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# Efficiency Maine

2008 Annual Report



Business Program • Residential Program • Low-Income Programs • Education and Training Programs • Related Programs




*Leading the Way to a Brighter Future*

A program of the Maine Public Utilities Commission

[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 improve Maine's environment. Efficiency Maine is funded by electricity consumers and administered by the Maine Public Utilities Commission.

Printed in Maine on recycled paper. 



*Leading the Way to a Brighter Future*

A program of the Maine Public Utilities Commission

The Maine Public Utilities Commission (MPUC) is pleased to present this 2008 Efficiency Maine Annual Report for the Fiscal Year (FY) time period from July 1, 2007, to June 30, 2008.

Efficiency Maine was established in 2002. Efficiency Maine is a statewide effort to promote the more efficient use of electricity, help Maine residents and businesses reduce energy costs, and improve Maine's environment. Efficiency Maine is funded by electricity consumers and administered by the MPUC. As detailed in 35-A M.R.S.A. §3211-A, Efficiency Maine's five primary objectives are to:

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

This annual report presents the highlights of Efficiency Maine's 2008 programs as well as projections for FY 2009 and beyond. For more information and to see our Program Evaluations, please go to [efficiencymaine.com](http://efficiencymaine.com).



## Efficiency Maine 2008 Annual Report

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## Overview of 2008: A Year of Challenge and Progress

### Energy Efficiency is on Everyone's Mind

Volatile fuel prices made 2008 a turbulent year for Maine energy consumers. But the year also presented new opportunities for Efficiency Maine to help residents and businesses make smart decisions about electricity consumption. A growing number of Mainers became concerned about how they would power their homes, while Maine businesses felt the combined pinch of rising energy prices and a slowing economy. These factors made energy efficiency a front-page story. In unprecedented numbers, Mainers sought information and assistance in implementing efficiency measures to make their energy dollars go further, and Efficiency Maine delivered the highest level of electricity savings since its inception in 2002.

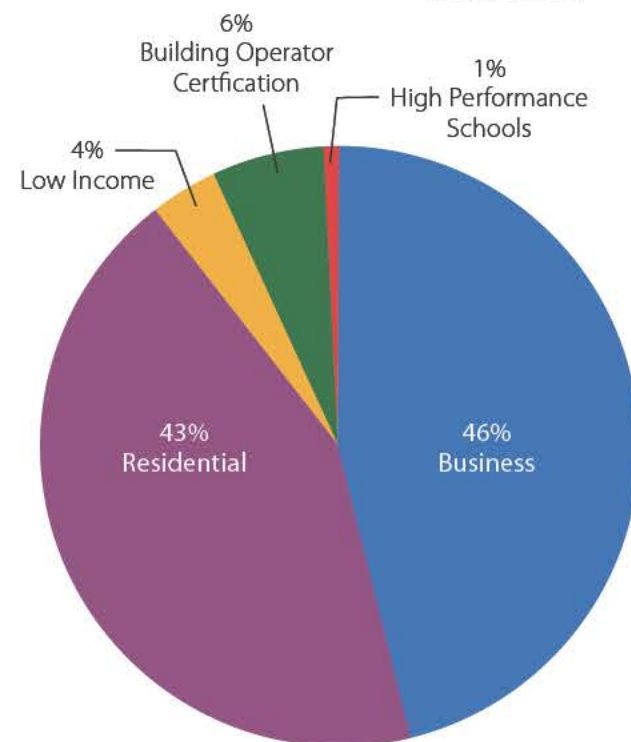
### Efficiency: Maine's Cheapest Energy Source

Efficiency Maine has played a critical role in responding to these evolving and challenging circumstances. Efficiency Maine's cost per kilowatt hour (kWh) of energy conserved fell to 3.1¢, just a fraction of the cost of energy generated.

Virtually all programs saw increased participation and exceeded energy savings goals:

- Nearly one thousand projects were completed with the help of the Business Program, almost half again as many as in 2007, generating record levels of megawatt hour (MWh) savings.
- The Residential Lighting Program dramatically increased the presence, visibility and selection of compact fluorescent lighting (CFL) products available at Maine retailers.
- Inquiries at the call center increased markedly as more Maine residents, schools, businesses and nonprofits sought advice and financial assistance to make efficiency improvements.
- Training and Education Programs reached record numbers of Mainers interested in energy efficiency, including both today's professionals, through an expansion of workshop offerings; and the next generation, through innovative school curricula.

Efficiency Maine 2008 Percent of Lifetime MWh Savings by Program



**Efficiency Maine Program Impacts, 2008 & Cumulative (2004-2008)** Efficiency Maine programs are subject to quantitative benefit-to-cost analysis. In 2008, 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 3.84 to 1.

Program	Annual MWh Savings	Lifetime MWh Savings	Efficiency Maine Costs	Participant Costs	Lifetime Economic Benefits	Cost/kWh	Benefit-to-Cost Ratio
<b>Business</b>	34,115	450,217	\$6,481,915	\$6,158,790	\$54,271,253	\$0.028	4.29
<b>Residential Lighting</b>	55,801	424,085	\$2,840,083	\$4,543,694	\$51,092,076	\$0.017	6.92
<b>Low Income</b>	5,060	34,557	\$2,797,927	\$1,200,703	\$5,397,792	\$0.116	1.35
<b>Building Operator Certification</b>	11,905	59,526	\$156,512	\$5,838,635	\$10,478,944	\$0.101	1.75
<b>High Performance Schools</b>	636	7,613	\$491,749	\$189,450	\$1,304,906	\$0.089	1.92
<b>Education and Training*</b>			\$357,139				
<b>Other Accounts</b>			\$855,257				
<b>2008 Total</b>	107,517	975,998	\$13,980,581	\$17,931,272	\$122,544,970	\$0.031	3.84
<b>Cumulative (2004 - 2008)</b>	316,108	3,079,428	\$49,466,250	\$51,942,496	\$310,313,030	\$0.033	3.06

\*Education and training programs are a long-term investment in a more energy-efficient economy. The energy savings or economic benefits that result are difficult to quantify and are not included in this report's measures of electricity savings and other benefits.

### 2008 Highlights

- 107,517 MWh in annual savings (+24% vs. 2007)
- \$122.5 million lifetime economic benefits for installed equipment (+21% vs. 2007)
- 3.84 to 1 Program-wide benefit-to-cost ratio (+/-0% vs. 2007)
- 3.1¢ per kilowatt hour (kWh) for efficiency savings (-0.2¢ vs. 2007)
- 1.1 million CFLs purchased as a result of program efforts (+45% vs. 2007)
- 957 business projects completed (+43% vs. 2007)
- 557,814 metric tons of lifetime carbon dioxide (CO<sub>2</sub>) emission reductions (+12% vs. 2007)

### Programs Offered

In 2008, Efficiency Maine offered six distinct programs to meet the dual goals of market transformation (educating the public and marketplace about efficient options and where to buy and stock them) and resource acquisition (reducing electricity consumption immediately by providing price discounts):

- Business
- Residential
- Low-Income
- Building Operator Certification
- High Performance Schools
- Education and Training

Efficiency Maine also manages the Solar Energy Rebate Program,

which provides rebates for qualifying solar thermal, photovoltaic systems (and, starting in 2009, qualifying wind systems). In 2008, Efficiency Maine took on the administration of several fuel-neutral programs funded by the State Energy Program.

### 2008 Savings Of Energy & Costs

Overall in 2008, Efficiency Maine saved 107,517 MWh, a 24% increase in savings from 2007, worth an estimated \$122.5 million in lifetime economic benefits<sup>1</sup>. This growth in savings is attributable to: rising energy prices; the growing "green" awareness of how energy consumption relates to climate change; and continued marketing campaigns for key Programs, especially Residential Lighting and Business.

The Efficiency Maine Business and Residential Programs accounted for the vast majority of lifetime MWh savings, 46% and 43%, respectively. Building Operator Certification (BOC) and Low-Income Programs accounted for 6% and 4% of 2008 savings, respectively.

Cumulatively since 2004, Efficiency Maine has provided incentives, technical assistance, and other services that will avert the consumption of over three million MWh of electricity—enough to power 46,371 Maine homes for a decade<sup>2</sup>—and save Maine business and residential consumers more than \$310 million in energy costs.

(continued)

## Overview of 2008 (continued)

Total 2008 Program-wide benefits divided by total Program and participant costs resulted in an overall benefit-to-cost ratio of 3.84 to 1. (In other words, every dollar invested in efficiency returned \$3.84 in societal net economic benefits.) In terms of yield (kWh saved per dollar invested), in 2008 Efficiency Maine generated savings at a levelized cost of 3.1¢ per kWh, 2¢ less than in 2007<sup>3</sup>. This compares quite favorably to average Maine electricity rates, which have been relatively stable over the last year. Investing in energy efficiency is 75% more cost-effective than purchasing more electric generation in today's market, and the savings typically stay in Maine.

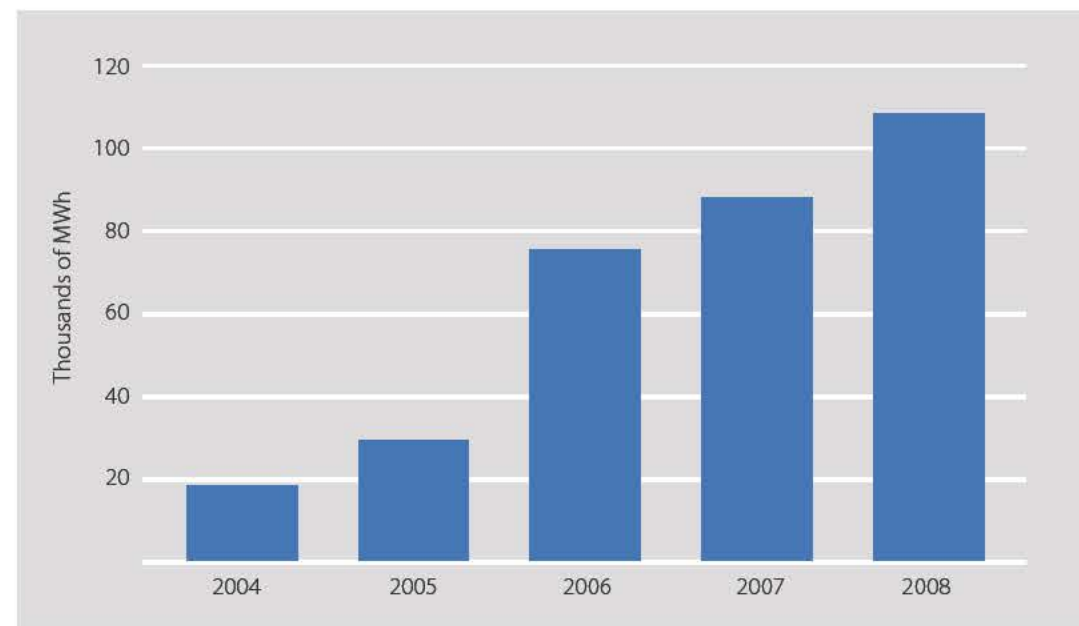
Cumulative annual savings since the inception of Efficiency Maine have grown to 316,108 MWh, worth an estimated \$310.3 million in avoided power purchases. During its tenure, the Efficiency Maine Program has achieved a benefit-to-cost ratio of 3.06 to 1 and delivered electrical savings at an average levelized cost of 3.3¢ per kWh.

## Ensuring Geographic Equity

Although it is impossible to dictate that efficiency impacts be precisely proportional to population, Efficiency Maine works hard to ensure that every Maine resident and business has equal access to Program services.

In 2008, Efficiency Maine's investments in outreach succeeded in distributing Program benefits to each county in close proportion to total population.

Efficiency Maine Program-Wide Annual MWh Savings 2004-2008



## Continuing to Improve Maine's Environment

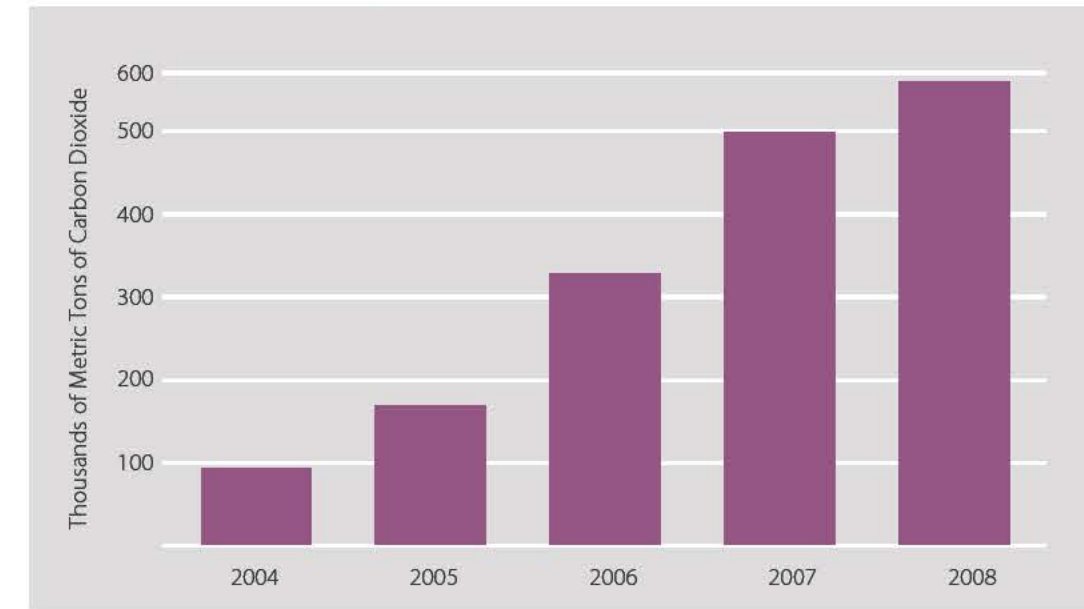
On September 25, 2008, Maine participated in the first-in-the-nation auction of CO<sub>2</sub> allowances. Proceeds from this and subsequent quarterly auctions will be administered by the newly created Energy and Carbon Savings Trust and used to reduce electricity consumption and promote fossil fuel conservation in Maine. The initial success of the Regional Greenhouse Gas Initiative constitutes significant progress in Maine's efforts to reduce carbon emissions from power plants by 10% by 2018.

Cumulatively (2004-2008), Efficiency Maine's programs have contributed significantly to this common goal by helping to prevent the release of the following pollutants that endanger health and contribute to climate change:

- 1.6 million metric tons of CO<sub>2</sub>
- 2,116 metric tons of sulfur dioxide (SO<sub>2</sub>)
- 1,038 metric tons of nitrogen oxide (NOx)<sup>4</sup>

The CO<sub>2</sub> savings alone are equivalent to keeping 39,105 cars off the road for a full decade<sup>5</sup>. Maine can be proud of these results, while recognizing that there is significant potential for further reductions in electricity consumption and emissions.

Efficiency Maine Program-Wide CO<sub>2</sub> Emissions Savings 2004-2008



## 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 2009 and beyond. On pages 25-26 are conclusions from 2008 and projections for the next few years, including budgets for FY 2009-2012. On pages 27-36 are tables presenting more detailed 2008 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.

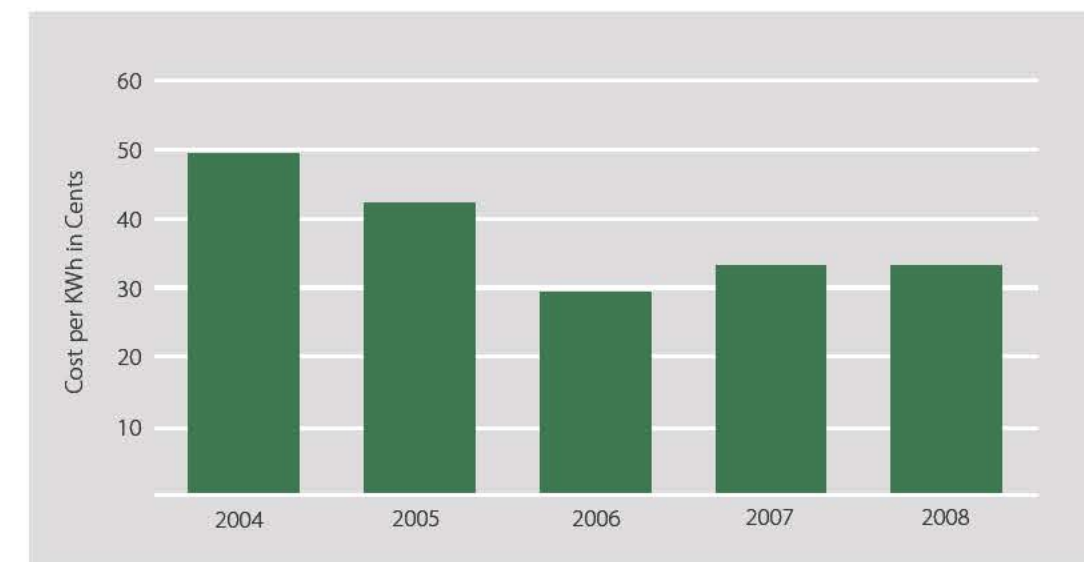
<sup>2</sup> The average Maine residential customer consumes 6,817 kWh per year. Energy Information Administration, 2004. <http://www.eia.doe.gov/cneaf/electricity/esr/table12.xls>

<sup>3</sup> Program reported costs and savings from 2004 to 2007 were re-analyzed for this year's report and improvements were made in the tracking of participant incremental or full costs. As such, differences in estimated savings and costs as reported in previous years may be present.

<sup>4</sup> CO<sub>2</sub> is the major contributor to global warming, SO<sub>2</sub> concentrations exacerbate or may cause asthma and respiratory illness, and NOx is a major contributor to acid rain and ground level ozone (smog).

<sup>5</sup> Emission estimates per MWh are based on Avoided Energy Supply Costs in New England: 2007 Final Report.

Efficiency Maine Program-Wide Cost/kWh for Energy Savings 2004-2008





## Business Program

### Growing to Meet the Challenges of a Changing Market

In its fifth year, the Efficiency Maine Business Program helped a record number of Maine businesses, large and small, respond to record-high energy costs by offering technical assistance and cash incentives to help them reduce electricity usage and costs. Energy savings generated by businesses participating in the Program were also the highest on record, and, contrary to the usual pattern, steadily increased from quarter to quarter.

In addition, participants continued to report that energy efficiency pays in many ways beyond a lower electricity bill: energy-efficient equipment tends to offer better lighting and ventilation, reduces noise, and leads to gains in worker comfort and productivity.

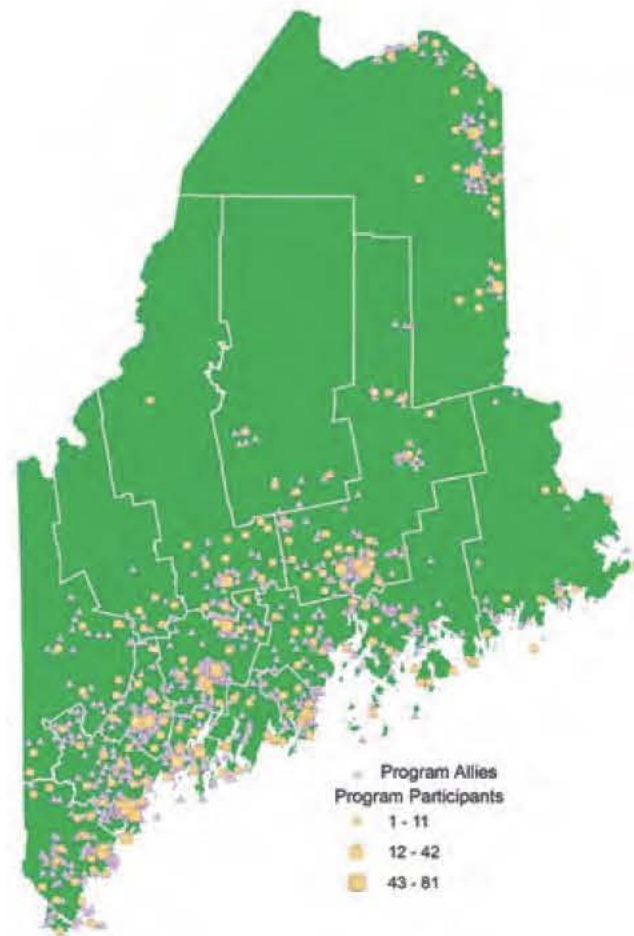
### 2008 Highlights: Increased Participation, Energy Savings and Economic Benefits

- 690 businesses (+35% vs. 2007), with the help of 588 approved trade allies (+7% vs. 2007), completed 938 energy-efficiency projects (+29% vs. 2007)
- Schools Program activity increased tenfold, as measured by the number of projects and kWh savings, during the period March 3–May 30, when a one-time School Budget Booster Initiative doubled the incentives awarded for energy-efficiency upgrades.
- The Program generated annualized MWh savings of 34,115 (+4% vs. 2007).
- Maine businesses realized total economic benefits attributable to the Program of \$54.3 million in avoided electrical costs (+1% vs. 2007). Program costs increased by 8% to \$12.6 million, so the overall benefit-to-cost ratio was 4.29 to 1 (-6% vs. 2007).

### Program Allies

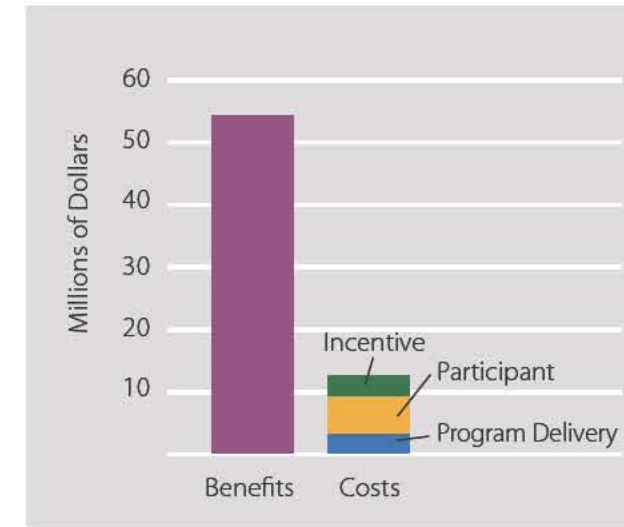
The Efficiency Maine Business Program works closely with more than 588 "Program Allies"—contractors, vendors, suppliers, wholesalers and associations. The Allies help to market the Program to their customers and members (introducing 30% of new participants to the Program in 2008); work with customers to implement efficiency measures; and help prepare the paperwork, cost-effectiveness calculations and reports we require. Many promote and sell more energy-efficient equipment by maximizing their customers' use of incentives, and often invite Efficiency Maine staff to meet with their customers and train their employees.

In 2008, Efficiency Maine staff supported Allies by participating in 31 trade shows, more than 50 speaking engagements and 16 training sessions.



Efficiency Maine 2008 Business Program Participation

### Efficiency Maine 2008 Business Program Benefits vs. Costs



**Getting on the Efficiency Bus** Among the many school districts taking advantage of Efficiency Maine incentives was M.S.A.D. #47. Lighting projects at the Messalonskee High School and Belgrade Central School will dramatically cut electricity use and save the district more than \$27,000 each year.

### Big Savings for Small Businesses

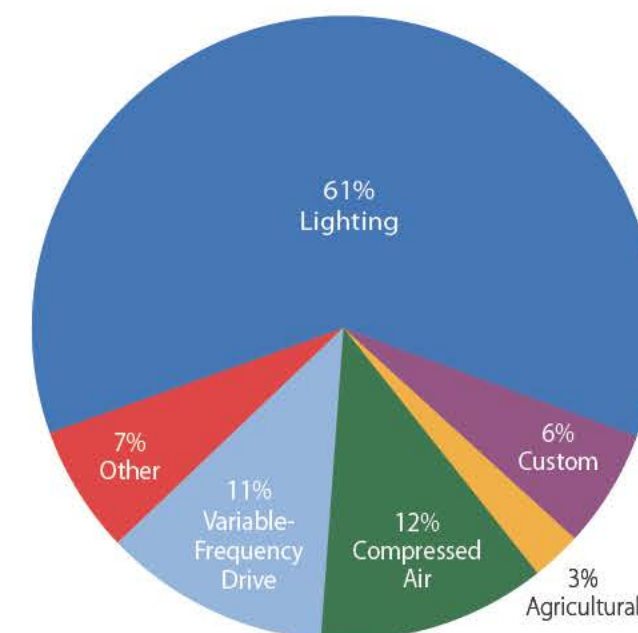
By statute, Efficiency Maine must dedicate a minimum of 20% of total Program funds to small businesses, defined as those with 50 or fewer employees, or less than \$50 million in annual sales. While larger companies yield greater efficiency savings per dollar invested, small businesses are vital to Maine's economy and are typically the most in need of cash. During FY 2008, small businesses accounted for 76% of Program participants and received 33% of the \$3.2 million in incentives paid out.

### Lighting the Way

Lighting continued to present the greatest opportunity in the business market, representing 74% of overall Program savings in 2007. Compressed air, at 7% of overall savings, constituted the second-largest category of savings by end use type. Overall, the average estimated useful life for equipment rebated by the Program is 14 years.

(continued)

### Efficiency Maine 2008 Business Program MWh Savings by Technology



## Business Program (continued)

### Spreading the Word: Media Activity

The Business Program conducted a targeted marketing effort to reach a wide variety of businesses statewide in 2008, using a range of media channels and methods:

- **Public Relations** The Program regularly issued news releases profiling businesses that work in partnership with Efficiency Maine to lower electricity usage and costs. This resulted in dozens of story placements in media statewide.
- **Radio** The marketing team launched a series of Green Business Minutes on WGAN (Portland) and WVOM (Bangor). A series of ten spots featured Efficiency Maine personnel discussing the benefits of the Program and new technologies, as well as testimonials by participants and Allies. In addition, Efficiency Maine representatives participated on WVOM's *Back to Business* show in the fall.
- **Print Ads** A new campaign, featuring a range of business types that benefit from our Programs, was launched primarily in *MaineBiz*, a weekly publication with the highest business readership in the State.
- **E-News** Monthly bulletins alerted Allies and their customers about new energy-saving technologies and ways to take advantage of the Business Program.



**Profiting from Efficiency** The 2008 ad campaign reached more businesses than ever with the message that Efficiency Maine's technical assistance and incentives could help them save energy and improve the bottom line.

**EM** Manufacturing Facility Lighting

CASE STUDY

**Objectives:**

- Reduce energy consumption
- Increase productivity
- Reduce maintenance costs
- Increase safety

**Business:**

- Morris Yachts, a leading manufacturer of luxury yachts, needed a lighting solution for its new manufacturing facility.
- The facility was designed to be energy-efficient and environmentally friendly.
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**Keeping expenses low and quality high at Morris Yachts**

As a leader of high-end luxury and sail boats, Morris Yachts has always been energy-conscious. But the company's recent growth, along with the rising cost of electricity, gave them extra impetus to evaluate their lighting systems.

**Estimated Annual Savings:**

Electricity	\$15,400
Labor	\$ 1,000

Upgrading our lighting and cutting our energy use is good for our bottom line—and it's the right thing to do. The lighting experts at Efficiency Maine made it so our shop starts its work!

—Clayton Morris, President, Morris Yachts

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**Making the Case** A series of Case Studies presents real-life business success stories, including hard numbers on savings and details on the role Efficiency Maine and Program Allies can play in helping companies save money.

### Collaboration with State and Local Agencies

FY 2008 saw increased collaboration with other State agencies offering programs that share Business Program goals and have overlapping participant groups:

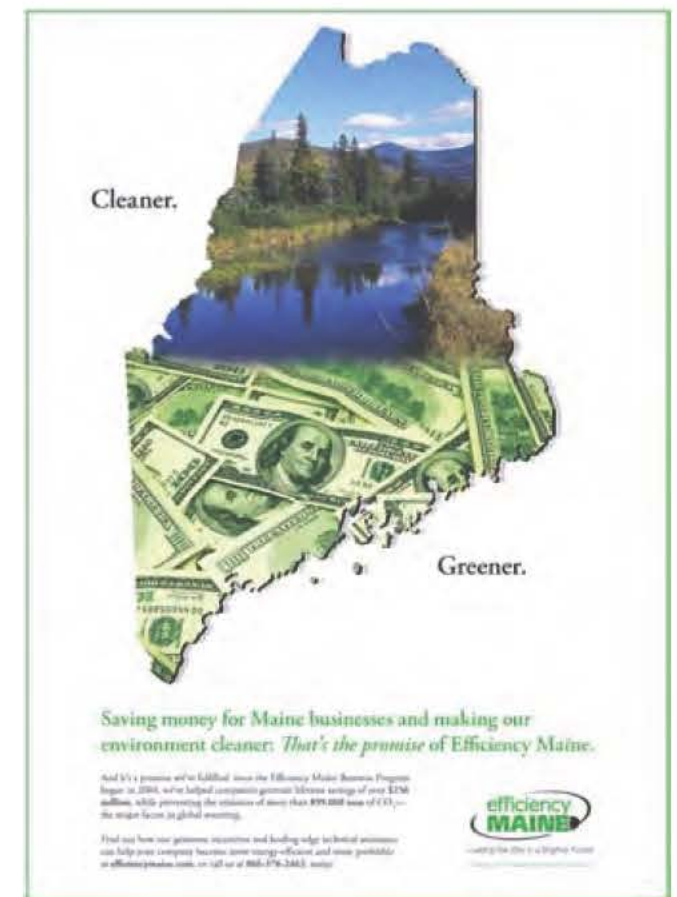
- **The Governor's Summit** On April 3, a conference sponsored by the Governor on energy efficiency for small business welcomed more than 520 participants from all over Maine. At the conference, there was striking evidence of the rapidly growing interest in energy efficiency shared by the business community, government agencies and other organizations. The day was a unifying event that would prove to be an important resource for coping strategies during a summer of escalating energy prices.
- **Small Business Development Centers (SBDC)** SBDC provided venues for a series of Building Operator Workshops that Efficiency Maine organized. In addition, at the SBDC counselors' quarterly meeting, Efficiency Maine provided training in the economic benefits of, and resources available to help Maine businesses improve, energy efficiency. This will be a recurring event.

- **MaineHousing** The Business program collaborated with MaineHousing by providing occasional technical advice. Examples include: providing technical oversight for field measurement of cold-climate heat pump performance; coordinating the MaineHousing policies for geothermal heat pump loans, and the Efficiency Maine commercial loans for these heat pumps.
- **Maine DEP, MDOE and MSMA** Efficiency Maine collaborated with the Maine Department of Environmental Protection, the Department of Education, and the Maine School Management Association in producing a series of statewide energy-efficiency workshops for managers of school facilities and businesses.

### Looking Ahead

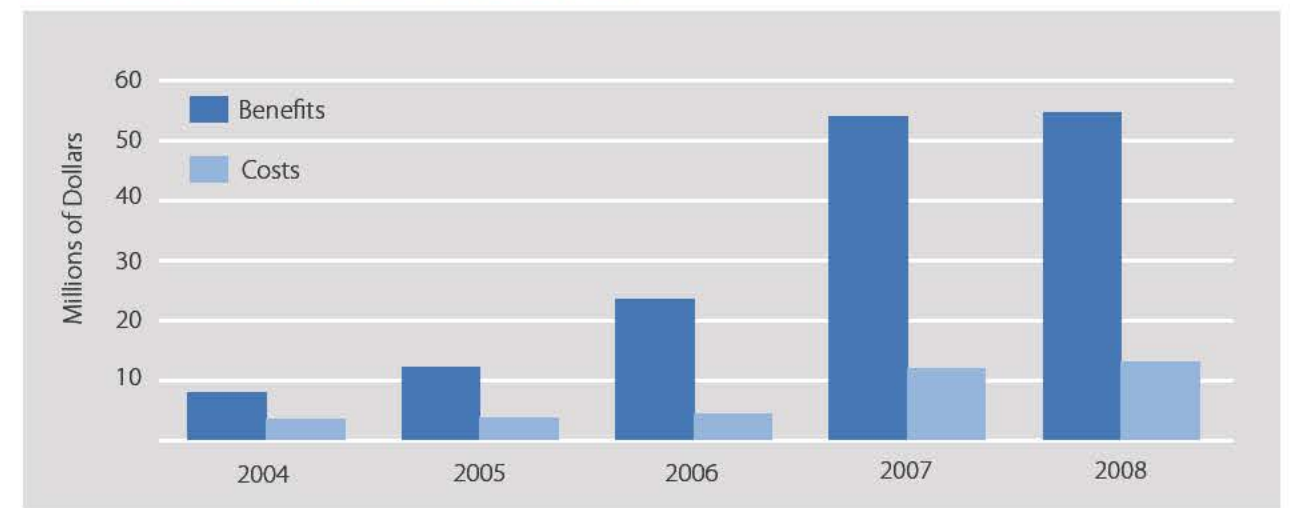
In 2009, Efficiency Maine will engage a larger and more diverse set of Maine businesses in energy-efficiency activity. Planned efforts include:

- Pilot-testing a national program for the commercial new construction market
- Contacting local Chambers of Commerce and other associations to provide brochures, newsletter articles, and speakers
- Collaborating more closely with State and local agencies to enhance relationships with key Program Allies
- Implementing a field staff plan for more direct and proactive contact with potential participants
- Addressing barriers to participation by collaborating with other agencies to provide applicants with comprehensive information on loans available for energy-efficiency measures



**For a Cleaner, Greener Maine** This Business Program ad sums up the twin promises Efficiency Maine offers the State: reduced greenhouse gas emissions from power plants, and a big boost to the economy from electricity cost savings.

Efficiency Maine Business Program Benefits vs. Costs 2004-2008

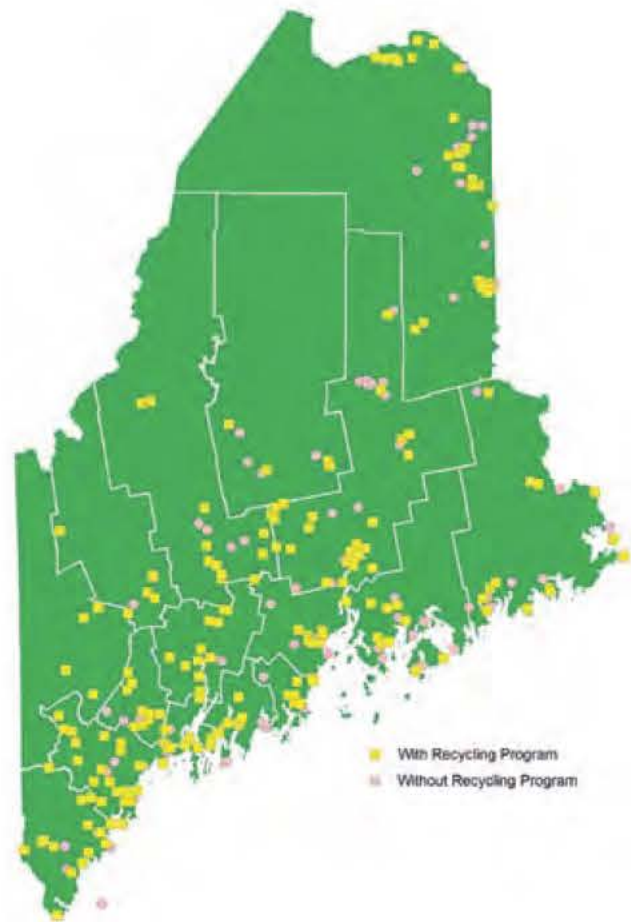




## Residential Lighting Program

In 2008, Efficiency Maine's Residential Lighting Program (RLP) again generated record sales of Compact Fluorescent Lamps (CFLs), despite a reduction in coupon values from \$1.50 to \$1 per package. The dramatic success of the RLP is believed to be a result of two main factors:

- 1. The rapidly transforming lightbulb market.** CFLs are now the default choice for many consumers. Sharp rises in energy costs make the key benefits of CFLs—that they last up to seven years and save approximately \$50-60 over the life of the bulb—more compelling than ever. (Nationally, the EPA reports sales of CFLs nearly doubled in calendar year 2007, to 290 million.)
- 2. The cumulative effects of Efficiency Maine's consistent and effective marketing of CFLs over the past several years.**

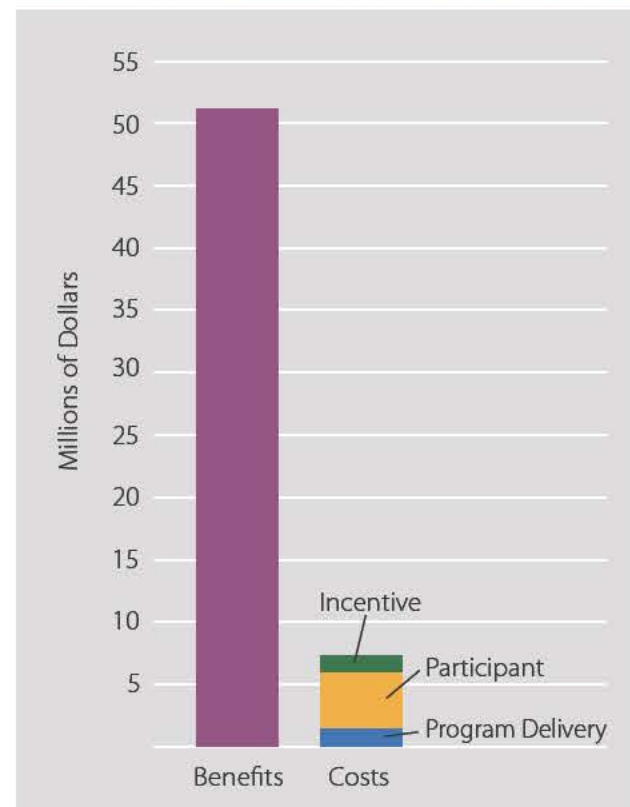


Efficiency Maine Residential Lighting Program Participating Stores  
(With & Without Recycling Program)

### 2008 Highlights

- Sales of 1.1 million CFLs (+38% vs. 2007) and 8,082 lamps and fixtures (+4% vs. 2007) were directly attributable to Efficiency Maine's price-off coupons and buy-downs. Another 96,944 CFLs were direct-mailed via the Low-Income Program (see p. 14). Combined, these 1,186,171 CFLs generated...
  - 55,801 MWh in annual savings (+25% vs. 2007)
  - \$51.1 million in lifetime economic value (+40% vs. 2007)
  - A benefit-to-cost ratio of 6.92 to 1 (+10% vs. 2007)
- Participation in Maine's groundbreaking CFL recycling program increased to 210 stores.
- The RLP introduced a new TV campaign starring "Cecil" the CFL debating a has-been incandescent bulb, and used a variety of other innovative marketing channels to get the word out about CFLs.

Efficiency Maine 2008 Residential Lighting Program Benefits vs. Costs

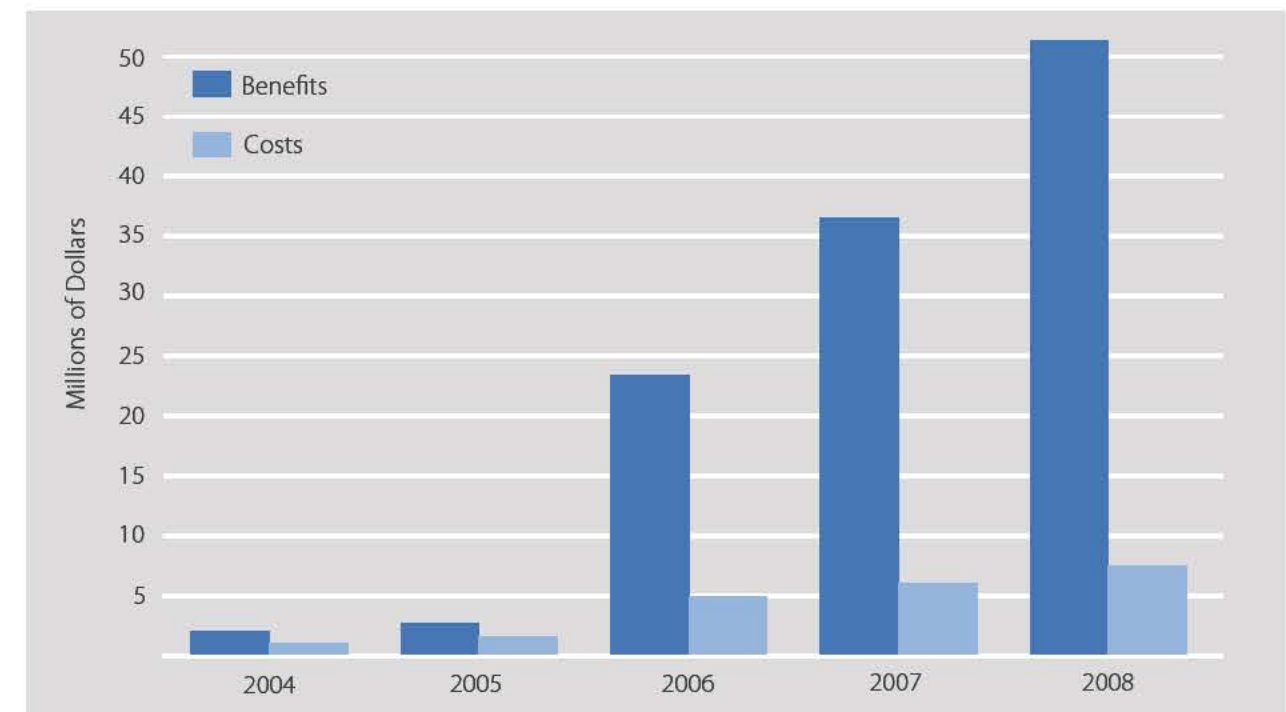


**Making the Sale** Efficiency Maine coupons helped Maine retailers sell over a million CFL bulbs for the first time ever in 2008.

### Transforming Maine's Marketplace

In just five years, Efficiency Maine's RLP has made great strides towards transforming Maine's lighting marketplace to one in which efficient CFL bulbs and fixtures are the norm. In 2008, CFL sales incented by Efficiency Maine topped one million bulbs. That was more than the total sales of CFLs for the previous four years combined. Market research indicates gains in awareness of the benefits of CFLs, increased trial purchasing of CFLs, and more repeat purchases. Manufacturers have lowered the average selling price of CFLs and now offer a variety of sizes, shapes and colors, as well as three-way and dimming capabilities. Efficiency Maine field staff reports a marked shift in shelf-space allocation from incandescent bulbs to CFLs.

Efficiency Maine Residential Lighting Program Benefits vs. Costs 2004-2008



### Key Partners

Each year, Efficiency Maine works to recruit more retailers and electrical wholesalers as key partners in promoting the benefits of efficient lighting to consumers. At the same time, the Program trains retail partners on the use and benefits of efficient lighting, and equips them with marketing and point-of-purchase materials, including coupons, stickers, banners and posters.

(continued)



**"The Green Team"** Solar energy specialists install a hot-water system as part of this 30-minute WPXT-TV show sponsored by Efficiency Maine, which chronicled a complete energy makeover of a Falmouth family's home.



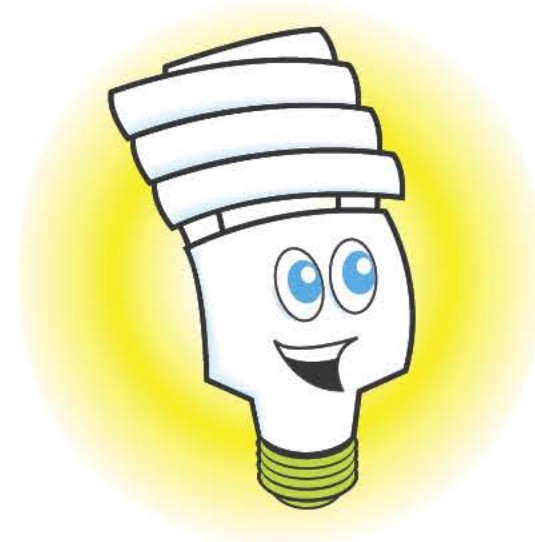
## Residential Lighting Program (continued)

### Marketing & Public Relations

Marketing, advertising and public relations have played an important role in the key objectives of immediate electricity savings and market transformation. Television advertising remains the most effective and cost-efficient way to reach Maine households with a consistent message about the benefits of switching to CFLs and other measures that can save energy and reduce electric bills.

Efficiency Maine's 2008 marketing programs also included:

- A 30-minute TV show, WPXT's *The Green Team*, featured a team of Maine-based energy specialists providing a complete energy makeover to the home of a family in Falmouth.
- A three-minute segment on WLBZ's *Home Energy Show* featured Efficiency Maine managers explaining the benefits of CFLs and showing the range of shapes, sizes and styles now available.
- A special promotion offered incentives on super-efficient Light-Emitting Diode (LED) Christmas tree lights.
- A One Cent CFL Sale in April offered consumers one bulb virtually free with purchase of one at regular price.



*"Spokes-bulb"* Affectionately known as Cecil, the animated CFL starred in four television commercials touting the benefits of switching to energy-efficient CFLs, from saving money and time to helping reduce greenhouse gas emissions.

Public relations events in 2008 included:

- A Christmas tree-burning event highlighting the safety and economic advantages of LED lights.
- Participation in the national "Change a Light – Change the World" campaign (see photo and caption at right).

**Fire Your Old Lights!** To highlight the safety of cool, energy-saving LED holiday lights, Efficiency Maine lit up this Christmas tree in a way that happens all too often with old-fashioned bulbs.



**Thinking Globally** Efficiency Maine demonstrated the energy-saving power of CFLs by replacing 229 conventional 100-watt floodlights in Eartha, the World's Largest Rotating Globe, at the headquarters of DeLorme, a leading mapping company based in Yarmouth..

### Looking Ahead

Despite the dramatic increases in CFL sales, Efficiency Maine's work is far from done: Maine homes have an estimated 23 million light sockets to fill<sup>1</sup>. While CFL rebates will be phased out, Efficiency Maine's FY 2009 plans call for increased marketing and education efforts to promote the RLP, including the following special promotions:

- Another three-minute segment on WLBZ's *Home Energy Show* about the benefits and the expanding range of CFL styles available.
- A series of 15-second TV commercials providing energy-saving tips to help Mainers through a difficult period of rising energy costs.
- Efficiency Maine will place Kill-A-Watt Electricity Monitors in Maine libraries for loan to residents to help them understand and manage power consumption of appliances and electronics in their homes and businesses.

**Footnote:**

<sup>1</sup>Aspen Study for Efficiency Maine



## Low-Income Programs

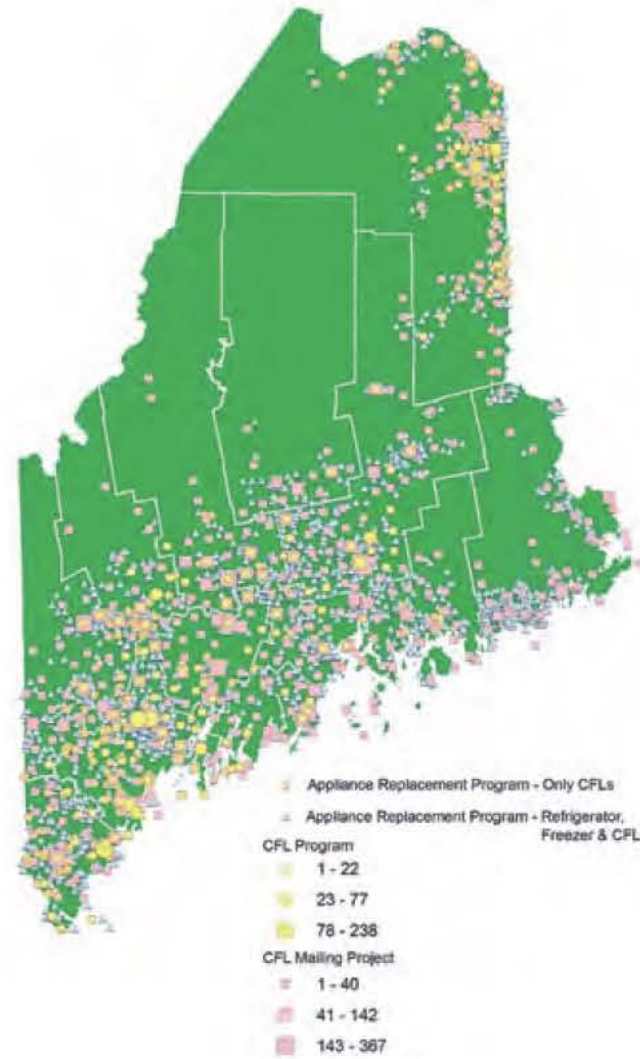
In 2008, Efficiency Maine's Low-Income Programs helped more families than ever before to reduce the financial burden of their electric bill by installing energy-efficient refrigerators, freezers and CFLs—which together can account for up to 20% of a home's electric use.

(+42% vs. 2007) and \$5.4 million in lifetime economic value (+109% vs. 2007), for a benefit-to-cost ratio of 1.35 to 1 (+12% vs. 2007).

- A new Low-Income CFL Mailing Project delivered 96,944 CFLs to 12,118 low-income eligible households.

## 2008 Highlights

- The Low-Income Programs assisted thousands of qualifying households by providing energy-efficient refrigerators, freezers, and CFLs, generating 5,060 MWh of annual savings



Two of the 2,125 older refrigerators that were replaced with new, energy-efficient appliances.

## Low-Income Appliance and CFL Replacement Programs

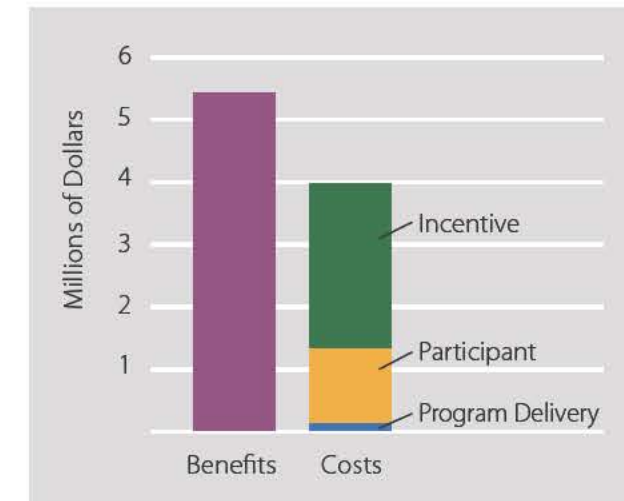
- The **Low-Income Appliance Replacement Program** is implemented through a Memorandum of Understanding with MaineHousing and through the State's Community Action Programs (CAPs) to reduce electric bills in low-income households by exchanging inefficient old refrigerators and freezers for new ones.

Efficiency Maine contracts with certified residential energy auditors to address electrical savings opportunities. When the auditors replace refrigerators and/or freezers, they also install CFLs in locations where they will provide the greatest energy savings. In FY 2008, the Program delivered 2,125 energy-efficient refrigerators, 107 freezers, and 21,162 CFLs to 2,317 low-income households.

- The **Low-Income CFL Program** was aligned with 29 service agencies that distributed or delivered 17,359 CFLs to 2,902 apartments of income-qualified renters who pay their own utility bills.

Efficiency Maine 2008 Low-Income Programs

## Efficiency Maine 2008 Low-Income Program Benefits vs. Costs



## Low-Income CFL Mailing Project

Efficiency Maine mailed a total of 96,944 CFLs to 12,118 low-income tenants across the State of Maine. Each package of eight bulbs also included literature on saving money with CFLs and in other ways.

To verify and measure actual use of the CFLs, Efficiency Maine sent a follow-up survey to a random sample of recipients, who reported:

- 96% of all respondents received their package of CFLs.
- 88% installed at least one CFL.
- Among the few that did not install any of the bulbs, about half said they already used or had installed CFLs.

## Operation Keep ME Warm

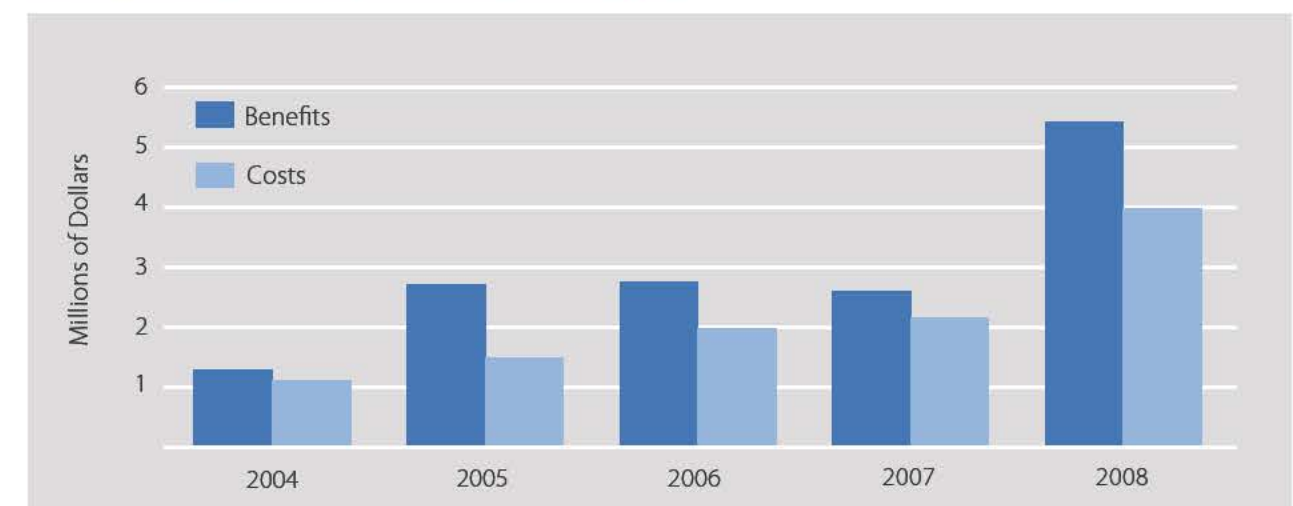
Efficiency Maine partnered with the Maine Office of Energy Independence and Security and MaineHousing to implement Operation Keep ME Warm. Efficiency Maine provided approximately 8,000 CFLs to the homes that participated in the volunteer weatherization program.

## Looking Ahead

In 2009, Efficiency Maine's Low-Income Programs will:

- Continue to partner with MaineHousing, the CAP agencies, and local housing authorities to ensure cost-effective delivery of energy-efficient technologies to low-income families.
- Expand the Low-Income Appliance Replacement Program to include LED nightlights and assist local housing authorities in the bulk purchase of ENERGY STAR appliances.
- Diversify Program delivery by expanding partnerships with local, State and Federal agencies.
- Participate in the planned library-lending program for Kill-A-Watt electricity monitors (see Residential Lighting, "Looking Ahead", p. 13) with a special promotion for low-income customers.

## Efficiency Maine Low-Income Program Benefits vs. Costs 2004-2008





## Education and Training Programs

The Education and Training Programs have always been central to Efficiency Maine's mission of creating a more energy-efficient economy, and in 2008 had a greater impact than ever among children and professionals statewide. School programs introduced the issues of electricity production, consumption and efficiency to more 4th–12th graders than in any prior year; while professional training programs, including Building Operator Certification (BOC), served a record number of contractors and facility managers through specialized workshops about energy-efficient opportunities and relevant Efficiency Maine incentives.

### 2008 Highlights

- 10,061 4th–12th grade students participated in energy education classes (+31% vs. 2007).
- 326 contractors and facility managers attended energy-efficiency classes (+10% vs. 2007), including introductory-to-advanced training as well as the BOC courses.
- The BOC courses in FY 2008 generated 59,526 MWh of lifetime savings and \$10.5 million in lifetime economic value, yielding a benefit-to-cost ratio of 1.75 to 1.



**Solar Power!** Two students demonstrate the power of a miniature photovoltaic panel at the Knox–Lincoln County Soil and Water Conservation District's Student Conservation Fair, which attracted over 400 6th–7th grade students in September, 2007.

### School Energy Education Programs

Efficiency Maine provides financial support for two education programs serving 4th–12th grade teachers and students:

**Maine Energy Education Program (MEEP)**, serving students in central and southern Maine, teaches general energy awareness and practical skills that enable students to monitor their school building's energy use. "Energy Patrols" help raise awareness of energy issues among older students and teachers through classroom skits, informational materials and reminders to turn off computers and lights when not in use. MEEP also provides Energy Education Leadership workshops for teachers and small groups of students.



**The Global Energy Game** In governing an imaginary island, Lewiston Middle School students learn to take responsibility for balancing the three E's: energy, environment and economy.

**Maine Public Service's BE Energy-Wise Program (BEEP)**, serving students in northern Maine, educates students about energy issues not only in schools, but also in the broader society. "Eagle Patrols" are similar to the MEEP "Energy Patrols": a team of students raises awareness of energy issues in schools by distributing information and reminding fellow students and teachers to turn off lights. The Patrol Program includes presentations on how to read electric meters, the advantages of fluorescent lighting, and energy use by computers.



**Is it a Conductor?** Two PowerSleuth teachers test whether current will flow through aluminum foil to light a bulb.

### PowerSleuth–Maine Energy Education Curriculum Project

This three-year project launched in 2007 aims to develop a standards-based energy education curriculum for students in grades 4–8. A content advisory committee is helping the Maine Mathematics and Science Alliance (MMSA) develop a curriculum based on national standards, informed by research, aligned with the new Maine Learning Results, and including Maine-specific issues and resources. Eight elementary schools field-tested the PowerSleuth Energy Lights Maine! curriculum for grades 4–5: Buxton-Hollis; Isleboro Central; Jefferson Village; Stillwater Montessori (Old Town); Sylvio Gilbert (Augusta); Boothbay Region Elementary; Yarmouth Elementary and Harrison Middle (Yarmouth); and South Bristol Elementary.

(continued)



**Inner Workings** A PowerSleuth teacher uses a hand lens to examine the filament of a small light bulb.



### Energy Tips Contest

In coordination with the Maine Office of Energy Independence and Security, Efficiency Maine hosts a contest for Maine's 4th, 5th and 6th grade students during October, Energy Awareness Month. The Governor awards prizes to students suggesting the best energy-saving ideas in two categories: 1) how to save energy in your own home; and, 2) how your school can save energy. Following are the winners of the Fourth Annual contest (October, 2008):

#### 4th Grade

**School Tip:** "When we build buildings, we can use energy efficient windows and heating systems, insulation, roofing materials and lighting." — Erica Turmel, Hermon Elementary

**Home Tip:** "Unplug chargers when not using them." — Tiffany Mills, Gilbert Elementary School, Augusta

#### 5th Grade

**School Tip:** "Don't use lights when it is sunny because the sun will light the room." — Josie Ford, Bangor Christian School

**Home Tip:** "Uninsulated attics can be Energy Hogs: So, ask your parents to place some insulation on your attic floor." — Reed Bridge-Koenigsberg, Crooked River Elementary School, Casco

#### 6th Grade

**School Tip:** "Take a school bus to school if you can, then less people will use gas." — Danielle Garry, York Middle School

**Home Tip:** "You could dry laundry outside on a clothesline rather than using a clothes dryer and thereby save electricity." — Aurora Sullivan, Leonard Middle School, Old Town



**Maine's Future Energy-Efficiency Leaders** Governor Baldacci congratulates the winners of the 2008 Energy Tips Contest.

## Education and Training Programs (continued)

### 2008 Professional Training Workshops

Efficiency Maine's professional training programs provided key stakeholders (including architects, engineers, facility managers, tradespeople, water and wastewater operators, and other technical professionals) with technical training in a variety of topics. In addition to providing advanced training, these workshops provide a venue for participants to network and share energy-efficiency success stories.

#### Commercial Energy Auditing (19 participants; Portland)

Teaches students how to conduct a commercial facility energy audit, covering tools of the trade, lighting and controls, and heating, ventilating and air conditioning.

#### Lighting (25 participants; Orono)

Provides training on the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) program, including lighting equipment, fundamentals of lighting design and lighting calculations, and outdoor environmental lighting.



**Serious About Savings** A few of the 83 participants in "Facility Managers—How to Get Started Saving Energy" workshops statewide.

#### Optimizing HVAC Performance: Chilled Water and Air Distribution (13 participants; Augusta)

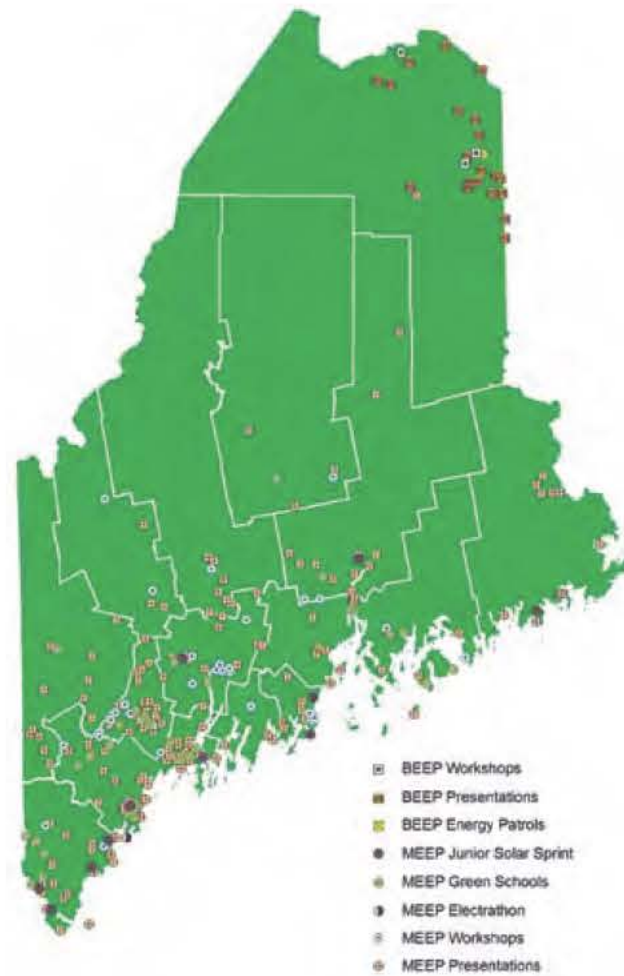
Presents participants with all the tools they need to design, operate and maintain energy-efficient chilled water and air distribution systems, and optimize HVAC performance.

#### Fundamentals of Lighting Efficiency (21 participants; Augusta)

Prepares professionals to take the Certified Lighting Efficiency Professional exam, or simply brush up on the basics of efficient lighting design, retrofit and application.

#### Reducing Energy Costs (36 participants; Portland)

Presents the basic knowledge and tools necessary to identify energy-saving opportunities and quantify their associated savings.



Efficiency Maine 2008 Energy Education Programs

#### ENERGY STAR Benchmarking for Wastewater Treatment Facilities (10 participants; Augusta)

Provides interactive instruction on the ENERGY STAR benchmarking tool, including entering information, tracking energy improvements, calculating a carbon footprint, and setting targets for improving baseline scores.

#### LEED with Lighting (37 participants; Lewiston)

Reviews the current LEED lighting requirements, how to verify compliance with different LEED levels (basic, silver, gold, platinum), and how software is used to enable verification for interior and exterior lighting designs.

#### Facility Managers—How to Get Started Saving Energy (83 participants; Auburn, Bath, Farmington, Brewer, Fairfield and Caribou)

Designed for both technical and non-technical personnel, focuses on low/no-cost efficiency upgrades that can save money in their buildings.

### What Our Attendees are Saying:

#### Reducing Energy Costs:

"I'll be spreading the word to my co-workers and friends of best practices. It's amazing to know what people just don't realize of the real costs, i.e. air leaks, steam leaks, etc."

— Teddy Ellis, Maintenance Engineer/Electrician  
Rumford Power Associates

#### Commercial Energy Auditing:

"I liked having to perform an audit, learning the calculations and tools of the trade."

— Luke Hutchins, Director of Buildings and Grounds  
Parker Ridge Retirement Community

#### Facility Managers – How to Get Started Saving Energy:

"Good way to save money!!"

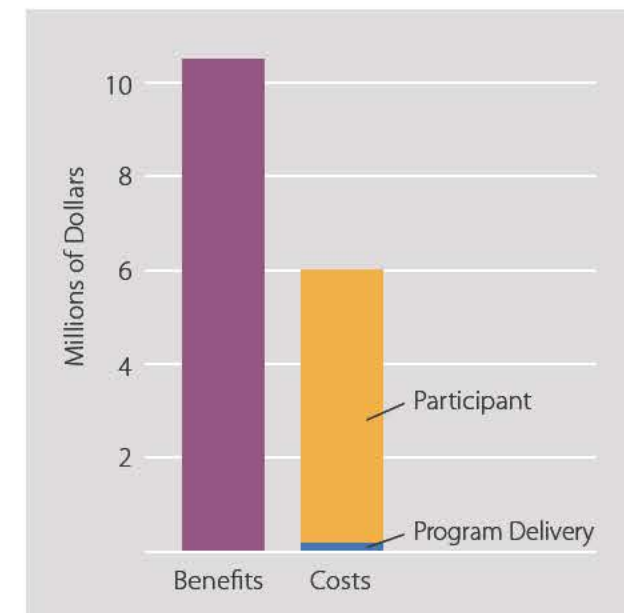
— Bob Onoroto, Head of Maintenance  
Bristol School

#### Fundamentals of Lighting Efficiency:

"Keep more of these types of seminars coming."

— John Byrne, Lighting Specialist  
Graybar Electric Company

### Efficiency Maine 2008 Building Operator Certification Program Benefits vs. Costs.



### Building Operator Certification (BOC)

The BOC Program, provided in cooperation with the Northwest Energy Efficiency Council (NEEC), offers eight-day courses over two to four months that train facility managers to improve energy efficiency, reduce maintenance costs, and enhance building occupant comfort and safety.

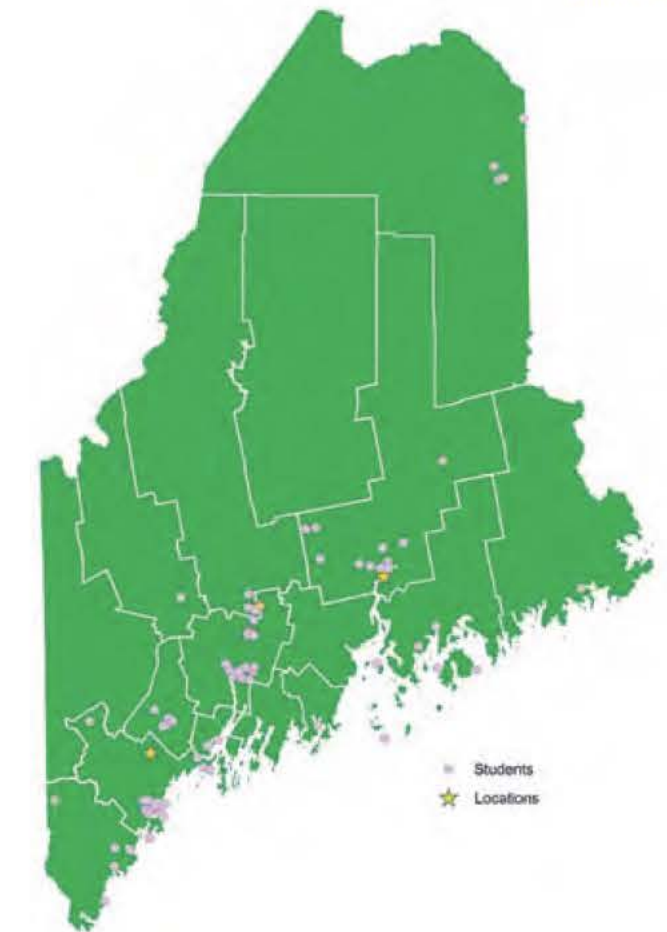
While the courses instruct students in the use of advanced building equipment and controls, they also emphasize that huge savings at virtually no cost can be achieved by simple preventive maintenance and better management, such as turning down thermostats and shutting off lights when not needed.

BOC certification requires demonstrated competence in all of the following areas:

- Evaluating building energy consumption
- HVAC energy inspection
- Lighting surveys
- Indoor air pollutant sources and pathway locations
- Facility electrical distribution

In FY 2008, BOC trained 82 students, more than twice as many as last year (34), via two BOC Level I courses and one BOC Level II

(continued)



Efficiency Maine 2008 Building Operator Certification Courses

## Building Operator Certification (continued)

course, 28% of whom are responsible for facility management of K-12 schools. While the largest number (23, up from 13 in '07) continued to be from K-12 schools, the number of participants from the private sector increased the most (from seven to 19), even though they paid a higher tuition. Others included three from Federal agencies, 21 from State agencies, nine from towns, and six consultants.

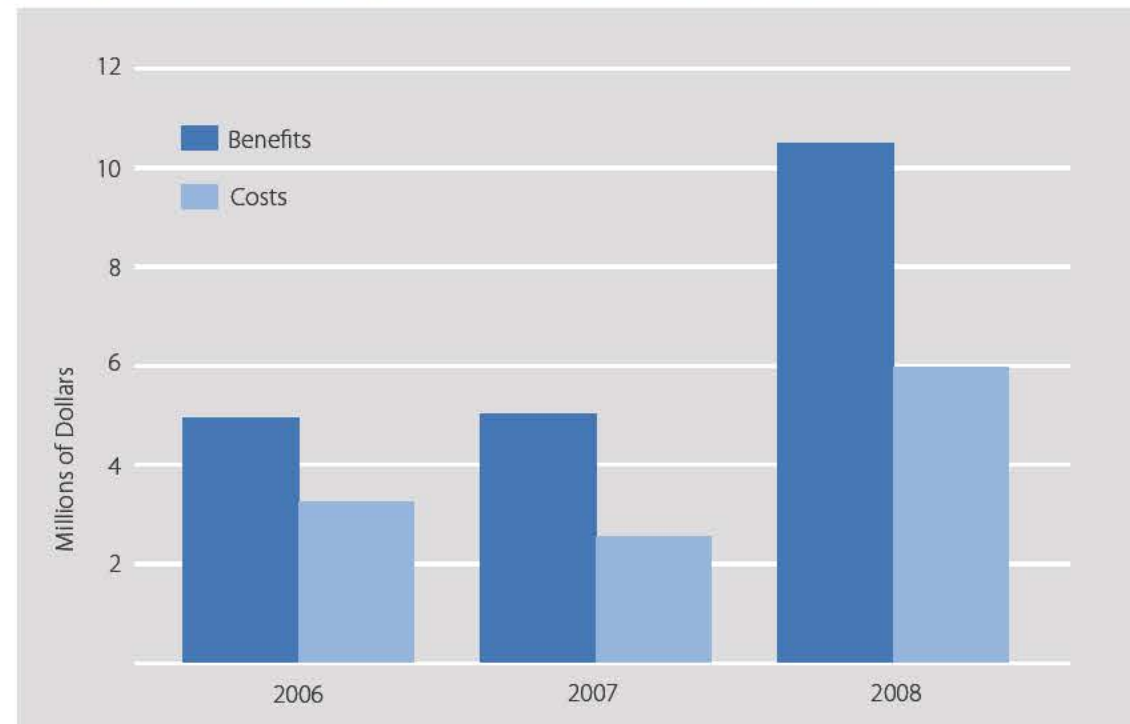
The dramatic increase in participation is attributable partly to the economic environment, as well as new tuition rebates to participants of \$100 upon earning the BOC credential and \$200 upon submittal of an approved incentive application for an energy efficiency project at their facility.

### BOC Program Track Record at a Glance

Cumulative Results, FY 2002–2008:

- 430 Students
- 21 courses in locations all over Maine: Auburn, Augusta, Bangor, Brewer, Calais, Old Town, Orono, Portland, Presque Isle/Houlton and Sanford

Efficiency Maine BOC End-User Facility Benefits vs. Costs as a Result of Training 2006-2008



## Looking Ahead

In 2009, Efficiency Maine's Education and Training Programs plan to:

- Implement the PowerSleuth Energy Lights Maine! curriculum field-tested in 2008; and continue the other established schools education courses, striving to ensure that energy curricula can be incorporated into students' daily educational experience.
- Continue the current professional training courses, while expanding opportunities to involve Business Program Allies.
- Provide two BOC Level I courses in the Millinocket and Portland areas, and one BOC Level II course in the Brewer area, continuing to provide courses at a reduced tuition for public-sector students, while charging the private sector higher tuition to help offset Program costs.

## High Performance Schools Program

Over its five-year lifespan (FY 2004-2008), Efficiency Maine provided more than \$5 million in incentives to help build "high-performance" schools, that is, school buildings incorporating new energy-efficient technologies and energy-management considerations in their design and construction.

Through 2008, districts all over Maine—from Ashland to Buxton, Hiram to North Haven Island—have begun or completed construction of 31 schools under the program, and seven more qualify under the current guidelines. Maine High Performance Schools Program incentives in 2008 generated energy savings of 7,613 MWh and \$1.3 million in lifetime economic benefits, for a benefit-to-cost ratio of 1.92 to 1. These savings are particularly valuable in light of the recent volatility in energy pricing.



**No-Brainer** High Performance Schools are also healthier schools: better lighting is easier on the eyes, and improved ventilation pumps out germs faster so the building air is healthier.

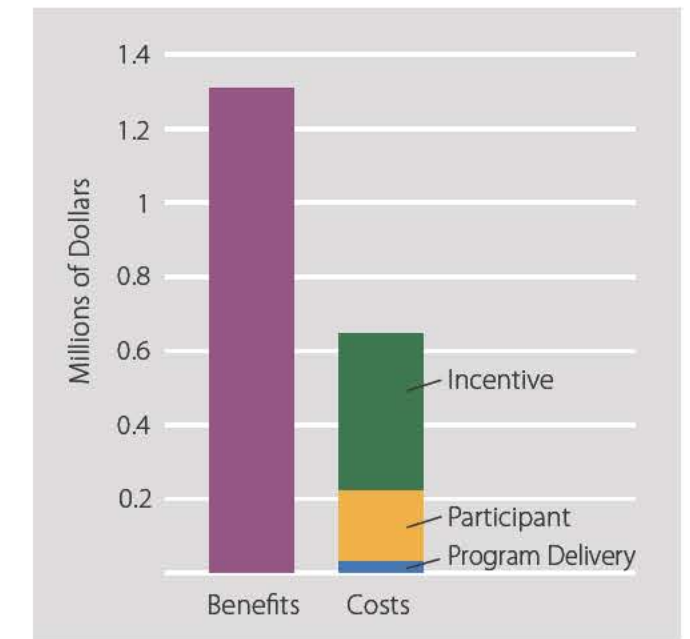
## Looking Ahead

During FY 2009, once the current round of schools is completed under the Major Capital School Construction Program, Efficiency Maine will begin to include schools in a comprehensive Commercial New Construction program that will adopt even higher energy-efficiency standards. Schools will be eligible for incentives under the same guidelines as all other non-residential buildings. Based on past experience, Efficiency Maine fully expects the design community to meet this challenge to improve building efficiency standards once again.



**Team Effort** Efficiency Maine has introduced a "building commissioning" program that makes it easier for schools to verify optimal installation and operation of new equipment and systems.

Efficiency Maine 2008 High Performance Schools Program Benefits vs. Costs





## Related Programs Administered by Efficiency Maine

### State Energy Program (SEP) Grant

In 2008, Efficiency Maine took on the administration of several programs funded by this annual grant from the U.S. Department of Energy. Most of Efficiency Maine's non-electrical energy programs are funded through this grant, including the Small Business Energy Audit and Low-Interest Loan programs.

### Small Business Audit & Loan Program

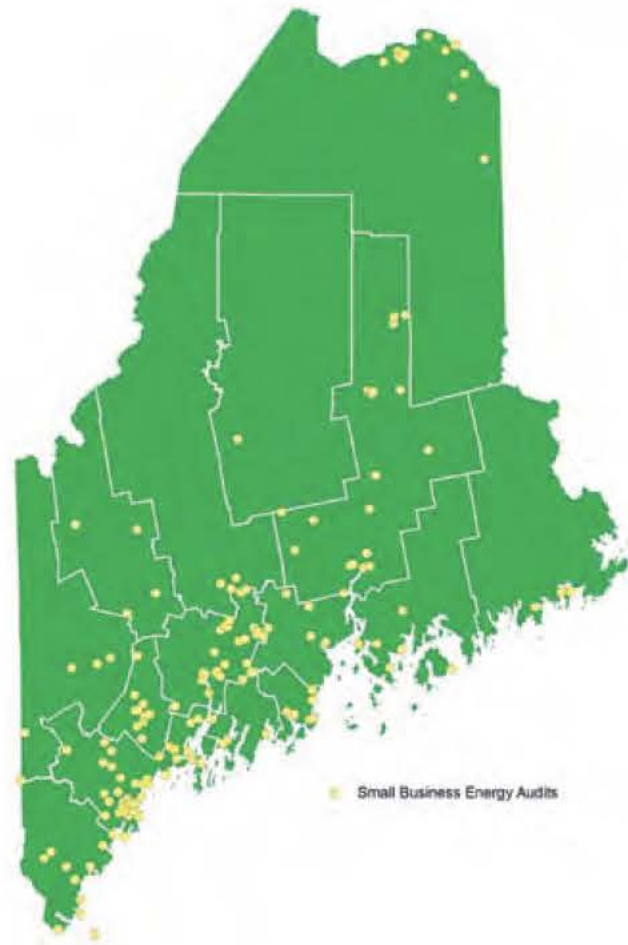
**Energy Audits** This Program provides free energy audits to commercial, nonprofit, and manufacturing facilities with fewer than 50 full-time employees or less than \$5,000,000 in annual revenue. After a walk-through audit (rather than an engineering assessment),

clients receive a written report on changes they can make to improve energy efficiency and save money, as well as funding sources available to help implement the recommendations.

**Low-Interest Energy-Efficiency Loans** Revolving low-interest loans (currently at 3%) fund energy-conservation measures for small businesses meeting the same criteria as the energy audit program. To qualify, businesses must first receive an energy audit. Examples of eligible projects: insulation, windows, refrigeration, auxiliary power units for truckers, and renewable energy projects such as geothermal, wind and solar.

### 2008 Highlights

- Conducted 226 energy audits (+35% vs. 2007) saving an estimated 2,588,400 kWh and \$1,354,749 in energy costs.
- Approved 10 loans in FY 2008 totaling \$250,113, saving 163,069 kWh.
- Introduced loans to truckers for auxiliary power units (APUs) and approved loans for 22 APUs, each of which will save \$12,000 per year at current diesel prices.
- A partnership with the Finance Authority of Maine (FAME) allowed Efficiency Maine to raise the previous \$35,000 loan cap to \$250,000.
- The SEP obtained two wind-measuring instruments called "anemometers" for loan to communities and institutions seeking to assess wind potential for non-commercial projects. Engineering students at the University of Maine's Orono campus are providing technical assistance.



2008 Small Business Energy Audits



Students receive a Voluntary Renewable Resources Fund grant for the photovoltaic solar-power project they initiated to help light Yarmouth High School with clean electricity.

### 2008 Voluntary Renewable Resources Fund Grants

Applicant	Resource Type	Grant Award
Norway Wastewater Dept.	Solar-Bee Photovoltaic (PV) system	\$50,000
Lincoln Middle School – Portland	3.5 kW Solar PV array (plus 1 kW pole system)	\$37,200
University of Maine – Presque Isle	400-700 kW wind turbine – 1,000,000 kWh/year	\$50,000
Town of Kittery	50 kW wind turbine installed at the Kittery solid waste transfer station	\$50,000
Downeast Salmon Federation – E. Machias	6,000 watt PV system	\$50,000
Winter Cache project – Portland	Solar-powered water pump and irrigation system	\$8,711
Gray – New Gloucester High School	3.44 kW PV system on west wing	\$36,450
Yarmouth High School	3 kW solar PV system	\$26,400
Middle School of the Kennebunks	5.6 kW Solar PV system	\$35,213
Ocean Energy Institute – Vinalhaven	Restoration of historic tidal power dam on Vinalhaven Island	\$18,915
<b>TOTAL</b>		<b>\$362,889</b>

### The Renewable Resources Fund

Supported by voluntary contributions consumers make via electric bills, the fund supports small-scale demonstration projects designed to educate the community on the cost-effectiveness of harnessing natural resources for clean electricity. In 2008, the Fund awarded ten grants totaling \$362,889 (see table above).

### Looking Ahead

- A grant from the Federal Department of Energy will create a working group to support development of small wind power projects in the State.
- Efficiency Maine partners with the Department of Environmental Protection to use a \$13,000 EPA grant to provide mini-grants up to \$1,400 to nine pre-selected schools that have participated in DEP's Greenhouse Gas Survey.
- Efficiency Maine contracts with the Maine Energy Investment Corporation to provide a website and electronic newsletter providing information on biofuels activities and issues, including a list of biofuels sources for Maine drivers.
- A Biofuels Special Projects Grant with Safe Handling from the Federal Department of Energy provides for the development of a biodiesel terminal at Safe Handling in Auburn. This will allow producers, wholesalers or even a co-op of distributors to store fuel in this central location for direct transfer to distributors' trucks.
- A Rebuild America High-Performance Campus Project, funded by a special project grant through the Federal Department of Energy, will create an energy management team for the University of Maine System.
- Beginning in 2009, the Renewable Resources Fund will have an additional funding source. Under the statutory "Alternative Compliance Mechanism", Competitive Energy Providers may satisfy the State's renewable portfolio requirements by making payments to the fund.

### Carbon Free Homes (CFH)

Efficiency Maine manages this web-centered social awareness campaign ([www.carbonfreehomes.org](http://www.carbonfreehomes.org)), which has helped Maine households reduce or even eliminate their carbon footprint since April, 2007. Consumers can learn what it means to go "carbon-free"; receive help calculating their household's carbon emissions; learn simple steps to reduce their carbon footprint and energy costs; and



Simple steps to a smaller footprint.

go carbon-free by purchasing clean energy or renewable energy certificates (RECs). Efficiency Maine contracted with Maine Partners for Cool Communities to bring energy efficiency information into neighborhoods all over Maine, and worked closely with other grassroots organizations to encourage participation in CFH. In addition, brochures and a TV campaign directed consumers to the website.

### Looking Ahead

Efficiency Maine will continue to partner with MPCC and other grassroots organizations to deliver this important message throughout Maine.

(continued)

## Related Programs Administered by Efficiency Maine (continued)

### Solar and Wind Energy Rebate Program

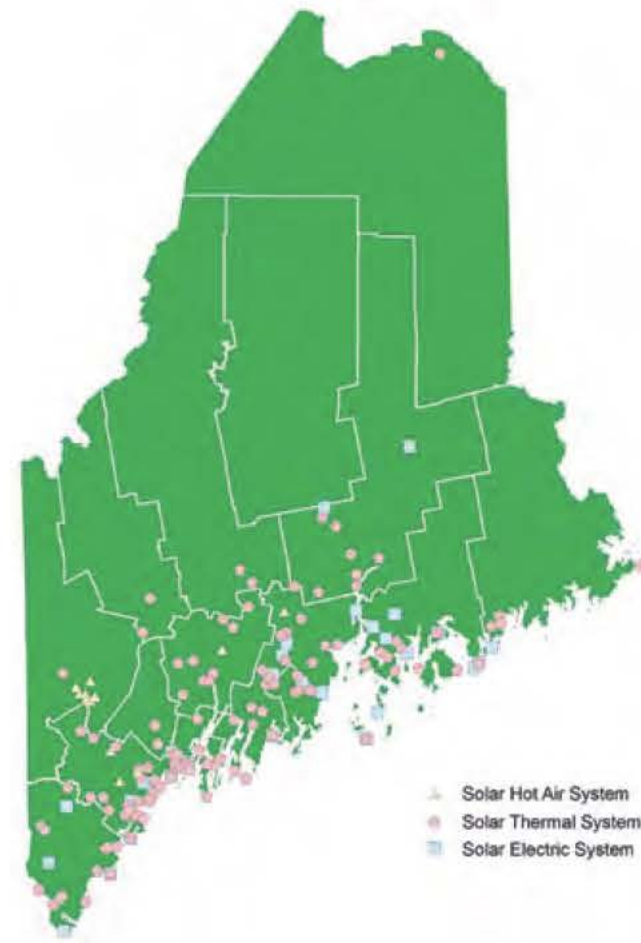
Funding for Solar Incentives was established by statute with an initial 25% allocated to photovoltaic (PV) and 75% to thermal systems. In January, 2008 incentives for solar thermal systems were dramatically enhanced.

Governor John Baldacci and the Legislature originally established this program to provide rebates for photovoltaic and solar thermal systems. In 2008, the Legislature added a new wind incentive component for deployment in 2009. In 2008, the MPUC opened a rulemaking proceeding to implement those statutory changes. (For more information, see a separate report on the Program submitted to the Legislature and available on the MPUC and Efficiency Maine websites.)

In 2008, the rise in fuel prices stimulated strong growth in demand for solar installations and Program incentives. Solar thermal incentives were temporarily suspended in June. In response, the MPUC set in motion plans to modify incentive levels based on Program performance, evolving market conditions and stakeholder recommendations.

#### 2008 Highlights

- Installations in 2008 were up dramatically to 398 thermal (+224% vs. 2007) and 34 PV (+127%).
- Additional trades (including Master Plumbers, Boiler Technicians and Refrigeration Technicians) became eligible for certification as solar installers and Efficiency Maine began offering five solar-installation-training classes, vs. two in prior years. There are now over 200 trained installers, with another 175 projected to be trained by the end of calendar year 2008.



2008 Solar Rebates by Type

#### Looking Ahead

Rebates for solar thermal systems will be resumed in 2009. In addition to adjusting the solar incentives, the Program will offer incentives for wind systems. The MPUC will also implement a pilot wind program established by the Legislature in 2008.



**The Solar Forecast: Sunny** Demand grew for energy savings from solar thermal and photovoltaic installations. Professionals and homeowners alike sought increased training and assistance from Efficiency Maine.



## Conclusions & Projections

Efficiency Maine continues to achieve the twin objectives of immediate electricity savings and long-term market transformation. For both objectives, measures of success center on reduced electricity consumption, economic benefits to the State and excellence in Program delivery.

Over the five years 2004–2008, Efficiency Maine's programs—primarily Business and Residential Lighting—have generated cumulative electricity savings of 3.1 million MWh, worth an estimated lifetime economic value of \$310 million. These savings have been achieved at an average cost of 3.3¢ per kWh, yielding a program benefit-to-cost ratio of 3.06 to 1. The associated environmental benefits include preventing the release of more than 1.6 million metric tons of CO<sub>2</sub> over the measures' lives. Efficiency Maine has consistently delivered savings levels better than projections made by independent research.

The past year saw huge strides toward market transformation—that is, fundamental changes in the ways people and companies think about energy efficiency and have transformed their behaviors. CFLs and energy-efficient appliances, for example, are now woven into the very fabric of consumers' daily lives; while businesses calculate the energy implications of any new equipment purchase, building or other major initiative. The recent steep rises in energy costs and the economic downturn have contributed significantly to the transformation of Maine's residential and business markets, along with

Efficiency Maine's consistent and far-reaching education, training and marketing activities.

A key benefit of market transformation is that Efficiency Maine can reduce the level of cash incentives for some programs and transfer them to new technologies.

### Projected 2009

#### Ongoing Programs

- Efficiency Maine will continue to evaluate all programs and make adjustments as needed to ensure the achievement of objectives, based on evolving economic conditions and the progress towards market transformation.
- Efficiency Maine will continue to balance benefit-to-cost ratios, geographic and socio-economic equity, and environmental factors in allocating funds for the marketing and delivery of the various programs.

#### Ongoing Collaboration

- Efficiency Maine will continue active partnership with other agencies and organizations to increase the effectiveness and public awareness of the services offered.

(continued)



**Exhibiting Efficiency** One of the best ways to get out the word about Efficiency Maine's many programs is via live appearances at home energy shows and other public venues. The modular components of a Residential Program exhibit booth shown above have a "twin" that is used for the Business Program.

## Conclusions & Projections (continued)

### New Initiatives

- Efficiency Maine plans to roll out a Commercial New Construction Program, Maine Advanced Buildings, and work with the Energy & Building Codes Board to design a residential new construction program to build to a higher standard of energy efficiency.

### Involvement with RGGI

On September 25, 2008, Maine participated in the first-in-the-nation auction of CO<sub>2</sub> allowances. Proceeds from this and subsequent quarterly auctions will be administered by the newly created Energy and Carbon Savings Trust and used to reduce electricity consumption and promote fossil fuel conservation in Maine. The Maine Energy Conservation Board (MECB) has been established as an advisory body to the MPUC and the Carbon Savings Trust.

As the MECB and the Carbon Savings Trustees consider fundamental decisions about investing in energy-efficiency projects, Efficiency Maine expects to participate in program planning efforts and the pursuit of mutual objectives.

### 2009 Budget

In 2008, Efficiency Maine Program spending was funded by a combination of the conservation assessment and a carryover of unspent funds from prior years. One specific program, the Schools "Budget Booster Initiative", allocated some of these funds to double incentives for new energy-efficiency projects. The initiative was announced just as fossil fuel prices began a dramatic increase, and response to the program quickly outstripped the budget, requiring the double incentive program to be curtailed earlier than expected.

This experience illustrates the market sensitivity to energy price increases, and how suddenly program participation can change. Efficiency Maine works to maintain a balance between an adequate financial reserve to manage these unexpected surges of interest while still being able to infuse new and existing programs with a budget that anticipates healthy response and growth.

The following table represents Efficiency Maine's best estimates for future program expenditures based upon current portfolio design and revenue trends. These projections are likely to be modified through the course of 2009. Uncertainties about the economic environment and Maine's implementation of the Regional Greenhouse Gas Initiative are likely to have significant impacts on these forecasts.

Efficiency Maine Projected Four-Year Budget (2009-2010) <sup>1</sup>				
Program	FY '09	FY '10	FY '11	FY '12
Low-Income	\$2,400,000	\$2,550,000	\$2,800,000	\$2,900,000
Residential	\$1,900,000	\$2,200,000	\$2,400,000	\$2,500,000
Residential New Construction	\$25,000	\$1,000,000	\$800,000	\$800,000
Small Business <sup>2</sup>	\$2,400,000	\$2,550,000	\$2,800,000	\$2,900,000
Business	\$2,410,000	\$2,200,000	\$2,300,000	\$2,400,000
Education and Outreach	\$675,000	\$700,000	\$900,000	\$1,000,000
High Performance Schools	\$600,000	0 <sup>3</sup>	0	0
Commercial New Construction	\$310,000	\$1,300,000	\$1,100,000	\$1,100,000
Administration	\$642,094	\$650,000	\$700,000	\$725,000
Other <sup>4</sup>	\$555,000	\$500,000	\$550,000	\$550,000
<b>Total</b>	<b>\$11,917,094</b>	<b>\$13,650,000</b>	<b>\$14,350,000</b>	<b>\$14,875,000</b>

<sup>1</sup> Budgets are created looking forward at anticipated revenues. Given the recent economic downturn and potential changes in revenue sources through restructuring or legislation, budget estimates are uncertain approximations.

<sup>2</sup> In 2008, the Business Programs ran a special initiative doubling schools incentives, which resulted in a greater than expected response. Some of those obligations will come due in 2009.

<sup>3</sup> In 2009, the High Performance Schools program will be merged with the Commercial New Construction Program.

<sup>4</sup> Other costs include non-program costs such as annual grants to the Energy Resources Council, promotion for Carbon Free Homes and Maine-based renewable energy, RGGI implementation, Maine Home Performance program costs, Sta-Cap (State of Maine administrative) charges, memberships and sponsorships.

## Appendix A: Business Program

Table A1: Business Program: FY '08 Participation 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		
Business (≤50 Employees)	526	646	7,866	2.08	8,795	2.32	\$1,037,502.22	33%
Business (>50 Employees)	164	292	26,249	4.08	29,346	4.56	\$2,131,073.53	67%
<b>Total</b>	<b>690</b>	<b>938</b>	<b>34,115</b>	<b>6.15</b>	<b>38,141</b>	<b>6.88</b>	<b>\$3,168,575.75</b>	<b>100%</b>

<sup>1</sup> Number of participants differs from number of projects in that 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 Program: FY '08 Savings by Business Type

Business Type	No. of Projects	Savings at Customer Level		Savings at Generation Level		Incentive Amount	Total Participant Costs <sup>1</sup>	Percent of MWh Savings by Business Type
		MWh Savings	MW Savings	MWh Savings	MW Savings			
Business	711	29,483	4.70	32,962	5.25	\$2,587,934	\$7,515,380	86%
Government	137	4,069	1.26	4,549	1.41	\$512,287	\$1,592,046	12%
Nonprofit Organization	90	563	0.20	629	0.22	\$68,355	\$219,941	2%
<b>Total</b>	<b>938</b>	<b>34,115</b>	<b>6.15</b>	<b>38,141</b>	<b>6.88</b>	<b>\$3,168,576</b>	<b>\$9,327,366</b>	<b>100.00%</b>

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



Business Type	No. of Projects	Savings at Customer Level		Savings at Generation Level		Incentive Amount	Total Participant Costs <sup>1</sup>	Percent of MWh Savings by Business Type
		MWh Savings	MW Savings	MWh Savings	MW Savings			
Agriculture	61	975	0.16	1,090	0.18	\$51,910	\$126,743	2.86%
College	11	570	0.12	637	0.14	\$41,688	\$144,860	1.67%
Convenience Store	10	58	0.01	65	0.01	\$5,497	\$17,844	0.17%
Elementary/Secondary School	110	3,099	1.12	3,465	1.25	\$462,492	\$1,435,692	9.08%
Grocery Store	30	1,419	0.21	1,587	0.24	\$170,096	\$319,110	4.16%
Health	20	161	0.04	180	0.04	\$23,334	\$81,101	0.47%
Hospital	9	124	0.03	138	0.03	\$35,350	\$89,068	0.36%
Lodging	29	397	0.09	444	0.10	\$34,037	\$85,052	1.16%
Manufacturing	141	16,745	2.18	18,721	2.43	\$1,182,236	\$3,804,187	49.08%
Office	112	1,248	0.37	1,395	0.41	\$204,199	\$577,567	3.66%
Restaurant	16	86	0.03	96	0.04	\$16,973	\$26,505	0.25%
Retail	93	3,648	0.82	4,078	0.92	\$263,425	\$706,720	10.69%
Warehouse	69	1,142	0.34	1,277	0.38	\$141,328	\$420,068	3.35%
Other	227	4,443	0.62	4,968	0.70	\$536,012	\$1,492,849	13.02%
<b>Total</b>	<b>938</b>	<b>34,115</b>	<b>6.15</b>	<b>38,141</b>	<b>6.879643</b>	<b>\$3,168,575.75</b>	<b>\$9,327,365.99</b>	<b>100.00%</b>

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

County	Population by County <sup>1</sup>	Businesses by County <sup>2</sup>	No. of Projects	Savings at Customer Level	Savings at Generation Level	Total Lifetime Economic Benefits	Total Participant Incentives	Total Participant Costs <sup>3</sup>	Percent of MWh Savings by County	Percent of Businesses by County	Percent of Population by County
				MWh Savings	MWh Savings						
Androscoggin	106,815	2,824	66	1,227	1,372	\$1,952,121	\$142,059	\$412,980.00	4%	7%	8%
Aroostook	72,047	2,181	128	4,552	5,089	\$7,240,961	\$341,632	\$1,140,080.61	11%	5%	5%
Cumberland	275,374	11,000	214	5,371	6,005	\$8,545,047	\$632,390	\$1,564,620.50	20%	27%	21%
Franklin	29,927	867	23	1,418	1,585	\$2,255,328	\$165,252	\$481,567.00	5%	2%	2%
Hancock	53,278	2,175	27	1,211	1,354	\$1,926,040	\$87,050	\$237,644.00	3%	5%	4%
Kennebec	120,839	3,350	68	3,261	3,646	\$5,187,321	\$353,342	\$1,033,859.69	11%	8%	9%
Knox	40,781	1,651	42	308	344	\$489,484	\$38,145	\$122,348.00	1%	4%	3%
Lincoln	34,800	1,493	26	498	556	\$791,579	\$43,457	\$126,552.00	1%	4%	3%
Oxford	56,734	1,427	16	1,921	2,148	\$3,056,171	\$209,251	\$532,790.50	7%	3%	4%
Penobscot	148,784	4,215	115	2,199	2,459	\$3,498,456	\$213,043	\$556,883	7%	10%	11%
Piscataquis	17,180	481	7	576	644	\$916,262	\$64,096	\$135,402.80	2%	1%	1%
Sagadahoc	36,387	890	32	1,966	2,198	\$3,127,271	\$143,057	\$565,071.00	5%	2%	3%
Somerset	51,658	1,181	37	3,458	3,866	\$5,501,073	\$250,965	\$943,108.00	8%	3%	4%
Waldo	38,511	978	24	507	566	\$805,936	\$55,383	\$141,160.00	2%	2%	3%
Washington	32,751	924	26	527	589	\$838,477	\$37,060	\$107,967.45	1%	2%	2%
York	201,341	5,573	86	5,087	5,688	\$8,093,131	\$382,909	\$1,103,632.00	12%	14%	15%
Projects attributed to multiple Counties	n/a	n/a	1	29	33	\$46,594	\$9,485	\$121,700	n/a	n/a	n/a
<b>Total</b>	<b>1,317,207</b>	<b>41,210</b>	<b>938</b>	<b>34,115</b>	<b>38,141</b>	<b>\$54,271,253</b>	<b>\$3,168,576</b>	<b>\$9,327,366</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Notes:

<sup>1</sup> Annual Estimates of the Population for Counties of Maine, 2007. Population Division, US Census Bureau

<sup>2</sup> County Business Patterns: Maine 2004. Table 4. US Census. June 2006. pg 281

<sup>3</sup> Participant costs are full costs on retrofit and incremental costs on new construction/replace on burnout.

Table A5: Business Program: Growth in Approved Program Allies

Program Ally Types	Prior to FY '04	FY '04	FY '05	FY '06	FY '07	FY '08	Total	Percent by Ally Type
Lighting	2	2	4	-	1	1	10	2%
Electrical	1	16	31	3	-	5	56	10%
HVAC	-	3	6	2	2	-	13	2%
Consultant/Engineering/Architect	-	13	19	11	4	-	47	8%
Plumbing/Mechanical	-	-	-	-	-	-	-	0%
Contractor	-	31	71	28	1	1	132	22%
Retailer	2	-	1	-	-	-	3	1%
Wholesaler	1	-	-	-	-	-	1	0%
Manufacturer's Representative	2	4	1	-	2	-	9	2%
ESCO	-	1	2	4	-	-	7	1%
Finance Company	1	-	-	-	-	-	1	0%
Management Company	-	1	-	-	-	-	1	0%
Other	5	-	-	-	1	2	8	1%
Agriculture	-	1	-	-	-	-	1	0%
Agricultural Equipment	-	-	-	-	-	-	-	0%
Refrigeration	-	-	1	-	-	-	1	0%
Variable Frequency Drive	-	-	3	1	-	-	4	1%
More than One Type	46	29	39	17	26	30	294	50%
<b>Total Approved Each Year</b>	<b>60</b>	<b>101</b>	<b>178</b>	<b>66</b>	<b>37</b>	<b>39</b>	<b>588</b>	<b>100%</b>

Table A6: Business Program: Financial Report

Incentive Costs	Prior Year (FY '07)	Current Year (FY '08)
Incentives to Participants	\$2,813,674.00	\$3,168,576
Incentives to Trade Allies		
<b>Subtotal Incentives</b>	<b>\$2,813,674.00</b>	<b>\$3,168,575.75</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$2,530,281.00	\$2,807,851.00
Marketing	\$653,489.00	\$385,301.00
<b>Subtotal Program Delivery Costs</b>	<b>\$3,183,770.00</b>	<b>\$3,193,152.00</b>
<b>Administrative and Management Costs</b>	<b>\$141,534.00</b>	<b>\$120,187.00</b>
<b>Evaluation Costs</b>	<b>\$173,565.00</b>	<b>\$0.00</b>
<b>Total Efficiency Maine Costs</b>	<b>\$6,312,543.26</b>	<b>\$6,481,914.75</b>
<b>Annualized MWh Savings</b>	<b>36,717</b>	<b>38,141</b>
<b>Lifetime MWh Savings</b>	<b>465,746</b>	<b>450,217</b>
<b>Total Lifetime Economic Benefits</b>	<b>\$53,656,995.00</b>	<b>\$54,271,253</b>
<b>Business Program Benefit-to-Cost Ratio</b>	<b>4.56</b>	<b>4.29</b>

Appendix B: Residential Program

Table B1: Residential ENERGY STAR Lighting Program – FY '08 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 Costs
			Total MWh Savings	Total MWh Savings			
Androscoggin	106,815	106,388	4,693.46	5,195.79	\$4,757,352.47	\$123,192.39	\$427,242.23
Aroostook	72,047	37,173	1,946.21	2,154.49	\$1,972,702.29	\$27,036.18	\$170,857.74
Cumberland	275,374	302,762	13,604.18	15,060.19	\$13,789,369.38	\$367,234.36	\$1,202,278.72
Franklin	29,927	20,341	1,024.27	1,133.90	\$1,038,217.00	\$21,491.91	\$86,221.78
Hancock	53,278	58,443	2,557.04	2,830.75	\$2,591,845.51	\$60,966.67	\$242,148.67
Kennebec	120,839	131,151	5,633.64	6,236.54	\$5,710,333.35	\$139,763.36	\$530,231.04
Knox	40,781	40,204	1,771.98	1,961.65	\$1,796,104.35	\$42,655.09	\$165,388.32
Lincoln	34,800	23,942	1,176.92	1,302.91	\$1,192,938.15	\$25,722.26	\$103,407.67
Oxford	56,734	23,817	1,214.65	1,344.65	\$1,231,184.21	\$23,575.35	\$105,378.50
Penobscot	148,784	132,214	5,831.75	6,455.86	\$5,911,138.43	\$148,026.34	\$537,590.32
Piscataquis	17,180	12,458	574.10	635.54	\$581,912.86	\$14,022.58	\$50,467.59
Sagadahoc	36,387	50,622	2,261.02	2,503.00	\$2,291,799.84	\$54,273.40	\$206,890.81
Somerset	51,658	25,072	1,270.98	1,407.01	\$1,288,279.39	\$24,330.70	\$110,369.13
Waldo	38,511	19,912	992.38	1,098.61	\$1,005,891.03	\$22,846.39	\$85,234.55
Washington	32,751	14,052	693.21	767.42	\$702,643.23	\$13,136.92	\$62,572.48
York	201,341	103,999	4,732.92	5,239.47	\$4,797,352.92	\$116,087.42	\$425,883.91
Unknown <sup>2</sup>	0	8,364	427.20	472.91	\$433,011.46	\$14,990.95	\$31,530.19
<b>Total</b>	<b>1,317,207</b>	<b>1,110,914</b>	<b>50,406</b>	<b>55,801</b>	<b>\$51,092,075.86</b>	<b>\$1,239,352.27</b>	<b>\$4,543,693.65</b>

<sup>1</sup> Annual Estimates of the Population for Counties of Maine, July 1, 2007. Population Division, US Census Bureau

<sup>2</sup> Consists of bulbs dispersed through special promotions and/or giveaways that cannot be attributed to one specific county.

Table B2: Residential ENERGY STAR Lighting Program – Annual Growth in Program Allies

Program Ally Types	FY '02	FY '03	FY '04	FY '05	FY '06	FY '07	FY '08	Program to Date
Department	2	0	0	25	0	18	0	45
DIY	8	2	2	2	1	2	0	17
Grocery		0	0	54	1	4	2	61
Hardware (Independent)	96	13	0	18	1	-11	6	123
Hardware (Chain)	27	9	5	18	1	-18	3	45
Showroom	5	2	1	0	0	-2	2	8
Wholesale	0	0	0	0	1	4	0	5
Other	0	0	0	7	1	-1	0	7
<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>	

## Appendix C: Low-Income Program

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

Measure	FY '04	FY '05	FY '06	FY '07	FY '08
CFL Bulbs	68,767	107,151	636,704	788,125	1,089,227
Ceiling Fans	169	118	107	59	0
External Fixtures	1,459	1,636	2,299	1,876	1,570
Internal Fixtures	4,403	4,259	6,260	6,840	6,512
Table/Floor Lamps	8	78	5	145	1,269
Torchieres	881	208	130	98	50
LED Holiday Lights	–	–	–	7,689.00	12,286.00
<b>Total</b>	<b>75,687</b>	<b>113,450</b>	<b>645,505</b>	<b>804,832</b>	<b>1,110,914</b>

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

Table B4: Residential ENERGY STAR Lighting Program – Financial Report

Incentive Costs	Prior Year (FY '07)	Current year (FY '08)
Incentives to Participants	\$842,833	\$1,239,352
Incentives to Trade Allies	\$0	\$0
<b>Subtotal Incentives</b>	<b>\$842,833</b>	<b>\$1,239,352</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$911,876	\$843,403
Marketing	\$378,583	\$586,266
<b>Subtotal Program Delivery Costs</b>	<b>\$1,290,460</b>	<b>\$1,429,669</b>
<b>Administrative and Management Costs</b>	<b>\$94,225</b>	<b>\$96,167</b>
<b>Evaluation Costs</b>	<b>\$0</b>	<b>\$74,895</b>
<b>Total Efficiency Maine Costs</b>	<b>\$2,227,518</b>	<b>\$2,840,083</b>
<b>Annualized MWh Savings</b>	<b>36,299</b>	<b>55,801</b>
<b>Lifetime MWh Savings</b>	<b>275,871</b>	<b>424,085</b>
<b>Total Lifetime Economic Benefits</b>	<b>\$20,939,446</b>	<b>\$51,092,076</b>
<b>Business Program Benefit-to-Cost Ratio</b>	<b>4.38</b>	<b>6.92</b>

Table C1: Low-Income Program: FY '08 Benefits and Costs by County

County	Appliance Replacement Program			Residential Initiative for Maine	Direct Mail CFLs	Savings at Customer Level			Savings at Generation Level			Total Lifetime Economic Benefits
	Community Action Agency	Refrigerators (RF)	Qty CFLs			RF MWh Savings	CFL MWh Savings	Total MWh Savings	RF MWh Savings	CFL MWh Savings	Total MWh Savings	
Androscoggin	ACAP	182	1,727	4,128	7,536	200	316	515	223	353	576	\$549,614
Aroostook	CCAP	0	0	2,020	10,584	0	260	260	0	291	291	\$277,360
Cumberland	CCI	201	2,751	1,915	8,160	228	247	475	255	276	531	\$506,578
Franklin	CCI	201	2,751	431	4,224	228	135	363	255	151	406	\$387,307
Hancock	CED	0	0	0	3,272	0	67	67	0	75	75	\$72,003
Kennebec	CED	0	0	905	10,144	0	228	228	0	255	255	\$243,142
Knox	KVCAP	102	553	70	3,288	140	87	227	156	97	254	\$242,278
Lincoln	KVCAP	53	281	200	1,896	84	53	137	94	59	153	\$146,297
Oxford	PCAP	157	668	230	6,272	178	156	334	199	175	374	\$356,412
Penobscot	PCAP	157	668	1,395	11,384	178	286	464	199	320	518	\$494,542
Piscataquis	PROP	79	859	25	2,208	108	73	181	121	82	203	\$193,329
Sagadahoc	WCAP	118	852	1,090	1,944	134	80	215	150	90	240	\$229,143
Somerset	WHCA	222	2,511	270	7,848	222	204	426	248	228	476	\$454,418
Waldo	WHCA	222	2,511	65	4,424	222	129	351	248	145	393	\$374,560
Washington	WMCA	82	757	0	3,808	83	102	186	93	114	207	\$197,958
York	YCCAC	320	3,480	2,230	7,328	376	254	631	421	284	705	\$672,852
Unknown	Unknown	0	0	0	1,824		38	38	0	42	42	\$40,138
<b>Total</b>		<b>2,095</b>	<b>20,365</b>	<b>14,974</b>	<b>96,144</b>	<b>2,382</b>	<b>2,716</b>	<b>5,060</b>	<b>2,663</b>	<b>2,994</b>	<b>5,657</b>	<b>\$5,397,792</b>

Table C2: Low-Income Program: Financial Report

Incentive Costs	Prior Year (FY '07)	Current Year (FY '08)
Incentives to Participants	\$1,983,193.00	\$2,649,975.07
Incentives to Trade Allies		
<b>Subtotal Incentives</b>	<b>\$1,983,193.00</b>	<b>\$2,649,975.07</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$0.00	\$0.00
Marketing	\$0.00	\$19,897.00
<b>Subtotal Program Delivery Costs</b>	<b>\$0.00</b>	<b>\$19,897.00</b>
<b>Administrative and Management Costs</b>	<b>\$153,574.00</b>	<b>\$109,320.00</b>
<b>Evaluation Costs</b>	<b>\$0.00</b>	<b>\$18,734.50</b>
<b>Total Efficiency Maine Costs</b>	<b>\$2,136,737.00</b>	<b>\$2,797,926.57</b>
<b>Annualized MWh Savings</b>	<b>3,980</b>	<b>5,657</b>
<b>Lifetime MWh Savings</b>	<b>23,649</b>	<b>34,557</b>
<b>Total Lifetime Economic Benefits</b>	<b>\$2,584,816.00</b>	<b>\$5,397,792</b>
<b>Low-Income Program Benefit-to-Cost Ratio</b>	<b>1.21</b>	<b>1.35</b>

## Appendix D: Building Operator Certification Program

County	Total Participants	Savings at Customer Level	Savings at Generation Level	Total Participant Costs	Total Lifetime Economic Benefits
		Total MWh Savings	Total MWh Savings		
Androscoggin	9	1,469	1,643	713,971	\$1,293,317
Aroostook	5	713	797	351,126	\$627,312
Cumberland	20	2,851	3,187	1,404,504	\$2,509,246
Hancock	5	784	877	382,643	\$690,449
Kennebec	14	2,110	2,359	1,033,580	\$1,857,492
Knox	2	342	383	165,664	\$301,434
Penobscot	11	1,740	1,945	848,118	\$1,531,614
Sagadahoc	2	342	383	165,664	\$301,434
Somerset	3	370	414	185,462	\$325,877
Waldo	1	100	111	51,315	\$87,580
Washington	1	100	111	51,315	\$87,580
York	7	983	1,099	485,273	\$865,609
<b>Total</b>	<b>80</b>	<b>11,905</b>	<b>13,310</b>	<b>5,838,635</b>	<b>\$10,478,944</b>

	Prior Year (FY '07)	Current Year (FY '08)
Number of Classes	2	4
Number of Participants	34	80
<b>Incentive Costs</b>		
Incentives to Participants	\$0.00	\$0.00
Incentives to Trade Allies	\$0.00	\$0.00
<b>Subtotal Incentives</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$74,184.00	\$135,667.00
Marketing	\$0.00	\$0.00
<b>Subtotal Program Delivery Costs</b>	<b>\$74,184.00</b>	<b>\$135,667.00</b>
<b>Administrative and Management Costs</b>	<b>\$23,873.00</b>	<b>\$20,845.46</b>
<b>Evaluation Costs</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Efficiency Maine Costs</b>	<b>\$98,057.00</b>	<b>\$156,512.46</b>
<b>Annualized MWh Savings</b>	<b>5,084</b>	<b>13,310</b>
<b>Lifetime MWh Savings</b>	<b>24,450</b>	<b>59,526</b>
<b>Total Lifetime Economic Benefits</b>	<b>\$4,980,582.43</b>	<b>\$10,478,944</b>
<b>Business Program Benefit-to-Cost Ratio</b>	<b>2.0</b>	<b>1.75</b>

## Appendix E: High Performance Schools Program

	Prior Year (FY '07)	Current Year (FY '08)
<b>Incentive Costs</b>		
Incentives to Participants	\$861,726.00	\$425,751.00
Incentives to Trade Allies	\$0.00	\$0.00
<b>Subtotal Incentives</b>	<b>\$861,726.00</b>	<b>\$425,751.00</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$25,599.00	\$21,492.55
Marketing	\$0.00	\$10,563.00
<b>Subtotal Program Delivery Costs</b>	<b>\$25,599.00</b>	<b>\$32,055.55</b>
<b>Administrative and Management Costs</b>	<b>\$79,017.00</b>	<b>\$33,942.00</b>
<b>Evaluation Costs</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Efficiency Maine Costs</b>	<b>\$966,342.00</b>	<b>\$491,748.55</b>
<b>Annualized MWh Savings</b>	<b>1,372</b>	<b>636</b>
<b>Lifetime MWh Savings</b>	<b>18,455</b>	<b>7,613</b>
<b>Total Lifetime Economic Benefits</b>	<b>\$3,662,131.60</b>	<b>\$1,304,906</b>
<b>Business Program Benefit-to-Cost Ratio</b>	<b>1.24</b>	<b>1.92</b>

## Appendix F: Education and Training Program

	Prior Year (FY '07)	Current Year (FY '08)
<b>Incentive Costs</b>		
Incentives to Participants	\$0.00	\$0.00
Incentives to Trade Allies	\$0.00	\$0.00
<b>Subtotal Incentives</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Program Delivery Costs</b>		
Implementation and Technical Assistance	\$212,487.00	\$275,128.00
Marketing	\$3,700.00	\$34,319.00
<b>Subtotal Program Delivery Costs</b>	<b>\$216,187.00</b>	<b>\$309,447.00</b>
<b>Administrative and Management Costs</b>	<b>\$60,270.00</b>	<b>\$47,692.00</b>
<b>Evaluation Costs</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Efficiency Maine Costs</b>	<b>\$276,457.00</b>	<b>\$357,139.00</b>
<b>Annualized MWh Savings</b>	<b>n/a</b>	<b>n/a</b>
<b>Lifetime MWh Savings</b>	<b>n/a</b>	<b>n/a</b>
<b>Total Lifetime Economic Benefits</b>	<b>n/a</b>	<b>n/a</b>
<b>Business Program Benefit-to-Cost Ratio</b>	<b>n/a</b>	<b>n/a</b>

## Appendix G: Emission Reductions

Emission	FY '04	FY '05	FY '06	FY '07	FY '08	TOTAL
CO <sub>2</sub> (metric tons)	90,053	162,659	320,849	497,491	557,814	1,628,866
SO <sub>2</sub> (metric tons)	56	101	200	829	930	2,116
NOx (metric tons)	21	38	75	426	478	1,038

**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 are from the Avoided Energy Supply Costs: 2007 Final Report August 10, 2007 Synapse Energy Economics  
 CO<sub>2</sub>: 1,260 lbs/MWh  
 SO<sub>2</sub>: 2.1 lbs/MWh  
 NOx: 1.08 lbs/MWh

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

Utility	FY '06 (Actual)	FY '07 (Actual)*	FY '08 (Actual)**	FY '09 (Projected)	FY '10 (Projected)
Central Maine Power Co.	\$7,339,093	\$6,290,032	\$11,869,583	\$9,542,836	\$10,315,861
Bangor Hydro-Electric Co.	\$1,508,735	\$1,288,409	\$1,503,206	\$2,033,698	\$1,877,637
Maine Public Service Co.	\$431,840	\$517,664	\$574,007	\$460,394	\$755,848
Kennebunk Light & Power Co.	\$110,891	\$131,624	\$126,114	\$144,237	\$145,865
Eastern Maine Electric Coop	\$89,926	\$108,796	\$127,688	\$132,858	\$138,898
Houlton Water Co.	\$55,654	\$136,995	\$154,768	\$95,805	\$130,038
Van Buren Light & Power Co.	\$12,782	\$10,866	\$22,847	\$19,830	\$19,837
Fox Island Electric Coop	\$10,107	\$5,446	\$11,135	\$13,352	\$13,755
Swans Island Coop	\$2,125	\$1,467	\$2,601	\$3,075	\$3,147
Madison Electric Works	\$5,960	\$8,213	\$15,636	\$45,617	\$45,311
<b>Total</b>	<b>\$9,567,113</b>	<b>\$8,499,512</b>	<b>\$14,407,585</b>	<b>\$12,491,702</b>	<b>\$13,446,197</b>

**Note:** \* Reflects late collection of \$3,049,311 soon after close of FY '07  
 \*\* Reflects payment of late collected revenues from FY '07 noted above  
**Note:** Revenues in FY '08 decreased by \$1.3 million and will show an estimated reduction of \$2.6 million in FY '09 due to changes in contribution from the T, ST rate classes