



# 2013 Annual Report of the Efficiency Maine Trust

Originally Issued: November 26, 2013

**Corrected Version: February 11, 2014** 

The Efficiency Maine Trust lowers the cost and environmental impacts of energy in Maine by promoting energy efficiency and alternative energy systems. The Trust is an independent instrumentality of the state that delivers information, technical assistance, quality assurance and cost-sharing to help consumers save electricity, natural gas and heating fuels. The Trust deploys funding received from electric utilities, natural gas utilities, the Regional Greenhouse Gas Initiative, the ISO-New England Forward Capacity Market, and government grants.

Board of Trustees James Atwell, Chair Albert Hodsdon III, Vice-Chair and Secretary General Brent Boyles, Treasurer Naomi Mermin Glenn Poole John Rohman Doug Smith John Gallagher, *Ex Officio* Patrick Woodcock, *Ex Officio* 

Efficiency Maine Trust, 151 Capitol Street, Suite 1, Augusta, Maine 04330 1-866-37-MAINE www.efficiencymaine.com

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## **Executive Summary**

This is the Annual Report of the Efficiency Maine Trust for Fiscal Year 2013 (FY13). The period covered is July 1, 2012 to June 30, 2013.

As described in this report, the Trust managed funds to administer programs promoting energy efficiency and customer-owned renewable energy. As in previous years, a significant portion of the Trust's funds derived from Maine's electricity customers through the System Benefit Charge (SBC) and the Regional Greenhouse Gas Initiative (RGGI). In the aggregate, these electric programs will help customers avoid over 1.4 billion kWh of electricity consumption and lower present and future electric costs in Maine by more than \$142 million. Table ES-1 summarizes the results of the Trust's electric efficiency programs.<sup>1</sup>

	ELECTRIC PROGRAMS										
	Annual kWh	Lifetime kWh	Efficiency	Participant	Lifetime	Cost/kWh	Benefit to Cost				
Program	Savings	Savings	Maine Costs	Cost	Energy Benefit		Ratio				
Business Incentive Program	30,027,000	390,351,000	\$5,239,699	\$8,124,730	\$21,043,528	\$0.034	1.57				
Large Customer Program	19,852,282	358,112,931	\$3,557,321	\$10,322,947	\$21,622,021	\$0.039	1.56				
High Performance Schools Program	729,309	14,586,187	\$1,039,278	\$453,811	\$797,822	\$0.102	0.53				
Small Business Direct Install Program	152,414	1,981,382	\$152,821	\$18,350	\$166,652	\$0.086	0.97				
Residential Lighting Program	70,778,000	553,134,000	\$5,102,188	\$1,076,050	\$81,462,655	\$0.011	13.19				
Residential Appliances Program	5,146,653	59,175,711	\$2,077,276	\$470,865	\$3,836,736	\$0.043	1.51				
Refrigerator Recycling Program	2,190,012	13,140,072	\$354,681	\$0	\$919,187	\$0.027	2.59				
Low Income Multifamily Electric Program	5,679,000	102,991,000	\$6,165,681	\$0	\$12,597,195	\$0.060	2.04				
Cross-Cutting Strategies			\$590,450								
Sub Total	134,554,670	1,493,472,283	\$24,279,396	\$20,466,753	\$142,445,797	\$0.030	3.18				

Table ES-1 – FY13 Benefits and Costs of Efficiency Maine Electric Programs

A second portion of the funds that the Trust used in FY13 came from assessments on Unitil, a natural gas utility, and a third portion of the year's revenues came from federal grants, including the American Recovery and Reinvestment Act (ARRA). The natural gas assessments were used to fund efficiency measures that saved natural gas within Unitil's service territory, and the ARRA funds were primarily used to achieve energy savings regardless of fuel type (or savings of "all fuels") such as occurs when a home is weatherized. Altogether, these natural gas and all fuels programs leveraged over \$13 million in private investments in Maine's energy infrastructure and are projected to lower Mainers' present and

<sup>&</sup>lt;sup>1</sup> Savings values reported in the program summary tables and individual program tables are Gross Savings unless otherwise indicated. Gross Savings is the change in energy consumption and/or demand that results directly from program-related actions taken by participants in an Efficiency Maine program, regardless of why they participated and unadjusted by any factors. Periodically, Efficiency Maine develops or receives information that can improve the accuracy of the gross savings calculations. This information, which may include better data about installation rates, persistence rates and hours of use, or discovery of data errors, is used to develop Adjusted Gross Savings. Every few years, Efficiency Maine also enlists independent third-party contractors to evaluate the savings impacts of major programs. The resulting evaluations contain more detailed analysis of the savings results, including the percentage of program participants who would have installed the same or a smaller quantity of the efficiency measures on their own within one year even if the program had not been offered ("free-ridership") and the percentage of efficient equipment installed due to program influences even though no incentive or technical assistance was received ("spillover"). Factoring in free-ridership and spillover delivers "Net Savings." Where this analysis is available, Efficiency Maine publishes it online and also at the end of each of the individual program descriptions in this Annual Report.

future energy costs by more than \$43 million. Many of these ARRA grants ended in FY13. Table ES-2 summarizes the results of the Trust's natural gas and "all fuels" energy efficiency and alternative energy programs.

ALL FUELS AND NATURAL GAS PROGRAMS									
	Annual	Lifetime				Cost/	Benefit		
	MMBtu	MMBtu	Efficiency	Participant	Lifetime	MMBtu	to Cost		
Program	Savings	Savings	Maine Costs	Cost	Energy Benefit	(Lifetime)	Ratio		
Maine Advanced Building Program	1,994	39,869	\$562,178	\$297,874	\$954,328	\$21.57	1.11		
Retro-Commissioning Program	8,327	40,736	\$320,707	\$278,575	\$694,667	\$14.71	1.16		
Multifamily Efficiency Program	5,081	96,591	\$1,256,532	\$551,390	\$1,792,113	\$18.72	0.99		
Residential Direct Install Program	47,156	943,120	\$3,840,026	\$1,490,000	\$24,793,650	\$5.65	4.65		
Home Energy Savings/PACE Program	10,445	208,500	\$3,492,795	\$2,500,000	\$7,045,551	\$28.74	1.18		
Solar & Wind Rebate Program	9,971	199,415	\$1,085,072	\$7,910,234	\$6,852,153	\$45.11	0.76		
Business Natural Gas Incentive Program	11,723	234,468	\$274,357	\$315,111	\$1,348,741	\$2.51	2.29		
Low Income Natural Gas Program	446	8,924	\$104,224	\$0	\$86,301	\$11.68	0.83		
Cross-Cutting Strategies			\$510,490						
Sub Total	95,143	1,771,623	\$11,446,380	\$13,343,184	\$43,567,504	\$13.99	1.76		

 Table ES-2 – FY13 Benefits and Costs of Efficiency Maine All Fuels and Natural Gas Programs

As discussed in the Financial section of this report, the Trust invested over \$36 million in FY13 to fund the programs described above. Table ES-3 provides a summary of the Trust's payments during the year.

#### Table ES-3 – FY13 Payments Made<sup>2</sup>

Use of Funds	Programs (\$)	Totals (\$)
Administration		2,441,024
· Low Income	6,763,258	
· Non-Low Income	10,282,898	
Residential Programs		17,046,156
Business Programs		13,318,296
· Education and Awareness	448,452	
· Evaluation	502,154	
· Alternative Energy Program	1,163,985	
<ul> <li>Innovation</li> </ul>	405,220	
Cross-Cutting Strategies		2,519,811
Interagency Grants		1,021,275
Total Expenditures		36,346,562

<sup>&</sup>lt;sup>2</sup> Expenditures in this table reflect all payments made by the Trust during FY13. This includes payments made for projects that were awarded in FY12 but not completed and paid until FY13, as commonly occurs on the larger projects funded through the Large Customer Program. The Trust reports energy savings, costs, and cost-effectiveness in the fiscal year in which the projects were awarded, which explains the discrepancy between the Total Expenditures in this table and the Efficiency Maine Costs in Tables ES-1 and ES-2 and in Appendices A and B.

## Introduction

The Efficiency Maine Trust was created by state statute in 2009. The purposes of the Trust include:

- consolidating under one roof the funds for Maine's consumer efficiency programs for all fuel types – electric, natural gas, heating oil and wood – together with consumer alternative energy programs;
- integrating delivery of electric and thermal efficiency measures so the customer can have a onestop shopping experience;
- acquiring energy resources (efficiency and alternative energy) that cost less than traditional energy supply to help individuals and businesses meet their energy needs at the lowest cost; and,
- helping to transform the energy market in Maine so that energy-efficient products, alternative energy equipment, and related energy services are more accessible and affordable to end-use customers.

The Trust is managed by a nine-member board of trustees. During FY13, Trustee Glenn Poole completed his term and new Trustee David Barber, of AdvancePierre Foods, was appointed to the Board. The Ex Officio members of the board also changed. Kenneth Fletcher of the Governor's Energy Office was succeeded by Patrick Woodcock, and Dale McCormick of MaineHousing was succeeded by John Gallagher. Other Trustees who served during FY13 were James Atwell of Sevee & Maher Engineers; Brent Boyles, Assistant Adjutant General of the Maine Army National Guard and formerly of Maine Public Service; Al Hodsdon of A.E. Hodsdon Engineers; Naomi Mermin of Naomi Mermin Consulting; John Rohman formerly of WBRC Architects-Engineers; and attorney and former State Senator Douglas Smith.

The Annual Report of the Efficiency Maine Trust (the "Trust" or "Efficiency Maine") describes activities during fiscal year 2013 (FY13), which covered the period from July 1, 2012 to June 30, 2013. It includes the budgets, activities and results for all programs and related activities administered by the Trust during FY13.

FY13 is the third year of program activity since the Trust assumed responsibility for administering Efficiency Maine programs. From 2002-2010, the Efficiency Maine programs were administered by the Energy Division of the Maine Public Utilities Commission, while from 2009-2010, the RGGI funds were administered by the Energy and Carbon Savings Trust. Prior to 2002, starting in the 1980s, energy efficiency programs – then called demand side management (DSM) – were administered by the electricity utilities.

The strategies and programs for FY13, described in more detail below, were governed generally by the First Triennial Plan, as has been modified and given more detail through periodic budget adjustments and annual updates. The overall expenditures and program strategies of the Trust were similar in FY13 to what was spent in FY12 and the resulting energy and cost savings are similarly strong. Noteworthy changes from the prior year include the fact that higher federal standards for certain light bulbs have resulted in the Trust claiming less "credit" for the lifetime energy savings resulting from residential lighting retrofits, and the historic low wholesale prices of electricity and natural gas reduced the total value (and cost-effectiveness) of the Trust's electricity and gas saving programs.

With two exceptions, in FY13 the Trust fully spent all of the grant funds allocated to it through the federal Recovery Act (ARRA) and closed out the grants. The BetterBuildings revolving loan fund was the only ARRA-funded program that the Trust carried into FY14.

In addition to managing its core energy efficiency and renewable energy programs, the Trust also participated in proceedings at the Legislature and the Public Utilities Commission. Topics of these proceedings included: implementation of the Non-Transmission Alternative pilot project; design and implementation of a pilot project to promote air-source, ductless heat pumps; securing approval from the Public Utilities Commission for a long-term contract for capacity and energy; amending the Trust's authorizing statute as it pertains to funding levels and procedures for establishing the Trust's funding; and, developing the next three-year strategic plan to guide the Trust's programs.

## Programs

In FY13, the Efficiency Maine Trust delivered the third year of the First Triennial Plan, continuing the successful trend of implementing programs to reduce Mainers' energy costs and increase their energy independence. Aggregated together, the electric energy efficiency projects delivered from the FY13 programs will deliver an energy resource equal to 1.2% of the statewide electric load.

Some noteworthy economic impacts of the FY13 programs include:

- delivering electricity savings at an average levelized cost of 3 cents/kWh;
- lowering present and future energy costs in Maine by an estimated \$185 million, making businesses more profitable and competitive and families more economically secure;
- reducing demand for electricity across the state enough to suppress the price paid for energy, capacity, carbon allowances, and renewable energy credits by all Mainers on the grid;<sup>3</sup>
- leveraging more than \$33 million in private investments in energy efficiency and alternative energy in Maine; and,
- helping to create and retain jobs both in the "clean tech" and contractor sectors and in the Maine economy at large.

The summary tables that follow illustrate the total energy savings and lifetime avoided energy costs from each of the programs administered by Efficiency Maine in FY13. Each table also shows the summary of Efficiency Maine costs -- to provide public information and outreach, training, technical support, financial incentives, quality control, measurement and verification, and evaluation of each program -- as well as the customer ("participant") cost-share to install energy upgrades. The Benefit-to-Cost Ratio indicates the ratio of the benefits (from the lifetime avoided energy costs) to the combined costs of Efficiency Maine and the participant.

<sup>&</sup>lt;sup>3</sup> See, Synapse Energy Economics, Inc., "Avoided Energy Supply Costs in New England – 2011 Report," (2011), Appendix B, p. B-21.

#### Table 1 – FY13 Costs and Savings for Electric Programs

	ELECTRIC PROGRAMS										
							Benefit				
	Annual kWh	Lifetime kWh	Efficiency	Participant	Lifetime	Cost/kWh	to Cost				
Program	Savings	Savings	Maine Costs	Cost	<b>Energy Benefit</b>	(Lifetime)	Ratio				
Business Incentive Program	30,027,000	390,351,000	\$5,239,699	\$8,124,730	\$21,043,528	\$0.034	1.57				
Large Customer Program	19,852,282	358,112,931	\$3,557,321	\$10,322,947	\$21,622,021	\$0.039	1.56				
High Performance Schools Program	729,309	14,586,187	\$1,039,278	\$453,811	\$797,822	\$0.102	0.53				
Small Business Direct Install Program	152,414	1,981,382	\$152,821	\$18,350	\$166,652	\$0.086	0.97				
Residential Lighting Program	70,778,000	553,134,000	\$5,102,188	\$1,076,050	\$81,462,655	\$0.011	13.19				
Residential Appliances Program	5,146,653	59,175,711	\$2,077,276	\$470,865	\$3,836,736	\$0.043	1.51				
Refrigerator Recycling Program	2,190,012	13,140,072	\$354,681	\$0	\$919,187	\$0.027	2.59				
Low Income Multifamily Electric Program	5,679,000	102,991,000	\$6,165,681	\$0	\$12,597,195	\$0.060	2.04				
Cross-Cutting Strategies			\$590,450								
Sub Total	134,554,670	1,493,472,283	\$24,279,396	\$20,466,753	\$142,445,797	\$0.030	3.18				

#### Table 2 – FY13 Costs and Savings for All Fuels and Natural Gas Programs

	ALL FUELS AND NATURAL GAS PROGRAMS										
	Annual	Lifetime				Cost/	Benefit				
	MMBtu	MMBtu	Efficiency	Participant	Lifetime	MMBtu	to Cost				
Program	Savings	Savings	Maine Costs	Cost	<b>Energy Benefit</b>	(Lifetime)	Ratio				
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Home Energy Savings/PACE Program	10,445	208,500	\$3,492,795	\$2,500,000	\$7,045,551	\$28.74	1.18				
Solar & Wind Rebate Program	9,971	199,415	\$1,085,072	\$7,910,234	\$6,852,153	\$45.11	0.76				
Business Natural Gas Incentive Program	11,723	234,468	\$274,357	\$315,111	\$1,348,741	\$2.51	2.29				
Low Income Natural Gas Program	446	8,924	\$104,224	\$0	\$86,301	\$11.68	0.83				
Cross-Cutting Strategies			\$510,490								
Sub Total	95,143	1,771,623	\$11,446,380	\$13,343,184	\$43,567,504	\$13.99	1.76				

This section of the Annual Report provides a short description of each of the programs referenced in these two tables. The descriptions are divided into five categories:

- Business Programs;
- Multifamily Programs;
- Residential Programs;
- Alternative Energy Programs; and
- Cross-cutting Strategies.

Each description generally includes a statement of the main purpose of the program, an indication of activities undertaken to implement the program, and a summary of any quantifiable results.

## **Business Programs**

Through its Business Programs, Efficiency Maine administers a wide variety of offerings for nonresidential customers of all sizes. This class of customers includes small businesses; municipal and state governments; non-profits such as hospitals, YMCAs, schools and universities; commercial offices; warehouses; and large industrial manufacturers.

This section of the Annual Report describes the Business Programs delivered in FY13, organized by the source of the funds used to pay for the programs. The first group of Business Programs described below was paid out of funds generated by the electric and natural gas system benefit charges (SBC) or Regional Greenhouse Gas Initiative (RGGI). Many of these are programs that Efficiency Maine has offered for much of the past decade and will continue to offer into the future. The second group of Business Programs was paid out of funds received from the federal government, primarily through the American Recovery and Reinvestment Act (ARRA). The ARRA funds were a one-time source of revenue.

### **Business Incentive Program**

**Overview:** The Business Incentive Program provides education, technical assistance, quality control and financial incentives for energy upgrades to businesses of all sizes. The financial incentives fund a portion of the incremental cost of efficient electric equipment relative to standard equipment. (The activities and results of the natural gas program for business customers are reported in a separate section).

**FY13 Activities:** Financial incentives were delivered to business customers through either the prescriptive path or the custom path. Prescriptive incentives were offered at fixed amounts for a list of the most common efficient electric equipment that can be used in nearly every business space: lighting, lighting controls, refrigeration, HVAC units, and variable speed drives. Efficiency Maine's custom path provided incentives, as well as technical assistance, for the purchase and installation of premium-efficiency electrical equipment that is not on the prescriptive program list or is used in a unique application. In FY13, the custom path supported higher efficiency equipment installations used in new construction projects, renovation projects, or for the early replacement of functioning, but less efficient, existing equipment.

Efficiency Maine Qualified Partners assisted customers with the selection of qualifying equipment and incentive applications. Qualified Partners are experienced vendors, contractors, suppliers and other professionals who supply, install, or advise customers about energy-efficient equipment.

Highlights of the Business Incentive Program this year include:

- Transitioning the prescriptive application process from paper to electronic applications, significantly reducing processing costs and time;
- Modifying custom project criteria to require at least 70,000 kWh in annual savings;
- Adding prescriptive measures for LED lights;
- Adding prescriptive incentives for compressed air compressors and ancillary air system equipment;
- Conducting two Qualified Partner training sessions, recruiting and training over 65 new Qualified Partners;

- Participating in four targeted business trade shows; and,
- Presenting an overview of business incentives and energy management best practices at 25 business and trade association meetings throughout the State.

An initiative within the Business Incentive Program was the Non-Transmission Alternative (NTA) Pilot in the Boothbay Harbor region. In the final settlement of the Maine Power Reliability Program docket, the Maine Public Utilities Commission approved a pilot program to test the ability of non-transmission alternative resources – distributed generation, energy efficiency, and demand response – to satisfy grid reliability standards at lower cost than building new transmission lines. The pilot program targeted peak summer demand on the Boothbay peninsula and was designed to reduce demand in the region by 2,000 kW, avoiding the \$18 million cost to replace the region's primary transmission line.

The pilot program, administered by the firm Grid Solar, issued an RFP calling for non-transmission alternative resources. Efficiency Maine was selected as a provider and partnered with local contractors to identify peak demand saving opportunities through energy efficiency measures such as efficient lighting. Many of the small businesses in the area had been using older lighting technology, including energy-intensive halogen and incandescent lamps. Efficiency Maine helped many of the small businesses upgrade to LEDs, installed by Qualified Partners or directly by business owners.

**FY13 Results:** This year's Business Incentive Program exceeded the energy saving goal of 27,000,000 kWh by 11%. Installed measures through the program are projected to save 30,027,000 kWh annually. Continuing the trend of previous program years, Efficiency Maine provided financial support through this program to over 2000 projects. In the NTA Pilot, Efficiency Maine delivered 66.03 kW of peak demand savings in two large businesses in the region, as well as 160.85 kW of peak reductions at 85 small businesses on the peninsula. The energy efficiency upgrades are projected to save the business participants a combined \$144,803 annually, and will save electric ratepayers \$1.08 million over the lifetime of the measures.

Summary information about the program participation, costs and benefits appear in Table 3.

		0						
	Business Incentive Program							
Total	Total Projects	Annual kWh	Lifetime kWh	Efficiency	Participant	Lifetime Energy	Benefit to	
Participants		Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio	
1,488	2,022	30,027,000	390,351,000	\$5,239,699	\$8,124,730	\$21,043,528	1.57	

#### Table 3 – Business Incentive Program Results

It should be noted that in 2011 an independent evaluation calculated Net-to-Gross Ratios of 0.70 for the prescriptive measures installed through this same program and 0.62 for the custom projects, creating an overall ratio of 0.66. The recommended improvements from that evaluation have been implemented in the intervening years, improving the accuracy of the results in Table 3.

Table 4 indicates the breakdown of the measures installed through the Business Incentive Program and the share of each that was funded through the Prescriptive or the Custom incentive structure.

Project Type	# of Projects	# of Participants
Prescriptive Lighting	1,776	1,275
Prescriptive HVAC	86	81
Prescriptive VFD	23	21
Prescriptive Agriculture	4	4
Prescriptive Refrigeration	43	31
Custom Lighting	48	39
Custom HVAC	6	5
Custom Compressed Air	16	16
Custom VFD	3	3
Custom Miscellaneous	17	13
Total	2,022	1,488

Table 4 – Business	Incentive Progr	am Measures Installed
	incentive Frogi	ann wieasules mistalleu

**FY14 Plans:** Continued innovation in the LED lighting arena will enable the Business program team to continue to integrate LED technologies in the prescriptive incentive list in FY14. The program will introduce enhanced HVAC incentives to encourage businesses to take advantage of the significant energy efficiency opportunities for this end use. Plans also include enhancing the Qualified Partner network through additional web resources and training. The Commercial Technical Reference Manual will also be updated. The program budget for FY14 appears in Appendix C.

## Large Customer Program (Electrical Savings)

**Overview:** In FY13, Efficiency Maine's Large Customer Program provided incentives that leveraged private investment in large-scale electrical savings projects. These incentives were targeted at many of the biggest energy consumers in the state. By and large the companies and institutions who participate in this program have limited capital budgets with many competing needs. As a result, the payback requirements for capital projects are short, creating a significant market barrier to approval and installation of large energy efficiency projects. The incentives from this competitive program helped buy-down the up-front capital cost of large energy efficiency upgrades, helping the projects meet corporate return on investment requirements and gain approval. This made the projects possible, freed-up operating budgets and returned cash to Maine businesses in a challenging economic environment.

FY13 Activities: The main activities undertaken during FY13 included:

- Marketing and explaining the competitive bid opportunities to large customers;
- Screening bids and presenting the recommendations of a technical team to the independent review committee to select winning bidders;
- Negotiating contracts with winning bidders;
- Monitoring project progress for awarded projects; and,
- Proposing a long-term contract mechanism to the Public Utilities Commission to provide alternate financing mechanisms for the program.

The Large Customer Program used funding from the RGGI auction proceeds and from the settlement of the Maine Power Reliability Program. Projects were selected based on the quantity of electric energy, measured in kWh, saved per program dollar invested by Efficiency Maine, as well as project readiness and comprehensiveness. The incentives awarded in FY13 ranged from \$100,000 to \$500,000 per project.

FY13 Results: The results from the Large Customer Program activity include:

	0	<u> </u>						
Large Customer Program								
Total Projects					Benefit to			
Participants	•	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio	
12	12	19,852,282	358,112,931	\$3,557,321	\$10,322,947	\$21,622,021	1.56	

Table 5 – Large Customer Program (kWh) Results

**FY14 Plans:** The Trust will modify the competitive bid process in FY14 from rounds of bidding to an open Program Opportunity Notice (PON) that will accept applications on a rolling basis. This format will better accommodate the capital budgeting process at large businesses and organizations, and open the program to more participants. It will also allow the Trust to do more proactive outreach to customers who may not have taken advantage of the program in the past. This outreach will include providing technical assistance and promoting the program through case studies and press outreach.

In FY14 the Trust will also be able to use RGGI proceeds to incentivize projects that reduce greenhouse gas emissions. The program budget in FY14 appears in Appendix C.

## **Business Natural Gas Incentive Program**

**Overview:** The Business Natural Gas Incentive Program provides commercial and industrial (C&I) customers access to technical assistance and financial incentives for the installation of "top tier" energy-efficient equipment. The program provides prescriptive incentives for customers of Unitil, and focuses on premium efficiency boilers, furnaces and heaters, and their associated controls, as well as efficient gas-fired commercial kitchen equipment.<sup>4</sup> The target market includes all non-residential customers including commercial, industrial, municipal, non-profit, and institutional customers located in the Unitil Natural Gas service territory.

**FY13 Activities:** Program activities performed in FY13 included attending trade shows to highlight the program and qualifying natural gas equipment and developing a focused Qualified Partner training module to include specifics on natural gas equipment and program application guidelines.

**FY13 Results:** FY13 was the first full year of this program being delivered by Efficiency Maine. Program results have been promising with primarily water heating and space heating equipment being installed in commercial buildings. Summary information about the program participation, costs and benefits appear in Table 6.

<sup>&</sup>lt;sup>4</sup> State law during FY13 established a minimum threshold of customers to trigger whether a natural gas utility must contribute funds to the Trust's Natural Gas Conservation Fund and whether that utility's customers are eligible to receive assistance from Efficiency Maine programs. Only Unitil had reached this threshold during FY13.

Tuble 0 Dus	uble o Business Natural Cas incentive i rogram Results									
Business Natural Gas Incentive Program										
Total	Total Projects	Annual MMBtu	Lifetime MMBtu	Efficiency	Participant	Lifetime Energy	Benefit to			
Participants	Participants	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio			
94	101	11,723	234,468	\$274,357	\$315,111	\$1,348,741	2.29			

#### Table 6 – Business Natural Gas Incentive Program Results

**FY14 Plans:** The program budget in FY14 appears in Appendix C. The program will continue as in FY13, with increased outreach to the hospitality industry and to equipment vendors to increase the diversity of installed measures to ensure the installation of high-efficiency commercial kitchen equipment.

## **Small Business Direct Install Pilot**

**Overview:** Efficiency Maine's Small Business Direct Install Pilot was launched to test the effectiveness of integrating marketing and direct installation of measures with on-bill financing and to improve the accessibility of energy efficiency opportunities for Maine's small business consumers. The pilot targeted two communities with significant numbers of small businesses. Different program outreach efforts were tested in each community. The pilot began in March 2013 in Machias and continued in Presque Isle. The initial pilot period terminates in December, 2013.

FY13 Results: Results from the pilot program include:

- 16 customers elected to move forward with lighting measures in the Machias area, completing 17 projects. 12 of the participants elected to finance the upgrades through on-bill financing through their electricity provider.
- Customer response to the pilot program has been positive.
- While the program has seen savings, on average, of \$95 a month per business on the electric bill, low pilot participation numbers posed a continuous challenge.
- Modification to the program delivery strategy made modest improvements to the participation rate, however, the improvements are labor intensive and costly.
- Preliminary analysis by Efficiency Maine suggests that the sparsely populated Main Streets of rural Maine and the relatively small size of businesses in those towns leave limited electrical saving opportunities to offset the relatively high cost to market and support the program. The pilot has struggled to reach cost-effectiveness (i.e., a positive benefit-to-cost ratio).

The summary results of the Small Business Direct Install Pilot in FY13 appear in Table 7.

Small Business Direct Install Program									
Total Total Drois sto		Annual kWh	Lifetime kWh	Efficiency	Participant	Lifetime Energy	Benefit to		
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio		
16	17	152,414	1,981,382	\$152,821	\$18,350	\$166,652	0.97		

**FY14 Plans:** Efficiency Maine will take a hard look at how the program design used in the pilot could be improved to meet cost-effectiveness requirements. Making energy efficiency accessible to Maine's smaller businesses remains a priority for Efficiency Maine. Options to be considered include developing and publishing a "street sweep" schedule so customers are more prepared when program contractors are on site, promoting "one-stop shopping" by allowing the energy auditor to also perform the

recommended equipment installations, and adding installations at the time of audit. The Small Business Direct Install budget for FY14 appears in Appendix C.

## **Maine High Performance Schools**

**Overview:** The Maine High Performance Schools (HPS) program is a legacy program from 2005 that is no longer active. The program was designed to incent energy efficiency design improvements in the lighting and mechanical systems in the construction of Maine schools. It was launched as a result of a partnership of the Maine Department of Education, Bureau of General Services, the Maine School Management Association, United States Department of Energy, and Efficiency Maine.

**FY13 Activities:** All available funding was committed prior to FY12. However, several schools are still completing pre-existing agreements from the original program, and for this reason, funds are still reserved in the budget and payments continue to be made to meet these commitments. Three schools remain in the HPS queue as they complete the design, construction and commissioning process.

**FY13 Results**: Six schools completed the design/construction/inspection process in FY 2013, and six schools completed the commissioning process.

Table 8 – High Performance Schoo	ols Program Results
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High Performance Schools Program									
Total	Total Total Division		Lifetime kWh	Efficiency	Participant	Lifetime Energy	Benefit to		
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio		
10	12	729,309	14,586,187	\$1,039,278	\$453,811	\$797,822	0.53		

**FY14 Plans:** The program activities, which consist of paying out incentives for previously awarded projects, will be completed in FY14.

### **Commercial New Construction Program - Maine Advanced Buildings**

**Overview:** In previous years, Efficiency Maine administered a program for new construction of commercial buildings, branded as Maine Advanced Buildings. The Maine Advanced Buildings program has traditionally provided easy-to-follow guidelines and incentives to design buildings that are 15-20% more energy-efficient than the Maine Uniform Building and Energy Code.

**FY13 Activities:** By the end of FY13, the ARRA funds committed to this program were fully allocated. Approximately \$12,500 of electric SBC funds were added to the program budget. In FY13, the reductions in available budgets caused the program to suspend the incentives and technical support for any new projects. During this year, the program was limited to providing information and advice regarding best practices and tracking projects that were previously accepted into the program. During FY13, Efficiency Maine provided on-site monitoring and technical support for all projects in the program.

**FY13 Results:** Program activity included the completion of 5 projects representing over 165,500 sq. ft. of new construction meeting Maine Advanced Building standards.

Maine Advanced Building Program								
Total	Total Projects	Annual MMBtu	Lifetime MMBtu	Efficiency	Participant	Lifetime Energy	Benefit to	
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio	
5	5	1,994	39,869	\$562,178	\$297,874	\$954,328	1.11	

**FY14 Plans:** The remaining projects awarded in FY12 will be completed this fiscal year. The budget in FY14, which appears in Appendix C, shows an increase due to recent changes to Maine's law on the Trust's budgets and on RGGI. These changes enable the Trust to use more of the RGGI revenues for "all fuels" saving measures (i.e., not just electricity). In addition to providing an educational initiative focused on best practices in new construction, the Trust will re-institute financial incentives to promote new construction that is consistent with the MAB standards and what was described in the Second Triennial Plan.

## **Retro-Commissioning Pilot Program**

**Overview:** This ARRA funded pilot program was launched in April 2010 to determine whether measurable energy savings could be achieved by offering building owners the opportunity to improve the efficiency of their building operations through a "tune-up" of their existing building energy systems. The project concluded in FY12, although payments through the program continued into FY13.

**FY13 Activities:** The main activities of the program were limited to monitoring and oversight of projects as well as completing a program evaluation.

FY13 Results: Progress at the end of FY13 is reflected in Table 10.

Table 10 – Retro-Commissioning Program Results

	Retro-Commissioning Program								
Total	Total Droinsta	Annual MMBtu	Lifetime MMBtu	Efficiency	Participant	Lifetime Energy	Benefit to		
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio		
27	27	8,327	40,736	\$320,707	\$278,575	\$694,667	1.16		

**FY14 Plans:** As with the Commercial New Construction Program, recent changes to Maine law will enable the Trust to continue funding the Retro-Commissioning Program, consistent with the Triennial Plan. FY14 program strategy will implement several of the recommendations from the independent evaluation in order to improve the benefit-to-cost ratio. Lower benefit-to-cost ratios are expected in a pilot, since the program is typically small scale and a disproportionate share of the budget is consumed with start-up and administration. But future benefit-to-cost results can be improved by more aggressive marketing and by lowering delivery costs. By shifting payment of certain elements of the retrocommissioning to the Business Incentive Program, for example, delivery costs could be reduced and cost-effectiveness increased. The budget for the FY14 Retro-Commissioning Program appears in Appendix C.

#### **Retro-Commissioning Pilot Program – Program Evaluation**

Efficiency Maine contracted with The Cadmus Group, Inc. to conduct an impact and process evaluation of the Retro-Commissioning (RCx) Pilot Program. The study, which was conducted from August through December 2012, verified the energy savings achieved by projects launched under the RCx program between April 2010 and May 2012, and examined the effectiveness, efficiency and quality of program implementation as well as program experiences and satisfaction. This evaluation included in-depth interviews with program staff and service providers, telephone surveys with participants, engineering reviews of project files, and on-site measurement and verification.

Key findings from the impact evaluation included:

- For the evaluation period, the program achieved verified gross savings of 9,980 MMBTU;<sup>5</sup>
- The Net-to-Gross (NTG) Ratio for the program was estimated to be 0.96, which means that 96% of gross savings can be attributed to the program. Applying this NTG ratio to verified gross savings, the evaluation estimated verified net savings of 9,611 MMBTU; and,
- The Total Resource Cost (TRC) benefit-cost ratio for the evaluation period came out just under 1.0 (estimated at 0.96), based on verified net savings and costs.<sup>6</sup> This compares to a program reported value of 1.05 for FY12.

Key findings from the process evaluation included:

- The program experienced high satisfaction levels. A vast majority (86%) reported being "very satisfied" with the program, and the remainder (14%) reported being "somewhat satisfied." Clear instructions and communications from Efficiency Maine and its delivery team were key factors in the high satisfaction ratings;
- Free-ridership for the program was low (3.7%). This finding of low free-ridership was consistent with expectations and with retro-commissioning programs in other jurisdictions; and,
- Participants' primary recommendation was to expand marketing and outreach to increase program awareness.

<sup>&</sup>lt;sup>5</sup> Evaluation results for verified gross savings differ from the program annual MMBtu savings reported above because the evaluation period (April 2010-May 2012) differs from the FY13 period. Additionally, the evaluation results were verified with the help of sampled measurements, which results in adjustments from the initially reported gross savings.

<sup>&</sup>lt;sup>6</sup> The evaluation TRC results differ from the benefit-to-cost ratio presented in the program results table above because: the evaluation period differs from FY13 and the evaluated TRC is based on *net* savings and costs whereas the program results are based on gross savings and costs.

## **Multifamily Programs**

Across the nation, the multifamily housing sector has historically been an underserved market sector for energy efficiency programs and Maine's multifamily housing sector was no exception. Over the past two years however, Efficiency Maine has deployed two significant programs designed to address the energy efficiency needs of the over 50,000 multi-family housing units in the state. Each program is designed to serve a distinct customer base. One program is income neutral and the other program focuses on units housing LIHEAP-eligible consumers.

## **Multifamily Efficiency Program**

**Overview:** Funded by Department of Energy BetterBuildings funds, the Multifamily Efficiency Program targets comprehensive energy efficiency in Maine's multifamily buildings. Efficiency Maine built upon the highly successful Home Energy Savings Program to develop and deploy an energy retrofit program targeted to the underserved multifamily housing sector. This sector is defined as small to medium multifamily housing, with between five and twenty apartment units per building. By providing comprehensive retrofit services, this initiative aims to reduce energy consumption by 20% or greater, while establishing a long-term program for this difficult-to-reach sector of the built environment. Participating multifamily buildings are benchmarked and audited by approved Program Partners<sup>7</sup>. Building owners receive specific project quotes with estimated financial incentives and payback calculations so they can make informed retrofit decisions.

FY13 Activities: Other program activities performed in FY13 include:

- Developing a Program Partner network to deliver the program;
- Benchmarking 2,489 apartment units in 277 buildings, representing 5% of the Maine small multifamily building stock;
- Collecting valuable data on the building characteristics and energy usage of these small multifamily properties in Maine;
- Holding orientation workshops for multifamily building owners and connecting multifamily building owners with Program Partners;
- Providing scholarships to professionals to take Multifamily Building Analyst courses in preparation for Multifamily BPI certifications;
- Holding trainings for Multifamily Program Partners in envelope solutions, project management, and sales; and,
- Addressing regional conferences organized by the Association of Energy Services Professionals and Northeast Energy Efficiency Partnership about Maine's Multifamily Efficiency Program design.

**FY13 Results:** At the end of FY13, 2,489 units had been benchmarked and 249 retrofits had been completed. These projects total 54,470 kWh, 14,500 therms (NG), and 3,445 MMBtu (24,784 gallons) of fuel oil in annual energy savings.

<sup>&</sup>lt;sup>7</sup> Program Partners are a group of private sector contractors with a thorough knowledge of energy efficiency and ability to provide building performance services to multifamily buildings.

#### Table 11 – Multifamily Efficiency Program Results

Multifamily Efficiency Program									
Total Total Projects		Annual MMBtu	Lifetime MMBtu	Efficiency	Participant	Lifetime Energy	Benefit to		
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio		
18	249	5,081	96,591	\$1,256,532	\$551,390	\$1,792,113	0.99		

**FY14 Plans:** Efficiency Maine plans to explore program enhancements to transition units from benchmarking to project completion more quickly. Benchmarking data will be evaluated and shared in a report on Maine's multifamily building stock. Allocated ARRA BetterBuildings funds will be exhausted in FY14, however the program will continue by using revenues from RGGI. The budget for FY14 appears in Appendix C.

### Multifamily Efficiency Program – Program Evaluation

Efficiency Maine has contracted with Opinion Dynamics Corporation, Inc. to conduct an impact and process evaluation of the Multifamily Efficiency Program (MEP). Aside from start-up activities in June 2013, this study will occur during FY14 and will be reported in next year's Annual Report. The MEP evaluation will examine program implementation and verify energy savings for MEP projects completed through September 2013. The evaluation team will use multiple research and data collection strategies including: in-depth interviews with program staff and service providers, surveys of participating building owners, engineering reviews of project files, and on-site visits.

### Low Income Multifamily Weatherization Program

**Overview:** The purpose of this program is to increase the efficiency of electricity and natural gas use in LIHEAP-eligible, multifamily homes in Maine, and to satisfy the statutory requirement that certain prescribed minimum funding levels be used for the benefit of electricity customers and natural gas customers who are low income.

**FY13 Activities:** The low income multifamily weatherization program was launched in January 2012. In FY 13, the program:

- Weatherized LIHEAP-eligible, electrically heated residential units;
- Replaced inefficient electric heating systems with high-efficiency ductless heat pumps; and
- In Unitil territory, replaced inefficient gas heating systems with high efficiency gas systems in LIHEAP-eligible units.

**FY13 Results:** Initial calculations are that the program will achieve, on average, a 27% reduction in electrical consumption per unit in electrically-heated units. In the first full year of program delivery, the program:

- Upgraded 2,192 electrically-heated units;
- Installed 1,325 high-efficiency ductless heat pumps; and
- Will save 102,991,000 kWh lifetime energy.

The program also completed one large retrofit in the Unitil territory with gas SBC funds. Air sealing and insulation measures were installed in a 201-unit housing complex for annual savings of 446 MMBtu.

Table 12 – Low-Income Multifamily	Weatherization Program Results
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	Low Income Multifamily Electric Program									
Total	Total Projects	Annual kWh	Lifetime kWh	Efficiency	Participant	Lifetime Energy	Benefit to			
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio			
539	2,192	5,679,000	102,991,000	\$6,165,681	\$0	\$12,597,195	2.04			

#### Table 12A – Low-Income Natural Gas Program Results

Low Income Natural Gas Program									
Total	Total Duala da	Annual MMBtu	Lifetime MMBtu	Efficiency	Participant	Lifetime Energy	Benefit to		
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio		
1	1	446	8,924	104,224	0	\$86,301	0.83		

**FY14 Plans:** The number of LIHEAP-eligible electrically-heated buildings in Maine is limited, and Efficiency Maine estimates that the majority of buildings where cost-effective electric savings can be achieved will be weatherized within FY14. The program will use the period of FY14 to explore alternative ways to invest SBC funds to benefit low-income customers and to pilot new measures or revised program design. The program will continue to weatherize LIHEAP-eligible multifamily buildings in Unitil territory. The budget for the program in FY14 appears in Appendix C. It should be noted that the budget for this program does not reflect all electric funds that the Trust allocates to benefit low income customers. Significant funds are also directed to the Residential Retail Lighting Program, where low-income Mainers benefit from purchasing high-efficiency home products, and \$500,000 from the FY14 RGGI funds will be used to supplement the CHIP program that replaces failed heating systems for low-income Mainers.

## **Residential Programs**

Through its Residential Programs, Efficiency Maine administers programs to increase efficient use of electricity, natural gas, and other heating fuels in Maine homes (in addition to the multifamily homes described in the prior section). This section of the Annual Report describes the Residential Programs delivered in FY13. Those programs funded by the electric and natural gas system benefit charges (SBC) or Regional Greenhouse Gas Initiative (RGGI) appear before those funded through the American Recovery and Reinvestment Act (ARRA).

### **Retail Lighting Program**

**Overview:** Compact fluorescent light bulbs (CFLs) and Light-Emitting Diodes (LEDs) use 75% less electricity for the same light output and last longer than traditional incandescent bulbs. Yet the higher initial cost of efficient bulbs – both CFLs and LEDs -- result in most consumers continuing to buy incandescent bulbs. Efficiency Maine's Retail Lighting Program works to overcome first-cost barriers by collaborating with ENERGY STAR lighting manufacturers and retailers to lower the price of CFLs and LEDs. The program also educates consumers about the benefits of efficient lighting. This program is used by customers of all income levels.

**FY13 Activities:** In FY13, as in the prior year, the program's delivery strategy was reimbursing retailers for lowering their CFL prices. Over 30 models of LED bulbs were also added to the program. For the vast majority of sales, the financial incentive was delivered automatically to the customer at the point of sale, requiring no paperwork. In FY13, the program engaged additional retailers in the program including Big Lots, Dollar Tree, Reny's, Walgreens, and others, to ensure that discounted bulbs were available to consumers across the state.

Other program activities included:

- Conducting 122 in-store demonstrations educating consumers and retail staff on the benefits of efficient lighting and appliances;
- Completing 4,130 store visits verifying marked down lighting pricing, training store staff, encouraging off-shelf merchandising and restocking coupons (as appropriate);
- Distributing 168,960 CFLs free of charge through The Good Shepherd Food Bank;
- Sending 78,696 CFLs to participants in the Appliance Rebate Program;
- Adding nearly 30 LED bulb types to program offerings; and,
- Increasing retailer enrolment to 418 locations across the state

**FY13 Results:** Continuing the program performance of the past two years, this year 1,995,685 highefficiency bulbs, including 37,987 LEDs, were purchased or distributed through the program. 168,960 CFLs were distributed through the Good Shepherd Food Bank to low-income households throughout the state.

Summary results for the program are as follows:

Residential Lighting Program									
Total	Total Total Drois ato		al kWh Lifetime kWh Efficiency		Participant	Lifetime Energy	Benefit to		
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio		
n/a	1,995,685	70,778,000	553,134,000	\$5,102,188	\$1,076,050	\$81,462,655	13.19		

**FY14 Plans:** The Retail Lighting Program strategy and activities planned for FY14 are the same as in FY13. More LED bulbs will be added to the program as well as additional retail channels. The budget for the program in FY14 appears in Appendix C.

## **Residential Appliance Program**

**Overview:** Efficiency Maine has worked with appliance retailers throughout the state to educate sales staff on the benefits of ENERGY STAR electrical appliances and offer rebates for customer purchases of new, qualified units. At the beginning of the fiscal year, these appliances included refrigerators, clothes washers, and dehumidifiers. The list was expanded mid-year to include water heaters, freezers, air conditioners, and air purifiers.

FY13 Activities: A summary of the Residential Appliance Program activities in FY13 includes:

- Issuing rebates ranging from \$25 to \$500 to mitigate the price differential between conventional and ENERGY STAR rated units;
- Working with retailers representing 128 stores statewide to distribute rebate forms to customers who buy ENERGY STAR water heaters, refrigerators, clothes washers, freezers, air conditioners, air purifiers, and dehumidifiers;
- Conducting 1,786 store visits to label ENERGY STAR appliances, install/restore signs, train store staff, and restock coupons;
- Implementing a marketing campaign through traditional and social media channels to highlight the savings possible through ENERGY STAR appliances; and,
- Targeting educational efforts on the new Heat Pump Water Heater technology including web page, flyer, trainings, and store visits

**FY13 Results:** This was Efficiency Maine's third year rebating ENERGY STAR appliances. The program was very popular. Mainers purchased more than 20,000 energy-efficient refrigerators, clothes washers, room air conditioners, room air purifiers, freezers, water heaters and dehumidifiers saving millions of dollars through avoided energy costs. A consequence of programs that use retail channels and allow a wide range of equipment options is that the cost-effectiveness can be significantly influenced, for better or worse, by shifts in consumer preferences. Thus, it can happen that during a given year customer demand surges for a certain type of appliance where the cost-effectiveness is very high, while demand for a less cost-effective product is dormant. In that year, the program's cost-effectiveness will be high. However, in other years the opposite may occur, as seems to have been the case in FY13 where the mix of appliances yielded a low benefit-to-cost ratio.

Summary results for the FY13 Appliance Program are as follows:

Residential Appliances Program									
Total Total Projects		Annual kWh	Lifetime kWh	Efficiency	Participant	Lifetime Energy	Benefit to		
Participants	_	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio		
n/a	20,646	5,146,653	59,175,711	\$2,077,276	\$470,865	\$3,836,736	1.51		

Table 14 – Residential Appliance Program Results

**FY14 Plans:** The program will place an increasing focus on promoting high-efficiency models of air source, ductless heat pump space heaters and heat pump water heaters due to their substantial energy savings per unit and their status as an emerging, high-efficiency technology. The focus on heat pump technologies requires the program to develop additional outreach channels since heat pump water heaters are often installed by a professional, and are not exclusively a retail purchase. Other products will be tracked to determine the level of uptake in the marketplace and the available budget. The budget for the program in FY14 appears in Appendix C.

### **Refrigerator Recycling Program**

**Overview:** This program was started in January 2012 with the goals of reducing the number of secondary refrigerators and freezers in the state and accelerating the trading in of old units to be replaced by more efficient models. Reducing the number of refrigerators and freezers on the grid or upgrading those that stay on the grid both serve as effective ways to reduce the inefficient use of electricity.

**FY13 Activities:** This program was ended in early FY13. Program results were respectable but slightly below the Trust's initial expectations, particularly with regard to uptake. The decision was made during FY13 to wind down the program and shift the funds to higher priority residential opportunities.

FY13 Results: Summary results for the final months of the Refrigerator Recycling Program are as follows:

Refrigerator Recycling Program									
Total	Total Projects	Annual kWh Lifetime kWh Efficiency		Participant	Lifetime Energy	Benefit to			
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio		
2,068	2,068	2,190,012	13,140,072	\$354,681	\$0	\$919,187	2.59		

Table 15 – Refrigerator Recycling Program Results

**FY14 Plans:** All budgeted program funds were expended in FY13 or re-purposed. There are no plans to continue the Refrigerator Recycling Program at this time.

## Home Energy Savings Program (Financing and Direct Install)

**Overview:** The Home Energy Savings Program (HESP) was designed to raise awareness about the benefits of home weatherization and to encourage homeowners to make efficiency upgrades sufficient to save at least 20% of their total home energy use. This started as a rebate program in January 2010 and transitioned to a loan program in FY12. In FY13, this loan program was paired with a Residential Direct Install pilot funded through a BetterBuildings Grant from the U.S. Department of Energy.

The Residential Direct Install (RDI) incentive was designed to break down barriers to entry for homeowners to participate in weatherization programs by encouraging homeowners to engage energy auditors, develop a plan for making energy upgrades to their homes, and complete a basic air sealing to their homes at the same time the audit is performed. This incentive was designed to move homeowners a step closer to undertaking deeper energy retrofits such as insulating attics and basements and upgrading heating systems, and financing those retrofits through the loan program.

Unitil System Benefit Charges allocated for energy efficiency for residential customers were incorporated into the RDI pilot. Unitil funds were used to "piggyback" on BetterBuildings incentives to provide Unitil heating customers with access to incentives of as much as \$1,200 per unit (total), for buildings of up to four units, for a minimum of 12 hours of targeted air sealing and insulation work per unit. For Unitil customers, the base amount of incentive (usually \$600/unit) was paid from the ARRA funds and the incremental incentive (also \$600/unit) was paid from the Unitil funds. \$176,000 SBC Unitil dollars were used to provide 293 bonus rebates in FY13 for Unitil heating customer homes where an additional 6 hours of air sealing and insulation was included in the work scope. Because of the "piggybacking" of incentives, all SBC dollars went to incentives.

**FY13 Activities:** In FY13, Efficiency Maine promoted energy financing products (PACE and PowerSaver loans) as well as the RDI pilot through TV ads, radio ads and interviews, print advertising, web ads, speaking engagements, and the Efficiency Maine website. Efficiency Maine staff spent significant efforts working closely with the home performance contractor community to streamline the RDI rebate process and educate contractors about energy loan products.

**FY13 Direct Install Results:** During FY13, 5,118 participants received an RDI incentive for air sealing and insulation work. RDI program activity increased significantly following an increase in the RDI incentive from \$300 to \$600 in September 2012, from an average of 53 completed projects per month between July and September 2012 to an average of 551 completed projects per month between October 2012 and June 2013.

**FY13 Financing Results:** Energy financing education efforts, the RDI incentive, and outbound calls to all participants in the RDI program was successful in encouraging customers to seek financing for their energy upgrades. In FY13, 203 loans were issued, totaling \$2.5 million, through Efficiency Maine's PACE & PowerSaver Loan Program. This includes 129 PACE loans, 25 Secured PowerSaver loans, and 49 Unsecured PowerSaver loans. The average PACE loans totaled \$12,730, while the average Secured PowerSaver loan totaled \$21,349. The average Unsecured PowerSaver loan was \$6,528.

Verified first-year, annual gross savings for the PACE & PowerSaver Loan Program for FY13 are 10,445 MMBtu, or an average of 54.4 MMBtu per project. On average, these savings represent 27.7% of pre-project whole-house energy usage.

Residential Direct Install Program									
Total	Total Participants Total Projects		Annual MMBtu Lifetime MMBtu		Participant	Lifetime Energy	Benefit to		
Participants			Savings	Maine Costs	Costs	Benefit	Cost Ratio		
5,118	5,118	47,156	943,120	\$3,840,026	\$1,490,000	\$24,793,650	4.65		

#### Table 16 – Residential Direct Install Program Results

#### Table 17 – Pace/PowerSaver Program Results

Home Energy Savings/PACE Program									
Total	Total Proiects	Annual MMBtu		Lifetime MMBtu Efficiency		Lifetime Energy	Benefit to		
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio		
192	192	10,445	208,500	\$3,492,795	\$2,500,000	\$7,045,551	1.18		

**FY14 Plans:** The Home Energy Savings Program will change in FY14 due to changes in funding. With the new allocation of Regional Greenhouse Gas Initiative Funds, the Home Energy Savings Program will offer financial incentives for home performance projects in addition to energy financing. Efficiency Maine also plans to add a new unsecured Efficiency Maine Energy Loan product to its portfolio of financing options.

#### Home Energy Savings Program: Residential Direct Install - Program Evaluation

Efficiency Maine contracted with Opinion Dynamics Corporation to conduct an impact and process evaluation of the RDI program. This study is part of a multi-year evaluation of several Efficiency Maine programs funded by a BetterBuildings Program Grant from the U.S. Department of Energy. Completed in October 2013, the RDI evaluation examined FY13 gross and net energy savings, cost-effectiveness, and participant and contractor experiences. This evaluation included a telephone survey of 100 program participants and in-depth interviews with 14 Participating Energy Advisors (PEAs), and analysis of program data for 5,118 projects completed in FY13.

Key findings from the impact evaluation include:

- The RDI program achieved annual gross savings of 47,156 MMBTU in FY13, or 9.21 MMBTU per project. On average, annual gross energy savings represent 8.5% of pre-project whole-house energy usage. The vast majority (87%) of RDI savings are the result of air sealing measures;
- The estimated free ridership rate is 18%, and estimated spillover savings represent 77% of the gross savings realized per project;
- Based on the free-ridership and spillover results, the estimated net-to-gross ratio is 1.59, meaning that net energy savings attributable to the program are 59% *higher* than reported gross savings;
- Applying the net-to-gross ratio yields annual program-level net impacts of 74,860 MMBTU, or 14.6 MMBTU per project. On average, these net annual savings per project represent 13.5% of pre-project whole-house energy usage;
- For FY13, the evaluation found the RDI Program to be cost-effective, with a Total Resource Cost (TRC) benefit-cost ratio of 3.6; and,

Key findings from the process evaluation included:

- Participants were generally satisfied with their participation in the RDI Program, including their PEA, the energy assessment, and the quality of work performed. Almost all participants (94%) would recommend the program to their family and friends;
- As of July 2013, 40% of those who completed projects during FY13 (July 2012-June 2013) had noticed an increase in comfort level and 25% had noticed a reduction in energy bills;
- Most participants reported they would have been *unlikely* to have an energy assessment performed on their home if it had not been a component of the RDI Program. Most participants

also reported their awareness of home energy efficiency increased as a result of the RDI home energy assessment;

- As of July 2013, 8% of FY13 participants had already applied for an Efficiency Maine loan and an additional 6% considered it very likely that they would do so. Given the large total number of completed RDI projects, even these small shares represent a substantial opportunity for the PACE and PowerSaver Loan Program (6% of FY13 RDI participants would be 331 new loan applications);
- FY13 participants most frequently learned about the RDI Program through word-of-mouth (40%) and through traditional media such as newspapers, radio, and TV (22%); and,
- Most PEAs interviewed for the study reported that awareness of the program specifics among their customers is low, but customers have high levels of interest once informed.

### Home Energy Savings Program: Financing -- Program Evaluation

Efficiency Maine contracted with Opinion Dynamics Corporation to conduct an impact and process evaluation of the PACE and PowerSaver Loan program. This study is part of a multi-year evaluation of several Efficiency Maine programs funded by a BetterBuildings Program Grant from the U.S. Department of Energy. Completed in October 2013, the PACE and PowerSaver final report examined FY13 gross and net energy savings, cost-effectiveness, and participant experiences. In support of the final report, the evaluation included a telephone survey of 72 loan recipients, in-depth interviews with program staff, collection and analysis of customer heating fuel bill data, and analysis of program data for the 192 projects completed in FY13.

Key findings from the impact evaluation include:

- In FY13, the PACE & PowerSaver Loan Program realized annual gross savings of 10,445 MMBTU, or an average of 54.4 MMBTU per project. On average, these savings represent 28% of pre-project whole-house energy usage;
- Fuel bill savings averaged 24% of pre-project weather-adjusted fuel usage for the 18 projects for which heating fuel usage data was available;
- The estimated free ridership rate is 10.3% and estimated spillover savings are 15.5% of the gross savings realized per project;
- Based on the free-ridership and spillover results, the net-to-gross ratio is 1.05, meaning that net energy savings attributable to the program are 5% *higher* than reported gross savings;
- Applying the net-to-gross ratio yields annual program-level net impacts of 10,986 MMBTU, or 57.2 MMBTU per project. On average, these net annual savings per project represent 29% of pre-project whole-house energy usage;
- For FY13, the evaluation found the PACE and PowerSaver Loan Program to be cost-effective, with a Total Resource Cost (TRC) benefit-cost ratio of 2.0; and,

Key findings from the process evaluation include:

• Survey responses show a high level of participant satisfaction with the PACE & PowerSaver Loan Program overall, with their PEA, and with their RV. Confirming their general satisfaction, 96% of surveyed participants would recommend the program to their family and friends;

- Most FY2013 participants report noticing improvements following their projects: 83% report a decrease in energy bills and 83% report an increase in home comfort;
- Overall, 57% of FY13 participants reported closing their PACE or PowerSaver loan within six weeks. Since the interim evaluation report, the share of loans taking more than eight weeks to close has increased from 14% to 41%; and,
- Traditional media (newspapers, radio, TV), contractors, and word-of-mouth are the most common ways that FY13 participants first learned about PACE and PowerSaver Loans.

## Low-Income Weatherization Assistance Program (WAP) by MaineHousing

Maine State Housing Authority (MaineHousing) is the designated administrator of the Weatherization Assistance Program that provides grants to low-income homeowners and renters to reduce energy costs. This program is funded with federal funds. Weatherization improvements may include insulation, weather-stripping, caulking, and some incidental and/or safety-related repairs. MaineHousing offers this program to consumers through Community Action Agencies (or "CAPs"). The CAPs screen people for eligibility as part of the Low-Income Home Energy Assistance Program (LIHEAP) application process. Up to 15% of MaineHousing's LIHEAP budget may also be spent on weatherization (including heating system repairs/replacements). The Efficiency Maine authorizing statute requires the Trust to report on activities of the WAP in the annual report.

Total Funds Received/Expended by MaineHousing on Weatherization Production (includes amounts from LIHEAP								
		on Weatherizatio						
	GRANT	PRODUCTION	PRODUCTION		NOTE			
	PERIOD	BUDGET	EXPENSES	UNITS	NOTES			
					Grant period			
					extended to			
					continue production			
					through 6/30/2013.			
	4/1/2012-				Production			
DOE 2012 REGULAR	6/30/2013	\$1,998,648	\$1,901,076	283	complete.			
					No expenses as of			
					11/6/2013 because			
					DOE only			
					conditionally			
					approved State Plan			
					mid September			
	4/1/2013-				2013. Estimate 64			
DOE 2013 REGULAR	3/31/2014	\$422,919	\$0	see note	units.			
	10/1/2012-				Production			
2013 LIHEAP Wx	9/30/2013	\$2,382,477	\$1,729,410	268	complete.			
					No expenses as of			
					11/6/2013 because			
					2014 LIHEAP			
					Program funded by			
					DHHS on 11/5/2013.			
					In process of			
	10/1/2013-				determining budget			
2014 LIHEAP Wx	9/30/2014	TBD	\$0	0	for LIHEAP Wx 2014.			
	1/1/2013-				Funded by			
2013 Wx SUPPLEMENTAL	12/31/2013	\$909,117	\$310,094	71	MaineHousing			
Total		\$5,713,161	\$3,940,580	622				

## **Alternative Energy Programs**

Through its Alternative Energy Programs, Efficiency Maine administers a variety of offerings for residential and non-residential energy customers. This section of the Annual Report describes the Alternative Energy Programs delivered in FY13. Unlike prior sections of the report, this section is not organized by the source of the funds used to pay for the programs.

The Solar/Wind Rebate program originally was mandated and funded by Maine statute to establish financial incentives for qualifying solar and wind equipment sited and installed on the customer's side of the meter. These are not projects principally designed to put power on the grid nor for commercial production or sale of energy. In subsequent years, a second alternative energy program -- The Renewable Resource Fund -- was also statutorily mandated to promote "research and development" and "demonstration projects" of emerging technologies.

## Solar/Wind Rebate Program

**Overview**: The law that created the Solar/Wind Rebate Program and authorized funding through a System Benefit Charge was repealed in FY11 and was not re-authorized in FY12 or FY13. The funds remaining in the Solar/Wind Rebate Program were transferred to the Renewable Resource Fund pursuant to legislation in FY12. Efficiency Maine continued to fund rebates using a combination of ARRA, Renewable Resource Funds, and Solar/Wind Rebate Program revenues through FY13.

**FY13 Activities:** The Trust administered a rebate program for solar thermal, solar PV, and small wind projects that met established criteria for project eligibility. In all cases, the rebates were limited to systems located on the "customer's side of the meter." This means they are helping the customer offset consumption of power from the grid, and that the systems are not sized or intended for commercial generation of electricity for sale onto the grid. Rebates were only available for installations meeting the cost-effectiveness test set out in Efficiency Maine's Renewable Resources Fund rule. Rebate amounts were based on lifetime projected energy production paying \$0.025 per projected kWh production over a 20-year period as opposed to a percentage of installation cost as had been done in prior years.

**FY13 Results:** The rebate program assisted Maine customers in installing a total of 452 renewable energy systems in FY13.

- 157 Solar thermal installations
- 292 Solar PV installations with a cumulative capacity of 1,779 KW
- 3 Small wind installations.

Solar & Wind Rebate Program									
Total	Total Duals ata	Annual MMBtu		Efficiency	Participant	Lifetime Energy	Benefit to		
Participants	Total Projects	Savings	Savings	Maine Costs	Costs	Benefit	Cost Ratio		
449	452	9,971	199,415	\$1,085,072	\$7,910,234	\$6,852,153	0.76		

For purposes of comparison to other programs in this report, Table 19 shows the cost-effectiveness of the Solar/Wind Rebate Program using the same methodology applied to all other Efficiency Maine programs, the Total Resource Cost (TRC) Test. However, as noted above, individual projects funded

through this program are screened using the Modified Participant Cost Test as laid out in Chapter 103 of Efficiency Maine's rules. The Modified Participant Cost Test (MPCT) reflects the net costs to the end user inclusive of all rebates, tax credits and incentives from any source, and all saving benefits from avoiding the retail cost of energy delivered to the customer (i.e., this includes the savings from avoided transmission and distribution costs). In the case of renewable energy installations, the 30% Federal Tax Credit significantly reduces project costs for participating customers and the inclusion of avoided transmission and distribution costs increases the project savings compared to the way other programs in this report are analyzed. Table 19A factors in estimated Federal Tax Credits and avoided retail energy costs received by Solar/Wind Rebate participants, resulting in an average MPCT cost-effectiveness of 1.24.

	Solar and Wind Rebate Participant Cost Test										
	Total Project			Lifetime Customer							
	Cost	Incentive	Tax Credit	Benefit	Participant Cost Test						
Solar PV	\$6,865,865	\$599,900	\$2,059,760	\$5,432,409	1.18						
Solar Thermal	\$1,928,451	\$363,642	\$578,535	\$1,916,494	1.48						
Wind	\$84,460	\$5,000	\$25,338	\$72,316	1.22						
Total	\$8,878,776	\$968,542	\$2,663,633	\$7,421,219	1.24						

**FY14 Plans:** Efficiency Maine will administer the incentives reserved until all Solar/Wind Law funds are fully expended by the end of the 2013 calendar year. No additional funding for renewable rebates is expected in FY 14 or FY15. The budget for the program in FY14 appears in Appendix C.

### **Renewable Resource - Research, Development and Demonstration Program**

**Overview**: This program is intended to support the state's goal to offer support for the research, design and demonstration of emerging clean energy technologies. Program funding is authorized in statute from voluntary contributions made by Maine electricity consumers, and from electricity suppliers who elect to meet their renewable portfolio standard obligations through alternative compliance payments. In recent years the revenues from these sources have been extremely limited.

**FY13 Activities:** Efficiency Maine issued an RFP seeking proposals for community demonstration or research and development projects in April 2013. Six projects were awarded to The Chewonki Foundation, The City of Augusta, Cobscook Community Learning Center, Maine Community Solar Farm, Western Maine Community Action, and the York School Department, respectively.

**FY14 Plans:** Efficiency Maine plans to create case study information about the demonstration projects for distribution on our website and other channels. An RFP will be issued in FY14 as funds allow, or may be held until FY15 if more time is needed for sufficient funds to build up so that multiple demonstration projects can be awarded from the RFP. Future voluntary contributions and revenues will be directed through competitive RFPs to community demonstration installations of renewable energy technologies and research and development projects.

## Cross-Cutting Strategies <sup>8</sup>

### **Public Information and Outreach**

**Overview:** Through its Public Information and Outreach efforts, Efficiency Maine strives to increase consumer awareness of cost-effective options for saving energy by installing energy-efficient equipment, using energy more efficiently, using more alternative or renewable energy, and financing these measures. Public Information initiatives convey to Maine businesses and homeowners the numerous benefits resulting from energy efficiency. Some of these benefits include: saving money, time and resources; promoting energy independence; reducing harm to the environment and human health; helping the Maine economy through job creation and job retention; and reducing operating and maintenance costs. In the case of homeowners, the Trust conveys the additional benefit of increasing home comfort.

Through numerous communications channels, Efficiency Maine urges consumers who are planning to purchase new lighting, appliances, heating systems, electronics and other equipment to consider buying the more energy efficient models available. Information is disseminated through the Efficiency Maine web site, printed flyers and brochures, traditional advertising, social media, and other multimedia tools, as well as targeted training and industry events such as forums and symposia.

#### FY13 Activities:

#### **Education and Training**

Efficiency Maine issued an RFP for education and training services for Customer Service, Marketing, and Sales trainings for trade allies. These trainings will be offered early in FY14.

#### <u>Events</u>

In FY13, Efficiency Maine held its third annual energy symposium for contractors and customers, as well as convened a forum on energy efficiency for legislators and policy makers. In addition, Efficiency Maine staff spoke at dozens of events across the state and New England about energy efficiency and Efficiency Maine programs, and exhibited at several trade shows.

#### Municipal Case Studies and Report

Efficiency Maine produced 11 short video case studies on municipal energy efficiency and renewable energy projects funded through the ARRA Energy and Efficiency Community Block Grants (EECBG) Program. These videos highlight energy saving opportunities in municipal buildings and lessons learned through the EECBG Program. The videos have been distributed through Efficiency Maine's website as well as through participating municipalities, posted on YouTube, and on a community access TV resource called PEGMedia. The videos were also shown at the Maine Municipal Association Annual Conference. A report highlighting program successes was also produced and distributed.

<sup>&</sup>lt;sup>8</sup> This category of programs and initiatives was previously referred to as "Enabling Strategies" in the Triennial Plan and other reports.

#### Save Like a Mainer Campaign

In FY13, Efficiency Maine continued the "Save Like a Mainer" energy efficiency awareness campaign. The campaign, which promotes a culture of conservation, unites Mainers in a common purpose and encourages customers to pursue high-efficiency equipment by highlighting successful case studies. Communication channels included advertising through web sites, banner ads, social media, and traditional advertising (print ads, TV, radio, etc.), as well as through outreach such as Chamber events, trade shows, speaking engagements, and earned media.

#### Website Redesign

In FY13, Efficiency Maine planned and designed a new website that was launched in July 2013. The development of web tools and resources is ongoing as more of Efficiency Maine's outreach efforts are focused on its website.

### **Innovation Program**

**Overview:** Technological improvements are a cornerstone of energy efficiency, and early investments in technology innovation can pay off over time in terms of both future energy savings and economic development. Efficiency Maine's Innovation Program provides funding for pilot projects that demonstrate new types of energy efficiency or alternative energy measures. To be eligible for Efficiency Maine's Innovation Program, technologies must be commercially available, and show significant potential to provide cost-effective energy savings, but remain in need of further demonstration in the Maine marketplace. It is understood that these energy measures may or may not prove to be cost-effective or popular, or that their performance may not satisfy customers' needs. One purpose of the Innovation Program is to use smaller pilot projects to make such findings before making larger investments on incentives and program administration.

**FY13 Activities:** In order to further catalyze the marketplace in which Maine's homeowners and small businesses will install high-efficiency heating products, Efficiency Maine launched a pilot program seeking to demonstrate innovative space and water heating alternatives in FY12. Bangor Hydro Electric Company and Maine Public Service Company's joint proposal on air-source ductless heat pump space heating solutions (the BHE-MPS pilot) was selected due to its potential for cost-effective energy savings and large-scale market adoption. The BHE-MPS pilot concluded shortly after the end of FY2013. Over 660 rebates were claimed for heat pump installations during the course of the program.

BHE and MPS recently issued an interim evaluation of the pilot program. That evaluation found that customer satisfaction with the pilot program and with heat pumps was very high. A larger percentage of customers would recommend heat pumps to their friends and family, but the evaluation also found that an incentive was required to help customers adopt the new technology. Four out of five program participants would not have installed an energy-efficient heat pump without the assistance offered by the program. A final evaluation is expected in 2014.

During FY13, the Trust issued a new Innovation RFP to shed light on opportunities for using smart meter data to save energy. This request sought projects that would demonstrate the energy savings achievable through communicating and utilizing interval data (in 15 or 60 minute intervals) available through recently installed smart grid technology. The integration of smart meters in a high percentage of Maine's buildings offers an unprecedented chance to better understand energy usage and identify

efficiency and conservation opportunities. To that end, the Trust selected three pilot projects that explore how interval data can be used to find efficiency and conservation opportunities and facilitate customers' next steps to lower their energy bills. The three projects take different approaches to utilizing interval data so that Efficiency Maine may evaluate how interval data might be integrated with program delivery, energy assessments, and smart devices:

- The building type project, awarded to FirstFuel, Inc., will evaluate how interval data can identify efficiency opportunities within one building type, in this case Maine public schools. This pilot will explore the efficacy of analyzing usage data and suggesting energy improvements solely through remote audits, as well as the scalability of the technology, while also reducing the energy intensity and energy costs of public buildings.
- The building portfolio project, awarded to Retroficiency, Inc. and ERS, will work with four building portfolio owners to identify those buildings with the greatest efficiency opportunity, which will receive energy audits. Those audits will be based on interval data and will explore how on-site assessments can be improved with interval data insights.
- The smart thermostat pilot, awarded to the team of ecobee, Inc. and Thayer Corporation, that will install 200 smart thermostats that are linked to interval data. Interval data and building temperatures can be evaluated in real time through the thermostats and smart devices.

**FY14 Plans:** Ductless heat pumps made the transition from Innovation pilot to program offering, and are a part of the Home Energy Savings Program and the Business Incentive Program. The Innovation Program will complete the interval data pilots, as well as report on initial results and findings in FY14. The program will also issue an RFP for additional innovation projects, although the focus of the RFP has not yet been decided. The budget for the program in FY14 appears in Appendix C.

## **Research and Evaluation**

**Overview:** The purpose of Efficiency Maine's Research and Evaluation strategy is to provide data-driven research and analysis to inform program delivery, verify program results and ensure ongoing program and organizational improvement. Efficiency Maine carries out this strategy primarily through contracts with independent third-parties who specialize in the evaluation of energy efficiency programs. Program evaluations conducted by Efficiency Maine are designed to:

- Document and verify the program impacts on energy and demand savings and program costeffectiveness relative to goals;
- Understand why effects occurred and identify opportunities for program improvement;
- Assess program effects on the energy marketplace; and,
- Inform adjustments in program strategies and allocation of resources.

With a focus on delivering rigorous, objective results, the third-party contractors rely on industrystandard evaluation methods and practices to evaluate Efficiency Maine programs. Each program evaluation typically includes both qualitative and quantitative data and methods, such as:

• Review of program databases and written materials;

- In-depth interviews with program staff and stakeholders;
- Telephone surveys of program participants and non-participants;
- Engineering review and analysis of participant data and project files; and,
- Site visits, including on-site inspection and data collection, including spot measurements and equipment metering.

**FY13 Activities:** During FY13, Efficiency Maine finalized the evaluation of the Residential Lighting Program (covered in FY12 Annual Report), completed an evaluation of the Retro-commissioning Pilot Program, and continued the multi-year evaluation of the PACE/PowerSaver and RDI Programs. Other research and evaluation project activity during FY13 included the Annual FCM M&V Compliance Review (May 2013) and a comprehensive review and revision of the Residential and Commercial Technical Reference Manuals (TRMs).

The Efficiency Maine Trust Residential and Commercial TRMs provide documentation for the Trust's calculation of energy and demand savings from energy efficiency measures. Each TRM serves as a central repository and common point of reference for the methods, formulas, assumptions and sources that are used to estimate savings from energy efficiency measures, and provides a common platform for analyzing energy savings across measures and programs. For each measure, the TRM provides a measure overview and documentation of gross energy and demand savings algorithms; efficiency assumptions for the baseline and efficient measure; deemed parameter values or instructions for inputs to savings algorithms; measure life and cost; and impact factors for calculating adjusted gross savings and net savings.

FY13 Research and Evaluation Project Activity									
			Total Project	FY2013		Project Start	Project End		
Subject	Туре	Prime Contractor	Budget	Expenditures	Funding Source(s)	Date	Date		
Residential Lighting	Impact & Process	Cadmus Group	\$199.937	\$8,412	Conservation	Son 11	Nov-12		
Program	Evaluation	Caunius Group	\$199,957	\$8,41Z	Program Fund (SBC)	Sep-11	NOV-12		
PACE/PowerSaver Loan &	Impact & Process	Opinion Dynamics	\$445.000	\$192,323	ARRA-Better	Nov-11	Oct-13		
RDI Programs	Evaluation	Opinion Dynamics	\$443,000	Ş192,323	Buildings	1100-11	001-13		
Retro-Commissioning Pilot	Impact & Process	Cadmus Group	\$145,589	\$145,589	ARRA-SEP	Aug 12	Dec-12		
Program	Evaluation	Caunius Group	\$145,569	\$145,569	ARRA-SEP	Aug-12	Dec-12		
TRM Support and	<b>Technical Services</b>	Cadmus Group	\$149,748	\$64,180	FCM	Jan-13	Jun-14		
FCM M&V Compliance	& Evaluation	Caunius Group	\$149,748	Ş04,180	FCIVI	J911-12	Juli-14		
Multifamily Efficiency	Impact & Process	Opinion Dynamics	\$149,972	\$0	SEP (non-ARRA)	May-13	Mar-14		
Program	Evaluation	Opinion Dynamics	Ş149,972	ŲĘ	SEP (HUII-ARRA)	iviay-15	ivid(-14		

Table 20 – FY13 Research and Evaluation Project Activity

**FY14 Plans:** During FY14, Efficiency Maine is finalizing the ongoing evaluation of the PACE/PowerSaver and RDI Programs (results covered in the FY13 Annual Report) and will conduct evaluations of the Multifamily Efficiency Program and the Appliance Rebate Program. Efficiency Maine will also initiate an evaluation of the Low-Income Program and begin the next round of the Residential Lighting Program evaluation. Other FY14 research and evaluation project activity will include the Annual FCM M&V Compliance Review, finalization of the Residential and Commercial TRMs for FY14, and development of updated TRMs for FY15. FY14 and long-term plans for the database platform include moving remaining programs into effRT, improving reporting and tracking, upgrading the benefit-cost model, using effRT to assist in FCM reporting, and enabling contractors to run programs through the database. The budget for FY14 research and evaluation activities appears in Appendix C.

## **Data Management**

**Overview:** In FY13, Efficiency Maine made several upgrades to its energy efficiency program tracking database (called "effRT"). The new database platform manages the data for many Business and Residential Programs and ensures consistent and accurate estimates of energy savings. The effRT database also improves program activity tracking and data integrity. The new system also enables contractors (such as Qualified Partners) to expedite the processing of incentives, eliminating significant paperwork.

## **Finance and Administration**

## **Audited Financial Report**

The Trust's certified public accountant, MacPage, Inc., has issued its audit of financial statements as of the year ended June 30, 2013. The report was unanimously accepted by the Board of Trustees on September 26, 2013.

The report contained the following opinion from the auditor:

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risk of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and major fund of Efficiency Maine Trust, as of June 30, 2013, and the respective changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.<sup>9</sup>

The audited revenues, expenditures and balance sheet for FY13 are summarized in the following tables.

<sup>&</sup>lt;sup>9</sup> Efficiency Maine Trust, <u>Financial Report, June 30, 2013</u>, "Independent Auditor's Report," p. 1.

#### Table 21 - FY13 Revenues

Fund Source	Funding Amount	(\$)
System Benefit Charges		14,555,392
· Electric	13,663,467	_ :,000,000
· Natural Gas	891,925	
Renewable Resources Fund		105,935
Federal Funds <sup>A</sup>		10,864,816
<ul> <li>ARRA State Energy Program (SEP)</li> </ul>	3,662,505	
<ul> <li>ARRA Energy Efficiency Community Block Grant (EECBG)</li> </ul>	1,031,075	
<ul> <li>ARRA Better Buildings (PACE Revolving Loan Fund)</li> </ul>	4,593,020	
<ul> <li>State Energy Program-Annual</li> </ul>	60,000	
. State Energy Program-Multifamily	1,473,836	
· USDA	44,380	
Maine Power Reliability Project (MPRP) Settlement		2,750,002
Forward Capacity Market		2,603,818
Regional Greenhouse Gas Initiative (RGGI)		9,968,013
Interest on Accounts and Loans and Other Revenues		276,807
Alternative Compliance Mechanism Revenue		54,680
Total Revenues		41,179,463
<sup>A</sup> ARRA is the American Recovery and Reinvestment Act;		
DEP is the Department of Environmental Protection;		
USDA is the U.S. Department of Agriculture.		

The Trust has benefited from a number of federal grants, most of which are funded through the American Reinvestment and Recovery Act (ARRA). The ARRA funding stream began expiring in FY 2013 and there are no expectations that these funds will be replaced with other federal funds. One of the ARRA programs, extended to November 2014, is being used to develop a revolving loan program for home energy projects. The repayment stream from these loans will be used to make new loans on a funds-available basis or to leverage revenue bond issues used to enhance the loan fund, although there is no timeline or specific plan in place to pursue the path of bonding.

#### Table 22 - FY13 Expenditures

Use of Funds	By Program (\$)	Totals (\$)
Administration		2,441,024
Residential Programs		17,046,156
· Low Income	6,763,258	
· Non-Low Income	10,282,898	
Business Programs		13,318,296
Cross-Cutting Strategies		2,519,811
· Education and Awareness	448,452	
· Evaluation	502,154	
<ul> <li>Alternative Energy Program</li> </ul>	1,163,985	
<ul> <li>Innovation</li> </ul>	405,220	
Interagency Grants		1,021,275
Total Expenditures		36,346,562 <sup>10</sup>

<sup>&</sup>lt;sup>10</sup> Expenditures in this table reflect all payments made by the Trust during FY13. This includes payments made for projects that were awarded in FY12 but not completed and paid until FY13, as commonly occurs on the larger projects funded through the Large Customer Program. The Trust reports energy savings, costs, and cost-effectiveness in the fiscal year in which the projects were awarded, which explains the discrepancy between the Total Expenditures in this table and the Efficiency Maine Costs in Tables ES-1 and ES-2 and in Appendices A and B.

Classificati	on	Amount (\$)	Totals (\$)
Assets			50,565,827
	<ul> <li>Cash and cash equivalents</li> </ul>	16,678,304	
	· Investments	24,707,631	
	· Receivables	8,943,807	
	· Capital Assets	65,440	
	· Other Assets	170,645	
Liabilities			5,562,751
	· Payables	4,896,531	
	<ul> <li>Payroll liabilities, short &amp; long term</li> </ul>	110,437	
	· Deferred Revenues	550,965	
	· Lease obligations	4,818	
Net			
Position			45,003,076
	<ul> <li>Capital Assets, shown net of depreciation</li> </ul>	60,622	
	· Restricted Net Position (fund balance)	44,942,454	

#### Table 23 – FY 13 Balance Sheet

The "Restricted Net Position" ("fund balance") includes the balances of several Revolving Loan funds totaling \$22.1 million for both residential and small business energy upgrades. Other fund balances include: the SBC-funded low-income weatherization multifamily program that had budget transfers during the second half of FY13, but funds will not be fully expended until the first half of FY14; RGGI funds that were committed to the Large Customer Program, awarded through competitive bids in FY13 but will not be billed to the Trust until FY14; over \$3.8 million of RGGI auction revenues that were transferred in the fourth quarter of FY13 but were set aside for the FY 14 budget; SBC funds set aside for Maine High Performance Schools Program contracts that will be satisfied when new school construction is completed; and finally, a loan loss reserve of \$500,000.

The Trust's rate of expenditure is a function of customer uptake for financial incentives and the Trust's desire to maintain relatively steady and predictable support for the marketplace from the end of one fiscal year to the beginning of the next. The Trust prefers to end each year with a modest amount of carry-forward funding for any program that is designed to continue into the next year rather than running out of funds and creating a gap of one or more months in market support. Generally, only small fund balances are anticipated except to the extent that the Revolving Loan Fund balances are carried forward.

The Trust did not have any capital asset acquisitions during the year. The Trust had no borrowing activity during the year. As the revolving loan fund capital (used, for example, in PACE & PowerSaver loans) is drawn down over the course of FY14, the Trust will need to consider options for re-capitalizing the fund. Borrowing activity will be one of the options considered.

## Written Policies and Procedures

Since its inception in 2009, the Trust has developed and instituted new written policies and procedures to ensure standardized implementation of various financial and administrative practices associated with administering programs. During FY13, the Trust approved a new policy for contributions and updated its

Travel Policy to comply with new statutory language requirements. In addition, the Trust created a Purchasing Policy that includes the new statutory language regarding sole source purchases and provides a framework for purchasing. During FY 13, another improvement for the Trust was the updating of reconciliation procedures and the processing of contract invoices.

## **Other Initiatives**

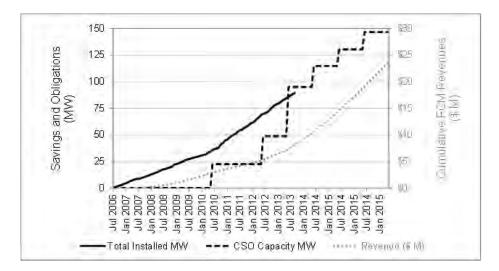
## **ISO-NE Forward Capacity Market (FCM)**

**Overview:** Efficiency Maine Trust has been participating in ISO-New England's Forward Capacity Market (FCM) since its launch in 2006. The forward capacity market ensures there is sufficient capacity for reliable electric grid system operation. Efficiency Maine and other providers of demand resources offset the need for generation during peak periods. In the forward capacity market, one megawatt of saved energy is given the same value as one megawatt produced by a generator.

As a market participant, the Trust assumes three areas of responsibility: (1) to report on its progress meeting existing capacity obligations from prior auctions; (2) to show the ISO-NE that Efficiency Maine's program results meet the ISO-NE measurement and verification protocols; and (3) to assess the risks and rewards of participating in upcoming auctions. The ISO-NE forecasts the peak demand that will need to be met and holds auctions for demand three years in advance.

Each month Efficiency Maine reports to ISO-NE on the increasing amount of capacity the programs have delivered to date. All measures installed with Efficiency Maine incentives are recorded in the Efficiency Maine database. The database tracks how often, and at what time of day, energy-efficient equipment is in operation, and aggregates this data for reporting to ISO-NE. To ensure the accuracy of this report, the ISO-NE requires an annual independent certification to review the processes behind Efficiency Maine's monthly reports. All aspects of Efficiency Maine's tracking, verification, and reporting activities are reviewed and certified for their accuracy and compliance with the rigorous requirements of ISO New England's measurement and verification manual.

**FY 13 Results:** To date, Efficiency Maine has accumulated more than 89 megawatts (MW) of summer demand savings, and this number grows each month. During FY13, Efficiency Maine participated in one Forward Capacity Auction (FCA) and prepared for a second. In February of 2013, Efficiency Maine took on an obligation to supply an additional 16.3 MW in June of 2016 during the seventh FCA (FCA 7) at a price of \$3.150 per kilowatt per month. In June of 2013, the Trust completed its qualification package for FCA 8. The eighth FCA (FCA 8) will occur in February of 2014.



## The Triennial Plan

The statute that established the Trust gave the Board specific duties. Chief among these is a fiduciary duty to hold the funds in trust for the benefit of the electric and natural gas utility customers where funds are derived from those customers.<sup>11</sup> Another key responsibility of the Board is to develop and adopt a three-year strategic plan, called the "Triennial Plan."

The function of the Triennial Plan is to identify program initiatives, allocate budgets, and establish metrics by which to judge program results and cost-effectiveness. The Plan guides the use of various revenue streams that come into the Trust such as:

- Electric Efficiency and Conservation Fund;
- Regional Greenhouse Gas Initiative (RGGI) Trust Fund;
- Natural Gas Conservation Fund;
- Heating Fuels Efficiency and Weatherization Fund; and,
- "Any state or federal funds or publicly directed funds accepted by or allocated to the trust ..."<sup>12</sup>

During FY13, Efficiency Maine implemented a process to develop its Second Triennial Plan. It will serve as the strategic plan to guide the Trust's programs in Fiscal Years 2014, 2015, and 2016 (spanning the period from July 1st, 2013 through June 30th, 2016). An extensive stakeholder process provided an opportunity to review past program performance, analyze data, and discuss options for the future direction of the Trust's programs. This process also afforded an opportunity for stakeholders to review and comment on the draft plan. The plan was approved by the Board of Trustees in December 2012 and then submitted to the Public Utilities Commission.

In Docket No. 2013-00449, the PUC reviewed the Second Triennial Plan to determine if the programs contained in the plan reasonably explained how they would satisfy the requirements of the Maine statutes and if the performance metrics were reasonable and in the public interest. On March 6, 2013, the Commission issued an order approving the Triennial Plan as to its strategies and indicating the budget levels for electricity and natural gas that it found to be justified considering the statutory standards and the evidence submitted by the Trust.

## **Legislative Recommendations**

The Trust's authorizing statute provides that the Annual Report should include "Any recommendations for changes to the laws relating to energy conservation."<sup>13</sup> After considering the significant changes made to the law through the very recent passage of the Omnibus Energy Bill (LD 1559) last session, the Trust submits this FY13 Annual Report with no recommendations for amendments to the statute.

<sup>&</sup>lt;sup>11</sup> 35-A MRSA §10110(10). See also, § 10111(2)(Natural Gas) and § 10109(2)(A)(Regional Greenhouse Gas Initiative) of the same statute.

<sup>&</sup>lt;sup>12</sup> 35-A MRSA §10104(4).

<sup>&</sup>lt;sup>13</sup> 35-A MRSA §10104(5)(C).

# Appendices

## Appendix A

ELECTRIC PROGRAMS													
	B												
	Annual kWh	Lifetime kWh	Efficiency	Participant	Lifetime	Cost/kWh	to Cost						
Program	Savings	Savings	Maine Costs	Cost	Energy Benefit	(Lifetime)	Ratio						
Business Incentive Program	30,027,000	390,351,000	\$5,239,699	\$8,124,730	\$21,043,528	\$0.034	1.57						
Large Customer Program	19,852,282	358,112,931	\$3,557,321	\$10,322,947	\$21,622,021	\$0.039	1.56						
High Performance Schools Program	729,309	14,586,187	\$1,039,278	\$453,811	\$797,822	\$0.102	0.53						
Small Business Direct Install Program	152,414	1,981,382	\$152,821	\$18,350	\$166,652	\$0.086	0.97						
Residential Lighting Program	70,778,000	553,134,000	\$5,102,188	\$1,076,050	\$81,462,655	\$0.011	13.19						
Residential Appliances Program	5,146,653	59,175,711	\$2,077,276	\$470,865	\$3,836,736	\$0.043	1.51						
Refrigerator Recycling Program	2,190,012	13,140,072	\$354,681	\$0	\$919,187	\$0.027	2.59						
Low Income Multifamily Electric Program	5,679,000	102,991,000	\$6,165,681	\$0	\$12,597,195	\$0.060	2.04						
Cross-Cutting Strategies			\$590,450										
Sub Total	134,554,670	1,493,472,283	\$24,279,396	\$20,466,753	\$142,445,797	\$0.030	3.18						

## FY2013 Efficiency Maine Program Impacts: Electric Programs

## FY2013 Efficiency Maine Program Impacts: All Fuels and Natural Gas Programs

	ALL FUELS	AND NATURAL	GAS PROGRA	MS			
	Annual	Lifetime				Cost/	Benefit
	MMBtu	MBtu MMBtu		Participant	Lifetime	MMBtu	to Cost
Program	Savings	Savings	Maine Costs	Cost	Energy Benefit	(Lifetime)	Ratio
Maine Advanced Building Program	1,994	39,869	\$562,178	\$297,874	\$954,328	\$21.57	1.11
Retro-Commissioning Program	8,327	40,736	\$320,707	\$278,575	\$694,667	\$14.71	1.16
Multifamily Efficiency Program	5,081	96,591	\$1,256,532	\$551,390	\$1,792,113	\$18.72	0.99
Residential Direct Install Program	47,156	943,120	\$3,840,026	\$1,490,000	\$24,793,650	\$5.65	4.65
Home Energy Savings/PACE Program	10,445	208,500	\$3,492,795	\$2,500,000	\$7,045,551	\$28.74	1.18
Solar & Wind Rebate Program	9,971	199,415	\$1,085,072	\$7,910,234	\$6,852,153	\$45.11	0.76
Business Natural Gas Incentive Program	11,723	234,468	\$274,357	\$315,111	\$1,348,741	\$2.51	2.29
Low Income Natural Gas Program	446	8,924	\$104,224	\$0	\$86,301	\$11.68	0.83
Cross-Cutting Strategies			\$510,490				
Sub Total	95,143	1,771,623	\$11,446,380	\$13,343,184	\$43,567,504	\$13.99	1.76

# Appendix B

## Efficiency Maine Program Expenditures

			Technical				
	Program	Incentive	Support	Marketing	Administrative	Total	
	Business Incentive Program	\$3,483,271	\$1,523,633		\$232,795	\$5,239,699	
	Large Customer Program	\$3,232,293	\$192,843		\$132,185	\$3,557,321	
S	High Performance Schools Program	\$993,104	\$0		\$46,174	\$1,039,278	
Electric Programs	Small Business Direct Install Program	\$34,753	\$99,563		\$18,505	\$152,821	
rogi	Residential Lighting Program	\$3,909,157	\$966,345		\$226,686	\$5,102,188	
ic PI	Residential Appliances Program	\$1,613,725	\$388,968		\$74,583	\$2,077,276	
ectri	Refrigerator Recycling Program	\$105,800	\$233,123		\$15,758	\$354,681	
Еle	Low Income Multifamily Electric Program	\$5,195,114	\$701,056		\$269,511	\$6,165,681	
	Cross-Cutting Strategies			\$159,746	\$430,704	\$590,450	
	Sub Total	\$18,567,217	\$4,105,531	\$159,746	\$1,446,902	\$24,279,396	
			Technical				
	Program	Incentive	Support	Marketing	Administrative	Total	
ns	Maine Advanced Building Program	\$303,344	\$233,857	\$0	\$24,977	\$562,178	
Programs	Retro-Commissioning Program	\$261,950	\$44,508	\$0	\$14,249	\$320,707	
rog	Multifamily Efficiency Program	\$369,841	\$819,894	\$0	\$66,797	\$1,256,532	
	Residential Direct Install Program	\$3,235,291	\$434,126	\$0	\$170,609	\$3,840,026	
Natural Gas	Home Energy Savings/PACE Program	\$2,843,809	\$188,602	\$319,393	\$140,991	\$3,492,795	
tura	Solar & Wind Rebate Program	\$968,542	\$68,322	\$0	\$48,209	\$1,085,072	
Nat	Business Natural Gas Incentive Program	\$193,394	\$61,497	\$0	\$19,466	\$274,357	
ø		4	622 602	\$0	\$4,631	\$104,224	
ŝ	Low Income Natural Gas Program	\$76,900	\$22,693	γÇ	\$ 1)051	\$10 i)== i	
uels <sup>5</sup>	Low Income Natural Gas Program Cross-Cutting Strategies	Ş76,900	\$22,095	\$96,474		\$510,490	
All Fuels 8		\$76,900 \$8,253,070	\$1,873,499	\$96,474	. ,		

**Appendix C** Efficiency Maine Trust FY2014 Budget Approved by the Board of Trustees 10/23/2013

	2015 ADMIN FUND	2020 RGGI	2030 CONSERVATION	2031 MPRP SET.	2035 FCM	2040 NAT GAS	2045 SMALL BUS RLF	2050 RENEW RES.
REVENUES AND FUNDING	1,144,514	14,937,668	21,701,744	1,505,000	3,165,000	1,368,339	6,400	110,00
XPENDITURES								
Administration								
Board Expenses	13,608	-	-	-	-	-	-	-
Personnel Costs	661,879	39,766	45,499	-	11,466	-	-	-
Office Rent/maint.	36,784	11,092	10,080	-	9,913	-	-	-
Liability Insurances	11,345	4,698	4,270	-	863	-	-	-
Office Expenses	20,495	6,955	6,321	-	1,277	-	-	-
Sponsorship and dues	850	-	20,000	-	-	-		-
Communications	164,500	500	500	-	-	-		-
Travel	4,800		-	-	-	-		-
Conference & Meetings	6,020	940	855	-	173	-	-	-
-				-	-	-		
Professional Services	165,000	11,626	25,000					
Technical Consultancy & Support	-	-	350,000	-	400,000	-	-	-
Software and equip	26,233	925	841	-	170	-	-	-
subtotal Administration Expenses	1,111,514	76,502	463,366	-	423,862	-	-	-
Residential Program Expenses								
Program administration	-	158,319	118,026	-	-	-	-	-
Low Income WX - Multi-Family	-	-	1,919,780	281,027	-	288,036	-	
Low Income - Lighting Appliance	-	-	800,000	-	-	-	-	-
Lighting, Appliance, & Electronic	-		6,282,660	332,987	625,761	-		-
35% Residential Heating Project-New fun	-	3,352,181	0,202,000	-	-	-		
			-	-				
Residential Heating Project-4th Q 13	-	3,868,013	-					-
Revolving Loan Project	-	-	-	-	-	-	-	-
Res Direct Install	-	-	-	-	-	375,340	-	-
Revolving Loan Support	-	-	-	-	-	-	-	-
ubtotal Residential Programs	-	7,378,513	9,120,466	614,014	625,761	663,376	-	-
Business Program Expenses								
Program administration	-	163,894	165,960	-	30,561	-	-	-
Business Incentive Program	-	-	7,163,133	332,987	1,081,978	666,939	-	-
Large Customer Projects	-	-	2,410,891	470,000	-	-	-	-
50% Business Projects-New Funds	-	4,851,106	-	-	-	-		-
	-	-		-	-	-	-	
Maine Advanced Building			469,231				-	
Long Term Contract Incentives	-	-	-	-	-	-		
Direct Install	-	-	1,000,000	-	-	-	-	-
Municipal ReGrants (EECBG)	-	-	-	-	-	-	-	
USDA REDA	-	-	-	-	-	-	-	
USDA REAP	-	-	-	-	-	-		-
Commercial Loans	-	-	-	-	-	-	6,400	-
MultiFamily Retrofits	-	-	-	-	-	-	-	-
BOC Training	-		50,000					
Subtotal Business Programs	-	5,015,000	11,259,215	802,987	1,112,539	666,939	6,400	
cross-Cutting Strategy Expenses								
Program administration	-	33,399	86,705	-	5,838	-	-	
Energy Education	-	-	50,000	-	50,000	-	-	-
Other Innovation Projects	-	-	50,000	-	200,000	-	-	-
Independent Program Evaluation	-	36,256	200,000	-	200,000	-	-	
MHPS Project Verification - CCI	-	-	50,000	-	-	-	-	
PACE Evaluation	-	-	-	-	-	-	-	
M&V Plan Review	-		-	-	100,000	-	-	
ubtotal Cross-Cutting Strategies	-	69,655	436,705	-	555,838	-	-	
		03,033	430,703		333,030			
Iternative Energy Expenses								_
enewables-Demonstration Projects ubtotal Alternative Energy	-	-	-	-	-	-	-	68,5 68,5
								30,3
Other Items								
Payments to State Agencies	33,000	250,000	-	-	-	-	-	35,0
Payment to 15% Rate Relief Fund	-	1,504,500	-	-	-	-	-	-
InterFund Transfers Out	-	643,498	421,992	87,999	447,000	38,024	-	6,4
Subtotal Other Items	33,000	2,397,998	421,992	87,999	447,000	38,024		41,4

		3015 EECBG	3025 ARRA BB	4010 SEP GRANT	4025 MULTI-FAMILY	4420 USDA GRANTS	5525 SEP RLF	FY14 Budge Tot
REVENUES	AND FUNDING	333,446	16,285,004	50,000	4,328,059	77,977	15,000	65,028,15
XPENDITU								
Administr								40.00
	Board Expenses	-	-	-	-	-	-	13,60
	Personnel Costs	28,880	82,350	-	48,419	-	-	918,25
	Office Rent/maint.	1,156	4,837	-	3,043	-	-	76,90
	Liability Insurances	489	2,048	-	1,288	-	-	25,00
	Office Expenses	725	3,033	-	1,909	-	-	40,71
	Sponsorship and dues	-	-	-	-	-	-	20,85
	Communications	-	50,000	-	-	-	15,000	230,50
	Travel	-	-	-	-	-	-	4,80
	Conference & Meetings	99	410	-	259	-	-	8,75
	Professional Services	2,000	30,000	-	5,000	-	-	238,62
	Technical Consultancy & Support	-	-	-	-	-	-	750,00
	Software and equip	97	404	-	254	-	-	28,92
Subtotal A	Administration Expenses	33,446	173,082	-	60,172	-	15,000	2,356,94
Residenti	al Program Expenses							
	Program administration	-	20,757	-	-	-	-	297,10
	Low Income WX - Multi-Family	-	-	-	-	-	-	2,488,8
	Low Income - Lighting Appliance	-	-	-	-	-	-	800,0
	Lighting, Appliance, & Electronic	-	-	-	-	-	-	7,241,4
	35% Residential Heating Project-New f	-	-	-	-	-	-	3,352,1
	Residential Heating Project-4th Q 13	-	-	-	-	-	-	3,868,0
	Revolving Loan Project	-	14,500,000	-	-	-	-	14,500,0
	Res Direct Install	-	800,000	-	-	-	-	1,175,3
	Revolving Loan Support	-	120,000	-	-	-	-	120,0
Subtotal F	Residential Programs	-	15,440,757	-	-	-	-	33,842,8
Business I	Program Expenses Program administration	_	-	-	8,802	-	-	369,2
	Business Incentive Program	-	-	-	-	-	-	9,245,03
	Large Customer Projects					-		2,880,8
						-		
	50% Business Projects-New Funds							4,851,1
	Maine Advanced Building	-	-	-	-	-	-	469,2
	Long Term Contract Incentives		500,000	-	-	-	-	500,0
	Direct Install	-	-	-	-	-	-	1,000,0
	Municipal ReGrants (EECBG)	300,000	-	-	-	-	-	300,0
	USDA REDA	-	-	-	-	15,000	-	15,0
	USDA REAP	-	-	-	-	62,977	-	62,9
	Commercial Loans	-	-	-	-	-	-	6,4
	MultiFamily Retrofits	-	-	-	4,094,000	-	-	4,094,0
	BOC Training	-	-	-	-	-	-	50,0
Subtotal E	Business Programs	300,000	500,000	-	4,102,802	77,977	-	23,843,8
Cross-Cut	ting Strategy Expenses							
	Program administration	-	12,165	-	15,084	-	-	153,1
	Energy Education	-	-	50,000	-	-	-	150,0
	Other Innovation Projects	-	-	-	-	-	-	250,0
	Independent Program Evaluation	-	-	-	-	-	-	436,2
	MHPS Project Verification - CCI	-	-	-	-	-	-	50,0
	PACE Evaluation	-	159,000	-	-	-	-	159,0
	M&V Plan Review	-	-	-	150,000	-	-	250,0
Subtotal C	Cross-Cutting Strategies		171,165	50,000	165,084	-	-	1,448,4
Alternativ	ve Energy Expenses							
	es-Demonstration Projects	-	-	-	-	-	-	68,5
	Alternative Energy	-	-	-	-	-	-	68,5
Other Iter								
	Payments to State Agencies	-	-	-	-	-	-	318,0
	Payment to 15% Rate Relief Fund	-	-	-	-	-	-	1,504,5
Subtotal (	InterFund Transfers Out Other Items		-	-	-	-	-	1,644,9 3,467,4
OTAL EXP	ENDITURES	333,446	16,285,004	50,000	4,328,059	77,977	15,000	65,028,1

# Appendix D

## Revenues from System Benefit Charges and Alternative Compliance Mechanism

	PUC Assessments and Revenue Collections - FY 2013										
		Sy	ster	n Benefit Chai	rge	(SBC)					
Assessment Quarter:		Apr-Jun 2012		uly-Sep 2012		ct-Dec 2012	Ja	an-Mar 2013			
Billing Date:		18-Jul-12		1-Oct-12		15-Jan-13	_	16-Apr-13			
Name								•		Total - FY13	
Bangor Hydro-Electric Co	\$	418,559.00	\$	507,641.00	\$	494,331.00	\$	504,990.00	\$	1,925,521.00	
Central Maine Power Co	\$	2,469,700.00	Գ \$	2,903,415.00		2,588,280.00		2,812,283.00	\$ \$	10,773,678.00	
Eastern Maine Electric Coop	\$ \$	31,170.00	ֆ \$	34,012.00		32,161.00	\$ \$	36,861.00	\$	134,204.00	
Fox Island Electric Coop	\$	3,174.00	φ \$	4,051.00		3,246.00	φ \$	3,164.00	\$	13,635.00	
Houlton Water Co	\$ \$	22,560.00	Գ \$	23,266.00		23,861.00	ֆ \$	27,805.00	\$	97,492.00	
Kennebunk Light & Power	\$	33,900.43	φ \$	40,129.74		35,612.68	\$	40,315.09	\$	149,957.94	
Madison Electric Works	\$	8,852.00	φ \$	9,337.00		10,570.00	\$	11,821.00	\$	40,580.00	
Maine Public Service Co	\$ \$	90,105.00	Գ \$	9,337.00 121,792.00		138,305.00	Գ \$	155,642.00	\$	505,844.00	
Swan's Island Electric	э \$	90, 105.00 684.00	э \$	881.00		750.00	э \$		э \$		
			э \$				э \$	691.00		3,006.00	
Van Buren Light & Power Co	\$	4,429.30	Э	4,516.14	\$	4,780.17	Э	5,822.62	\$	19,548.23	
Totals	\$	3,083,133.73	\$	3,649,040.88	\$	3,331,896.85	\$	3,599,394.71	\$	13,663,466.17	
State Budget Projections		FY 2013		FY 2014							
Bangor Hydro-Electric Co	\$	1,985,000	\$	1,993,786							
Central Maine Power Co	\$	10,260,500	\$	10,669,903							
Eastern Maine Electric Coop	\$	130,000	\$	135,533							
Fox Island Electric Coop	\$	13,500	\$	13,812							
Houlton Water Co	\$	95,000	\$	98,251							
Kennebunck Light & Power	\$	156,000	\$	151,018							
Madison Electric Works	\$	38,000	\$	39,906							
Maine Public Service Co	\$	473,500	\$	474,101							
Swan's Island Electric	\$	3,000	\$	3,104							
Van Buren Light & Power Co	\$	20,000	\$	19,486	J						
				Natural Gas	5						
Assessment Quarter:		Apr-Jun 2012	J	uly-Sep 2012		ct-Dec 2012	Ja	an-Mar 2013	T		
Billing Date:		18-Jul-12		1-Oct-12		15-Jan-13		16-Apr-13			
Name								-		Total - FY13	
Northern Utilities - Unitil	\$	172,320.68	\$	105,420.60	\$	232,085.26	\$	382,098.51	\$	891,925.05	
Totals	\$	172,320.68	\$	105,420.60	\$	232,085.26	\$	382,098.51	\$	891,925.05	
FY13 Projection	`	,			. 	-	1	-	\$	523,889.00	
FY14 Projection							1		\$	523,889.00	
	-		e C	ompliance Me	ch	anism (ACM )	)		_		
Name		18-Jul-12								Total - FY13	
Liberty Power zHoldings, LLC	\$	54,679.83	\$	-	\$ \$	-	\$ \$	- -	\$ \$	54,679.83 -	
Totals	\$	54,679.83	\$	-	\$	-	\$		\$	54,679.83	
10(015	φ	34,079.03	φ	-	Ψ	-	Φ	-	φ	J4,079.03	