Lead Vendor also jointly staffs customer outreach events at retailer locations. The program 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 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. 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.
Customer feedback	Much of the customer feedback for this program comes from our Lead Vendor as they work with retailers and staff customer educational events at the retail location and through the pop-up retailer. Consumers are generally interested in learning which products have incentives.
Changes for 2020	In 2020, the Company 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 (ngrid.com/shop), which was refreshed in 2019, will include modules that assist the consumer in selecting more efficient consumer products.
Rationale for proposed changes	The changes proposed in 2020 will simplify the transaction for customers and allow them quicker access to the product incentives.
Upcoming evaluation	None planned for 2020.

Fuel	Annual MWh (Electric)	Annual kW (Electric)	Annual MMBtu (Gas, Oil, Propane)	Total Net Lifetime MMBtu (Electric Gas, Oil, Propane)	Budget ($000)	Participation
Electric	4,768	714	624	115,666	$2,188.8	26,905

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	Annual MWh (Electric)	Annual kW (Electric)	Annual MMBtu (Gas, Oil, Propane)	Total Net Lifetime MMBtu (Electric Gas, Oil, Propane)	Budget ($000)	Participation
Electric	1,528	138	9,852	233,832	$2,605.3	1,832

Fuel	Annual MMBtu (Gas)	Annual MWh	N/A	Total Net Lifetime MMBtu	Budget ($000)	Participation
Gas	29,994	33		495,828	$2,647.1	3,677

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.

The way in which a product is offered changes based on preferred point of purchase/ ease of customer use for product adoption. Customers are informed of the program when they receive their Home Energy Assessment, through their HVAC contractor, or 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. The RI Online Marketplace (https://marketplace.nationalgridus.com) offers customers to purchase energy efficient equipment through National Grid's website.

As technology and/or policy advance, so does the equipment that is offered through the program. For example, the introduction of high efficiency cold climate heat pumps for heating coupled with the State and Company's focus on electrification, establishes opportunities for energy efficiency as well as priorities to reduce greenhouse gas emissions from the heating sector.

Electrification of Heat: The Company is proposing to increase the number of homes by TK% that will 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, The Division, 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 (www.ngrid.com/shop) 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

Eligibility criteria	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.
Offerings	Thermostats The Company has been offering a thermostat-based demand response program since the summer of 2016. Originally, this offering was rolled out supporting only a single thermostat manufacturer. Now there are 9 different thermostat manufacturers supported in the program. In this program the Company 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 saying in the program. Batteries This is the first year the Company has offered a residential battery-enable demand response program. The program launched in the early summer of 2019 with three participating battery integrators and now there are four battery integrator options for customers. In this program, the customers' batteries are set to discharge during peak times, reducing load on the grid. Customers are paid based on the performance of their batteries during peak events. The performance-based approach incentivizes customers and vendors to design, install, and maintain systems that can maximize their discharge for a 2 to 3-hour duration demand response events. Electric Vehicles The Company proposed an electric vehicle-based DR program for 2019. This program would use the existing telemetry and controls included in most electric vehicles to measure and verify savings from a DR program.

<table>
<tr><td></td><td>Behavioral Demand Response

Starting in the summer of 2018, the Company has sent out emails to all residential and small/medium business customers with an email on file asking them to decrease their electric use on peak times during peak days.</td></tr>
<tr><td>Process</td><td>Thermostats

Enrollments in the thermostat-based-DR options have historically exceeded expectations. For example, in 2019 the program planned to enroll 2,479 thermostats but ended up enrolling 3,936. This overachievement in 2019 was mostly a result of a large coordinated marketing effort with the largest thermostat vendor enrolling their existing customers. In 2020, the program is planning for a more modest increase of 15%, because we are nearing enrollment saturation with the largest thermostat vendor.

<table>
<tr><td rowspan="2">Number of Thermostats</td><td colspan="4">Historic Numbers</td><td>Proposed Number</td></tr>
<tr><td>2016</td><td>2017</td><td>2018</td><td>2019</td><td>2020</td></tr>
<tr><td></td><td>96</td><td>813</td><td>1,674</td><td>3,936 (vs. 2,479 planned)</td><td>4,526 (15% increase)</td></tr>
</table>

Batteries

Enrollments in the residential battery-enabled DR program have been lower than expected. This is the result of several factors including:

• Negotiations with battery integrators talking longer than expected, and the program not launching until May of 2019.
• The discovery that batteries are not currently compatible with the RE-Growth program, preventing existing RE-Growth customers from installing batteries and participating in Connected Solutions.
• An identical program was proposed by the Company in the Massachusetts service territory. Unlike Rhode Island, the Massachusetts regulators decided to limit this effort to a demonstration. The uncertainty of being a demonstration, and whether the</td></tr>
</table>

program will continue after 2019 or not, has made it more difficult to attract battery integrators into the program.

	Historic Numbers	Proposed Number
	2019	*2020*
Number of Batteries	24 (vs. 50 planned)	100 (3x increase)

Behavioral DR

The number of emails sent this year was higher than planned due to an effort by National Grid to get more emails for customers to facilitate the transition of customers receiving e-bills instead of paper bills.

Number of emails sent	Historic Numbers		Proposed Number
	2018	*2019*	*2020*
	260,639	286,703 (vs. 286,703 planned)	??? (??% increase)

Customer feedback

Thermostats

The Company has performed evaluations on the thermostat-based demand response programs in 2016, 2017, 2018, and is conducting another evaluation in the Massachusetts service area in 2019. Each of these evaluations collected customer feedback through customer interviews or surveys. This feedback has been used each year to further refine the program rules.

Batteries

The Company is conducting an evaluation of the battery-enabled demand response program this year. This evaluation will include a survey sent out to participating customers. The information collected from this survey will be used to refine the program rules for next summer.

Electric Vehicles

The company has not yet launched the EV-based DR option. However, Connected Solutions is working with several large EV manufacturers to collaboratively create a program that will

	work for reducing peaks, maintain the relationship of EV manufacturers to their customers, and create a customer friendly program. Behavioral Demand Response The Company conducted a behavioral-based demand response program in the summer of 2018 and 2019. This included sending both emails to customers and postings on social media. The responses received on social media posts were mixed. Some customer appreciated knowing when the most important time is for saving energy, while other customers were frustrated to be asked to conserve energy citing other concerns such as high rates or winter outages.
Changes for 2020	Thermostats In 2020, the Company plans to launch new marketing efforts to drive further adoption of Smart thermostat enrollments in to Connected Solutions. The Company plans to offer an instant demand response incentive to customers who purchase their thermostat on the Company's marketplace to further reduce the upfront cost of Smart thermostats. Batteries In 2020, the Company expects this program to be much more successful. Four battery integrators are already in the program, and the Company expects to expand the number of integrators. The Company is planning on an email marketing campaign to inform both customers who already have solar and customers who don't have solar about the Connected Solutions program. The Company is looking for way to adjust the requirements of the RE Growth program to allow batteries that can participate in Connected Solutions. Electric Vehicles The Company continues to work with our residential DERMS (Distributed Energy Resource Management System) vendor and automobile manufacturers on this program. Unfortunately, no major automobile manufactures currently have the infrastructure in place to support this program. Two automobile manufacturers are working on infrastructure upgrades now to enable this program for next summer. The Company plans to test these capabilities in the fall of 2019 to get ready for a successful program launch in 2020. Behavioral DR

	The main challenge of the Behavioral DR program has been how to calculate peak reductions that result from peak day email messages. The Company plans to work with a 3rd party consultant in 2020 to explore ways to estimate these savings. Already, 19 other utility led behavioral DR programs have been identified from across the country which should provide the data needed to conservatively deem savings in the future. Additional Devices In 2019 the Company commissioned an evaluation study on the cost effectiveness and DR potential for controlling various devices and appliances found in residences. The results of that study were that the devices with the best cost effectiveness and DR potential are battery storage, thermostats, and electric vehicles. Accordingly, the Company created a new option for battery storage, is in the process of creating a new option for electric vehicles, and increased our investment into thermostat-based demand response. Other technologies, such as pool pumps, show promise if and when DR-ready devices come to the market. The Company will continue to monitor changes in the market for devices that could be incorporated into the DR program cost effectively.
Rationale for proposed changes	Thermostats The proposed changes aim to increase participation in the thermostat-based demand response program. Batteries The proposed changes aim to give customer and installers more options to participate in the battery-enabled demand response programs and to open the program to RE Growth customers. Electric Vehicles The proposed changes aim to launch an EV-based demand response program this fall so that it will be ready to help decrease peak loads next summer. Behavioral DR The proposed changes aim to quantify the benefits of behavioral demand response so that the Company can be sure we are using rate payer funds judiciously and giving this program the correct level of resources.

Upcoming evaluations	Thermostats After conducting evaluations annually since 2017 for the thermostat-based demand response program, the Company does not foresee the need of another evaluation in 2020. Batteries Based on the results of the 2019 evaluation of the battery-enable demand response program, there may be a need for another evaluation in 2020. Electric Vehicles The EV-based demand response program will be new in 2020 and will probably require an evaluation. The scope of this evaluation will be determined after the program structure has been finalized this fall. Behavioral DR The Company is currently conducting a literature review of Behavioral demand response programs to better understand the savings behind behavioral demand response. Depending on the results of this study, further evaluations or studies may be needed in the future.

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.

Table 2. Electric Programs

Electric Programs					
Program	**Measure**	**Units**	**Incentive / Unit**	**Total Incentives**	**Shared Costs**
EnergyWise Single Family	AC Timer	-	Average Incentive based on measure mix and is applied per participant (see line below)		
	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			
	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	$1,142	$12,557,150	
	Heat Loans			$1,350,000	
	Program Planning & Administration				$350,092
	Marketing				$395,926
	Sales, Technical Assistance & Training				$1,038,734
	Evaluation & Market Research				$141,973

	Aerator	500			
	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	Average Incentive based on measure		
	Insulation Oil	120	mix and is applied per participant		
	Pipe Wrap DHW Elec	65	(see line below)		
	Pipe Wrap DHW Oil	-			
EnergyWise Multi Family	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	$535	$2,140,000	
	Heat Loans			$50,000	
	Program Planning & Administration				$79,465
	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**
	Codes and Standards	1			
	CP Home	2			
	Clothes Washer	98			
	Dishwasher	423			
	Fixtures	150			
	LED Bulbs	7,350			
	Renovation Rehab CP	2			
	Refrigerator rebate	488			
	Renovation Rehab Tier 1 Home	12	Average Incentive based on measure		
	Renovation Rehab Tier 2 Home	9	mix and is applied per participant		
	Renovation Rehab Tier 3 Home	8	(see line below)		
Residential New Construction	Renovation Rehab Tier 4 Home	1			
	Showerhead	5			
	Tier 1 Home	82			
	Tier 2 Home	56			
	Tier 3 Home	70			
	Tier 4 Home	10			
	Adaptive Reuse	100			
	Participants	627	$857	$537,188	
	Program Planning & Administration				$57,939
	Marketing				$2,249
	Sales, Technical Assistance & Training				$325,973
	Evaluation & Market Research				$49,718

ENERGY STAR® HVAC	ACQIVES	25	$175	$4,375	
	ACS16SEER13EER	150	$250	$37,500	
	DOWNSIZE	20	$250	$5,000	
	Central Heat Pump	5	$350	$1,750	
	Mini-Split Heat Pump	300	$350	$105,000	
	ECM Pumps	5,550	$100	$555,000	
	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	700	$750	$525,000	
	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	
	HVAC Financing			$120,000	
	Program Planning & Administration				$68,776
	Marketing				$144,173
	Sales, Technical Assistance & Training				$528,849
	Evaluation & Market Research				$20,661

Electric Programs					
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	9,000	$10	$90,000	
	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	6,000	$35	$210,000	
	Program Planning & Administration				$62,575
	Marketing				$521,242
	Sales, Technical Assistance & Training				$507,909
	Evaluation & Market Research				$3,121

ENERGY STAR® Lighting	LED Bulb	970,000	$2.60	$2,522,000	
	LED Bulb (Specialty)	211,000	$3.40	$717,400	
	LED Bulb (Hard to Reach)	480,000	$3.50	$1,680,000	
	LED Bulb (Food Pantries)	160,000	$6.00	$960,000	
	LED Bulb (School Fundraiser)	8,500	$6.00	$51,000	
	LED Bulb (Reflectors)	387,549	$5.00	$1,937,745	
	LED Bulb (Linear LED)	187,100	$9.00	$1,683,900	
	LED Bulb (Fixture)	463,000	$9.00	$4,167,000	
	Program Planning & Administration				$336,802
	Marketing				$579,785
	Sales, Technical Assistance & Training				$384,102
	Evaluation & Market Research				$117,532
Home Energy Reports	New Mover electric	18,428	$7.86	$144,844	
	New movers dual fuel	10,342	$7.86	$81,288	
	Opt-out dual fuel	123,401	$7.86	$969,932	
	Opt-Out electric	171,077	$7.86	$1,344,665	
	Program Planning & Administration				$74,000
	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				$284,367
	Marketing				$144,019
	Sales, Technical Assistance & Training				$2,080,301
	Evaluation & Market Research				$109,581

	AERATOR Elec	130			
	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	Average Incentive based on measure mix and is applied per participant (see line below)		
	Refrig rebate	50			
	SHOWERHEAD Elec	100			
EnergyWise Income Eligible Multifamily Retrofit	SHOWERHEAD Oil	100			
	Smart Strip	200			
	Standalone WH Oil	-			
	Standalone WH Other	-			
	Tankless WH Oil	-			
	THERMOSTAT AC Only	-			
	THERMOSTAT Elec with AC	-			
	THERMOSTAT Heat Pump	-			
	THERMOSTAT OIL	50			
	TSV Showerhead Elec	-			
	Common Int EISA Exempt	-			
	Dwelling Ext Reflector	50			
	Dwelling Int EISA Exempt	50			
	Dwelling Int Reflector	50			
	Common Ext LED Bulbs	200			
	Common Int LED Bulbs	200			
	Dwelling Int LED Bulbs	500			
	Vending Miser	4			
	Participants	5,000	$586	$2,928,000	
	Program Planning & Administration				$92,231
	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**
	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	
Residential ConnectedSolutions	Water Heater Daily (units)	0	$0	$0	
	Behavioral Peak (customers)	315,373	$0	$0	
	Program Planning & Administration				$13,366
	Marketing				$221
	Sales, Technical Assistance & Training				$124,077
	Evaluation & Market Research				$0

Table 3. Natural Gas Programs

Gas Programs					
Program	**Measure**	**Units**	**Incentive / Unit**	**Total Incentives**	**Shared Costs**
EnergyStar® HVAC	Boiler Reset	30	$100	$3,000	
	Boiler90	65	$450	$29,250	
	Boiler95	275	$800	$220,000	
	Combo Condensing	35	$600	$21,000	
	Combo Condensing 95	1,100	$1,200	$1,320,000	
	Energy Star Cond Water Heater 0.80 UEF	5	$250	$1,250	
	Furnace95 ECM	325	$300	$97,500	
	Furnace97 ECM	50	$500	$25,000	
	Heat Recovery Vent	20	$250	$5,000	
	Energy Star Storage Water Heater .64 UEF (Med Draw)	40	$100	$4,000	
	Energy Star Storage Water Heater .68 UEF (High Draw)	45	$100	$4,500	
	Energy Star On Demand Water Heater 0.87 UEF	100	$600	$60,000	
	Low Flow Showerhead	50	$7	$325	
	TSV	25	$12	$288	
	TSV Showerhead	35	$15	$525	
	Wifi Thermostat - Cooling And Heating	425	$75	$31,875	
	Wifi Thermostat - Gas Heat Only	2,750	$75	$206,250	
	Programmable Thermostat	400	$25	$10,000	
	Combo Furnace	10	$700	$7,000	
	Water Heater, Indirect, Gas	200	$400	$80,000	
	Program Planning & Administration				$83,965
	Marketing				$170,594
	Sales, Technical Assistance & Training				$244,816
	Evaluation & Market Research				$20,951
EnergyWise	Aerator	100			
	Weatherization	2,050			
	Air Sealing Kit (Gas)	575	Average Incentive based on measure mix and is applied per participant (see line below)		
	Showerhead	325			
	Pipe Wrap	5,000			
	Thermostat	1,500			
	WiFi Thermostat	250			
	Participants	2,300	$2,876	$6,615,500	
	Program Planning & Administration				$218,874
	Marketing				$84,185
	Sales, Technical Assistance & Training				$963,774
	Evaluation & Market Research				$154,006

Gas Programs					
Program	**Measure**	**Units**	**Incentive / Unit**	**Total Incentives**	**Shared Costs**
EnergyWise Multifamily	Air Sealing	3,900			
	cust non-lgt	58			
	Demand Circulator	0			
	Duct Sealing	10			
	Faucet Aerator	1,866			
	Insulation	3,200	Average Incentive based on measure mix and is applied per participant (see line below)		
	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	$304	$1,216,000	
	Program Planning & Administration				$52,500
	Marketing				$34,810
	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				$18,244
	Marketing				$983
	Sales, Technical Assistance & Training				$5,029
	Evaluation & Market Research				$20,106

Residential New Construciton	CODES AND STANDARDS	1			
	CP	10			
	CP-DHW	10			
	RR CP	5			
	RR CP-DHW	5			
	RR Tier 1	20			
	RR Tier 1 - DHW	20			
	RR Tier 2	10			
	RR Tier 2 - DHW	10			
	RR Tier 3	5			
	RR Tier 3 - DHW	5	Average Incentive based on measure mix and is applied per participant (see line below)		
	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	$1,423	$445,285	
	Program Planning & Administration				$31,723
	Marketing				$3,225
	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				$146,951
	Marketing				$32,745
	Sales, Technical Assistance & Training				$1,125,366
	Evaluation & Market Research				$54,841
Income Eligible Multifamily	Air Sealing	1,554	Average Incentive based on measure mix and is applied per participant (see line below)		
	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				$85,213
	Marketing				$11,255
	Sales, Technical Assistance & Training				$309,683
	Evaluation & Market Research				$107,293