

# Efficiency Maine

2010 Annual Report



Business Programs • Residential Programs • Education and Training Programs • Renewable Programs



*Leading the Way to a Brighter Future*

Efficiency Maine is pleased to present this Annual Report for the Fiscal Year (FY) 2010, covering the period from July 1, 2009 through June 30, 2010.

Efficiency Maine was established in 2002 as a statewide effort to promote the more efficient use of electricity and thereby help Maine residents and businesses reduce electric costs.

Effective July 1, 2010, Efficiency Maine's mission was expanded to enhance the efficient use of, and reduce business and residential spending on, all forms of energy—electric, natural gas, propane and heating oil—while consolidating administration of statewide programs under one roof. Administration of the programs was transferred from the Maine Public Utilities Commission (Maine PUC) to an independent trust, directed by a stakeholder Board of Trustees representing Maine energy consumers and experts in energy issues. As part of the transition, the new Efficiency Maine Trust has assumed responsibility for preparing this report on last year's activities.

In a further shift from prior years, FY 2010 brought federal funding from the American Recovery and Reinvestment Act (ARRA) and proceeds from the Regional Greenhouse Gas Initiative (RGGI) to supplement the ongoing programs funded by the System Benefits Charge (SBC).

The programs of Efficiency Maine in FY 2010 were guided in large part by the directive of State law (35-A MRSA 3211-A) to:

- Reduce total energy costs for electricity customers in the State by increasing the efficiency with which electricity is consumed;
- Reduce the price of electricity over time for all consumers by achieving reductions in demand for electricity during peak use periods;
- Promote sustainable economic development and reduced environmental damage;
- Create more favorable market conditions for the increased use of efficient products and services; and
- Increase consumer awareness of cost-effective options for conserving energy.

Additionally, Efficiency Maine administered federal funds consistent with the ARRA's objectives of "job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed and State and local fiscal stabilization."

This annual report presents the highlights of Efficiency Maine's programs for FY 2010 and a look forward to programs underway in FY 2011. For more information, please go to [efficiencymaine.com](http://efficiencymaine.com).



# Efficiency Maine 2010 Annual Report

## Table of Contents

Overview of 2010.....	2
Business Programs.....	6
Residential Programs .....	12
Education and Training Programs .....	18
Renewable Programs .....	22
Looking Ahead .....	24
Appendices .....	27
Appendix A: Business Programs.....	27
Appendix B: Residential Programs .....	31
Appendix C: Education and Training Programs .....	34
Appendix D: Emission Reductions .....	36
Appendix E: Utility Conservation Fund Assessments.....	36



*Leading the Way to a Brighter Future*



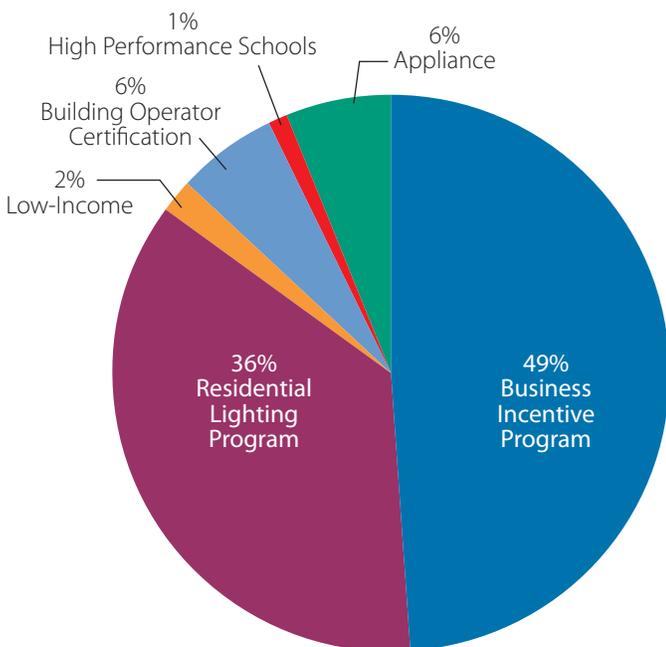
## Overview of 2010: Investing in Energy Efficiency for a Stronger Economy

During the 12 months covered by this report, Efficiency Maine worked diligently and collaboratively to help residents and businesses lower their costs by using less energy, more efficiently. With Regional Greenhouse Gas Initiative (RGGI) proceeds and one-time funds from the American Recovery and Reinvestment Act (ARRA), Efficiency Maine was able to reach beyond electricity savings to promote more fossil fuel reductions and alternative energy solutions. Efficiency Maine directly infused \$20 million into energy projects, while encouraging an additional \$75 million in private matching funds, for a total of \$95 million invested in lowering energy costs and strengthening Maine's economy.

### Efficiency Remains Maine's Best Energy Value

In 2010, Efficiency Maine continued to deliver energy-saving solutions for Maine businesses, families and communities through a range of programs that have proven to be cost-effective. These programs have saved nearly \$2.92 for each dollar spent, on average, over the past seven years. In FY 2010, the cost of electricity saved was only 4.3 cents per kilowatt hour. Buying that electricity would have cost consumers three to four times that price, making efficiency the best energy value for Maine.

**Efficiency Maine 2010 Percent of Lifetime Megawatt Hour (MWh) Savings by Program**



### 2010 Highlights

- With \$20 million in grants and rebates, Efficiency Maine leveraged private investment of \$75 million to fuel Maine's recovering economy
- 93,011 MWh in annual savings (+20% vs. 2009)
- \$95.8 million in lifetime economic benefits (+18% vs. 2009)<sup>1</sup>
- 2.66 to 1 program-wide benefit-to-cost ratio (-4% vs. 2009)
- 4.3¢ per kilowatt hour (kWh) for efficiency savings (+.2¢ vs. 2009), which is 26% less than the cost to generate a kWh, and 70% less than the cost to purchase a kWh of electricity at retail
- 1.1 million CFLs purchased as a result of program efforts (+52% vs. 2009)
- 1,656 business projects completed (+15% vs. 2009)
- 391,788 metric tons of lifetime carbon dioxide (CO<sub>2</sub>) emission reductions (+16% vs. 2009)

### Program Review

Efficiency Maine's mandate is to help Maine consumers reduce energy costs by installing more efficient equipment and adopting better business practices. The four main programs to achieve this goal are:

- Business
- Residential
- Education and Training
- Renewables

Results among Efficiency Maine's major programs were as follows in 2010:

#### Business Programs

With the infusion of RGGI funds and ARRA grants, the Business Programs expanded beyond the incentive program for electricity energy efficiency to include fuel-neutral competitive grant programs aimed towards three specific sectors: municipalities, commercial projects and large-scale projects.

- The **Business Incentive Program** achieved record levels of participation, completing 1,656 projects for 1,029 companies. Participating businesses will save nearly \$43.9 million on electric bills. Efficiency Maine cash incentives of \$4.9 million stimulated a total investment of \$12.3 million in energy-efficiency improvements, helping to boost labor demand at a time when jobs were most needed.
- The total economic impact of the **Large Project Fund** was equally impressive. Efficiency Maine awarded \$6.9 million in these competitively bid projects, and businesses rose to the occasion by committing \$52.4 million in matching funds. These projects will generate installation jobs as they are completed in the next 12 months and will save operating costs for years to come.

**Efficiency Maine Program Impacts, 2010 & Cumulative (2004-2010)** Efficiency Maine programs are subject to quantitative benefit-to-cost analysis. In 2010, the "Lifetime Economic Benefits" (that is, the total dollar value of electricity consumption that will be averted by energy-efficiency measures) outweighed the combined costs (to Efficiency Maine and participants) by a "Benefit-to-Cost Ratio" of 2.66 to 1.

Program	Annual MWh Savings	Lifetime MWh Savings	Efficiency Maine Investment	Participant Investment	Lifetime Economic Benefits	Cost/kWh	Benefit-to-Cost Ratio
Business Incentive	31,050	413,513	\$9,690,151	\$7,366,750	\$43,882,863	4.1¢	2.57
Residential Lighting	44,561	303,012	\$2,348,409	\$3,861,073	\$35,445,509	2.0¢	5.71
Residential Appliance	4,115	46,517	\$1,748,004	\$1,962,718	\$6,527,116	8.0¢	1.76
Low-Income	2,981	17,558	\$1,000,816	\$0	\$1,800,899	5.7¢	1.80
Building Operator Certification	9,827	49,136	\$85,338	\$4,788,897	\$6,444,173	9.9¢	1.32
High Performance Schools	478	11,291	\$604,056	\$985,637	\$1,667,263	14.1¢	1.05
Education and Training <sup>1</sup>	N/A	N/A	\$510,990	N/A	N/A	N/A	N/A
American Recovery & Reinvestment Act <sup>2</sup>	N/A	N/A	\$640,765	N/A	N/A	N/A	N/A
Other Accounts <sup>3</sup>	N/A	N/A	\$360,313	N/A	N/A	N/A	N/A
<b>2010 Total</b>	<b>93,011</b>	<b>841,027</b>	<b>\$16,988,842</b>	<b>\$18,965,076</b>	<b>\$95,767,823</b>	<b>4.3¢</b>	<b>2.66</b>
<b>Cumulative (2004 - 2010)</b>	<b>486,342</b>	<b>4,646,248</b>	<b>\$80,432,288</b>	<b>\$86,415,056</b>	<b>\$487,338,439</b>	<b>3.6¢</b>	<b>2.92</b>

<sup>1</sup>The education and training programs are a long-term investment in a more energy-efficient economy and meet the statutory objective to increase consumer awareness of options for conserving energy.

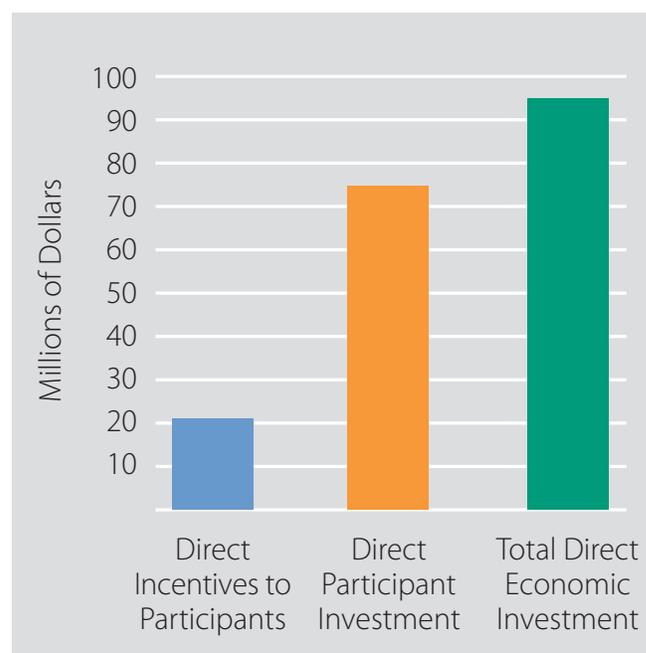
<sup>2</sup>These are the administrative costs for initiating the many ARRA programs. Project results will be reported in the FY 2011 Annual Report.

<sup>3</sup>These include administrative and marketing costs for the solar program, the small business loan program, Forward Capacity Market management and contractor assistance with the Annual Report.

Efficiency Maine Spurs Private Investment*			
Program	Direct Incentives to Participants	Direct Participant Investment	Total Direct Economic Investment
Business Incentive Program	\$4,936,639	\$7,366,750	\$12,303,389
Commercial Grant Program	\$634,041	\$1,280,739	\$1,914,780
Large Project Fund Grants	\$6,900,000	\$52,452,619	\$59,352,619
EECBG Municipal Re-Grants	\$4,788,178	\$1,980,650	\$6,768,828
Residential Lighting Program	\$729,799	\$3,861,073	\$4,590,872
Residential Appliance Program	\$1,346,064	\$1,962,718	\$3,308,782
Renewable Resource Fund Grants	\$477,657	\$134,409	\$612,066
Solar & Wind Energy Rebate Program	\$602,967	\$6,022,350	\$6,625,317
<b>Total</b>	<b>\$20,415,345</b>	<b>\$75,031,308</b>	<b>\$95,476,653</b>

\* Does not include program delivery costs

**Efficiency Maine Direct Incentives, Direct Private Investment and Total Direct Economic Investment**



## Overview of 2010 (continued)

### Residential Programs

Like the Business Programs, Efficiency Maine Residential Programs also achieved higher results and expanded the options available compared to FY 2009.

- The **Residential Lighting Program** rebounded from low levels in 2009 with a 52% increase in sales of CFLs in 2010.
- An **Appliance Rebate Program** initiated in October of 2009 stimulated the purchase of 23,516 energy-efficient appliances, including 11,445 clothes washers, 9,880 refrigerators, 787 freezers, 746 dehumidifiers and 658 air conditioners, which are projected to save \$6.5 million over their combined lifetimes. The clothes washers will also save 823 million gallons of water over their lifetimes.
- Finally, Efficiency Maine offered the first program statewide to provide financial assistance to all income levels for energy-efficient **Home Energy Improvements**, such as adding insulation, air sealing or purchasing energy-efficient windows or heating equipment upgrades.

### Education & Training Programs

- **Professional Training** courses were offered to 2,000 professionals through the new Qualified Partners Program and other professional trainings, including the new Energy Smart Real Estate Specialist course: 1,200 realtors attended this course to earn continuing education credits.
- Efficiency Maine helped raise awareness of energy-efficiency issues and opportunities among large numbers of school-age students. Website hits demonstrate a high level of usage by teachers statewide.

### Renewables

As with the other programs, Efficiency Maine's Renewable Energy Programs received a significant boost from ARRA funds and the public responded with increased participation.

FY 2010 Training Participants	
Building Operator Certification	62
Commercial Energy Auditing	21
Introduction to Solar Thermal	61
Energy Smart Real Estate Specialist	1,200
Pump System Assessment	113
Qualified Partner Training	543
<b>Total</b>	<b>2,000</b>

The number of grants awarded through the **Renewable Resource Fund** increased from three in 2009 to eleven in 2010. The **Solar and Wind Rebate Program** saw increases ranging from a 50% increase in the number of solar hot air systems installed to a 660% increase in the number of wind projects installed, resulting in \$602,967 in rebates issued by Efficiency Maine, leveraged by \$6,022,350 in private investment.

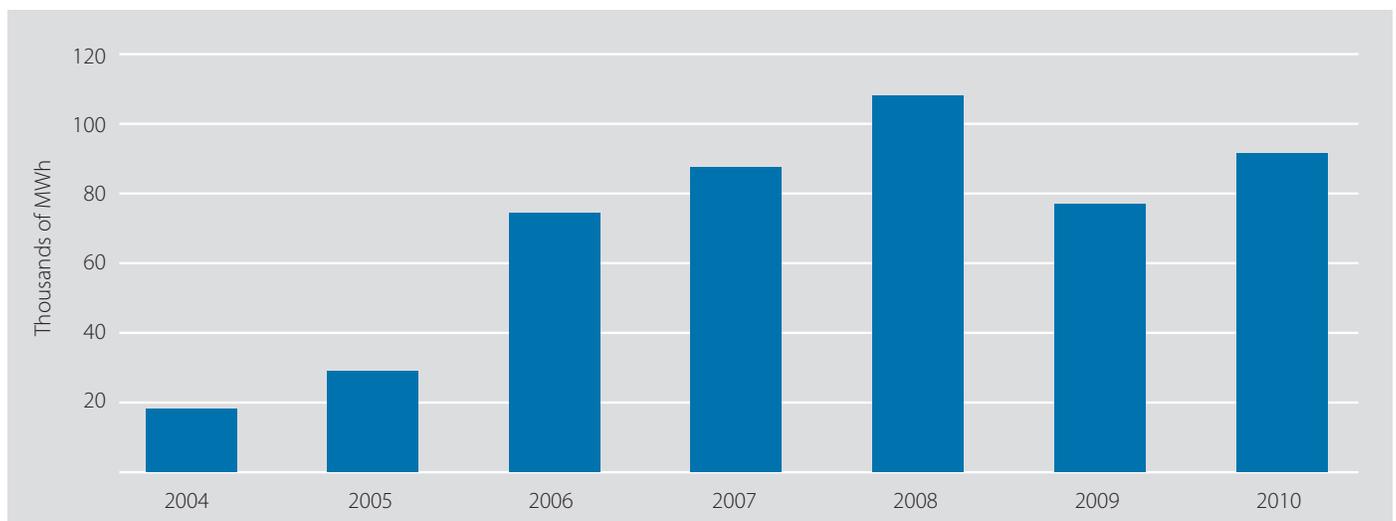
### Cumulative Energy Savings 2004–2009

The cumulative energy savings produced by Efficiency Maine since 2004 equal 4.6 million MWh of electricity—savings that keep dollars in Maine, contribute to energy independence, lower the cost to operate the grid and reduce power plant emissions. The incentives, technical assistance and other services provided by Efficiency Maine generate savings equal to the power used annually by nearly 731,000 Maine homes<sup>2</sup>— and save Maine business and residential consumers nearly \$490 million in energy costs.

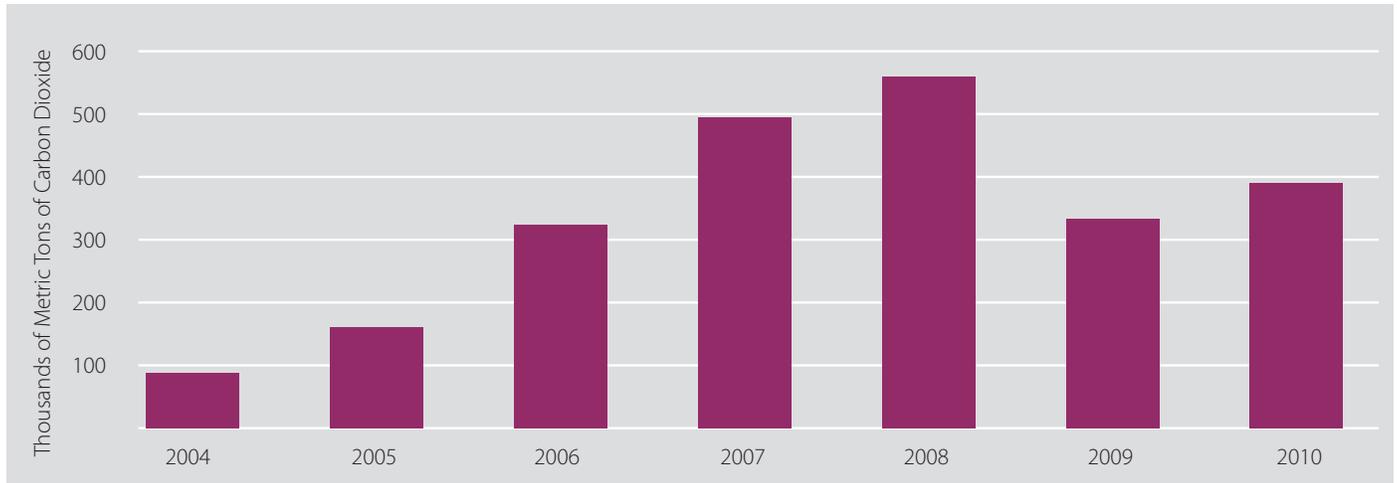
### Ensuring Geographic Equity

Efficiency Maine works hard to ensure that every Maine resident and business has equal access to all of its services. Energy auditors

*Efficiency Maine Program-Wide Annual MWh Savings 2004-2010 (2010 Includes RGGI Funding)*



**Efficiency Maine Program-Wide CO<sub>2</sub> Emissions Savings 2004-2010 (2010 Includes RGGI Funding)**



have visited facilities in every corner of Maine, and Efficiency Maine incentives have benefited farmers, homeowners, office buildings, manufacturing facilities and retail establishments from Kittery to Fort Kent. The maps throughout this report demonstrate the geographic distribution of program offerings and benefits.

**Continuing to Improve Maine’s Environment**

Efficiency Maine’s programs have made a big difference for the environment. Since 2004, these programs have made possible the following cumulative reductions in potentially harmful emissions from electric power generation:

- 2.4 million metric tons of carbon dioxide (CO<sub>2</sub>)
- 3,232 metric tons of sulfur dioxide (SO<sub>2</sub>) that causes acid rain
- 1,473 metric tons of nitrogen oxide (NOx) that causes smog

The reduction of these emissions is equivalent to what would be achieved by keeping 43,956 cars off the road for a full decade<sup>3</sup>, improving the health of our communities.

**Organization of this Report**

The following pages of this report present a more detailed review of Efficiency Maine’s individual programs, including highlights and a look ahead at FY 2011 and beyond. On pages 24–26 are projections for 2011. On pages 27–36 are tables presenting more detailed 2010 and historical trend data.

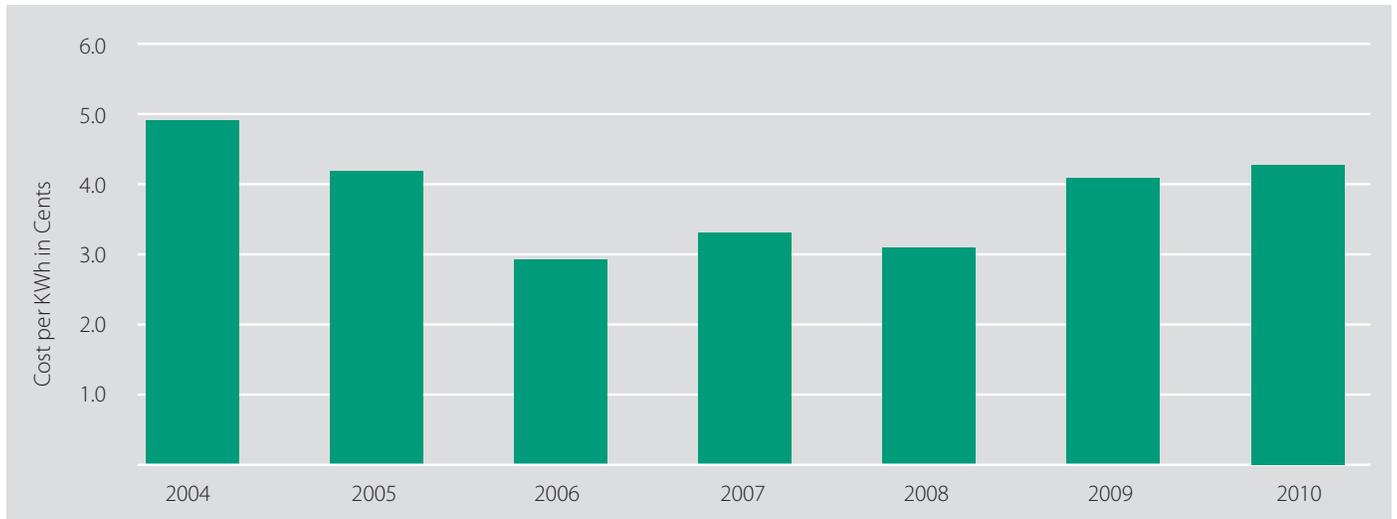
**Footnotes:**

<sup>1</sup> Lifetime economic benefits and the benefit-to-cost ratios are calculated by estimating the total lifetime electricity reductions of the efficient products multiplied by future avoided energy costs and adjusted for total program and participant costs, all discounted to the present year. In 2009, the Maine Public Utilities Commission helped sponsor the “Avoided Energy Supply Costs” for New England, along with other electric utilities, gas utilities and efficiency program administrators. This study is updated every two years and provides the baseline avoided costs for the energy-efficiency programs, based upon current market conditions and fuel cost projections. In 2009, avoided costs dropped significantly, and the benefit-to-cost ratios of our energy-efficiency programs reflect this trend.

<sup>2</sup> The average Maine residential customer consumes 6,360 kWh per year. Energy Information Administration, 2007. <http://www.eia.doe.gov/cneaf/electricity/esr/table5.html>

<sup>3</sup> Emission estimates per MWh are based on Avoided Energy Supply Costs in New England: 2009 Report by Synapse Energy Economics <http://www.synapse-energy.com/Downloads/SynapseReport.2009-10.AESC.AESC-Study-2009.09-020.pdf>

**Efficiency Maine Program-Wide Cost/kWh for Energy Savings 2004-2010 (2010 Includes RGGI Funding)**





## Business Programs

### Overview

FY 2010 was an exciting year for Efficiency Maine's Business Programs. In addition to the traditional System Benefits Charge (SBC) funding for electrical efficiency projects, an infusion of funds from ARRA and RGGI auctions led to enhanced, expanded and new programs.

Because the ARRA funding was "fuel-neutral," it enabled business participants to propose and implement an expanded range of efficiency projects, primarily through competitive grant programs. ARRA also helped fund two new programs, Maine Advanced Buildings and the Retro-Commissioning Program, and significantly expanded the reach of the Commercial Energy Audit Program.

The RGGI funding was instrumental in enhancing several initiatives by:

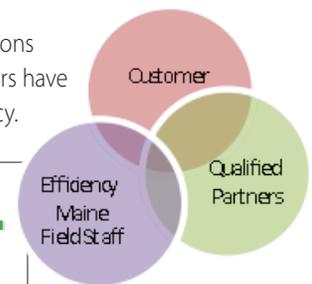
1. Providing a limited-time 25% increase in electrical-efficiency cash incentives, which was instrumental in driving a record number of applications through the program; and an increase in the incentive cap from \$100,000 to \$300,000 per participant per calendar year, which enabled businesses to pursue more electrical-efficiency projects than ever before
2. Enabling the participation of large industrial customers in the incentive program
3. Adding \$1.6 million to ARRA funds for the competitively awarded Large Project Grant budget

The energy-efficiency savings resulting from this year's diverse program initiatives will yield a stronger bottom line for Maine's businesses for years to come.

significant economic and energy savings to businesses in 2010 through its prescriptive and custom incentives, which are funded by the SBC and the proceeds from RGGI auctions. In the current economic climate, these savings are more valuable than ever for Maine businesses.

By statute, Efficiency Maine dedicates a minimum of 20% of SBC program funds to small businesses. During FY 2010, small businesses accounted for 74% of program participants in the Business Incentive Program and received 33% of the \$4.9 million in incentives paid. Efficiency Maine designs its incentive program to help business customers achieve maximum energy efficiency as cost-effectively as possible. One of the major factors in achieving this goal is the new **Qualified Partners (QP) Program**, introduced in October of 2009, which offers a new level of support for Maine businesses that want to save energy and improve the bottom line. Only the most experienced vendors, contractors, suppliers and other professionals that supply or install energy-efficient equipment earn the QP designation. They are familiar with the Business Incentive Program, and can help participants select qualifying equipment and apply for cash incentives for their energy-efficiency projects. Efficiency Maine held 11 four-hour comprehensive training sessions in FY 2010 for over 540 contractors and suppliers aspiring to become QPs; 328 have successfully completed all requirements to date.

Armed with the latest in program descriptions and incentive levels, these Qualified Partners have become the sales force for energy efficiency.



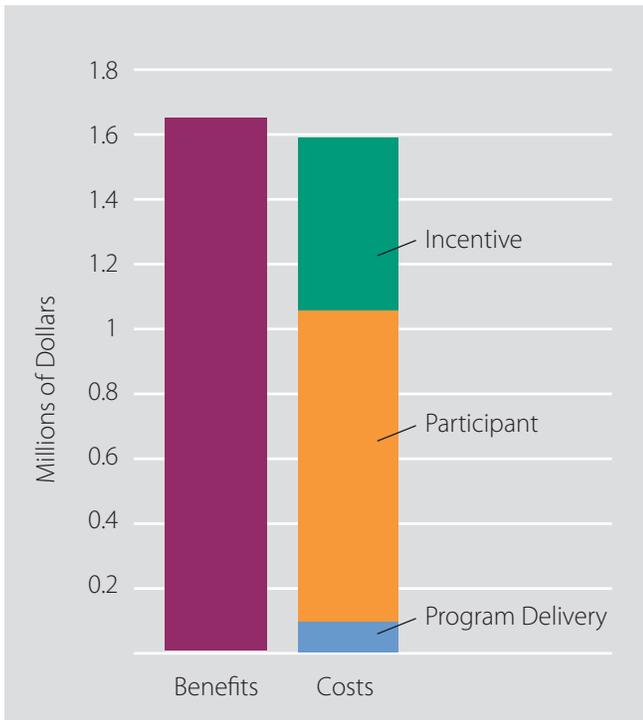
### Efficiency Maine Business Incentive Program 2010 Highlights

- 31,050 MWh in annual savings
- \$43.9 million in lifetime economic benefits
- 192,633 tons of CO<sub>2</sub> emissions prevented (equivalent to 3,528 cars off the street)
- 1,656 completed projects by 1,029 Maine businesses

### Year in Review

Maine, like the rest of the nation, continued to face slow economic recovery in FY 2010. Efficiency Maine nevertheless delivered

*A flyer announcing the QP qualifications and all the benefits of becoming a QP*



Efficiency Maine 2010 High Performance Schools Program Benefits vs. Costs



Tim Vrabel from Efficiency Maine presented Dirigo Management a check and a plaque touting their dedication to energy efficiency.

## Programs Funded by ARRA

### Maine Advanced Buildings (MAB) Program



#### 2010 Highlights

- MAB has 14 active projects in the pipeline, which when completed, will yield 15–20% energy savings each year

## High Performance Schools

### 2010 Highlights

- At very competitive prices, a combined annual savings of 478 MWh, 5,546 therms of natural gas and 18,256 gallons of oil represents over \$1.7 million in savings

### Year in Review

From 2004 to 2010 the High Performance Schools (HPS) Program offered incentives that helped 29 school systems statewide save money by building more energy-efficient new schools. It was a highly successful combined effort of the Bureau of General Services, Department of Education, Maine School Management Association, Efficiency Maine and Rebuild America.

During FY 2010, 11 schools or districts were involved with either the design or implementation phase of HPS. The annual savings highlighted above will continue each year during the life of these schools, which in some cases may extend beyond 50 years.

In FY 2011, Efficiency Maine will move the new school construction into the comprehensive Maine Advanced Buildings Program.

### Year in Review

In addition to RGGI funds, an influx of ARRA funds enabled Efficiency Maine to pilot a commercial new construction program, Maine Advanced Buildings, which is based on the New Buildings Institute's Core Performance Standards, modified for Maine's climate and other factors. Maine Advanced Buildings offers financial incentives to reduce energy use by 15–20% beyond 2006 International Energy Conservation Code requirements. Thanks to a concerted effort to recruit architectural and engineering firms to partner with this program, Efficiency Maine is proud to report that there are currently 14 active projects. Construction of those buildings will be completed over the next year.



An application for Maine Advanced Buildings Program

## Business Programs (continued)

### Small Business Audit & Loan Programs

#### 2010 Highlights

- Over 200 small business audits completed, identifying a potential savings of 2 million kWh, worth \$293,000 over the life of the energy-efficiency measures
- Eight small businesses were new loan participants in FY 2010, borrowing \$226,500 to save approximately 17,250 kWh and 59 million British Thermal Units (BTUs) per year

#### Year in Review

In FY 2010, Efficiency Maine allocated over \$1.6 million in ARRA funding specifically to the small business sector. These funds enabled Efficiency Maine to expand the availability of both the audit program and the loan program for small businesses.

#### Audit Program

The Audit Program is for small businesses defined through FY 2010 as having less than 50 employees or less than \$5 million in revenue with no in-house engineering staff. High upfront costs, limitations of time and knowledge and limited access to capital are particularly difficult barriers for small business customers. Through Efficiency Maine's small businesses audit program, these businesses were eligible to receive a free walk-through energy audit. The resulting audit report provided the business with a list of energy-efficiency measures, which if implemented, could strengthen their bottom line. An audit is a prerequisite to the Efficiency Maine Loan Program.

#### Loan Program

The Loan Program is designed to provide small businesses with upfront capital to implement the energy-efficiency measures recommended in the walk-through audit report. The low-interest (currently at 1%) loan is capped at \$35,000 with a maximum five-year term limit. With the addition of the eight FY 2010 loan participants, there are currently 42 businesses participating in the small business loan program.

**EM** Agricultural Measures

CASE STUDY BETTER PERFORMANCE, LOWER ELECTRIC BILLS & REDUCED EMISSIONS

### Weston Acres Dairy Farm: sustaining a Maine tradition through energy efficiency

Like many Maine dairy farms, the Weston Farm is upheld as a family tradition as well as a business. One of the major challenges is uncertainty about the price of milk and expenses, including feed and energy. That's why Weston Farm was excited to receive a free energy audit from Efficiency Maine in cooperation with Kennebec County Soil & Water Conservation District (KCSWCD) and Farm Energy Partners Network (FEPN).

**Objectives:**

- Reduce electricity usage and costs
- Maintain viability of family-owned farm in a difficult market
- Demonstrate ways other farms can cut energy costs

**Strategies:**

The farm benefited from a partnership with Efficiency Maine, Kennebec County Soil & Water Conservation District (KCSWCD) and Farm Energy Partners Network (FEPN). A free energy audit identified a water heater and milk pump as the two major consumers of electricity—and the biggest potential sources of savings.

**The Plan:**

- Replaced old 5 hp vacuum pump with a highly efficient 7.5 hp pump with variable frequency drive.
- Replaced electric water heater with a combination of solar thermal (hot-water) and panels and a propane-fired on-demand tankless water heater.

\* The incremental cost of propane to fuel the on-demand water heater is not accounted for in this case study; it will vary greatly depending on available sunlight.

The walk-through inspection and electric-bill analysis identified three pieces of equipment that accounted for nearly 50% of energy use: an old, inefficient electric water heater (56%), a 5 hp vacuum milk pump (17%), and a condensing unit to cool milk (14%). Efficiency Maine provided a \$2,000 incentive for a new energy-efficient vacuum pump with variable frequency drive. KCSWCD provided Conservation Innovation Grants (CIG) worth \$1,800 for an on-demand water heater, and another \$11,250 for solar thermal panels as a demonstration project, which FEPN helped install, requiring only an in-kind labor contribution from the farm.

These energy efficiency measures will help Weston Farm save over \$2,000 per year—a substantial amount for a small family farm—yielding payback on that investment in less than three years.

**Small Business Audit Program**

**Business Program Qualified Partners**

**Business Incentive Program**

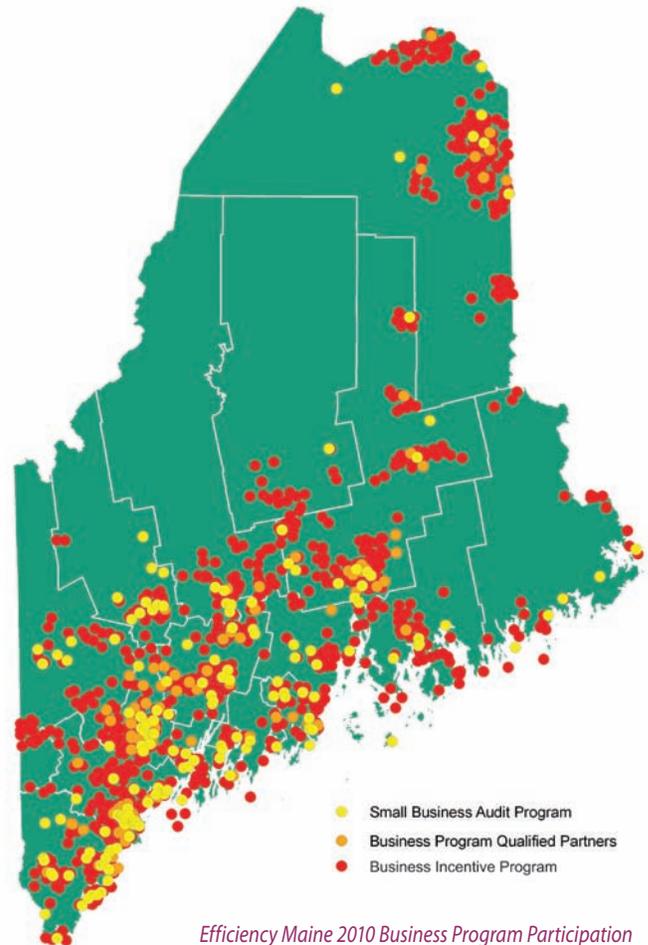
**Estimated Annual Electricity Savings**  
All projects... \$2,283

**efficiency MAINE**  
Leading the Way to a Brighter Future  
efficiencymaine.com  
866-376-2463

*Dairy farming is a labor of love for us, and an important part of Maine's landscape for everyone. The help we get from Efficiency Maine and others to cut our energy costs is not only helping our business thrive, it's also reducing our carbon footprint.*

*—Anne Weston, Owner of Weston Acres Dairy Farm, with Laura Gamble, Foreman*

Efficiency Maine case study highlighting energy-efficiency measures taken on by Weston Acres Dairy Farm



## Retro-Commissioning Pilot Program

### 2010 Highlights

- This pilot project began in April of 2010; and results will be reported in 2011

### Year in Review

Every building in Maine has the potential to operate more efficiently. In fact, conducting a building tune-up, also referred to as “retro-commissioning” (RCx) can help save as much as 20% on energy bills. RCx is a process that helps to ensure that building equipment and systems perform together effectively and efficiently to optimize the building’s operation. Funded by ARRA and rolled out in April of 2010, this pilot program is a two-step process whereby buildings with Energy Management Systems (EMS) or Building Automation Systems (BAS) will be evaluated by a retro-commissioning service provider to determine if the systems are working properly. If not working properly, the systems will be adjusted and energy savings measured. Efficiency Maine will determine if this program should progress beyond its pilot project status based on the results that are seen in 2011.

## Commercial Project Grant Program

### 2010 Highlights

- Awarded 19 grants totaling \$634,000, which leveraged \$1.3 million in private matching funds
- Projected energy savings of 17.8 million BTUs



*Solar thermal water system at L.L.Bean funded by a Commercial Project Grant*

### Year in Review

Efficiency Maine allocated approximately \$2 million of ARRA funding to offer grants to support energy-efficiency projects or renewable energy systems for businesses. This program allowed participants to apply for grants of up to \$50,000 on an individual project basis.

Through this funding opportunity, Efficiency Maine called upon

eligible entities to submit applications for Commercial Project Grants. The proposals were expected to meet the following criteria:

- Rapid energy savings along with sustainable positive economic impacts
- Immediate as well as long-term job creation and/or retention
- Significant energy savings
- Inclusion of funding from other sources
- The possibility of broad, long-term benefits on the State economy

Consideration was given to innovative or emerging technologies or systems and to geographic distribution of the grants. This program was fuel-neutral and could be used for electricity conservation, fossil fuel conservation and renewable energy projects, provided that significant total BTU reduction or other measurable advantages are realized.

### FY 2010 Grant Recipients

Aqua Maine, Inc., West Rockport	Longfellow's Greenhouse, Manchester
B & L Auto Parts Inc., Brewer	Maine Pines Racquet & Fitness Club, Brunswick
Bowdoin College, Brunswick	Robert's Maine Grill, Kittery
City of Bath	Saint Joseph's College, Standish
Corinth Wood Pellets, LLC, Corinth	Scratch Baking Company, South Portland
Ecomaine, Portland	Sebasco Harbor Resort, LLC, Sebasco Estates
GS Inc., Rockland	The Jackson Laboratory (2 awards), Bar Harbor
Gritty McDuffs, Freeport	Town of Scarborough
Knox Center for Long Term Care, Rockland	
L.L.Bean Inc., Freeport	

## Large Project Fund Grants

### 2010 Highlights

- Awarded 12 grants totaling \$6.9 million, which leveraged \$52 million in private matching funds
- Projects are expected to prevent the emission of 171,960 tons of CO<sub>2</sub>

### FY 2010 Grant Recipients

Bowdoin College, Brunswick	Madison Paper, Madison
Twin Rivers Paper (2 awards), Madawaska	NewPage, Rumford
Jackson Laboratory, Bar Harbor	Old Town Fuel and Fiber, Old Town
Johnson Outdoors Watercraft, Inc., Old Town	Prime Tanning, Hartland
Lincoln Paper and Tissue, Lincoln	Tex Tech Industries, North Monmouth
	Verso Paper Corp., Bucksport

## Business Programs (continued)

### Year in Review

These grants, ranging from \$100,000 to \$1 million, are funded by either RGGI proceeds or ARRA Funds. Efficiency Maine, in partnership with the Energy and Carbon Savings Trust, issued a request for applications (RFA) in September 2009 for large energy-efficiency and conservation projects, and received 63 responses. These proposals were scored based on three primary criteria:

- Electricity savings or greenhouse gas reductions
- Project management and resource adequacy and readiness
- Economic impact demonstrated in the applications

After making the awards, Efficiency Maine negotiated contracts for twelve projects requesting \$6.9 million in grant funds, with a private match of \$52 million. Of the \$6.9 million in grants, \$1.6 million was funded by RGGI and \$5.3 million was funded by ARRA. These large-scale energy-efficiency projects include renewable generation, heat recovery and efficient motors and processes.

## Energy Efficiency and Conservation Block Grant (EECBG) Municipal Re-Grants

### 2010 Highlights

- Awarded grants totaling \$4.6 million to 83 municipalities
- Estimated annual energy savings per project range from 6.25 million BTUs to 91 billion BTUs
- Estimated annual electrical savings per project range from 221 kWh to 5.1 million MWh

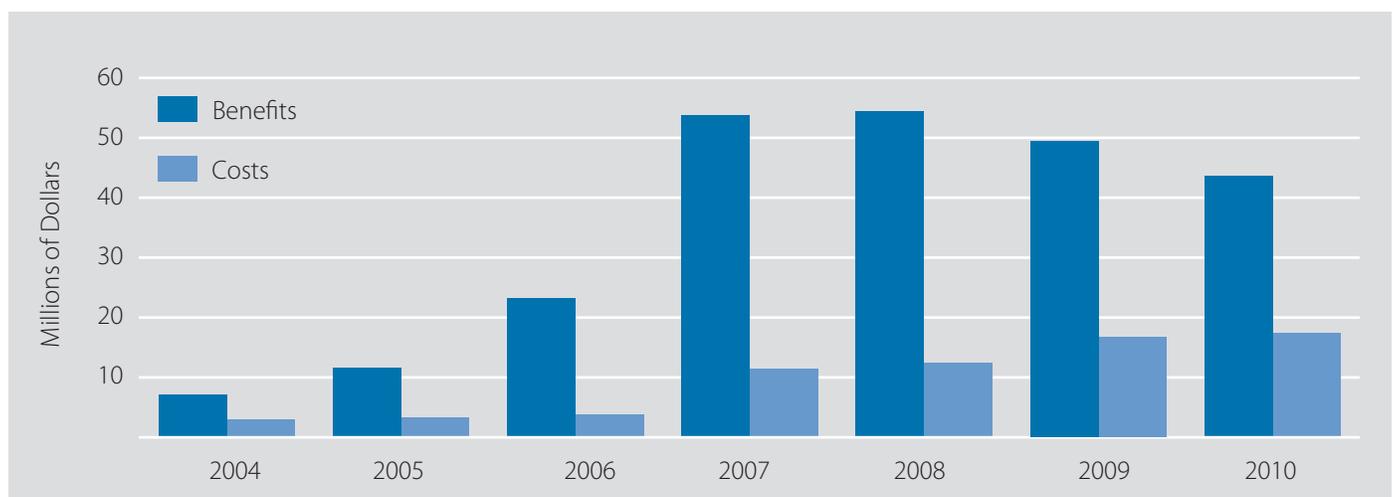
### Year in Review

The U.S. Department of Energy (DOE) provided Efficiency Maine with \$9.6 million under its State of Maine Energy Efficiency and Conservation Block Grant (EECBG). The DOE stipulated that at least 60% of the grant funds be passed through to municipal and county governments for energy-efficiency improvements.

In September 2009, Efficiency Maine formally requested applications from units of local and county government for energy-efficiency and conservation projects. Applicants could submit either a custom project application (capped at \$85,000 for individual municipality or \$500,000 for regional projects) or a template-planning project (capped at \$10,000). Custom projects were awarded on a competitive basis, while template applications were noncompetitive, but subject to available funding. A total of \$5,756,100 was set aside for program grants, which were to be disbursed in two rounds of RFAs.

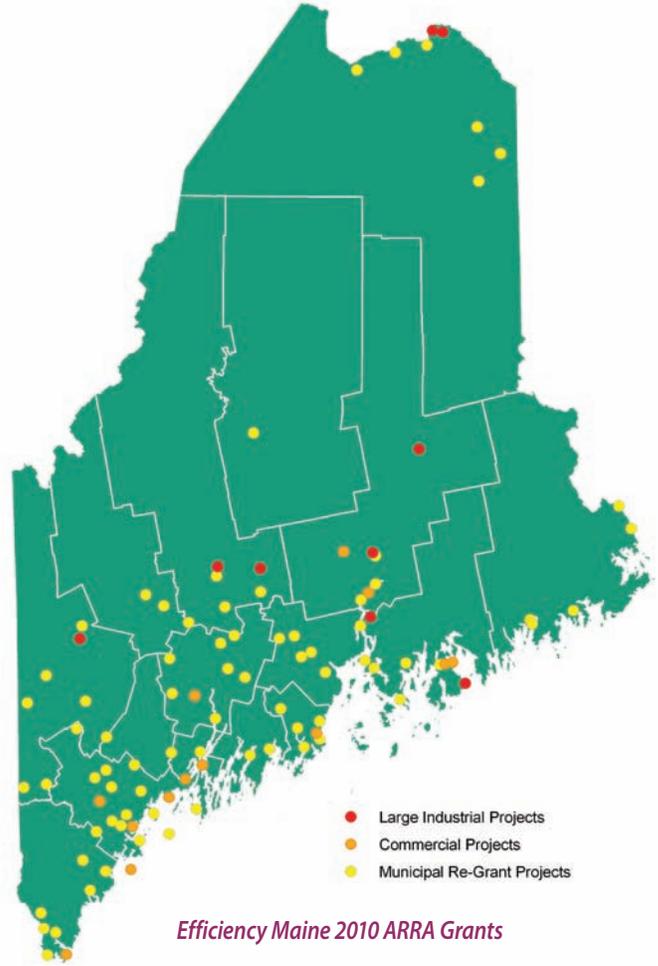
During FY 2010, Efficiency Maine completed the first round of grant awards for 49 custom projects and 34 template projects. Examples of the custom projects include: interior lighting, HVAC equipment, LED street lights, windows, wind turbines, solar thermal systems and insulating and air-sealing building envelopes.

*Efficiency Maine Business Incentive Program Benefits vs. Costs 2004-2010*

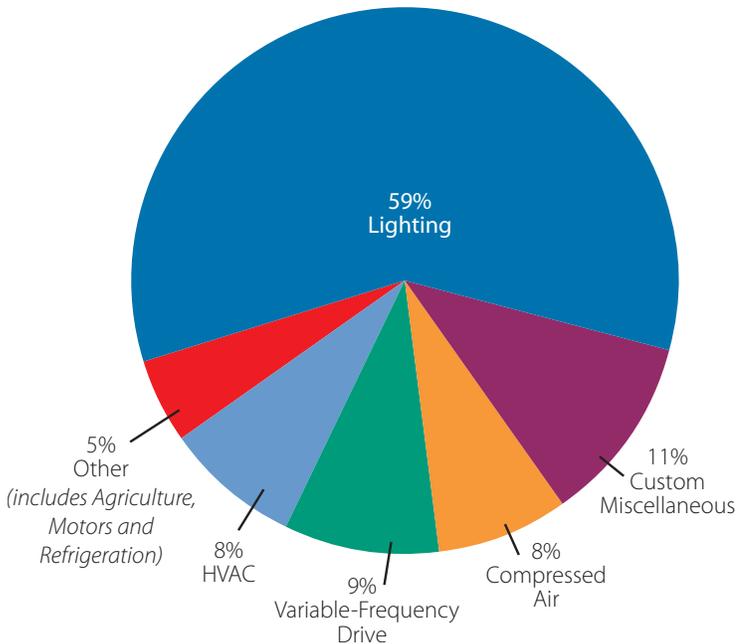


### EECBG Re-Grant Award Winners

Addison	Fort Kent	Raymond
Bar Harbor	Freeport	Reed Plantation
Bath	Frenchville	Rockland
Belfast	Gardiner	Rockport
Berwick	Gorham	Rumford
Bethel	Gray	Saco
Blue Hill	Greenville	Saint Francis
Bowdoinham	Hampden	Sedgwick
Brewer	Harrison	Skowhegan
Brooklin	Hiram	South Berwick
Brooks	Kennebunk	Stockton Springs
Brooksville	Kittery	Stoneham
Bucksport	Lisbon	Strong
Cape Elizabeth	Machias	Thomaston
Caribou	Madison	Thorndike
Calais	Mechanic Falls	Union
Casco	Mercer	Unity
Chebeague Island	Montville	Vassalboro
China	New Gloucester	Waldoboro
Columbia	North Yarmouth	Warren
Cumberland	Norway	Washington County
Damariscotta	Oakland	Waterville
Dayton	Old Town	Westbrook
Eliot	Perry	Windham
Falmouth	Phippsburg	Winthrop
Farmington	Pittsfield	Yarmouth
Fayette	Porter	York
Fort Fairfield	Presque Isle	

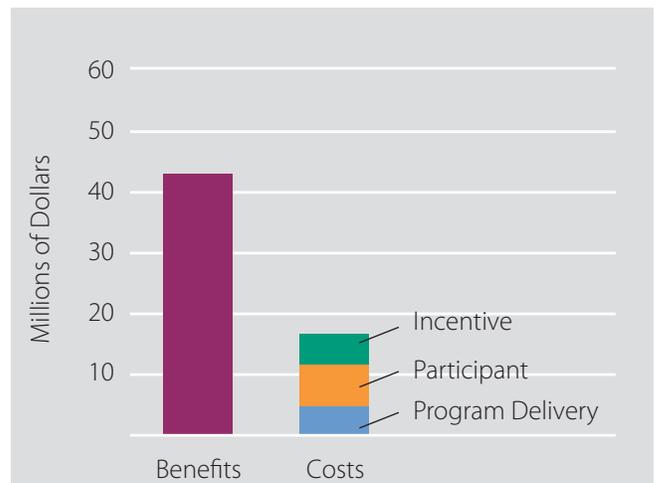


Efficiency Maine 2010 ARRA Grants



Efficiency Maine 2010 Business Incentive Program MWh Savings by Technology

Efficiency Maine 2010 Business Incentive Program Benefits vs. Costs





## Residential Programs

### Overview

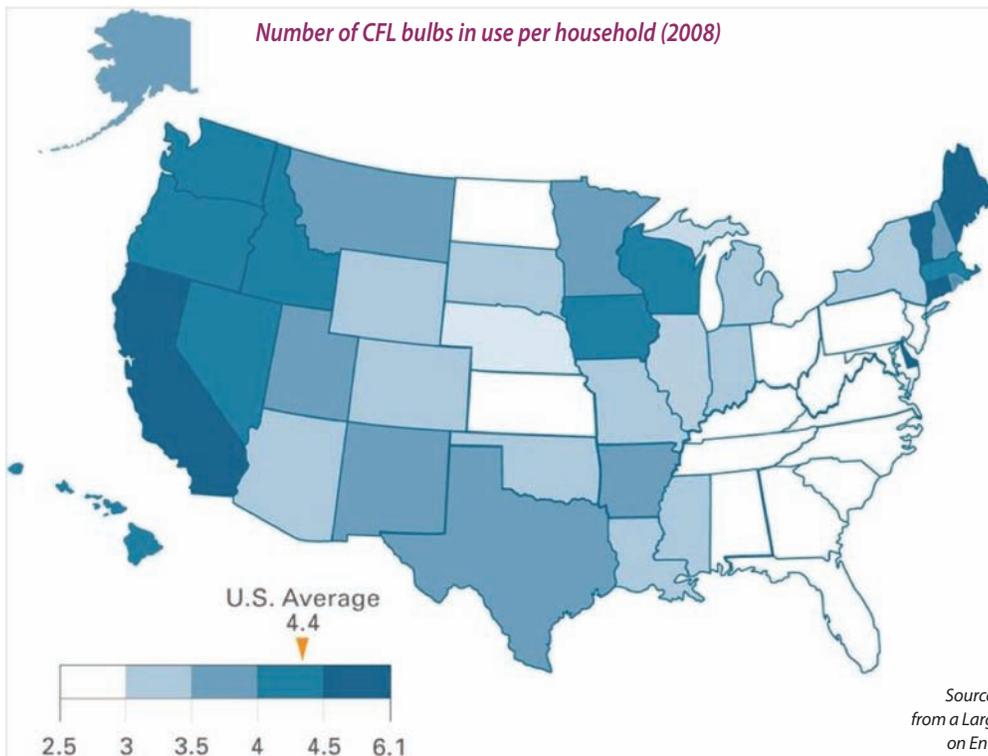
FY 2010 was a highly successful year for Efficiency Maine's Residential Programs. Our longest-running program, the Residential Lighting Program, saw a 40% increase in the number of Compact Fluorescent Light bulbs (CFLs) sold, reversing a negative trend in FY 2009. Starting in fall of 2009, RGGI and ARRA monies funded three new residential programs:

- RGGI provided funding for the Appliance Rebate Program, which encourages the purchase of energy-efficient refrigerators, washing machines, dehumidifiers and air conditioners
- ARRA provided funding for the Replacement Heating Equipment Program, which rewards homeowners who upgrade to energy-efficient heating systems
- ARRA funded the Home Energy Savings Program, which pays homeowners up to \$3,000 in incentives for insulation and other energy-efficiency upgrades of their homes

### 2010 Highlights

- Sales of CFLs through Efficiency Maine's program totaled 1.1 million bulbs, an increase of over 52% from FY 2009
- CFL sales generated significant benefits
  - 44,561 MWh in annual savings
  - \$35.4 million in lifetime economic value
- Consumers recycled 11,113 CFLs (+175% vs. 2009) at 215 retail stores participating in the recycling program
- Efficiency Maine's field team made 3,449 field visits to retail storefronts verifying markdowns, placing signs designed to increase consumer awareness, and training over 900 new sales associates on program initiatives

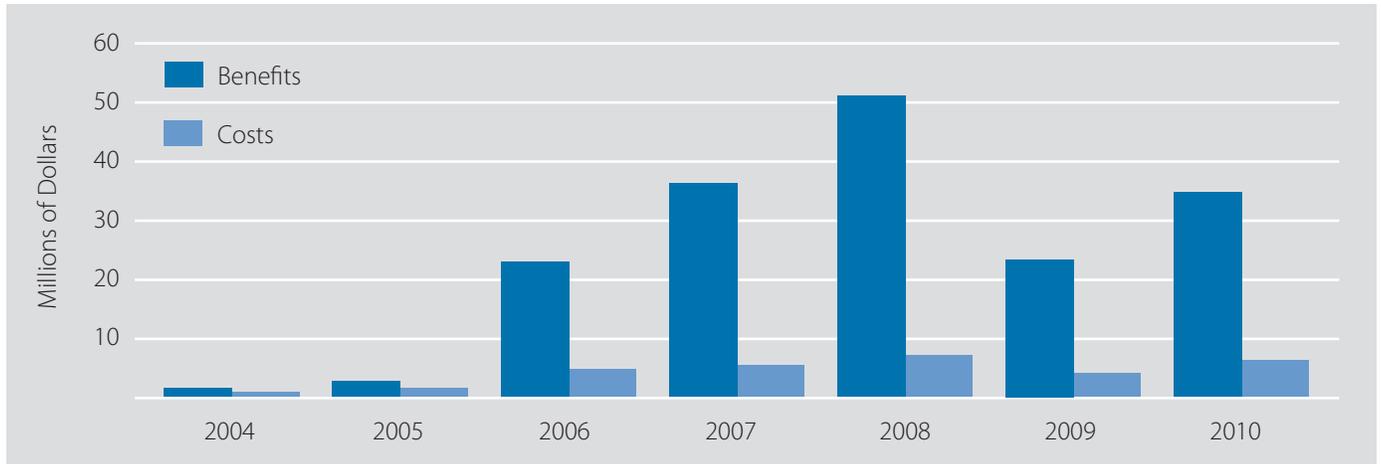
### Residential Lighting Program



*Thanks in large part to Efficiency Maine's ongoing efforts, Maine is one of the top five states in adoption of CFLs. And, with 215 stores offering to recycle CFLs free of charge, most Maine residents have a practical and convenient method to properly dispose of spent bulbs.*

Source: "Who's Buying CFLs? Who's Not Buying Them? Findings from a Large-Scale, Nationwide Survey," 2008 ACEEE Summer Study on Energy Efficiency in Buildings (34,750 households surveyed)

**Efficiency Maine Residential Lighting Program Benefits vs. Costs 2004-2010**



**Year in Review**

CFLs remain the single most important measure for achieving proven reductions in electricity expenses in Maine residences, with every dollar invested by Efficiency Maine returning \$5.71 in economic benefits in FY 2010.

In FY 2010, sales of CFLs in Maine rebounded from a sharp decline (-35%) in FY 2009, which followed national trends. Despite the slow economic recovery, CFL sales increased by 52% over 2009 levels, returning to near pre-recession levels.

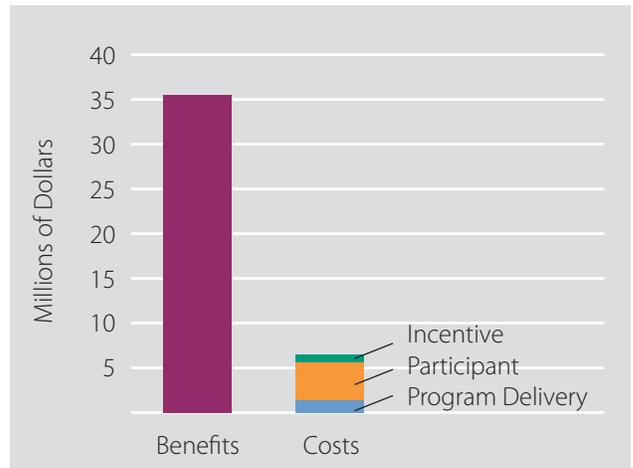
This significant increase in sales was driven largely by the following:

- In response to consumer shifts, Efficiency Maine diversified its retail channels beyond hardware stores and mass-merchandisers by adding club stores (Sam’s and BJ’s), drug stores (CVS) and grocery stores (Hannaford). The number of participating retail stores increased from 365 in 2009 to 459 in 2010.
- Retailers were offered options to give consumers discounts on CFLs, including 1) direct incentives to retailers to enable them to reduce shelf prices (markdowns), which are favored by large chain retailers; and 2) coupon program, favored by some smaller retailers.
- Efficiency Maine further lowered CFL prices for consumers by increasing the incentives paid to stores.

- With these increased incentives, Efficiency Maine negotiated with major retailers for more prominent display space. Some participating retailers are now dedicating four times as much retail space to CFLs as to incandescent bulbs.

As shown in the map on page 12, Maine is now one of the most successful states in the country at replacing conventional incandescent bulbs with efficient CFL bulbs in households.

**Efficiency Maine 2010 Residential Lighting Program Benefits vs. Costs**



## Appliance Rebate Program

### 2010 Highlights

- 229 retailers enrolled as program participants
- 23,516 total appliances sold
- \$1,346,064 in rebates paid out to 22,692 Maine residents
- Estimated lifetime energy savings of 46,517 MWh and \$6.5 million lifetime economic value
- An estimated 75 million gallons of water saved per year by all of the washers sold

### Year in Review

With funding from RGGI, in 2010 Efficiency Maine began helping retailers promote energy-efficient appliances (washers, refrigerators, air conditioners and dehumidifiers) through a highly successful Appliance Rebate Program. The program was designed to provide downstream incentives to the consumer while assisting local retail partners with promotion. Efficiency Maine determined that a mail-in rebate was the ideal delivery mechanism, and offered the following incentives by appliance type:

Washers	\$50
Refrigerators	\$25–\$75 depending on size
Air conditioners	\$25
Dehumidifiers	\$25

Within 30 days of the program launch, Efficiency Maine enrolled every major appliance retailer in the State. By the close of the program, Efficiency Maine had enrolled 229 retailers. Consumers responded strongly, redeeming certificates for rebates of more than \$1.3 million.



Fun, bright point-of-purchase displays highlight the Appliance Rebate Program.



The "See the Light" campaign contributed to the boost in CFL sales in FY 2010.

## Home Energy Savings Program 2010 Highlights



- Enrolled 57 nationally certified Participating Energy Advisors throughout the State
- Over 400 homes completed energy assessments and 71 homes completed energy upgrades
- Average upgrade saved \$780 and 39% on annual heating costs and earned a \$2,140 rebate
- At an average total job cost of \$13,675 per home, the program generated nearly \$1 million of construction work during a slow period in the construction industry

## Year in Review

Through a grant from the Department of Energy, Efficiency Maine invested \$10 million in ARRA funds to expand its Maine Home Performance with ENERGY STAR whole-house energy upgrade program. Renamed The Home Energy Savings Program, it offers homeowners of any income level rebates up to \$3,000 for reducing their home's energy usage by at least 50% (or up to \$1,500 for energy reductions of at least 25%) through measures including adding insulation; sealing air leaks; and installing high-efficiency heating systems, solar heating systems or qualified windows and doors.

Projects are required to follow a building-science-based energy assessment of the home, using state-of-the-art instruments and computerized building models, conducted by nationally certified Participating Energy Advisors.

The program is based on national best practices and is continuously improved based on input from homeowner focus groups and surveys; contractor meetings; field visits; secondary research; and an advisory board representing homeowners, contractors, other energy-efficiency organizations, trade associations, community colleges and advocacy groups.

The program's website, which earned a Department of Energy commendation, features a home energy savings calculator to help homeowners determine their likely benefits from the program and a search engine for locating participating energy advisors based on:

- Distance from the homeowner
- Number of homes upgraded
- Customer satisfaction rating
- Services offered (financing, insulation, solar, heating systems, windows, etc.)

**ENERGY EFFICIENCY PAYS FOR ITSELF**

**SAVINGS EXAMPLE**  
 annual energy costs (11,200 gallons at \$2.50/gallon) \$ 3,000  
 projected energy savings 50%  
**\$ 1,500**

**SAMPLE COSTS AND REBATES**  
 home energy audit \$ 500  
 improvement costs 15,000  
 Efficiency Maine rebate (50% of cost up to \$3,000) -3,000  
 federal tax credit (30% of cost up to \$1,500) -1,500  
 cost financed 11,000  
**\$ 1,460**

annual loan payments (10 year, 6% APR) loan  
**\$ 38**

**IMMEDIATE SAVINGS starting year one**  
 annual net savings

Note: Your costs and savings may differ. This example is for illustrative purposes only.

**AVAILABLE INCENTIVES**

**WEATHERIZATION**  
 Retrofits (> 50% energy savings)  
 Retrofits (25-49% energy savings)  
 Retrofits - Unit Heating Customers (e 50% energy savings)  
 Retrofits - Unit Heating Customers (25-49% energy savings)  
 Building envelope materials  
 High-efficiency furnaces/boilers

\*Unit rebates are available  
 \*\*Federal tax credits available

**RENEWABLES**  
 Solar/Wind/Geothermal  
 Solar Thermal (with Home Savings Program Participation)  
 Solar PV  
 Residential Wind

**efficiency MAINE**

### Does Your Home Need an Energy Upgrade?

If you answer "yes" to any of these questions, your home could be a good candidate for the **Home Energy Savings Program**. The best way to be certain is to hire a Participating Energy Advisor to perform a professional home energy audit. Your advisor can help you get thousands of dollars in incentives.

- Does your home experience any of the following?  
 Ice dams ..... Yes \_\_\_ No \_\_\_  
 Frozen pipes ..... Yes \_\_\_ No \_\_\_  
 Hot/cold rooms ..... Yes \_\_\_ No \_\_\_  
 Drafts ..... Yes \_\_\_ No \_\_\_  
 Damp basement ..... Yes \_\_\_ No \_\_\_  
 Mustiness ..... Yes \_\_\_ No \_\_\_
- Do you use a:  
 Dehumidifier ..... Yes \_\_\_ No \_\_\_  
 Humidifier ..... Yes \_\_\_ No \_\_\_  
 Air Conditioner ..... Yes \_\_\_ No \_\_\_
- Are you considering replacing your heating system?  
 ..... Yes \_\_\_ No \_\_\_
- Are you considering replacing your windows?  
 ..... Yes \_\_\_ No \_\_\_
- Is your home poorly insulated?  
 ..... Yes \_\_\_ No \_\_\_
- An average 2,000 square foot home costs about \$2,000 per year to heat. Are you paying more than \$1 per square foot per year for heat?  
 ..... Yes \_\_\_ No \_\_\_
- Are you willing to invest the \$5,000 - \$10,000 needed for an energy upgrade?  
 ..... Yes \_\_\_ No \_\_\_

**efficiency MAINE**

Get started at  
**efficiencymaine.com**  
 or call 866-376-2463

### Get up to \$4,500\* back when you invest in energy-efficiency upgrades

## HOME COMFORT PAID FOR BY ENERGY SAVINGS

There's never been a better time to hire a professional to address

- ice dams
- frozen pipes
- cold, drafty rooms
- high heating bills

All homeowners are eligible regardless of income level.

**ELIGIBLE IMPROVEMENTS**  
 Eligible improvements include new heating systems, windows, doors, insulation and air sealing.

**IT'S EASY**  
 Getting cash back for your home energy improvements is as easy as A, B, C.

**AUDIT**  
 Hire a Participating Energy Advisor to perform a home energy audit and identify potential energy saving improvements.

**BUTTON UP**  
 Hire a professional to make your pre-approved energy saving improvements.

**CASH BACK**  
 Get up to \$3,000 back from Efficiency Maine. Plus get up to \$1,500 in federal energy efficiency tax credits. \*

**efficiency MAINE**

Get started at  
**efficiencymaine.com**  
 or call 866-376-2463

\*Tax credits expire 12/31/10.

EM-10-0310-05



Home Energy Savings Program flyer and checklist for homeowners

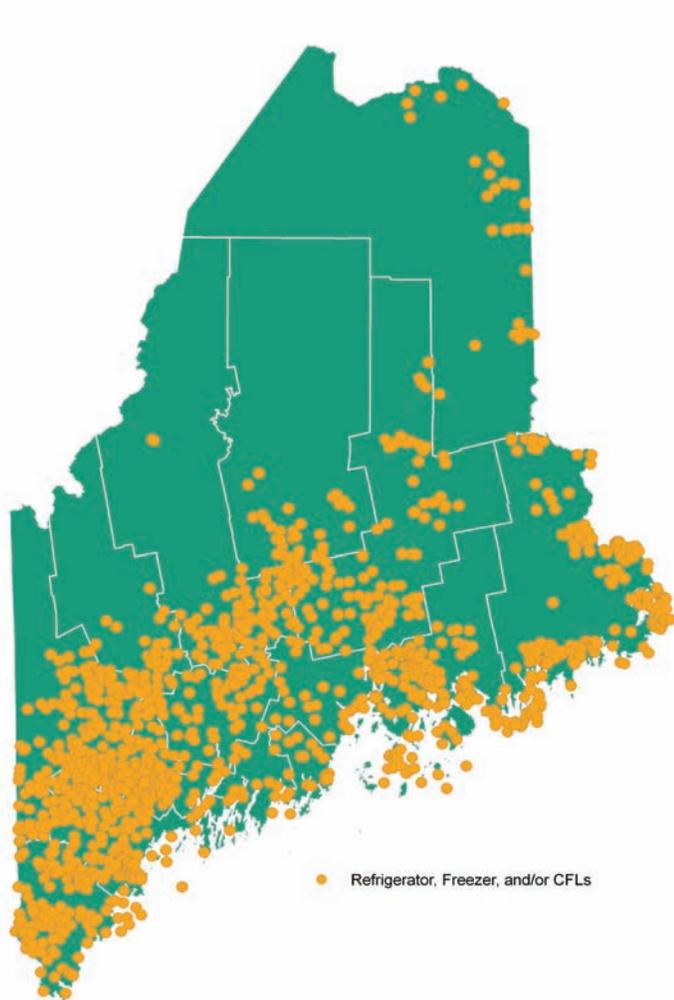


## Residential Programs *(continued)*

### Low-Income Program

#### 2010 Highlights

- The Low-Income Appliance Program assisted hundreds of qualifying households by providing energy-efficient refrigerators and CFLs, generating 2,981 MWh of annual savings and \$1.8 million in lifetime economic value, for a benefit-to-cost ratio of 1.8 to 1
- The Program delivered 1,566 refrigerators and 4,798 CFLs to 1,862 low-income households



### Year in Review

In FY 2010, Efficiency Maine’s Low-Income Appliance Replacement Program continued to offer the installation of energy-efficient refrigerators and CFLs—which together can account for up to 20% of a home’s electric use.

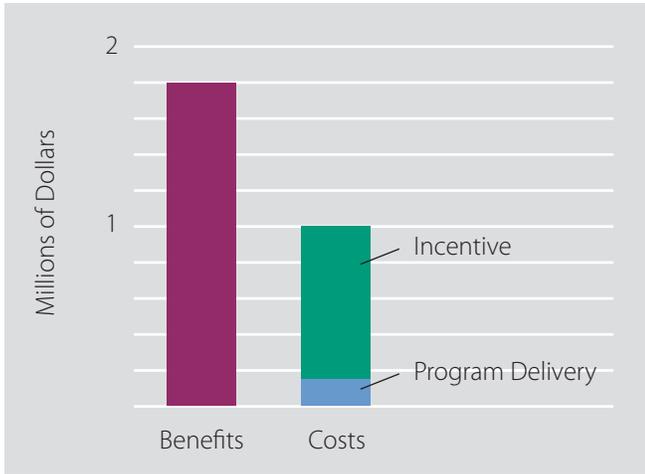
The Low-Income Appliance Replacement Program is implemented through a Memorandum of Understanding with MaineHousing and through the State’s Community Action Programs (CAPs) to reduce electric bills in low-income households by exchanging inefficient old refrigerators for new ones.

MaineHousing contracts with certified residential energy auditors to address electrical savings opportunities. When refrigerators are replaced, contractors also install CFLs in locations where they will provide the greatest energy savings.

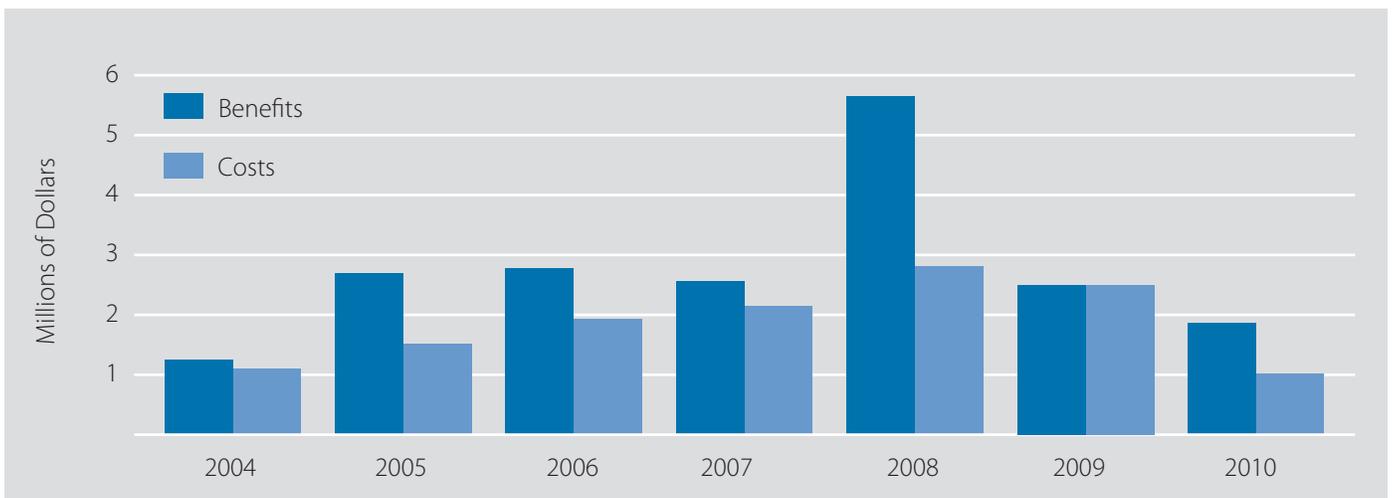


*Two of the older refrigerators that were replaced with new, energy-efficient appliances*

**Efficiency Maine 2010 Low-Income Appliance Replacement Program Benefits vs. Costs**



**Efficiency Maine Low-Income Appliance Replacement Program Benefits vs. Costs 2004-2010**





## Education and Training Programs

### Overview

Education and Training Programs support Efficiency Maine’s objectives of delivering energy savings, as well as the factual information consumers need to become more energy-efficient for life. Programs are strategically designed to reach across age groups and market sectors to create a broad impact on residents and businesses in Maine.

**Education Programs** help to achieve long-term efficiency gains because they can influence a lifetime of decisions among the next generation. In 2010, school programs introduced the issues of electricity production, consumption and efficiency to more than 12,000 4th–12th graders.



*Madawaska students learning and coloring with “Cecil” the CFL*

**Professional Training Programs** are a major factor in creating a more energy-efficient economy in Maine. In 2010, specialized workshops—Building Operator Certification (BOC), solar installer training, technical training for facility managers, and others—helped nearly 700 contractors and facility managers take advantage of energy-efficiency opportunities and Efficiency Maine incentives. A new program helped more than 1,200 realtors incorporate Energy Smart knowledge into their business practices.

### School Energy Education Programs

#### 2010 Highlights

- 12,370 4th–12th grade students participated in energy-education classes

#### Year in Review

Efficiency Maine provides financial support for the following educational efforts:

**Maine Energy Education Program (MEEP)**, a nonprofit organization serving schools across Maine, teaches general energy awareness and practical skills that enable students to be more energy-efficient in their daily lives. Topics of classroom presentations include electricity generation, energy sources, energy conservation and transportation. In the 2009–2010 school year, MEEP reached more than 10,000 students across the state.

**The Maine Public Service Be Energy-Wise Program (BEEP)** educates students and residents in northern Maine about energy issues and opportunities, including the “Three E’s” (energy, environment and economics) and the interaction among them. In 2010, BEEP offered 53 programs involving more than 1,629 students in the classroom sessions.



*Students in northern Maine designing test windmill concepts*

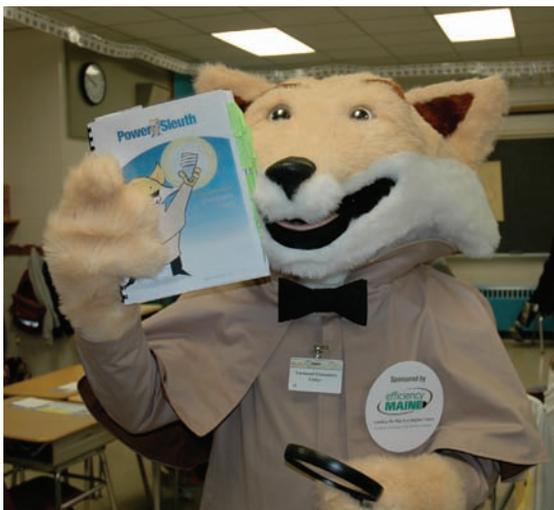


## Maine Energy Education Curriculum Project for Grades 4–8

Teachers across Maine help students solve energy mysteries using the PowerSleuth energy education curriculum. This project, launched in 2007 under the guidance of the Maine Math and Science Alliance and aligned with Maine Learning Results, developed standards-based, hands-on energy education materials for students in grades 4–8. All three PowerSleuth curriculum units are now available at no cost to teachers:

- **Energy Lights Maine** (Grades 4–5) contains lessons on circuits and electric light, conductors and insulators, generation of electricity, energy efficiency and conservation. In 2010, 42 teachers attended a face-to-face workshop, and more than 200 sections of the curriculum have been downloaded from the website.
- **Energy Heats Maine** (Grades 6–7) develops students' understanding of heat and thermal energy. In 2010, 37 teachers attended a face-to-face day-long workshop and more than 200 sections of the curriculum have been downloaded from the website.
- **Energy for Maine** (Grades 7–8) focuses on forms of energy, energy transfers and transformations and energy careers. In 2010, 45 teachers attended the workshop, and this most recent curriculum is also approaching the 200-download mark.

Teachers can access the material and additional supporting resources by visiting the PowerSleuth companion website: [powersleuth.org](http://powersleuth.org).



*The PowerSleuth fox visits Maine classrooms to spread the word about energy efficiency.*

## Energy Rap Contest

With permission from *American Idol*, Efficiency Maine created the statewide Energy Idol music video contest to encourage energy conservation and awareness of Efficiency Maine among high school students, divided into two sections, grades 9/10 and grades 11/12.



**9th/10th grade winner:** Greg Plourde from Hall-Dale High School in Farmingdale, for “Efficiency”  
<http://www.youtube.com/watch?v=s59Ma9nhN5o&feature=related>



**11th/12th grade winners:** Mike Babyak, who filmed and edited, and singer Colby Parker, both seniors at Thornton Academy in Saco, for “Rhymin’ for a Brighter Future”  
<http://www.youtube.com/watch?v=h5dz8a1EPH4>



## Education and Training Programs (continued)

### Professional Training

#### 2010 Highlights

- 690 contractors and facility managers attended energy-efficiency classes, including introductory-to-advanced training as well as the Building Operator Certification (BOC) courses
- The BOC courses in FY 2010 generated 49,136 MWh of lifetime savings and \$6.4 million in lifetime economic value, yielding a benefit-to-cost ratio of 1.32 to 1

#### Year in Review

Efficiency Maine's professional training programs provided technical training in a variety of topics to key stakeholders: architects, engineers, facility managers, tradespeople, water and wastewater operators and other technical professionals. The sessions, which also provided a venue for participants to network and share energy-efficiency success stories, included:

- **Building Operator Certification (BOC) Level I and Level II** (62 participants; Augusta, Brewer and Portland): The BOC Program, provided in cooperation with the Northwest Energy Efficiency Council (NEEC), offers a series of courses that train facility managers to improve energy efficiency, reduce maintenance costs and enhance building occupant comfort and safety.

While the courses offer instruction in the use of advanced building equipment and controls, they also encourage energy savings through preventive maintenance and better management of

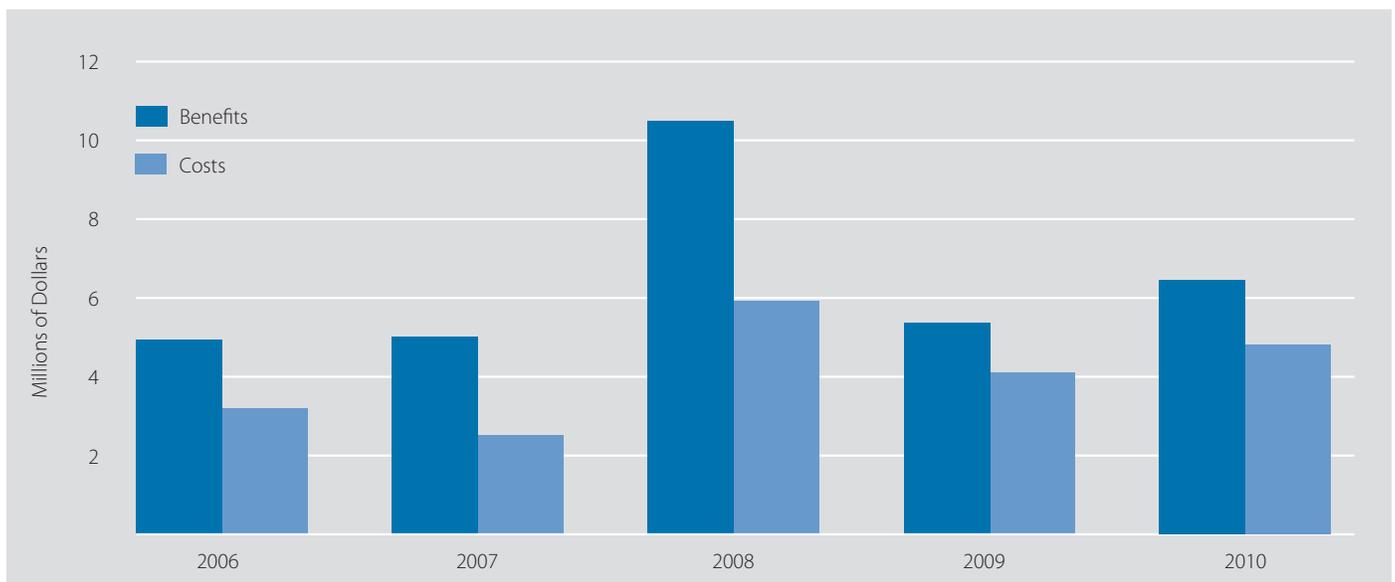
systems and equipment. BOC certification requires demonstrated competence in all of the following areas:

- Evaluating building energy consumption
- Heating, ventilating and air conditioning (HVAC) energy inspection
- Lighting surveys
- Indoor air pollutant sources and pathway locations
- Facility electrical distribution

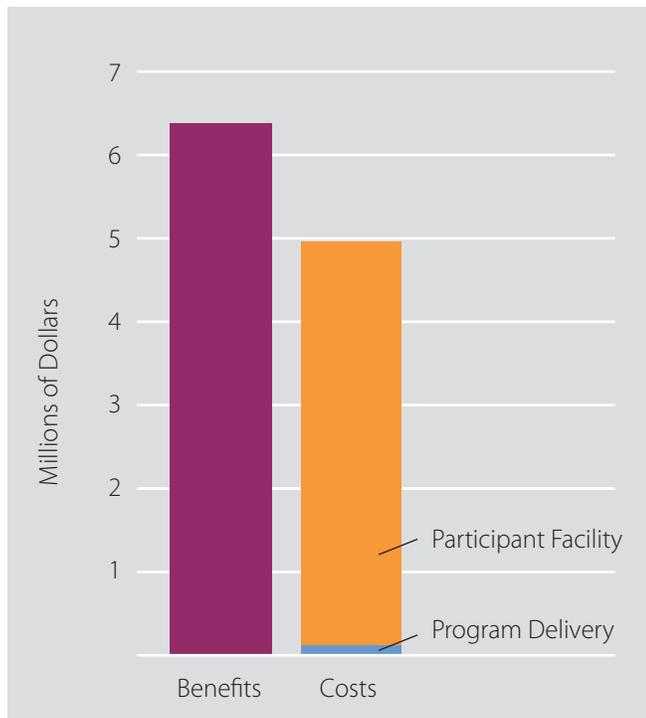
In FY 2010, 17% of BOC attendees were responsible for facility management of K-12 schools. The remaining 83% were from other sectors such as manufacturing, State and town municipalities and health care.

- **Commercial Energy Auditing** (21 participants; Augusta): Teaches students how to conduct a commercial facility energy audit, covering the tools of the trade, lighting and controls and HVAC.
- **Introduction to Solar Thermal** (61 participants; Fairfield, Kennebec Valley Community College): Certifies plumbers, oil burner technicians and HVAC technicians to properly install solar thermal systems.
- **Energy Smart Real Estate Specialist** (1,200 participants; many locations): Encouraged real estate agents to incorporate energy efficiency and performance into their business practices by demonstrating how these factors directly impact the real value of a property. The course provides information and guidelines on a number of energy-smart issues.
- **Pump System Assessment** (113 attendees, three locations): Offered by the Joint Environmental Training Coordinating Committee (JETCC), the seminars cover pump system performance characteristics; performance problems encountered in everyday applications,

*Efficiency Maine BOC Participant Facility Benefits vs. Costs as a Result of Training 2006-2010*



**Efficiency Maine 2010 Building Operator Certification Program  
Benefits vs. Costs**



*Training session in Augusta*



*The Fort Kent "Green Sneakers Team"*

including practical issues involved in field measurement of fluid and electrical data; and the Pump System Assessment Tool (PSAT) software analysis tool used to assess the performance of pump systems.

Efficiency Maine also delivered a variety of trainings and education sessions in partnership with the Maine Indoor Air Quality Council (MIAQC). 2010 initiatives included:

**• Annual Energy Efficiency & IAQ Seminar**

In February, MIAQC trained more than 150 professionals on its draft Protocols for Addressing IAQ in Residential Weatherizations. These draft protocols, initially developed by the MIAQC, are now receiving continued development through the U.S. EPA, and will be available for public review and comment by the end of November, 2010.

**• Annual IAQ Conference & Deep Energy Retrofits & IAQ Seminar**

Efficiency Maine served as a core sponsor of the Council's annual IAQ conference, the largest in northern New England; a two-day event in Augusta featuring a full-day Deep Energy Retrofits program. More than 400 registrants from diverse professional backgrounds attended this event.

**• Residential Construction Trainings**

Efficiency Maine provided ongoing funding for MIAQC's popular Residential Construction Training series of three programs, *Keeping Foundations Warm & Dry*, *The Building Shell* and *Ventilating New & Existing Homes*. Developed in 2004–2006, this series focuses on practical, building-science-based strategies for construction of energy-efficient, healthy homes.

**Efficiency Maine also supported** Maine Partners for Cool Communities (MPCC). In the fall of 2009, MPCC launched a nine-month smart energy outreach and education project, "Cool Frontiers," in six Aroostook and Washington County communities: Fort Kent, Houlton, Presque Isle, Calais, Lubec and Machias. During the course of the project, MPCC engaged municipal officials; civic and community development leaders; faith groups; university presidents, faculty and students; Cooperative Extension staff; and the public in local forums, workshops, films and speakers series, and other activities that promote local and regional energy savings strategies. At the request of the University of Maine at Fort Kent President, Aroostook County participants were linked through telecommunications to MPCC's "Cool Congress," a forum on local energy savings solutions held at the University of Maine-Augusta in October 2009.

As a result of MPCC's outreach efforts, most of the targeted communities in the two counties applied for and received Efficiency Maine municipal grants for energy planning or special projects. In addition, Fort Kent formed an intergenerational "Cool Team" of local volunteers, church members and businessmen. They organized MPCC's Green Sneakers weatherization canvas project in their communities and churches, while conducting two workshops for area homeowners on making interior storm windows.



## Renewable Programs

### The Renewable Resources Fund

#### 2010 Highlights

- Efficiency Maine awarded 11 grants in 2010 (vs. three in 2009) totaling \$477,657

#### Year in Review

Supported by voluntary contributions made by consumers via electric bills and (starting in FY 2010) the "Alternative Compliance Mechanism for Maine's Renewable Portfolio Standard," this fund supports small-scale demonstration projects designed to educate the community on the cost-effectiveness of harnessing natural resources for clean electricity. In FY 2010, Efficiency Maine awarded 11 grants totaling \$477,657, which were matched with \$134,409, for a total investment in renewable energy of \$612,066.

In June of 2010 Efficiency Maine issued a request for proposals (RFP) to be funded by ARRA. Grant awards under these proposals will include feasibility studies for the installation and operation of renewable energy projects.

Efficiency Maine is required by statute to transfer 35% of the Alternative Compliance Mechanism for Maine's Renewable Portfolio Standard to the Maine Technology Institute to support the development and commercialization of renewable energy technologies.

#### Award Recipients

Kennebec Valley Community College, Fairfield  
 Camden Hills Regional High School, Camden  
 Falmouth School District  
 Greely High School, Cumberland  
 Cumberland County  
 Town of Freeport  
 Troy Howard Middle School, Belfast  
 Town of Kennebunkport  
 Thomas College, Waterville  
 University of Maine 4-H Camp and Learning Center, Bryant Pond  
 Marshwood High School, South Berwick

### Solar and Wind Energy Rebate Program



#### 2010 Highlights

- 334 solar thermal systems were installed, a 57% increase over 2009
- 76 solar PV systems were installed, a 250% increase over 2009
- 23 customer-owned micro-wind systems were installed this year, compared to just three in 2009
- Efficiency Maine awarded \$602,960 in rebates, matched by a \$6 million investment by program participants

#### Year in Review

In FY 2010, Efficiency Maine's Solar and Wind Rebate Program was funded by both SBC and ARRA monies to provide rebates for installation of equipment to generate solar or wind power. The \$500,000 of ARRA funds added greatly increased the available resources for solar and wind projects in Maine. In FY 2010, 93 different businesses installed 445 solar and wind systems in Maine, representing \$6 million of private investment.

Solar and Wind Rebate Installations			
System Type	Number of Systems	Total Incentive	Private Investment
Solar Thermal	334	\$376,798	\$3,814,798
Solar P/V	76	\$150,220	\$1,671,481
Solar Hot Air	12	\$10,879	\$73,504
Wind	23	\$65,070	\$462,567
<b>Total</b>	<b>445</b>	<b>\$602,967</b>	<b>\$6,022,350</b>

Advances in the program during FY 2010 include:

- The list of certified solar thermal installers was expanded from 358 to 428, including plumbers; boiler technicians; oil or LP/NG technicians; type II, III or Universal Refrigeration Technicians; architects and engineers.
- The application form was modified to establish performance standards for solar energy systems, and provide a simple payback calculation to inform applicants about performance criteria and performance differences between solar and wind energy systems.

**For comfort and savings,  
let the SUNSHINE in...**

For many sites in Maine, solar energy is a cost-effective way to heat your home and generate electricity.

range of technologies, but

heat and use it for the most common systems, Evacuated Tube Heat to an indoor storage tank. Solar Air Panels, heat air, which is then used for heating.

panels containing

effective source of heat, roof, wall or other exterior exposure. Adding or removing insulation, or oil.

costs by up to 50% or more. For oil, you can save up to 50%!

**...and reach up to  
catch the WIND!**

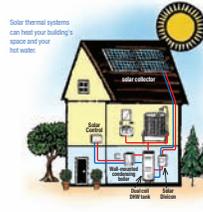
With new incentives and improvements in turbine technology, wind energy can be a cost-effective source of electricity in certain areas. Please note, however, that wind power is generally less cost-effective than solar thermal and may require a longer time to see a return on your investment.

**How does the wind produce energy?**

Just like windmills that have been used for centuries, the blades of a wind turbine are designed to turn whenever wind blows at a minimum speed. The turbine uses this motion to generate electricity, which is delivered to the regular electric system of the home or business.

**Is wind energy suited to my home or business site?**

Because wind turbines must be in a good airstream (generally at least 60 feet from the ground) to be effective, they may not be suitable for urban or small-lot suburban homes. A property of at least one acre is ideal. To be most effective, a turbine location should have an average wind speed of at least 9.8 mph (4.4 meters per second).



**Start saving today**

The first step to saving with renewable energy is to check whether your home or business is a suitable site for solar, wind or both types of energy.

• For solar energy, start by contacting a professional installer from our list at [efficiencymaine.com](http://efficiencymaine.com).

• For wind energy, check the wind speed where you live, available free at [MaineStateWeather.com](http://MaineStateWeather.com) or <http://www.3T.com/Firestorm/>. (Click on "Please login to display free wind speed data"). To find an appropriate vendor try searching the Internet for wind turbines by name then look for the factory dealers.

You may qualify for renewable energy incentives from Efficiency Maine—see the enclosed insert or visit [efficiencymaine.com](http://efficiencymaine.com)—and possible Federal tax incentives. Best of all, once installed, solar and wind systems produce energy virtually for free. And you'll feel good knowing that renewable power sources don't contribute to the pollution of Maine's air or global warming.

**Maine Renewable Energy Incentive Program**

**Let the SUN and wind power your home!**

**Take advantage of solar and wind energy rebates!**

**Right now, Efficiency Maine offers rebates to purchase and install solar and wind energy systems.**

**Solar Energy**

**Residential & Commercial**

Our basic Maine Thermal Rebate is 25% of the project cost, up to a maximum of \$1,500 for residential and \$4,000 for commercial.

**Photovoltaic (PV)**

We offer incentives to a maximum of \$2,000 for residential and \$4,000 for commercial. A professional audit is required on all PV systems.

**Wind Energy**

The Residential Rebate is up to a maximum of \$4,000.

The Commercial Rebate is up to a maximum of \$4,000.

Minimum Requirements Are:

- Minimum Available Wind Speed: Class II (4.4 meters per second, or 9.8 miles per hour). Class III wind speed (5.1 meters per second, or 11.5 miles per hour) is even better.
- Minimum Tower Height at Turbine Hub: 66 feet for Class II wind, 50 feet for Class III wind.
- Tip of blade must be 30' above any structure or tree within 250' radius of tower.

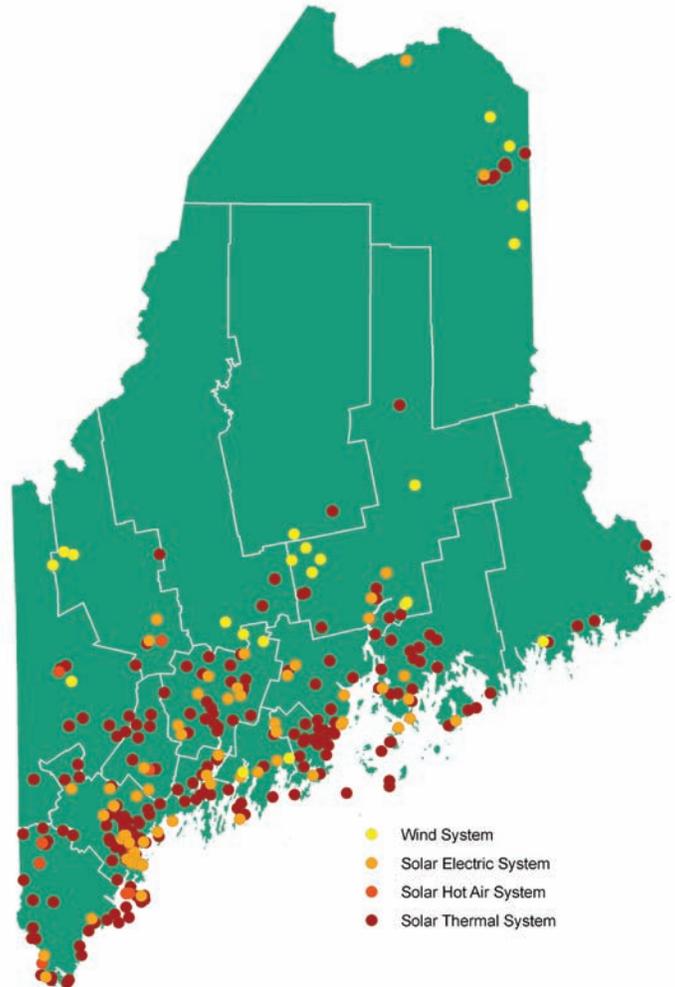
See the back of this card for instructions on applying for Solar and Wind Incentives.

**efficiency MAINE**

Leading the Way to a Brighter Future

*A brochure and insert touting the Solar and Wind Rebate Program and savings*

*2010 Solar and Wind Rebates by Type*





## Looking Ahead

### Setting the Stage for the Future in FY 2010: The Efficiency Maine Trust

Throughout the U.S. there is growing recognition that economic success in the future will require using energy far more efficiently.

With more than 85% of Maine's energy coming from imported fuels, reducing waste and improving our energy efficiency can offer tremendous benefits: reduced capital outflows and increased in-state jobs; and a more competitive economy built to take advantage of new markets and opportunities.

Maine took a major step forward in 2009 by establishing a new structure to guide energy-efficiency programs in the State, the Efficiency Maine Trust (the Trust). Its board of trustees comprises representatives of industry, business and residential consumers and experts in energy issues. The Trust is charged with three main objectives:

1. To administer cost-effective energy-efficiency programs to help individuals and businesses meet their energy needs at the lowest cost;
2. To integrate delivery of electric and thermal efficiency measures so the customer can have a one-stop shopping experience; and
3. To consolidate Maine's consumer efficiency programs and alternative energy programs under one roof.

The Trust will administer programs to advance a suite of legislative targets, including:

- Capturing all cost-effective energy-efficiency resources available for electric and natural gas utility ratepayers
- Achieving electricity and natural gas savings of at least 30% by 2020
- Achieving heating fuel savings of at least 20% by 2020
- Weatherizing substantially all residences and 50% of businesses by 2030
- Reducing peak-load electric energy consumption by 100 megawatts by 2020

### Triennial Plan: Economic Benefits for the State of Maine

In implementing the programs of Efficiency Maine, the Trust is guided by its three-year strategic plan, called the Triennial Plan, which covers the fiscal years 2011–2013 from July 1, 2010 to June 30, 2013. Details of the Triennial Plan are online at [http://www.efficiencymaine.com/docs/other/EMT\\_Final\\_Tri\\_Plan.pdf](http://www.efficiencymaine.com/docs/other/EMT_Final_Tri_Plan.pdf).

The Triennial Plan is projected to deliver significant financial benefits to the Maine economy:

- Savings of more than 3.3 trillion BTUs of energy annually by the third year
- Nearly \$840 million in energy savings to consumers and a \$1 billion increase in Maine's Gross State Product, net present value
- A benefit-to-cost ratio of 4:1 or better for dollars invested by the Trust
- A 2.3:1 benefit-to-cost ratio for all investments, including consumer spending (i.e., using the "Total Resource Cost" cost-effectiveness test)
- Job creation of more than 12,000 net "person-years" of employment over the life of the energy-efficiency measures (A person-year of employment is one full-time job for one person for one full year.)
- A reduction of nearly 300,000 tons of CO<sub>2</sub> emissions annually by the third year, the equivalent of removing 52,000 cars from circulation
- The leveraging of up to \$281 million in private funds at a three-year program cost of \$192 million

### Guiding Principles

The plan embodies five guiding principles:

1. *Affordability*
2. *Comprehensiveness*
3. *Balance*
4. *Flexibility*
5. *Providing a Platform for Future Efforts*

These principles will help ensure that the plan receives widespread acceptance, builds on the strength of existing programs and paves the way for even greater energy savings in the future.

## Programs for 2011

The Triennial Plan's programs for FY 2011 remain essentially unchanged from FY 2010. This gives customers and suppliers the benefits of continuity during the transition of program administration from the Maine PUC to the Trust.

### A. Business Strategies

#### 1. Prescriptive Incentives Program

For business customers of all sizes, Efficiency Maine will continue to offer incentives on a wide variety of energy equipment. A prescriptive approach relies on a predetermined level on a fixed menu of products, including hundreds of models of high-efficiency lighting, HVAC, motors and drives. In the year ahead, the program will expand beyond strictly electric products to cover efficient equipment that uses #2 distillate oil or other heating fuels.

#### 2. Medium and Large Business Program

Customers in this category consume nearly half the energy in the State while representing only 2% of the customer base. In the year ahead, these larger customers can continue to submit "Custom" designed efficiency proposals for review and approval by Efficiency Maine, in addition to Prescriptive applications, to receive up to \$300,000 in incentives.

Also this year, Efficiency Maine will introduce proactive management of larger customer accounts, providing hands-on engineering and technical assistance, and updates about new technologies, to develop projects customized to the facility. This year the program will increase promotion of technical assistance and incentives for new construction.

#### 3. Small Business Program

A new feature in FY 2011 will make it easier for smaller businesses (under 25 kW in peak demand) to retire inefficient equipment and replace it with new, high-efficiency alternatives. Using a "direct install" approach, Efficiency Maine will offer a combination of financial incentives and technical support to overcome the challenge smaller businesses face with a lack of time, expertise and funds to evaluate and purchase new technology options.

Access to the incentive program, 1% loans and subsidized energy audits will continue to be offered.

### B. Residential Strategies

#### 1. Home Energy Savings Program

Efficiency Maine will continue its groundbreaking program to help save both heating and electric energy in the homes of Maine. The program is on a path to its target of 2,000 comprehensive home energy upgrades per year.

The federal ARRA funds allocated to this program are projected to run out by the end of FY 2011, so future funding of the customer rebates that have helped drive the program will be contingent upon decisions at the Maine legislature.

#### 2. Lighting, Appliances and Electronics

This program will continue to be a central focus of Efficiency Maine for the year ahead. The program will intensify marketing and expand partnerships with businesses in the supply chain. A major promotion of CFLs will help us reach a target significantly increased from last year.

Staff will closely monitor rapidly evolving LED technology to determine appropriate integration of LEDs into the program's offerings.

#### 3. Efficient Heating Systems

Increased federal ARRA funds will be deployed to promote and offer customer rebates on high-efficiency heating system equipment. While a portion of the rebates will target customers who are replacing equipment that has reached the end of its life, the program will also introduce low-cost measures, such as programmable thermostats and pipe wrap insulation, that can benefit a broader universe of customers.

#### 4. Refrigerator Recycling

In a new program offering, Efficiency Maine will provide a financial incentive to customers who wish to remove and recycle old refrigerators that are operable but inefficient, which typically consume 1,500 to 2,000 kWh per year, vs. only 500 kWh per year for new efficient units. A turnkey removal service will be under contract to Efficiency Maine for implementation of the program.

#### 5. New Construction

Efficiency Maine will take the first steps to initiate a pilot project that will help customers build new homes to high-efficiency standards. At this early planning stage, program activities include working with the national ENERGY STAR program, Maine's homebuilders and realtors, and trade associations to design the pilot program for implementation in FY 2012.

## Looking Ahead (continued)

### 6. Wind and Solar Energy

The existing program to promote small, customer-owned solar or wind energy systems will continue. Because the provisions that authorized funding for this section were repealed by the legislature in 2009, the program will stop when the existing funds are exhausted. Continuation of the program beyond that point is contingent upon legislative action to extend the authorization, or the identification of other revenue streams.

### 7. Low-income Programs

Programs will continue to serve eligible low-income households, including the initiatives to install CFLs and high-efficiency refrigerators and freezers, which are funded by Efficiency Maine and operated by MaineHousing.

## C. Enabling Strategies

The Enabling Strategies comprise a variety of programs that include raising public awareness, training and facilitating customers' financing options.

A new feature of this strategy will be the Innovation Initiative, which will offer funds to promote pilot projects to test cost-effective energy technologies and program designs.

Efficiency Maine will also offer new options for financing, such as the Home Energy Savings Loan Fund, which uses a federal ARRA grant to help homeowners borrow for the cost of a home energy upgrade that is not covered by HESP rebates.

Similarly, the program will introduce a new option for businesses to finance efficient electrical equipment through a mechanism using their existing utility bill, called "on-bill" financing.

## Projected Uses and Revenues

Tables below show the projected uses and revenues for FY 2011:

Projected Use of Funds FY '11	
Program	Totals
<b>Residential Programs</b>	
Low Income Electric	\$2,615,168
Residential <sup>1</sup>	\$23,729,159
<b>Business Programs</b>	
Medium & Large Businesses	\$14,601,803
Small Businesses	\$7,455,378
Prescriptive	\$5,433,144
Enabling Strategies	\$8,577,630
Administration/Other	\$2,838,430
<b>Grand Totals</b>	<b>\$65,250,712</b>

<sup>1</sup> Includes \$13.6 million for revolving loan fund

Recurring Revenues	
Source	Amount
Electric SBC <sup>1</sup>	\$13,315,334
Forward Capacity Market	\$1,216,378
RGGI	\$8,000,000
Solar and Wind Charge <sup>2</sup>	\$375,000
Renewable Resources	\$350,000
Natural Gas Fund	\$510,000
<b>Subtotal Recurring Funds</b>	<b>\$23,766,712</b>

<sup>1</sup> Amount projected by MPUC for FY 2009-2010 State biennial budget.  
<sup>2</sup> Repealed effective 12/31/2010

One-time Revenues from Federal Sources	
Source	Amount
State Energy Program	\$176,000
<b>American Recovery and Reinvestment Act (ARRA)</b>	
ARRA - BetterBuildings	\$13,617,300
ARRA - SEP	\$18,922,900
ARRA - EECBG	\$7,504,800
ARRA - Appliance Rebate	\$1,263,000
<b>Subtotal Federal Funds</b>	<b>\$41,484,000</b>

## Appendix A: Business Programs (Includes SBC and RGGI funding, not ARRA funding)

Table A1: Business Programs: FY '10 Participation by Small and Large Businesses								
Program Type	No. of Participants <sup>1</sup>	No. of Projects	Savings at Customer Level		Savings at Generation Level		Incentive Amount	Percent of Incentive by Type
			MWh Savings	MW Savings	MWh Savings	MW Savings		
Small Business (≤50 Employees)	765	972	10,760	2.66	12,030	2.98	\$1,612,866	33%
Large Business (>50 Employees)	264	684	20,289	5.50	22,683	6.15	\$3,323,773	67%
<b>Total</b>	<b>1,029</b>	<b>1,656</b>	<b>31,050</b>	<b>8.17</b>	<b>34,714</b>	<b>9.13</b>	<b>\$4,936,639</b>	<b>100%</b>

<sup>1</sup> Number of participants differs from number of projects because one participant can have more than one project in each fiscal year. For example, a business may have four projects counted in one fiscal year, but would only be counted once on the participant level.

Table A2: Business Programs: FY '10 Savings by Business Type								
Business Type	No. of Projects	Savings at Customer Level		Savings at Generation Level		Incentive Amount	Total Participant Investment <sup>1</sup>	Percent of MWh Savings by Business Type
		MWh Savings	MW Savings	MWh Savings	MW Savings			
Business	1222	23,707	6.2306	26,504	6.97	\$3,610,977	\$8,735,276	76%
Government	259	4,927	1.37362	5,508	1.54	\$865,444	\$2,412,744	16%
Nonprofit Organization	175	2,416	0.5642	2,701	0.63	\$460,218	\$1,155,369	8%
<b>Total</b>	<b>1656</b>	<b>31,050</b>	<b>8.17</b>	<b>34,714</b>	<b>9.13</b>	<b>\$4,936,639</b>	<b>\$12,303,389</b>	<b>100.00%</b>

<sup>1</sup> Participant investment includes full costs on retrofit and incremental costs on new construction/replace on burnout.

**Table A3: Business Programs: FY '10 Savings by Facility Type**

Business Type	No. of Projects	Savings at Customer Level		Savings at Generation Level		Incentive Amount	Total Participant Investment <sup>1</sup>	Percent of MWh Savings by Business Type
		MWh Savings	MW Savings	MWh Savings	MW Savings			
Agriculture	53	491	0.12	549	0.13	\$56,481	\$127,962	1.58%
College	38	941	0.23	1,052	0.26	\$125,950	\$308,720	3.03%
Convenience Store	45	200	0.03	223	0.04	\$33,015	\$83,054	0.64%
Elementary/ Secondary School	150	2,519	0.89	2,816	0.99	\$471,253	\$1,232,471	8.11%
Grocery Store	41	992	0.15	1,109	0.17	\$318,720	\$541,656	3.19%
Health	57	553	0.17	618	0.19	\$90,882	\$227,176	1.78%
Hospital	30	907	0.17	1,014	0.19	\$242,561	\$598,155	2.92%
Lodging	23	876	0.06	979	0.07	\$37,360	\$115,412	2.82%
Manufacturing	151	5,831	1.13	6,519	1.26	\$909,431	\$2,236,734	18.78%
Office	282	3,545	0.92	3,963	1.03	\$610,127	\$1,551,298	11.42%
Restaurant	38	271	0.05	303	0.06	\$34,705	\$91,478	0.87%
Retail	267	3,891	0.82	4,350	0.91	\$450,260	\$1,039,045	12.53%
Warehouse	150	4,717	1.12	5,273	1.26	\$514,542	\$1,476,984	15.19%
Other	331	5,318	2.31	5,946	2.58	\$1,041,351	\$2,673,247	17.13%
<b>Total</b>	<b>1,656</b>	<b>31,050</b>	<b>8.17</b>	<b>34,714</b>	<b>9.13</b>	<b>\$4,936,639</b>	<b>\$12,303,389</b>	<b>100.00%</b>

<sup>1</sup> Participant investment includes full costs on retrofit and incremental costs on new construction/replace on burnout.

**Table A4: Business Programs: FY '10 Benefits and Costs by County**

County	Savings at Generation Level	Total Lifetime Economic Benefits	Total Participant Incentives	Total Participant Investment <sup>1</sup>	Percent of MWh Savings by County	Percent of Businesses by County <sup>2</sup>	Percent of Population by County <sup>3</sup>
	MWh Savings						
Androscoggin	4,419	\$5,585,919	\$794,541	\$1,857,749	16%	7%	8%
Aroostook	2,800	\$3,539,736	\$334,321	\$872,050	7%	5%	5%
Cumberland	9,727	\$12,295,950	\$1,342,942	\$3,504,162	27%	27%	21%
Franklin	967	\$1,222,661	\$44,265	\$167,604	1%	2%	2%
Hancock	840	\$1,062,447	\$60,035	\$167,594	1%	5%	4%
Kennebec	2,181	\$2,757,234	\$371,247	\$740,079	8%	8%	9%
Knox	666	\$842,380	\$85,656	\$228,252	2%	4%	3%
Lincoln	379	\$479,267	\$48,756	\$134,289	1%	4%	3%
Oxford	985	\$1,245,646	\$76,091	\$225,213	2%	3%	4%
Penobscot	3,459	\$4,372,997	\$534,419	\$1,382,196	11%	10%	11%
Piscataquis	429	\$541,886	\$79,107	\$180,143	2%	1%	1%
Sagadahoc	218	\$276,212	\$36,285	\$78,329	1%	2%	3%
Somerset	647	\$818,324	\$109,392	\$307,611	2%	3%	4%
Waldo	1,425	\$1,801,738	\$258,321	\$538,085	5%	2%	3%
Washington	266	\$335,640	\$39,695	\$116,099	1%	2%	2%
York	5,304	\$6,704,825	\$721,566	\$1,803,935	15%	14%	15%
<b>Total</b>	<b>34,714</b>	<b>\$43,882,863</b>	<b>\$4,936,639</b>	<b>\$12,303,389</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Notes:**

<sup>1</sup> Participant investment includes full costs on retrofit and incremental costs on new construction/replace on burnout.

<sup>2</sup> County Business Patterns: Maine 2008. U.S. Census Bureau

<sup>3</sup> Annual Estimates of the Population for Counties of Maine, 2009. Population Division, U.S. Census Bureau

**Table A5: Business Programs: Financial Report**

Incentive Costs	Prior Year (FY '09)	Current Year (FY '10)
Incentives to Participants	\$4,872,766	\$4,936,639
Incentives to Qualified Partners	\$0	\$0
<b>Subtotal Incentives</b>	<b>\$4,872,766</b>	<b>\$4,936,639</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$2,884,804	\$3,881,223
Marketing	\$341,431	\$670,306
<b>Subtotal Program Delivery Costs</b>	<b>\$3,226,235</b>	<b>\$4,551,529</b>
<b>Administrative and Management Costs</b>	<b>\$161,678</b>	<b>\$201,983</b>
<b>Evaluation Costs</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Efficiency Maine Investment*</b>	<b>\$8,260,680</b>	<b>\$9,690,151</b>
<b>Annualized MWh Savings</b>	<b>31,085</b>	<b>31,050</b>
<b>Lifetime MWh Savings</b>	<b>447,879</b>	<b>413,513</b>
<b>Total Lifetime Economic Benefits</b>	<b>\$49,004,495</b>	<b>\$43,882,863</b>
<b>Business Program Benefit-to-Cost Ratio</b>	<b>2.91</b>	<b>2.57</b>

\* Proceeds from RGGI accounted for 50.1% of Efficiency Maine funding for this program.

**Table A6: Business Programs – High Performance Schools: Financial Report**

Incentive Costs	Prior Year (FY '09)	Current Year (FY '10)
Incentives to Participants	\$427,483	\$496,122
Incentives to Qualified Partners	\$0	\$0
<b>Subtotal Incentives</b>	<b>\$427,483</b>	<b>\$496,122</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$25,658	\$88,528
Marketing	\$2,598	\$0
<b>Subtotal Program Delivery Costs</b>	<b>\$28,256</b>	<b>\$88,528</b>
<b>Administrative and Management Costs</b>	<b>\$80,434</b>	<b>\$19,406</b>
<b>Evaluation Costs</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Efficiency Maine Investment</b>	<b>\$536,172.72</b>	<b>\$604,056</b>
<b>Annualized MWh Savings</b>	<b>423</b>	<b>478</b>
<b>Lifetime MWh Savings</b>	<b>5,812</b>	<b>11,291</b>
<b>Total Lifetime Economic Benefits</b>	<b>\$1,089,236</b>	<b>\$1,667,263</b>
<b>HPS Program Benefit-to-Cost Ratio</b>	<b>1.25</b>	<b>1.05</b>

## Appendix B: Residential Programs (Includes SBC and RGGI funding, not ARRA funding)

**Table B1: Residential Lighting Program – FY '10 Benefits and Costs by County**

Geographic Savings	Population by County <sup>1</sup>	Total Lighting Products	Savings at Customer Level	Savings at Generation Level	Total Lifetime Economic Benefits	Total Participant Incentives	Total Participant Investment
			Total MWh Savings	Total MWh Savings			
Androscoggin	106,539	98,531	3,935	4,356	\$3,130,402	\$66,842	\$417,355
Aroostook	71,488	38,716	1,656	1,833	\$1,316,933	\$25,803	\$167,952
Cumberland	278,559	260,419	10,768	11,920	\$8,565,046	\$171,395	\$1,114,412
Franklin	29,735	25,923	1,112	1,231	\$884,214	\$17,442	\$112,379
Hancock	53,447	46,756	1,937	2,145	\$1,540,979	\$28,687	\$203,798
Kennebec	121,090	130,609	5,280	5,844	\$4,199,567	\$83,980	\$558,338
Knox	40,801	36,573	1,505	1,666	\$1,197,152	\$23,693	\$158,413
Lincoln	34,576	13,774	593	657	\$471,763	\$7,505	\$61,272
Oxford	56,244	28,126	1,189	1,316	\$945,882	\$19,043	\$121,579
Penobscot	149,419	163,617	6,749	7,471	\$5,368,202	\$111,782	\$696,177
Piscataquis	16,795	2,913	135	150	\$107,776	\$1,810	\$12,996
Sagadahoc	36,391	30,250	1,190	1,317	\$946,267	\$18,478	\$130,033
Somerset	50,947	28,178	1,216	1,346	\$967,066	\$19,082	\$122,900
Waldo	38,287	2,720	119	132	\$94,963	\$1,636	\$12,011
Washington	32,107	15,164	643	712	\$511,778	\$10,098	\$65,717
York	201,876	75,958	3,070	3,399	\$2,442,319	\$49,222	\$325,486
Unknown <sup>2</sup>	0	76,960	3,464	3,834	\$2,755,201	\$73,304	\$310,055
<b>Total</b>	<b>1,318,301</b>	<b>1,075,187</b>	<b>44,561</b>	<b>49,329</b>	<b>\$35,445,509</b>	<b>\$729,799</b>	<b>\$4,590,872</b>

<sup>1</sup> Annual Estimates of the Population for Counties of Maine, 2009. Population Division, U.S. Census Bureau

<sup>2</sup> Consists of bulbs distributed through special promotions, giveaways and/or an online retail store that cannot be attributed to one specific county

**Table B2: Residential Lighting Program – Annual Growth in Program Allies**

Program Ally Types	FY '02	FY '03	FY '04	FY '05	FY '06	FY '07	FY '08	FY '09	FY '10	Program to Date
Department	2	0	0	25	0	18	0	-10	0	35
DIY	8	2	2	2	1	2	0	-6	1	12
Grocery		0	0	54	1	4	2	73	7	141
Hardware (Independent)	96	13	0	18	1	-11	6	-3	4	124
Hardware (Chain)	27	9	5	18	1	-18	3	-2	-1	42
Showroom	5	2	1	0	0	-2	2	2	0	10
Wholesale	0	0	0	0	1	4	0	-3	5	7
Other	0	0	0	7	1	-1	0	14	11	32
<b>Cumulative Total:</b>	<b>138</b>	<b>164</b>	<b>172</b>	<b>296</b>	<b>302</b>	<b>298</b>	<b>311</b>	<b>376</b>	<b>403</b>	

**Table B3: Residential Lighting Program – Products Rebated<sup>1</sup>**

Measure	FY '04	FY '05	FY '06	FY '07	FY '08	FY '09	FY '10
CFL Bulbs	68,767	107,151	636,704	788,125	1,089,227	705,091	1,075,187
Ceiling Fans	169	118	107	59	0	2,213	0
External Fixtures	1,459	1,636	2,299	1,876	1,570	523	0
Internal Fixtures	4,403	4,259	6,260	6,840	6,512	2,440	0
Table/Floor Lamps	8	78	5	145	1,269	4,745	0
Torchieres	881	208	130	98	50	55	0
LED Holiday Lights	-	-	-	7,689	12,286	6	0
<b>Total</b>	<b>75,687</b>	<b>113,450</b>	<b>645,505</b>	<b>804,832</b>	<b>1,110,914</b>	<b>715,073</b>	<b>1,075,187</b>

<sup>1</sup> Does not include special promotions/giveaways

**Table B4: Residential Lighting Program – Financial Report**

Incentive Costs	Prior Year (FY '09)	Current year (FY '10)
Incentives to Participants	\$583,120	\$729,799
Incentives to Trade Allies	\$0	\$0
<b>Subtotal Incentives</b>	<b>\$583,120</b>	<b>\$729,799</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$595,010	\$574,668
Marketing	\$618,057	\$844,203
<b>Subtotal Program Delivery Costs</b>	<b>\$1,213,067</b>	<b>\$1,418,871</b>
<b>Administrative and Management Costs</b>	<b>\$123,380</b>	<b>\$199,739</b>
<b>Evaluation Costs</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Efficiency Maine Investment*</b>	<b>\$1,919,567</b>	<b>\$2,348,409</b>
<b>Annualized MWh Savings</b>	<b>30,609</b>	<b>44,561</b>
<b>Lifetime MWh Savings</b>	<b>208,140</b>	<b>303,012</b>
<b>Total Lifetime Economic Benefits</b>	<b>\$23,295,324</b>	<b>\$35,445,509</b>
<b>Residential Program Benefit-to-Cost Ratio</b>	<b>5.29</b>	<b>5.71</b>

\* Proceeds from RGGI accounted for 55.8% of Efficiency Maine funding for this program.

**Table B5: Residential Programs – Low-Income: FY '10 Benefits by County**

County	Appliance Replacement Program			Savings at Customer Level			Savings at Generation Level			Total Lifetime Economic Benefits
	Community Action Agency	Qty Refrigerators	Qty CFLs	RF MWh Savings	CFL MWh Savings	Total MWh Savings	RF MWh Savings	CFL MWh Savings	Total MWh Savings	
Androscoggin	ACAP	30	1,946	31	97	128	34	109	143	\$86,460
Cumberland	CCI	331	1,902	491	61	551	549	68	616	\$372,347
Franklin	CCI	331	1,902	491	61	551	549	68	616	\$372,347
Knox	KVCAP	166	1,116	214	58	272	239	65	304	\$183,497
Lincoln	KVCAP	37	176	35	11	46	39	12	51	\$30,846
Oxford	PCAP	94	227	104	15	119	117	17	133	\$80,508
Penobscot	PCAP	94	227	104	15	119	117	17	133	\$80,508
Sagadahoc	WCAP	28	145	30	7	37	34	7	41	\$25,011
Somerset	WHCA	211	2,168	262	137	400	293	154	447	\$269,937
Waldo	WHCA	211	2,168	262	137	400	293	154	447	\$269,937
Washington	WMCA	34	152	34	9	44	38	11	49	\$29,502
<b>Total</b>		<b>1,566</b>	<b>12,128</b>	<b>2,058</b>	<b>608</b>	<b>2,666</b>	<b>2,301</b>	<b>680</b>	<b>2,981</b>	<b>\$1,800,899</b>

**Table B6: Residential Programs – Low-Income: Financial Report**

Incentive Costs	Prior Year (FY '09)	Current Year (FY '10)
Incentives to Participants	\$2,410,902	\$841,120
Incentives to Trade Allies	\$0	\$0
<b>Subtotal Incentives</b>	<b>\$2,410,902</b>	<b>\$841,120</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$0	\$120,100
Marketing	\$10,412	\$0
<b>Subtotal Program Delivery Costs</b>	<b>\$10,412</b>	<b>\$120,100</b>
<b>Administrative and Management Costs</b>	<b>\$120,851</b>	<b>\$39,596</b>
<b>Evaluation Costs</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Efficiency Maine Investment</b>	<b>\$2,542,165</b>	<b>\$1,000,816</b>
<b>Annualized MWh Savings</b>	<b>3,911</b>	<b>2,981</b>
<b>Lifetime MWh Savings</b>	<b>22,890</b>	<b>17,558</b>
<b>Total Lifetime Economic Benefits</b>	<b>\$2,535,595</b>	<b>\$1,800,899</b>
<b>Low-Income Program Benefit-to-Cost Ratio</b>	<b>1.00</b>	<b>1.80</b>

**Table B7: Residential Lighting Program – Appliance Rebate Program**

Incentive Costs	Prior Year (FY '09)	Current Year (FY '10)
Incentives to Participants	N/A	\$1,346,064
Incentives to Trade Allies	N/A	\$0
<b>Subtotal Incentives</b>	N/A	\$1,346,064
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	N/A	\$327,616
Marketing	N/A	\$30,379
<b>Subtotal Program Delivery Costs</b>	N/A	\$357,994
<b>Administrative and Management Costs</b>	N/A	\$43,946
<b>Evaluation Costs</b>	N/A	\$0
<b>Total Efficiency Maine Investment</b>	N/A	\$1,748,004
<b>Annualized MWh Savings</b>	N/A	4,115
<b>Lifetime MWh Savings</b>	N/A	46,517
<b>Total Lifetime Economic Benefits</b>	N/A	\$6,527,116
<b>Residential Program Benefit-to-Cost Ratio</b>	N/A	1.76

## Appendix C: Education and Training Programs (Includes SBC funding only)

**Table C1: Education and Training Programs: Financial Report**

Incentive Costs	Prior Year (FY '09)	Current Year (FY '10)
Incentives to Participants	N/A	N/A
Incentives to Trade Allies	N/A	N/A
<b>Subtotal Incentives</b>	\$0	\$0
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$305,620	\$267,032
Marketing	\$69,162	\$141,034
<b>Subtotal Program Delivery Costs</b>	\$374,782	\$408,066
<b>Administrative and Management Costs</b>	\$76,340	\$102,924
<b>Evaluation Costs</b>	\$0	N/A
<b>Total Efficiency Maine Investment</b>	\$451,122	\$510,990
<b>Annualized MWh Savings</b>	N/A	N/A
<b>Lifetime MWh Savings</b>	N/A	N/A
<b>Total Lifetime Economic Benefits</b>	N/A	N/A
<b>Education and Training Program Benefit-to-Cost Ratio</b>	N/A	N/A

**Table C2: Education and Training Programs – Building Operator Certification: FY '10 Benefits and Costs by County**

County	Total Participants	Savings at Customer Level	Savings at Generation Level	Total Participant Investment	Total Lifetime Economic Benefits
		Total MWh Savings	Total MWh Savings		
Androscoggin	6	956	1,068	\$465,475	\$626,664
Aroostook	2	271	303	\$134,147	\$177,530
Cumberland	15	2,425	2,711	\$1,179,446	\$1,590,179
Hancock	6	1,027	1,149	\$496,992	\$673,701
Kennebec	12	1,840	2,057	\$899,433	\$1,206,292
Knox	1	171	191	\$82,832	\$112,284
Lincoln	1	171	191	\$82,832	\$112,284
Penobscot	8	1,370	1,531	\$662,656	\$898,268
Sagadahoc	3	370	414	\$185,462	\$242,777
Somerset	1	171	191	\$82,832	\$112,284
York	4	613	686	\$299,811	\$402,097
Washington	1	100	111	\$51,315	\$65,247
Waldo	1	171	191	\$82,832	\$112,284
Oxford	1	171	191	\$82,832	\$112,284
<b>Total</b>	<b>62</b>	<b>9,827</b>	<b>10,493</b>	<b>4,788,897</b>	<b>\$6,444,173</b>

**Table C3: Education and Training Programs – Building Operator Certification: Financial Report**

	Prior Year (FY '09)	Current Year (FY '10)
<b>Number of Classes</b>	<b>3</b>	<b>4</b>
<b>Number of Participants</b>	<b>53</b>	<b>62</b>
<b>Incentive Costs</b>		
Incentives to Participants	\$0	\$0
Incentives to Trade Allies	\$0	\$0
<b>Subtotal Incentives</b>	<b>\$0</b>	<b>\$0</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$62,597	\$65,400
Marketing	\$0	\$0
<b>Subtotal Program Delivery Costs</b>	<b>\$62,597</b>	<b>\$65,400</b>
<b>Administrative and Management Investment</b>	<b>\$27,573</b>	<b>\$19,938</b>
<b>Evaluation Costs</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Efficiency Maine Costs</b>	<b>\$90,171</b>	<b>\$85,338</b>
<b>Annualized MWh Savings</b>	<b>8,115</b>	<b>9,827</b>
<b>Lifetime MWh Savings</b>	<b>41,072</b>	<b>49,136</b>
<b>Total Lifetime Economic Benefits</b>	<b>\$5,332,935</b>	<b>\$6,444,173</b>
<b>BOC Program Benefit-to-Cost Ratio</b>	<b>1.30</b>	<b>1.32</b>

## Appendix D: Emission Reductions

**Table D1: Efficiency Maine Lifetime Emission Reductions (Metric Tons)**

Emission	FY '04	FY '05	FY '06	FY '07	FY '08	FY '09	FY '10	TOTAL
CO <sub>2</sub>	90,053	162,659	320,849	497,491	559,072	338,106	391,788	2,360,018
SO <sub>2</sub>	56	101	200	829	932	516	598	3,232
NOx	21	38	75	426	479	201	233	1,473

**Source:** Emission estimates per MWh prior to 2007 are based on Maine-specific marginal emission rates reported in the "2004 New England Marginal Emission Rate Analysis." ISO New England, Inc. May, 2006. Table 5.7-5.9, Page 16. Estimates for 2007 and 2008 are from the Avoided Energy Supply Costs: 2007 Final Report August 10, 2007 Synapse Energy Economics. Estimates for 2009 are from the Avoided Energy Supply Costs: 2009 Final Report August 21, 2009.

## Appendix E: Utility Conservation Fund Assessments for Efficiency Maine

**Table E1: Utility Assessments for Efficiency Maine (Actual and Projected)\***

Utility	FY '06 (Actual)	FY '07 (Actual)	FY '08 (Actual)	FY '09 (Actual)	FY '10 (Actual)	FY '11 (Projected)
Central Maine Power Co.	\$7,339,093	\$6,290,032	\$11,869,583	\$9,542,836	\$9,562,874	\$10,473,069
Bangor Hydro-Electric Co.	\$1,508,735	\$1,288,409	\$1,503,206	\$2,033,698	\$1,972,050	\$1,898,094
Maine Public Service Co.	\$431,840	\$517,664	\$574,007	\$460,394	\$424,001	\$458,287
Kennebunk Light & Power Co.	\$110,891	\$131,624	\$126,114	\$144,237	\$136,281	\$141,536
Eastern Maine Electric Coop	\$89,926	\$108,796	\$127,688	\$132,858	\$129,214	\$128,870
Houlton Water Co.	\$55,654	\$136,995	\$154,768	\$95,805	\$92,673	\$82,764
Van Buren Light & Power Co.	\$12,782	\$10,866	\$22,847	\$19,830	\$19,485	\$19,490
Fox Island Electric Coop	\$10,107	\$5,446	\$11,135	\$13,352	\$13,129	\$13,218
Swans Island Coop	\$2,125	\$1,467	\$2,601	\$3,075	\$3,016	\$3,042
Madison Electric Works	\$5,960	\$8,213	\$15,636	\$45,617	\$38,887	\$37,096
<b>Total</b>	<b>\$9,567,113</b>	<b>\$8,499,512</b>	<b>\$14,407,585</b>	<b>\$12,491,702</b>	<b>\$12,391,610</b>	<b>\$13,255,466</b>

\* Total for FY 2011: Updated numbers prepared by MPUC based on actual YTD sales numbers during calendar year 2010.

## Notes



*Leading the Way to a Brighter Future*

**[efficiencymaine.com](http://efficiencymaine.com)**

**866-376-2463**

Efficiency Maine is a statewide effort to promote the more efficient use of electricity,  
help Maine residents and businesses reduce energy costs and save money.

Printed in Maine on recycled paper. 