Saving energy for Maine

2004 Annual Report

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Introduction and Summary

In our second full year of operation, Efficiency Maine has substantially increased the delivery of efficiency products and services to Maine consumers. Nearly three times as many low-income families benefited from program services as last year. Residential customers have doubled their participation in the efficient lighting program. Business program energy savings grew tremendously with the addition of a component for larger commercial customers. And our High Performance Schools program has become well established among the community of architects and engineers involved in school construction. There are now nine new school construction projects representing over $100 million in construction costs enrolled in the program. Altogether, Efficiency Maine achieved savings of 17,918 MWhs/yr for Maine consumers – more than triple the level of savings achieved the previous year through our interim programs. This level of energy savings is enough to provide electricity to approximately 2,800 Maine homes. The environmental benefits of the energy savings are also quite substantial. When electricity is used more efficiently, fewer kilowatt-hours are used to accomplish the same tasks, so the combustion of fossil fuels is reduced. This past year's program has reduced air emissions substantially. More than 96,000 pounds of Sulphur Dioxide (SO_2), 33,000 pounds of Nitrogen Oxides (NOx), and 13,700 **tons** of Carbon Dioxide (CO_2) of annual emissions are avoided from these programs. This is the equivalent of taking nearly 8,700 automobiles off the road.

This second annual report fulfills the requirement for the Maine Public Utilities Commission under Title 35-A section 3211-A ("Conservation Act") to submit an annual report to the Legislature's joint standing committee having jurisdiction over utilities and energy matters. Charged by the legislature to plan and implement energy conservation programs in 2002, the Commission created "Efficiency Maine" as its brand name for a portfolio of energy efficiency programs designed to respond to the goals of the legislation. This report describes Efficiency Maine's activities during the past year pursuant to the requirements of the Conservation Act. It provides an overview of the actions taken in response to the directives of the Act, and describes how we have attempted to accommodate the Act's less quantifiable guidelines.

The Act directs the Commission to develop and implement cost effective conservation programs consistent with an overall strategy developed by the Commission. We are broadly required to consider programs that increase consumer awareness of energy conservation, create more favorable market conditions for efficiency, and promote sustainable economic development and reduced environmental damage. The Act sets forth other directives on the allocation of funds among programs, consideration of public input, contracting of service providers, evaluation of programs, distribution of services, and overall program funding level. Last year's annual report discussed the "interim" conservation programs implemented at the direction of the Legislature to avoid delays in the provision of efficiency programs. Those interim programs were not required to satisfy all requirements of the Conservation Act and by December 31, 2003 were replaced with ongoing programs that did fully comply. The transition from interim to ongoing program operation has gone smoothly, requiring only minor changes to the interim programs.

Since last year, the contracts for the residential lighting and business program implementation services were competitively re-bid and new contractors have been secured to continue the program services. The residential lighting program's performance has improved over the interim program through the use of limited promotional activities. We renegotiated the memorandum of understanding guiding the operation of the low income program between the Commission and the Maine State Housing Authority to include improved program features, and an increased number of customers have been served. We simplified our commercial programs to reduce customer confusion; during the "interim" phase of these programs, "commercial" program offerings included a "small business program," a "Commercial and Industrial program," and an "Existing School Efficiency Program." Under the new, ongoing "Efficiency Maine Business Program," these niche markets continue to be served under a single umbrella which has also been extended to cover farms, non-profit agencies, local and county governments, water and wastewater facilities, and quasi-governmental organizations. The Efficiency Maine High Performance schools program has gained momentum. There are now nine new school projects in the design and development stages , and one school has received an incentive award for the installation of more energy efficient equipment.

Our collaboration with other State agencies continues. The Commission and the Maine Department of Transportation are exploring the possibility of replicating last year's successful traffic signal replacement program with a cross walk signal replacement program. Efficiency Maine is working with the Maine Bureau of General Services and the Maine Department of Education to develop BGS Rule Chapter 60, "Improvement of Energy Efficiency in State Buildings," to implement the "ASHRAE plus 20%" law. Efficiency Maine, the Maine Bureau of General Services, the Attorney General's office, the Director of Energy Independence and Security, the University of Maine System, and other state agencies are developing standard form contracts and bid packages for the implementation of 3rd party financed energy performance contracts in State buildings. Efficiency Maine staff have continued to work with the Maine Department of Environmental Protection (MDEP) in its "Step Up" program and in assisting the development of the Department's greenhouse gas action plan. And MDEP, through the State Energy Program, recently won a $96,853 grant from the United States Department of Energy (US DOE) for the incremental cost of three natural gas fueled school buses for the City of Portland's Public School system. Finally, Efficiency Maine staff working with the Maine Department of Agriculture, have secured a grant from the United States Department of Agriculture to improve energy efficiency in Maine's dairy farms.

Last year's transfer of the State Energy Program from the Maine Department of Economic and Community Development to the Maine PUC has allowed better integration of federally funded projects and state efforts. Expertise from State Energy Program personnel complement that of Efficiency Maine staff and their contractors. United States Department of Energy funding has supplemented Efficiency Maine projects in a number of areas, and both programs have benefited.

- The US DOE Rebuild America program assists the Maine High Performance schools program by funding a "circuit rider" for the Maine School Management Agency, and also by helping to centralize the energy manager function at the University of Maine system.

- The State Energy Program has obtained funding from US DOE's Rebuild America program to provide training for architects and engineers in the use of a high performance handbook being developed to assist BGS in its implementation of its Chapter 60 rule.
- The State Energy Program's free energy audits for small businesses often lead customers to the Efficiency Maine programs, where they can act on recommendations made in the audit.
- The State Energy Program Low Interest Loan program is complemented by incentives available through Efficiency Maine.
- Together, the State Energy Program and Efficiency Maine have teamed up to roll out Maine's "Clean Energy Campaign," a joint effort to promote increasing purchases of electricity generated from renewable energy generators, especially those based in Maine.

Efficiency Maine continues to benefit from networking with similar organizations in New England and across the nation. This year, Efficiency Maine is participating in several initiatives coordinated by the Northeast Energy Efficiency Partnerships (NEEP). NEEP is providing support and information to assist the Commission in its development of residential and commercial building energy codes and is also offering the NEEP Building Operator Certification (BOC) course to Maine building operators. Through our partnership in NEEP, we are involved in a region-wide quality control project for energy efficient lights that are promoted in our programs. Efficiency Maine staff members are engaged in a variety of NEEP sponsored regional work groups and the program director now serves on the NEEP Board of Directors. Our membership in the Consortium for Energy Efficiency (CEE) allows us to compare our programs to others across the country. Through the Consortium meetings, we have examined the latest advances in energy efficient products and explored ways to accelerate the market adoption of higher efficiency products.

The table at right provides an overview of Efficiency Maine programs. The estimated energy savings are based on the latest information available. The "Program Costs" are the actual program expenditures from October 1, 2003 through September 30, 2004. Program benefits are energy costs avoided by program measures over their installed lives. Section 2 of this report provides a more in-depth description of the operation and achievements of each program. Section 3 gives projected revenues for future years, along with our expectations for how the program expenditures will match projected revenues.

Impacts of 2004 Efficiency Programs

Program	Energy Savings (MWh/yr)	2004 Program Costs	Lifetime Benefits of 2004 Measures	B/C Ratio	Emission Reductions
Low Income Appliance Replacement	1,396	$1,100,000	$1,270,850	1.16	976 tons CO_2 6,840 lbs. SO_2 2,373 lbs. NOx
Residential Lighting	4,184	$921,407	$1,863,448	2.02	2,916 tons CO_2 20,502 lbs. SO_2 7,113 lbs. NOx
Business	9,221	$3,294,150	$7,554,431	2.29	6,427 tons CO_2 45,183 lbs. SO_2 15,676 lbs. NOx
Building Operator Certification*	1,750	$294,400	$1,698,323	5.8	2,440 tons CO_2 17,150 lbs. SO_2 5,950 lbs. NOx
High Performance Schools**	67	$230,780	$112,624	.49	47 tons CO_2 328 lbs. SO_2 114 lbs. NOx
State Buildings	1,300	$368,939	$358,381	.97	906 tons CO_2 6,370 lbs. SO_2 2,210 lbs. NOx
Energy Education Programs	NA	$32,464			
Conservation Program Administrative Account***	NA	$511,012			
Total	**17,918**	**$6,753,152**	**$12,858,057**	**1.9**	**13,712 tons CO_2 96,373 lbs. SO_2 33,436 lbs. NOx**

* Includes total program data('03 and '04)
** Data from first participant school only
*** Includes personal services, training, travel, sponsorships e.t.cl

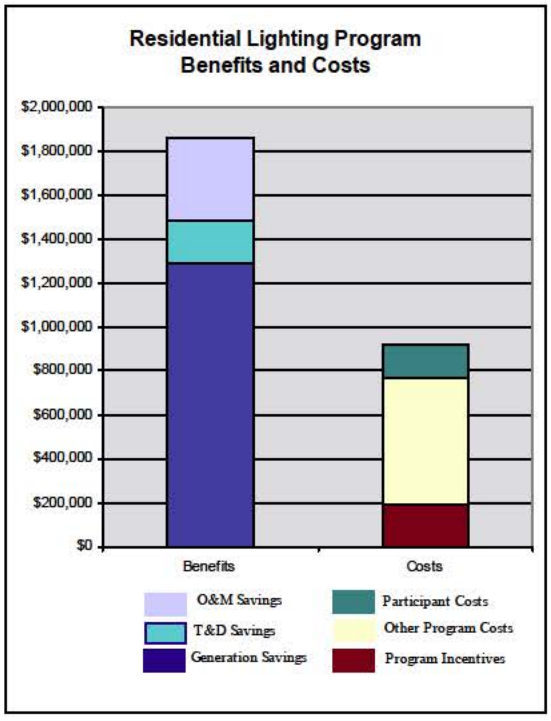
Residential Lighting Program

Efficiency Maine launched an "ENERGY STAR®"" Residential Lighting Program in February 2003. ENERGY STAR ® is a combined United States Department of Energy (US DOE) and United States Environmental Protection Agency (US EPA) effort to raise consumer consciousness of environmentally beneficial products. The ultimate goal of the program is to create a self-sustaining, consumer market for efficient lighting in Maine. The goal will be achieved by increasing the sale of efficient lighting, consumer awareness of efficient lighting, and the availability of efficient lighting products. The program is coordinated with the US EPA's effort to promote its ENERGY STAR® brand of efficient products.

Lighting accounts for 10-15% of total household electricity use with most households spending about $110 per year on energy for lighting. By choosing ENERGY STAR® labeled products, consumers can reduce electricity bills and improve the environment. In the case of lighting, ENERGY STAR® labeled compact fluorescent lamps (CFLs) are four times more efficient at converting electricity to light than incandescent bulbs. Thus, they use fewer watts to produce the same amount of light. For example, a 27-watt CFL actually provides more light than a 100-watt incandescent bulb. CFLs also last up to ten times longer and produce 90% less heat than conventional bulbs.

Over the course of the year, the program transitioned from an "interim" to a "full scale" program. The number of efficient products purchased has increased over the "interim" program as our promotional efforts have increased. The program has run promotional spots on radio. Print advertisements and news releases have been placed in home improvement sections of newspapers . Efficiency Maine has participated in the Bangor and Lewiston/Auburn home shows, and has partnered with fixture manufacturers to supply lighting for two Habitat for Humanity homes within the State. The program has added 22 additional retail partners including 5 lighting showrooms, bringing the total number of partners up to 164.

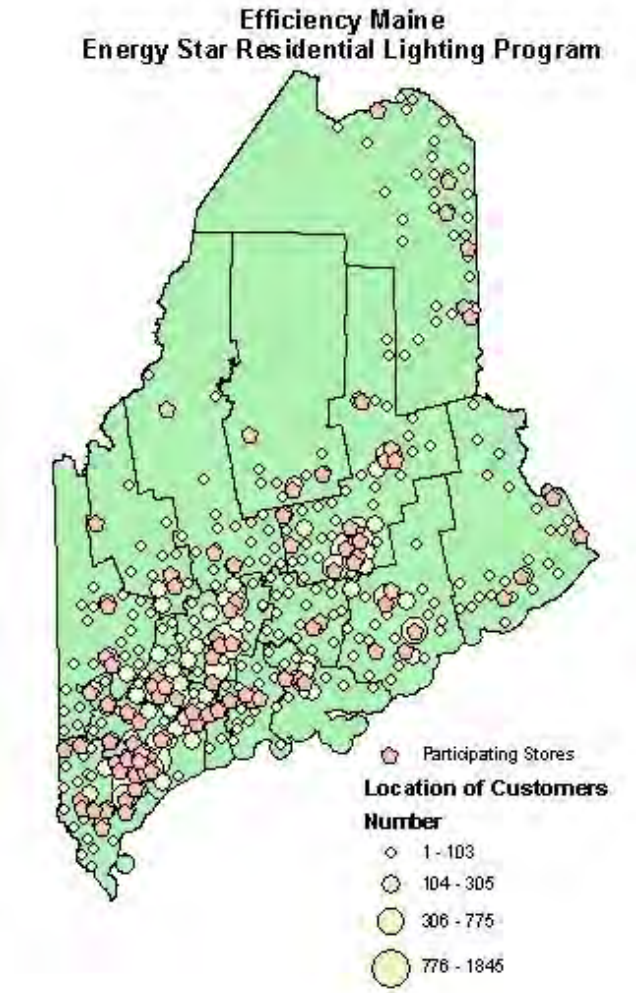
The promotions seem to be working. More than twice as many efficient lighting products were sold through the program this year compared to the same period last year. The 62,000 CFLs sold through the program will save 4,200 MWh per year each year of their seven year lives. Maine homeowners will save about $502,000 per year in energy costs. Program benefits exceed costs by more than 2 to 1. Environmental benefits are the avoidance of 2,916 tons of CO_2 emissions and 20,502 and 7,113 pounds of SO_2 and NOx respectively.



Electrician Dave Gerrish donates his time installing ENERGY STAR® lighting at Habitat for Humanity's Naples, Maine project

"This lighting efficiency campaign is a great way to get Mainers thinking about ways to conserve energy, save money and help the environment."

Robert W. Varney
Region 1 Administrator, U.S. EPA

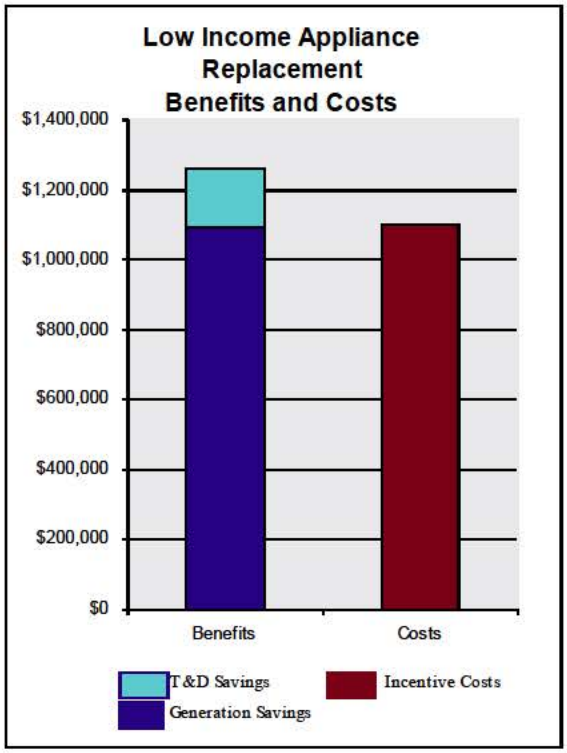


Low Income Appliance Replacement Program

Efficiency Maine's Low Income Appliance Replacement program is a collaborative effort involving Efficiency Maine, the Maine State Housing Authority (MSHA), and the state's Community Action Programs (CAPs) to reduce low income consumer electric bills through energy efficiency. The program helps to replace inefficient refrigerators and install energy efficient lighting in the homes of qualified low income consumers. Program goals are to increase the affordability of electricity services for low income customers, reduce electricity consumption, and provide environmental benefits. Programs for these customers are important because, even though their electricity use per household may be lower than other customers', their energy costs consume a greater percent of their incomes.

Efficiency Maine minimizes administrative costs by working with MSHA and the CAPs to supplement an existing federal program. The federal program administered by MSHA and delivered by the CAPs provides energy audits and weatherization services to qualified customers. The mechanism that allows Efficiency Maine to supplement these efforts is a memorandum of understanding (MOU) with MSHA under which CAP energy auditors arrange for the replacement of refrigerators when the estimated energy savings are 750 or more kWh per year. The auditors also install energy efficient compact fluorescent lamps (CFLs) in locations where they will provide the greatest energy savings.

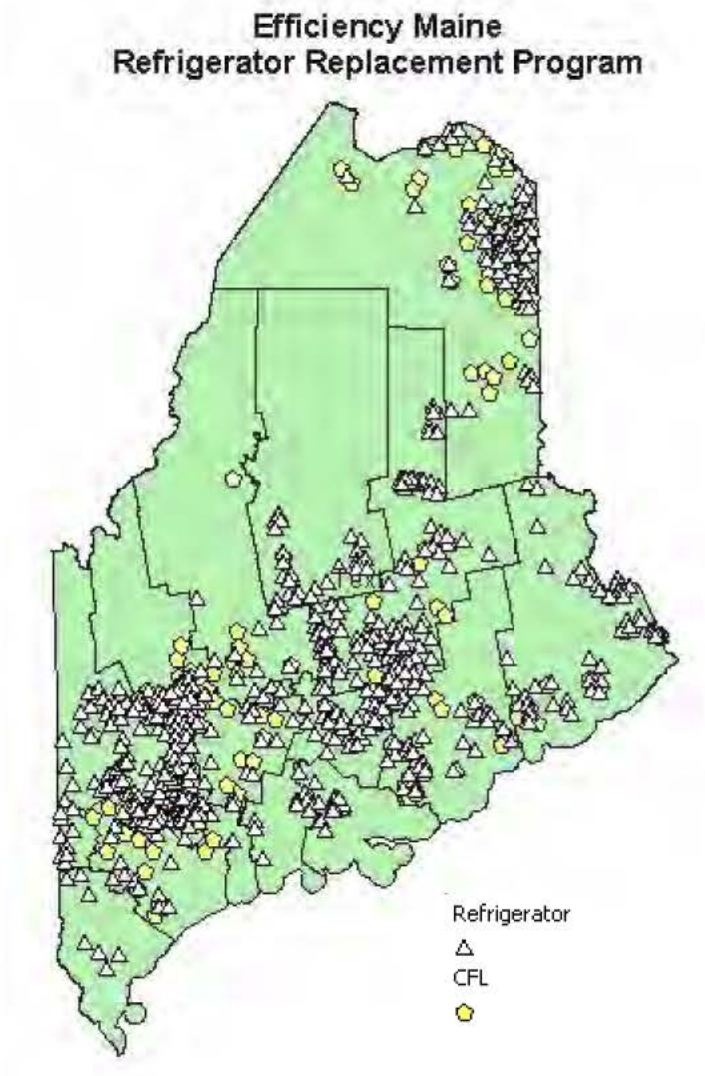
In the past year, Maine's CAPs have delivered over 770[1] refrigerators and more than 6,000 CFLs to low income customers, who will save an average of $220 per year on their electricity bills. Altogether, the refrigerators and efficient lights should save about 1,400 MWh per year. The program is cost effective with a benefit to cost ratio of 1.16 to 1. Program environmental benefits are the avoidance of 976 tons of CO_2 and 6,840 and 2,373 pounds of SO_2 and NOx respectively. While the program is working well, Efficiency Maine and MSHA are exploring further improvements to the program that will simplify the customer qualification requirements, increase the number of replacements that can be delivered, and allow for the program to reach more than 1,000 households in the next year.



[1]Reported refrigerator replacement activity from October 2003 through September 2004

"Living on a fixed income, anything that can help lower my monthly bills is appreciated."

Community Action Agencies in all of Maine's 16 counties have replaced a total of 770 refrigerators and more than 6,000 efficient lights in low-income customers' homes.



Business Program

The Efficiency Maine Business Program was established in July 2004 when three Efficiency Maine programs - the Small Business Program, the Commercial & Industrial Program, and the Existing Schools Program - merged. Each of the three programs was established on an interim basis during 2003 to provide information on energy efficient equipment and practices and to make cash incentives for energy efficient equipment available as quickly as possible. By analyzing the interim program results, Efficiency Maine staff was able to determine what mix of services and incentives would work best for Maine small and large businesses, farmers, K-12 schools, nonprofit organizations, local and county governments, and water and wastewater facilities.

Efficiency Maine launched the combined Business Program on September 1, 2004. Small business customers receive support tailored to their needs, as do private and public K-12 schools undertaking projects on existing school buildings. Larger commercial and industrial customers continue to receive assistance from program staff members who have the technical knowledge required for projects that are more complex. This new program structure allows Efficiency Maine and its contractors to funnel customers into the appropriate parts of the program rather than overwhelming them with too many choices and application forms.

Under the new Business Program all businesses are eligible for up to $50,000 in incentives in a calendar year regardless of their size. In addition, a list of pre-established cash incentives for qualified high efficiency equipment is offered, including a select group of incentives available to kindergarten through twelfth grade schools and small businesses only.

Program allies have contributed to the success of the interim programs and will be vital to the success of the new Business Program. These Allies, totaling 225 by the end of September 2004, are the manufacturers, wholesalers, retailers, and contractors that work with Efficiency Maine to promote, install and service energy efficient equipment. Additionally, all of the Home Depot locations in Maine worked with our field staff to coordinate an information program through their Pro-Desk, the first project of this kind for this retailer anywhere in the country. As the primary delivery channel for energy using equipment, the Program Allies are an important part of the program's market transformation effort. Efficiency Maine incentives, in turn, are an invaluable tool to getting the customer's attention for the Allies.

During the past year, training programs were offered on several campuses of the community college system statewide to educate the Program Allies and their clients further. This fall, an additional series of Program Ally Appreciation Dinners are being held at various campuses to introduce Program Allies to the new features of the Business Program, while thanking them for their support. Program field staff and program managers have been active in attending trade shows, trade meetings, business association functions, and in serving as speakers at numerous statewide events. Continual outreach with key business and trade associations has been an important component in building the credibility and reputation of Efficiency Maine programs.

Our communications plan includes monthly e-mail newsletters to Program Allies and a printed newsletter.

The quarterly newsletter highlights projects, Program Allies, and technical information and is sent to a statewide list of businesses, associations, as well as to Program Participants and Program Allies. Public relations efforts spotlight energy efficient practices used by program participants throughout the state in both statewide and local newspapers and on major Maine television programs.

The Efficiency Maine Web Site provides paperless access to the pre-established incentive list, applications, and technical resources as well as a searchable database of Program Allies available throughout the state. The Geographic Information System (GIS) linked database allows customers to easily locate Program Allies whose businesses are within a prescribed radius of their location.

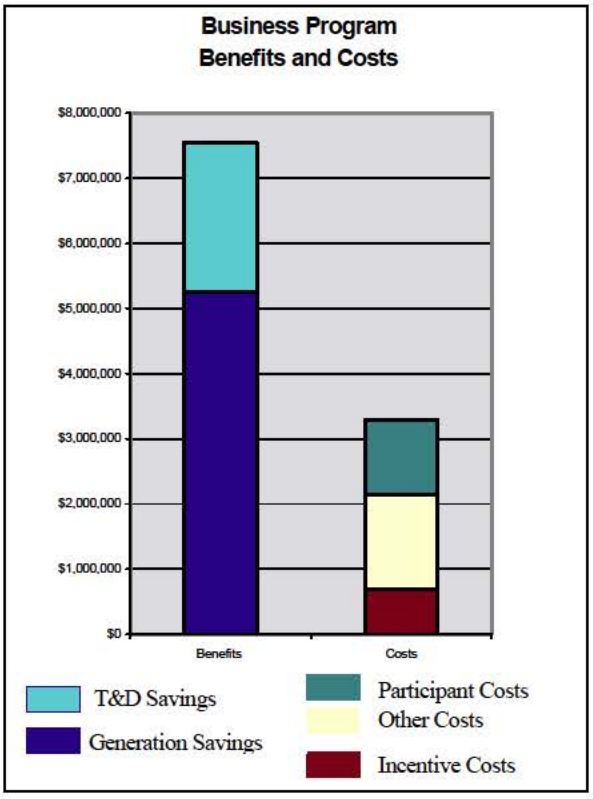
Altogether, the various components of the Business Program are cost effective. Between October 1, 2003 and September 30, 2004, the various components of the Business Program provided financial incentives to three hundred small businesses and twenty-eight large businesses.

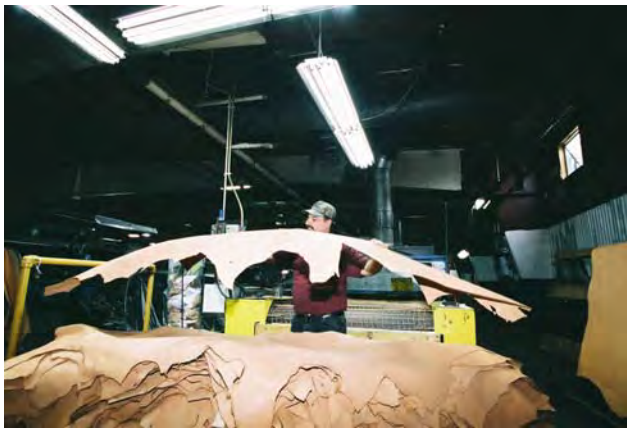
Small Business
Customers who participated in the small business program were involved in projects that resulted in electricity savings of over 7,000 MWhs per year. This level of savings translates to $953,000 per year in cost reductions. The benefit to cost ratio of this program component is 2.36.

Large Business
Customers who participated in the large business program participated in projects that together resulted in electricity savings of over 1,800 MWhs per year. These energy savings translate to over $144,000 per year in reduced operating costs. The benefit to cost ratio of this program component is 2.11.

The program as a whole has delivered 9,200 MWhs per year the equivalent of an annual operating cost reduction of over $1,100,000 per year. Over their lives, these measures will save their owners $15,600,000 in energy cost. The benefit to cost ratio of the program based on current data is 2.29. Environmental benefits include the annual avoidance of 6,427 tons of CO_2 emissions, and 45,183 and 15,676 pounds of SO_2 and NOx respectively.

Efficiency Maine will continue to fine tune this program in the year ahead. Training sessions on specific energy efficiency opportunities will be offered to the allies. New allies and partners will be recruited, and more businesses will have an opportunity to participate.





Irving Tanning's bright future is echoed in its recent major re-lighting project

"As soon as we started the lighting project, we began to see immediate savings reflected in each bill."

Chuck Hojohn, Facilities Manager at Irving Tanning

Irving Tanning

Three years ago, Irving Tanning Company in Hartland filed for Chapter 11 bankruptcy protection. Today, the company is on solid financial ground and an indication of its bright future is its recently completed major relighting project.

Trask-Decrow Machinery

Trask-Decrow Machinery, located in South Portland, sells pumps, compressors, and vacuum pumps. This company has been an active Program Ally and has helped a number of companies across the state complete efficiency projects involving variable speed air compressors. Trenton Bridge Lobster Pound, Parker Lumber, Northeast Packaging, AC Electric Corporation, L. L. Bean and Plas-Tech, Inc. all installed variable speed air compressors and received Efficiency Maine incentives.

Trask-Decrow Sales Manager Greg Scott, P.E

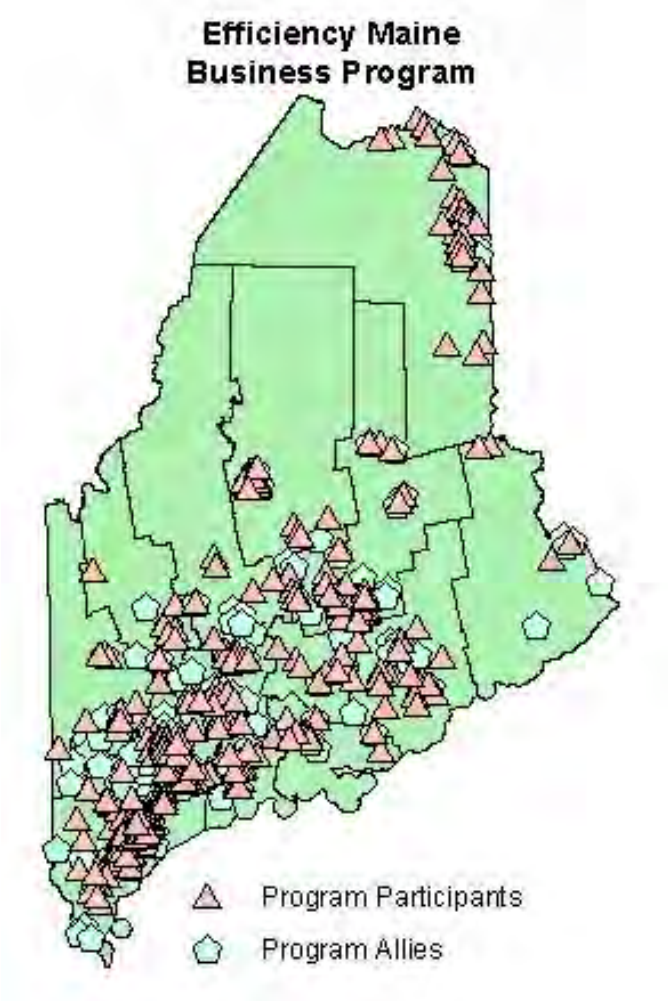
"It's our business to know what efficiency programs are being offered, so we can make sure eligible customers benefit from those programs. For us, it's just a part of doing the job right for the customer."

Taylor Farms When Burt Taylor of Taylor Farms in St. Albans decided he needed to put fans in one of his dairy barns, he installed nine Big Ass Fans®, instead of 117 traditional sized fans. Big Ass Fans® combine size and economy to move air more evenly and at a much lower cost. Added benefits include reduced maintenance cost, longer lives, and quieter operation.

Burt Taylor receives his incentive check for his fan project from program manager Linda Viens

"The fans circulate air more evenly so the cows don't bunch up which can interfere with milk production"

Paul Brooks, Paris Farmer's Union



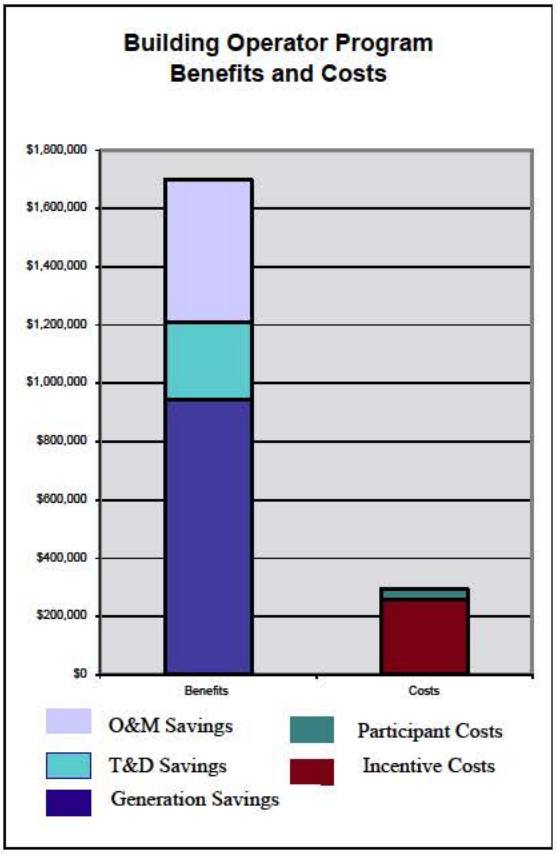
Building Operator Certification Program

Efficiency Maine's Building Operator Certification (BOC) program is provided in cooperation with the Northeast Energy Efficiency Partnerships (NEEP). Electricity use in commercial and government buildings can be reduced by 15% or more if building operators manage and maintain their structures and building systems more effectively. The BOC program is an eight day course offered over an eight month period that provides building operation and maintenance staff the training they need to improve energy efficiency and reduce maintenance costs in existing buildings. Instructors are practitioners who draw from their own experience to provide practical advice to students. The course also provides valuable information on non-energy issues such as indoor air quality. The BOC course complements other Efficiency Maine programs by making students aware of other program offerings or by training them on how to care for systems installed through the High Performance Schools program.

BOC primarily serves public school systems but two sessions have also included operators of State buildings. In addition, building operators from the University of New England, Maine State Housing Authority, and Colby College have also participated. To reduce municipal energy costs, tuition has not been charged for schools. By targeting the operators of State buildings, Efficiency Maine hopes to cut costs in the State's budget.

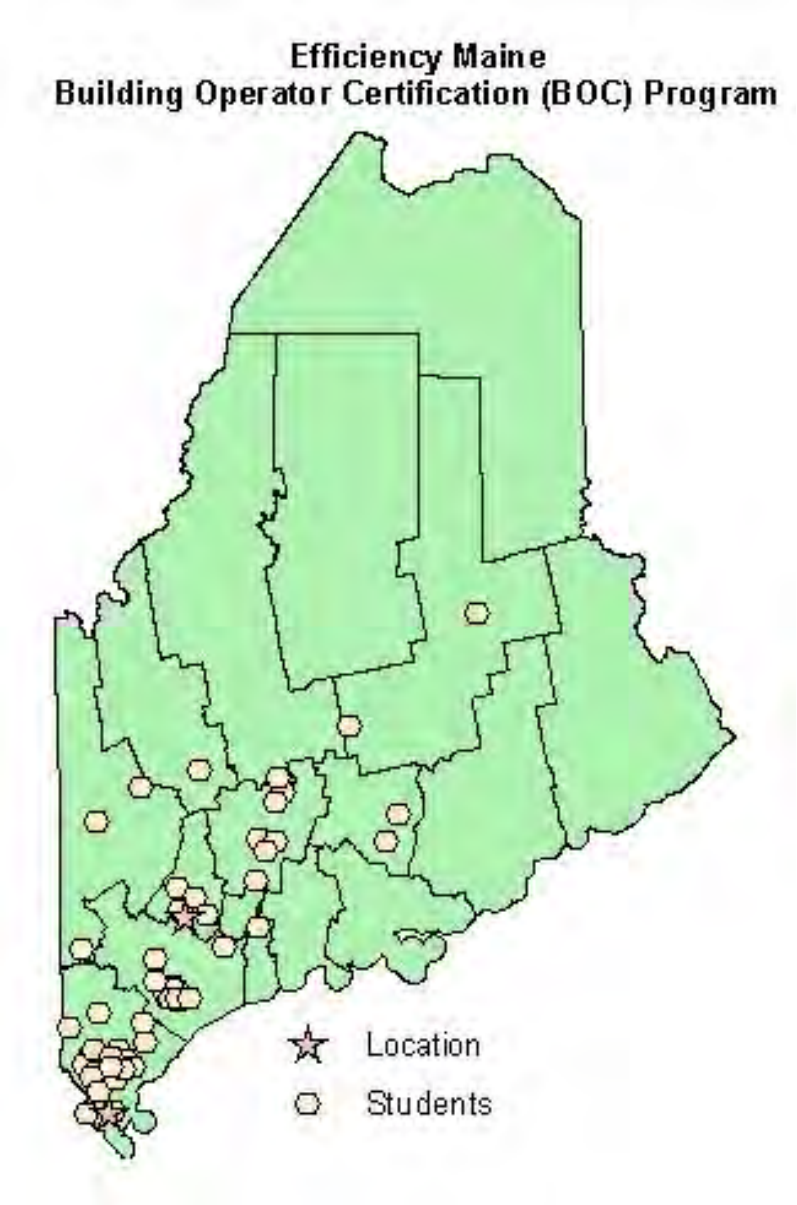
Seven BOC courses have been provided across the State in Portland, Bangor, Presque Isle/Houlton, Calais, York, Augusta, and Auburn. The Auburn course is currently in session and will be completed in March 2005.

A survey of those who have taken the course indicates that 84% have improved the comfort or productivity of their building's occupants or reduced energy costs from what they learned through the course. Facilities run by these individuals are expected to save 1,750 MWh per year and avoid 2,440 tons of CO_2 and 17,150 and 5,950 pounds of SO_2 and NOx respectively. Because the course appears to be cost effective, Efficiency Maine will continue the BOC program as part of the long-term Program Plan. Efficiency Maine will provide a second, higher level BOC Level II course during 2005, and will explore offering the course to private sector companies for a fee.



"I'm surprised at how much I've learned. We're building a new school... and we can use this information."

Alvin Milner, Lincolnville Central School



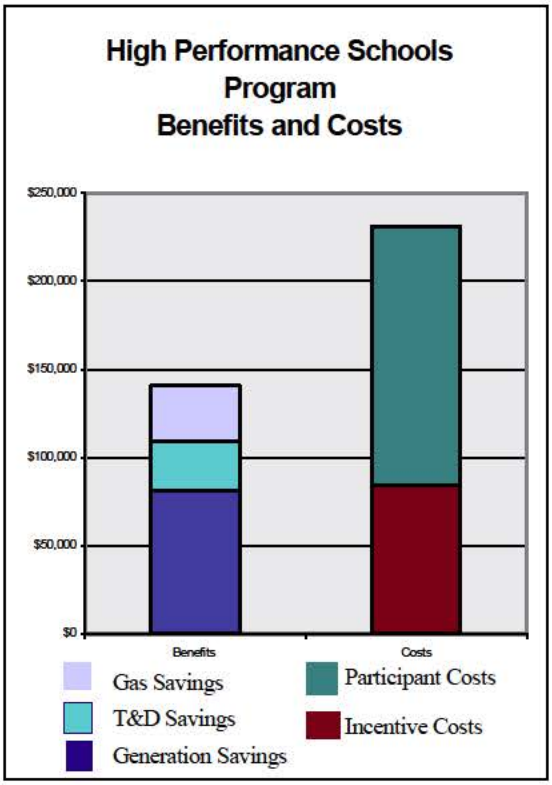
Maine High Performance Schools Program

Efficiency Maine's High Performance Schools Program was created to capture the opportunities for efficiency gains that occur in the construction of new schools. Five to ten new public schools are built in Maine each year. Since the buildings will last 50 years, building them to high standards of energy efficiency can avoid many years of higher than necessary operating costs. Through better design and construction practices, schools can reduce their annual operating costs by up to twenty-five percent. Because funding is limited, efficiency measures that raise initial building costs may not be included in new school designs. To address this problem, Efficiency Maine developed the Maine High Performance Schools program. The program's goals are to reduce energy consumption, and to lower operation and maintenance costs, by providing financial and technical assistance to new schools. Thus encouraging them to pursue better designs and to install more efficient equipment.

The program is a partnership of the Maine Department of Education (MDOE), Bureau of General Services (BGS), and the Maine School Management Association (MSMA). The State Energy Program and the United States Department of Energy are also involved with a grant to help MSMA promote the program. The partnership ensures that program grants are an integral part of the process that leads to new schools being built in the State.

Seventeen schools are involved in the program. One, the Congin School in Westbrook, has completed its project. The school first received a grant for design assistance, then after review of its more efficient design, the school qualified for a grant to install more efficient equipment. When the project was finished, Efficiency Maine sent a check of $64,000 based on the value of the energy savings. Two other facilities are close to completion of their projects and a third has recently begun its design work.

The projects reviewed so far will result in 67 MWh/yr of energy savings that will reduce annual operating costs by $9,195 per year. This program's benefits do not yet exceed its costs. Our expectation is that future projects will improve the cost effectiveness of this unique program. The Congin School annually avoids 47 tons of CO_2 and 328 and 114 pounds of SO_2 and NOx respectively. Last year's legislation mandating that publicly financed buildings perform 20% better than required by commercial energy codes will require program design changes. The Commission will initiate a proceeding to seek stakeholder input on the future of this program.

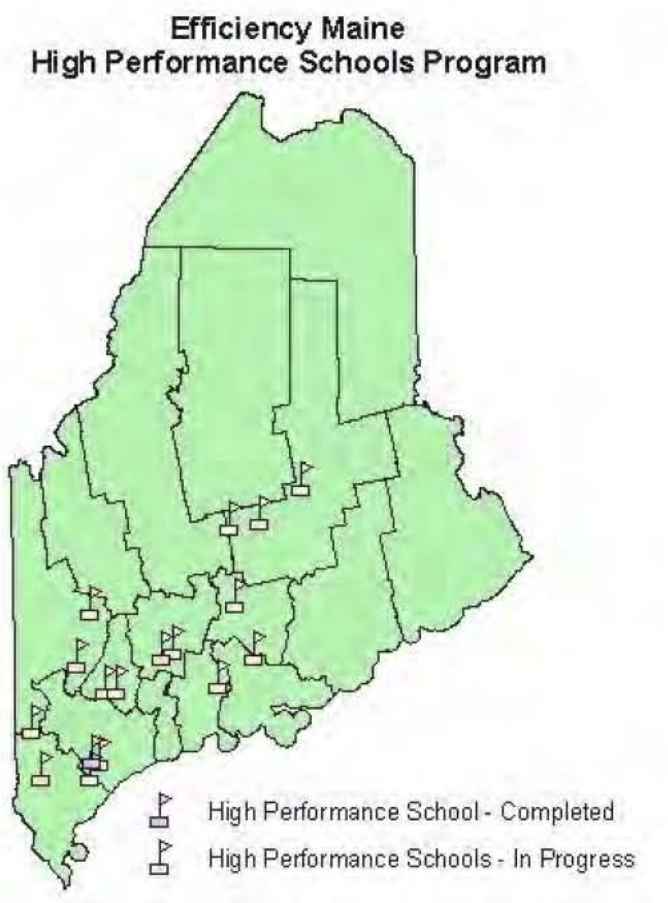


"Prior to this (Program) there was no incentive for a School Department to build beyond code specifications"

Michael Kane Assistant Superintendent of Schools Westbrook

This panel reflects daylight onto the ceiling reducing the amount of artificial lighting needed

High efficiency HVAC equipment installed in Congin



Energy Education Programs

There are two energy education programs operating in Maine. The Maine Energy Education Program (MEEP) provides education on energy issues to kindergarten through twelfth grade students in Central and Southern Maine, while a second program operated by Maine Public Service Company offers educational programs in Northern Maine. Both programs strive to increase consumer knowledge of energy efficiency - a fundamental market barrier to economically efficient behavior. The programs provide school children 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. Lessons learned in school spill over into the home, improving energy awareness and energy use habits.

The MEEP program combines general awareness classroom training activities with practical skills that allow students to monitor their school building's energy use. An important program component is the recruitment of student volunteers to serve as school "Energy Patrols." The patrols consist of older students who increase teacher and student 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 has gathered data showing that the schools with active Energy Patrols have reduced their energy consumption. Between January and June of 2004, MEEP provided classroom training and developed Energy Patrols in 22 schools across the State.

Maine Public Service's Energy Education Program dates back to the 1970s. The program has changed to reflect modern energy issues, and now includes two components.

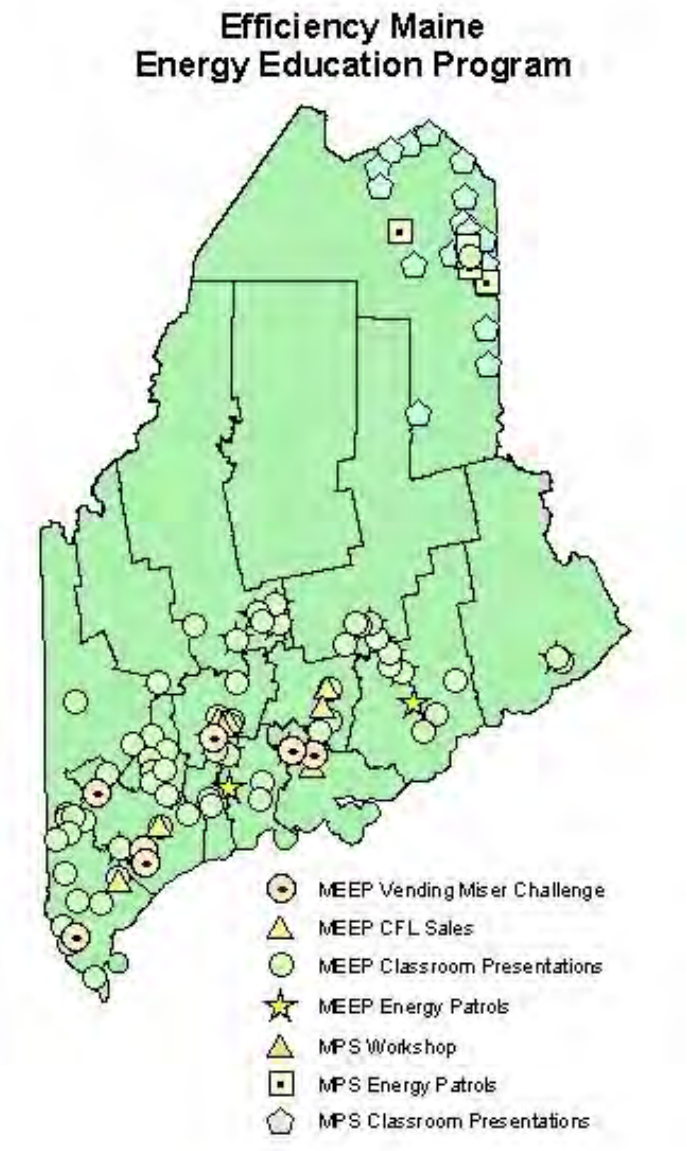
The Energy Eagle Patrol is a team of students who raise the awareness of energy issues within the schools through the distribution of materials and by reminding fellow students and teachers to turn off lights. The patrol program includes presentations on how to read electric meters, the advantages of fluorescent lighting, and the energy use of computers. One Energy Eagle Patrol team was established in each of the following schools: Fort Street School in Mars Hill; Pine Street School; Patrick Therriault School; and Zippel School. The schools saved approximately $2,000.

Maine Public Service's BE Energy Wise (BEEP) program is part of a larger, national energy education effort. BEEP materials are designed to fulfill educational learning standards in most disciplines and at all grade levels. Portfolios of student work developed through the program are entered into a national competition. From October 2003 to October 2004, Maine Public has conducted 59 educational presentations and reached over 1,139 students.

Consumer education is an integral part of market transformation. Both of these programs will be continued as part of Efficiency Maine's ongoing education efforts. Efficiency Maine will explore expansion of that effort through implementation of the recommendations found in the Maine Math and Science Alliance report in the Commission's Program Planning proceeding.

"This is so cool! We'll have to do this activity in our classroom."

Kaydie, 5th grade student from South Bristol School



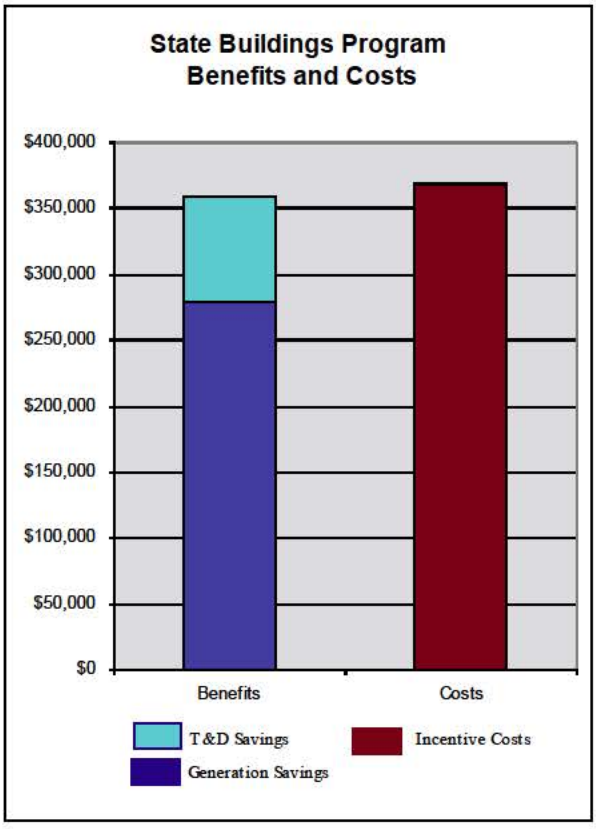
State Buildings Program

The Maine Public Utilities Commission and the Maine Department of Administrative and Financial Services (DAFS) continue to improve the efficiency of state buildings through a Memorandum Of Understanding (MOU) developed in 2003. The goal is to reduce the cost of state government by improving the energy efficiency of state buildings. The Commission and DAFS have directly funded efficiency improvements in 17 state owned buildings. An energy survey of all state buildings has identified additional opportunities in other facilities that may be candidates for third party financing, and a pilot project with the Department of Corrections is underway.

Over the past year, the program has helped fund major renovations to the Baxter School for the Deaf on Mackworth Island in Casco Bay. The renovations will save 95,000 kWhs per year and 953 gallons of oil. Through these efficiency improvements, the school was the first state building to attain LEED certification. Improvements to lighting in 16 other buildings will result in an additional 1.2 million kWh of energy savings. The Department of Human Services Health Engineering and Testing Laboratory (HETL) building has also been identified as eligible for funding under this program. DAFS and the Commission continue to work towards implementation of the identified measures.

An energy survey of 320 other state buildings indicates there may be up to 83 additional buildings with energy investment opportunities of approximately $ 7 million having less than a ten year pay back. A multi-agency task force is attempting to implement some of the audit recommendations through performance contracting. The agencies are conducting a pilot project to develop an investment grade energy audit and performance contract for the Department of Corrections' Warren facility. While the pilot project is conducted, the agencies will refine the list of other buildings that would be suitable for this activity.

Renovations to buildings treated so far will save an estimated 1.3 million kWh per year. Program cost effectiveness is slightly less than one but it is expected to exceed one after the third party performance contracts are in place. Annual air emissions avoided from the energy savings are approximately 906 tons of CO_2 and 6,370 and 2,100 pounds of SO_2 and NOx respectively. The MOU to continue this program for an additional year is being developed by the agencies involved.



Efficiency Maine's Partnerships

The Conservation Act directs the Commission to use methods beyond just efficiency "programs" to promote energy efficiency within the State. Broadly speaking, the Commission must "increase consumer awareness of cost effective options for conserving energy," and "create more favorable market conditions for the increased use of efficient products and services." Specifically, the Commission is to coordinate its efforts with other agencies of the State with energy related responsibilities, and to coordinate with other states and public agencies or other entities for joint or cooperative planning or program delivery. To this end, the Commission is working closely with a number of other State agencies.

Commission staff are participating in the re-write of the Maine Department of Administrative Service's Chapter 60 rule that establishes standards for energy efficiency in public buildings. Funding for this effort is coming from the Bureau of General Services and the Commission, but a major portion of the funding is being provided with a grant from the Henry P. Kendall Foundation and financial support for training on the new rule will be provided by the United States Department of Energy.

Efficiency Maine and State Energy Program staff are assisting in the Office of Energy Independence and Security's "Keep ME Warm" campaign to weatherize low income homes in the face of expected record heating oil prices and in advance of the coming heating season.

Continued efforts with the Maine Department of Environmental Protection include joint support of the Maine Energy Education Project energy education program, the greenhouse gas reduction action plan, and helping to roll out the Governor's Carbon Challenge program.

The Efficiency Maine program is making inroads with Maine's Department of Agriculture by helping to pursue federal funding for energy projects at Maine dairy farms. The program is working with Paris Farmers Union to introduce new technologies to farmers, and is helping to pay for the equipment by matching US Department of Agriculture grants with funding from the conservation program fund.

The Commission is "increasing consumer awareness," and "creating more favorable market conditions," through a number of educational efforts. Together with the Maine Indoor Air Quality Council, it is jointly sponsoring a conference on commercial building commissioning. Next spring, the Commission will develop a workshop on energy efficiency and indoor air quality with the Maine Chapter of ASHRAE. Throughout the year, the Commission will work with the US DOE and Maine's Community College system to provide technical courses, workshops, and seminars in Maine on efficiency opportunities in such specialty areas as motors and their drive systems, compressed air systems, and in pumping and hydraulics.

Efficiency Maine's Revenue and Budget Projections

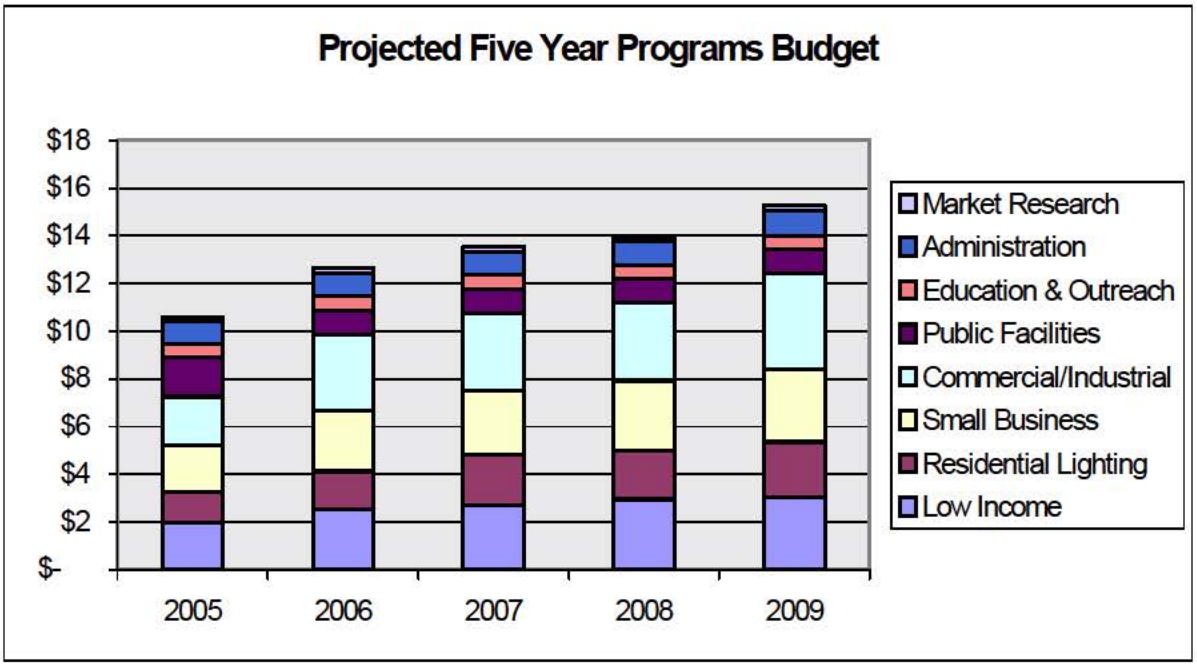
When the Maine Legislature directed the Commission to begin planning and implementing energy efficiency programs, it directed the Commission to fund programs through assessments on utilities. The Commission was directed to assess utilities at a level adequate to maintain the efficiency programs at historic levels so long as the assessment did not exceed $.0015 per kWh or fall below one half percent of transmission and distribution revenues. The assessment level was set at $.0015 per kWh after the Commission conducted evidentiary proceedings and concluded that the amount of achievable energy savings is much greater than the savings that could be attained at the $.0015 per kWh statutory maximum. In addition to funding new efficiency programs, money raised through the assessment was also to be used to pay off contractual obligations for efficiency programs entered into by Bangor Hydro-Electric and Central Maine Power Company. As these contractual obligations are retired, more of the conservation fund can be devoted to new programs without raising rates to increase the assessment. Although the assessment level is stable, the funding available for programs cannot be projected with certainty because it depends on the level of utility sales and on the pattern of payouts for the prior contracts.

The five year projection of revenues provided in this report is based on the most recent data available from each of the utilities. Since Central Maine Power Company's sales comprise 79% of the total state sales, the company's latest load forecast is used to estimate total sales levels for the next five years. The assessment rates for each utility are applied to the sales data to develop an estimate of annual revenues and the estimated pattern of prior contract pay-outs is deducted from this to generate a five-year net revenue projection.

The table and graph at right provide a description of the projected program expenditures for the next five years. The projections are developed by first directing 20% of the projected revenues towards both the low-income program(s) and the small business program. The remaining 60% of the program fund is divided among the other program areas according to our experience and our expectations for the coming years. The spending categories described in the table reflect program areas, but not specific programs. The Conservation Act requires that "[t]he Commission shall hold at least one public hearing and invite, accept, review and consider comments and suggestions from interested parties prior to adopting or substantially revising conservation programs." Therefore the Commission will not officially announce any new programs or major changes in existing ones without first reaching out to stakeholders. But each of the categories listed in these tables could eventually include new programs. For example, the "small business" and "commercial industrial" categories might eventually include an auditing program similar to the one offered by the New York State Energy Research and Development Authority, a building commissioning program, or a new construction program. The "Low Income" program will not necessarily include only the current service being offered through MSHA, and "Education and Outreach" will certainly include more than the current BOC , MEEP, and Maine Public Service Company programs.

Projected Program Expenditures

Program	2005	2006	2007	2008	2009
Low Income	$1,961,500	$2,528,880	$2,709,763	$2,942,161	$3,056,384
Residential Lighting	$1,289,450	$1,600,000	$2,100,000	$2,050,000	$2,300,000
Small Business	$1,961,500	$2,528,880	$2,709,763	$2,942,161	$3,056,384
Commercial&Industrial	$2,047,290	$3,200,000	$3,250,000	$3,250,000	$4,000,000
Public Facilities	$1,640,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Education & Outreach	$579,800	$600,000	$600,000	$600,000	$600,000
Administration	$932,700	$950,000	$960,000	$970,000	$1,060,000
Market Research	$171,900	$236,450	$220,000	$200,000	$200,000
Total	**$10,584,140**	**$12,644,130**	**$13,549,527**	**$13,954,321**	**$15,272,269**



Implementing the Conservation Act – Commission Activities

To implement the Conservation Act, the Commission has carried out a series of activities to establish goals, cost effectiveness criteria and definitions, to implement infrastructure, and to approve efficiency programs. Most of these activities were carried out through formal proceedings that included written comments, public hearings, and Commission decision-making deliberations. This section summarizes significant Commission proceedings that have concluded since our last annual report.

Transition from "interim" to "on-going programs" November 14, 2003

The Conservation Act directed the Commission to begin program implementation activities immediately after passage of the Act. Such interim programs did not need to comply with all statutory criteria in the Act. These "interim" programs were required to terminate no later than December 31, 2003. In this decision, the Commission reviewed and approved a staff proposal for short term contract extensions for contractors in the interim programs and for issuing new requests for proposals to implement the programs with all elements of statutory compliance contained in the RFPs. Docket No. 2002-161.

Administration and Structure of Commercial, Industrial, and Small Business Programs March 23, 2004

After issuing a Notice of Investigation for formal comments, the Commission approved a consolidation of the Small Business, Existing Schools, Commercial and Industrial and Agricultural "interim" programs. The consolidated program elements were incorporated into a Request for Proposals for program implementation activities, and a contractor was selected through a competitive bid process. Docket No. 2004-117

Investigation of the Administration of T&D Contracts Associated with Prior Conservation Efforts May 11, 2004

The Commission was directed by the Conservation Act to investigate utility administration of contracts for conservation services entered into prior to the passage of the Conservation Act. Upon review of the the current practices for administration of these contracts, the Commission concluded that it has adequate authority to ensure that funds expended on such contracts would be expended prudently. Docket No. 2003-544.

Procedures for Conservation Program Planning April 29, 2004

The Conservation Act requires the Commission to decide whether to allow electric utilities to continue to provide conservation services. The Commission decision in Docket 2002-162 left open the issue of whether utilities should continue to operate their water heater wrap programs jointly. Central Maine Power requested Commission reconsideration of this issue. Based on information provided by the utility, the Commission allowed continued program implementation on a limited basis. Docket No. 2002-161.

Investigation into the Conservation Fund Assessments of the COUs October 21, 2004

The Commission opened the investigation to examine whether consumer owned transmission and distribution utilities should pay conservation assessments at less than the rate set for investor owned utility customers. Because of their obvious differences from mainland utilities, Fox Island and Swan's Island Electric Cooperatives were allowed to have a different assessment rate. Madison Electric Works assessment rate will depend on a technical evaluation of the efficiency potential in the Madison Paper mill. The Commission concluded that customers of all other COUs would be assessed at levels consistent with customers of IOUs. Docket No. 2003-348

Investigation into and Possible Redesign of Investor-Owned T&D Utilities Rates Related to Conservation Expenses. **October 21, 2004**

The Commission initiated this investigation to determine whether all customers were paying into the Conservation fund and if not, whether all should be allowed to participate equally in the conservation programs being offered through the Act. Except for two special contract customers, the Commission concluded that all customers are paying rates sufficient to cover both their transmission rates and the conservation assessment mil rate. The Commission further concluded that the special contract customers are eligible to participate fully in the conservation programs. Docket No. 2003-516.

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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