

# Rhode Island Energy Efficiency

First Quarter 2019 | National Grid

May 9, 2019

## Overview

National Grid began 2019 continuing its efforts to build and improve on the success of the energy efficiency programs for Rhode Island customers. The electric portfolio finished the quarter with 27,755 annual MWh of savings (14% of goal) and the gas portfolio finished the quarter with 70,106 annual MMBTU of savings (16% of goal), comparable first quarters in past years.

The first quarter had several notable achievements. On the residential side, the towns of Westerly and Glocester both joined the Community initiative, with on the ground marketing promotions beginning in May. Both communities will help increase participation among their citizens and businesses in ConnectedSolutions demand response and mini-split heat pumps. Regarding the workforce, the Annual RI Trade Ally Heating and Cooling Meeting which brings together contractors and plumbers had the largest attendance in its history, with over 100 stakeholders in attendance, a substantial 54% increase in comparison to 2018. Attendees included contractors, distributors, factory representatives, and other HVAC stakeholders. One challenge is during the first quarter the Department of Energy (DOE) continued to suspend the DHS audit; no DOE jobs have been completed for over 21 months. National Grid continues to communicate regularly with DHS to gain updates. Finally, a new energy efficiency programs focusing on demand response, Residential ConnectedSolutions, saw its residential participation grow to over 2,000 thermostats enrolled.

On the Commercial and Industrial side, the Industrial Initiative started off the year with several great projects. These projects included such measures as: an energy efficient emissions control system installed at a manufacturing facility and a large pipe insulation project at a specialty materials company. To put the scale of these industrial projects into perspective, the insulation project alone saved enough gas to heat well over 100 homes for a year. As a part of the Community Initiative, National Grid is joining the Ocean Community Chamber of Commerce in Westerly in an effort to work with the small business community in spreading the word about the small business Direct Install program and EV charging stations.

The first quarter also continued progress in several areas to focused on the future of energy efficiency in Rhode Island. A Zero Energy Homes training, part of the Residential New Construction (RNC) program at the Jamestown library was attended by a group of 23 builders, architects, code officials and energy specialists. After the training, the group toured a single-family zero net energy (ZNE) home being constructed by DeMetrick Housewrights. In addition, 18 attendees, including 10 students from YouthBuild attended a presentation on Residential Envelope and Building Science followed by a tour of a 30-unit energy efficient affordable housing unit (8,000+ sq.ft.) in the formerly abandoned Louttit Laundry in Providence. Efforts like these underscores the importance of training the current and future workforce to build businesses and homes more efficiently and create healthier living spaces, while also reducing energy usage, costs, and environmental impacts.

## 2019 Program & Initiative Updates

### Residential New Construction (RNC)

- Residential New Construction completed a higher number of electric heated customer residences than gas to start to 2019, achieving 209 Annual MWh of electric savings (27% of goal) and 254 Annual MMBtu of gas savings (5% of goal).
- The program enrolled 36 customer residences in the first quarter and completed 156 customer residences. 78 of these residences were affordable housing units and 115 of those built (74%) utilized electric heat.

### Tours and Trainings:

- Eighteen attendees, including 10 students from YouthBuild attended a presentation on Residential Envelope and Building Science followed by a tour of a 30-unit energy efficient affordable housing unit (8,000+ sq.ft.) and a retail grocery space complex in the formerly abandoned Louttit Laundry.



Residential Envelope and Building Science presentation and tour, Providence

### Zero Net Energy (ZNE) Training and Project Tour:

- A Zero Energy Homes training at the Jamestown library was attended by a group of 23 builders, architects, code officials and energy specialists. After the training, the group toured a single-family zero net energy (ZNE) home being constructed by DeMetrick Housewrights.



Zero Energy Home Training and tour of ZNE construction in progress, Providence

### Challenges and Progress:

- 2018 implementation of more stringent energy savings baseline. To ease the transition to the new baseline, a four-tiered system was developed to keep project teams engaged in the program, minimize the impact on better performing projects, and provide achievable steps to facilitate performance improvement.

### Income Eligible Services (IES)

- *“This is a great program. I really appreciate that the program exists for people that need it the most. I also learned a lot about energy efficiency. Thank you!”* IES program customer from Riverside, RI
- The National Grid Income Eligible Services program had a good start to the year in 2019, achieving 577 MWh of electric savings (15% of goal) and 1,844 Annual MMBtu of gas savings (20% of goal).
- In the first quarter the program completed 529 audits, 193 weatherizations, and 198 heating systems.
- Participated in the 2019 National Grid RI Heating & Cooling Trade Ally Meeting focused on program offerings, education and training.
- Participated in five National Grid Customer Assistance Expos. National Grid representatives presented energy solutions to income eligible customers.
- A kick off meeting to discuss the Process Evaluation of the Income Eligible Services (IES) Program for single family homes was held in February. The objectives of the study are to assess current delivery of the IES program delivery, identify aspects of program delivery that can be improved, and determine participation barriers. The study is scheduled to complete at the end of the second quarter.
- During the first quarter the Department of Energy (DOE) continued to suspend the DHS audit; no DOE jobs have been completed for over 21 months. National Grid continues to communicate regularly with DHS to gain updates.

### EnergyWise

- EnergyWise had a solid first quarter, achieving 1,452 annual MWh of electric savings (18% of goal) and 5,375 annual MMBtu of gas savings (19% of goal).
- The program completed over 2,087 audits and 1,187 weatherizations in the first quarter.

- The 100% landlord incentive encourages landlords to weatherize renter dwellings by providing a full incentive to the landlord and thereby removing customer costs. This incentive began being offered in 2019 and the first quarter saw a 25% increase in weatherizations completed for renter units compared to average quarterly production in 2018.
- Usage of the language line, that offers languages besides Spanish and Portuguese, has been nominal, but for the instances when it is really needed both customers and employees have been appreciative.
- National Grid has begun identifying potential new customers for home energy assessments and transferring them from the corporate call center to scheduling vendor, RISE.
- Wait times for home energy assessments are in the three to four month range. Two new auditors have been hired to address this backlog. Also, as days begin to get longer, there is an opportunity to offer additional audits at the end of the day.

### **EnergyWise Multifamily, Income Eligible Multifamily, C&I Multifamily**

- The Multifamily program's projects are often larger and completed later in the year, which is why the percent of savings achieved in the first quarter is somewhat lower than that seen in other residential programs.
- The EnergyWise Multifamily program achieved 385 annual MWh of electric savings (10% of goal) and 3,495 annual MMBTU of gas savings (22% of goal).
- The Income Eligible Multifamily program achieved 210 annual MWh of electric savings (7% of goal) and 1,291 MMBTU of annual gas savings (6% of goal).
- The C&I Multifamily program achieved 874 MMBTU of annual gas savings (8% of goal).
- The first quarter saw the completion of the Tanglewood Village Apartments project in West Warwick. Measures installed at this multifamily site include air sealing, 952 feet of heat pipe insulation and over 10,000 sqft of attic insulation.
- The quarter also saw the completion of the Benjamin Church Manor project in Bristol which included such measures as: air sealing and insulation, 86,500 sqft of attic insulation. The work also corrected the bath vents so that moist air would be vented out of the building, instead of the attic space, preventing potential mold issues.
- Finally, in the first quarter the program began scoping work on at the Saint Mary's Home for Children in North Providence. Potential measures for the project include: heat pipe insulation, common area lighting, and domestic hot water heater conservation measures.

### **ENERGYSTAR® HVAC (Heating and Cooling)**

- The ENERGYSTAR® HVAC (Heating and Cooling) program had a good start to 2019, achieving 402 annual MWh of electric savings (15% of goal) and 8,300 annual MMBtu of gas savings (30% of goal).
- The Annual RI Trade Ally Heating and Cooling Meeting had the largest attendance in its history, with a substantial 54% increase in comparison to

2018. Attendees included contractors, distributors, and factory reps, among other HVAC stakeholders.

- Rhode Island training season is underway with classes offered around the state. A new consolidated 4-hour “HVAC Check” session offered in combination with an online 1-hour airflow video provides a streamlined approach for HVAC Technicians to get certified in AC Check and Mini Split Check.
- To date the HVAC Check class had 5 classes, with 30 contractors, and 55 technicians.

1st Quarter	Classes	Contractors	Technicians
HVAC Check	5	30	55



## Easy work also pays off.

**Earn incentives and attract more customers as an HVAC Check contractor.**

HVAC Check training focuses on two testing procedures:

- Air Flow and Charge Check (AC Check) for central A/C and central heat pumps.
- Mini Split Check (MS Check) for single and multi-head mini split heat pumps.

As a trained and approved HVAC Check contractor, you'll earn incentives for verifying proper refrigerant charge, ensuring maximum efficiency, comfort and savings for your customers, and reducing call backs due to system issues. By partnering with us, you can attract more customers with exclusive offers like our generous heat pump rebates for customers displacing oil or propane.

With a training process that takes as little as five hours, becoming an HVAC Check contractor is as simple as it is rewarding.

**Upcoming HVAC Check training classes:**

Date	Location	Registration Link
1/18/19	Cranston RI	<a href="http://aehcheckinbmsupply.eventbrite.com">aehcheckinbmsupply.eventbrite.com</a>
2/20/19	Warwick RI	<a href="http://aehcheckinbrick.eventbrite.com">aehcheckinbrick.eventbrite.com</a>
3/05/19	Warwick RI	<a href="http://aehcheckinmsupply.eventbrite.com">aehcheckinmsupply.eventbrite.com</a>
3/13/19	Fall River MA	<a href="http://aehcheckinriver.eventbrite.com">aehcheckinriver.eventbrite.com</a>
3/20/19	Greenville RI	<a href="http://aehcheckinmfad.eventbrite.com">aehcheckinmfad.eventbrite.com</a>
4/25/19	Cranston RI	<a href="http://aehcheckinranston.eventbrite.com">aehcheckinranston.eventbrite.com</a>

For more information visit [www.nationalgrid.com](http://www.nationalgrid.com)

**Check out the benefits of HVAC Check:**

**Reimbursement.**  
Receive up to \$200 toward training and up to \$150 for tools.

**Recognition.**  
Get on our list of approved HVAC Check contractors.

**Special Offers.**  
Generous rebates for displacement of oil, propane and electric resistance heat.

**Earn Incentives.**

- \$130 for each AC and MS Check service
- Up to \$600 for duct sealing
- Up to \$250 per half ton for down sizing installations

RI Trade Ally Heating and Cooling Meeting, and HVAC Check Training Flyer

## ENERGYSTAR® Lighting and Residential Consumer Products

- ENERGYSTAR® Lighting had a solid first quarter, achieving 8,189 Annual MWh of electric savings (17% of goal) and 972 Annual kW of electric demand (14% of goal). Residential Consumer Products had a very good start to the year, achieving 1,699 Annual MWh of electric savings (43% of goal) and 342 Annual kW of electric demand (51% of goal).
- The first quarter saw very successful online sales. There were 72,180 bulbs and 4,755 tier 2 advanced power strips sold through online promotions. Offering customers the option between warm white and daylight bulb colors has helped to improve customer options.

### Home Energy Reports (HER)

- The Home Energy electric and gas programs both had solid starts to the year with the electric program achieving 5,944 annual MWh of electric savings (25% of goal) and the gas program achieving 43,533 annual MMBTU of gas

savings (38% of goal). The higher rate of savings achieved in the gas program is due to the savings achieved during winter months, where the majority of the program's savings are achieved.

- In the first quarter, the company sent the Winter Edition of the Home Energy Report (HER). This edition informed customers of efficient thermostat set points, informed customers of how they have used energy in past winters, and gave recommendations for savings. In addition to the HERs, 12,748 non-AMI high bill alerts were sent via email.
- Early forecasts show that the electric and gas Home Energy Report programs are trending to come in slightly lower than planned goal. Strategies have been developed with the Company's lead vendor to address this potential gap. Strategies include new report design features, more high bill alerts, and a refill of customers.

### **Community Initiatives**

- The RI Community Based Initiative recruited the first two municipalities of the 2019 program year during the first quarter. The towns of Westerly and Glocester both joined the initiative. National Grid marketing began creating customized materials for the towns, with on the ground promotions beginning in May of 2019.
- The towns must hit predetermined metrics. New for 2019 is a Connected Solutions demand response enrollment metric. Also, both towns have been given mini-split heat pump rebate goals.
- While the first two towns have signed on, the company is currently in the process of recruiting at least two more municipalities for 2019.

### **Code Compliance Enhancement Initiative (CCEI)**

#### **Workforce Development - Vocational Student Engagement:**

- Twenty-eight students at YouthBuild (10), NEIT (8), and CHARIHOTech (10) received training on building science and sustainable design.

#### **Reaching Across the Construction Industry**

- This quarter's activities reached engaged harder to reach stakeholders like facility managers, general contractors, HVAC contractors, and students.

#### **Relevant KPIs**

- Twelve training events that engaged 166 industry stakeholders were held during the first quarter. Nine of these events were focused on residential construction. (123 attendees) and three events were for commercial construction (43 attendees).

#### **A Challenge Becomes an Opportunity - Energy Code Update**

- After a three-year delay, Rhode Island is now poised to adopt a new code in May 2019 (and going into effect in August 2019). Efforts are underway to develop new training programs and materials to help the RI construction industry meet the increased requirements.

### **Large Commercial New Construction**

- The Large Commercial New Construction program started the year with 1,760 MWh of electric savings (10% of goal) and 2,328 Annual MMBtu of gas savings (6% of goal) and anticipates a ramp up in savings the coming quarters as the Company proactively works to build the number of projects in the pipeline.
- As of January 1, 2019, the Upstream C&I gas water heating initiative increased qualification thresholds to push the market towards more efficient gas water heating technology. The Upstream C&I HVAC initiative increased the qualification threshold for ductless heat pump units to push the market towards more efficient ductless heat pump products.

### **Large Commercial Retrofit**

- The Large Commercial Retrofit program started the year with 5,196 annual MWh of electric savings (7% of goal) and 2,433 Annual MMBtu of gas savings (2% of goal) and anticipates a ramp up in the coming quarters as the Company proactively works to build the number of projects in the pipeline.
- Several towns put the sale of street lighting on hold due to an issue of who pays for the electricity for street lighting on state owned roads. The RI Department of Transportation (DOT) plans to meet with the League of Cities & Towns to announce their payment plan.

### **Highlights of projects completed in the first quarter:**

#### **Grocery Initiative**

- Dave's Marketplace completed a major renovation of their Cumberland location, which took a year and half to complete. The renovation included an addition to the existing building (side and rear), and complete replacement of the refrigeration racks systems to include floating controls with domestic hot water heat reclaim. They added over 200 feet of low and medium temperature cases which included doors and night curtains on medium temperature cases as well as anti-sweat heater controls on low temperature doors. The project saved 166 annual MWh, and 1,157 annual MMBtu.
- ALDI built a brand-new location in Johnston, Rhode Island with several energy efficient measures installed. The most notable measures include: a new CO2 Transcritical refrigeration system and the high efficiency CES HVAC unit that utilizes waste heat from compressor racks. Other measures include: new refrigerated cases with night covers, coffin cases with lids, night covers on medium temp cases and destratification fans. ALDI also installed LEDs for its store lighting controlled by a network sensor for efficient operation. The project saved a total of 102 annual MWh and 264 annual MMBtu.

#### **Industrial Initiative**

- The Industrial Initiative started off the year with several comprehensive projects. These projects included such measures as: an energy efficient emissions control system installed at a manufacturing facility and a large pipe insulation project at a specialty materials company. To put the scale of these industrial projects into perspective, the insulation project alone saved enough gas to heat well over 100 homes for a year.

- The Industrial Initiative has also been piloting several tools to assess customer potential for National Grid's daily dispatch program.

### **Small Business Direct Install**

- The Small Business Direct Install program had a solid start to 2019, achieving 2,448 MWh of electric savings (20% of goal) and 380 MMBtu of gas savings (15% of goal).
- The towns of Westerly and Glocester have agreed to participate in the Community Initiative. National Grid is joining the Ocean Community Chamber of Commerce in Westerly as part of the effort to work with the small business community in spreading the word about Direct Install and EV charging stations.
- The vendor RISE, has identified a fairly substantial drop in incoming leads over the past several months. RISE has increased the outgoing direct mail and phone outreach and are employing more direct canvassing from the existing field staff.

### **Highlights of Projects Completed in the fourth quarter:**

- In the first quarter, RISE completed a lighting project at Dion Signs in Central Falls, leading to a better illuminated work space for sign design and fabrication, as well as a more comfortable environment for the staff. This project saved close to 50 annual MWh, equating to nearly \$7,000 of their annual energy cost.
- Also in the first quarter, RISE and the vendor World Energy installed both electric and gas saving measures at two assisted living locations run by the non-profit Scandinavian Communities. Lighting and refrigeration measures installed by World Energy are projected to save nearly 236 annual MWh (or \$33,000) per year. Gas measures installed by RISE such as pipe insulation, water saving devices, and thermostats will save approximately 180 annual MMBtus.

### **Finance**

- On bill repayment (OBR) supported a number of projects at customer locations that have Strategic Energy Management Plans (SEMPs) with National Grid. OBR also supported substantial projects at the VA Medical Center.

### **Residential ConnectedSolutions**

- The Residential Customer Demand Response program now has over 2,000 thermostats enrolled.
- To further increase subscriptions, the program is increasing email advertising from its thermostat vendors for the month of May.  
The Residential Customer Battery Demand Response program has nearly completed all the contract work with the four participating vendors.
- The Company will start actively marketing the program soon both to customers who already have batteries in their homes and new customers.

### **Commercial Connected Solutions**

- In the Commercial and Industrial Customer Targeted Dispatch Demand Response program the Company has 31 MW of capacity commitments for this summer.
- The goal in 2019 year is nearly twice what the offering achieved in the first two years of the pilot. The Company's sales teams and vendors are rising to the challenge with healthy subscriptions so far and a good sales pipeline.
- In the Commercial and Industrial Customer Daily Dispatch (aka battery) Demand Response program there are no current enrollments for this summer.
- It takes time to install and interconnect large battery systems. Although there has been a lot of interest in the program, it generally takes 16 months to interconnect a large-scale battery system. The Company is working with a few customers who may be able to participate this summer and helping other customers to be ready for the summer of 2020.

### **Commercial and Industrial Pilots, Demonstrations, and Assessments**

#### **Pilots**

##### **Zero Energy Buildings**

- There is a planning process for a seminar to educate and inform building industry and stakeholders on Zero Energy Buildings, to be held in June 2019.
- The Company had planned to have a seminar for Zero Energy Schools but due to schedule constraints with school districts availability, the seminar will be focus more generally on Zero Energy Buildings.

##### **Gas Demand Response (DR)**

- The Company received internal feedback from National Grid's sales team on customer engagement related to the Gas DR pilot. Information received will be used to restructure the Gas DR pilot to increase participation.

#### **Demonstrations**

##### **Strategic Energy Management (SEM/CEI): (Large Commercial Retrofit)**

- Seven customers and eight customer sites were signed up for SEM/CEI and the first cohort meeting was conducted with these customers.

##### **Underutilized EE Technologies on mechanical power transmission systems**

- Currently evaluating savings potential of belt drives and gear boxes through a market assessment and three customer site locations.

#### **Assessments**

##### **Window Shades: (Large Commercial New Construction)**

- Conducting a high level market assessment utilizing interviews, literature review, and modelling to determine savings potential of automated window shades in RI. Phase 1 assessment expected to be complete by the end of

May. Based on results, next steps on lab tests or implementing window shades at a customer site, to determine savings potential in a physical building with automated window shade controls, will be conducted.

### **Evaluation**

- All evaluation studies are conducted by 3<sup>rd</sup> party contractors and vetted and reviewed by the EERMC consulting team. All final evaluation executive summaries are made available on the EERMC's website.
- On-site data collection is underway at commercial facilities, with the objective of determining typical types, ages, and efficiencies of equipment used for commercial HVAC, DHW, and lighting across the state. This data will be one primary input into the Market (Technical) Potential Study that the EERMC is conducting in 2019.

### **Upcoming Events**

- May 17, the Rhode Island EE Residential Vendor Meeting between National Grid program managers, marketing, and vendors will be held in Providence.
- May 21, 2019 – National Grid is sponsoring the NEEP M&V meeting
- May 21, 2019 - Sales training for automated Portfolio Manager for RI & MA
- May 21, 2019 - Refresher training for BOC for those completing Level I for RI & MA at Save the Bay in Providence

**NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND**  
**Table 1. Summary of Electric 2019 Target and Preliminary 1st Quarter Results**

ELECTRIC PROGRAMS Sector and Program	(1) (2) (3) Demand Reduction (Annual kW)			(4) (5) (6) Energy Savings (Annual MWh)			(7) (8) (9) Customer Participation			(10) (11) (12) Expenses (\$ 000)			(13) (14) (15) Energy Savings (Lifetime MWh)			(16) (17) \$/Lifetime kWh			
	Year To		Pct Achieved	Year To		Pct Achieved	Year To		Pct Achieved	Budget	Year To		Pct Achieved	Planned	Year to		Pct Achieved	Year to Date	Planned \$/kWh
	Target	Date		Target	Date		Target	Date			Date	Date							
<b>Commercial and Industrial</b>																			
Large Commercial New Construction	1,409	209	14.8%	10,863	1,076	9.9%	84	13	16.0%	\$ 5,036.1	\$ 674.8	13.4%	170,856	16,350	9.6%	\$ 0.041	\$ 0.029		
Large Commercial Retrofit	12,558	869	6.9%	73,013	5,196	7.1%	2,610	1,127	43.2%	\$ 21,356.5	\$ 1,576.3	7.4%	873,890	57,617	6.6%	\$ 0.027	\$ 0.024		
Small Business Direct Install	1,213	316	26.1%	12,163	2,448	20.1%	617	144	23.3%	\$ 8,712.8	\$ 1,339.0	15.4%	145,953	30,099	20.6%	\$ 0.044	\$ 0.060		
Commercial ConnectedSolutions										\$ 2,024.1	\$ 66.5	3.3%							
Commercial Pilots										\$ 197.9	\$ 22.0	11.1%							
Community Based Initiatives - C&I										\$ 40.1	\$ 4.4	11.0%							
Finance Costs										\$ 5,000.0	\$ 1,250.0	25.0%							
<b>SUBTOTAL</b>	<b>15,180</b>	<b>1,394</b>	<b>9.2%</b>	<b>96,038</b>	<b>8,720</b>	<b>9.1%</b>	<b>3,311</b>	<b>1,284</b>	<b>38.8%</b>	<b>\$ 42,367.7</b>	<b>\$ 4,933.0</b>	<b>11.6%</b>	<b>1,190,669</b>	<b>104,066</b>	<b>8.7%</b>	<b>\$ 0.047</b>	<b>\$ 0.036</b>		
<b>Income Eligible Residential</b>																			
Single Family - Income Eligible Services	815	109	13.4%	3,742	577	15.4%	3,000	889	29.6%	\$ 11,694.7	\$ 1,687.7	14.4%	42,940	6,634	15.5%	\$ 0.254	\$ 0.272		
Income Eligible Multifamily	223	12	5.5%	3,219	210	6.5%	5,000	475	9.5%	\$ 3,382.9	\$ 244.1	7.2%	30,589	2,195	7.2%	\$ 0.111	\$ 0.111		
<b>SUBTOTAL</b>	<b>1,039</b>	<b>122</b>	<b>11.7%</b>	<b>6,961</b>	<b>787</b>	<b>11.3%</b>	<b>8,000</b>	<b>1,364</b>	<b>17.1%</b>	<b>\$ 15,077.6</b>	<b>\$ 1,931.8</b>	<b>12.8%</b>	<b>73,530</b>	<b>8,830</b>	<b>12.0%</b>	<b>\$ 0.219</b>	<b>\$ 0.205</b>		
<b>Non-Income Eligible Residential</b>																			
Residential New Construction	112	29	26.1%	756	203	26.9%	550	156	28.4%	\$ 858.6	\$ 143.4	16.7%	12,935	4,624	35.7%	\$ 0.031	\$ 0.066		
ENERGY STAR® HVAC	590	5	0.9%	2,710	402	14.8%	2,187	43	2.0%	\$ 2,724.0	\$ 407.8	15.0%	39,365	5,770	14.7%	\$ 0.071	\$ 0.069		
EnergyWise	1,287	229	17.8%	8,182	1,452	17.7%	10,250	2,753	26.9%	\$ 15,777.5	\$ 2,849.7	18.1%	39,100	9,498	24.3%	\$ 0.300	\$ 0.404		
EnergyWise Multifamily	283	16	5.6%	3,593	359	10.0%	4,000	675	16.9%	\$ 3,064.9	\$ 272.1	8.9%	28,707	4,087	14.2%	\$ 0.067	\$ 0.107		
ENERGY STAR® Lighting	6,681	972	14.5%	48,381	8,189	16.9%	236,810	51,751	21.9%	\$ 14,968.2	\$ 2,357.4	15.7%	256,916	48,953	19.1%	\$ 0.048	\$ 0.058		
Residential Consumer Products	668	342	51.1%	3,925	1,699	43.3%	13,359	10,734	80.3%	\$ 2,124.5	\$ 552.9	26.0%	28,812	10,758	37.3%	\$ 0.051	\$ 0.074		
Home Energy Reports	4,278	911	21.3%	24,130	5,944	24.6%	291,149	294,496	101.1%	\$ 2,641.2	\$ 633.7	24.0%	24,130	5,944	24.6%	\$ 0.107	\$ 0.109		
Residential ConnectedSolutions										\$ 283.1	\$ 3.3	1.1%							
Energy Efficiency Education Programs										\$ 40.0	\$ -	0.0%							
Residential Pilots										\$ 222.7	\$ 45.1	20.2%							
Community Based Initiatives - Residential										\$ 121.5	\$ 3.0	2.4%							
Comprehensive Marketing - Residential										\$ 556.5	\$ 16.0	2.9%							
<b>SUBTOTAL</b>	<b>13,898</b>	<b>2,504</b>	<b>18.0%</b>	<b>91,677</b>	<b>18,247</b>	<b>19.9%</b>	<b>558,305</b>	<b>360,607</b>	<b>64.6%</b>	<b>\$ 43,382.8</b>	<b>\$ 7,284.4</b>	<b>16.8%</b>	<b>429,965</b>	<b>89,635</b>	<b>20.8%</b>	<b>\$ 0.081</b>	<b>\$ 0.101</b>		
<b>Regulatory</b>																			
EERMC										\$ 783.6	\$ 1.8	0.2%							
OER										\$ 989.8	\$ -	0.0%							
<b>SUBTOTAL</b>										<b>\$ 1,773.4</b>	<b>\$ 1.8</b>	<b>0.1%</b>							
<b>TOTAL</b>	<b>30,117</b>	<b>4,019</b>	<b>13.3%</b>	<b>194,677</b>	<b>27,755</b>	<b>14.3%</b>	<b>569,615</b>	<b>363,255</b>	<b>63.8%</b>	<b>\$ 102,601.5</b>	<b>\$ 14,151.0</b>	<b>13.8%</b>	<b>1,694,164</b>	<b>202,531</b>	<b>12.0%</b>	<b>\$ 0.070</b>	<b>\$ 0.061</b>		
Municipal LED Street Lights										\$ 350.0	\$ 58.9	16.8%							
System Reliability Procurement										\$ 439.3	\$ 25.2	5.7%							

NOTES  
(1)(4)(7) Targets from Docket 4888 - Attachment 5, Table E-7 (electric)  
(3) Pct Achieved is Column (2)/ Column (1).  
(6) Pct Achieved is Column (5)/ Column (4).  
(7) Participation was planned and is reported in 'net' terms which takes into account free-ridership and spillover.  
(9) Pct Achieved is Column (8)/ Column (7).  
(10) Approved Implementation Budget from Docket 4888, Attachment 5 Table E-3 (electric).  
(11) Year To Date Expenses include Implementation expenses.  
(12) Pct Achieved is Column (11)/ Column (10).  
(14) \$/lifetime kWh = Column (11)/Column (13)  
(15) The Rhode Island Infrastructure Bank (RIIB) received a one time payment of \$5,000,000 in 2019. National Grid amortizes this payment and it is recorded quarterly as \$1,250,000.  
(16) Planned \$/lifetime MWh from Docket 4888 - Attachment 5, Table E-5 (electric) - adjusted to reflect format of quarterly report. Program Implementation Expenses/lifetime kWh.  
System Reliability Procurement targets from Docket 4888 - Attachment 5, Table E-2 (electric), not included in Expenses Total

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND  
 Table 2. Summary of Gas 2019 Target and Preliminary 1st Quarter Results

GAS PROGRAMS  Sector and Program	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	Energy Savings (MMBtu)			Customer Participation			Expenses (\$ 000)			Energy Savings (Lifetime MMBtu)			\$/Lifetime MMBtu	
	Target	Year To Date	Pct Achieved	Target	Year To Date	Pct Achieved	Budget	Year To Date	Pct Achieved	Planned	Year To Date	Pct Achieved	Year to Date	Planned
<b>Commercial and Industrial</b>														
Large Commercial New Construction	42,536	2,328	5.5%	187	2	1.0%	\$ 2,389.2	\$ 222.2	9.3%	708,462	29,798	4.2%	\$ 7.46	\$ 3.37
Large Commercial Retrofit	155,049	2,433	1.6%	70	5	7.7%	\$ 4,214.0	\$ 66.7	1.6%	1,385,654	28,152	2.0%	\$ 2.37	\$ 3.04
Small Business Direct Install	2,559	380	14.8%	65	15	22.7%	\$ 124.4	\$ 15.8	12.7%	21,163	3,697	17.5%	\$ 4.28	\$ 5.88
Commercial & Industrial Multifamily	10,829	874	8.1%	2,289	80	3.5%	\$ 918.4	\$ 79.5	8.7%	155,667	12,832	8.2%	\$ 6.20	\$ 5.90
Commercial Pilots							\$ 381.1	\$ -	0.0%					
Community Based Initiatives - C&I							\$ 13.0	\$ -	0.0%					
<b>SUBTOTAL</b>	<b>210,974</b>	<b>6,014</b>	<b>2.9%</b>	<b>2,611</b>	<b>102</b>	<b>3.9%</b>	<b>\$ 8,040.1</b>	<b>\$ 384.3</b>	<b>4.8%</b>	<b>2,270,945</b>	<b>74,479</b>	<b>3.3%</b>	<b>\$ 5.16</b>	<b>\$ 3.54</b>
<b>Income Eligible Residential</b>														
Single Family - Income Eligible Services	9,178	1,844	20.1%	820	174	21.2%	\$ 5,012.8	\$ 1,052.1	21.0%	183,560	36,878	20.1%	\$ 28.53	\$ 27.31
Income Eligible Multifamily	20,487	1,291	6.3%	3,500	336	9.6%	\$ 2,932.7	\$ 179.1	6.1%	359,611	19,364	5.4%	\$ 9.25	\$ 8.16
<b>SUBTOTAL</b>	<b>29,665</b>	<b>3,135</b>	<b>10.6%</b>	<b>4,320</b>	<b>510</b>	<b>11.8%</b>	<b>\$ 7,945.5</b>	<b>\$ 1,231.2</b>	<b>15.5%</b>	<b>543,171</b>	<b>56,242</b>	<b>10.4%</b>	<b>\$ 21.89</b>	<b>\$ 14.63</b>
<b>Non-Income Eligible Residential</b>														
EnergyWise	27,806	5,375	19.3%	2,300	881	38.3%	\$ 8,466.3	\$ 1,758.9	20.8%	668,615	126,273	18.9%	\$ 13.93	\$ 12.66
Energy Star® HVAC	27,960	8,300	29.7%	1,830	854	46.6%	\$ 2,164.9	\$ 582.5	26.9%	476,141	131,887	27.7%	\$ 4.42	\$ 4.55
EnergyWise Multifamily	16,043	3,495	21.8%	4,000	241	6.0%	\$ 1,677.5	\$ 303.2	18.1%	255,276	59,096	23.1%	\$ 5.13	\$ 6.57
Home Energy Reports	115,520	43,533	37.7%	107,414	126,882	118.1%	\$ 447.9	\$ 4.6	1.0%	115,520	43,533	37.7%	\$ 0.10	\$ 3.88
Residential New Construction	4,741	254	5.4%	313	34	10.9%	\$ 737.6	\$ 69.5	9.4%	96,976	6,354	6.6%	\$ 10.94	\$ 7.61
Comprehensive Marketing - Residential							\$ 73.7	\$ 4.4	6.0%					
Community Based Initiatives - Residential							\$ 39.0	\$ 3.1	7.9%					
<b>SUBTOTAL</b>	<b>192,069</b>	<b>60,957</b>	<b>31.7%</b>	<b>115,858</b>	<b>128,892</b>	<b>111.2%</b>	<b>\$ 13,606.8</b>	<b>\$ 2,726.2</b>	<b>20.0%</b>	<b>1,612,528</b>	<b>367,143</b>	<b>22.8%</b>	<b>\$ 7.43</b>	<b>\$ 8.44</b>
<b>Regulatory</b>														
EERMC							\$ 235.5	\$ 0.5	0.2%					
OER							\$ 304.2	\$ -	0.0%					
<b>SUBTOTAL</b>							<b>\$ 539.7</b>	<b>\$ 0.5</b>	<b>0.1%</b>					
<b>TOTAL</b>	<b>432,708</b>	<b>70,106</b>	<b>16.2%</b>	<b>122,789</b>	<b>129,504</b>	<b>105.5%</b>	<b>\$ 30,132.2</b>	<b>\$ 4,342.2</b>	<b>14.4%</b>	<b>4,426,644</b>	<b>497,864</b>	<b>11.2%</b>	<b>\$ 8.72</b>	<b>\$ 6.81</b>

NOTES  
 (1)(4) Targets from Docket 4888 - Attachment 6, Table G-7 (gas).  
 (3) Pct Achieved is Column (2)/ Column (1).  
 (4) Participation was planned and is reported in 'net' terms which takes into account free-ridership and spillover.  
 (6) Pct Achieved is Column (5)/ Column (4).  
 (7) Approved Implementation Budget from Docket 4755, Attachment 6 Table G-3 (gas).  
 (8) Year To Date Expenses include Implementation expenses.  
 (9) Pct Achieved is Column (8)/ Column (7).  
 (11) \$/lifetime MMBtu = Column (8)\*1000/Column (10)  
 (12) Planned \$/lifetime MMBtu from Docket 4888 - Attachment 6, Table G-5 (gas) - adjusted to reflect format of quarterly report. Program Implementation Expenses/lifetime MMBtu.

**Table 3  
National Grid  
Revolving Loan Funds**

**Large C&I Electric Revolving Loan Fund**

**Small Business Electric Revolving Loan Fund**

<u>Income Statement</u>	
(1) 2019 Funds Available	\$10,018,017
(2) 2019 Loan budget	\$10,000,000
(3) Committed	\$4,347,751
(4) Paid	\$59,870
(5) Repayments	\$1,077,278
(6) Available 03/31/19	\$6,669,657

<u>Income Statement</u>	
(1) 2019 Funds Available	\$1,919,057
(2) 2019 Loan Budget	\$3,000,000
(3) Committed	\$396,500
(4) Paid	\$667,300
(5) Repayments	\$559,657
(6) Available 03/31/19	\$2,495,857

<u>Program Impact</u>	
(7) Number of loans	4
(7b) Participants	4
(8) Savings (Net MWh)	74
(9) Lifetime Savings (Net MWh)	799
(10) Saving (Net kW)	12

<u>Program Impact</u>	
(7) Number of loans	166
(8) Savings (Net MWh)	5,196
(9) Lifetime Savings (Net MWh)	873,890
(10) Saving (Net kW)	869

**Rhode Island Public Energy Partnership (RI PEP)**

**C&I Gas Revolving Loan Fund**

<u>Income Statement</u>	
(1) 2019 Funds Available	\$66,060
(2) 2019 Loan Budget	\$0
(3) Committed	\$0
(5) Repayments	\$74,394
(6) Available 03/31/19	\$140,454

<u>Income Statement</u>	
(1) 2019 Funds Available	\$1,195,976
(2) 2019 Loan Budget	\$1,100,000
(3) Committed	\$959,494
(4) Paid	\$207,021
(5) Repayments	\$213,652
(6) Available 03/31/19	\$147,137

<u>Program Impact</u>	
(7) Number of loans	0
(7b) Participants	0
(8) Savings (Net MWh)	0
(9) Lifetime Savings (Net MWh)	0
(10) Saving (Net kW)	0

<u>Program Impact</u>	
(7) Number of loans	7
(7b) Participants	7
(8) Savings (Net MMBtu)	6,237
(9) Lifetime Savings (Net MMBtu)	50,933

Notes

- 1 Amount available as of January 1, 2019.
- 2 Budget adopted by Sales Team for 2019 operations. Budget includes projections of repayments made during 2019.
- 3 As of March 31, 2019
- 4 As of March 31, 2019
- 5 As of March 31, 2019
- 6 Fund balance as of March 31, 2019
- 7 As of March 31, 2019. Number is associated with paid loans.
- 7b Unique customer names for large business (one customer name can have multiple sub accounts as is in the case of a franchise). Customer accounts used for small business (not adjusted for net-to-gross). Number is associated with paid loans.
- 8 As of March 31, 2019. Number is associated with paid loans.
- 9 As of March 31, 2019. Number is associated with paid loans.
- 10 As of March 31, 2019. Number is associated with paid loans.

**Table 4  
National Grid  
2019 Test Metrics**

2019 Plan Goal		2019 Q1		
ASHP Units	CO2e (Net Tons CO2e)	Q1 Units	CO2e (Net Tons CO2e) <sup>1</sup>	% Goal
75	19.90	5	1.35	7%

<b>Customer Satisfaction<sup>2</sup></b>
94.7%

NOTES

<sup>1</sup>This metric is tracked using CO2e (carbon dioxide equivalents)

<sup>2</sup>The Customer Satisfaction metric is based on an average across the EnergyWise, Single Family Income Eligible Services, and Residential Consumer Products Programs. The metric is based off customer responses to the following questions: Would you recommend this service to friend or family? How satisfied are you with the energy efficiency services you received?