National Grid Energy Efficiency Programs First Quarter Highlights

Rhode Island April 19, 2012



nationalgrid
%
powerofaction.com



Overview

National Grid kicked off 2012 a multitude of new energy efficiency initiatives intended to focus on customers and energy savings and meet the objectives of the 2012 Annual Plan: Energy efficiency is for everyone, Reaching Customers Where the Live and Work, Innovation and Economic growth.

As you may have heard on the radio, the Comprehensive Campaign aired advertisements promoting energy efficiency programs for every Rhode Islander. Additionally, National Grid held numerous trainings, program presentations, kick-off breakfasts, and a trade ally event in order to encourage all our partners and customers to participate in programs and spread opportunities for energy efficiency through their various channels.

Innovation was in full swing as the EmPower pilot launched. The System Reliability Procurement plan was approved and implementation plans have begun for Little Compton and Tiverton. The Deep Energy Retrofit Pilot is working with new developers and partners to demonstrate whole house savings. The Upstream Lighting initiative kicked off and will deliver lighting savings through new easy-to-access channels. A LED street lighting study is in the works and studies continue on savings from new kinds of residential and commercial code efforts.

National Grid also focused on economic growth. The EnergyWise program began its new implementation model where all weatherization is completed by certified independent contractors. The Heat Loan grew in popularity and 177 loans have already been lent to residential customers to invest \$1 million in energy efficiency retrofits. The Small Business and Large Commercial Revolving Loan Funds received \$4 million from RGGI auction proceeds, and will help customers finance their energy efficiency projects.

National Grid is putting a strong foundation in place for succeeding in achieving this year's energy savings goals and creating opportunities for every Rhode Islander. This quarterly illustrates program updates and quantifies savings goals. New this quarter, the report also introduces several key performance indicators used to measure other aspects of program objectives and goals.

nationalgrid

The power of action."

2012 Program & Initiative Update

Residential New Construction

- The Major Renovation and Rehab pilot began, there are several multi-family prospects and pre-testing started on one project with several units.
- The Lighting design pilot began and design plans are being reviewed for one potential candidate.
- Code Plus is being marketed as an entry into the program and as an option for projects that cannot meet ENERGYSTAR[®] Version 3.
 - In the first quarter, 21 projects, with a total of 54 units, appear to be good candidates for Code Plus; approximately half of the units are from builders and developers who have not participated in the program in the past.
- First Quarter Trainings and Presentations:
 - Presented 2012 program requirements and incentives to Rhode Island Housing.
 - Presented to HVAC Contractors at Supply New England in Middletown.
 - Held full day training with a vocational school; students are aiming for ENERGYSTAR® Version 3 on the house they are building.

Comprehensive Marketing

- The 2012 Comprehensive Campaign kicked off with radio ads in February.
- Focus groups were conducted to assess messaging.
- Additional marketing will continue throughout the spring and summer.

Innovation

- Behavioral Pilot
 - The Empower pilot launched in March with a goal of 100 participants in Tiverton, Little Compton, Aquidneck Island and Jamestown.
 - Installations began and currently 57 participants have been accepted.
- Residential Products Pilot
 - ECM Circulator Pilot Variable speed pumps have been installed on new boilers during 2012. The pumps were monitored for their energy savings and performance. The monitoring equipment will be removed in April. The evaluation will be completed when all of the data is in from the site installs.
 - Heat Pump Water Heater The pilot finished in March and monitoring equipment was removed. Final evaluation results are expected in early summer, adding to preliminary results available last year. These high energy saving products are available in Rhode Island and rebate forms are available online.



- Wi-Fi Thermostats The pilot monitoring was completed in March. Final evaluation results are expected this summer, adding to preliminary results available last year. These energy efficient products are available for rebates, forms are available online.
- Boiler Load Control –Installations were completed at 6 sites and include monitoring equipment to assess savings. Monitoring equipment will be removed in April. Final results are anticipated this summer.
- New residential products are being considered for future pilots.
- Deep Energy Retrofit Pilot
 - A two-family project in Kingston is nearing completion.
 - A single-family project in Wakefield started renovations.
 - The pilot is working with WinnCo, Omni Development, and RI Housing on two three-family projects in Providence.

Community Initiatives

- The 2011 Community Initiatives program concluded on March 31st.
- Preliminary results will be shared with the participating organizations over the next few months.
- 2011 findings will be used to develop goals for the second generation of community initiatives.

EnergyWise

- The 2012 program enhancements began in January.
 - All weatherization work will be completed by independent contractors.
 - A kick-off breakfast for contractors was held in February in Warwick to introduce new program enhancements. More than 50 people attended.
 - As a result, the list of certified contractors has grown to 19 firms.
- Program enhancements for customers include:
 - New education and marketing materials including audit packets, key information and FAQs.
 - Tenants can now receive weatherization.
 - Weatherization rebates will now cover additional air sealing costs that are above the free air sealing offer, which is available up to \$750.
 - New auditors have been hired in order to reduce the wait time for home assessments.
 - Additional customer enhancements are planned for the second quarter.

ENERGY STAR® Appliance and Lighting

- An informational radio ad aired from January 16th through February 5th explaining the shift from watts to lumens as a result of EISA; an EISA video was also linked to the National Grid website.
- The programs emailed invitations to schools for a fundraising opportunity using CFLs and advanced power strips.



- The Lighting program began investigating the potential for a Market Lift pilot. Next steps include determining baseline of sales and securing participating retail partners.
- A refrigerator recycling radio ad began airing on March 19 and an email blast was sent to customers to encourage recycling.
- The program is exploring new options for energy efficient smart strips to increase the variety of products offered to customers.

ENERGY STAR® HVAC

- Cooling equipment rebate forms are available at: https://www.powerofaction.com/media/pdf/RI_Cooling.pdf
- Gas Heating Equipment Rebates
 - Due to anticipated high demand, a reservation was established for gas heating equipment. Online reservations can be made at: https://www.smartenergy-zone.com/nationalgrid/
 - Rebate forms for gas heating equipment are available online at: https://www.powerofaction.com/media/pdf/RI_Resi.pdf
 - Nearly \$400,000 in heating system rebates have been reserved to date.
- Additional marketing will be distributed to supply houses and contractors in mid-April and contractor trainings are being planned.

Customer Finance

- The Heat Loan program has financed 177 new loans for residential retrofit projects since January. The average loan is approximately \$6,000 per home. The total loan value created this year is \$1 million. Since the program began in 2011, it has helped customers receive approximately \$2 million in loans.
- The Small Business Revolving Loan Fund received approximately \$2 million from RGGI Auction proceeds. The funds enhance the \$1.8 million received in 2011 and will be disbursed to customers this year to finance retrofit projects.
- The Large Commercial & Industrial Loan Fund received approximately \$2 million from RGGI Auction proceeds. The funds enhance the \$945,000 from 2011 outside finance funds and will be disbursed to customers this year to complete energy efficiency projects. Customers will be able to repay on-bill.

Single Family Low Income Services

- National Grid is working with the Office of Energy Resources (OER) to ensure that Providence residents can be served, either by ProCAP or other CAP agencies.
- A schedule has been established to train auditors from Green and Health Homes Initiative (GHHI).
- A Request for Interest (RFI) for lead program vendor will be issued soon.



Large Commercial Retrofit

- Large Commercial Manufacturing Initiative Based on customer feedback, the time period to implement efficiency measures resulting from the Level 2 Technical Assistance (TA) study has been extended from 1 to 2 years.
- SEMP
 - National Grid held a series of meetings with Brown University to establish a multiyear MOU; National Grid is working closely with Brown to improve the transactional process of current programs.
 - National Grid has scheduled a meeting with URI to discuss potential for an MOU.
- Multifamily Initiative
 - Residential and Commercial program managers are establishing a seamless program offering for multifamily facilities that are residentially and commercially metered. The program is reaching out to these specific Multifamily customers to determine applicable projects.
- Whole Building Assessment National Grid met with Rethinking Power Management (RPM) and Rouleau Consulting to map more effective delivery systems that recognize unique capabilities of customers.

Large Commercial New Construction

- Upstream Lighting
 - The initiative began in first quarter 2012 and customer awareness is increasing.
 - National Grid is planning marketing activities to promote the program and increase participation among businesses.
 - National Grid is currently offering 8 types of LEDS and 4 types of Florescent
 - There are more than 30 distributors participating in the initiative and 7 are located in Rhode Island.
- Street lighting Initiative A Company-wide study at Clarkson University is planned to begin in April to test LED streetlights for harmonics and other power quality issues.
- Office of the Future National Grid is currently piloting this initiative with four real estate property owners to develop a strategy for energy efficiency within tenant space.
- Codes & Standards
 - National Gris is participating in monthly meetings with RI Building Code Commission and NEEP to establish a strategy for codes support.
 - Code compliance studies for residential and commercial buildings are ongoing.



Evaluation

- The residential code compliance baseline study is currently analyzing HVAC performance and completed DOE checklists; a draft report is anticipated in the spring.
- The commercial code compliance baseline study has begun and is conducting preliminary analysis for statewide savings potential as a result of improved code compliance and advancement of codes and standards.
- Updating Participation
 - National Grid got feedback from the RI DSM Collaborative about methods for counting and tracking participation in all EE programs.
 - The Company is working to standardize the definition of a participant as a unique billing account.
 - This quarterly report updates the participation goals and actuals to be in line with this revised method.
- The Commercial Compressed Air evaluation began; the evaluation will sample includes sites in MA and RI; 2 of 3 RI sites have been visited.
- The Commercial Custom Lighting evaluation sample design is under development.
- The EnergyWise single family impact analysis is planned for this summer.
- The Rhode Island Free Ridership and Spillover study workplan has been approved and the study is planned for this summer.
- The Empower Pilot impact and process evaluation began and customer selection is ongoing.

System Reliability Procurement

- The System Reliability Procurement Plan (SRP) was approved by the RI Public Utilities Commission in February.
- SRP implementation has begun, equipment has been ordered and the program is developing the marketing and evaluation strategies
- The program will present to the Tiverton Town Selectman on May 14th

Recent Events

- National Grid's Residential New Homes Construction hosted a both at JLC Live
- National Grid promoted all residential energy efficiency programs at the RI Homes Show in Providence, March 29th through April 1st
- National Grid showcased its EE offerings at the 12th Annual RI League of Cities and Towns Convention on January 26th
- National Grid participated in the Newport county Chamber Annual Business Expo on March 13th



Upcoming Events

- National Grid will host a Trade Ally Open House on Wednesday, April 11th at the Crowne Plaza in Warwick from 8:30 a.m. until 12:00 p.m. The event is designed to engage commercial trade allies in collaborating on EE programs.
- Numerous Earth Day activities are planned to promote EnergyWise:
 - Olneyville Neighborhood Forum on Saturday, April 21st
 - MetLife Earth Week Symposium
 - AMGEN Earth Day on Monday, April 16th
 - United Foods Earth Day on Friday, April 20th
- National Grid will participate in the RI Business Expo at the RI Convention Center on May 3rd
- SRP Presentation to Tiverton Town Selectman's meeting on May 14th
- National Grid will participate in the World Trade Day at Bryant University on May 23rd



Key Performance Indicators

Program & Indicator	Objective	Goal	Acutal
All Programs or Sectors			
All Programs Percent of electric energy savings goals attained	Achieve goals of least cost procurement	100%	11%
All Programs Percent of gas savings goals attained	Achieve goals of least cost procurement	100%	11%
All Residential Programs percent of National Grid's customers participating in whole house or rebate programs Note: Working towards being able to report this going back to 2009	Increase saturation of customer participation in residential sector	TBD	TBD
Small Business Program percent of National Grid's small business customers receiving an energy audit Note: Working towards being able to report this going back to 2009	Increase saturation of customer participation in small business customer class	TBD	TBD
Residential Programs			
EnergyWise Days a customer waits for an EnergyWise Assessment	Reduce the time a customer waits for a home assessment	15	20 - 25
EnergyWise Number of Independent Contractors participating in program	Expand the number of Small Businesses participating in weatheriztion	n/a	19
Residential Programs Number of customers who received a Heat Loan	Overcome barriers to participation by providing 0% interest loans for energy efficiency retrofits	n/a	177
ENERGYSTAR® HVAC Percent of Hard-To- Reach customers served with gas heating equipment rebates	Provide access to programs to customers who do not typically participate.	30%	TBD
Low Income Services Number of customers that received home energy assessments with electric EE measures and/or weatherization and heating system replacement services (for non-gas heating customers) in Rhode Island	Improve program delivery efforts to serve every community in RI	2501	284
Low Income Services Number of customers with gas heat that received weatherization and/or heating system replacement services in Rhode Island	Improve program delivery efforts to serve every community in RI	430	25
Commerical & Industrial Programs			
Large Commerical New Construction Percent of goal achieved for Upstream Lighting Initiative	Deliver energy savings in an easy-to-acess way for customers	18,500	281
Large Commerical Retrofit Number of technical studies for large manufacturing customers	Engage manufacturing customers in energy efficiency projects	10	3
Large Commercial Retrofit Number of customers committed to three year EE planning through SEMP	Deliver deeper energy savings through long-term energy efficiency MOUS	3	0



NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND

Table 1. Summary of 2012 Target and Preliminary 1st Quarter Results

ELECTRIC PROGRAMS	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Sector and Program	Demand	Reduction (A		Energy S	avings (Annu			mer Participat	ion	Implem	entation Expenses (
Commercial and Industrial	Target	Year To Date	Pct Achieved	Target	Year To Date	Pct Achieved	Approved Target	Year To Date	Pct Achieved	Budget	Year To Date	Pct Achieved	Lifetime savings, MWh	\$/kWh
Large Commercial New Construction	8,011	191	2.4%	30,346	853	2.8%	2,365	67	2.8%	\$8,834.4	\$383.0	4.3%	13,145	
Large Commercial Retrofit	5,708	365	6.4%	39,928	2,766	6.9%	365	65	17.8%	\$9,708.5	\$459.0	4.7%	34,899	\$ 0.013
Small Business Direct Install	3,982	556	14.0%	17,984	2,334	13.0%	1,443	249	17.3%	\$10,231.3	\$596.8	5.8%		\$ 0.021
Community Based Initiatives - C&I	0,002	330	14.070	,00.	2,004	10.070	1,440	243	17.570	\$200.0	\$6.8	3.4%	20,100	ψ 0.021
EERMC - C&I									Į	\$354.5	\$2.0	0.6%		
Comprehensive Marketing - C&I										\$330.0	\$233.6	70.8%		
Outside Finance Costs						2 = 0	==		2.404	\$1,000.0	\$0.0	0.0%	=0.110	** ***
SUBTOTAL	17,701	1,112	6.3%	88,258	5,954	6.7%	4,173	381	9.1%	\$30,658.6	\$1,681.2	5.5%	76,146	\$0.022
Residential Low-Income														
Single Family - Low Income Services	482	46	9.6%	3,960	423	10.7%	2,501	284	11.4%	\$5,615.4	\$290.0	5.2%	5,078	\$0.057
							<u> </u>							
Residential Non-Low Income							1	1						
Residential New Construction	246	41	16.7%	812	164	20.2%	405	88	21.7%	\$1,036.0	\$92.1	8.9%	,,,,	\$ 0.032
ENERGY STAR® HVAC	2,085	4	0.2%	1,964	6	0.3%	3,709	26	0.7%	\$2,477.0	\$31.7	1.3%		\$ 0.294
EnergyWise	798	44	5.5%	8,432	457	5.4%	13,017	632	4.9%	\$7,541.5	\$878.6	11.6%		\$ 0.173
ENERGY STAR® Lighting	2,110	66	3.1%	20,174	618	3.1%	160,000	6,276	3.9%	\$4,507.4	\$219.4	4.9%	,	\$ 0.049
ENERGY STAR® Appliances Energy Efficiency Educational Programs	507	99	19.4%	4,971	986	19.8%	19,080	4,791	25.1%	\$2,045.4 \$75.0	\$247.9 \$0.0	12.1% 0.0%	7,888	\$ 0.031
EERMC - Residential									ŀ	\$299.0	\$1.7	0.6%		
Residential Behavior Pilot									ŀ	\$230.8	\$6.3	2.7%		
Residential Products Pilot										\$314.7	\$1.5	0.5%		
Community Based Initiatives - Residential									ľ	\$156.6	\$31.9	20.4%		
Comprehensive Marketing - Residential										\$920.0	\$653.5	71.0%		
SUBTOTAL	5,747	254	4.4%	36,352	2,231	6.1%	196,211	11,813	6%	\$19,603.3	\$2,164.6	11.0%	20,415	\$0.106
System Reliability Procurement	109	0	0.0%	475	0	0.0%	140	0	0.0%	\$ 196.0	\$0.1	0.0%		
TOTAL	23,930	1,412	5.9%	128,570	8,608	6.7%	202,885	12,478	6.2%	\$55,877.3	\$4,135.8	7.4%	101,639	\$0.041
TOTAL	23,530	1,412	3.5 /6	120,370	0,000	0.7 /6	202,003	12,470	0.2 /8	\$33,677.3	φ4,133.0	7.4/0	101,039	\$0.041
GAS PROGRAMS				(4) (5) (6)		(7) (8) (9)		(10) (11) (12)		(12)	(13)	(14)		
Sector and Program				Energy Savings (MMBtu)		Customer Participation		Implementation Expenses (\$ 000)		\$ 000)		` '		
				Approved Pct		Approved		Approved Pct		Det	Lifetime savings,	\$/Lifetime		
Commercial and Industrial					Year To Date		Target	Year To Date	Pct Achieved	Budget	Year To Date	Achieved	MMBtu	MMBtu
Large Commercial Retrofit				75,814	22,204	29.3%	115	33	28.7%	\$2,700.5	\$457.9	17.0%	169,539	\$2.701
Large Commercial New Construction				39,485	1,613	4.1%	51	11	21.4%	\$2,008.6	\$137.0	6.8%	31,447	\$4.356
Small Business Direct Install				5,013	1,073	21.4%	158	37	23.4%	\$110.6	\$6.6	5.9%	7,916	\$0.830
										\$130.0	\$78.1	60.1%		
Comprehensive Marketing										\$59.3	\$0.0	0.0%		
EERMC Assessment-C&I											*			
				120,312	24,890	20.7%	324	81	25.0%	\$4,949.7	\$679.6	13.7%	208,903	\$3.253
EERMC Assessment-C&I				120,312	24,890	20.7%	324	81	25.0%	\$4,949.7	\$679.6	13.7%	208,903	\$3.253
EERMC Assessment-C&I SUBTOTAL				120,312 7,697	24,890	20.7%	324 430	81 25	25.0% 5.8%	\$4,949.7 \$1,765.8	\$679.6 \$93.4	13.7% 5.3%	208,903 8,950	\$3.253 \$10.437
EERMC Assessment-C&I SUBTOTAL Residential Low-Income				- '			-	•			· · ·			
EERMC Assessment-C&I SUBTOTAL Residential Low-Income Single Family Low Income Services				- '			-	•			· · ·	5.3%		
EERMC Assessment-C&I SUBTOTAL Residential Low-Income Single Family Low Income Services Residential Non-Low Income Energy Star® HVAC EnergyWise				7,697	447	5.8%	430	25	5.8%	\$1,765.8	\$93.4		8,950	\$10.437
EERMC Assessment-C&I SUBTOTAL Residential Low-Income Single Family Low Income Services Residential Non-Low Income Energy Star [®] HVAC EnergyWise Residential Products Pilot				7,697	1,501	5.8% 1.9%	12,211	25	5.8% 1.3%	\$1,765.8 \$2,975.9 \$2,701.1 \$134.1	\$93.4 \$163.3 \$790.1 \$0.4	5.3% 5.5% 29.3% 0.3%	8,950 28,526	\$10.437 \$5.72 ²
EERMC Assessment-C&I SUBTOTAL Residential Low-Income Single Family Low Income Services Residential Non-Low Income Energy Star® HVAC Energy Wise Residential Products Pilot Comprehensive Marketing				7,697	1,501	5.8% 1.9%	12,211	25	5.8% 1.3%	\$1,765.8 \$2,975.9 \$2,701.1 \$134.1 \$130.0	\$93.4 \$163.3 \$790.1 \$0.4 \$92.0	5.3% 5.5% 29.3% 0.3% 70.8%	8,950 28,526	\$10.437 \$5.72 ²
EERMC Assessment-C&I SUBTOTAL Residential Low-Income Single Family Low Income Services Residential Non-Low Income Energy Star® HVAC Energy Star® HVAC Energy Wise Residential Products Pilot Comprehensive Marketing EERMC Assessment-Residential				7,697 79,712 23,827	1,501 7,786	1.9% 32.7%	12,211 2,000	25 158 621	5.8% 1.3% 31.1%	\$1,765.8 \$2,975.9 \$2,701.1 \$134.1 \$130.0 \$92.5	\$163.3 \$790.1 \$0.4 \$92.0 \$0.0	5.3% 5.5% 29.3% 0.3% 70.8% 0.0%	8,950 28,526 192,152	\$10.437 \$5.724 \$4.112
SUBTOTAL Residential Low-Income Single Family Low Income Services Residential Non-Low Income Energy Star® HVAC Energy Wise Residential Products Pilot Comprehensive Marketing				7,697	1,501	5.8% 1.9%	12,211	25	5.8% 1.3%	\$1,765.8 \$2,975.9 \$2,701.1 \$134.1 \$130.0	\$93.4 \$163.3 \$790.1 \$0.4 \$92.0	5.3% 5.5% 29.3% 0.3% 70.8%	8,950 28,526	\$10.437 \$5.72 ²

- NOTES
 (1)(4) Targets from Docket 4295 Attachment 5, Table E-6 (electric) updated with Division approved budget transfer, and Attachement 6, Table G-6 (gas)
 (3) Pct Achieved is Column (2)/ Column (1).
 (6) Pct Achieved is Column (6)/ Column (1).
 (7) Participation targets are based on Docket 4295 and have been updated with uniquie customer definitions based on RI Collaborative feedback.
 (9) Pct Achieved is Column (8)/ Column (7).
 (10) Approved Implementation Expenses from Docket 4295, Attachment 5 Table E-3 (electric) and Attachment 6 Table G-3 (gas)
 (11) Year To Date Implementation Expenses are net of evaluation expenses
 (12) Pct Achieved is Column (11)/ Column (10).
 (13) Lifetime Savings from Docket 4295 Attachment 5, Table E-6 (electric) and Attachment 6, Table G-6 (gas)
 (14) \$\infty{\text{Milletime kWh} = Column (11)/Column (13); \infty{\text{Miletime therm}} = Column (11)\text{Miletime therm} = Column (13)\text{Miletime therm} = Solumn (14)\text{Miletime therm} = Solumn (14)\