2007 ANNUAL REPORT

Leading the Way to a Brighter Future

efficiency MAINE

Program of the Maine Public Utilities Commission

The Maine Public Utilities Commission (MPUC) presents this 2007 Efficiency Maine Annual Report for the Fiscal Year (FY) time period July 1, 2006 to June 30, 2007.

Efficiency Maine was established in 2002 by the Maine Legislature with the passing of "An Act to Strengthen Energy Conservation." 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. As detailed in statute 35-A M.R.S.A. §3211-A, Efficiency Maine's four 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; and

4) Reduce the price of electricity over time for all consumers by achieving reductions in demand for electricity during peak use periods.

This annual report presents the highlights of Efficiency Maine Programs implemented in FY 2007. For more information and to see our Program Evaluations, please go to **efficiencymaine.com.**

Efficiency Maine
2007 Annual Report

Table of Contents

Overview 1

Business Program 5

Residential Lighting Program 9

Low Income Programs 11

Building Operator Certification 13

High Performance Schools Program 15

Education and Training Program 17

Conclusion 21

Appendices 23

- Appendix A: Business Program 23
- Appendix B: Residential Program 27
- Appendix C: Low Income Program 29
- Appendix D: Building Operator Certification Program 30
- Appendix E: High Performance Schools Program 31
- Appendix F: Education and Training Program 31
- Appendix G: Emission Reductions 32
- Appendix H: Utility Conservation Fund Assessments for Efficiency Maine 32

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Leading the Way to a Brighter Future

Program of the Maine Public Utilities Commission

Overview of 2007: A Year of Growth

Leading Maine onto the Green Bandwagon

Thanks to a whole lot of work by a lot of people, being green is in. Global warming is no longer just a theory—it's an accepted fact by the scientific community. Couple this with rising energy costs and the result is a market ripe for transformation. For the past five years, Efficiency Maine, with the help of its partners, has been leading the way to a brighter future for Maine by helping residents and businesses learn about and adopt energy-efficient technologies that are lessening our impact on the environment.

Fiscal Year (FY) 2007 was marked by significant growth for Efficiency Maine, particularly the Business Program, which generated a 42% increase in megawatt hour (MWh) savings. This significant decline in electricity costs among participating businesses also signals reduced emissions, which is good news for everyone. Nevertheless, there remains ample opportunity for future growth: slightly fewer than 1,000 of Maine's nearly 50,000 businesses have participated to date.

Our Growing Commitment

At just 3.0¢, Efficiency Maine's cost per kilowatt (kWh) of energy conserved remained well below the cost of energy generated. It grew slightly in 2007 (+.1¢), attributable primarily to two steps we took that are critical to the future progress of our Programs: 1) the addition of new senior staff to help administer and market Efficiency Maine's expanding Programs; and 2) two formal Program evaluations. These comprehensive research studies have already helped Efficiency Maine to make improvements in various aspects of the Programs, and will help shape next year's plans.

Accomplishments at a Glance

- 87,404 MWh in annual savings
- $101 million lifetime economic benefits for installed equipment
- 3.85 to 1 Program-wide benefit-cost ratio
- 3.0¢ per kilowatt hour for efficiency savings
- 788,125 compact fluorescent lightbulbs (CFLs) rebated
- 669 business projects completed
- 497,491 metric tons of lifetime carbon dioxide (CO_2) emission reductions

Efficiency pays: *At $101.1 million, the lifetime economic benefits of Efficiency Maine's 2007 programs are now a significant contributor to the state's economy.*

Program	Annual MWh Savings	Lifetime MWh Savings	Efficiency Maine Costs	Participant Costs	Lifetime Economic Benefits	Cost/kWh	Benefit/ Cost Ratio
Business	32,861	465,746	$6,312,543	$5,441,045	$53,656,995	$0.025	4.56
Residential Lighting	44,722	339,889	$2,896,321	$3,279,044	$36,274,499	$0.018	5.87
Low Income	3,560	23,649	$2,136,737	$-	$2,584,816	$0.090	1.21
Building Operator Certification	4,890	24,450	$98,057	$2,406,567	$4,980,582	$0.102	1.99
High Performance Schools	1,372	18,455	$966,342	$1,986,542	$3,662,132	$0.160	1.24
Education and Training			$212,487				
Other Accounts*			$572,516				
2007 Total	87,404	872,189	$13,195,003	$13,113,197	$101,159,024	$0.030	3.85
Cumulative (2004-2007)	208,591	2,103,430	$36,270,671	$34,011,224	$187,768,060	$0.033	2.67

Program Offerings

In 2007, Efficiency Maine offered six distinct Programs that combine education and incentives to influence residential and commercial customers to adopt efficient technologies:

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

The portfolio meets Efficiency Maine's 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).

Program Savings & Accomplishments

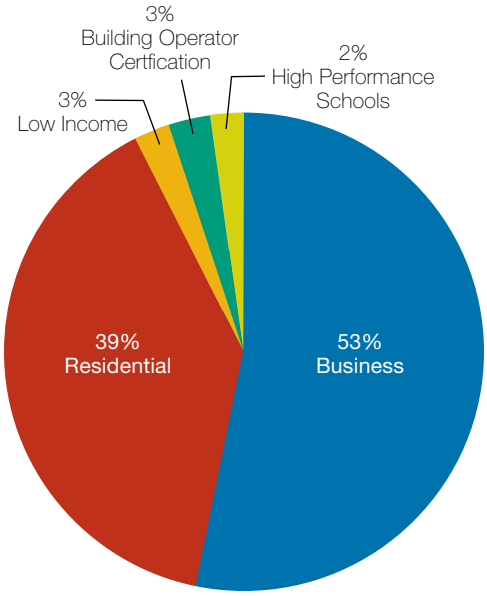
The Efficiency Maine Business and Residential Programs accounted for the majority of lifetime MWh savings, 53% and 39%, respectively. Low Income and Building Operator Certification (BOC) Programs each account for 3% of 2007 savings. Although we are certain they exist, no savings are claimed for Education and Training Programs due to the cost and difficulty of estimating savings.

Overall in 2007, Efficiency Maine saved 87,404 MWh, worth an estimated $101 million in lifetime economic benefits representing an 88% increase in savings from the 2006 Program year[1]. Cumulatively since 2004, Efficiency Maine has produced 2,103,430 MWh of lifetime savings, which is equivalent to the annual electrical consumption of 309,000 Maine homes[2]. We attribute this growth in savings to a number of factors: rising energy prices; the growing "green" awareness of how energy consumption relates to climate change; and our continued advertising campaigns in radio, print, and television for energy-efficient compact fluorescent light bulbs (CFLs). In addition, 2007 saw the first efforts at promoting our Business Program through paid marketing efforts.

For 2007, total Program-wide benefits divided by total Program and participant costs resulted in an overall benefit-cost ratio of 3.85 to 1. (In other words, every dollar invested in efficiency returned $3.85 in societal net economic benefits.) In terms of yield (kWh saved per dollar invested), in 2007 Efficiency Maine generated savings at a levelized cost of 3.0¢ per kWh. This represents a slight decrease in yield from our 2006 average cost of 2.9¢ cents per kWh saved, but an improvement of 29% versus the 4.2¢ cost in the 2005 Program year[3]. By comparison, a typical Maine residential standard offer

While annual MWh savings increased by 200% since 2005, Efficiency Maine Program administration and delivery costs over the same period have increased by only 85%, from $7.1 million in 2005 to $13.1 million in 2007.

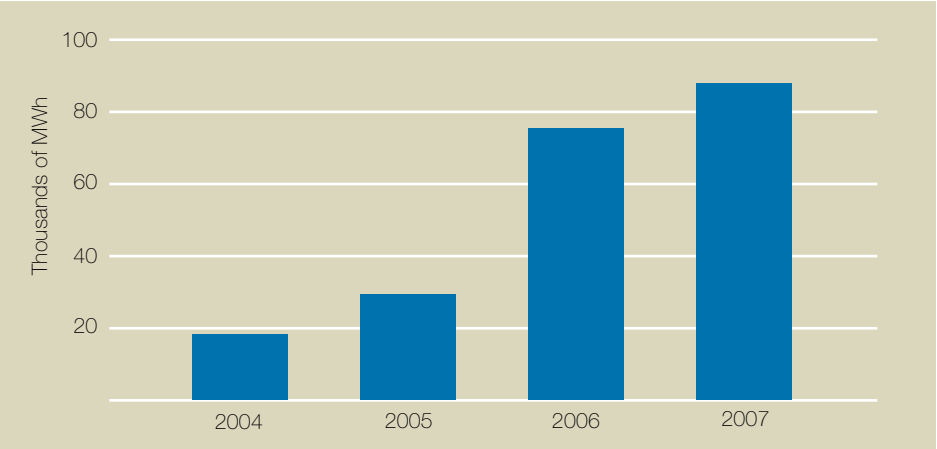
Efficiency Maine 2007 Percent of Lifetime MWh Savings by Program



electricity supply rate in 2007 was 15.2¢ cents per kWh for residential and small commercial customers and 10.7¢ per kWh for large customers[4]. Compared to the residential standard offer rate, investing in efficiency is 72% less expensive than purchasing new supply. These savings allow Maine residents and businesses to reallocate funds to meet other pressing needs.

Since the inception of Efficiency Maine, cumulative savings have grown to 208,591 MWh, worth an estimated $188 million in avoided power purchases. During its tenure, the Efficiency Maine Program has achieved a benefit-cost ratio of 2.67 to 1 and delivered electrical savings at an average levelized cost of 3.3¢ per kWh.

Taking off: *Efficiency Maine's efforts have saved more than three times as much energy in the past two years (162,163 MWh) as in the prior two years (46,428 MWh).*

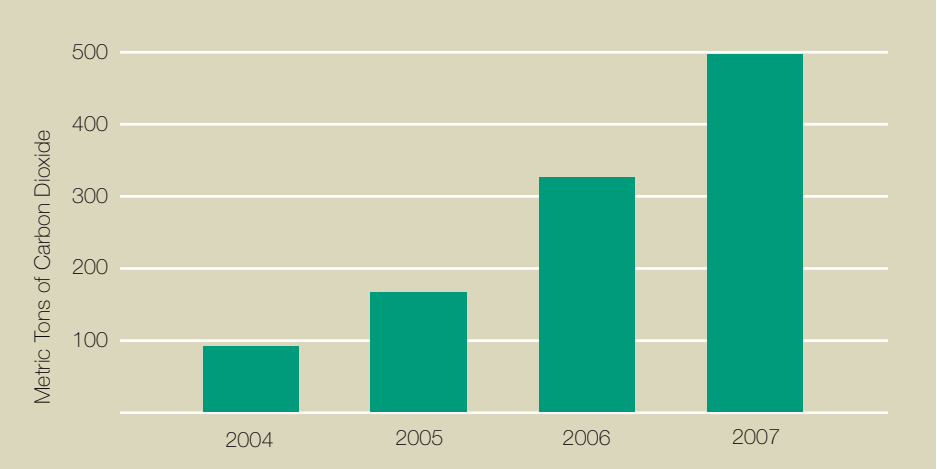


Ensuring Geographic Equity

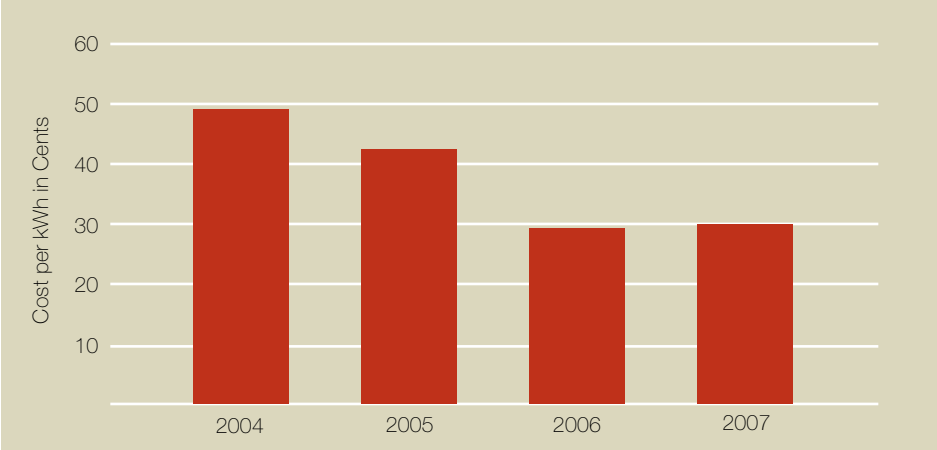
Efficiency Maine strives to ensure that all of its opportunities and participation are proportionate by the population statewide. Although it is difficult to ensure that efficiency impacts are precisely proportional to population, Efficiency Maine works hard to ensure that every Maine resident and business has equal access to Program services.

In 2007, Efficiency Maine's investments in the distribution of advertising and Program delivery outreach were successful in ensuring that Program benefits by county were proportionately distributed according to population. For example, 8.0% of total 2007 lifetime economic benefits from Efficiency Maine were generated in Androscoggin County, which represents 8.2% of the statewide population.

Clearing the air: *In 2007, Efficiency Maine's efforts kept nearly 500 metric tons of CO_2 from entering our atmosphere—more than five times as much as was saved just three years earlier (2004).*



Efficiency Maine Program-Wide Cost/kWh for Energy Savings (2004-2007)



Improving Maine's Environment

This year, the State of Maine joined nine other northeastern states in committing to the Regional Greenhouse Gas Initiative (RGGI), the first multi-state effort in the U.S. to address global warming through a cap and trade program for CO_2 emissions from power plants. A key element in the RGGI strategy is to focus first on lowering our energy use through improved efficiency. Maine's 2004 "Climate Action Plan" also identified energy-efficiency as one of the most potent tools for dealing with global warming.

Efficiency Maine's programs have contributed greatly to this common goal: the lifetime impact of 2007 electrical savings of 872,189 MWh will be to avert the release of 497,491 metric tons of CO_2. Cumulatively from 2004 to 2007, Efficiency Maine and our partners have helped Maine save the emissions equivalent of 122 million gallons of gasoline, or 5,443 rail car loads of coal, by preventing the release of:

- 1,071,052 metric tons of CO_2
- 1,186 tons of sulfur dioxide (SO_2)
- 560 tons of nitrogen oxide (NOx)[5].

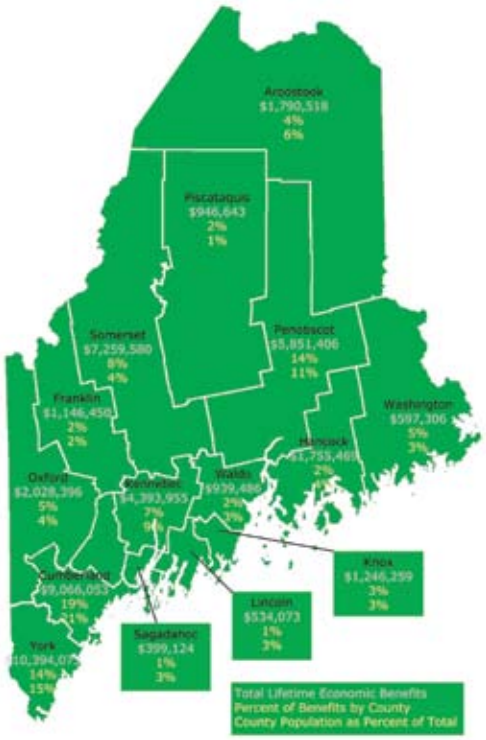
Maine can be proud of these results, while recognizing that there is significant potential for further reductions in electricity consumption and emissions.

Conclusion

Building partnerships, generating savings today, and preparing the marketplace for more efficient choices tomorrow are the cornerstones of our approach. We are grateful for the support of the Maine Legislature and all our partners, Program participants and Program Allies. Together, they are helping Maine accomplish great things.

The remainder of this report presents a more detailed review of Efficiency Maine's individual Programs, key accomplishments and projections for 2008 and beyond.

2007 Lifetime Economic Benefits by County as Percent of Total Statewide Population



Footnotes:

[1]Lifetime economic benefits and the benefit-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.

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

[3]Program reported costs and savings from 2004 to 2006 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.

[4]Maine Public Utilities Commission, Residential/Small Commercial class and Large class electricity supply rates for the time period March 2006-February, 2007.

[5]Carbon dioxide (CO_2) is the major contributor to global warming, SO_2 concentrations exacerbate or may cause asthma and respiratory illness, and NOx is a major contributor to acid rain and ground level ozone (smog).

Business Program

A Growing Market

During its fourth year of operation, the Efficiency Maine Business Program helped a record number of Maine businesses, large and small, reduce energy usage and associated costs, and become more competitive economically. In addition, many participants report that energy-efficiency pays in many ways beyond a lower electricity bill: energy-efficient equipment tends to offer better lighting, ventilation and noise reduction, leading to gains in worker comfort and productivity. The growth in new Business Program participants and high satisfaction rates bode well for increasing investment in efficiency among Maine businesses.

Left to right: Blake James, University of Maine Athletic Director; Tim Clark, Field Staff Director; and Denis Bergeron, Efficiency Maine Program Director, talk hockey and discuss the new efficient lighting in the Harold Alfond Arena

2007 Accomplishments

- 512 businesses completed 669 energy-efficiency projects during 2007
- Recruited 47 new Allies
- Achieved high ratings in customer satisfaction: 99% gave the Program an "extremely high" rating; 92% reported they would "very likely" participate again

2007 Program Results

- 32,861 MWh of annual savings
- $53.7 million in lifetime economic value
- Benefit-cost ratio of 4.56 to 1

Increased Participation

In 2007, 511 businesses participated in the Business Program, 62% more than in 2006, and the Program generated annualized MWh savings of 36,717, a 42% increase vs. 2006. Total economic benefits attributable to the Program increased by 132%, yielding $53.7 million in avoided electrical costs for Maine. Program costs, in contrast, increased by only 54%, to $6.3 million.

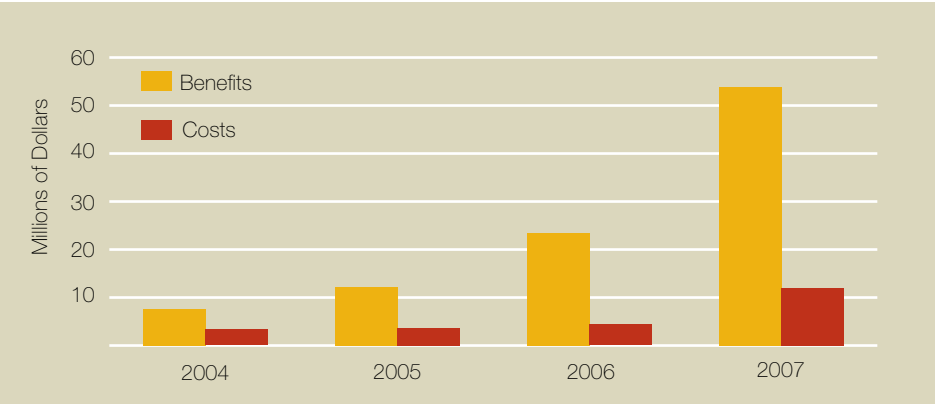
"We discovered that our cafeteria was over-lit and are now saving $1,100 per school year with a properly lamped area. The control system in the boiler room is saving us $4,500 each heating season. With the incentive we received, the system paid for itself by May."

—Bill Rudy, Maintenance Supervisor, M.S.A.D. 40

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. While larger companies are easier to target and administer, and tend to yield greater efficiency savings per dollar invested, small businesses are vital to Maine's economy and are typically the most cash-constrained. During FY 2007, small businesses accounted for 69% of Program participants and received 27% of the $2.8 million in incentives paid out.

Business Program Benefits vs. Costs (2004-2007)



Lighting the Way to Savings

Lighting continues to present the greatest opportunity in the business market, representing 74% of overall Program savings in 2007. Compressed air, at 9% of overall savings, is 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, representing more than a decade of energy-efficiency savings that would likely have been lost if not for Efficiency Maine.

Program Allies

The Efficiency Maine Business Program is implemented largely through the efforts of contractors, wholesalers and associations. These "Allies" help market the Program directly to their customers and members as an added value. The results are significant: 30% of participants learn about the Program through Allies.

To date, more than 450 vendors, suppliers, contractors and other professionals have signed on as Allies. Allies work with their customers not only to implement efficiency measures, but also help them with paperwork, cost-effectiveness calculations and reporting.

Allies value Efficiency Maine's initiatives. In fact, many Allies change their business model to promote and sell more energy-efficient equipment by maximizing the use of incentives. Allies increasingly invite Efficiency Maine to meet with their customers and ask Efficiency Maine for more training for their employees. This increased marketing and promotion heightens consumer awareness of more efficient equipment and is part of the process of market transformation.

In 2007, Efficiency Maine staff supported Allies by participating in:

- 47 trade shows
- 26 speaking engagements
- 13 training sessions

"Working with Efficiency Maine allows us to meet our customers' desire to be energy-efficient. The Program's incentives enable us to shorten the payback period and meet our customers' financial requirements."

—Mitch Deblois, Deblois Electric

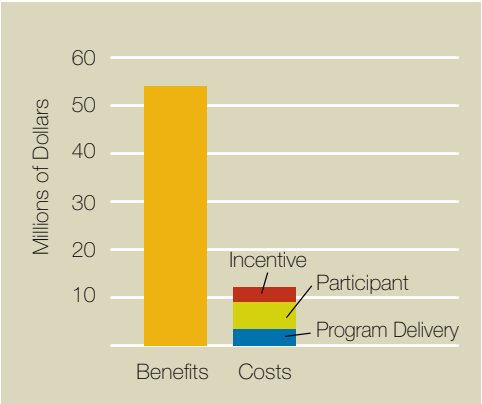
Customer Satisfaction

A customer survey revealed a high degree of satisfaction with the Efficiency Maine Program and its staff. The evaluation also reported the following top reasons businesses cite for participating in the Program: to reduce energy consumption; to reduce operating expenses; and to reduce the capital cost of the equipment.

"Whenever possible, we build Efficiency Maine's program into our bids. Customers like the Program, and the incentives often help us make the sale."

—Jim Hiltonsmith, Rockingham Electric Supply Company

2007 Business Program Benefits vs. Costs

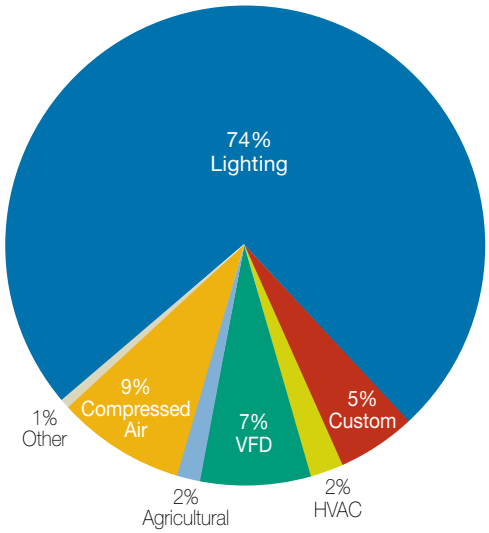


Associations

Efficiency Maine's Business Program works closely with trade, industry and business associations to help them inform their members about ways to save money and improve worker productivity. An evaluation conducted by PA Consulting revealed that peer-to-peer communication is extremely effective in motivating businesses of all types to participate in the Program. The evaluation also confirmed that promoting the Program through professional associations has been—and will continue to be—a highly successful strategy. In 2007, Efficiency Maine's work with associations included:

- Placing 45 articles in association newsletters and mailings to association lists
- Coordinating 16 presentations through associations

2007 Business Program MWh Savings by Technology Type



"Our employees have told us that they can do their jobs better now because of the improved lighting. They can see what a difference it makes, and they come to us with ideas on how we can save even more energy. The changes have raised the energy awareness of everyone in the company. What we're seeing here is a culture change."

—Steve Vatcher, Plant Manager
Corning Life Sciences
(after relamping the Kennebunk plant using Efficiency Maine)

Leveraging Partnerships for Media Coverage

In addition to our targeted marketing through association and Program Allies, the Business Program includes a strong public relations component that results in story placements in media statewide. The Program issues news releases profiling businesses that work in partnership with Efficiency Maine to lower electricity usage and costs. These releases, which are distributed to media in ten different geographical zones to assure broad coverage across the state, bring positive recognition to participating businesses and raise awareness among other businesses who could benefit from partnering with Efficiency Maine.

2007 Media Results

- Stories in print and broadcast media throughout the state
- Special newspaper inserts

Looking Ahead

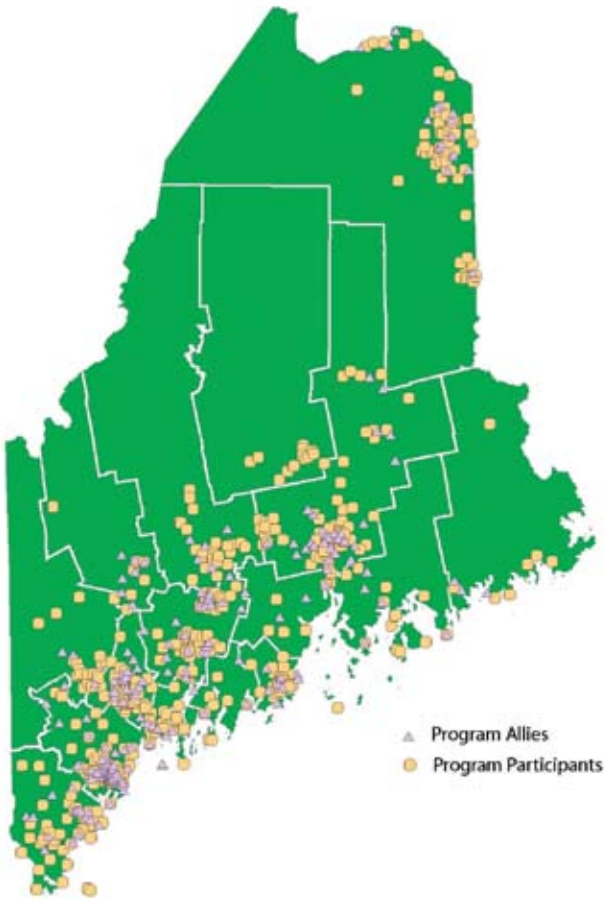
In 2008, Efficiency Maine's Business Program will implement a variety of changes to improve quality of service and to engage an even larger and more diverse set of Maine businesses in energy-efficient activity. These changes include:

- Creating a new Program targeting the new construction market.
- Increasing paid media.
- Updating messaging to communicate the non-energy benefits associated with energy-efficiency projects.
- Leveraging other organizations to increase participation including:
  - Collaborating with Maine's Department of Environmental Protection to assist the participants in its "Environmental Leader" Programs.
  - Collaborating with grassroots environmental organizations who are seeking the participation of municipalities to reduce greenhouse gases.
- Addressing barriers to participation, including:
  - Offering online submission of incentive application forms.
  - Developing simple web-based savings calculators for several types of equipment, which will produce analyses suitable for presentation to decision-makers.
  - Improving procedures for estimating and tracking energy savings.
  - Reducing the upfront project costs not covered by Program incentives by providing low-interest loans.

"We just had a review of our Bangor facility by an Efficiency Maine Field Staff member. I appreciate the help your office has provided. It's been professional, helpful, and cost-effective."

—James Wellehan,
Lamey Wellehan Shoes

Efficiency Maine 2007 Business Program



"We wanted the most efficient equipment that made economic sense. It was helpful to have the Efficiency Maine Field Staff work with my contractors so I knew what my options were. Everything went very smoothly—we are really pleased with the results."

—John Dayhoof, Solon Market

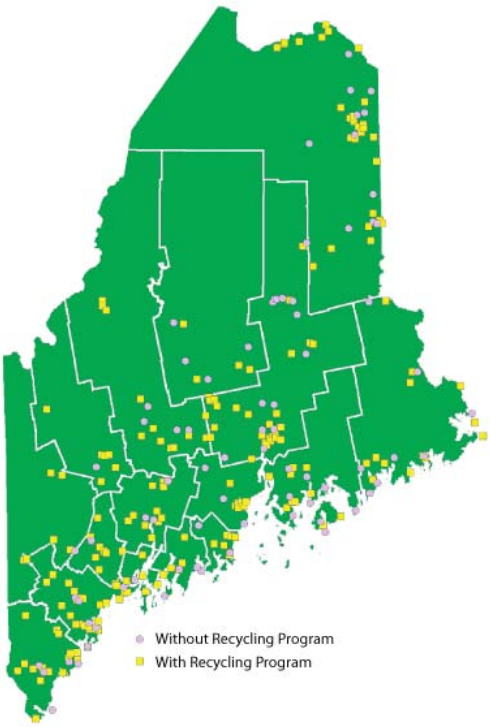
Residential Lighting Program

Since 2003, Efficiency Maine's Residential Lighting Program has been educating Maine consumers about the economic and environmental benefits of using efficient lighting products such as Compact Fluorescent Lamps (CFLs) and energy-efficient light fixtures. Thanks to significant outreach and strong partnerships with retailers, more and more Mainers have purchased one or more CFLs and are beginning to realize savings.

2007 Accomplishments

- Started the nation's first statewide in-store CFL recycling Program
- Reached the "one million bulbs sold" milestone
- Initiated a CFL fund-raiser for nonprofit groups
- Provided incentives for more than 700,000 CFLs and 7,500 fixtures
- Recruited 16 independent retailers and three large retail chains into the Program

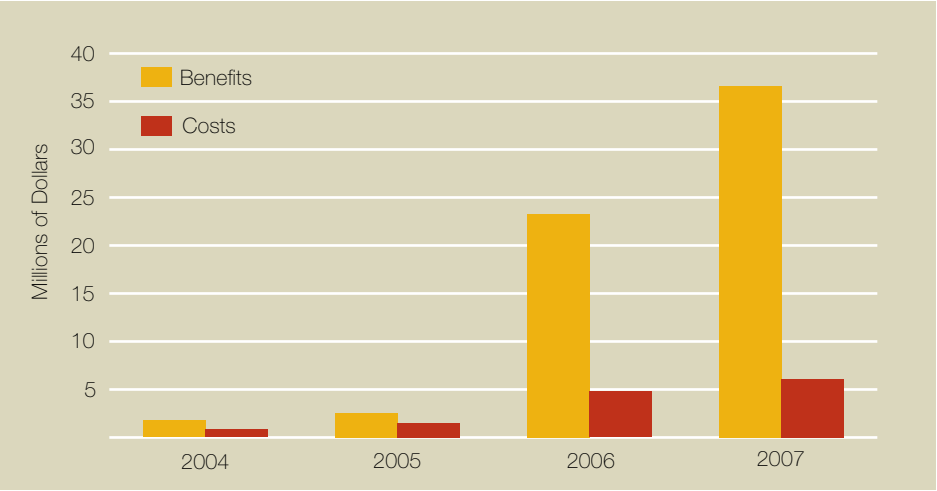
Residential Lighting Program's Participating Stores and Recycling Program



2007 Program Results

- 44,722 MWh annual savings
- $36.3 million in lifetime economic value
- Benefit-cost ratio of 5.87 to 1

Glowing results...towards an even brighter future: *In just three years, the lifetime economic benefits of Efficiency Maine's Residential Lighting Program have increased more than tenfold, to $36.3 million in 2007.*



Transforming Maine's Marketplace

In just four years, Efficiency Maine's Residential Lighting Program has made great strides towards transforming Maine's lighting marketplace. Market research indicates gains in awareness about the benefits of CFLs, increased trial purchasing of CFLs, and more repeat purchases. In addition, consumers have become more sophisticated in their demands for a variety of sizes, shapes and colors, as well as three-way and dimming capabilities.

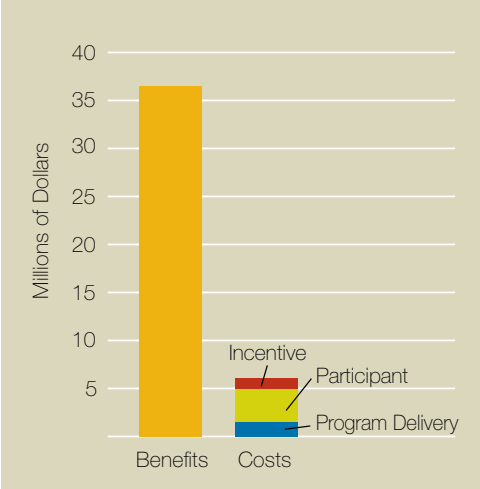
The level of incentives was dropped from $2.00 to $1.50 during FY 2007, but with continued investment in marketing, sales matched those of 2006. This may in part be due to the fact that CFLs have dropped in price but to a large degree; it also indicates consumers are getting our message about the value of the product. The key benefits of CFLs—that they last up to seven years, save approximately $50 over the life of the bulb and reduce greenhouse gases—resonate very well in today's marketplace.

Key Partners

Each year, Efficiency Maine works to recruit more retailers 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.

In 2007, Efficiency Maine began working with electrical wholesale houses to reach electrical contractors and encourage them to install CFLs rather than incandescent lightbulbs. This new market opens a brand new avenue for reaching consumers with energy-efficiency information.

2007 Residential Lighting Program Benefits vs. Costs



Leading the Nation in Recycling CFLs

On the heels of CFL sales in Maine reaching the one million milestone, Maine's Legislature directed the Commission and the Department of Environmental Protection to cooperate in an educational Program to inform consumers about the appropriate way to dispose of them, given the small amount of mercury in each bulb. The two agencies promptly developed an in-store recycling Program—the first of its kind in the nation. More than 200 stores statewide are now participating in this recycling effort.

Efficiency Maine staff located a vendor that helped provide a simple collection and recycling process for retailers, notified and recruited two-thirds of its retail partners into this voluntary effort, and updated and distributed marketing materials. Maine DEP provided simplified forms, streamlined permitting procedures, and trained Efficiency Maine Field Staff to deploy the recycling program.

The quick response of the agencies produced the most extensive CFL recycling campaign in the nation, and defused a concern that might have slowed CFL sales. Other local, state and Federal programs have inquired about the initiative in hopes of replicating its success.

Making Over the "Whole House"

In 2007, a family in Maine was selected for a complete energy makeover to be performed by a team of Maine-based energy specialists. The makeover aired on WPXT's *"The Whole House"* television program and provided viewers with tips on how they could improve the energy-efficiency in their homes with a "whole house" approach.

Looking Ahead

Efficiency Maine is pleased to have helped Mainers install over 700,000 CFLs, but our work is far from done: Maine homes have an estimated 23 million light sockets to fill[1].

While CFL rebates will drop from $1.50 to $1.00 per package effective January 1, Efficiency Maine's FY 2008 plans call for increased marketing efforts to promote the Residential Lighting Program, including the following special promotions:

- A limited-time (October–December 2007) promotion of super-efficient Light-Emitting Diode (LED) holiday lights; and
- Limited-offer Appliance Programs throughout the year.

In addition, in February 2008, Efficiency Maine will launch a Residential New Construction Program in hopes of reaching residential consumers at the start of the next building season.

Dick Bacon, Efficiency Maine Program Manager, explaining the advantages of CFLs and LED holiday lights at the Bangor Home Show.

Footnote:

[1]Aspen Study for Efficiency Maine

Low Income Programs

Because low-income consumers spend a larger share of their income on energy than others, energy-efficiency represents an important and achievable household economic opportunity for them. Since refrigeration and lighting combined can account for up to 20% of a home's electric use, the Efficiency Maine Low Income Programs aim to help low-income consumers reduce the financial burden of their electric bill by installing energy-efficient refrigerators, freezers and CFLs.

Martin Grant, Jr., Section-8 participant, receives a CFL from Heather Rhoda, Program Officer, Westbrook Housing, through RIFME.

2007 Accomplishments

- Low Income CFL Program:
  - Working with 18 service agencies, the Low Income CFL Program was launched in April of 2007 and distributed or directly installed 870 CFLs in income-eligible homes
  - Presented 16 other agencies with Memoranda Of Understanding (MOUs)
- Low Income Appliance Replacement Program:
  - Delivered more than 2,400 refrigerators
  - Installed nearly 28,000 CFLs

2007 Program Results

- 3,560 MWh of annual savings
- $2.6 million in lifetime economic value
- Benefit-cost ratio of 1.21 to 1

Lightening the Load: New Low Income CFL Program

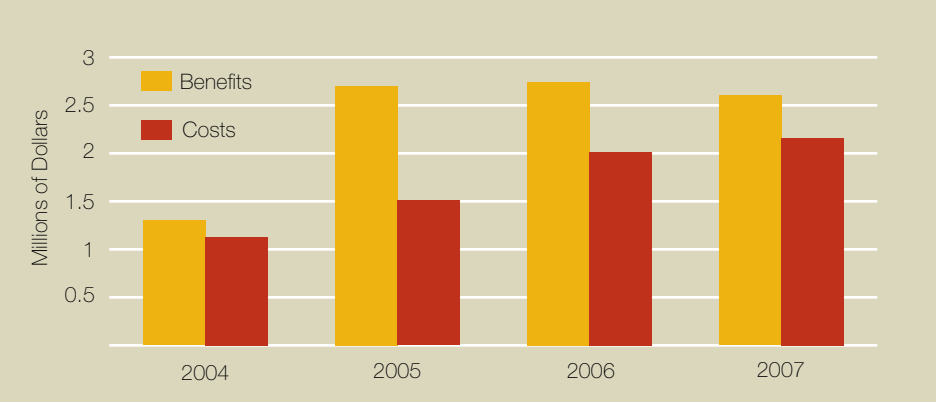
Launched in April of 2007, the Low Income CFL Program is implemented with the administrative resources and expertise of the Residential Initiative for Maine (RIFME), the state's local housing authorities and service agencies. They distribute multi-packs of five CFLs to eligible individuals and/or directly install CFLs into rental facilities where the individuals pay the utilities. The Program strives to cost-effectively reduce the electricity used by low-income tenants by encouraging the use of energy-efficient light bulbs. Though only in operation for two months of the FY '07 reporting period, this Program delivered 870 CFLs to 174 households.

In 2007, CAPs delivered nearly 2,500 refrigerators and 28,000 CFLs to low-income customers – estimated to save each customer more than 2,000 kWh annually.

Low Income Appliance Replacement Program

The Low Income Appliance Replacement Program is implemented in collaboration with MaineHousing and the state's Community Action Programs (CAPs) to reduce electric bills in low-income households through energy-efficiency.

Low Income Appliance Replacement Program Benefits vs. Costs (2004-2007)



Under a federally funded program, MaineHousing and CAPs are already providing weatherization and fuel assistance services to qualified low-income customers depending on available funding. By working within the pre-existing Program delivery infrastructure of these agencies, Efficiency Maine is able to minimize Program administration and delivery costs by providing additional funding to help them add on the refrigerator, freezer and CFL exchange service.

Efficiency Maine supplements the Program through a MOU with MaineHousing under which certified energy auditors address electrical saving opportunities. When auditors replace refrigerators and/or freezers, they also install CFLs in locations where they will provide the greatest energy savings. In FY '07, the Program delivered 2,468 energy-efficient refrigerators and nearly 28,000 CFLs to 12,000 low-income households.

Who is Eligible?

Households with income levels at or below 150% of the poverty line – equivalent to $30,000 in household annual income for a family of four.

Operation Keep ME Warm

Efficiency Maine partnered with the State Planning Office, the Maine Office of Energy Independence and Security, and MaineHousing to implement Operation Keep ME Warm. Efficiency Maine provided approximately 24,000 CFLs to the homes that participated in the volunteer weatherization Program.

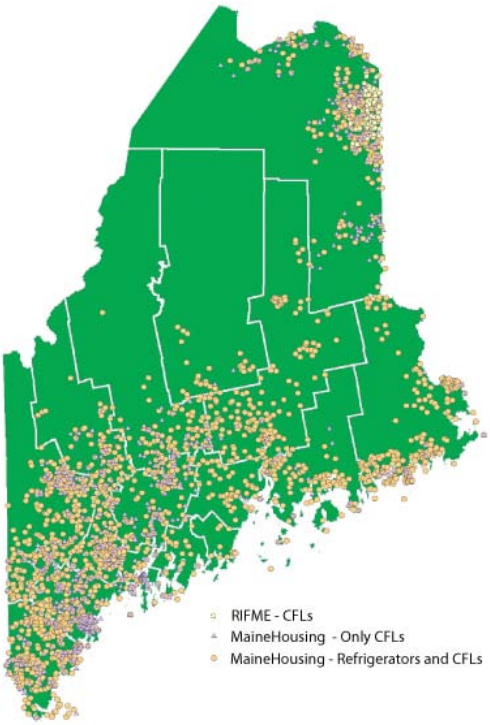
Looking Ahead

In 2008, Efficiency Maine's Low Income Programs will:

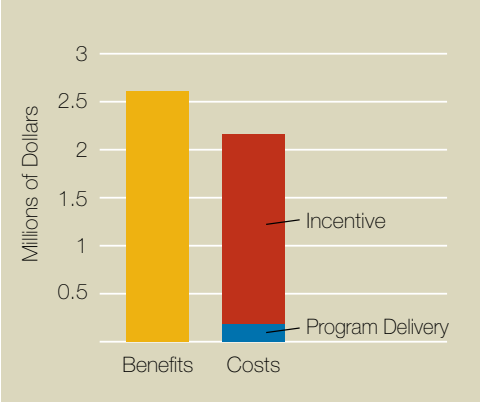
- Continue to partner with MaineHousing, the CAP agencies, Residential Initiative for Maine and the housing authorities to ensure cost-effective delivery of energy-efficient technologies to low-income families.
- Diversify its Program delivery by expanding its partnerships with local, state and federal agencies.
- Purchase 370 refrigerators more than usual thanks to MaineHousing's plan to purchase refrigerators, freezers and CFLs in bulk for a savings of $191,265.
- Publish the results and implement recommendations from the Program's evaluation, which is currently underway.

A certified Residential Energy Auditor with York County Community Action is performing a blower door test, which assists in finding air leaks.

Efficiency Maine 2007 Appliance Replacement Program



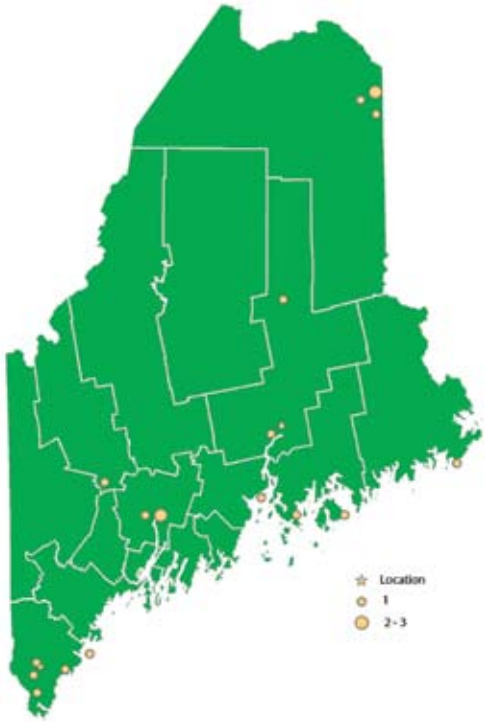
2007 Low Income Appliance Replacement Benefits vs. Costs



Building Operator Certification

As many homeowners know, shutting off lights and turning down the thermostat saves money with little to no inconvenience. This commonsense understanding is at the core of Efficiency Maine's Building Operator Certification (BOC) Program, which trains facility managers to identify energy-efficiency opportunities through the use of advanced building equipment controls, the installation of energy-efficient equipment, and simple preventive maintenance. Often, huge energy savings are identified simply through the low-cost application of better management and control of existing equipment.

Efficiency Maine 2007 Building Operator Certification



2007 Accomplishments

- Provided training for 34 students, 38% of whom are responsible for facility management of K-12 schools[1]
- Offered two courses
- Recruited a broader segment of participants: seven from the private sector, five from federal agencies, three from state agencies, seven from towns, and two consultants

2007 Program Results

- 4,890 MWh of lifetime savings
- $5 million in lifetime economic value
- Benefit-cost ratio of 1.99 to 1

Certified to Save Energy and Money

The BOC Program, provided in cooperation with the Northwest Energy Efficiency Council (NEEC), is an eight-day course offered over a four-month period. The course trains facility managers to improve energy efficiency, reduce maintenance costs in their facilities, and enhance building occupant comfort.

Building operators certified in the course have demonstrated competence in:

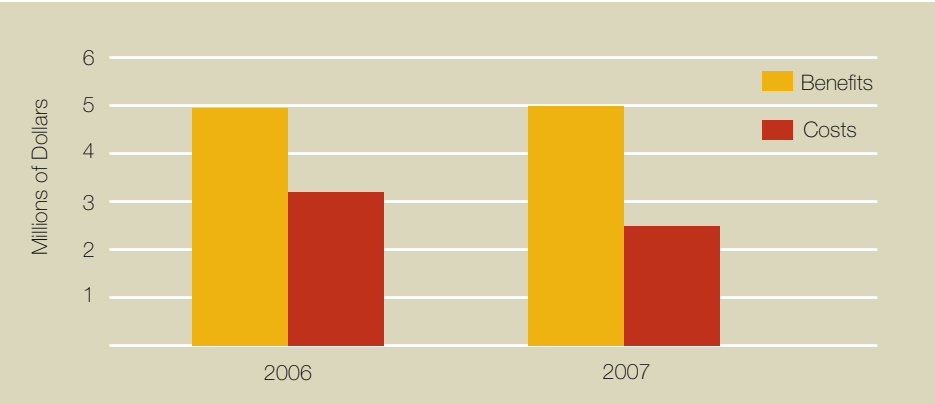
- Evaluating building energy consumption
- HVAC energy inspection
- Lighting surveys
- Indoor air pollutant sources and pathway locations
- Facility electrical distribution

An evaluation of the Program documented average energy savings in municipal buildings of close to 100 MWh per year as a result of changes implemented by certified Program graduates. The course also provides information on non-energy issues such as indoor air quality and occupant comfort. Course participants also learn about other Efficiency Maine resources and incentives.

"This training is definitely a must for anyone working in building and property management and maintenance. The information was useful; we have already made energy- and cost-saving changes to our facility that more than cover the cost of the training. Thanks for the opportunity."

—Rick Cyr, Facilities Manager, Loring Job Corps (Limestone)

Building Operator Certification Program Benefits vs. Costs (2006-2007)



BOC Level I Class in Waterville with Instructor Alan Mulak (at right).

"I thought that BOC I was well worth my time. I learned about many issues that apply to my facility. I'm looking forward to BOC II sometime next summer."

—Butch Bracy
Mt. Desert Island High School

Program Track Record at a Glance

- *348 Students*
- *17 BOC courses across Maine*
- *Course locations include: Auburn, Augusta, Bangor, Calais, Old Town, Orono, Portland, Presque Isle/Houlton, Sanford*
- *The majority of past participants were employed as facility managers in state and municipal buildings and received the training free of charge*

Looking Ahead

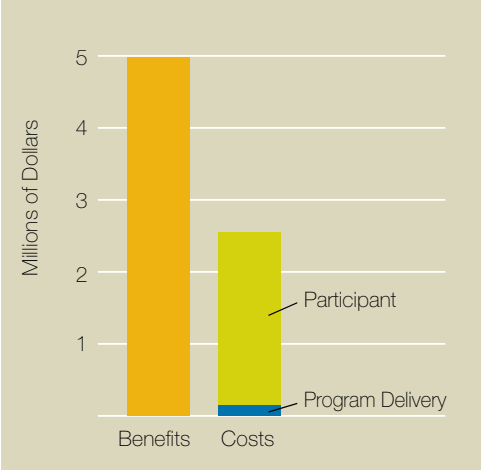
In 2008, Efficiency Maine's BOC Program plans to:

- Provide two BOC Level I and one BOC Level II courses.
- Advertise BOC courses to the private sector at higher tuition levels to help offset Program costs.
- Continue to provide the course for free to school personnel and other entities whose funding is derived from federal, state, and local taxes.

"The BOC course was amazing. Every class offered financial savings, time savings, and, of course, energy savings. The payback was immediate. I walked away from each class with something I could use that day."

—Doug Jenkins, Facilities Maintenance Coordinator (Augusta)

2007 Building Operator Benefits vs. Costs



Footnote:

[1]This responds to reporting requirement D of MRSA 35-A §3211-A.11

High Performance Schools Program

Energy-efficient technologies yield the greatest benefits—and, often, the greatest performance—when the features are installed as part of the construction process rather than retrofitted. Recognizing this, Efficiency Maine's High Performance Schools Program is working to help Maine's new schools incorporate energy-efficiency technologies from the outset.

In partnership with the Maine Department of Education (MDOE), Bureau of General Services (BGS), the Maine School Management Association (MSMA), and the United States Department of Energy, Efficiency Maine's High Performance Schools Program aims to reduce energy consumption, lower operating and maintenance costs, improve occupant comfort, and inspire school districts and their designers to build to more efficient standards.

The Program provides the financial and technical assistance needed to commission better designs and install more efficient equipment in new school buildings. This helps budget-strapped Maine school districts—and the taxpayers who fund them—save hundreds of thousands of dollars in energy costs over each building's lifetime. High Performance Schools are also healthier schools: better lighting is easier on the eyes, and improved ventilation pumps out germs faster so they have less chance of infecting students.

New mechanical room at the East End School, Portland, showing high-efficiency multi-stage boilers.

2007 Accomplishments

- Twenty-six schools—at various stages of construction—enrolled in the Program
- Implementation of a higher efficiency standard as threshold for the Program
- Developed a standard for commissioning energy-efficiency buildings and an RFP to ease the process of accepting and reviewing bids
- Celebrated the completion of energy-efficient schools in Auburn, Augusta, Hallowell, Hiram, Lincolnville, Portland, Scarborough and Waterboro
- Grants were issued to eight schools

2007 Program Savings

Due to the length of construction cycles, 2007 is the first year in which energy savings have been reported under this Program.

- 1,372 MWh of annual energy savings
- $3.7 million in lifetime economic value
- Benefit-cost ratio of 1.24

Energy-efficient New Schools: A No-Brainer

Each year, five to ten new public schools are built in Maine. Since these buildings are in use for an average of 50 years, building them with energy-efficiency in mind seems like a no-brainer that will help avoid many years of unnecessarily high operating costs.

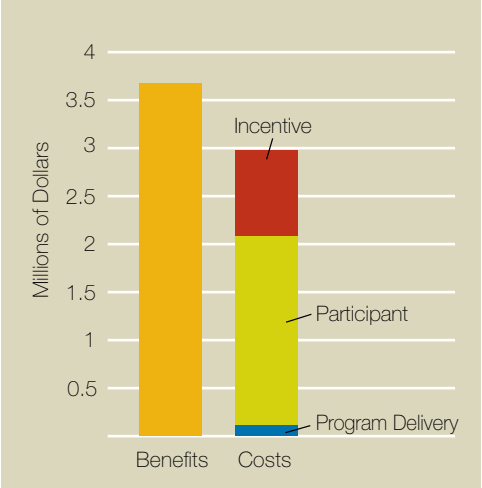
Unfortunately, new school construction budgets are limited, and that limits the amount of time designers can spend on more efficient building configurations. Moreover, when the time comes for specifying equipment, slightly more expensive efficiency measures may be omitted due to lack of financial resources or even limited awareness.

The Maine High Performance Schools Program is helping to fill this gap by providing technical support and financial incentives up to $120,000 per school. As a result, new schools in Maine are able to make decisions today that will benefit their bottom line—and the environment—for years to come.

Taking the Uncertainty Out of Design and Building

The process of constructing a new commercial building is a complicated process. Inevitably, throughout the process there are changes in design configuration, materials and prices. In the end, the final building is often quite different from the one that was

2007 High Performance Schools Benefits vs. Costs



initially designed. The changes along the way may be minor, but significant enough that the building may operate differently than anticipated, requiring modifications before occupants are comfortable. Building commissioning—a practice that aims to avoid such problems—enlists the help of a building professional (Commissioning Agent) to work as the building owner's agent from the design stage to final occupancy.

In 2007, Efficiency Maine and the High Performance Schools Program team worked with Maine's architectural and energy community to develop a standard definition for energy-efficient building commissioning. In addition, the team developed a standard Request for Proposal (RFP) that enables owners of new schools to request proposals from Commissioning Agents. The RFP specifies the services requested and provides a template for pricing. Coupled with energy-efficient building commissioning, this new tool is helping schools make "apples-to-apples" comparisons among bidders and ensuring a smoother process from design to occupancy.

High-efficiency air handling unit at the Lincolnville Central School.

Maine Benchmark

Established in 2006, the Maine Benchmark represents the Program's commitment to a new higher efficiency standard that exceeds the commercial building code by 20%.

Looking Ahead

In the year ahead, the Maine High Performance Schools Program plans to:

- Select two new schools—one small and one large—to participate in a pilot project to evaluate the energy savings provided by a building-commissioning process.
- Help ensure that new schools being built will use a baseline that is 20% more energy-efficient than the commercial building code by using the "Maine Benchmark" as the design guide[1].
- Celebrate the completed construction of ten schools, which will realize an estimated annual savings of 1,632 MWh and more than 100,000 gallons of heating oil.

High-efficiency pump sets with variable-speed drives at the new Cony School.

Footnote:

[1]This is required by Maine Bureau of General Services Chapter 60

Education and Training Program

Efficiency Maine's Education and Training Program introduces grade school students and professionals to the issues related to electricity production, consumption, and efficiency. The classroom education programs aim to introduce electricity and energy-efficiency in an exciting way to 4th–12th grade classes throughout Maine. The professional training programs target contractors and facility managers through specialized workshops about energy-efficient options and relevant Efficiency Maine incentive programs.

2007 Accomplishments

- 7,683 4th-12th grade students participated in energy education classes
- 262 professionals attended introductory to advanced energy-efficiency classes
- Education and training opportunities were delivered throughout the state – from as far north as St. Francis to as far south as Kennebunk

2007 Program Results

Currently, energy savings that may result from these training programs are not tracked. Investments in education and training aim to help meet long-term market transformation goals for an energy-efficient economy. Both programs provide students with information on electricity production, its use and conservation at home and at school, and the effects of energy use on the environment and the economy. We believe the lessons learned in school spill over into the home, improving energy awareness and contributing to increased participation in other Efficiency Maine incentive programs.

Luis Merced, 4th grade, Madawaska Elementary School, received his first place award from Nancy Chandler, MPS Co. Energy Education Supervisor, for his Earth Day Essay on "What's Worth Saving in Your World?"

School Energy Education Program

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

- **Maine Energy Education Program (MEEP)** serves students in central and southern Maine. The MEEP combines general awareness classroom training activities with practical skills that enable students to monitor their school building's energy use. The Program also offers a component for older students entitled "Energy Patrols". The Energy Patrols help increase both student and teacher awareness of energy issues through classroom skits, distribution of informational materials and reminders to turn off computers and lights that are not in use. MEEP also provides more specialized Energy Education Leadership workshops for teachers and small groups of students.
- **Maine Public Service's BE Energy Wise (BEEP) Program** serves students in northern Maine. BEEP includes two components: one educates students about energy issues in the schools; the other provides a broader overview of societal energy issues. Maine Public Energy's "Eagle Patrol" is similar to the MEEP "Energy Patrol" in that 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 understanding the energy use of computers.

In 2007, MEEP visited 201 schools and reached 6,206 students.

In 2007, BEEP conducted 59 educational presentations and reached over 1,477 students.

New Energy Education Curriculum

The Maine Energy Education Curriculum Project was launched in 2007. This three-year project aims to develop a set of standards-based energy education curriculum for Maine students in grades 4-8.

Curriculum materials being developed will be based on national standards, research-informed, and aligned with the newly revised Maine Learning Results. A content advisory committee is helping the Maine Mathematics and Science Alliance (MMSA) to develop this curriculum to include Maine-specific issues and resources.

Content Advisory Committee:

Individuals from the following organizations serve as content advisors to the Maine Mathematics and Science Alliance (MMSA):

- *Chewonki Foundation*
- *Maine Energy Education Program (MEEP)*
- *Maine Lung Association (MLA)*
- *Maine Public Service (MPS) Energy Education Program*
- *Maine Department of Environmental Protection's (DEP) Air Quality Division*
- *Maine Public Utilities Commission's Efficiency Maine Program*

Maine Public Service Company sponsored the 2007 Energy Extravaganza Workshop at the Fort Kent Lonesome Pine Ski Lodge. Over 120 4th grade teachers and students from Northern Maine participated.

Efficiency Maine 2007 Energy Education Program

Fourth Annual Energy Tips Contest

In coordination with the Maine Office of Energy Independence and Security, each year Efficiency Maine hosts a contest for Maine's 4th, 5th and 6th grade students. Held during October – Energy Awareness Month – prizes are awarded by the Governor 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.

Photo: Ramona du Houx

Governor John Baldacci and MPUC Chairman Kurt Adams congratulate the winners of our Fourth Annual Energy Tips Contest.

Fourth Annual Energy Tips Contest Winners

4th Grade

School Tip:
"Use sensor lights in schools to save money."

Brian Allen, Hall-Dale Elementary School, Hallowell

Home Tip:
"Switch to energy-saving lightbulbs that last longer and save energy."

Jane Carr, Sea Road School, Kennebunk

5th Grade

School Tip:
"Keep the computer off if no one is using it."

James Rose, T.C. Hamlin Elementary School, Randolph

Home Tip:
"Insulate the hot water tank so the heat won't get out and have to use more electricity to reheat it."

Jordan Drouin, Bay Ridge Elementary School, Cutler

6th Grade

School Tip:
"Instead of running lights, just open the shades and get natural light."

Makayla Moors, Central Middle School, Corinth

Home Tip:
"Buying a refrigerator? Make sure the label says ENERGY STAR."

Gino Helm, Kingfield Elementary School, Kingfield

Professional Training Programs

Efficiency Maine's professional training Programs provide 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.

2007 Professional Training Workshops

- **Energy Management Planning** (54 participants; Augusta and Presque Isle)
  Demonstrated how to develop a strong, working energy management plan that helps decrease energy costs by educating staff about building energy use.
- **Certified Energy Manager Training** (43 participants; Augusta and Portland)
  Provided training in the six training areas specified for energy managers in the Energy Policy Act.

- **Energy Auditing 101** (32 participants; Augusta)
  Trained participants to identify where energy consumption can be reduced and utilize the latest methods and technologies to accomplish real savings.
- **Reducing Energy Costs** (33 participants; Orono)
  Presented the basic knowledge and tools necessary to identify energy-saving opportunities and quantify their associated savings.
- **Motor System Management** (8 participants; Sanford)
  Trained facility personnel in electric motor systems management to help manage motor systems for reduced energy cost and increased reliability.
- **Fundamentals of Lighting Design and Lighting Calculations for Interior and Exterior Spaces** (52 participants; Lewiston)
  Reviewed the fundamentals of the lighting design process for illuminating interior spaces and lighting calculations for interior and exterior spaces.
- **Maine Building Benchmark** (40 participants; Auburn)
  Presented the Maine Benchmark handbook guidelines, which may be used to comply with the requirements of BGS Chapter 60 Rule relative to energy-efficiency standards for state and school projects involved in new construction or substantial renovation.

Attendees at the Reducing Energy Costs Workshop at the University of Maine; Instructor Scott Dunning

What Our Attendees are Saying:

Energy Auditing 101:

"This was a great review and refresher and will be useful to assist my customer base."

– Gary Saucier, Central Maine Power

Motor System Asset Management Workshop:

"Hands-on use of Motor Master software."

– Ann Thayer, New England Organics

Maine Building Benchmark:

"Being relatively new to facility maintenance and construction, the training will give me a stepping stone of knowledge when I meet with the architects and general contractors on the school renovations in our district."

– Participant

Looking Ahead

In 2008, Efficiency Maine's Education and Training Program plans to:

- Continue its current training and education. (Comments gathered in Maine Public Utilities Docket No. 2005-446 provided stakeholder input on the entire Conservation Program. Stakeholders encouraged the continuation of Efficiency Maine Educational Programs.)
- Continue to help develop a curriculum that can be incorporated into students' daily educational experience.
- Expand professional training opportunities with Business Program Allies.

Conclusion

Cumulatively through FY 2007, Efficiency Maine Programs have saved 2.1 million MWh, worth an estimated lifetime economic value of $189 million. These savings were achieved at a cost of 3.3¢ per kWh with a program benefit-to-cost ratio of 2.67 to 1. The associated environmental benefits include preventing the release of more than a million metric tons of CO_2 over the measures' lives. Compared to projections of Commission proceedings and independent research reports, Efficiency Maine has achieved greater savings while spending less than projected[1].

Balancing Immediate Success with Market Transformation

Efficiency Maine continues to balance the objective of market transformation over time with the need for immediate electricity savings.

Market transformation begins with incentives to increase product availability and awareness. As these new technologies become commonplace, incentive levels are reduced and marketing is increased. When new products mature, marketing expenditures are reduced and funds are reallocated to the next new efficient product. In collaboration with other Program administrators, the United States Departments of Energy and Environmental Protection and major appliance and equipment manufacturers, Efficiency Maine regularly reviews its product-rebate and other Programs in light of the current stage of market transformation, and makes adjustments when appropriate.

Programs that focus heavily on market transformation include our Education and Training, High Performance Schools, and Commercial and Residential New Construction Programs. By comparison, the Residential Products and Business Equipment Programs are aimed more at immediate savings acquisitions through rebates for efficient products. With both objectives, the measure of success is considered to be excellence in Program delivery, Program cost-effectiveness, and satisfaction from our Program participants. The results of independent evaluations of both the Business and Residential Programs conducted over the past year point to a large measure of success in achieving both objectives for both Programs.

Additional detailed information on Efficiency Maine's participation and savings impacts by Program and assessments collected by utility are included in the appendices at the end of this report. For more information and to see our Program Evaluations, please go to **efficiencymaine.com.**

Looking Ahead

In 2008, Efficiency Maine will:

- Implement recommendations made in the independent evaluations of the Residential Lighting and Business Programs.
- Roll out new initiatives including the Commercial and Residential New Construction Programs.
- Incorporate the Maine Home Performance Program formerly operated by the Maine Office of Energy Independence and Security.
- Incorporate the State Energy Program offerings into the Efficiency Maine umbrella to simplify the offerings on the MPUC website.
- Begin working closely with the Maine Energy Conservation Board created by Public Law Chapter 317 "An Act to Establish the Regional Greenhouse Gas Initiative Act of 2007." This Board will be appointed by the Commission and serve as an advisory body to the Commission and the Energy and Carbon Savings Trust (also created by the Act). Efficiency Maine and Commission staff will assist the Board in becoming familiar with the Programs offered by Efficiency Maine and will provide administrative support in the development of RFPs and consultant selection that the Board may wish to employ in the discharge of its responsibilities.

2008 Budget

In 2007, Efficiency Maine Program spending of $14 million was funded by a combination of the $11.5 million in revenues from the conservation assessment and a carry-over of unspent funds from prior years. Unspent funds from 2007 are partially encumbered for various projects, but the remainder will be invested in 2008 as we continue to strive to meet the directives of Public Law Chapter 317 to "realize all available energy-efficiency and demand reduction resources in this State that are cost-effective, reliable, and feasible…."

The following table represents Efficiency Maine's best estimates for future Program expenditures based on current portfolio design. These projections and identified Program areas are likely to be modified through the course of 2008 activities. Uncertainties posed by the ways in which Maine will choose to implement the Regional Greenhouse Gas Initiative prevent us from providing a longer-term projection.

Efficiency Maine Projected Four-Year Budget (2008-2011)

Program	FY '08	FY '09	FY '10	FY '11
Low Income	$2,738,533	$2,893,436	$3,278,467	$3,278,467
Residential	$2,346,423	$2,246,660	$2,264,536	$2,264,536
New Homes	$150,000	$500,000	$600,000	$600,000
Small Business	$2,738,533	$2,893,436	$3,278,467	$3,278,467
New Construction	$730,151	$1,185,016	$1,219,912	$1,219,912
Business	$2,506,592	$2,284,337	$2,227,460	$2,227,460
Public Facilities	$970,000	$600,000	$1,000,000	$1,000,000
Education	$844,000	$555,000	$550,000	$600,000
Administration	$725,000	$800,000	$900,000	$900,000
Market Research	$200,000	$150,000	$200,000	$200,000
Other*	$2,136,999	$2,260,968	$2,306,492	$2,306,492
Total	**$16,086,231**	**$16,368,853**	**$17,825,334**	**$17,875,334**

*Other costs are projections for non-program costs such as annual grants to the Energy Resources Council, Promotion of Maine Based Renewable Energy, RGGI implementation, grants to the Maine State Planning Office for Maine Home Performance, Sta-Cap charges, memberships and sponsorships.

Cumulatively since 2004, Efficiency Maine's programs have produced lifetime savings of 2,103,430 MWh, equivalent to the annual electrical consumption of 309,000 Maine homes; produced $181.8 million in lifetime economic benefits; and prevented the release of emissions equivalent to 122 million gallons of gasoline, or 5,443 rail car loads of coal.

Residential Lighting Program displays promoting the replacement of standard lightbulbs with energy-saving CFLs.

Energy-efficient LED holiday lights help the town of Brunswick celebrate the season while still conserving energy.

Footnote:

[1]"The Achievable Potential for Electric Efficiency Savings in Maine." Prepared for the Maine Public Advocate by Optimal Energy Inc., Vermont Energy Investment Corp. October 22, 2002.

Table A1: Business Program: FY '07 Participation Small and Large Businesses								
			Savings at Customer Level		Savings at Generation Level			
Program Type	No. of Participants[1]	No. of Projects	MWh Savings	MW Savings	MWh Savings	MW Savings	Incentive Amount	% of Incentive by Type
Business (<=50 Employees)	354	425	7,696	2.22	8,604	2.48	$764,885.90	27%
Business (>50 Employees)	157	244	25,165	4.90	28,134	5.48	$2,048,788.36	73%
Total	**511**	**669**	**32,861**	**7.12**	**36,738**	**7.95**	**$2,813,674.26**	**100%**

1. 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 '07 Savings by Business Type								
		Savings at Customer Level		Savings at Generation Level				
Business Type	No. of Projects	MWh Savings	MW Savings	MWh Savings	MW Savings	Incentive Amount	Total Participant Costs[1]	% of MWh Savings by Business Type
Business	541	29,310	6.13	32,769	6.85	$2,474,283	$7,461,327	89%
Government	99	3,144	0.84	3,515	0.94	$304,968	$725,012	10%
Nonprofit Organization	29	407	0.15	454	0.16	$34,424	$75,750	1%
Total	**669**	**32,861**	**7.12**	**36,738**	**7.95**	**$2,813,674**	**$8,262,089**	**100.00%**

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

Table A3: Business Program: FY '07 Savings by Facility Type								
		Savings at Customer Level		Savings at Generation Level				
Business Type	**No. of Projects**	**MWh Savings**	**MW Savings**	**MWh Savings**	**MW Savings**	**Incentive Amount**	**Total Participant Costs[1]**	**% of MWh Savings by Business Type**
Agriculture	31	3,010	1.03	3,365	1.16	$124,606	$353,936	9.16%
College	46	2,455	0.66	2,744	0.74	$219,474	$519,059	7.47%
Convenience Store	4	28	0.01	31	0.00	$3,941	$11,744	0.08%
Elementary/ Secondary School	38	586	0.14	655	0.15	$62,716	$153,334	1.78%
Grocery Store	21	601	0.10	672	0.12	$104,353	$205,658	1.83%
Health	16	650	0.11	727	0.12	$75,434	$146,144	1.98%
Hospital	2	137	0.01	153	0.02	$17,835	$47,538	0.42%
Lodging	36	858	0.29	960	0.33	$29,519	$50,891	2.61%
Manufacturing	103	12,334	1.78	13,789	1.99	$1,020,160	$3,496,804	37.53%
Office	62	750	0.25	839	0.28	$96,628	$291,102	2.28%
Restaurant	10	80	0.02	89	0.02	$11,724	$26,021	0.24%
Retail	77	5,378	1.48	6,012	1.65	$402,234	$1,207,429	16.37%
Warehouse	47	1,982	0.48	2,216	0.53	$217,321	$642,437	6.03%
Other	176	4,014	0.75	4,488	0.84	$427,730	$1,109,993	12.22%
Total	**669**	**32,861**	**7.12**	**36,738**	**7.955**	**$2,813,674.26**	**$8,262,089.79**	**100.00%**

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

Table A4: Business Program: FY '07 Benefits and Costs by County											
				Savings at Customer Level	Savings at Generation Level						
County	Population by County[1]	Businesses by County[2]	No. of Projects	MWh Savings	MWh Savings	Total Lifetime Economic Benefits	Total Participant Incentives	Total Participant Costs[3]	% of MWh Savings by County	% of Businesses by County	% of Population by County
Androscoggin	107,552	2,824	58	3,230	3,611	$5,277,031	$306,557	$864,340.00	11%	7%	8%
Aroostook	73,008	2,181	60	1,096	1,225	$1,790,518	$107,897	$280,614.40	4%	5%	6%
Cumberland	274,598	11,000	147	5,549	6,204	$9,066,053	$529,518	$1,445,481.67	19%	27%	21%
Franklin	30,017	867	14	702	785	$1,146,450	$64,263	$168,515.50	2%	2%	2%
Hancock	53,797	2,175	20	1,075	1,201	$1,755,469	$68,318	$222,766.07	2%	5%	4%
Kennebec	121,068	3,350	69	2,689	3,007	$4,393,955	$189,663	$501,878.08	7%	8%	9%
Knox	41,096	1,651	30	763	853	$1,246,258	$76,409	$202,154.24	3%	4%	3%
Lincoln	35,234	1,493	11	327	366	$534,073	$35,429	$90,788.50	1%	4%	3%
Oxford	57,118	1,427	21	1,242	1,388	$2,028,396	$140,921	$389,735.00	5%	4%	4%
Penobscot	147,180	4,215	96	3,582	4,004	$5,851,406	$391,292	$1,116,882	14%	10%	11%
Piscataquis	17,585	481	14	579	648	$946,643	$47,182	$149,029.68	2%	1%	1%
Sagadahoc	36,837	890	13	244	273	$399,124	$40,654	$95,041.50	1%	2%	3%
Somerset	52,249	1,181	21	4,443	4,968	$7,259,580	$219,121	$616,713.30	8%	3%	4%
Waldo	38,715	978	11	575	643	$939,486	$68,558	$141,372.88	2%	2%	3%
Washington	33,288	924	8	366	409	$597,306	$129,289	$757,495.50	5%	2%	3%
York	202,232	5,573	75	6,362	7,113	$10,394,073	$396,182	$1,209,853.46	14%	14%	15%
Projects attributed to multiple Counties	n/a	n/a	1	19	21	$31,173	$2,420	$9,428	n/a	n/a	n/a
Total	**1,321,574**	**41,210**	**669**	**32,842**	**36,717**	**$53,656,995**	**$2,813,674**	**$8,262,090**	**100%**	**100%**	**100%**

Notes:
1. Annual Estimates of the Population for Counties of Maine, July 1, 2006. Population Division, U.S. Census Bureau
2. County Business Patterns: Maine 2004. Table 4. U.S. Census. June 2006. pg 281
3. 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**	**Total**	**% by Ally Type**
Lighting	2	2	4	-	1	9	2%
Electrical	1	16	31	3	-	51	9%
HVAC	-	3	6	2	2	13	2%
Consultant/Engineering/Architect	-	13	19	11	4	47	8%
Plumbing/Mechanical	-	-	-	-	-	0	0%
Contractor	-	31	71	28	1	131	23%
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	6	1%
Agriculture	-	1	-	-	-	1	0%
Agricultural Equipment	-	-	-	-	-	0	0%
Refrigeration	-	-	1	-	-	1	0%
Variable Frequency Drive	-	-	3	1	-	4	1%
More than One Type	46	29	39	17	26	285	50%
Total Approved Each Year	**60**	**101**	**178**	**66**	**37**	**570**	**1**

Table A6: Business Program: Financial Report		
Incentive Costs	**Prior Year (FY 2006)**	**Current Year (FY 2007)**
Incentives to Participants	$1,941,412.00	$2,813,674.26
Incentives to Trade Allies		
Subtotal Incentives	$1,941,412.00	$2,813,674.26
Program Delivery Costs		
Implementation and Technical Assistance	$1,791,258.00	$2,530,281.00
Marketing	$324,144.00	$653,489.00
Subtotal Program Delivery Costs	$2,115,402.00	$3,183,770.00
Administrative and Management Costs	$140,405.00	$141,534.00
Evaluation Costs		$173,565.00
Total Efficiency Maine Costs	$4,197,219.00	$6,312,543.26
Annualized MWh Savings	23,094	36,717
Lifetime MWh Savings	321,434	465,746
Total Lifetime Economic Benefits	$23,148,193.00	$53,656,995
Business Program Benefit-Cost Ratio	2.5	4.56

Table B1: Residential ENERGY STAR Lighting Program - FY '07 Benefits and Costs by County

			Savings at Customer Level	Savings at Generator Level			
Geographic Savings	**Population by County[1]**	**Total Lighting Products**	**Total MWh Savings (Customer Level)**	**Total MWh Savings (Generation Level)**	**Total Lifetime Economic Benefits**	**Total Participant Incentives**	**Total Participant Costs**
Androscoggin	108,039	65,609	3,254.15	3,602.44	$2,921,942.02	$77,182.50	$269,250.38
Aroostook	73,240	39,591	2,073.35	2,295.24	$1,861,690.06	$33,813.00	$162,642.03
Cumberland	274,950	186,675	9,193.76	10,177.71	$8,255,193.66	$225,197.00	$757,641.51
Franklin	29,704	18,830	951.43	1,053.25	$854,302.81	$20,089.00	$77,335.47
Hancock	53,660	39,855	1,940.12	2,147.77	$1,742,056.11	$40,936.50	$166,400.12
Kennebec	120,986	81,214	3,993.57	4,420.94	$3,585,874.21	$99,057.00	$319,752.66
Knox	41,219	24,798	1,211.15	1,340.79	$1,087,505.45	$26,118.00	$96,604.90
Lincoln	35,240	23,074	1,135.41	1,256.94	$1,019,499.14	$25,495.00	$95,184.00
Oxford	56,628	32,463	1,673.88	1,853.01	$1,503,001.00	$40,888.25	$133,758.97
Penobscot	147,068	100,581	4,941.21	5,469.98	$4,436,774.02	$131,729.75	$398,736.19
Piscataquis	17,674	7,495	381.33	422.13	$342,397.54	$8,227.50	$30,974.29
Sagadahoc	36,962	27,278	1,352.70	1,497.48	$1,214,610.15	$28,719.00	$113,922.94
Somerset	51,667	30,381	1,535.51	1,699.82	$1,378,752.35	$35,923.50	$122,725.55
Waldo	38,705	25,602	1,303.07	1,442.53	$1,170,041.16	$32,997.75	$102,629.55
Washington	33,448	15,916	798.83	884.32	$717,275.47	$15,675.25	$67,728.92
York	202,315	92,914	4,597.99	5,090.12	$4,128,590.12	$114,262.25	$363,756.17
Unknown[2]	0	1,705	61.25	67.80	$54,993.69	$0.00	$0.00
Total	**1,321,505**	**813,981**	**40,399**	**44,722**	**$36,274,498.97**	**$956,311.25**	**$3,279,043.65**

1. Annual Estimates of the Population for Counties of Maine, July 1, 2005. Population Division, U.S. Census Bureau

2. 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[1]

Program Ally Types	**FY '02**	**FY '03**	**FY '04**	**FY '05**	**FY '06**	**FY '07**	**Program to Date**
Department	2	0	0	25	0	18	45
DIY	8	2	2	2	1	2	17
Grocery		0	0	54	1	4	59
Hardware (Independent)	96	13	0	18	1	-11	117
Hardware (Chain)	27	9	5	18	1	-18	42
Showroom	5	2	1	0	0	-2	6
Wholesale	0	0	0	0	1	4	5
Other	0	0	0	7	1	-1	7
Cumulative Total	**138**	**164**	**172**	**296**	**302**	**298**	

Table B3: Residential ENERGY STAR Lighting Program - Products Rebated[1]				
Measure	**FY '04**	**FY '05**	**FY '06**	**FY '07**
CFL Bulbs	68,767	107,151	636,704	788,125
Ceiling Fans	169	118	107	59
External Fixtures	1,459	1,636	2,299	1,876
Internal Fixtures	4,403	4,259	6,260	6,840
Table/Floor Lamps	8	78	5	145
Torchieres	881	208	130	98
LED Holiday Lights	-	-	-	7,689.00
Total	**75,687**	**113,450**	**645,505**	**804,832**
1. Does not include special promotions/giveaways				

Table B4: Residential ENERGY STAR Lighting Program - Financial Report		
Incentive Costs	**Prior Year (FY 2006)**	**Current year (FY 2007)**
Incentives to Participants	$842,833	$956,311
Incentives to Trade Allies	$0	$0
Subtotal Incentives	$842,833	$956,311
Program Delivery Costs		
Implementation and Technical Assistance	$911,876	$843,403
Marketing	$378,583	$887,468
Subtotal Program Delivery Costs	$1,290,460	$1,730,871
Administrative and Management Costs	$94,225	$134,244
Evaluation Costs	$0	$74,895
Total Efficiency Maine Costs	$2,227,518	$2,896,321
Annualized MWH Savings	36,299	44,722
Lifetime MWh Savings	275,872	339,889
Total Lifetime Economic Benefits	$20,939,446	$36,274,499
Business Program Benefit-Cost Ratio	4.38	5.87

Table C1: Low Income Program: FY '07 Benefits and Costs by County

County	Community Action Agency	Qty Refrigerators (RF)	Qty CFLs	Savings at Customer Level			Savings at Generation Level			Total Lifetime Economic Benefits
				RF MWh Savings	CFL MWh Savings	Total MWh Savings	RF MWh Savings	CFL MWh Savings	Total MWh Savings	
Androscoggin	ACAP	284	3,742	315	129	444	352	144	496	$322,082
Aroostook[1]	CCAP	19	936	19	24	43	22	27	48	$31,407
Cumberland	CCI	205	3,664	236	56	292	263	63	327	$212,065
Franklin	CCI	205	3,664	236	56	292	263	63	327	$212,065
Hancock	CED	50	929	64	19	83	72	21	92	$59,993
Kennebec	CED	50	929	64	19	83	72	21	92	$59,993
Knox	KVCAP	96	734	179	33	212	200	37	237	$154,217
Lincoln	KVCAP	88	696	170	32	202	191	36	226	$147,008
Oxford	PCAP	185	487	128	18	146	143	20	163	$106,044
Penobscot	PCAP	4	19	4	1	5	5	1	6	$3,605
Piscataquis	PROP	240	2,719	298	90	388	333	101	434	$281,768
Sagadahoc	WCAP	76	409	98	15	113	110	16	126	$81,756
Somerset	WHCA	229	2,184	236	49	285	263	55	318	$206,766
Waldo	WHCA	229	2,184	236	49	285	263	55	318	$206,766
Washington	WMCA	95	624	111	34	145	124	38	162	$104,924
York	YCCAC	389	3,764	469	74	543	524	83	607	$394,357
Total		**2,442**	**27,683**	**2,863**	**697**	**3,560**	**3,201**	**779**	**3,980**	**$2,584,816**

1. Includes 870 bulbs from RIFME Program

Table C2: Low Income Program: Financial Report

Incentive Costs	**Prior Year (FY 2006)**	**Current Year (FY 2007)**
Incentives to Participants	$1,849,266.00	$1,983,193.00
Incentives to Trade Allies		
Subtotal Incentives	$1,849,266.00	$1,983,193.00
Program Delivery Costs		
Implementation and Technical Assistance	$100,628.00	$0.00
Marketing	$0.00	$0.00
Subtotal Program Delivery Costs	$100,628.00	$0.00
Administrative and Management Costs	$3,791.00	$153,574.00
Evaluation Costs	$0.00	$0.00
Total Efficiency Maine Costs	$1,953,685.00	$2,136,737.00
Annualized MWh Savings	5,934	3,980
Lifetime MWh Savings	37,141	23,649
Total Lifetime Economic Benefits	$2,733,299.00	$2,584,816
Business Program Benefit-Cost Ratio	1.4	1.21

Table D1: Building Operator Certification: FY '07 Benefits and Costs by County

County	Total Participants	Savings at Customer Level: Total MWh Savings	Savings at Generation Level: Total MWh Savings	Total Participant Costs	Total Lifetime Economic Benefits
Aroostook	6	884	988	$433,958	$900,401
Franklin	1	100	111	$51,315	$101,392
Hancock	2	271	303	$134,147	$275,796
Kennebec	3	514	574	$248,496	$523,213
Penobscot	6	884	988	$433,958	$900,401
Waldo	1	100	111	$51,315	$101,392
Washington	1	100	111	$51,315	$101,392
York	12	1,696	1,897	$836,399	$1,727,789
Massachusetts	2	343	383	$165,664	$348,809
Total	**34**	**4,890**	**5,084**	**$2,406,567**	**$4,980,582**

Table D2: Building Operator Certification: Financial Report

	Prior Year (FY 2006)	Current Year (FY 2007)
Number of Classes	**3**	**2**
Number of Participants	**60**	**34**
Incentive Costs		
Incentives to Participants	$0.00	$0.00
Incentives to Trade Allies	$0.00	$0.00
Subtotal Incentives	$0.00	$0.00
Program Delivery Costs		
Implementation and Technical Assistance	$102,912.00	$74,184.00
Marketing	$0.00	$0.00
Subtotal Program Delivery Costs	$102,912.00	$74,184.00
Administrative and Management Costs	$25,575.00	$23,873.00
Evaluation Costs	$0.00	$0.00
Total Efficiency Maine Costs	$128,487.00	$98,057.00
Annualized MWh Savings	6,684	5,084
Lifetime MWh Savings	33,418	24,450
Total Lifetime Economic Benefits	$4,911,419.00	$4,980,582
Business Program Benefit-Cost Ratio	1.5	1.99

Appendix E: High Performance Schools Program

Table E1: High Performance Schools: Financial Report		
Incentive Costs	**Prior Year (FY 2006)**	**Current Year (FY 2007)**
Incentives to Participants	$0.00	$861,726.00
Incentives to Trade Allies	$0.00	$0.00
Subtotal Incentives	$0.00	$861,726.00
Program Delivery Costs		
Implementation and Technical Assistance	$65,552.00	$25,599.00
Marketing	$0.00	$0.00
Subtotal Program Delivery Costs	$65,552.00	$25,599.00
Administrative and Management Costs	$50,172.00	$79,017.00
Evaluation Costs	$0.00	$0.00
Total Efficiency Maine Costs	$115,724.00	$966,342.00
Annualized MWh Savings	n/a	1,372
Lifetime MWh Savings	n/a	18,455
Total Lifetime Economic Benefits	n/a	$3,662,132
Business Program Benefit-Cost Ratio	n/a	1.24

Appendix F: Education and Training Program

Table F1: Education and Training Program: Financial Report		
Incentive Costs	**Prior Year (FY 2006)**	**Current Year (FY 2007)**
Incentives to Participants	$0	$0
Incentives to Trade Allies	$0	$0
Subtotal Incentives	**$0**	**$0**
Program Delivery Costs		
Implementation and Technical Assistance	$101,000	$212,487
Marketing	$3,700	$3,700
Subtotal Program Delivery Costs	**$104,700**	**$216,187**
Administrative and Management Costs		
Administrative and Management Costs	$61,681	$60,270
Subtotal Administrative and Management Costs	**$61,681**	**$60,270**
Evaluation Costs	**$0**	**$0**
Total Efficiency Maine Costs	**$166,381**	**$276,457**
Annualized MWH Savings	n/a	n/a
Lifetime MWh Savings	n/a	n/a
Total Lifetime Economic Benefits	n/a	n/a
Benefit Cost Ratio	n/a	n/a

Appendix G: Emission Reductions

Table G1: Efficiency Maine Lifetime Emission Reductions (Metric Tons)					
Emission	**FY 2004**	**FY 2005**	**FY 2006**	**FY 2007**	**TOTAL**
CO_2 (metric tons)	90,053	162,659	320,849	497,491	**1,071,052**
SO_2 (metric tons)	56	101	200	829	**1,186**
No_x (metric tons)	21	38	75	426	**560**

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_2: 1,260 lbs/MWh
SO_2: 2.1 lbs/MWh
NOx: 1.08 lbs/MWh

Appendix H: Utility Conservation Fund Assesments for Efficiency Maine

Table H1: Utility Assessments for Efficiency Maine (Actuals and Projected)						
Utility	**FY '05 (Actual)**	**FY '06 (Actual)**	**FY '07 (Actual)***	**Projected FY '08****	**Projected FY '09**	**Projected FY '10**
Central Maine Power Co.	$7,458,040	$7,339,093	$6,290,032	$14,199,887	$12,441,808	$13,208,074
Bangor Hydro-Electric Co.	$990,156	$1,508,735	$1,288,409	$2,108,110	$1,653,415	$1,692,932
Maine Public Service Co.	$360,819	$431,840	$517,664	$823,807	$903,746	$925,345
Kennebunk Light & Power	$85,593	$110,891	$131,624	$174,273	$191,184	$195,754
Eastern Maine Electric Coop	$71,420	$89,926	$108,796	$134,413	$147,456	$150,980
Houlton Water Co.	$77,505	$55,654	$136,995	$190,959	$170,154	$174,221
Van Buren Light & Power Co.	$10,202	$12,782	$10,866	$25,331	$22,810	$23,356
Fox Island Electric Coop	$10,802	$10,107	$5,446	$16,699	$16,143	$16,529
Swans Island Coop	$4,113	$2,125	$1,467	$3,395	$3,724	$3,813
Madison Electric Works	$11,576	$5,960	$8,213	$0	$0	$0
TOTAL	**$9,080,226**	**$9,567,113**	**$8,499,512**	**$17,676,874**	**$15,550,442**	**$16,391,004**

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 are expected to decrease by $1.3 million in FY '08 and $2.6 million in FY '09 due to changes in contribution from T, ST class.

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.

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