

Rhode Island Energy Efficiency

Second Quarter 2014 | National Grid

August 7, 2014

Overview

During the second quarter, National Grid built upon its strong first quarter foundation with continued focus on growing customer participation and savings.

One of the highlights of the second quarter was the success of the Rhode Island Energy Expo at the 2014 RI Home Show. National Grid partnered with the RI Office of Energy Resources (OER) and the RI Energy Efficiency and Resource Management Council (EERMC) to host the event. In total, 20,000 people were in attendance, up 45% over previous years. The Expo helped increase attendee awareness of energy efficiency and National Grid's program offerings. Over 300 leads were created for the Home Energy Assessment program, nearly 200 Rhode Islanders signed up for the RI Energy Challenge: Find Your Four!, and over 1,500 boxes of energy efficient lighting were sold.

In the residential sector, Newport joined North Smithfield as the second city to win the Rhode Island Energy Challenge: Find Your Four! With over 5% of the city's households pledging to be more efficient by finding four ways to save, Newport was designated as a Rhode Island Energy Champion and will receive \$7,500 from National Grid to be put toward energy efficiency improvements in a public building.

Commercial and industrial sector programs also made strong progress towards year end savings goals. The Codes initiative had strong attendance numbers at the five commercial and five residential classroom training sessions held in the second quarter. In addition, the Company was able to break down barriers to participation in the hard-to-reach manufacturing sector through its pilot initiative, enabling several large manufacturing customers to achieve significant energy savings.

During the second quarter, National Grid launched new initiatives and partnered with experts to create a strong foundation for reaching energy savings goals in 2014 and beyond. This included the roll-out of the Sustainable Office Design Initiative that targets tenant fit-out office spaces that are greater than 7,500 square feet. The Company also worked with industry experts including ACEEE and the Affordable Multifamily Housing Efficiency Project on enhancing its multifamily program delivery.

At the halfway point, the Company is projecting that we will reach 94% of the electric savings target and 102% of the gas savings target. The Company is looking forward to building off the momentum gained in the first two quarters to ensure a strong finish in the second half of the program year.

2014 Program & Initiative Updates

Residential New Construction

- The program continued its strong performance in quarter two, enrolling a total 299 homes and completing 245 homes. Completed homes included 140 units at the American Wireworks (mill building) in Pawtucket; 36 units at the Mount Hope Court Apartments in Providence; and 28 units at the Veterans Memorial Family Housing in Woonsocket.
- Several trainings were held in the second quarter.
 - Sam Rashkin, Chief Architect of the Building Technologies Office at DOE, presented a comprehensive overview of zero-energy-ready home construction in front of more than 60 building professionals.
 - In addition, 56 students from the Woonsocket Area Career and Tech Center participated in a technical and job support training where they had the opportunity to learn about energy efficiency through classroom sessions and hands-on training.
- The program was highlighted at the Rhode Island Home Show in Providence with two 30-minute energy efficiency presentations.
- There were several Reno/Rehab success stories in the second quarter:
 - The developer of the 36-unit Mount Hope Court Apartments in Providence was able to significantly improve the air leakage in the building, helping to create better thermal comfort for tenants.
 - Insulation inspections were recently performed for a Newport Renewables home in Jamestown that is striving for Net Zero. This is the first RI RNC participant using the RI manufactured Climate Block Structural Insulated Panels (SIP) system.
- After a successful launch of the RI Code Enhancement Initiative, RI RNC has seen a recent uptick in requests for code testing. Builders have expressed interest in learning about RI RNC and several have enrolled homes in the program. This is a great example of the benefits of program crossover resulting in increased participation and energy savings.



Income Eligible

- Eight Community Action Program (CAP) auditors and CLEAResult participated in the Building Performance Institute Quality Control Inspector training in May. In 2015, all final inspections will be completed by a BPI QCI certified inspector.

- The Weatherization and Technical Committee met in April and discussed the Operation Manual; Department of Energy grant; the importance of obtaining permits in advance of work; QCI training and testing; and Knob and Tube Wiring Policy.
- Jules Junker, a 30-year leader in energy-efficient building and owner of ThermalWorks in Vermont, continued his Rhode Island training program (1 day classroom, 2 days field) with four of the seven CAPs participating in the second quarter. Training will continue in the third quarter.
- The annual Rhode Island Weatherization Program Policy Advisory Council (WAP PAC) meeting was held in the second quarter. WAP PAC is a collaborative that shapes Rhode Island weatherization programs. Members are the Rhode Island Department of Human Services, the Department of Health, National Grid, Green and Healthy Home Initiative, RI Housing, Blackstone Valley CAP (as appointed by RICAA), and the Housing Resource Commission.

EnergyWise

- The program had a strong second quarter with 2,050 assessments and 834 weatherization projects completed.
- During the second quarter, customer interest in EnergyWise home energy assessments and weatherization skyrocketed. As a result, gas incentive levels will be reduced from 75% of project cost (up to \$2,000) down to 50% of project cost (up to \$2,000) at the beginning of quarter three.
- The \$800,000 in oil weatherization funds was nearly exhausted at the end of the second quarter. With no additional funds available, this program element will most likely be suspended for the remainder of 2014.
- Ten Independent Installation Contractors (IICs) were awarded DOE and EPA Century awards for completing 100 or more weatherization projects in 2013.
- Contractor performance was also evident in the second quarter with New England Weatherization receiving a Golden Gun award for outstanding performance in air sealing.
- Nineteen air sealing projects were completed by Ocean State Energy Audits for the Tier 4 Air Sealing Pilot.
- 578 Heat Loans were processed through the end of quarter two.

EnergyWise and Income Eligible Multifamily

- During the second quarter, the Company continued its commitment to program improvement. The company received multiple technical assistance studies on multifamily program design and implementation from various industry experts including ACEEE and the Affordable Multifamily Housing Efficiency Project (<http://www.nrdc.org/energy/files/multifamily-housing-energy-efficiency-FS.pdf>). In June, the Company met with ACEEE to discuss their findings, which included best practices for building energy benchmarking, incentive design, and marketing and outreach.
- Income Eligible multifamily is on track to meet year-end savings goals. One of the success stories from the second quarter was the 151-unit Babcock Village

Apartments in Westerly. Improvements included direct install measures for all units, a vender miser occupancy control for a refrigerated beverage dispenser, and over 2,500 square feet of cellulose insulation. Overall the improvements will result in estimated savings of more than 70,000 annual kWh and 6,800 annual therms.

- Market Rate multifamily also continues to perform well and is on track to meet year-end savings goals. One highlight during the last quarter was the 82-unit Woodbridge Apartments project in Cranston. The project received over \$80,000 in gas and electric energy efficiency measures. In addition to traditional direct install measures for common area and individual units, the facility received full air sealing measures and almost 30,000 square feet of cellulose insulation.

ENERGYSTAR® Lighting and Appliances

- In April there was a Deals in RI promotion offering six LED BR030 bulbs (commonly used in recessed lighting) for \$20. There was a strong response to this offer, with over 1,300 kits sold.
- In June there was a social media promotion on the National Grid RI Facebook page that offered six globe CFL bulbs and the Evolve Roadrunner water saving showerhead for \$15. Over 2,800 kits were sold supporting the ongoing interest in CFLs and the emerging interest in water savings measures.
- To date the school fundraiser program has been used by sixteen schools in RI. A total of 4,700 students have been trained in ways to save energy around their homes and over 11,000 energy efficient lighting and energy savings items have been sold.

ENERGYSTAR® HVAC (Heating and Cooling)

- During the second quarter, circuit rider outreach for both RI Gas and Electric programs continued with visits to several supply houses.
- Heat pump water heaters continued a strong trajectory with over 80 installations.
- Looking forward to the third quarter, on July 31, 2014 reduced gas heat rebates will take effect. Communications with contractors, installers and supply houses will be conducted at the beginning of the third quarter.

Home Energy Reports

- The program continues to deliver excellent gas savings by capitalizing on the many opportunities during the very cold winter and early spring, achieving 59% of the savings goal.
- Electric savings continue to accumulate ahead of the summer months, with savings at 36% of the savings goal through the end of June.

Community Initiative

- The Rhode Island Energy Challenge: Find Your Four! initiative continues to make excellent progress in engaging Rhode Islanders about energy efficiency and the ways that they can save at home. Major updates include:
 - The City of Warwick, a current municipal partner, has been actively encouraging residents to take energy efficient actions. With almost a month left in the Challenge, the City has already achieved 1,300 of its 1,700 sign-up goal. The Challenge is also reaching out to the Warwick faith community and presented at community gatherings such as little league tournaments and city concerts.
 - The City of Newport was named a RI Energy Champion by successfully signing up over 5% of households. Actually, while the goal was 530 emails/households, Newport signed up almost 900 homes!
 - The Challenge also made great advances in engaging businesses. National Grid and SmartPower were onsite for three days at Fidelity where over 10% of their employees signed up for the Challenge. The Challenge also made a second trip to Blue Cross Blue Shield (BCBS) and well exceeded their 10% mark. BCBS is now taking it upon themselves to Challenge GTECH (the newest Challenge partner) to see if they can get more employees to be energy efficient in their homes.

Commercial & Industrial Customer Experience

- National Grid is continuing to work with identified market sectors. In the first quarter, the large customer sales group re-aligned to serve customers based market sectors. In the second quarter, the Company continued with process by modifying the small and medium customer sales team to also be structured based on market verticals. The sales force realignment will better serve customers and focus on energy savings based on each sector.

Codes Initiative

- Attendance at energy code training was strong in the second quarter. In total, five commercial classroom training sessions (95 attendees) and five residential trainings (72 attendees) were held.
- CSG sent electronic invitations to trainings approximately every two weeks throughout the quarter. Training enrollments continue to spike during the week after the invite is sent.
- CSG partnered with the Town of North Smithfield and coordinated with National Grid on several residential trainings.
- Five blower door trainings were held and CSG sponsored trainings on structural insulated panels (SIPs) for both commercial and residential stakeholders with Branch River.
- Two commercial webinars were developed in June: "Controlling Air and Moisture in the Building Envelope" and "Daylighting Requirements". These webinars are ready to be launched in July and are scheduled for sessions through September.

- The National Grid marketing team is also working to develop a marketing strategy for a state-wide awareness plan for codes support.

Large Commercial New Construction

- The program is on track to meet both electric and gas savings goals.
- Upstream Lighting:
 - Upstream lighting regained its footing in the second quarter, as January and February are historically the weakest months of the year. The addition of new products, including recessed lighting 25w and above and LED stairwell lighting should start to add to savings in the third quarter.
- Upstream HVAC:
 - This initiative continues to experience slow uptake. National Grid continues to improve the system and tighten relationships with distributors.
- Street lighting:
 - At the end of the second quarter, the Commission had not yet issued a decision on the customer owned street lighting docket. Once the tariff is approved, customer owned street lighting will be included as a Rhode Island Public Energy Partnership (RIPEP) project for energy efficiency.
- Office of the Future:
 - This initiative was formally rolled out from a pilot stage to an initiative and is now open to all customers. It is now called the Sustainable Office Design Initiative and targets tenant fit-out office spaces that are greater than 7,500 square feet.

Large Commercial Retrofit

- This program is expecting to meet its gas savings goal and at least 90% of its electric savings goal.
- The manufacturing initiative pilot demonstrated great progress in the second quarter. Several large manufacturing customers that previously were not able to fully participate in energy efficiency programs were able to do so under this initiative. At the end of the second quarter, five of the Company's largest manufacturing customers signed-up for the pilot with an additional two expected by end of this year. The five enrolled customers are expected to save approximately 7 million kilowatt-hours and more than 400,000 therms, close to a 3% reduction of their annual energy usage.
- The Company continued to work with its existing Strategic Energy Management Plan (SEMP) customers. There were no new SEMP enrollments in the first two quarters of 2014. However, the Company is planning to ramp up this effort for the next year with one potential customer already lined up.
- The Company continues to work with customers that demonstrate a viable potential for CHP. To date, the Company is pursuing two potential candidates. Due the long sales cycle associated with CHP projects, it is uncertain when these projects will be solidified.
- A Level I BOC class was cancelled due to low enrollment. The next Level I class will be held in September in Worcester.

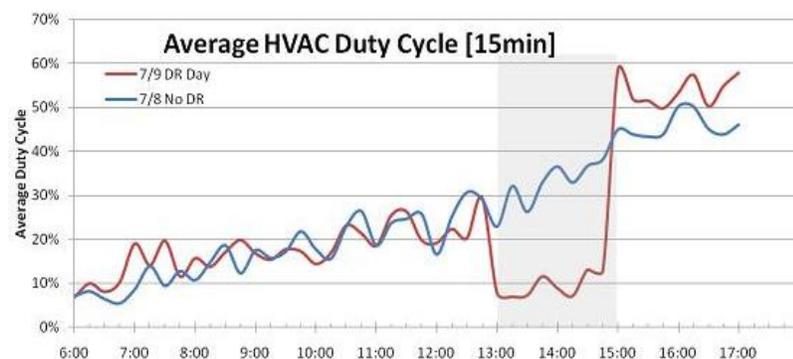
- Rhode Island Public Energy Partnership (RIPEP):
 - The Company's dedicated municipal and state sales lead is continuing to work with RIPEP partners to target customers. Several applications are already lined-up for this initiative. The Company is working to see which of these applications contribute towards RIPEP goals. The Company is also working on strategies to overcome the barriers to energy efficiency in state facilities.

Small Business Direct Install

- The program is continues its strong start to the year. Several highlights from the second quarter include:
 - Providence YMCA, Wakefield, RI. RISE completed over \$46,000 worth of interior and exterior lighting upgrades. State-of-the-art LED luminaires were installed inside the facility and the exterior fixtures will be virtually maintenance free. This project will save the YMCA over \$5,000 per year.
 - Union Station Plaza Garage, Providence, RI. This customer will save just under \$7,000 per year after upgrading its 24-hour parking garage facility in Providence. The project used 18w LED tubes to replace the existing fluorescent lamps and ballasts. Not only is the company saving energy (62,000 kWh) and money, the facility is brighter and more appealing.
 - Mount Saint Charles Academy, Woonsocket, RI. RISE updated exterior lighting at both the High School and the Hockey arena complex from Metal Halide to LED lighting. In addition, the interior lighting of the ice rink was updated. The upgrades will save Mount Saint Charles 53,758 kWh, or about \$6,000 a year.

Pilots

- In the second quarter of 2014 the Company continued the Automatic Temperature Control pilot and Energy Monitoring pilot. The Company anticipates that the pilot will be completed end of third quarter and then it will evaluate the results.
- Using AMR meter reading technology in combination with the communicating thermostat, the Company was able to monitor and assess the performance of units during a recent demand response (DR) event, which is a component of the Automatic Temperature Control pilot.
- In the third and fourth quarter, the Company is planning to launch a small pilot for Heat Pump Dryers to determine their effectiveness and test market reliability. The Company will also conduct a Ducted Variable Speed Pump assessment of heat pumps using customer installed equipment during 2014



and will focus on how much additional savings these units provide over standard units.

Evaluation

- The results of the 2012 RI Upstream Lighting impact evaluation have been finalized.
- The Company is reviewing draft results from the Income Eligible Single Family process and impact evaluations.

Upcoming Events

- National Night Out in Providence's Donigan Park, 5:00-8:00PM, 8/5/14.
- Water Fire with National Grid sponsorship, 5:00-8:30PM, 8/9/14. Waterplace Park.
- PawSox Fan Fest, 1:05-6:00PM, 8/16/14. McCoy Stadium.
- Sustainable Schools Summit, 8:00AM-3:00PM, 11/07/14. Rhode Island College Student Union.

NATIONAL GRID ENERGY EFFICIENCY PROGRAMS IN RHODE ISLAND
Table 1. Summary of 2014 Target and Preliminary 2nd Quarter Results

ELECTRIC PROGRAMS Sector and Program	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Target	Year To Date	Pct Achieved	Pct Projected	Approved Target	Year To Date	Pct Achieved	Budget	Year To Date	Pct Achieved	Lifetime savings, MWh	\$/kWh
Commercial and Industrial												
Large Commercial New Construction	27,472	6,716	24.4%		2,192	1,605	73.2%	\$7,811.0	\$2,504.1	32.1%	74,811	\$ 0.033
Large Commercial Retrofit	124,275	11,479	9.2%		833	189	22.7%	\$25,218.1	\$3,755.2	14.9%	143,009	\$ 0.026
Small Business Direct Install	21,170	8,153	38.5%		1,510	501	33.2%	\$12,645.5	\$4,145.6	32.8%	86,828	\$ 0.048
Community Based Initiatives - C&I								\$41.5	\$11.0	26.5%		
Commercial Pilots								\$364.1	\$2.0	0.6%		
Comprehensive Marketing - C&I								\$150.2	\$32.0	21.3%		
Finance Costs								\$1,000.0	\$1,000.0	100.0%		
SUBTOTAL	172,917	26,348	15.2%	94.0%	4,535	2,295	50.6%	\$47,230.3	\$11,450.0	24.2%	304,648	\$ 0.038
Income Eligible Residential												
Single Family - Income Eligible Services	3,967	1,983	50.0%		2,450	1,302	53.1%	\$7,207.0	\$3,290.3	45.7%	24,395	\$ 0.135
Income Eligible Multifamily	2,113	1,218	57.6%		3,520	2,335	66.3%	\$2,092.3	\$854.2	40.8%	13,403	\$ 0.064
SUBTOTAL	6,080	3,201	52.6%	100.0%	5,970	3,637	60.9%	\$9,299.3	\$4,144.5	44.6%	37,798	\$ 0.110
Non-Income Eligible Residential												
Residential New Construction	631	373	59.1%		458	330	72.1%	\$910.3	\$533.1	58.6%	4,103	\$ 0.130
ENERGY STAR® HVAC	726	689	94.9%		1,946	1,211	62.2%	\$919.7	\$565.3	61.5%	8,543	\$ 0.066
EnergyWise	7,674	4,360	56.8%		7,600	4,135	54.4%	\$6,448.4	\$3,369.6	52.3%	39,211	\$ 0.086
EnergyWise Multifamily	2,888	1,475	51.1%		4,500	2,836	63.0%	\$2,419.8	\$1,101.6	45.5%	16,499	\$ 0.067
ENERGY STAR® Lighting	35,731	7,864	22.0%		247,240	111,227	45.0%	\$7,389.7	\$1,418.4	19.2%	72,837	\$ 0.019
ENERGY STAR® Products	3,639	2,058	56.5%		13,285	12,898	97.1%	\$2,426.0	\$858.6	35.4%	14,911	\$ 0.058
Home Energy Reports	25,028	9,014	36.0%		227,600	195,006	85.7%	\$2,445.2	\$1,735.4	71.0%	9,014	\$ 0.193
Energy Efficiency Educational Programs								\$50.7	\$35.6	70.3%		
Residential Products Pilot								\$248.8	\$1.3	0.5%		
Community Based Initiatives - Residential								\$226.4	\$73.2	32.3%		
Comprehensive Marketing - Residential								\$581.9	\$67.9	11.7%		
SUBTOTAL	76,317	25,833	33.8%	96.0%	502,629	327,643	65%	\$24,066.9	\$9,760.0	40.6%	165,117	\$ 0.059
Regulatory												
EERMC								\$816.7	\$164.8	20.2%		
OER								\$625.6	\$137.9	22.0%		
SUBTOTAL								\$1,442.3	\$302.7	21.0%		
TOTAL	255,314	55,382	21.7%	94.0%	513,134	333,575	65.0%	\$ 82,038.9	\$ 25,657.2	31.3%	507,563	\$ 0.051
System Reliability Procurement								\$ 279.2	\$68.6	24.6%		
GAS PROGRAMS												
Sector and Program	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Approved Target	Year To Date	Pct Achieved	Pct Projected	Approved Target	Year To Date	Pct Achieved	Approved Budget	Year To Date	Pct Achieved	Lifetime savings, MMBtu	\$/Lifetime MMBtu
Commercial and Industrial												
Large Commercial New Construction	31,863	6,494	20.4%		192	64	33.3%	\$2,096.7	\$183.0	8.7%	139,698	\$ 1.310
Large Commercial Retrofit	121,592	20,886	17.2%		606	39	6.4%	\$3,672.5	\$807.5	22.0%	153,079	\$ 5.275
Small Business Direct Install	10,496	1,709	16.3%		316	38	12.0%	\$545.9	\$34.1	6.3%	16,040	\$ 2.127
Commercial & Industrial Multifamily	5,511	1,976	35.9%		745	240	32.2%	\$488.8	\$161.4	33.0%	36,682	\$ 4.401
Commercial & Industrial Pilots								\$398.8	\$7.1	1.8%		
Comprehensive Marketing - C&I								\$173.6	\$27.6	15.9%		
Community Based Initiatives - C&I								\$30.0	\$11.0	36.6%		
Finance Costs								\$200.0	\$200.0	100.0%		
SUBTOTAL	169,463	31,064	18.3%	108.0%	1,859	381	20.5%	\$7,606.4	\$1,431.7	18.8%	345,499	\$ 4.144
Income Eligible Residential												
Single Family - Income Eligible Services	6,395	3,126	48.9%		400	214	53.5%	\$2,584.0	\$1,167.8	45.2%	62,526	\$ 18.677
Income Eligible Multifamily	16,824	1,792	10.7%		2,200	525	23.9%	\$1,967.6	\$140.3	7.1%	26,733	\$ 5.247
SUBTOTAL	23,219	4,918	21.2%	100.0%	2,600	739	28.4%	\$4,551.5	\$1,308.1	28.7%	89,259	\$ 14.654
Non-Income Eligible Residential												
EnergyWise	30,120	33,800	112.2%		2,000	1,415	70.8%	\$4,820.5	\$3,732.4	77.4%	642,196	\$ 5.812
Energy Star® HVAC	20,344	21,831	107.3%		2,584	2,187	84.6%	\$1,996.8	\$1,572.1	78.7%	364,071	\$ 4.318
EnergyWise Multifamily	9,256	5,357	57.9%		2,000	1,038	51.9%	\$1,314.7	\$310.0	23.6%	77,660	\$ 3.992
Home Energy Reports	73,877	43,493	58.9%		180,000	112,900	62.7%	\$468.3	\$212.4	45.4%	43,493	\$ 4.883
Residential New Construction	3,683	3,606	97.9%		392	309	78.8%	\$608.6	\$124.8	20.5%	90,158	\$ 1.384
Residential Products Pilot								\$136.2	(\$2.5)	-1.9%		
Comprehensive Marketing - Residential								\$139.7	\$16.3	11.7%		
Community Based Initiatives - Residential								\$44.4	\$10.5	23.5%		
SUBTOTAL	137,281	108,087	78.7%	95.0%	186,976	117,849	63.0%	\$9,529.3	\$5,975.9	62.7%	1,217,578	\$ 4.908
Regulatory												
EERMC								\$245.4	\$49.4	20.1%		
OER								\$163.6	\$38.7	23.6%		
SUBTOTAL								\$409.0	\$88.0	21.5%		
TOTAL	329,963	144,069	43.7%	102.0%	191,435	118,969	62.1%	\$ 22,096.2	\$ 8,803.7	39.8%	1,652,337	\$ 5.328

NOTES

- (1) (5) Targets from Docket 4451 - Attachment 4, Table E-6 (electric) and Attachment 5, Table G-6 (gas).
- (2) EnergyWise gas savings and participation are from RISE Engineering
- (3) Pct Achieved is Column (2)/ Column (1).
- (7) Pct Achieved is Column (6)/ Column (5).
- (8) Approved Implementation Expenses from Docket 4451, Attachment 4 Table E-4 (electric) and Attachment 5 Table G-5 (gas).
- (9) Year To Date Implementation Expenses are net of evaluation expenses.
- Small Business Direct Install Electric Includes OER funds spent through Q2.
- (10) Pct Achieved is Column (9)/ Column (8).
- (12) \$/lifetime kWh = Column (9)/Column (11); \$/lifetime therm = Column (9)*1000/Column (11)*10
- System Reliability Procurement targets from Docket 4367, not included in Implementation Expenses Total
- System Reliability Procurement targets and actuals do not reflect statewide EE amounts leveraged

**Table 2
National Grid
Revolving Loan Funds**

Large C&I Revolving Loan Fund		Small Business Revolving Loan Fund		
(1)	2014 Funds Available	\$6,858,467	2014 Funds Available	\$3,241,378
(2)	2014 Loan budget	\$5,957,151	2014 Loan Budget	\$3,000,000
(3)	Committed	\$2,305,730	Committed	\$720,363
(4)	Paid	\$1,218,645	Paid	\$238,225
(5)	Available	<u>\$2,432,776</u>	Available	<u>\$2,041,412</u>

Rhode Island Public Energy Partnership (RI PEP)

(6)	2014/2015 Loan Budget	\$1,000,000
(7)	Committed	\$81,448
(8)	Paid	\$0
(9)	Available	<u>\$918,552</u>

Notes

- 1 Amount Company estimated in 2014 Plan, Table E-10
- 2 Budget adopted by Sales Team for 2014 operations.
- 3 As of June 30, 2014
- 4 As of June 30, 2014
- 5 Does not include loan repayments
- 6 RI PEP funding is over two years