

March 24, 2022

**VIA ELECTRONIC MAIL**

Luly E. Massaro, Commission Clerk  
Rhode Island Public Utilities Commission  
89 Jefferson Boulevard  
Warwick, RI 02888

**RE: Docket 5076 - National Grid Electric and Gas Energy Efficiency Programs  
2021 Quarterly Reports – Third and Fourth Quarters**

Dear Ms. Massaro:

Enclosed please find an electronic copy of National Grid's<sup>1</sup> quarterly report for the third and fourth quarters of 2021 in the above-referenced docket.<sup>2</sup> These reports include the quarterly results for the Company's natural gas and electric energy efficiency programs and a summary of each program's progress. The Company has provided copies of this report to the parties in this docket.

Thank you for your attention to this matter. If you have any questions, please contact me at 401-784-7263.

Sincerely,



Andrew S. Marcaccio

Enclosures

cc: Docket 5076 Service List  
Jon Hagopian, Esq.  
John Bell, Division

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<sup>1</sup> The Narragansett Electric Company d/b/a National Grid (National Grid or the Company).

<sup>2</sup> Per practice during the COVID-19 emergency period, the Company is providing a PDF version this report. The Company will provide the Commission Clerk with five (5) hard copies and, if needed, additional hard copies of this report upon request.

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.

\_\_\_\_\_  
Joanne M. Scanlon

March 24, 2022

Date

**Docket No. 5189 - National Grid – 2022 Annual Energy Efficiency Program  
Service list updated 11/29/2021**

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# Rhode Island Energy Efficiency

Fourth Quarter 2021 | National Grid

February 8, 2022

## Overview

National Grid's energy efficiency programs continued to deliver energy savings for Rhode Island customers by achieving 1,031,963 net lifetime MWh of electric savings (80.0% of the net lifetime goal) and 3,429,128 net lifetime MMBtu of natural gas savings (84.2% of the net lifetime goal) while continuing to address the challenges faced due to the COVID-19 pandemic.

Community Initiatives: The Company continued its partnership with Quonset Development Corporation (QDC) under a three-year memorandum of understanding to provide EE services to businesses at the Quonset industrial park. In 2021, QDC achieved 215% of its electric savings target for the year, with projects totaling 7.5 million kWh of savings initiated in 2021 vs a 3.5 million kWh target. Roughly \$1.8 million in incentives was approved to fund these energy efficiency projects, plus associated technical assistance and education.

Strategic Energy Management Plan (SEMP) Initiative: The Office of Energy Resources and the Rhode Island Department of Education have announced the School LED Lighting Accelerator Program, which will provide up to 100% of the project costs for LED lighting transformations projects for qualifying schools. The program is funded via Regional Greenhouse Gas Initiative (RGGI) proceeds, and the Company's existing energy efficiency incentives. The Company will also provide lighting audits, RFP assistance, and additional technical support for all of the schools in West Warwick, Woonsocket, and Pawtucket. As of the end of 2021, the Company has installed LED lighting and controls in over 200 Rhode Island schools.

## 2021 Program & Initiative Updates – Q4

### Residential New Construction (RNC)

The Residential New Construction (RNC) program achieved 14,677 net lifetime MWh of electric savings (81.1% of the lifetime goal) and 31,532 net lifetime MMBtu of gas savings (37.0% of the lifetime goal) through the fourth quarter of 2021.

The program completed 113 housing units this quarter and enrolled 59 more customer residences in the program. Of the 113 customer residences completed, 60 (53%) used electric heat and 21 (19%) had gas heat. One hundred five (93%) of completed residences were new construction/gut

rehab while eight (7%) were renovations/rehab. One unit was certified as meeting U.S. DOE's Zero Energy Ready Home standard and 51 units met Passive House standards and are pursuing official certification. Sixty-two income eligible housing units were built to RNC Program Standards.

### **Challenges and Responses**

Pricing for certain materials (including lumber) continue to increase due to COVID-19, and there have been shortages of equipment such as heating systems and windows. While these factors have delayed construction schedules, the high demand for housing means these delays should be temporary and should not cause long term issues.

With the increase in all electric new construction homes being built in Rhode Island, it remains a challenge to achieve the RNC Gas participation and savings goals.

### **Customer Highlight**

Completed two, 24-unit Passive House affordable apartment buildings in East Greenwich. Remaining two buildings, also twenty-four units each, to be completed in 2022. The project brings affordable housing units to a municipality with few affordable homes. This is RI's first Passive House multifamily building.



### **Income Eligible Services (IES)**

The National Grid Income Eligible Services program achieved 21,500 net lifetime MWh of electric savings (58.3% of the lifetime goal) and 132,704 net lifetime MMBtu of gas savings (66.0% of the lifetime goal) through the fourth quarter of 2021.

The fourth quarter IES Best Practice meeting was held virtually on November 10. This meeting focused on safety, 2021 program delivery updates, COVID-19 updates, and the Third-Party Referral Program, including enhanced referrals and a marketing update.

The key performance indicator (KPI) process was continued in the fourth quarter to improve communications between CAPs and the lead agency. KPI meetings were held with each CAP, the Company's lead vendor and at least one Rhode Island Department of Human Services (DHS) representative. These meetings ensure that the CAPs are aware of their KPI goals, they are on pace to meet the goals and provide a dedicated time for constructive dialog.

Two CAP Executive Director Meetings was held in the fourth quarter on October 6<sup>th</sup> and 11<sup>th</sup>. These meetings included most CAP Executive Directors, National Grid, and the lead vendor. The meeting focused on performance, challenges/opportunities, customer communications, sharing of consistent information across all CAPs and opportunity for open discussion. The fourth quarter discussions reviewed recommended IES infrastructure changes to ensure successful outcomes for our customers in 2022.

### **Challenges and Responses**

Staffing at some of the CAPs continues to be a challenge to IES Program implementation. National Grid IES is implementing several approaches to reduce the impact of these barriers:

- Contracting for additional auditors providing freelance audit services to the agencies.
- Rhode Island Builders Association Auditor & Installer program and RWCP (Residential Construction Weatherization Program) were developed in the first quarter and refined in the second and third quarters. Training began at a newly constructed training center in Coventry, RI in the fourth quarter. The goal of the RWCP is to provide equity-based training & certification to local unemployed or underemployed people, providing skills to participate in all facets of the green energy economy. The Rhode Island Builders Association, Comprehensive CAP, TriCounty CAP, along with CLEAResult, are leading this effort. An additional cohort is scheduled for 2022.

Agency Audit Staffing:

- Blackstone Valley Community Action Agency – 4 Auditors
- CAP of Providence – 2 Auditors
- Comprehensive Community Action Agency – 5 Auditors
- East Bay Community Action Agency – 4 Auditors
- TriCounty Community Action Agency – 9 Auditors
- Westbay Community Action Agency – 7 Auditors
- Contract Auditors – 3 Auditors

### **Customer Highlight**

"I am very grateful for the young man they sent here. He was absolutely perfect and caring. Thank you so much."

Meghan from Westerly

## **EnergyWise Single Family**

The EnergyWise Single Family program achieved 20,494 net lifetime MWh of electric savings (142.5% of the lifetime goal) and 786,836 net lifetime MMBtu of gas savings (165.1% of the lifetime goal) through the fourth quarter of 2021.

EnergyWise had strong performance through Q4 and exceed both the gas and electric goals. Fifteen customers were served on Prudence Island during the fourth quarter. Design of the Regional Greenhouse Gas Initiative Moderate Income offering began in conjunction with the Rhode Island Office of Energy Resources.

### **Challenges and Responses**

Pricing on materials and labor continue to increase. Independent Insulation Contractors have expressed a need to revisit pricing due to upward pressure on materials and more favorable pricing in Massachusetts. This topic was discussed at January 2022 Contractor meeting.

### **Customer Highlights**

The average customer overall satisfaction ratings for the fourth quarter are:

- 8.85 out of 10 for in-person home energy assessments
- 9 out of 10 for virtual home energy assessments
- 9.2 out of 10 for weatherization

Customer feedback themes from weatherization contractors included:

- Appreciation of the contractor professionalism
- Noticing a difference in home with the weatherization
- Long timeframe for work was noted
- Impressed with teams finding solutions with pre-existing problems

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

The EnergyWise Multifamily program achieved 10,294 net lifetime MWh of electric savings (63.1% of the lifetime goal) and 148,623 net lifetime MMBtu of gas savings (100.0% of the lifetime goal) through the fourth quarter of 2021. The Income Eligible Multifamily program achieved 23,636 net lifetime MWh of electric savings (104.8% of the lifetime goal) and 186,932 net lifetime MMBtu of gas savings (59.2% of lifetime goal) through the fourth quarter of 2021. The C&I Multifamily program achieved 57,807 net lifetime MMBtu of gas savings (40.7% of the lifetime goal) in the fourth quarter.

## Customer Highlights

### West Warwick Housing Authority

Completed two 24 kW CHP installations for Warwick Housing Authority. Warwick Housing Authority is one of several Income Eligible Multifamily customers to install a micro-CHP system in 2021.

Photos below are of the system installed at a property in Warwick, RI.



This unit is projected to save 148 gross annual MWh.

### Customer Feedback:

*“We have successfully worked with RISE on several energy saving projects, most recently the installation of a micro CHP. We are pleased with the liaison and more importantly-the savings.”* - Stephen O’Rourke, Director of the West Warwick Housing Authority

## Challenges and Responses

Many projects that were expected to be completed in fourth quarter were delayed and pushed to the 2022 pipeline. The primary cause of project delays has been material shortages. Many exterior LED fixture installations and Heat Pump installations had to be postponed to the first quarter of 2022.

There were also several installations that had to be postponed due to the pandemic. Some properties expressed concerns about having crews onsite as COVID cases began to rise in the state and many properties are facing

shortages in their maintenance staff, who are generally required to be onsite for the duration of installations.

The Lead Vendor continues to follow up with customers and contractors regularly to keep projects moving forward and they are completing all other aspects of a project while awaiting necessary materials.

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

The ENERGYSTAR® HVAC (Heating and Cooling) program achieved 76,687 net lifetime MWh of electric savings (149.5% of the lifetime annual goal) and 514,514 net lifetime MMBtu of gas savings (77.1% of the lifetime goal) during the fourth quarter of 2021.

Two remote half-day HVAC Check trainings were held during the fourth quarter to provide both refresher courses and new trainings.

HVAC Check testing must be done in warm weather, so the volume of HVAC Check tests completed in Q4 decreased. Follow up with outstanding testing results spurred an additional 143 tests to be processed. One hundred sixty-nine onsite Quality Control (QC) inspections were performed on recently installed heat pumps.

The Enhanced Heat Pump Rebates for Residential Oil or Propane Heating Customers which launched on March 1st and is offered through a partnership between National Grid and the Rhode Island Office of Energy Resources, saw steady activity in the fourth quarter. Eighty customers were served, 86 systems were installed, and 30 loans were processed.

There are currently 74 Rhode Island HVAC program-approved contractors that have participated in the HVAC Check or MS Check training and testing process. In Q4 the HVAC team followed up with all program contractors to ensure that the required training and testing had been done to be listed on the updated Approved Contractor list that is posted on National Grid's website. To be eligible for Enhanced Rebates customers must select an Approved Contractor so the program team actively engaged with contractors to ensure they met and continue to meet the requirements for being listed.

### **Challenges and Responses**

Due to high participation levels, the Program has placed a pause on accepting new customer applications for the Enhanced Heat Pump Rebates for Residential Oil and Propane Heating Customers. This was done to ensure that the supplementary funds provided by OER would adequately cover all customers currently in the pipeline.

The intent is to relaunch the Enhanced Rebate offering in the spring of 2022. Fortunately, this pause coincides with the seasonal decrease in sales as

contractors pivot to winter service support, so there was no notable adverse reaction from participating contractors. It did create an urgency push by contractors and customers to complete jobs before the end of the calendar year which resulted in a strong fourth quarter in 2021.

## Contractor Highlights

“Almost all the installations I’ve done since becoming an Approved Contractor have been either an electric heat, propane or oil displacement installation” - Frank DeCaro, DV Mechanical, Westerly RI

“When my dad passed in 1992 (I was 23) we were just a discount oil company. No service. Service started in the mid-90's... then heating installations (all oil boilers and furnaces at first). HVAC followed a decade later with our first hybrid heat pump systems going in during the 2014-2015 season. Now we are installing heat pump systems that can take care of (up to) 100% of a residential heating requirement. 2022 will be 30 years in this field for me, and I think by 2030 fossil fuel will be a backup fuel (at best) for the Northeast as heat pumps get better and better. Hopefully we have the electricity available to take care of this and all the electric vans my guys will be driving around in... :-) Thank you for helping us to evolve more quickly and with structure.’ - Jim Lathrop, Owner, Best Energy

## Community Support & Workforce Development

In October the Heating & Cooling Program team donated HVAC equipment to HVAC & Plumbing students at Providence Career & Technical Academy. Equipment included digital gauges, duct thermometers, refrigerant scales, flaring tools, torque wrenches and digital multimeters.



**ENERGYSTAR® Lighting and Residential Consumer Products**

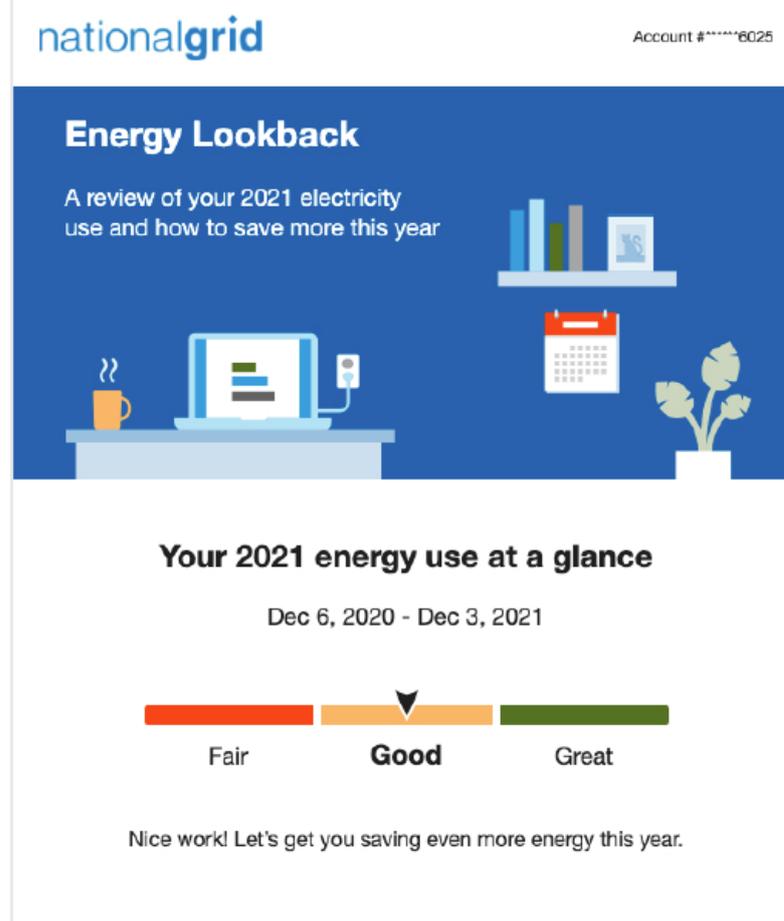
The ENERGYSTAR® Lighting program achieved 26,542 net lifetime MWh of electric savings (99.0% of the lifetime goal) and the Residential Consumer Products program achieved 35,285 net lifetime MWh of electric savings (92.5% of the lifetime goal) during the fourth quarter of 2021.

2021 is the final year of the ENERGY STAR® lighting program. All in store incentives concluded on September 30<sup>th</sup> to allow for adequate time for final invoicing.

The Consumer Products program had strong performance with dehumidifiers, pool pumps, and room air cleaners in the fourth quarter.

**Home Energy Reports (HER)**

Home Energy Reports presented customers a year end summary of energy use in the fourth quarter.



## How your energy use compares to others over the last 11 months



- **Efficient homes:** 1,872 kWh
- **You:** 3,780 kWh
- **Similar homes:** 4,015 kWh

Efficient homes represent the 20% of similar homes in your comparison group that used the least energy this period. To create this group, we use your home profile to look for 100 units in multi-family buildings in your area with a similar **heating source** and **square footage**.

Need to update your home profile?  
[Go to the Home Energy Survey.](#)

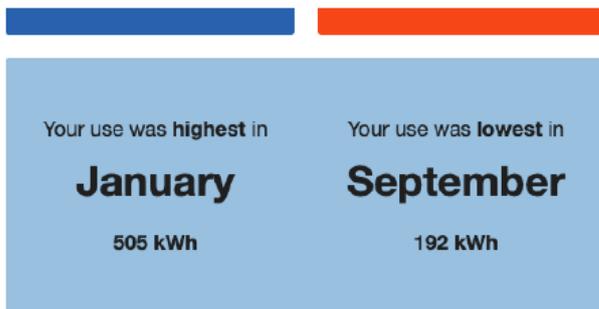
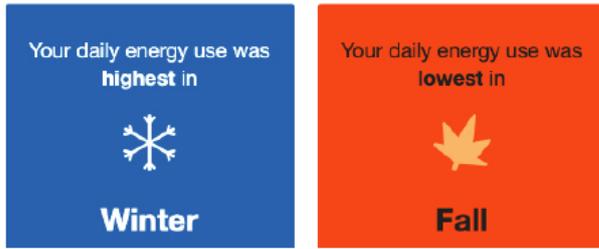
Your energy use was **higher** than efficient homes by

# 102%

You used less energy than similar homes



How you used energy across the year



## Prepare for a year of energy savings

Start the new year off right—try these tips



### Take an online home energy survey

It can be difficult to know how to make the biggest impact on your energy bills. [By answering a few questions](#) about your home, you can learn about your energy use and view the most relevant tips for you.



### Turn off lights when you leave the room

Help cut electricity costs by turning off lights when they're not needed, and make it a habit every time you leave a room. To help you remember, try leaving eye-catching reminders next to light switches and doorways.

[Find more ways to save](#)

## Making a difference together—you and your community

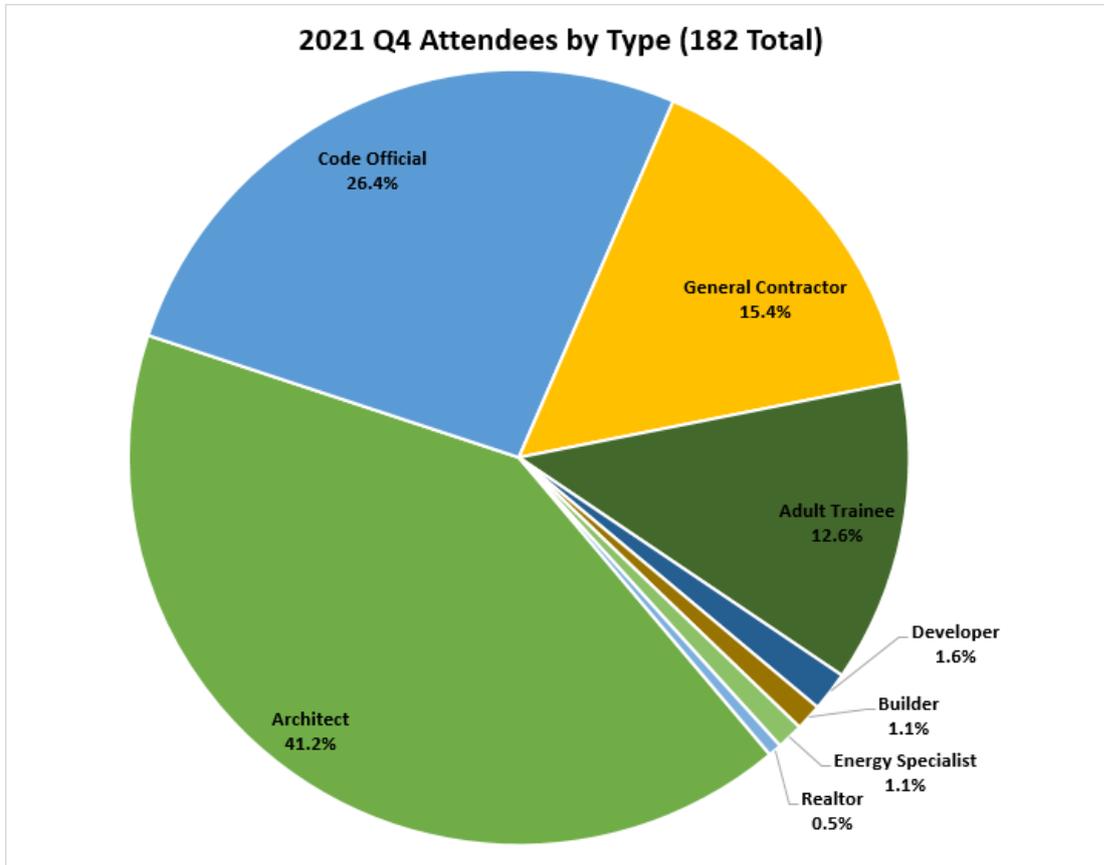


By taking steps to reduce energy consumption, you and other Home Energy Report recipients saved more than 35 million units of energy over the last 12 months. That's equivalent to the CO<sub>2</sub> emissions of 2.7 million gallons of gasoline!

[Learn more](#)

## Code Compliance Enhancement Initiative (CCEI)

The Company sponsored eleven CCEI training events engaging 182 industry participants during this quarter. This included eight trainings focused on residential construction with 127 attendees and three commercial trainings with 55 attendees.



*Q4 Training Participants – Attendees by Type*

The Company has developed a new 15-week pre-apprentice training course for those seeking careers in residential construction. This is being offered through the Residential Construction Workforce Partnership. It will incorporate information on National Grid’s Income Eligible services, HVAC program, and Codes and Standards training, as well as CLEAResult’s Building Performance Institute Training & Certification.

The Company and its vendor continued to partner with several organizations to sponsor and promote trainings in Q4. Organizations include Rhode Island Builders Association (RIBA), Rhode Island Building Officials Association (RIBOA), and AIA-Rhode Island. Topics included:

- Weatherization, Insulation, and Building Science (RIBA)
- Zero Energy Homes (RIBA)
- Insulation and Wallboard (RIBA)

- Heat Pumps (RIBOA)
- Brown University Virtual Tour (AIA-RI)
- Small Homes Overview and Tour (AIA-RI)
- Commercial Zero-Energy Buildings and RI Stretch Code (AIA-RI)

These trainings are approved for RI Contractor Registration and Licensing Board continuing education units.

Finally, the team continued Submission of articles to RIBA's monthly magazine.

### **Challenges and Responses**

New Code Adoption: The RI Building Code Commission officially approved a new energy code during Q4, and the Legislature adopted this code. The new code is based upon 2018 IECC and goes into effect on 2/1/2022. The code still contains several weakening amendments. National Grid, CCEI, and other stakeholders will work on continuing to remove these amendments and will submit proposals for strengthening amendments in future codes that result in energy savings for RI residents. Now that this code has been adopted, review of 2021 IECC will begin, along with development of a stretch code.

COVID-19: All trainings are currently being delivered virtually. All in-person trainings were postponed or shifted to a virtual format.

### **Large Commercial New Construction**

The Large Commercial New Construction program achieved 203,779 net lifetime MWh of electric savings (107.6% of goal) and 699,081 net lifetime MMBtu of gas savings (159.8% of goal) through the fourth quarter of 2021.

There are 29 active projects, and several were completed in Q4. A Zero Net Energy (ZNE) multifamily project meets the initiative's established EUI target, and program staff expect the building will qualify it for the ZNE program.

In Q4, two additional schools undergoing major renovation in the City of Providence have been engaged, and the study process is underway to support these projects. In addition, there is one proposed new school building in Providence that is considering the ZNE program pathway.

In Q4, the State of Rhode Island voted to adopt a new building energy code (see above). The code takes effect Feb 1, 2022. The Company is updating the program savings calculations to account for any resulting baseline changes.

*Cross-Pollination with Communities Initiative*: Quonset Industrial Park, owned by QDC, is seeing significant new development. Three buildings in the Park are pre-approved for participation in the New Construction program, having

completed the study phase of the program. The effort to connect the building community with NGRID has been highly successful. Early engagement in the building design process has opened the opportunity to influence the design team to adopt high-efficiency practices.

### **Challenges and Responses**

Large new construction projects often require several years to engage and influence. COVID-related financial and supply chain disruptions extend the already lengthy construction timeline for these projects, which further increases the amount of engagement needed over the project lifetime.

Potential participants have expressed concerns about the Company's long-term commitment to the programs with the announcement of the PPL merger. The Company continues to communicate that energy efficiency programs are expected to proceed as normal, which has generally alleviated this concern.

### **Large Commercial Retrofit**

The Large Commercial Retrofit program achieved 450,961 net lifetime MWh of electric savings (60.6% of goal) and 718,401 net lifetime MMBtu of gas savings (49.3% of goal) through the fourth quarter of 2021.

*Industrial Initiative:* Earlier in 2021, a manufacturer participating in the Industrial Initiative completed a multi-year effort to construct a new process line. The project included installation of a 2,200-ton chilled water plant with free cooling. With assistance from the Industrial Initiative, the customer installed a process measure that will reduce energy consumption by 1,047,219 kWh of gross annual savings and demand by 131 kW – a 55% reduction in energy use from the system. This was achieved by reducing the pressure for the majority of the water in the chilled water loop (only the internal skid loop, which represented 12% of the water demand, needed to be high pressure). To accomplish this, the customer installed a 50 HP booster pump to help pressurize the internal skid loop, eliminating the need for high pressure in the remainder of the loop, and in turn dramatically reducing consumption from the 250 HP pumps used in the system.

*Telecommunications Initiative:* The vendor also developed marketing materials to educate customers about common measures (primarily HVAC) and associated incentives. The Company also worked with the vendor to clarify program processes and lay the groundwork for success in 2022.

*Strategic Energy Management Plan (SEMP) Initiative:* The Office of Energy Resources and the Rhode Island Department of Education have announced the School LED Lighting Accelerator Program, which will provide up to 100% of the project costs for LED lighting transformations projects for qualifying schools. The program is funded via Regional Greenhouse Gas Initiative (RGGI) proceeds, and the Company's existing energy efficiency incentives. The Company will also provide lighting audits, RFP assistance, and additional

technical support for all of the schools in West Warwick, Woonsocket, and Pawtucket. As of the end of 2021, the Company has installed LED lighting and controls in over 200 Rhode Island schools.

*EnergySmart Grocer Initiative:* A regional grocery chain opened a new location in Johnston. This store installed a wide range of energy-efficient measures including night covers, destratification fans, VFDs, heat reclaim, lighting, and kitchen equipment. These measures are predicted to save 690 gross annual MWh and 2,300 gross annual MMBtu.



A local supermarket in Pawtucket participated in the Company's Performance Lighting offering as well as installing night covers. These measures are predicted to save 50 gross annual MWh and 84 gross annual MMBtu.



## Challenges and Responses

Many projects have been impacted by supply chain disruptions, increasing parts and labor prices, and COVID-19. Some sectors, such as restaurants and offices, continue to experience financial hardship related to COVID-19, making customers reluctant to invest in energy efficiency – especially measures with longer payback periods.

The Company’s EnergySmart Grocer vendor made the following statement: “Customers and contractors have expressed difficulty in obtaining materials. Supplies are in high demand and delays with shipping have pushed projects out from original completion dates. Additionally, install schedules are being impacted by employee absences due to Covid-19.”

## Small Business Direct Install

The Small Business Direct Install program achieved 118,133 net lifetime MWh of electric savings (112.4% of goal) and 64,537 lifetime MMBtu of gas savings (132.1% of goal) through the fourth quarter of 2021.

## Enhanced reporting

The Company will be reporting the number of weatherization projects and the number of LED retrofit kits and luminaires with controls in 2021 to show National Grid’s progress in these priority areas.

There were four weatherization projects in Q4 2021.

The table below shows the numbers of luminaires and retrofit kits with controls for Q3 compared to previous quarters and 2020.

# Luminaires			# Luminaires with controls		
All 2020	13,032		All 2020	149	
Q1 2021	3,425		Q1 2021	25	
Q2 2021	2,537		Q2 2021	94	
Q3 2021	1,735		Q3 2021	29	
Q4 2021	5,107		Q4 2021	98	

# Retrofit kits			# Retrofit kits with controls		
All 2020	17,260		All 2020	450	
Q1 2021	4,372		Q1 2021	125	
Q2 2021	2,357		Q2 2021	118	
Q3 2021	2,154		Q3 2021	95	
Q4 2021	7,049		Q4 2021	570	

## Equity Notes

Our vendor has a landing page specifically for the Women and Minority Small Business efforts - <https://info.riseengineering.com/smbd>

They have added a Spanish version - <https://info.riseengineering.com/smbds>

Women in Hospitality (RIHA) Event 10/7 – Shared Small Business program and secured an audit with Woman-Owned Apponog Brewery for refrigeration controls.

Hispanic Chamber of Commerce - Cafe Con Leche & Business Expo December 3rd – RISE sponsored the event and had a booth in the expo center. We provided English and Spanish flyers with information on the Small Business National Grid program.

RI Black Business Association (RIIBA) – October 26th. Kevin Matta (Thielsch Diversity & Inclusion Manager) and Krystal Potenza (RISE Marketing Manager) presented at the monthly general membership meeting on our commitment to diversity, equity, and inclusion and how the small business program works. Also presenting was Lt Governor, Sabina Matos.

### **Customer Highlights**

Mr. William Gasbarro owns two commercial buildings in Rhode Island rented to various doctors' offices and medical facilities. Both locations received new LED fixtures, digital thermostats and aerators. Tenants expressed how pleased they were with the three installers' work ethic, and professionalism. Mr. Gasbarro shared the feedback with RISE, "Each of your installers went about his job with no confusion or disruption to any of our tenants or their patients. At the end of each day, the building was clean, presentable, uncluttered, and ready for the process to begin again on the next day. All your personnel are a real tribute to your company and they are what gives RISE it's stellar reputation and approval rating."

The two buildings are projected to save 71 gross annual MWh and 16 gross annual MMBtus in gas.

The Providence branch of Boys & Girls Club of America is a non-profit that provides safe and inclusive environments for youth and teens. In Q4, this facility was retrofitted with new LED fixtures and domestic hot water controls at zero cost to the organization. This retrofit is projected to save 52.7 gross annual MWh and 195 gross annual MMBtus in gas.

### **Evaluation, Measurement, and Verification**

The following studies were completed in the fourth quarter of 2021:

*Rhode Island Appliance Recycling* report estimated the gross and net energy savings achieved by the program in 2019 and 2020. The study also explored optimal incentive levels and the importance of incentives relative to other program benefits. While the incentive proved to be the most important program driver for participants, nearly one-half of respondents would have

participated without one. The study recommends updating gross and net savings, continuing to offer a \$50 incentive, holding higher incentive promotions, and exploring scenarios without an incentive.

*Impact Evaluation of PY2019 Custom Gas Installations in Rhode Island*, by DNV, quantified natural gas savings for custom gas projects completed during the 2019 program year (PY) and calculated a three-year rolling realization rate of 87%. Savings were quantified through site-specific inspections, end-use monitoring, and analysis. Site-specific results were aggregated to determine realization rates for National Grid's custom gas installations in RI. The study also recommended improved documentation for specific types of custom projects.

## **Community Initiatives**

**Community Initiatives:** The Company continued its partnership with Quonset Development Corporation (QDC) under a three-year memorandum of understanding to provide EE services to businesses at the Quonset industrial park. In 2021, QDC achieved 215% of its electric savings target for the year, with projects totaling 7.5 million kWh of savings initiated in 2021 vs a 3.5 million kWh target. Roughly \$1.8 million in incentives was approved to fund these energy efficiency projects, plus associated technical assistance and education. In the fourth quarter, the Company also collaborated with QDC to develop a case study flyer for customers located at the Quonset business park (see image below).



## **Connected Solutions**

This summer (including June through September) the Company called:

- 6 C&I Targeted Dispatch events,
- 28 C&I Daily Dispatch events,
- 12 thermostat events, and
- 28 battery events.

The load reduction caused by these events is still being calculated.

There are currently:

- 25 gross MW worth of capacity commitments in C&I Targeted Dispatch
- 13 gross MW worth of capacity commitments in the C&I Daily Dispatch
- 5,949 customers registered for the thermostat measure
- 287 customers registered for the battery measure
- 897 customers registered for the solar inverter power quality demonstration, which will be enough for the evaluation.

Initial results from the solar inverter power quality demonstration appear promising, with the evaluation concluding in 2022.

## Rhode Island Pilots, Demonstrations and Assessments

PDA Name	Q4 2021 Updates	
<b><u>New Air Sealing &amp; Insulation - Demonstration - Resi</u></b>	Date	1/13/2022
	Stage	Develop or Demonstrate
	Recent Activity	Briefed sector team and implementation contacts, developed copy for vendors to recruit customers in Q1 2022 to Q2 2022.
	Next steps	Re-engage with manufacturers following product backlog, identify customer sites.
<b><u>Solar Inverter DLC - Demonstration - Resi</u></b>	Date	1/25/2022
	Stage	Develop or Demonstrate
	Recent Activity	Data on the new solar inverters settings has been collected for several months, and this data has been sent to the 3rd party EM&V vendor. The vendor is now calculating the savings related to this demonstration.
	Next steps	The evaluations vendor is calculating savings from this effort based on the solar inverter and substation data.
<b><u>Pre-Fab Energy Retrofit - Assessment - Resi</u></b>	Date	1/11/2022
	Stage	Develop or Demonstrate
	Recent Activity	Compiled draft report with preliminary conclusions for RI.
	Next steps	Finalize conclusions and report.
<b><u>Gas HPs - Demonstration - Resi</u></b>	Date	1/13/2022
	Stage	Develop or Demonstrate
	Recent Activity	Limited product availability from other residential gas heat pump manufacturers. Possibility of continuing with limited installations, though cost-effectiveness is still questionable. Recommended partial pivot to evaluate gas heat pump water heater manufacturers; similar limited product availability but greater possibility for cost-effectiveness given absence of cooling penalties.
	Next steps	Continue outreach with residential gas heat pump manufacturers including identifying commercially available gas heat pump water heaters.
<b><u>HVAC Lighting Controls Plus - Demonstration - C&amp;I</u></b>	Date	1/11/2022
	Stage	Develop or Demonstrate
	Recent Activity	Initial site visit for one of two promising sites to understand project and collect initial site data. Continued discussion with other customer lead. Final outreach to RI vendors for project leads. Decided to conclude recruitment at the end of January 2022 to allow for last responses after the holiday.
	Next steps	Obtain customer commitments on leads and/or conclude recruitment efforts.

<b><u>Kitchen Exhaust - Demonstration - C&amp;I</u></b>	Date	1/11/2022
	Stage	Referred
	Recent Activity	No updates, demonstration has concluded.
	Next steps	N/A
<b><u>Enzyme-based HVAC Coil Cleaning - Demonstration - C&amp;I</u></b>	Date	1/13/2022
	Stage	Referred
	Recent Activity	Final analysis shows no statistically significant savings; constant volume systems do not achieve savings from coil cleaning, and the particular systems with variable volume were undersized due to high ventilation requirements and therefore didn't achieve savings. Coil cleaning savings will vary significantly based on the site, and are not a good fit for prescriptive incentives, should be referred to custom program.
	Next steps	Referring product to custom programs.
<b><u>Refrigeration Leak Survey &amp; Repair - Assessment - C&amp;I</u></b>	Date	1/11/2022
	Stage	Develop or Demonstrate
	Recent Activity	Customer recruitment discussions with chain and independent grocery locations. M&V timeline has been delayed due to customer recruitment delays around the holidays.
	Next steps	Finalize location and timeline for M&V activity
<b><u>Gas DR - Pilot - C&amp;I</u></b>	Date	1/21/2022
	Stage	Develop or Demonstrate
	Recent Activity	Customer recruitment for 2021-22 season. Operational season had begun, and Gas DR events have been called during called weather periods.
	Next steps	Continue monitoring weather and calling DR as needed.
<b><u>Gas HPs - Demonstration - C&amp;I</u></b>	Date	1/13/2022
	Stage	Referral
	Recent Activity	Commercial gas heat pumps prices and performance screened and found to be generally not cost-effective, only likely cost-effective in certain industrial process heating and cooling contexts.
	Next steps	Recommending close to demonstration and continuing research on residential gas heat pump products.
<b><u>HVAC Automation for DR - Assessment - C&amp;I</u></b>	Date	1/13/2022
	Stage	Referral
	Recent Activity	Findings summarized in memo, assessment concluded.
	Next steps	N/A
	Date	1/11/2022

<b><u>Shared Laundry Facilities - Assessment - MF</u></b>	Stage	Develop or Demonstrate
	Recent Activity	Energy savings and costs estimates finalized. Product reviewed with internal EM&V and program managers for inclusion in 2022 programs.
	Next steps	Provide program managers and EM&V with all measure details required for incentive development and tracking.
<b><u>SEM/CEI - Demonstration - C&amp;I</u></b>	Date	1/21/2022
	Stage	Demonstration
	Recent Activity	Three of the seven customers in the Rhode Island SEM Cohort claimed electric savings in the 4Q of 2021. The energy conservation measure ranged from the removal of office space heaters, to shutting off vacuum pumps during the weekends. In total, the savings amounted to a gross reduction of 779,679 kWh.
	Next steps	The Company will look to claim gas savings in March of 2022.
<b><u>Submetering to Support EE - Assessment - C&amp;I</u></b>	Date	1/11/2022
	Stage	Qualify
	Recent Activity	Project has been handed off to RI team. RI in discussion with vendors to scope, develop, and launch the MBCx offering in 2022.
	Next steps	Finalize program details and launch.
<b><u>Smart Valves for Chilled Water Systems - Demonstration - C&amp;I</u></b>	Date	1/11/2022
	Stage	Develop or Demonstrate
	Recent Activity	Technical issues with existing customer have been addressed and are being verified. Actively pursuing two additional leads for participation in the project.
	Next steps	Complete customer recruitment.

**NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND**  
**Table 1: Summary of Electric 2021 Target and Preliminary 4th Quarter Results**

ELECTRIC PROGRAMS Sector and Program	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
	Demand Reduction (Annual kW)			Energy Savings (Annual MWh)			Customer Participation			Expenses (\$ 000)			Energy Savings (Lifetime MWh)			\$/Lifetime kWh	
	Year To Target	Date	Pct Achieved	Year To Target	Date	Pct Achieved	Year To Target	Date	Pct Achieved	Budget	Year To Date	Pct Achieved	Target	Year to Date	Pct Achieved	Target \$/kWh	Year to Date
<b>Commercial and Industrial</b>																	
Large Commercial New Construction	1,856	1,728	93.1%	11,837	13,527	114.3%	145	121	83.6%	\$ 8,188.2	8,291.1	101.3%	189,441	203,779	107.6%	\$ 0.043	\$ 0.041
Large Commercial Retrofit	11,648	6,199	53.2%	59,496	42,312	71.1%	2,882	3,080	106.9%	\$ 31,565.2	23,273.2	73.7%	744,562	450,961	60.6%	\$ 0.042	\$ 0.052
Small Business Direct Install	1,134	1,554	137.0%	9,696	9,616	99.2%	571	480	84.1%	\$ 8,883.6	7,483.2	84.2%	105,134	118,133	112.4%	\$ 0.084	\$ 0.063
Commercial ConnectedSolutions										\$ 2,990.1	203.2	6.8%					
Community Based Initiatives - C&I										\$ 74.5	0.0	0.0%					
Financing										\$ 5,000.0	0.0	0.0%					
<b>SUBTOTAL</b>	<b>14,638</b>	<b>9,481</b>	<b>64.8%</b>	<b>81,029</b>	<b>65,456</b>	<b>80.8%</b>	<b>3,598</b>	<b>3,681</b>	<b>102.3%</b>	<b>\$ 56,701.6</b>	<b>39,250.6</b>	<b>69.2%</b>	<b>1,039,136</b>	<b>772,873</b>	<b>74.4%</b>	<b>\$ 0.055</b>	<b>\$ 0.051</b>
<b>Income Eligible Residential</b>																	
Single Family - Income Eligible Services	457	396	86.7%	3,120	2,426	77.8%	3,412	5,362	157.1%	\$ 12,846.1	8,393.9	65.3%	36,909	21,500	58.3%	\$ 0.348	\$ 0.390
Income Eligible Multifamily	70	193	274.6%	1,554	1,767	113.7%	3,600	630	17.5%	\$ 3,549.0	3,435.3	96.8%	22,545	23,636	104.8%	\$ 0.157	\$ 0.145
<b>SUBTOTAL</b>	<b>527</b>	<b>589</b>	<b>111.7%</b>	<b>4,674</b>	<b>4,193</b>	<b>89.7%</b>	<b>7,012</b>	<b>5,992</b>	<b>85.5%</b>	<b>\$ 16,395.1</b>	<b>11,829.2</b>	<b>72.2%</b>	<b>59,454</b>	<b>45,136</b>	<b>75.9%</b>	<b>\$ 0.276</b>	<b>\$ 0.262</b>
<b>Non-Income Eligible Residential</b>																	
Residential New Construction	66	121	183.5%	979	717	73.2%	417	484	116.1%	\$ 1,611.3	1,137.8	70.6%	18,088	14,677	81.1%	\$ 0.089	\$ 0.078
ENERGY STAR® HVAC	204	273	133.5%	3,181	4,514	141.9%	5,037	8,132	161.4%	\$ 3,487.8	4,322.7	123.9%	51,309	76,687	149.5%	\$ 0.068	\$ 0.056
EnergyWise	445	731	164.4%	2,841	4,466	157.2%	11,223	14,640	130.4%	\$ 15,692.2	22,381.4	142.6%	14,385	20,494	142.5%	\$ 1.091	\$ 1.092
EnergyWise Multifamily	158	253	160.5%	1,240	1,496	120.6%	3,600	924	25.7%	\$ 2,804.3	1,335.5	47.6%	16,307	10,294	63.1%	\$ 0.172	\$ 0.130
ENERGY STAR® Lighting	1,872	2,015	107.7%	11,533	12,628	109.5%	68,164	70,210	103.0%	\$ 5,274.8	3,938.7	74.7%	26,801	26,542	99.0%	\$ 0.197	\$ 0.148
Residential Consumer Products	1,019	1,104	108.4%	5,926	5,433	91.7%	33,111	33,692	101.8%	\$ 2,681.2	2,503.6	93.4%	38,130	35,285	92.5%	\$ 0.070	\$ 0.071
Home Energy Reports	3,692	4,121	111.6%	26,852	29,975	111.6%	323,248	280,677	86.8%	\$ 2,641.7	2,374.9	89.9%	26,852	29,975	111.6%	\$ 0.098	\$ 0.079
Residential ConnectedSolutions										\$ 1,920.5	611.5	31.8%					
Energy Efficiency Education Programs										\$ 40.0	40.0	100.1%					
Community Based Initiatives - Residential										\$ 226.2	222.9	98.6%					
Comprehensive Marketing - Residential										\$ 332.7	156.0	46.9%					
<b>SUBTOTAL</b>	<b>7,455</b>	<b>8,618</b>	<b>115.6%</b>	<b>52,553</b>	<b>59,229</b>	<b>112.7%</b>	<b>444,801</b>	<b>408,759</b>	<b>91.9%</b>	<b>\$ 36,712.7</b>	<b>39,024.9</b>	<b>106.3%</b>	<b>191,872</b>	<b>213,954</b>	<b>111.5%</b>	<b>\$ 0.191</b>	<b>\$ 0.182</b>
<b>Regulatory</b>																	
EERMC										\$ 738.5	593.1	80.3%					
OER										\$ 738.5	738.5	100.0%					
<b>SUBTOTAL</b>										<b>\$ 1,477.0</b>	<b>\$ 1,331.6</b>	<b>90.2%</b>					
<b>TOTAL</b>	<b>22,621</b>	<b>18,689</b>	<b>82.6%</b>	<b>138,256</b>	<b>128,877</b>	<b>93.2%</b>	<b>455,411</b>	<b>418,432</b>	<b>91.9%</b>	<b>\$ 111,286.3</b>	<b>\$ 91,436.4</b>	<b>82.2%</b>	<b>1,290,462</b>	<b>1,031,963</b>	<b>80.0%</b>	<b>\$ 0.086</b>	<b>\$ 0.089</b>
<i>Municipal LED Street Lights</i>										485.9	79.8	16.4%					

**NOTES**

- (1)(4)(7) Targets from Docket 5076 - Attachment 5, Table E-7 (electric), Refiled December 22, 2020
- (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 5076, Attachment 5 Table E-3 (electric), Refiled December 22, 2020
- (11) Year To Date Expenses include Implementation expenses. The Company has not yet transferred the \$5,000,000 requested by RIIB on December 30, 2021. The Company is currently working with RIIB to ensure that all required documentation has been provided, and is in order, prior to completing the transfer. If a transfer of these funds is made to RIIB, this will be accounted for in the 2021 Year End Report.
- (12) Pct Achieved is Column (11)/ Column (10).
- (17) \$/lifetime kWh = Column (11)/Column (14)
- (16) Planned \$/lifetime MWh from Docket 5076 - Attachment 5, Table E-5 (electric), Refiled December 22, 2020 - adjusted to reflect format of quarterly report. Program Implementation Expenses/lifetime kWh.
- (18) (19) Year End Spending and Energy Savings forecasts are best estimates based on the information available and may change throughout the year.
- Values in quarterly reports are preliminary and subject to change. Data is finalized in the Year-End Report.

**NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND**  
**Table 2: Summary of Gas 2021 Target and Preliminary 4th Quarter Results**

GAS PROGRAMS Sector and Program	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Energy Savings (Annual MMBtu)			Customer Participation			Expenses (\$ 000)			Energy Savings (Lifetime MMBtu)			\$/Lifetime MMBtu		Peak Hour Gas Demand Savings (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	Planned	Year to Date	Year to Date
<b>Commercial and Industrial</b>															
Large Commercial New Construction	27,631	50,284	182.0%	61	47	76.8%	\$ 2,634.2	\$ 2,563.8	97.3%	437,398	699,081	159.8%	\$ 6.02	\$ 3.67	25.14
Large Commercial Retrofit	187,283	76,242	40.7%	98	66	67.5%	\$ 5,054.1	\$ 3,256.7	64.4%	1,455,776	718,401	49.3%	\$ 3.47	\$ 4.53	38.12
Small Business Direct Install	4,886	5,949	121.7%	183	106	58.0%	\$ 332.7	\$ 158.7	47.7%	48,861	64,537	132.1%	\$ 6.81	\$ 2.46	2.97
Commercial & Industrial Multifamily	9,444	3,836	40.6%	729	88	12.1%	\$ 953.2	\$ 1,566.0	164.3%	141,869	57,807	40.7%	\$ 6.72	\$ 27.09	1.92
Commercial Pilots							\$ 215.8	\$ 105.5	48.9%						
Community Based Initiatives - C&I							\$ 24.8	\$ -	0.0%						
<b>SUBTOTAL</b>	<b>229,243</b>	<b>136,310</b>	<b>59.5%</b>	<b>1,071</b>	<b>307</b>	<b>28.7%</b>	<b>\$ 9,214.8</b>	<b>\$ 7,650.7</b>	<b>83.0%</b>	<b>2,083,905</b>	<b>1,539,826</b>	<b>73.9%</b>	<b>\$ 4.42</b>	<b>\$ 4.97</b>	<b>68.15</b>
<b>Income Eligible Residential</b>															
Single Family - Income Eligible Services	10,055	6,635	66.0%	1,005	585	58.2%	\$ 5,952.3	\$ 3,956.4	66.5%	201,104	132,704	66.0%	\$ 29.60	\$ 29.81	3.32
Income Eligible Multifamily	14,399	11,104	77.1%	3,150	2,661	84.5%	\$ 3,009.4	\$ 2,758.4	91.7%	315,545	186,932	59.2%	\$ 9.54	\$ 14.76	5.55
<b>SUBTOTAL</b>	<b>24,454</b>	<b>17,739</b>	<b>72.5%</b>	<b>4,155</b>	<b>3,246</b>	<b>78.1%</b>	<b>\$ 8,961.8</b>	<b>\$ 6,715</b>	<b>74.9%</b>	<b>516,649</b>	<b>319,636</b>	<b>61.9%</b>	<b>\$ 17.35</b>	<b>\$ 21.01</b>	<b>8.87</b>
<b>Non-Income Eligible Residential</b>															
EnergyWise	20,869	34,139	163.6%	1,694	5,381	317.7%	\$ 8,117.6	\$ 16,227.2	199.9%	476,550	786,836	165.1%	\$ 17.03	\$ 20.62	17.07
Energy Star® HVAC	38,345	29,363	76.6%	4,348	3,548	81.6%	\$ 3,673.0	\$ 2,625.1	71.5%	667,485	514,514	77.1%	\$ 5.50	\$ 5.10	14.68
EnergyWise Multifamily	8,633	7,589	87.9%	4,000	420	10.5%	\$ 1,491.6	\$ 993.6	66.6%	148,675	148,623	100.0%	\$ 10.03	\$ 6.69	3.79
Home Energy Reports	93,548	88,159	94.2%	152,324	152,239	99.9%	\$ 450.9	\$ 400.3	88.8%	93,548	88,159	94.2%	\$ 4.82	\$ 4.54	44.08
Residential New Construction	4,445	1,262	28.4%	323	92	28.5%	\$ 674.8	\$ 397.6	58.9%	85,272	31,532	37.0%	\$ 7.91	\$ 12.61	0.63
Comprehensive Marketing - Residential							\$ 64.8	\$ 73.7	113.8%						
Community Based Initiatives - Residential							\$ 75.8	\$ 38.2	50.3%						
<b>SUBTOTAL</b>	<b>165,840</b>	<b>160,512</b>	<b>96.8%</b>	<b>162,689</b>	<b>161,680</b>	<b>99.4%</b>	<b>\$ 14,548.5</b>	<b>\$ 20,755.6</b>	<b>142.7%</b>	<b>1,471,530</b>	<b>1,569,666</b>	<b>106.7%</b>	<b>\$ 9.89</b>	<b>\$ 13.22</b>	<b>80.26</b>
<b>Regulatory</b>															
EERMC							\$ 275.1	\$ 220.9	80.3%						
OER							\$ 275.1	\$ 275.1	100.0%						
<b>SUBTOTAL</b>							<b>\$ 550.1</b>	<b>\$ 496.0</b>	<b>90.2%</b>						
<b>TOTAL</b>	<b>419,537</b>	<b>314,561</b>	<b>75.0%</b>	<b>167,915</b>	<b>165,233</b>	<b>98.4%</b>	<b>\$ 33,275.2</b>	<b>\$ 35,617.0</b>	<b>107.0%</b>	<b>4,072,084</b>	<b>3,429,128</b>	<b>84.2%</b>	<b>\$ 8.17</b>	<b>\$ 10.39</b>	<b>157.28</b>

**NOTES**

- (1)(4) Targets from Docket 5076 - Attachment 6, Table G-7 (gas), Refiled December 22, 2020.
- (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 5076, Attachment 6 Table G-3 (gas), Refiled December 22, 2020.
- (8) Year To Date Expenses include Implementation expenses.
- (9) Pct Achieved is Column (8)/ Column (7).
- (13) Planned \$/lifetime MMBtu from Docket 5076 - Attachment 6, Table G-5 (gas), Refiled December 22, 2020 - adjusted to reflect format of quarterly report. Program Implementation Expenses/lifetime MMBtu.
- (14) \$/lifetime MMBtu = Column (8)\*1000/Column (11)
- (15) Peak Hour Gas Demand Savings is a test metric in 2021 and represents a rough approximation of peak-hour gas demand impacts. Column(2) \*0.01 \*0.05
- (16) (17) Year End Spending and Energy Savings forecasts are best estimates based on the information available and may change throughout the year.
- Values in quarterly reports are preliminary and subject to change. Data is finalized in the Year-End Report.

**NATIONAL GRID ELECTRIC ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND**  
**Table 3: National Grid 2021 Revolving Loan Funds**

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

**Small Business Electric Revolving Loan Fund**

<u>Income Statement</u>			<u>Income Statement</u>		
(1)	2021 Funds Available	\$7,010,036	(1)	2021 Funds Available	\$3,144,530
(2)	2021 Loan budget	\$15,000,000	(2)	2021 Loan budget	\$3,000,000
(3)	Committed	\$5,806,047	(3)	Committed	\$0
(4)	Paid	\$8,913,256	(4)	Paid	\$1,042,896
(5)	Repayments	\$5,106,076	(5)	Repayments	\$1,035,904
(6)	Available 12/31/21	<u>-\$2,603,191</u>	(6)	Available 12/31/21	<u>\$3,137,538</u>
(7)	Outstanding loan volume	\$16,137,367	(7)	Outstanding loan volume	\$603,706
(8)	Loan defaults during period (\$)	\$0	(8)	Loan defaults during period (\$)	\$0
(9)	Arrears over 120 days at period end (\$)	\$18,171	(9)	Arrears over 120 days at period end (\$)	\$30,615
<u>Program Impact</u>			<u>Program Impact</u>		
(10)	Number of loans	115	(10b)	Participants	598
(10b)	Participants	58	(11)	Annual Savings (Gross MWh)	10,415
(11)	Annual Savings (Gross MWh)	14,354	(12)	Annual Savings (Net MWh)	9,616
(12)	Annual Savings (Net MWh)	10,447	(13)	Lifetime Savings (Gross MWh)	127,054
(13)	Lifetime Savings (Gross MWh)	162,080	(14)	Lifetime Savings (Net MWh)	118,133
(14)	Lifetime Savings (Net MWh)	117,531	(15)	Annual Savings (Gross kW)	1,818
(15)	Annual Savings (Gross kW)	1,836	(16)	Annual Saving (Net kW)	1,554
(16)	Annual Saving (Net kW)	1,559	(17)	Total associated incentive volume (\$)	\$6,875,040
(17)	Total associated incentive volume (\$)	\$4,590,700	(18)	Total annual estimated energy cost savings (\$)	\$1,702,113
(18)	Total annual estimated energy cost savings (\$)	\$1,849,204			

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

<u>Income Statement</u>		
(1)	2021 Funds Available	\$462,477
(2)	2021 Loan budget	\$0
(3)	Committed	\$0
(4)	Paid	\$0
(4a)	Funds Returned to OER	\$462,477
(5)	Repayments	\$46,894
(6)	Available 12/31/21	<u>\$46,895</u>
(7)	Outstanding loan volume	\$22,529
(8)	Loan defaults during period (\$)	0
(9)	Arrears over 120 days at period end (\$)	0
<u>Program Impact</u>		
(10)	Number of loans	0
(10b)	Participants	0
(11)	Annual Savings (Gross MWh)	0
(12)	Annual Savings (Net MWh)	0
(13)	Lifetime Savings (Gross MWh)	0
(14)	Lifetime Savings (Net MWh)	0
(15)	Annual Savings (Gross kW)	0
(16)	Annual Saving (Net kW)	0
(17)	Total associated incentive volume (\$)	\$0
(18)	Total annual estimated energy cost savings (\$)	\$0

Notes

- 1 Amount available as of January 1, 2021. Includes line (6) "Available 12/31/20" plus line (3) "Committed" in Table E-6 and G-6 of the 2020 Year End Report.
- 2 Budget adopted by Sales Team for 2021 operations. Budget includes projections of repayments made during 2021.
- 3 As of December 31, 2021
- 4 As of December 31, 2021. This includes all projects paid through December 31, 2021 and the OBR associated with those projects. OBR payment are processed once the associated incentive has
- 4a Funds returned to RI OER.
- 5 As of December 31, 2021
- 6 Fund balance as of December 31, 2021. Committed funds are subtracted from this amount.
- 7 Total outstanding loan balance. Loans lent out that still need to be paid back. This includes loans from previous years.
- 8 Total loan value in default during period.
- 9 Total loan value in arrears for over 120 days as of December 31, 2021.
- 10 As of December 31, 2021  
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
- 10b (not adjusted for net-to-gross).
- 11 As of December 31, 2021
- 12 As of December 31, 2021
- 13 As of December 31, 2021
- 14 As of December 31, 2021
- 15 As of December 31, 2021
- 16 As of December 31, 2021
- 17 Incentives paid out with loans.
- 18 Estimated energy cost savings to loan fund participants.

Values in quarterly reports are preliminary and subject to change. Data is finalized in the Year-End Report.

**NATIONAL GRID GAS ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND**  
**Table 4: National Grid 2021 Revolving Loan Funds**

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

<u>Income Statement</u>		
(1)	2021 Funds Available	\$1,532,113
(2)	2021 Loan budget	\$2,200,000
(3)	Committed	\$1,161,751
(4)	Paid	\$549,376
(5)	Repayments	\$443,222
(6)	<u>Available 12/31/21</u>	<u>-\$126,421</u>
(7)	Outstanding loan volume	\$1,596,990
(8)	Loan defaults during period (\$)	\$0
(9)	Arrears over 120 days at period end (\$)	\$0
 <u>Program Impact</u>		
(10)	Number of loans	13
(10b)	Participants	4
(11)	Annual Savings (Gross MMBtu)	7,346
(12)	Annual Savings (Net MMBtu)	5,639
(13)	Lifetime Savings (Gross MMBtu)	60,978
(14)	Lifetime Savings (Net MMBtu)	47,450
(17)	Total associated incentive volume (\$)	\$194,569
(18)	Total annual estimated energy cost savings (\$)	\$115,616

Notes

- 1 Amount available as of January 1, 2021. Includes line (6) "Available 12/31/20" plus line (3) "Committed" in Table E-6 and G-6 of the 2020 Year End Report.
  - 2 Budget adopted by Sales Team for 2021 operations. Budget includes projections of repayments made during 2021.
  - 3 As of December 31, 2021
  - 4 As of December 31, 2021. This includes all project paid in 2021 and the OBR associated with those projects. OBR payment are processed once the associated incentive has been paid usually in batches.
  - 5 As of December 31, 2021
  - 6 Fund balance as of December 31, 2021. Committed funds are subtracted from this amount.
  - 7 Total outstanding loan balance. Loans lent out that still need to be paid back. This includes loans from previous years.
  - 8 Total loan value in default during period.
  - 9 Total loan value in arrears for over 120 days as of December 31, 2021.
  - 10 As of December 31, 2021
  - 10b Unique customer names for large business (one customer name can have multiple sub accounts as is in the case of a franchise).
  - 11 As of December 31, 2021
  - 12 As of December 31, 2021
  - 13 As of December 31, 2021
  - 14 As of December 31, 2021
  - 15 As of December 31, 2021
  - 16 As of December 31, 2021
  - 17 Incentives paid out with loans.
  - 18 Estimated energy cost savings to loan fund participants.
- Values in quarterly reports are preliminary and subject to change. Data is finalized in the Year-End Report.

**Table 5  
National Grid  
2021 Test Metrics**

**Customer Satisfaction<sup>1</sup>**  
94.3%

NOTES

<sup>1</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?

**Carbon Reduction<sup>2</sup>**

	<b>CO2 (Electricity)</b>	<b>CO2 (Natural Gas)</b>	<b>CO2 (Oil)</b>	<b>CO2 (Propane)</b>	<b>CO2 (Total)</b>
<b>Residential</b>	22,625	9,390	1,188	(38)	33,165
<b>Income Eligible</b>	1,602	1,038	196	7	2,843
<b>C&amp;I</b>	25,004	7,974	(227)	-	32,751
<b>Total</b>	49,231	18,402	1,157	(31)	68,759

NOTES

<sup>2</sup> Carbon emissions values are from AESC 2021, Appendix G Tab 159.

Values in quarterly reports are preliminary and subject to change. Data is finalized in the Year-End Report.

# Rhode Island Energy Efficiency

Third Quarter 2021 | National Grid

November 12, 2021

## Overview

National Grid's energy efficiency programs continued to deliver energy savings for Rhode Island customers by achieving 556,014 net lifetime MWh of electric savings (43.1% of the net lifetime goal) and 1,910,542 net lifetime MMBtu of natural gas savings (46.9% of the net lifetime goal) while continuing to address the challenges faced due to the COVID-19 pandemic.

**Income Eligible Services:** In Q3, National Grid distributed the quarterly Welcome E-Mail and Welcome Direct Mail marketing strategy (with English on the front of the letter and Spanish on reverse) that leverages personalization to promote IES, displaying the regionally appropriate CAP agency based on the customer's service address.

**Residential HVAC:** A new weekly HVAC program newsletter was launched in July specifically for HVAC companies, contractors, technicians, distributors, and other trade allies. The goal is to engage industry stakeholders in the program by sharing important information such as program updates and deadlines, best practices, tips for technicians, helpful links to resources and information about programs such as EnergyWise and the Heat Loan; offering technical support and assistance with data and rebate processing; and soliciting feedback and communication from contractors.

**Community Initiatives:** The Company continued its work with Quonset Development Corporation (QDC) under a three-year memorandum of understanding to provide EE services to businesses at the Quonset industrial park. As of 2018, Quonset supported 22,300 jobs and \$4.3 billion in economic output, which represent 4.5% of Rhode Island's workforce and 7% of its gross domestic product.<sup>1</sup> Since January 2020, more than 30 participating customers have benefited from annual energy savings totaling \$1.8 million.

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<sup>1</sup> Tebaldi, Edi. 2019. *The Quonset Economic Impact 2019*. Bryant University. [http://www.quonset.com/resources/common/userfiles/file/Bryant%20University%20Economic%20Impact%20Report\\_9.12.19\\_FINAL.pdf](http://www.quonset.com/resources/common/userfiles/file/Bryant%20University%20Economic%20Impact%20Report_9.12.19_FINAL.pdf)

## 2021 Program & Initiative Updates – Q3

### Residential New Construction (RNC)

The Residential New Construction (RNC) program achieved 9,474 net lifetime MWh of electric savings (52.4% of the lifetime goal) and 21,582 net lifetime MMBtu of gas savings (25.3% of the lifetime goal) through the third quarter of 2021.

The program completed 37 housing units this quarter and enrolled 10 more customer residences in the program. Of the 37 customer residences completed, five (14%) used electric heat and 17 (46%) had gas heat. Thirty-three (89%) of completed residences were new construction/gut rehabs while four (11%) were renovations/rehab. Two units was certified as meeting U.S. DOE's Zero Energy Ready Home standard and will be certified as Passive House. Twenty-four master-metered, income eligible, housing units were built to RNC Program Standards. Two hundred ten units of Zero Energy Ready homes are currently in the pipeline, including 205 seeking Passive House certification and five seeking DOE Zero Energy Ready certification.

### **Challenges and Responses**

Pricing for certain materials (including lumber) has continued to be escalated due to COVID-19, and there have been shortages of equipment such as heating systems and windows. While these factors have delayed construction schedules, the high demand for housing means these delays should be temporary and should not cause long term issues.

With the increase in all electric new construction homes being built in Rhode Island it remains a challenge to achieve the RNC Gas participation and savings goals.

### **Customer Highlight**

A multi-unit project in Providence will incorporate 95.9% AFUE combination boilers + domestic hot water, ENERGY STAR appliances, ERVs (energy recovery ventilation), HERS Index range: 48-55, and Tier 2 Savings (25-34% over baseline).

### Income Eligible Services (IES)

The National Grid Income Eligible Services program achieved 12,452 net lifetime MWh of electric savings (33.7% of the lifetime goal) and 77,204 net lifetime MMBtu of gas savings (38.4% of the lifetime goal) through the third quarter of 2021.

Field operations with COVID-19 precautions continued in the third quarter with all six CAP agencies providing in-home services. One CAP continued virtual services at the request of their customers.

The third quarter IES Best Practice meeting was held virtually on August 26. This meeting focused on safety, 2021 program delivery updates, COVID-19 updates, and the Third-Party Referral Program, including enhanced referrals and a marketing update.

The key performance indicator (KPI) process was continued in the third quarter to improve communications between CAPs and the lead agency. KPI meetings were held with each CAP, the Company’s lead vendor and at least one Rhode Island Department of Human Services (DHS) representative. These meetings ensure that the CAPs are aware of their KPI goals, they are on pace to meet the goals and provide a dedicated time for constructive dialog.

One CAP Executive Director Meetings was held in the third quarter on August 25th. These meetings included most CAP Executive Directors, National Grid, RI DHS and the lead vendor. The meeting focused on performance, challenges/opportunities, customer communications, sharing of consistent information across all CAPs and opportunity for open discussion.

In Q3, National Grid distributed the quarterly Welcome E-Mail and Welcome Direct Mail marketing strategy (with English on the front of the letter and Spanish on reverse) that leverages personalization to promote IES, displaying the regionally appropriate CAP agency based on the customer’s service address.

	Welcome E-Mail on Tue 9/21/21	Welcome Direct Mail in Early Oct
Total	2,771	5,157

## Challenges and Responses

Staffing at some of the CAPs continues to be a challenge to IES Program implementation. National Grid IES is implementing several approaches to reduce the impact of these barriers:

- Contracting for additional auditors providing freelance audit services to the agencies.
- The Enhanced Referral program where completed audits are referred by the CAP agencies to third party implementation services.
  - 15 complete through Q3, 12 In Progress
- Rhode Island Builders Association Auditor & Installer program was developed in the first quarter and refined in the second quarter to provide equity-based training and certification to local unemployed or underemployed people, providing skills to participate in all facets of the green energy economy. The Rhode Island Builders Association, Comprehensive CAP and TriCounty CAP, along with CLEAResult, are leading this effort. Training will begin at a newly constructed training

center in Coventry, RI in in the fourth quarter. An additional cohort is scheduled for 2022.

- Virtual AMPs have slowed in Q3 due to customers doing in-person AMPs. Over 2,000 virtual AMPs completed since the program's inception.

#### Agency Audit Staffing:

- Blackstone Valley Community Action Agency – 4.5 Auditors
- CAP of Providence – 2 Auditors
- Comprehensive Community Action Agency – 6 Auditors
- East Bay Community Action Agency – 3 Auditors
- TriCounty Community Action Agency – 9 Auditors
- Westbay Community Action Agency – 7 Auditors
- Contract Auditors – 3 Auditors

### Customer Highlight

A sampling of customer feedback from customer comment cards:

“Thank you for helping me at a difficult time in my life. I won't have to worry.”  
Connie from Bristol

### EnergyWise Single Family

The EnergyWise Single Family program achieved 12,573 net lifetime MWh of electric savings (87.4% of the lifetime goal) and 448,153 net lifetime MMBtu of gas savings (94.0% of the annual goal) through the third quarter of 2021.

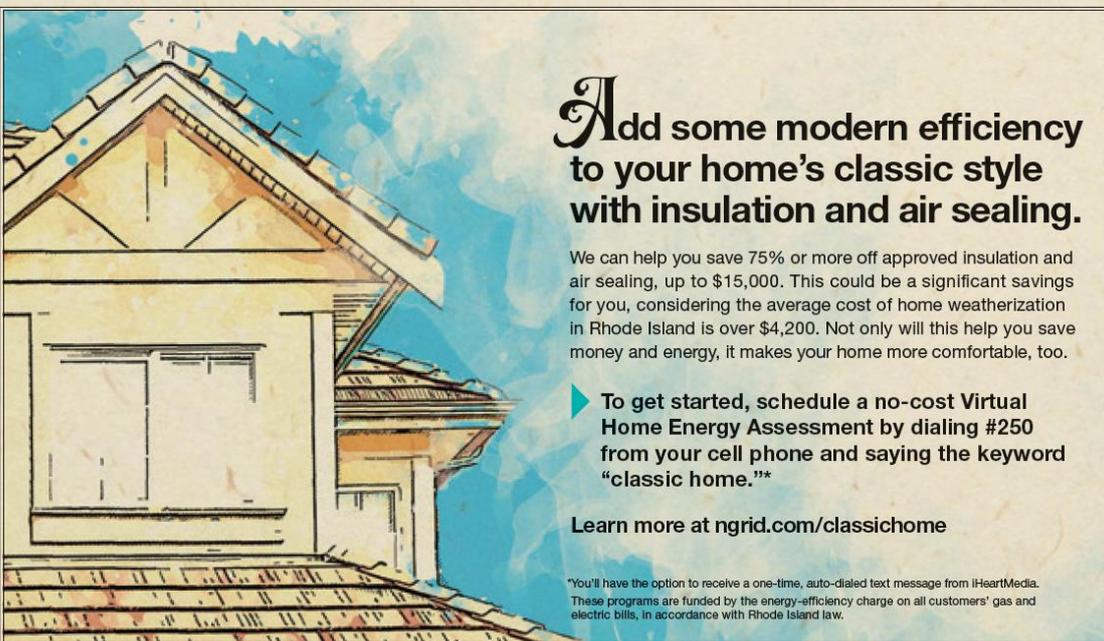
Through the third quarter of 2021, EnergyWise continues to support the strong customer interest in the program. Gas program spend is at 121% of planned budget with electric spend at 86% of the planned budget. Savings are 94% and 87% respectively. The customer pipeline is strong and estimated customer spend forecast at 200% for the gas program and 135% for the electric program have not changed since the second quarter. Through September, 6,764 assessments have been completed and 3,514 weatherizations.

Notable EnergyWise activities during the third quarter include:

- Working with Narragansett Indian Tribe to provide assessments and weatherization services to tribe members.
- Served ten customers on Prudence Island.
- Classic home mailer sent to customers cross-promoting weatherization, Low-Emissivity storm windows, and refrigerator recycling in July.



**Vintage homes  
like yours radiate  
beauty and charm.**



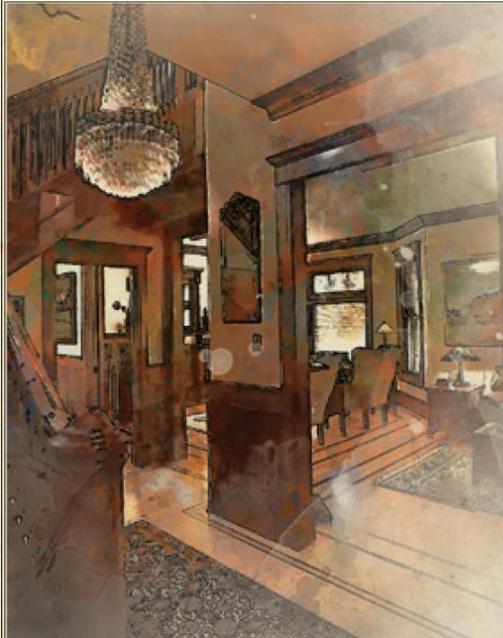
**Add some modern efficiency  
to your home's classic style  
with insulation and air sealing.**

We can help you save 75% or more off approved insulation and air sealing, up to \$15,000. This could be a significant savings for you, considering the average cost of home weatherization in Rhode Island is over \$4,200. Not only will this help you save money and energy, it makes your home more comfortable, too.

▶ **To get started, schedule a no-cost Virtual Home Energy Assessment by dialing #250 from your cell phone and saying the keyword "classic home."\***

**Learn more at [ngrid.com/classichome](http://ngrid.com/classichome)**

\*You'll have the option to receive a one-time, auto-dialed text message from iHeartMedia. These programs are funded by the energy-efficiency charge on all customers' gas and electric bills, in accordance with Rhode Island law.



**A new, innovative way to make your vintage home more energy efficient.**

One of our energy specialists will take a secure, virtual tour of your home and share personalized energy- and money-saving ideas. Plus, you could receive no-cost energy-saving products, like water-saving shower heads shipped directly to you.

Join over 4,500 of your neighbors in Rhode Island who have taken a no-cost Virtual Home Energy Assessment.

▶ **To get started, schedule a no-cost Virtual Home Energy Assessment by dialing #250 from your cell phone and saying the keyword "classic home."\***

**Learn more at [ngrid.com/classichome](http://ngrid.com/classichome)**

\*You'll have the option to receive a one-time, auto-dialed text message from iHeartMedia. These programs are funded by the energy-efficiency charge on all customers' gas and electric bills, in accordance with Rhode Island law.



**Have an old fridge you'd like to recycle?**

Your old fridge or freezer could be costing you up to \$150 a year in energy costs. If you're looking to save money and energy, while protecting the environment, our Appliance Recycling Program can help. We'll safely remove and responsibly recycle your old fridge or freezer at no cost. As a thank you, we'll send you \$50.

▶ **To schedule a safe pickup, dial #250 from your cell phone and say the keyword "fridge pickup."\***

**Learn more at [ngrid.com/fridgepickup](http://ngrid.com/fridgepickup)**

\*You'll have the option to receive a one-time, auto-dialed text message from iHeartMedia. These programs are funded by the energy-efficiency charge on all customers' gas and electric bills, in accordance with Rhode Island law.

## Challenges and Responses

At the July EERMC meeting, there was to be a vote whether to support continued spending of EnergyWise but was delayed due to lack of a quorum. This vote was moved to August meeting where the Council voted support of EnergyWise continuing to serve customers up to the portfolio overspend level of 115%. The Company continues to monitor the spending of the EnergyWise program while serving Rhode Island customers.

## Customer Highlights

The average customer overall satisfaction ratings for Q3 are:

- 8.89 out of 10 for in-person home energy assessments
- 8.1 out of 10 for virtual home energy assessments
- 9.15 out of 10 for weatherization

A sampling of customer feedback from customer satisfaction surveys follow:

*“This program is fantastic, I have a home from 1745, while it is a great home there are flaws. We have replacement windows but the cold air and heat escape because there is no insulation because of the horsehair plaster. My gas and electric bills are extremely high every month, I do try to adjust the thermostat and only heat and cool the rooms we need and use less in the areas we don't. While we've learned to become better the insulation will be a huge help year round. I was extremely happy with the proposal, and outlined work. I already had led light bulbs throughout the house but that was great too I didn't take advantage of something I did not need. Everything is led so we don't get the flickering if you mix. Thank you very much [staff] from Rise Engineering and National Grid for a wonderful program. Respectfully, [customer] Middletown RI”*

*“We are just awaiting a scheduled appointment for the work to be done. I understand these are being booked out through November, so I would like to get this on the books.”*

*“Both contractors we used were extremely professional and polite! They are excellent contractors and would recommend them to anyone! Thank you so much!”*

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

The EnergyWise Multifamily program achieved 6,697 net lifetime MWh of electric savings (41.1% of the lifetime goal) and 48,131 net lifetime MMBtu of gas savings (32.4% of the lifetime goal) through the third quarter of 2021. The Income Eligible Multifamily program achieved 6,627 net lifetime MWh of electric savings (29.4% of the lifetime goal) and there were 16,812 net lifetime MMBtu of gas savings (5.3% of lifetime goal) through the third quarter of 2021. The C&I Multifamily program achieved 12,736 net lifetime MMBtu of gas savings (9.0% of the lifetime goal) in the third quarter.

The Company started working on refreshing the tiered incentive offer with the lead vendor in order to start marketing it to customers in Q4 2021 to help build the 2022 pipeline.

Based on the positive feedback from the sales training provided in early 2021, the Company is looking into additional workforce development sales training that could be offered to the lead vendor and other trade allies in 2022. The lead vendor communicated that having trainings in the beginning of the year is

preferred and based on this feedback, The Company is working to schedule trainings based on this preference.

## **Customer Highlights**

### Case Study: Coddington Cove Apartments – Navy Housing Site

In an effort to increase outreach and awareness to convey the benefits of the Multifamily program, Coddington Cove Apartments has agreed to be featured in a case study which will illustrate the benefits of various measures that the customer had installed in addition to the process of going through the program.

The Navy has two additional sites that they are looking to have measures installed through the Multifamily program in 2022.

Below are pictures documenting some of the work that is currently being completed at Coddington Cove that have been provided by the lead vendor:



Air Sealing



Insulation

Customer Feedback:

*“The supervisor was very helpful; and knowledgeable. He also made sure he cleaned up after the team. Much appreciated.”*

*“I recommend this service to everyone! I previously had service done at my one-family home and it saved me \$\$\$\$ in heating bills!”*

The average customer satisfaction survey score (based on the survey administered by the program’s lead vendor) in Q3 is 93%.

**Challenges and Responses**

There has been a delay in receiving some materials for a few projects that are currently in progress which has delayed the overall completion date. The lead vendor is confident these projects will be completed by the end of the year despite the delays in receiving materials.

Customer Feedback:

*“I got many lightbulbs, some of which lit up the bathroom like Broadway! I tried them for a day, then had to gradually remove them and go back to the original globes. In other areas they did help.”*

Based on the customer feedback above, The Company will be working with the lead vendor to understand how we can better meet customer needs when it comes to installing lighting upgrades. For example, providing customers with the education of showing them the various warm and cool hues of an LED could help to ensure customers are choosing lighting upgrades that meet their needs.

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

The ENERGYSTAR® HVAC (Heating and Cooling) program achieved 38,123 net lifetime MWh of electric savings (74.3% of the lifetime annual goal) and 294,275 net lifetime MMBtu of gas savings (44.1% of the lifetime goal) during the third quarter of 2021.

Three remote half-day HVAC Check trainings were held during the third quarter to provide both refresher courses and new trainings for a total of 18 HVAC technicians.

HVAC Check testing must be done in warm weather, so the volume of HVAC Check tests completed in Q3 increased from prior quarters. A total of 372 tests were completed in Q3. 142 onsite Quality Control (QC) inspections were performed on recently installed heat pumps.

A new weekly HVAC program newsletter was launched in July specifically for HVAC companies, contractors, technicians, distributors, and other trade allies. The goal is to engage industry stakeholders in the program by sharing important information such as program updates and deadlines, best practices, tips for technicians, helpful links to resources and information about programs such as EnergyWise and the Heat Loan; offering technical support and assistance with data and rebate processing; and soliciting feedback and communication from contractors. The current distribution list is over 650. The program received positive feedback from many contractors and as a result of the newsletter has responded to questions including access to and use of the program portal and scheduling additional trainings.

The HVAC Team developed and shared two resources for contractors in Q3 – MS Check Testing Procedure and AC Check Testing Procedure that outline the steps for proper testing. These were distributed directly to contractors and made available on the contractor portal.

The Enhanced Heat Pump Rebates for Residential Oil or Propane Heating Customers which launched on March 1st and is offered through a partnership between National Grid and the RI Office of Energy Resources, saw an increase in activity in Q3. 85 customers were served, 111 systems were installed, and 31 loans were processed. Over 130 additional projects are in the process of being installed or scheduled.

There are currently 74 Rhode Island HVAC program-approved contractors that have participated in the HVAC Check or MS Check training and testing process. In late spring the HVAC team followed up with all program contractors to ensure that the required training and testing had been done in order to be listed on the updated Approved Contractor list that was posted in July, and again over the summer in order to be included on the list that was posted in September. This resulted in a significant increase in tests performed by contractors in Q3, and lead to more trainings for new technicians and companies, particularly those looking to offer the Enhanced Rebates, as being listed as an Approved Contractor is a requirement for participation.

On the gas side, distributors, gas equipment factory representatives and contractors were included on the weekly HVAC newsletter distribution list, which included the promotion of 2021 Gas HVAC incentives.

## Rhode Island HVAC Report nationalgrid

Weekly Update #12

October 12, 2021

The National Grid Rhode Island Electric Heating and Cooling Program team welcomes our HVAC partners to the new weekly program newsletter. This newsletter will help us stay connected so we can better serve our shared customers, drive energy efficiency goals, and continue to develop groundbreaking solutions. Look for information every Tuesday to:

- Keep up on program updates
- Learn tips to help you serve our shared customers
- Stay up to date on key deadlines

### 2021 National Grid Rhode Island H&C Program: Reminders for Office/Sales Staff ... and Techs

#### Submit Customer Rebates **ON TIME**

The 2021 Enhanced Rebates are a great sales tool, but there are requirements:

- All 2021 Rebated Jobs must be completed by December 31, 2021
- All 2021 Rebate Applications must be received by January 31, 2022

#### Some tips:

- **Quality Control (QC) inspection is required**, advise your customers to expect a call to schedule an inspection. These are exterior, verification visits and the customer does not need to be present. The Call Center will be calling from the following number: 1-800-473-1105.
- **Submit online or provide a completed application to your customer:** There are two different Enhanced Rebates: [Electric Heat Displacement](#) and the OER/National Grid [Oil and Propane Displacement](#) rebate. Eliminate confusion and processing delays by doing the rebate application for your customers.

#### Approved Contractor Listing Is Regularly Updated

*We have passed the most recent listing update deadline, but if a company*

## Challenges and Responses

The process for a customer to receive an Enhanced Rebate for Residential Oil or Propane Heating Customers can become lengthy and complex. A home energy assessment is required, and the customer must commit to making their home energy efficient before purchasing and installing equipment. This ensures the energy load is reduced prior to system installation and that the equipment is properly sized, resulting in a better experience for the customer with their new heating system. Customers may also apply for a Heat Loan for the equipment, which involves finance institution approval and disbursement. The customer can submit the rebate form once the system has been installed, which is then reviewed by the processing center. Prior to approval for payment the equipment must also be inspected by the program for verification purposes. The program vendors who partner on this initiative continue to collaborate to streamline the process for the customer.

## Customer Highlight

The Program was invited by Lawrence Air Systems Inc. a Barrington-based HVAC contractor to provide training at MTTI, a technical career training school based in Seekonk MA and East Providence  
<https://www.mtti.edu/programs/hvacr-technician>.

“Thank you so much for bringing your training into MTTI. This group of students are very excited to get out there and practice what they learned last night. I have shared your message with the other instructors. We have four classes going on at all times and we are all at different stages in the curriculum. They will be reaching out soon. Thanks again, my students gained a lot from your session. This level of training will make a big impact on the quality and efficiency of installations for years to come!” - Jason T. Lawrence, Owner/General Manager

## **ENERGYSTAR® Lighting and Residential Consumer Products**

The ENERGYSTAR® Lighting program achieved 18,716 net lifetime MWh of electric savings (69.8% of the lifetime goal) and the Residential Consumer Products program achieved 22,013 net lifetime MWh of electric savings (57.7% of the lifetime goal) during the third quarter of 2021.

2021 is the final year of the ENERGY STAR® lighting program. In preparation for smooth culmination of program activities, all incentives will conclude on September 30<sup>th</sup> to allow for adequate time for final invoicing.

In July, the classic homes campaign was jointly promoted with weatherization, low-E storm windows, and refrigerator and freezer recycling. Images from the mailing are shown in the EnergyWise section. Additional marketplace campaigns in July included promotion of window air conditioning and

dehumidifiers. The National Grid marketplace promoted lighting and advanced product strips in August.

In Q3, there were dehumidifier turn-in events in Westerly, Warwick, and North Providence resulting in 226 dehumidifiers collected for recycling. The Lead Vendor began the retail store survey documenting the prevalence of ENERGY STAR® and non-ENERGY STAR consumer products, retail price, smart product connectivity features, and number of models.

## Home Energy Reports (HER)

Home Energy Reports presented customers with the summer edition of the report recommending tips to save on cooling and other savings opportunities.



National Grid RI Home Energy Reports  
1 Willow Street, Suite 2  
Southborough, MA 01772-1026

Home Energy Report: Summer Edition  
June 17, 2021

Stay cool and save more this summer



Cooling has a big impact on summer energy bills

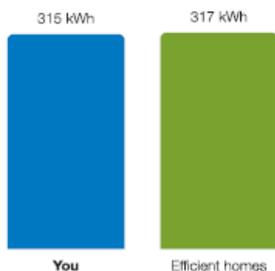
**56%** of your total energy use went towards **cooling\*** last summer

\*Can include window units, central AC, and fans



### LAST SUMMER

✓ Nice work! You used about the same amount of energy on cooling as efficient homes



Efficient homes are the 20% of similar homes that used the least amount of energy from Jun 4 - Sep 14, 2020.

### THIS SUMMER

When you're out for a few hours, turn up your thermostat for easy energy savings



Try raising settings by

**5-8°F**

Recommended by the Department of Energy

**Make it easier:** Installing a smart thermostat lets you switch between home and away temperature settings using your smartphone. If you're away at regular times during the week, you can set your thermostat to adjust automatically based on your schedule.

Ready to save more this summer? Turn over for ways to stay cool while you save.



0366220-4029-20210720-433-GEN\_R006\_N10\_49HW010-300\_L000\_L0\_IN00RTI-STANDARD-1-1-19-2016

## More ways to save this summer

These low-cost tips were chosen for you based on how you use energy in your home.



### Adjust the display on your television

The default display settings on many TVs are energy intensive and often unnecessarily bright. Depending on the model, turning down your TV's brightness can reduce its power use without compromising image quality.

Save up to \$10 per TV per year



### Use advanced power strips

Many computers, televisions, and other "vampire" devices use power even when they're off. Plug these devices into an easy-to-reach power strip and turn it off when you're not using them.

Save up to \$15 per year

For more ways to save, visit [ngrid.com/ee-tips](http://ngrid.com/ee-tips).

## An easy way to save

### Let us recycle your old fridge

Have an old fridge you don't use much? We'll pick it up and haul it away at no cost to you. Plus, we'll send you \$50 to show our appreciation.

Schedule a safe pickup at [ngrid.com/rirecycle](http://ngrid.com/rirecycle) or call (877) 889-4762.



We're here to help



(866) 903-2811



[EnergyReportsRI@ef.org](mailto:EnergyReportsRI@ef.org)

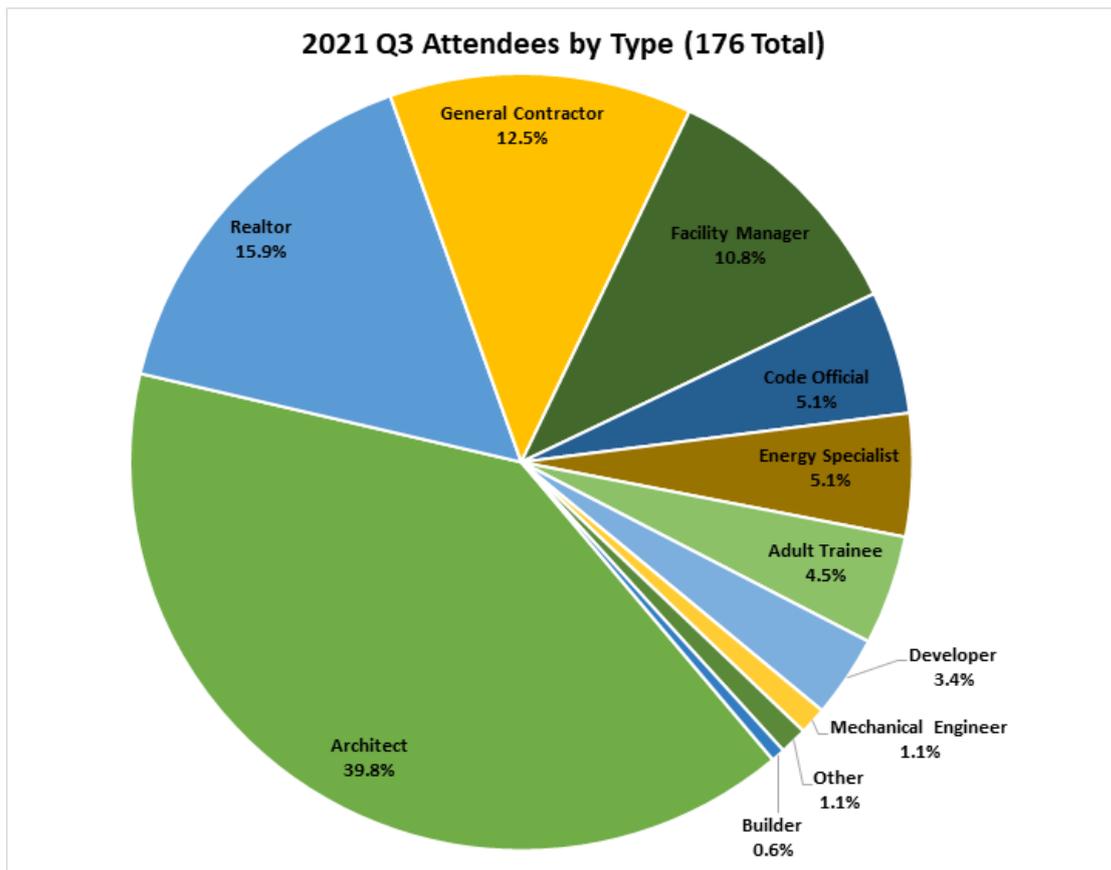


[ngrid.com/ri-reports](http://ngrid.com/ri-reports)

Save more with special rebates and energy-efficient products you can buy at [ngrid.com/save](http://ngrid.com/save).

## Code Compliance Enhancement Initiative (CCEI)

18 training events engaging 204 industry stakeholders were held during this quarter. 12 of these events were trainings focused on residential construction with 93 attendees, four commercial trainings with 83 attendees, one circuit rider project site trainings engaged 20 attendees, and one circuit rider design support meeting with eight attendees.



*Q3 Training Participants – Attendees by Type*

CCEI developed and delivered four **new** trainings during the third quarter focusing on REScheck and COMcheck and deeper dives into Advanced Framing and Green Building Fundamentals. These trainings were developed at the request of industry stakeholders including builders, building inspectors, contractor and realtors. Q3 Training continued to be delivered virtually due to COVID-19. Q3 Training topics:

- Residential
  - Building Science
  - Weatherization
  - Blower Door Testing
  - Advanced Building Science, Zero Energy Homes & the RI Stretch Code
  - Healthy Homes: Indoor Air Quality & Your Health
  - Home Comfort: Heating, Cooling & Ventilation
  - **NEW** - Green Building Fundamentals
  - **NEW** – Residential Energy Code & REScheck
  - **NEW** – Advanced Framing
- Commercial
  - URI Virtual Tour
  - Commercial Zero Energy Buildings & the RI Stretch Code
  - **NEW** – Commercial Energy Code & COMcheck

## Challenges and Responses

CCEI continues to deliver a full suite of interactive webinars while public health guidelines continue to limit in-person trainings. CCEI will consider resuming in-person activities later this year.

### Next code update

- The state Board began its review of the next energy code (based upon 2018 IECC) in September 2019, with the intent to adopt in 2020
- Review was delayed due to COVID-19
- It was made available for public review in Q2 of 2021 and was moved to final legislative approval in Q3
- It is anticipated to take effect by the end of 2021/early 2022 with a concurrency period
- The code still contains several weakening amendments

### Future code update

- Once the code based upon 2018 IECC has been adopted, review of 2021 IECC will begin
- National Grid, CCEI and other stakeholders will work on continuing to remove RI's weakening amendments, and will submit proposals for strengthening amendments that result in energy savings for RI residents

## Large Commercial New Construction

The Large Commercial New Construction program achieved 126,592 net lifetime MWh of electric savings (66.8% of goal) and 472,585 net lifetime MMBtu of gas savings (108.0% of goal) through the third quarter of 2021.

There are 28 active projects as of early October. Two more buildings signed up to participate in the Zero Net Energy pathway in Q3: an adult learning center and a multifamily building for homeless individuals.

The Company has signed up the first building in a large, mixed-use development to participate in the program. Program staff are working with the developer to recruit other buildings in the complex, which includes multifamily, hotels, restaurants, and retail facilities.

Program staff continued to actively engage school buildings to build the list of active projects in Q3.

*Cross-Pollination with Communities Initiative:* Program staff are meeting regularly with QDC staff to identify and engage customers building new facilities in the Quonset industrial park.

## Challenges and Responses

Large new construction projects often require several years to engage and influence. COVID-related financial and supply chain disruptions extend the already lengthy construction timeline for these projects, which further increases the amount of engagement needed over the project lifetime.

Potential participants have expressed concerns about the Company's long-term commitment to the programs with the announcement of the PPL merger. The Company continues to communicate that energy efficiency programs are expected to proceed as normal, which has generally alleviated this concern.

## Large Commercial Retrofit

The Large Commercial Retrofit program achieved 211,389 net lifetime MWh of electric savings (28.4% of goal) and 444,254 net lifetime MMBtu of gas savings (30.5% of goal) through the third quarter of 2021.

*Industrial Initiative:* An industrial customer installed two new injection-molding units used to manufacture personal protection equipment. The Industrial Initiative vendor worked with the customer to select high-efficiency units that saved the customer 38,368 gross annual kWh while reducing operations and maintenance costs by \$2,400 per year (non-energy benefits).

*Telecommunications Initiative:* Two new local team members were hired to help service the National Grid MA and RI territory. One is a RI resident and has direct experience with National Grid's energy efficiency offerings. The initiative is working on three projects that may be completed with the assistance of On Bill Repayment (OBR).

*SEMP Initiative:* The Company successfully recruited an additional University to participate in the Strategic Energy Management Planning initiative. The University has agreed to a 3-year MOU with the Company that established specific and aggressive energy efficiency targets and strategies.

*EnergySmart Grocer Initiative:*

A regional grocery chain opened a new grocery store in Warwick. This store installed a wide range of energy efficiency measures including night covers, hybrid condensers, destratification fans, VFDs, heat reclamation, kitchen equipment, and lighting. All measures resulted in total gross annual savings of 430 MWh and 1,465 gross annual MMBtus.



## Challenges and Responses

Supply shortages caused by the pandemic are driving project delays and price increases across a wide range of capital projects.

Budgets remain constrained in some industries due to COVID-related changes, especially the eat-in restaurant, office space, and lodging sectors.

## Small Business Direct Install

The Small Business Direct Install program achieved 68,248 net lifetime MWh of electric savings (64.9% of goal) and 18,624 lifetime MMBtu of gas savings (38.1% of goal) through the third quarter of 2021.

## Enhanced reporting

The Company will be reporting the number of gas weatherization projects and the number of LED retrofit kits and luminaires with controls in 2021 to show National Grid's progress in these priority areas.

There were no gas weatherization projects in Q3 2021. However, the SMB vendor has begun marketing weatherization projects that will use enhanced offerings made possible by RGGI funds.

The table below shows the numbers of luminaires and retrofit kits with controls for Q3 compared to previous quarters and 2020.

# Luminaires			# Luminaires with controls		
All 2020	13,032		All 2020	149	
Q1 2021	3,425		Q1 2021	25	
Q2 2021	2,537		Q2 2021	94	
Q3 2021	1,735		Q3 2021	29	

# Retrofit kits		# Retrofit kits with controls		
All 2020	17,260		All 2020	450
Q1 2021	4,372		Q1 2021	125
Q2 2021	2,357		Q2 2021	118
Q3 2021	2,154		Q3 2021	95

### Equity Note

The Company's vendor is now a member of Rhode Island Black Business Association. They were featured in the September newsletter as a new member.

The Company's vendor also gathered a list of women owned businesses from an article in RI Monthly. Many of these businesses have been contacted via email. Phone follow ups will begin soon.

### Customer Highlights

The program completed projects at two family-owned restaurants. The first restaurant received CoolTrol refrigeration controls and high efficiency EC motors in the evaporators. Interior and exterior LED fixtures were installed throughout the second restaurant as well as several low flow kitchen spray valves. The combined savings of the two restaurants is 2.2 net annual MWh per year and 11.4 net annual MMBtu.

High efficiency LED fixtures with optics were installed in the office and warehouse areas of a family owned moving and storage company. It is predicted that the customer will save 1.08 net annual MWh per year.

### Evaluation, Measurement, and Verification

The following study was completed in Q3 of 2021:

*Impact Evaluation of PY2019 Rhode Island C&I Upstream Lighting Initiative* calculates annual savings realized by various lighting technologies offered through the initiative primarily by assessing 1) the wattage saved by converting from existing fixtures to program-incentivized fixtures, and 2) the installation rate of program-incentivized fixtures. Additionally, HOU metering was performed at five sites that received integrated controls through the program.

### Community Initiatives

East Providence continues to work with National Grid's Municipal Energy Specialist to complete construction and inspection of their Community Initiative project to add energy-efficiency lighting at the Rumford Little League

field. Funds earned through the successful achievement of the Community Initiative will be utilized for the completion of this project.

The Company continued its work with Quonset Development Corporation (QDC) under a three-year memorandum of understanding to provide EE services to businesses at the Quonset industrial park. As of 2018, Quonset supported 22,300 jobs and \$4.3 billion in economic output, which represent 4.5% of Rhode Island's workforce and 7% of its gross domestic product.<sup>2</sup> Since January 2020, more than 30 participating customers have benefited from annual energy savings totaling \$1.8 million, with reductions of 10 million kWh (electric) and over 100,000 therms (gas), leveraging \$2.2 million in energy efficiency incentives.

### **Connected Solutions**

This summer (including June through September) the Company called:

- 6 C&I Targeted Dispatch events,
- 30 C&I Daily Dispatch events,
- 13 thermostat events, and
- 30 battery events.

The load reduction caused these events is still being calculated.

There are currently:

- 29 gross MW worth of capacity commitments in C&I Targeted Dispatch
- 16 gross MW worth of capacity commitments in the C&I Daily Dispatch
- 5,566 customers registered for the thermostat measure
- 245 customers registered for the battery measure
- 897 customers registered for the solar inverter power quality demonstration, which will be enough for the evaluation.

This year several customers left Targeted Dispatch to join Daily Dispatch. This benefits peak shaving since Daily Dispatch customers are called more often resulting in more peak shaving system benefits.

Initial results from the solar inverter power quality demonstration appear promising, with the evaluation concluding in 2022.

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<sup>2</sup> Tebaldi, Edi. 2019. *The Quonset Economic Impact 2019*. Bryant University.  
<http://www.quonset.com/resources/common/userfiles/file/Bryant%20University%20Economic%20Impact%20Report%209.12.19%20FINAL.pdf>

### Rhode Island Pilots, Demonstrations and Assessments

PDA Name		Q3 2021 Updates
<b><u>New Air Sealing &amp; Insulation - Demonstration - Resi</u></b>	Date	9/30/2021
	Stage	Develop or Demonstrate
	Recent Activity	Manufacturer interviews showed best fits for air sealing with new construction, working to identify sites for that application. Injection insulation is still appropriate for a retrofit though the manufacturer is backlogged until spring 2022.
	Next steps	Presenting updating findings to sector team and implementation vendor as well as writing copy for customer recruitment through Q4 2021, Q1 2022.
<b><u>Solar Inverter DLC - Demonstration - Resi</u></b>	Date	9/30/2021
	Stage	Demonstrate
	Recent Activity	897 solar inverters have been enrolled in the RI portion of this demonstration which is enough for the evaluator. Solar inverter settings have been successfully changed and we are collecting data which will be used by the evaluator to calculate the savings. Since the evaluation won't be done until sometime in 2022. This demonstration has been re-proposed as a demonstration in the 2022 EE plan.
	Next steps	The solar inverters are gathering reactive power generation/absorption data which will be used by the evaluator to calculate savings.
<b><u>Pre-Fab Energy Retrofit - Assessment - Resi</u></b>	Date	9/30/2021
	Stage	Develop or Demonstrate
	Recent Activity	Conversations with consultant on findings and conclusions. Beginning to summarize research and develop recommendations.
	Next steps	Final write up of research
<b><u>Gas HPs - Demonstration - Resi</u></b>	Date	9/30/2021
	Stage	Develop or Demonstrate
	Recent Activity	The residential-scale manufacturer is at an early stage of commercialization, and low production volume means that there is a product backlog until spring 2022.

	Next steps	Outreach will continue into Q4 to verify product availability, including with alternate manufacturers and
<b><u>HVAC Lighting Controls Plus - Demonstration - C&amp;I</u></b>	Date	9/30/2021
	Stage	Develop or Demonstrate
	Recent Activity	Working with sales team and Slipstream to move forward on two strong candidates for participation in the demonstration.
	Next steps	Customer recruitment and project initiation.
<b><u>Kitchen Exhaust - Demonstration - C&amp;I</u></b>	Date	9/30/2021
	Stage	Referred
	Recent Activity	We have ended the demonstration on the two technologies. Electrostatic filtration - RI does not have the odor/pollution control policies that require restaurants to have filtration. Without this requirement the measure does not make energy or economic sense. We were unable to recruit eligible customers after engaging with the vendor, sales teams, and marketing teams. Energy Recovery - The energy recovery product we had assessed in Phase I of the study became unavailable when the patent holder and manufacturer went their separate ways. Delays in engaging and new manufacturers resulted in the project being closed at this time. Stage marked as "Referred" because the technology could still be implemented on a custom basis when the products are available and appropriate. No further demonstration activity will continue at this time to develop a more prescriptive offering.
	Next steps	N/A
<b><u>Enzyme-based HVAC Coil Cleaning - Demonstration - C&amp;I</u></b>	Date	9/30/2021
	Stage	Develop or Demonstrate
	Recent Activity	Metering has been set up at the customer sites and the coil cleaning vendor is performing the coil cleaning.
	Next steps	Following a data gathering period, the metering vendor will analyze results and submit a final report.
	Date	10/18/2021
	Stage	Develop or Demonstrate

<b><u>Refrigeration Leak Survey &amp; Repair - Assessment - C&amp;I</u></b>	Recent Activity	Have moved this from an assessment activity to a demonstration activity. Working with a vendor and consultant to recruit two RI grocery customers to participate in M&V activity. Metering is expected to begin in November and conclude in the spring, with the survey and repair occurring in January.
	Next steps	Identify and recruit two RI customers for participation in demonstration work.
<b><u>Gas DR - Pilot - C&amp;I</u></b>	Date	9/30/2021
	Stage	Develop or Demonstrate
	Recent Activity	Enrollment efforts have begun in anticipation of the 2021-22 winter season. Outreach includes additional new customers with the potential to participate in the Peak Period program.
	Next steps	Finalize all enrollments by 10/31. Update metering for new customers (if necessary) .
<b><u>Gas HPs - Demonstration - C&amp;I</u></b>	Date	9/30/2021
	Stage	Develop or Demonstrate
	Recent Activity	Interviewed and screened Tecogen Ilios gas compression-driven heat pump which was found generally not to be cost-effective for space heating loads alone, and would likely require significant process heating loads to pass BCR.
	Next steps	Evaluating other commercial-scale gas compression-driven heat pump products for cost-effectiveness.
<b><u>HVAC Automation for DR - Assessment - C&amp;I</u></b>	Date	9/30/2021
	Stage	Plan
	Recent Activity	EMS vendors are unresponsive - following this stage of external data gathering, now comparing correlation of controls installation with participation in Connected Solutions. In parallel with the previous qualitative assessment of the space, this will provide quantitative assessment of DR seeding potential.
	Next steps	Gathering upstream installation data, DR participation data, summarizing findings in memo.
<b><u>Shared Laundry Facilities - Assessment - MF</u></b>	Date	9/30/2021
	Stage	Plan
	Recent Activity	Received summary of other program activities in the country related to MF laundry facilities from ESource.

	Next steps	Will be contacting program managers of other programs for additional detail on their success and approach. Review savings estimates and update if necessary.
<b><u>SEM/CEI - Demonstration - C&amp;I</u></b>	Date	9/30/2021
	Stage	Demonstration
	Recent Activity	The SEM/CEI vendor conducted on-site Treasure Hunts with the participating customers in search of Low Cost/No Cost Energy Efficiency opportunities.
	Next steps	The Company will look to claim electric savings in Q4 of 2021. The SEM/CEI gas savings will be claimed in Q1 of 2022.
<b><u>Submetering to Support EE - Assessment - C&amp;I</u></b>	Date	9/30/2021
	Stage	Develop or Demonstrate
	Recent Activity	Have presented offering redesign internally and received approval to move to finalize program details. Working with CEM teams in MA and RI to develop action plan for launching updated program in 2022.
	Next steps	Determine if and how to engage procurement for program Guidebook and ongoing program management.
<b><u>Smart Valves for Chilled Water Systems - Demonstration - C&amp;I</u></b>	Date	9/30/2021
	Stage	Develop or Demonstrate
	Recent Activity	Working through some technical issues (not caused by the smart valves, but interferes with the smart valves ability to save energy) with the first customer which may result in longer metering period. Actively working with sales team and marketing to identify additional customers to participate.
	Next steps	Resolve technical issue on site and extend metering period. Continue customer recruitment efforts.

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND

Table 1: Summary of Electric 2021 Target and Preliminary 3rd Quarter Results

ELECTRIC PROGRAMS Sector and Program	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(18)	(13)	(14)	(15)	(19)	(16)	(17)
	Demand Reduction (Annual kW)			Energy Savings (Annual MWh)			Customer Participation			Expenses (\$ 000)				Energy Savings (Lifetime MWh)				\$/Lifetime kWh	
	Target	Year To Date	Pct Achieved	Target	Year To Date	Pct Achieved	Target	Year To Date	Pct Achieved	Budget	Year To Date	Pct Achieved	Year End Forecast	Target	Year to Date	Pct Achieved	Year End Forecast	Target \$/kWh	Year to Date
<b>Commercial and Industrial</b>																			
Large Commercial New Construction	1,856	1,000	53.9%	11,837	8,552	72.3%	145	92	63.2%	\$ 8,188.2	5,613.8	68.6%	113.7%	189,441	126,592	66.8%	130.0%	\$ 0.043	\$ 0.044
Large Commercial Retrofit	11,648	3,004	25.8%	59,496	19,494	32.8%	2,882	2,221	77.1%	\$ 31,565.2	11,549.7	36.6%	95.7%	744,562	211,389	28.4%	90.9%	\$ 0.042	\$ 0.055
Small Business Direct Install	1,134	889	78.4%	9,696	5,533	57.1%	571	324	56.7%	\$ 8,883.6	3,841.0	43.2%	100.0%	105,134	68,248	64.9%	110.0%	\$ 0.084	\$ 0.056
Commercial ConnectedSolutions										\$ 2,990.1	114.0	3.8%	100.0%						
Community Based Initiatives - C&I Financing										\$ 74.5	0.0	0.0%	100.0%						
										\$ 5,000.0	0.0	0.0%	100.0%						
<b>SUBTOTAL</b>	<b>14,638</b>	<b>4,893</b>	<b>33.4%</b>	<b>81,029</b>	<b>33,580</b>	<b>41.4%</b>	<b>3,598</b>	<b>2,636</b>	<b>73.3%</b>	<b>\$ 56,701.6</b>	<b>21,118.4</b>	<b>37.2%</b>	<b>99.6%</b>	<b>1,039,136</b>	<b>406,229</b>	<b>39.1%</b>	<b>99.9%</b>	<b>\$ 0.055</b>	<b>\$ 0.052</b>
<b>Income Eligible Residential</b>																			
Single Family - Income Eligible Services	457	261	57.1%	3,120	1,533	49.1%	3,412	3,809	111.6%	\$ 12,846.1	5,254.6	40.9%	85.0%	36,909	12,452	33.7%	85.0%	\$ 0.348	\$ 0.422
Income Eligible Multifamily	70	67	96.2%	1,554	609	39.2%	3,600	176	4.9%	\$ 3,549.0	638.1	18.0%	100.0%	22,545	6,627	29.4%	100.0%	\$ 0.157	\$ 0.096
<b>SUBTOTAL</b>	<b>527</b>	<b>329</b>	<b>62.3%</b>	<b>4,674</b>	<b>2,142</b>	<b>45.8%</b>	<b>7,012</b>	<b>3,985</b>	<b>56.8%</b>	<b>\$ 16,395.1</b>	<b>5,892.7</b>	<b>35.9%</b>	<b>88.2%</b>	<b>59,454</b>	<b>19,079</b>	<b>32.1%</b>	<b>90.7%</b>	<b>\$ 0.276</b>	<b>\$ 0.309</b>
<b>Non-Income Eligible Residential</b>																			
Residential New Construction	66	75	113.9%	979	470	48.0%	417	371	89.0%	\$ 1,611.3	704.1	43.7%	99.6%	18,088	9,474	52.4%	100.0%	\$ 0.089	\$ 0.074
ENERGY STAR® HVAC	204	126	61.6%	3,181	2,234	70.2%	5,037	3,969	78.8%	\$ 3,487.8	2,309.3	66.2%	100.0%	51,309	38,123	74.3%	117.1%	\$ 0.068	\$ 0.061
EnergyWise	445	466	104.9%	2,841	2,901	102.1%	11,223	9,705	86.5%	\$ 15,692.2	13,508.2	86.1%	134.8%	14,385	12,573	87.4%	135.0%	\$ 1.091	\$ 1.074
EnergyWise Multifamily	158	161	101.9%	1,240	1,013	81.7%	3,600	753	20.9%	\$ 2,804.3	817.5	29.2%	95.0%	16,307	6,697	41.1%	85.0%	\$ 0.172	\$ 0.122
ENERGY STAR® Lighting	1,872	1,417	75.7%	11,533	8,871	76.9%	68,164	49,871	73.2%	\$ 5,274.8	2,692.4	51.0%	100.0%	26,801	18,716	69.8%	93.3%	\$ 0.197	\$ 0.144
Residential Consumer Products	1,019	549	53.9%	5,926	3,633	61.3%	33,111	28,995	87.6%	\$ 2,681.2	1,739.3	64.9%	100.0%	38,130	22,013	57.7%	103.0%	\$ 0.070	\$ 0.079
Home Energy Reports	3,692	3,178	86.1%	26,852	23,112	86.1%	323,248	280,282	86.7%	\$ 2,641.7	1,825.7	69.1%	87.5%	26,852	23,112	86.1%	106.6%	\$ 0.098	\$ 0.079
Residential ConnectedSolutions										\$ 1,920.5	369.5	19.2%	94.1%						
Energy Efficiency Education Programs										\$ 40.0	9.0	22.5%	100.0%						
Community Based Initiatives - Residential										\$ 226.2	91.1	40.3%	100.0%						
Comprehensive Marketing - Residential										\$ 332.7	71.9	21.6%	100.0%						
<b>SUBTOTAL</b>	<b>7,455</b>	<b>5,971</b>	<b>80.1%</b>	<b>52,553</b>	<b>42,234</b>	<b>80.4%</b>	<b>444,801</b>	<b>373,946</b>	<b>84.1%</b>	<b>\$ 36,712.7</b>	<b>24,137.9</b>	<b>65.7%</b>	<b>113.3%</b>	<b>191,872</b>	<b>130,706</b>	<b>68.1%</b>	<b>106.5%</b>	<b>\$ 0.191</b>	<b>\$ 0.185</b>
<b>Regulatory</b>																			
EERMC										\$ 738.5	387.8	52.5%	100.0%						
OER										\$ 738.5	553.9	75.0%	100.0%						
<b>SUBTOTAL</b>										<b>\$ 1,477.0</b>	<b>\$ 941.7</b>	<b>63.8%</b>	<b>100.0%</b>						
<b>TOTAL</b>	<b>22,621</b>	<b>11,193</b>	<b>49.5%</b>	<b>138,256</b>	<b>77,956</b>	<b>56.4%</b>	<b>455,411</b>	<b>380,567</b>	<b>83.6%</b>	<b>\$ 111,286.3</b>	<b>\$ 52,090.8</b>	<b>46.8%</b>	<b>102.4%</b>	<b>1,290,462</b>	<b>556,014</b>	<b>43.1%</b>	<b>100.5%</b>	<b>\$ 0.086</b>	<b>\$ 0.094</b>
<i>Municipal LED Street Lights</i>										485.9	79.8	16.4%							

NOTES

(1)(4)(7) Targets from Docket 5076 - Attachment 5, Table E-7 (electric), Refined December 22, 2020

(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 5076, Attachment 5 Table E-3 (electric), Refined December 22, 2020

(11) Year To Date Expenses include Implementation expenses.

(12) Pct Achieved is Column (11)/ Column (10).

(17) \$/lifetime kWh = Column (11)/Column (14)

(16) Planned \$/lifetime MWh from Docket 5076 - Attachment 5, Table E-5 (electric), Refined December 22, 2020 - adjusted to reflect format of quarterly report. Program Implementation Expenses/lifetime kWh.

(18) (19) Year End Spending and Energy Savings forecasts are best estimates based on the information available and may change throughout the year.

Values in quarterly reports are preliminary and subject to change. Data is finalized in the Year-End Report.

**NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND**  
**Table 2: Summary of Gas 2021 Target and Preliminary 3rd Quarter Results**

GAS PROGRAMS Sector and Program	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(16)	(10)	(11)	(12)	(17)	(13)	(14)	(15) Peak Hour Gas Demand Savings (MMBtu)
	Energy Savings (Annual 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	Year End Forecast	Planned	Year To Date	Pct Achieved	Year End Forecast	Planned	Year to Date	Year to Date
<b>Commercial and Industrial</b>																	
Large Commercial New Construction	27,631	34,102	123.4%	61	29	46.9%	\$ 2,634.2	\$ 1,722.8	65.4%	83.3%	437,398	472,585	108.0%	199.3%	\$ 6.02	\$ 3.65	17.05
Large Commercial Retrofit	187,283	46,460	24.8%	98	45	45.6%	\$ 5,054.1	\$ 1,977.8	39.1%	72.7%	1,455,776	444,254	30.5%	71.5%	\$ 3.47	\$ 4.45	23.23
Small Business Direct Install	4,886	1,927	39.4%	183	69	37.8%	\$ 332.7	\$ 45.2	13.6%	100.0%	48,861	18,624	38.1%	112.9%	\$ 6.81	\$ 2.43	0.96
Commercial & Industrial Multifamily	9,444	821	8.7%	729	69	9.5%	\$ 953.2	\$ 161.5	16.9%	100.0%	141,869	12,736	9.0%	70.0%	\$ 6.72	\$ 12.68	0.41
Commercial Pilots							\$ 215.8	\$ 103.8	48.1%	48.1%							
Community Based Initiatives - C&I							\$ 24.8	\$ -	0.0%	100.0%							
<b>SUBTOTAL</b>	<b>229,243</b>	<b>83,310</b>	<b>36.3%</b>	<b>1,071</b>	<b>212</b>	<b>19.7%</b>	<b>\$ 9,214.8</b>	<b>\$ 4,011.1</b>	<b>43.5%</b>	<b>79.1%</b>	<b>2,083,905</b>	<b>948,198</b>	<b>45.5%</b>	<b>99.2%</b>	<b>\$ 4.42</b>	<b>\$ 4.23</b>	<b>41.66</b>
<b>Income Eligible Residential</b>																	
Single Family - Income Eligible Services	10,055	3,860	38.4%	1,005	373	37.1%	\$ 5,952.3	\$ 2,426.4	40.8%	90.0%	201,104	77,204	38.4%	90.0%	\$ 29.60	\$ 31.43	1.93
Income Eligible Multifamily	14,399	926	6.4%	3,150	338	10.7%	\$ 3,009.4	\$ 284.1	9.4%	90.0%	315,545	16,812	5.3%	76.1%	\$ 9.54	\$ 16.90	0.46
<b>SUBTOTAL</b>	<b>24,454</b>	<b>4,787</b>	<b>19.6%</b>	<b>4,155</b>	<b>711</b>	<b>17.1%</b>	<b>\$ 8,961.8</b>	<b>\$ 2,711</b>	<b>30.2%</b>	<b>90.0%</b>	<b>516,649</b>	<b>94,016</b>	<b>18.2%</b>	<b>81.5%</b>	<b>\$ 17.35</b>	<b>\$ 28.83</b>	<b>2.39</b>
<b>Non-Income Eligible Residential</b>																	
EnergyWise	20,869	19,574	93.8%	1,694	3,415	201.6%	\$ 8,117.6	\$ 9,811.4	120.9%	198.1%	476,550	448,153	94.0%	150.0%	\$ 17.03	\$ 21.89	9.79
Energy Star® HVAC	38,345	16,609	43.3%	4,348	1,908	43.9%	\$ 3,673.0	\$ 1,590.8	43.3%	79.3%	667,485	294,275	44.1%	80.0%	\$ 5.50	\$ 5.41	8.30
EnergyWise Multifamily	8,633	2,685	31.1%	4,000	314	7.9%	\$ 1,491.6	\$ 693.8	46.5%	115.0%	148,675	48,131	32.4%	100.0%	\$ 10.03	\$ 14.42	1.34
Home Energy Reports	93,548	56,186	60.1%	152,324	152,543	100.1%	\$ 450.9	\$ 423.4	93.9%	83.3%	93,548	56,186	60.1%	83.8%	\$ 4.82	\$ 7.54	28.09
Residential New Construction	4,445	864	19.4%	323	71	22.0%	\$ 674.8	\$ 282.4	41.9%	77.9%	85,272	21,582	25.3%	59.9%	\$ 7.91	\$ 13.09	0.43
Comprehensive Marketing - Residential							\$ 64.8	\$ 28.3	43.7%	100.0%							
Community Based Initiatives - Residential							\$ 75.8	\$ 38.7	51.0%	100.0%							
<b>SUBTOTAL</b>	<b>165,840</b>	<b>95,917</b>	<b>57.8%</b>	<b>162,689</b>	<b>158,250</b>	<b>97.3%</b>	<b>\$ 14,548.5</b>	<b>\$ 12,868.9</b>	<b>88.5%</b>	<b>149.5%</b>	<b>1,471,530</b>	<b>868,327</b>	<b>59.0%</b>	<b>103.8%</b>	<b>\$ 9.89</b>	<b>\$ 14.82</b>	<b>47.96</b>
<b>Regulatory</b>																	
EERMC							\$ 275.1	\$ 144.4	52.5%	100.0%							
OER							\$ 275.1	\$ 206.3	75.0%	100.0%							
<b>SUBTOTAL</b>							<b>\$ 550.1</b>	<b>\$ 350.7</b>	<b>63.8%</b>	<b>100.0%</b>							
<b>TOTAL</b>	<b>419,537</b>	<b>184,013</b>	<b>43.9%</b>	<b>167,915</b>	<b>159,173</b>	<b>94.8%</b>	<b>\$ 33,275.2</b>	<b>\$ 19,941.2</b>	<b>59.9%</b>	<b>113.1%</b>	<b>4,072,084</b>	<b>1,910,542</b>	<b>46.9%</b>	<b>98.6%</b>	<b>\$ 8.17</b>	<b>\$ 10.44</b>	<b>92.01</b>

**NOTES**

- (1)(4) Targets from Docket 5076 - Attachment 6, Table G-7 (gas), Refined December 22, 2020.
  - (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 5076, Attachment 6 Table G-3 (gas), Refined December 22, 2020.
  - (8) Year To Date Expenses include Implementation expenses.
  - (9) Pct Achieved is Column (8)/ Column (7).
  - (13) Planned \$/lifetime MMBtu from Docket 5076 - Attachment 6, Table G-5 (gas), Refined December 22, 2020 - adjusted to reflect format of quarterly report. Program Implementation Expenses/lifetime MMBtu.
  - (14) \$/lifetime MMBtu = Column (8)\*1000/Column (11)
  - (15) Peak Hour Gas Demand Savings is a test metric in 2021 and represents a rough approximation of peak-hour gas demand impacts. Column(2) \*0.01 \*0.05
  - (16) (17) Year End Spending and Energy Savings forecasts are best estimates based on the information available and may change throughout the year.
- Values in quarterly reports are preliminary and subject to change. Data is finalized in the Year-End Report.

**Table 3  
National Grid  
Revolving Loan Funds**

<b>Large C&amp;I Electric Revolving Loan Fund</b>			<b>Small Business Electric Revolving Loan Fund</b>		
<u>Income Statement</u>			<u>Income Statement</u>		
(1)	2021 Funds Available	\$7,010,036	(1)	2021 Funds Available	\$3,144,530
(2)	2021 Loan budget	\$15,000,000	(2)	2021 Loan budget	\$3,000,000
(3)	Committed	\$7,592,861	(3)	Committed	\$0
(4)	Paid	\$3,570,544	(4)	Paid	\$884,287
(5)	Repayments	\$3,770,440	(5)	Repayments	\$784,475
(6)	Available 9/30/21	-\$382,929	(6)	Available 9/30/21	\$3,044,718
<u>Program Impact</u>			<u>Program Impact</u>		
(7)	Number of loans	185	(7)	Number of loans	360
(7b)	Participants	86	(8)	Annual Savings (Net MWh)	5,533
(8)	Annual Savings (Net MWh)	13,695	(9)	Lifetime Savings (Net MWh)	68,248
(9)	Lifetime Savings (Net MWh)	151,469	(10)	Annual Savings (Net kW)	889
(10)	Annual Savings (Net kW)	1,895			
<b>Rhode Island Public Energy Partnership (RI PEP)</b>			<b>C&amp;I Gas Revolving Loan Fund</b>		
<u>Income Statement</u>			<u>Income Statement</u>		
(1)	2021 Funds Available	\$462,477	(1)	2021 Funds Available	\$1,532,113
(2)	2021 Loan budget	\$0	(2)	2021 Loan budget	\$2,200,000
(3)	Committed	\$0	(3)	Committed	\$709,476
(4a)	Funds Returned to OER	\$462,477	(4)	Paid	\$72,885
(5)	Repayments	\$37,753	(5)	Repayments	\$377,194
(6)	Available 9/30/21	\$37,754	(6)	Available 9/30/21	\$1,126,946
<u>Program Impact</u>			<u>Program Impact</u>		
(7)	Number of loans	0	(7)	Number of loans	9
(7b)	Participants	0	(7b)	Participants	7
(8)	Annual Savings (Net MWh)	0	(8)	Annual Savings (Net MMBtu)	10,360
(9)	Lifetime Savings (Net MWh)	0	(9)	Lifetime Savings (Net MMBtu)	138,081
(10)	Annual Savings (Net kW)	0			

Notes

- 1 Amount available as of January 1, 2021. Includes line (6) "Available 12/31/20" plus line (3) "Committed" in Table E-6 and G-6 of the 2020 Year End Report.
- 2 Budget adopted by Sales Team for 2021 operations. Budget includes projections of repayments made during 2021.
- 3 As of September 30, 2021
- 4 As of September 30, 2021
- 5 As of September 30, 2021
- 6 Fund balance as of September 30, 2021
- 7 As of September 30, 2021. 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 September 30, 2021. Number is associated with paid loans.
- 9 As of September 30, 2021. Number is associated with paid loans.
- 10 As of September 30, 2021. Number is associated with paid loans.

**Table 4  
National Grid  
2021 Test Metrics**

**Customer Satisfaction<sup>1</sup>**  
94.2%

NOTES

<sup>1</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?

**Carbon Reduction<sup>2</sup>**

	<b>CO2 (Electricity)</b>	<b>CO2 (Natural Gas)</b>	<b>CO2 (Oil)</b>	<b>CO2 (Propane)</b>	<b>CO2 (Total)</b>
<b>Residential</b>	16,133	5,611	1,188	(38)	22,894
<b>Income Eligible</b>	818	280	196	7	1,302
<b>C&amp;I</b>	12,828	4,874	(227)	-	17,474
<b>Total</b>	29,779	10,765	1,157	(31)	41,670

NOTES

<sup>2</sup> Carbon emissions values are from AESC 2021, Appendix G Tab 159.