

Rhode Island Energy Efficiency

Fourth Quarter 2017 | National Grid

February 8, 2018

Overview

National Grid finished 2017 strong with the electric and gas sectors either meeting or exceeding energy savings targets for customers. In the fourth quarter, the Income Eligible Services program worked with local training facilities to bring good paying Weatherization jobs to local communities. Eleven towns are now in the process of converting their streetlights to LEDs, indicating 2018 will be another year of robust energy savings for towns. The Code Compliance Enhancement Initiative (CCEI) delivered training to 195 participants at 12 training events focused on both residential and commercial construction practices. Preliminary results indicate the Company helped save 231,486 Annual MWh of electricity and 461,400 Annual MMBtu of natural gas. Results will be finalized in the Year End Report on May 1st.

For residential EnergyWise customers, 231 Heat Loans were completed in the fourth quarter, bringing the total for 2017 to 836. The EnergyWise Heat Loan program made prudent use of EE rate payer funds by leveraging less than \$900,000 program dollars to bring in nearly \$5 million in private capital in 2017. Heat Loans are 0% interest loans offered by local credit unions and banks. ENERGYSTAR[®] Gas HVAC ran a successful Wi-Fi thermostat promotion, providing 57% of the program's annual savings goal. For Community Initiatives, Richmond, Cumberland, Smithfield and North Kingstown excelled in promoting the benefits of energy efficiency to residents, generating over 1,300 requests for energy assessments. All four towns will receive \$10,000 grants for energy efficiency improvements on a public property.

In C&I Finance, National Grid began working with Ascentium Capital, a specialty financing firm who is a leader in equipment and technology financing solutions, to offer customers another option for financing energy efficiency retrofit and new construction projects. Ascentium offers a simple, rapid approval loan process where customer incentives are used to assist buying down interest on loans (typically to zero percent depending on the term) for up to \$250,000. The Company will continue to see whether this option is attractive to customers in 2018.

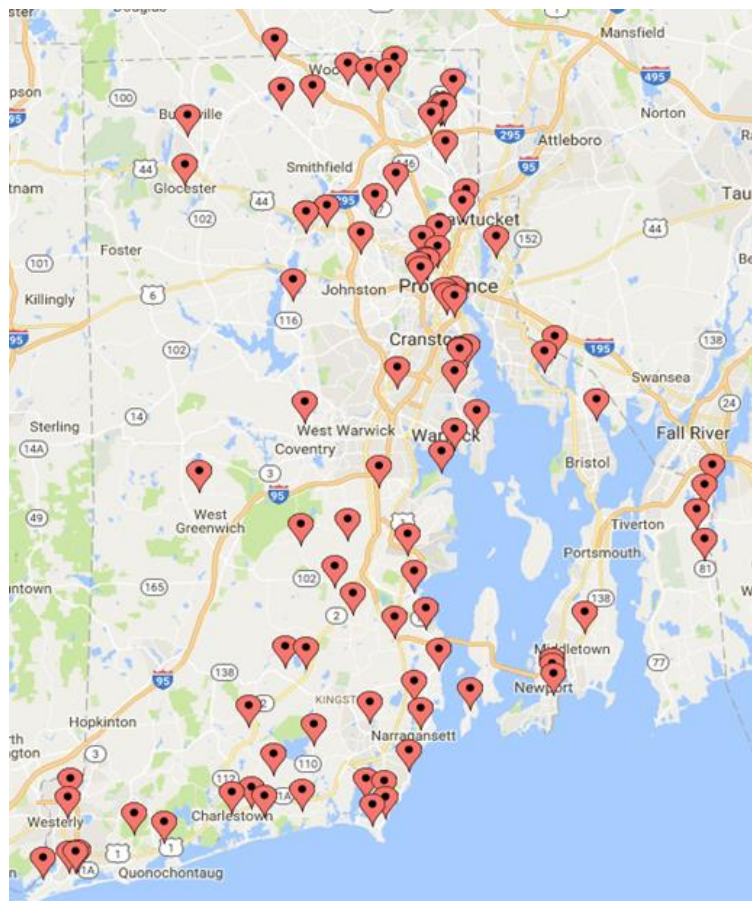
Looking to the future, the Company's first year of running the C&I Demand Response demonstration was successful. National Grid enrolled 32 customers with a total of 6.7 MW of nameplate demand. Two DR events were called in the summer of 2017 and customers responded with an average curtailment of 10.6 MW. The company plans to grow this program in the summer of 2018. The Customer Solutions pilot focuses on using residential wifi thermostats to help reduce peak load. Customer enrollments in the pilot increased by 179% from 2016 to 2017 with 1,220 customer thermostats were enrolled in the program at the end of 2017.

As markets transform, National Grid will strive to continue delivering clean, cost effective, energy savings to homes and businesses.

2017 Program & Initiative Updates

Residential New Construction (RNC)

- Residential New Construction had a solid finish in 2017, achieving 1,390 Annual MWh of savings (131% of goal) and 11,656 MMBtu of savings (101% of goal).
- The program enrolled 132 customer homes in the fourth quarter, bringing the total number of homes enrolled in 2017 to 680, 121% of the annual goal.
- Eighty-eight customer homes were completed during the fourth quarter (80 new construction and 8 reno-rehab). The number of customer homes served in 2017 increased 29% compared to 2016, and is the highest number of customers served by the program in a single year since its inception.
- Thirty-seven of the 88 customer homes enrolled in the program achieved at least 31% energy savings compared to the baseline (Tier II) and 5 homes achieved at least 45% savings compared to the baseline (Tier III).
- Achieving these higher tiers of energy savings will lead to hundreds of dollars of annual energy savings for the residents of these homes for years to come.
- Fifty-one customer homes of the 88 have gas heat (58%). Overall in 2017 52% customer homes were heated with gas and 38% with air source heat pumps. This represents a significant shift toward heat pumps from previous years and is a key driver of customer energy and financial savings.



(A snapshot of the locations of customer homes completed by the RNC program in 2017)

Program Enrollment Highlights

- Two affordable housing projects were funded by Rhode Island Housing and enrolled in the RNC Program in the fourth quarter. The East Bay Community Development Corporation's Palmer Sweetbriar Development in Barrington, RI will have a total of 46 new customer homes. Forty homes will be at Palmer Pointe and six homes will be on Sweetbriar Road. These projects will provide substantial energy and financial savings to low income customers.

Program Completion Highlights

- A vacant parcel of land on Branch Street in Pawtucket was developed into affordable housing, with 29 homes in new construction and 17 homes in renovation. The first three renovated homes on Knight Street, part of the "Branch Street Revival", were completed during the fourth quarter. The project installed rebate-eligible heating and hot water systems. The developer is Pawtucket Central Falls Development and the builder is the Stand Corporation.



Knight Street House, Pawtucket, RI – "Branch Street Revival"

Home Energy Rating System (HERS) Rater Market Expansion Efforts

- Outreach efforts were made to individuals who provide third-party verification in RI, including those who provide energy code compliance testing, and those who have Building Performance Institute (BPI) certifications. Three companies have committed to pursuing HERS rater certification with trainings to be scheduled in first quarter of 2018.
- Through the RNC program, individuals will receive HERS training, certification testing, and mentoring to conduct HERS ratings on behalf of the RNC program.
- Expanding the HERS rater market will create a larger local network of RI-based energy efficiency professionals, promote workforce training and development, and facilitate the successful transition to a fully open-rater program model in which Rhode Islanders can compete effectively with experienced HERS raters from surrounding states.

Income Eligible (IE)

- The National Grid Income Eligible Services program exceeded gas savings goals for the 2017 Program Year, achieving 14,461 Annual MMBtus of natural gas savings (133% of goal).
- In addition, the Income Eligible Services program also exceeded customer participation goals for the 2017 program year, serving 3,886 electric participants and 700 gas participants.
- The National Grid Income Eligible Services program is working with several local training facilities to bring good paying Weatherization jobs to local communities and contribute to Rhode Island's economy.
- The program collaborated with OER's Solar Access Working Group to find ways for income eligible customers to access solar energy.
- CLEAResult attended the following National Grid Customer Expos to provide information on Income Eligible Energy Efficiency programs as well as a host of other services:
 - October 2nd - Lincoln RI
 - November 29th - Pawtucket RI
 - December 15th - Central Falls RI
- The following meetings also took place in the fourth quarter:
 - Three Weatherization Technical Committee meetings at various CAP Agencies. These meetings ensure that best practice technical measures are provided consistently to all customers.
 - National Grid's Best Practices Meeting on November 16th, as well as a follow up meeting on the 2018 IES Plan.

EnergyWise

- The program had a successful year, achieving 6,887 Annual MWh of electric savings (105% of goal) and 28,024 Annual MMBtu of natural gas savings (98% of goal).
- Two hundred thirty one heat loans were completed in fourth quarter, bringing the 2017 total to 836. The EnergyWise program was able to multiply the impact its program dollars used for Heat Loans by leveraging less than \$900,000 program dollars to bring in nearly \$5 million in private capital, making prudent use of EE rate payer funds.
- In the fourth quarter, EnergyWise also completed 2,480 home energy assessments and 1,052 audits, bringing the annual total to 9,084 and 3,275, respectively.

EnergyWise Multifamily, Income Eligible Multifamily, C&I Multifamily Overview

- Income Eligible Multifamily continued its strong performance through the fourth quarter and exceeded its goals for 2017, achieving 3,882 Annual MWh of electric savings (142% of goal) and 3,636 of natural gas savings (110% of goal).
- Several Commercial and Industrial Multifamily projects were completed in the last two weeks of the year, resulting in a tremendous boost to savings to close out the year.

- For the Market Rate Multifamily program, efforts were aggressive through the fourth quarter highlighted by two projects in Cumberland and Pawtucket that resulted in 175 Annual MWh and 23.9 Annual MMBtu saved.
- A Customer housing authority received air sealing, insulation and new boilers for units in 28 buildings.
- Eleven projects were completed across Providence, made up of 40 buildings and 98 units. Comprehensive retrofits included thermostats, air sealing, bathroom ventilation, attic insulation, LEDs, smart strips and more.
- A second large housing authority customer engaged the company's vendor for interior and exterior lighting, demand controllers and more.

ENERGYSTAR® HVAC (Heating and Cooling)

Overview

- In 2017 the ENERGYSTAR® HVAC (Heating and Cooling) program achieved 1,405 MWh of electric savings (101% of goal) and 29,680 of natural gas savings (108% of goal). Solid working relationships were maintained with the trade ally network of HVAC contractors and equipment distributors participating in the program.

Highlights

- Outreach and programmatic support were provided to participating contractors to ensure they maintain the knowledge to effectively communicate program offerings to customers, and technical expertise to offer quality installations.
- In 2017, one trade ally program meeting and five AC-check trainings were hosted to engage with the RI Contractor community. The program's lead vendor participated in 15 industry events to promote the program.
- A successful Wi-Fi thermostat promotion had a large impact on the year, accounting for 57% of the overall gas savings in this program for 2017.
- Installation of electric heat pump mini-splits continues to increase year-after-year and is expected to continue in 2018 based on industry market trends.
- In an effort to reduce the number of call backs for heat pump mini-splits and to ensure accurate savings, a testing procedure was developed to assist contractors in their quality check efforts for heat pump mini-splits. The procedure verifies the charge through a quick analysis and measurements instead of tapping into the line with gauges.

ENERGYSTAR® Lighting

- ENERGYSTAR® Lighting had a very strong finish in the fourth quarter, and achieved 60,993 Annual MWh of electric savings (130% of goal) and 7,115 Annual kW of electric demand (130% of goal) in 2017, driven primarily by a transforming market and LEDs reaching a \$1/bulb benchmark.
- At the end of October, National Grid's ENERGYSTAR® Lighting and Consumer Products program manager attended the ENERGYSTAR® products partner meeting along with the programs' lead vendor, Lockheed Martin. The National Conference serves as a meeting place for all ENERGYSTAR® product stakeholders to network, strategize on promotional opportunities, and learn about new products coming-to-market. This team met with 22 lighting

manufacturers and discussed topics including LED price points and the lighting market beyond 2020.

- In the fourth quarter, Massachusetts lighting evaluation results showed efficient lighting saturation at 47%. In NY, a comparable state without lighting incentives, efficient lighting saturation was at 32%, highlighting the role incentives play in market saturation and transformation.

Residential Consumer Products

- Promotions for an enhanced refrigerator and freezer recycling incentive went out in the August bill insert which resulted in more than double the number of appliances picked up in September and triple in October when compared to August activities. Flash sale promotions were very successful in 2017 and increased the sale of Tier 2 Advanced Power Strips.

Home Energy Reports (HER)

- The program finished the year strong with higher than anticipated performance on both the gas and electric goals, driven in part by weather related factors.
- In the fourth quarter, the Company sent 475,316 printed Home Energy Reports and 356,956 electronic HER's, along with 78,467 High Use Alerts via email and averaged 6,748 monthly website logins.
- Some areas of focus in fourth quarter included:
 - Use of a billing period tracker to inform customers about historical use.
 - Creation of the 2017 Customer Engagement Tracker (CET) Survey with results due out in spring.

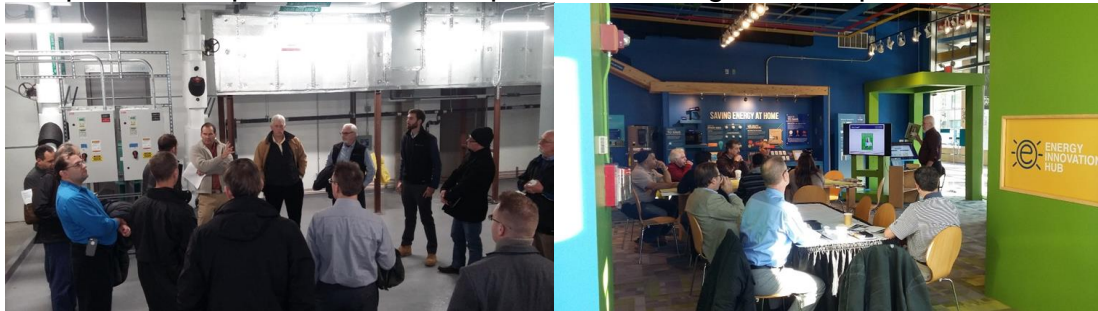
Community Initiatives

- The towns of Richmond, Cumberland, Smithfield and North Kingstown went above and beyond promoting the benefits of energy efficiency to residents. All four towns successfully achieved their residential assessment goals with these four towns generating over 1,300 requests for energy assessments throughout the year. The towns also ran customized promotions in local publications and websites and created town energy advisory groups to continue discussions in the future. As a result, all four towns will receive grants of \$10,000 to be used on energy efficiency improvements to a public property.

Code Compliance Enhancement Initiative (CCEI)

- In the fourth quarter of 2017, the Code Compliance Enhancement Initiative (CCEI) successfully completed its year-long focus on sharpening the skills building officials use to ensure that new buildings and renovations throughout the state are safe, comfortable, and deliver lower energy bills for customers.
- This quarter the CCEI delivered training to 195 participants through 12 training events held at locations like Taco Comfort Solutions, Dryvit, Brown University, and National Grid's new Energy Innovation Hub that provide an opportunity for interactive learning and demonstration of technology.
- Overall CCEI trained over 500 individuals in 2017, about two thirds of whom were building officials, through 24 training events that focused on both residential and commercial construction practices.

- In light of the delay in the state's energy code update process, CCEI continues to focus its training on the state's current energy code. However, several trainings held this quarter also prepare Rhode Island building professionals for the next code version, which will yield energy savings across the state and pocketbook savings for Rhode Island families and businesses. Training topics and materials were adjusted this quarter to focus on improving compliance in areas of weakness identified by two recent energy code surveys taken in the state.
- CCEI has contributed to the development of two stretch energy codes customized for Rhode Island that establish paths for the design and construction of buildings that are zero energy ready and help the state achieve its sustainability and climate goals. The stretch codes were completed this quarter and will be published during the first quarter of 2018.



Q4 training & site tour at Brown University

Q4 2017 training at the RI Innovation Hub

Large Commercial New Construction

- In the fourth quarter of 2017, National Grid entered into discussions and received proposals from a vendor, Seventh Wave, to deliver a new performance based procurement process for new construction projects. The Company plans to bring this process to customers in the spring of 2018.
- Eleven towns have purchased their streetlights and are in the process of converting them to LEDs. Energy efficiency applications have been received for all eleven towns.
- On December 13, a Level I Building Operator Certification (BOC) class completed their classroom work in Providence. This class included five state employees as part of the State Strategic Energy Management Plan (SEMP).

Large Commercial Retrofit

- Large Commercial Retrofit had a strong finish to 2017, achieving 89,327 MWh of electric saving (115% of goal) and 200,103 MMBtu of gas savings (107% of goal). A principle driver of this savings were CHP projects, which cumulatively contributed over 11,000 MWh of electric savings in 2017.
- Several Combined Heat and Power (CHP) projects are in the process of being commissioned, commissioning is where the Company tests the installed systems so that they perform per design. The Company also worked to build a pipe line of new CHP projects for 2018 and 2019 in the fourth quarter of 2017.
- A webinar on Insulation in Commercial Buildings was held in December.

Small Business Direct Install

- The Small Business Direct Install program also finished the year strong, achieving 12,956 MWh of electric savings (107% of goal) and 4,273 MMBtu of gas savings (117% of goal).
- In the fourth quarter a \$44,000 project was completed for a RI Relator that included lighting and sensors, custom lighting and gas Domestic Hot Water (DHW) measures. Saving totaled approximately 50 MWh and 4 MMBtu therms, saving the customer \$12,000/year in energy costs.
- Another project was completed for a RI small business that included lighting and sensors, custom lighting, boiler controls and gas DHW measures. Savings totaled about 63 MWh and 6.4 MMBtu – saving the customer around \$17,000/year in energy costs.

Finance

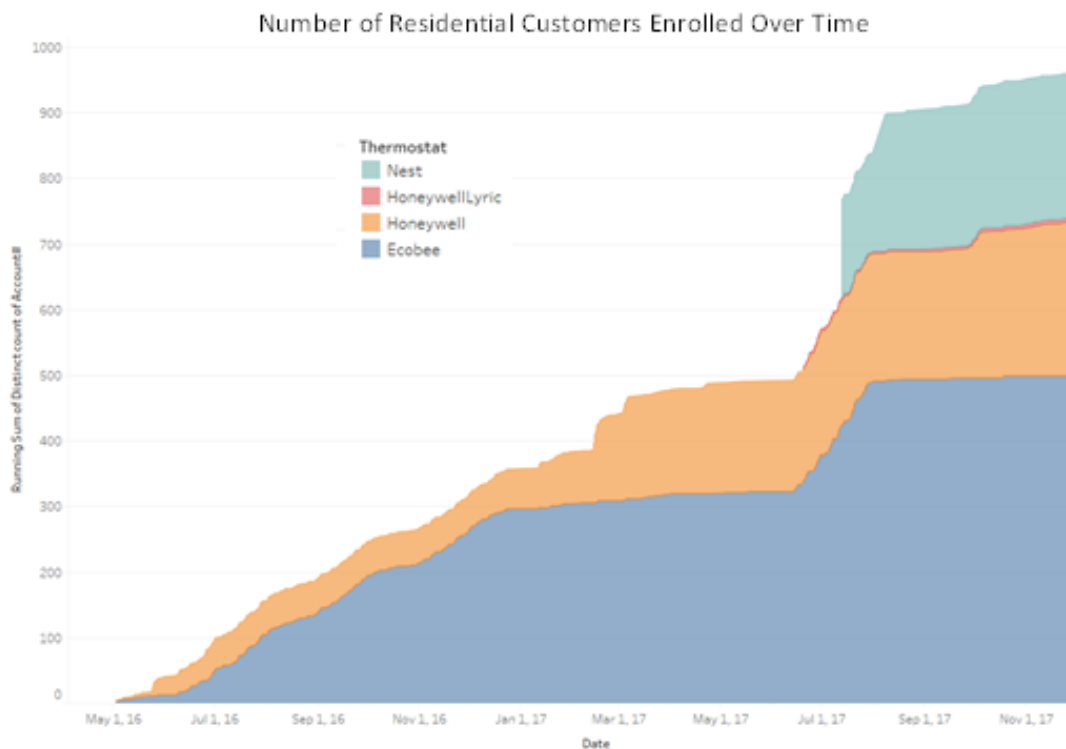
- In the fourth quarter, National Grid began working with Ascentium Capital, a specialty financing firm who is a leader in equipment and technology financing solutions, to offer customers another way to finance their projects. A simple, rapid approval loan process allows customers to use their incentive to buy down interest on loans (typically to zero percent depending on the term) for up to \$250,000. The Company will continue to examine this option in 2018.
- National Grid also continued to develop its inventory of financial mechanisms. The completed inventory will be shared with the EERMC in the first quarter of 2018.

Pilots and Demonstrations**Connected Solutions**

- Customer enrollments increased by 179% from 2016 to 2017. At the end of 2017 there were 1,220 thermostats enrolled in the Demand Response program. During the mild summer, there were only 11 events called as opposed to 32 in the summer of 2016.

Smart Lighting Solutions

- In the Smart Lighting Solutions pilot, customers are transitioning to a more automated and efficient usage of their lights. For the first 20 weeks of the pilot, customers are not able to control their lights so that National Grid can establish a baseline of standard usage. Control is then given to pilot participants in one of two ways, either by an in-home training or by an online training on how to control their lights. Ideally, the two options will simulate the experience between an in-home visit versus a retail experience and the evaluation will examine whether this leads to different levels of energy savings.



Number of Rhode Island residential customers taking part in Connected Solutions, 5/16 – 12/17

C&I Demand Response

- The Company's first year of running the C&I Demand Response demonstration was successful. National Grid enrolled 32 customers with a total of 6.7 MW of demand. The pilot called two DR events in the Summer of 2017 and customers responded with an average curtailment of 10.6 MW. The company plans to grow this program in the summer of 2018.

Evaluation

- All evaluation studies are conducted by 3rd party contractors, and vetted and reviewed by the EERMC consulting team. All final evaluation executive summaries are made available on the EERMC's website.
- The Technical Reference Manual documents the methodologies and assumptions used by National Grid to estimate energy savings and non-energy impacts attributable to the Company's electric and gas energy efficiency programs. The manual was updated and released in the fourth quarter and is available on the EERMC website.
- The C&I Upstream Lighting study's field work is complete and the results are in the process of being written up and finalized.
- The Small Business Services study is underway with the vast majority of site visits completed. The study will provide verification of electric energy and demand savings estimates for a sample of electric small business projects through site-specific inspection, monitoring, and analysis. The results of this study will be used to determine the final realization rates for small business energy efficient lighting and lighting controls measures.
- The Custom Gas study was scoped with site visits planned to begin in early 2018. Engineers will visit sample customer gas sites to install meters and monitor and analyze gas consumption.

Upcoming Events

- Globalcon comes to the Boston Hynes Convention Center from March 21-22.
- A Level 1 BOC class in RI (Date TBD) contact Alice Hourihan for details (alice.hourihan@nationalgrid.com)
- The Home Show will take place at the Rhode Island Convention Center in Providence from April 5 – 8.
- In March, National Grid will be providing a comprehensive codes training which includes installation and operation best practices to secure energy code savings. Contact Kevin Rose for more details - (kevin.rose@nationalgrid.com) Register here: <https://www.eventbrite.com/o/clearresult-on-behalf-of-national-grid-4691466985>

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
 Table 1. Summary of Electric 2017 Target and Preliminary 4th Quarter Results

ELECTRIC PROGRAMS Sector and Program	(1) (2) (3) Demand Reduction (Annual kW)			(4) (5) (6) Energy Savings (Annual MWh)			(7) (8) (9) Customer Participation			(10) (11) (12) Expenses (\$ 000)			(13)	(14)	(15)
	Target	Year To Date	Pct Achieved	Target	Year To Date	Pct Achieved	Target	Year To Date	Pct Achieved	Budget	Year To Date	Pct Achieved	Lifetime savings, MWh	\$/kWh	Planned \$/kWh
Commercial and Industrial															
Large Commercial New Construction	1,276	1,582	124.0%	14,270	13,141	92.1%	201	144	71.7%	\$5,121.4	\$5,183.2	101.2%	224,195	\$ 0.023	\$ 0.022
Large Commercial Retrofit	13,317	12,092	90.8%	77,611	89,327	115.1%	2,188	2,417	110.5%	\$22,708.4	\$24,964.6	109.9%	1,122,073	\$ 0.022	\$ 0.041
Small Business Direct Install	2,815	1,860	66.1%	12,136	12,956	106.8%	744	666	89.6%	\$8,431.4	\$8,184.6	97.1%	158,975	\$ 0.051	\$ 0.076
Commercial Demonstration and R&D										\$874.4	\$298.6	34.1%			
Finance Costs										\$4,500.0	N/A	N/A			
RI Infrastructure Bank										\$4,900.0	N/A	N/A			
SUBTOTAL	17,408	15,534	89.2%	104,017	115,424	111.0%	3,133	3,228	103.0%	\$46,535.6	\$38,631.0	83.0%	1,505,244	\$ 0.026	\$ 0.046
<i>Subtotal with Finance and RIIB</i>										\$46,535.6	\$48,031.0	103.2%	1,505,244	\$ 0.032	\$ 0.046
Income Eligible Residential															
Single Family - Income Eligible Services	652	775	118.8%	4,350	3,886	89.3%	2,625	3,074	117.1%	\$9,268.1	\$8,210.7	88.6%	46,263	\$ 0.177	\$ 0.200
Income Eligible Multifamily	145	205	141.7%	2,726	3,881	142.4%	2,894	6,421	221.9%	\$2,708.4	\$2,858.6	105.5%	28,416	\$ 0.101	\$ 0.097
SUBTOTAL	797	980	123.0%	7,076	7,766	109.8%	5,519	9,495	172.0%	\$11,976.5	\$11,069.3	92.4%	74,679	\$ 0.148	\$ 0.161
Non-Income Eligible Residential															
Residential New Construction	54	128	236.9%	1,065	1,390	130.5%	561	680	121.2%	\$1,045.3	\$1,142.2	109.3%	23,440	\$ 0.049	\$ 0.066
ENERGY STAR® HVAC	330	595	180.3%	1,376	1,405	102.1%	1,900	2,669	140.5%	\$1,669.5	\$1,588.6	95.2%	19,229	\$ 0.083	\$ 0.124
EnergyWise	376	385	102.5%	6,545	6,887	105.2%	9,000	10,159	112.9%	\$9,630.0	\$9,392.7	97.5%	66,046	\$ 0.142	\$ 0.166
EnergyWise Multifamily	288	218	75.5%	3,519	2,675	76.0%	4,000	3,557	88.9%	\$3,443.5	\$2,039.1	59.2%	26,912	\$ 0.076	\$ 0.111
ENERGY STAR® Lighting	5,466	7,115	130.2%	46,856	60,993	130.2%	279,425	435,656	155.9%	\$7,612.4	\$8,965.9	117.8%	540,707	\$ 0.017	\$ 0.038
Residential Consumer Products	705	756	107.3%	4,708	4,491	95.4%	14,700	14,502	98.7%	\$2,125.0	\$2,307.4	108.6%	33,780	\$ 0.068	\$ 0.081
Home Energy Reports	3,119	3,557	114.0%	26,184	30,454	116.3%	208,063	271,282	130.4%	\$2,447.0	\$2,389.8	97.7%	30,454	\$ 0.078	\$ 0.093
Energy Efficiency Educational Programs										\$40.0	\$49.8	124.5%			
Residential Demonstration and R&D										\$1,179.5	\$719.0	61.0%			
Community Based Initiatives - Residential										\$270.8	\$199.7	73.7%			
Comprehensive Marketing - Residential										\$535.4	\$476.7	89.0%			
SUBTOTAL	10,338	12,755	123.4%	90,254	108,295	120.0%	517,648	738,504	142.7%	\$29,998.4	\$29,271.0	97.6%	740,568	\$ 0.040	\$ 0.070
Regulatory															
EERMC										\$816.3	\$816.2	100.0%			
OER										\$816.3	\$847.3	103.8%			
SUBTOTAL										\$1,632.5	\$1,663.5	101.9%			
TOTAL	28,543	29,269	102.5%	201,347	231,486	115.0%	526,299	751,227	142.7%	\$ 90,143.1	\$ 80,634.7	89.5%	2,320,491	\$ 0.035	\$ 0.058
<i>TOTAL With Finance and RIIB</i>										\$ 90,143.1	\$ 90,034.7	99.9%	2,320,491	\$ 0.039	\$ 0.058
RGGI										\$ 767.8	\$23.0	3.0%			
Municipal LED Street Lights										\$ 1,525.0	\$722.7	47.4%			
System Reliability Procurement										\$ 399.3	\$229.6	57.5%			

NOTES
 (1)(5)(9) Targets from Docket 4654 - Attachment 5, Table E-7 (electric)
 (3) Pct Achieved is Column (2)/ Column (1).
 (7) Pct Achieved is Column (6)/ Column (5).
 (9) Participation was planned and is reported in 'net' terms which takes into account free-ridership and spillover.
 (11) Pct Achieved is Column (10)/ Column (9).
 (12) Approved Budget includes Implementation and Evaluation budgets from Docket 4654, Attachment 5 Table E-2 (electric), adjusted to reflect the following transfers made during the 3rd Quarter pursuant to Sections IV.C.1.A of the Energy Efficiency Program Plan for 2017 Settlement of the Parties (2017 Plan) approved in Docket 4654: \$1,000,000 from Large Commercial Retrofit to Commercial Finance Costs and \$200,000 from Small Business Direct Install to Commercial Finance Costs. Implementation and Evaluation budgets from Docket 4654, Attachment 5 Table E-2 (electric), were adjusted to reflect the following transfers made during the 4th Quarter pursuant to Sections IV.C.1.A and IV.C.2 of the Energy Efficiency Program Plan for 2017 Settlement of the Parties (2017 Plan) approved in Docket 4654: \$1,800,000 from ENERGY STAR® Lighting to Commercial Finance Costs and \$200,000 from Small Business Direct Install to Commercial Finance Costs.
 (13) Year To Date Expenses include Implementation and Evaluation expenses.
 RGGI Expenses are counted separate as those funds were not part of the approved 2017 budget. Details on RGGI spend are found in Table 4.
 (14) Pct Achieved is Column (13)/ Column (12).
 (16) \$/lifetime kWh = Column (13)/Column (15)
 (17) Planned \$/lifetime kWh - Attachment 5, Table E-5 (electric)
 System Reliability Procurement targets from Docket 4654 - Attachment 5, Table E-7 (electric), not included in Expenses Total
 The Company received \$1,525,000 from the State to pay out to municipal customers on its behalf.

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
Table 2. Summary of Gas 2017 Target and Preliminary 4th Quarter Results

GAS PROGRAMS Sector and Program	(1) (2) (3) Energy Savings (MMBtu)			(4) (5) (6) Customer Participation			(7) (8) (9) Expenses (\$ 000)			(10)	(11)	(12)
	Approved Target	Year To Date	Pct Achieved	Approved Target	Year To Date	Pct Achieved	Approved Budget	Year To Date	Pct Achieved	Lifetime savings, MMBtu	\$/Lifetime MMBtu	Planned \$/Lifetime MMBtu
Commercial and Industrial												
Large Commercial New Construction	53,516	35,932	67.1%	149	195	130.6%	\$1,877.7	\$2,082.5	110.9%	629,341	\$ 3.31	\$ 3.93
Large Commercial Retrofit	187,938	200,103	106.5%	147	106	72.2%	\$5,247.5	\$4,608.1	87.8%	1,626,355	\$ 2.83	\$ 4.07
Small Business Direct Install	3,639	4,273	117.4%	86	117	136.3%	\$268.7	\$125.0	46.5%	31,519	\$ 3.97	\$ 7.74
Commercial & Industrial Multifamily	4,434	9,442	212.9%	806	1,943	241.1%	\$738.9	\$794.8	107.6%	132,079	\$ 6.02	\$ 12.82
Commercial Demonstration and R&D							\$73.8	\$2.6	3.6%			
RI Infrastructure Bank							\$100.0	N/A	N/A			
Finance Costs							\$1,291.7	N/A	N/A			
SUBTOTAL	249,527	249,750	100.1%	1,188	2,361	198.7%	\$9,598.1	\$7,613.1	79.3%	2,419,295	\$ 3.15	\$ 4.50
<i>Subtotal With Finance and RIIB</i>							\$9,598.1	\$9,004.8	93.8%	2,419,295	\$ 3.72	\$ 4.50
Income Eligible Residential												
Single Family - Income Eligible Services	11,032	14,641	132.7%	590	700	118.6%	\$3,640.6	\$3,925.3	107.8%	292,816	\$ 13.41	\$ 16.50
Income Eligible Multifamily	15,810	17,423	110.2%	2,709	3,636	134.2%	\$2,216.6	\$1,916.1	86.4%	260,525	\$ 7.35	\$ 7.94
SUBTOTAL	26,842	32,064	119.5%	3,299	4,336	131.4%	\$5,857.2	\$5,841.4	99.7%	553,341	\$ 10.56	\$ 11.72
Non-Income Eligible Residential												
EnergyWise	28,587	28,024	98.0%	2,250	3,387	150.5%	\$6,917.2	\$7,742.8	111.9%	659,612	\$ 11.74	\$ 14.63
Energy Star® HVAC	27,393	29,680	108.3%	2,104	2,620	124.5%	\$1,803.5	\$1,584.3	87.8%	473,638	\$ 3.34	\$ 10.82
EnergyWise Multifamily	11,518	10,662	92.6%	4,101	3,984	97.1%	\$1,823.6	\$1,145.5	62.8%	161,595	\$ 7.09	\$ 13.22
Home Energy Reports	59,164	99,566	168.3%	99,001	118,276	119.5%	\$497.0	\$504.7	101.6%	99,566	\$ 5.07	\$ 8.40
Residential New Construction	11,575	11,656	100.7%	373	353	94.6%	\$840.7	\$920.2	109.5%	201,805	\$ 4.56	\$ 8.30
Residential Demonstration and R&D							\$264.4	\$32.3	12.2%			
Comprehensive Marketing - Residential							\$69.8	\$99.9	143.2%			
Community Based Initiatives - Residential							\$79.6	\$54.7	68.7%			
SUBTOTAL	138,237	179,587	129.9%	107,829	128,620	119.3%	\$12,295.7	\$12,084.4	98.3%	1,596,216	\$ 7.57	\$ 12.58
Regulatory												
EERMC							\$304.3	\$304.2	100.0%			
OER							\$304.3	\$278.7	91.6%			
SUBTOTAL							\$608.5	\$582.9	95.8%			
TOTAL	414,606	461,400	111.3%	112,316	135,317	120.5%	\$ 28,359.5	\$ 26,121.8	92.1%	4,568,852	\$ 5.72	\$ 7.96
<i>Total with Finance and RIIB</i>							\$ 28,359.5	\$ 27,513.4	97.0%	4,568,852	\$ 6.02	\$ 7.96

NOTES
(1)(5) Targets from Docket 4654 - Attachment 6, Table G-7 (gas).
(3) Pct Achieved is Column (2)/ Column (1).
Savings from the Codes and Standards initiative are not counted until year-end. Therefore, savings in the Commercial and Residential New Construction Programs may track lower each quarter.
(5) Participation was planned and is reported in 'net' terms which takes into account free-ridership and spillover.
(7) Pct Achieved is Column (6)/ Column (5).
(8) Approved Budget includes Implementation and Evaluation budgets from Docket 4654, Attachment 6 Table G-2 (gas), adjusted to reflect the following transfers made during the 3rd Quarter pursuant to Sections IV.C.1.A of the Energy Efficiency Program Plan for 2017 Settlement of the Parties (2017 Plan) approved in Docket 4654: \$208,630 from Large Commercial New Construction to Commercial Finance Costs and \$583,048 from Large Commercial Retrofit to Commercial Finance Costs.
(9) Year To Date Expenses include Implementation and Evaluation expenses.
(10) Pct Achieved is Column (9)/ Column (8).
(12) \$/lifetime MMBtu = Column (9)*1000/Column (11)
(13) Planned \$/lifetime MMBtu - Attachment 6, Table G-5 (gas).

National Grid 2017 4th Quarter Report

Appendix

Appendix 1: Joint National Grid and Rhode Island Infrastructure Bank Loan Reporting

Appendix 2: 2017 RGGI Budget and Spend

Appendix 1: Joint National Grid and Rhode Island Infrastructure Bank Loan Reporting
National Grid
Revolving Loan Funds Quarter 4 2017 Report

Large C&I Electric Revolving Loan Fund

Small Business Electric Revolving Loan Fund

<u>Income Statement</u>		
(1)	2017 Funds Available	\$16,661,388
(2)	2017 Loan budget	\$11,000,000
(3)	Committed	\$695,050
(4)	Paid	\$10,863,658
(5)	Repayments	\$4,180,335
(6)	<u>Available 12/31/17</u>	<u>\$9,283,015</u>
(7)	Outstanding loan volume	\$9,405,746
(8)	Loan defaults during period (\$)	\$0
(9)	Arrears over 120 days at period end (\$)	\$2,451

<u>Income Statement</u>		
(1)	2017 Funds Available	\$2,767,799
(2)	2017 Loan Budget	\$4,400,000
(3)	Committed	\$438,904
(4)	Paid	\$3,097,009
(5)	Repayments	\$2,687,171
(6)	<u>Available 12/31/17</u>	<u>\$1,919,057</u>
(7)	Outstanding loan volume	\$1,973,276
(8)	Loan defaults during period (\$)	\$0
(9)	Arrears over 120 days at period end (\$)	\$44,351

<u>Program Impact</u>		
(10)	Number of loans	282
(10b)	Participants	122
(11)	Savings (Gross MWh)	26,697
(12)	Savings (Net MWh)	21,586
(13)	Lifetime Savings (Gross MWh)	317,271
(14)	Lifetime Savings (Net MWh)	255,407
(15)	Savings (Gross kW)	3,094
(16)	Saving (Net kW)	2,745
(17)	Total associated incentive volume (\$)	\$6,394,591
(18)	Total annual estimated energy cost savings (\$)	\$3,708,935

<u>Program Impact</u>		
(10b)	Participants	1,911
(11)	Savings (Gross MWh)	13,394
(12)	Savings (Net MWh)	12,956
(13)	Lifetime Savings (Gross MWh)	159,013
(14)	Lifetime Savings (Net MWh)	158,975
(15)	Savings (Gross kW)	2,065
(16)	Saving (Net kW)	1,860
(17)	Total associated incentive volume (\$)	\$6,782,577
(18)	Total annual estimated energy cost savings (\$)	\$1,977,136

Rhode Island Public Energy Partnership (RI PEP)

C&I Gas Revolving Loan Fund

<u>Income Statement</u>		
(1)	2017 Funds Available	\$483,184
(3)	Committed	\$0
(4)	Paid	\$18,003
(5)	Repayments	\$339,972
(6)	<u>Available 12/31/17</u>	<u>\$805,153</u>
(7)	Outstanding loan volume	\$757,376
(8)	Loan defaults during period (\$)	\$0
(9)	Arrears over 120 days at period end (\$)	\$749

<u>Income Statement</u>		
(1)	2017 Funds Available	\$2,271,385
(2)	2017 Loan budget	\$1,000,000
(3)	Committed	\$0
(4)	Paid	\$680,811
(5)	Repayments	\$418,535
(6)	<u>Available 12/31/17</u>	<u>\$2,009,109</u>
(7)	Outstanding loan volume	\$1,062,568
(8)	Loan defaults during period (\$)	\$0
(9)	Arrears over 120 days at period end (\$)	\$63,332

<u>Program Impact</u>		
(10)	Number of loans	1
(10b)	Participants	1
(11)	Annual Savings (Gross MWh)	26
(12)	Annual Savings (Net MWh)	15
(13)	Lifetime Savings (Gross MWh)	303
(14)	Lifetime Savings (Net MWh)	179
(15)	Savings (Gross kW)	7
(16)	Saving (Net kW)	6
(17)	Total associated incentive volume (\$)	\$19,080
(18)	Total annual estimated energy cost savings (\$)	\$3,825

<u>Program Impact</u>		
(10b)	Participants	29
(11)	Annual Savings (Gross MMBtu)	49,846
(12)	Annual Savings (Net MMBtu)	36,449
(13)	Lifetime Savings (Gross MMBtu)	456,767
(14)	Lifetime Savings (Net MMBtu)	333,999
(17)	Total associated incentive volume (\$)	\$464,280
(18)	Total annual estimated energy cost savings (\$)	\$507,369

Notes

- 1 Amount available as of January 1, 2017, including 2017 fund injections detailed in Tables E-10 and G-10. Amount also includes transfers to the revolving loan funds made in the during the 3rd and 4th quarters as detailed in Tables 1 and 2 of this report. RI PEP Fund reflects a transfer of \$253,322.56 to RI PEP incentives in January 2017.
- 2 Budget adopted by Sales Team for 2017 operations. Budget includes projections of repayments made during 2017.
- 3 As of December 31, 2017. Committed in 2017 but to be paid in 2018. Savings not included in 2017.
- 4 As of December 31, 2017 This includes all project paid in 2017 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, 2017
- 6 Fund balance as of December 31, 2017. 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, 2017.
- 10 As of December 31, 2017
- 10b 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).
- 11 As of December 31, 2017
- 12 As of December 31, 2017
- 13 As of December 31, 2017
- 14 As of December 31, 2017
- 15 As of December 31, 2017
- 16 As of December 31, 2017

**Efficient Buildings Fund
Rhode Island Infrastructure Bank / Office of Energy Resources
2017 Year End Report**

Financing Program Income Statement

Funds Available (1/1/17)	\$5 million SBC is equal to \$15mm - \$25mm in loans
Loans Paid Out	\$14,186,965
Loans Repayments	\$0
Loans Defaults	\$0
Outstanding Loan Value	\$14,186,965
Funds Available (12/31/17)	\$5 million SBC is equal to \$15mm - \$25mm in loans

Financing Program Impacts

<i>Participation</i>	
Number of Loans (# - since inception)	12
Number of Participants (# - since inception)	11
<i>Projects</i>	
Total Loan Volume (\$ - since inception)	\$14,186,965
Total Associated Incentive Volume (\$ - since inception)	\$1,186,970.14
<i>Savings (2017)</i>	
Gross Annual Electricity Savings Supported (MWh)	5,856 MWh
Gross Annual Capacity Reductions Supported (kW) (1)	See Note (1)
Gross Annual Thermal Energy Saving Supported (therms)	60,293 therms
Lifetime Gross Energy Savings Supported (MMBTU) (2)	See Note (2)
Total Annual Estimated Cost Savings (\$)	\$2,062,099.20

Note (1): This data was not collected for EBF Round 1 participants but will be available from future rounds.

Note (2): This data was not collected for EBF Round 1 participants but will be available from future rounds.

Appendix 2: 2017 RGGI Budget and Spend

Initiative	2017 Budget	Spend
RI Public Energy Partnership Incentives	\$ 337,202	\$ -
Residential Delivered Fuels	\$ 21,484	\$ 21,484
Agricultural Delivered Fuels	\$ 238,515	\$ -
Heat Pump Study	\$ 170,597	\$ 1,543
Total	\$ 767,799	\$ 23,027

Notes

1. Budgets may differ from quarterly and annual RGGI reports delivered to the Office of Energy Resources as they represent funds available for program year 2017, net of previous year's spend.
2. Table only includes RGGI funds for specific initiatives. Does not include funds allocated to lowering the energy efficiency program charge or those allocated to loan funds.