



Efficiency Vermont

2007 Annual Report
Executive Summary

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In 2007, the eighth year of Efficiency Vermont's operations, energy savings completely offset the underlying electric load growth rate in Vermont. We achieved greater energy and demand savings with more cost-effectiveness than ever before. These extraordinary results were achieved in the same period in which Efficiency Vermont planned and launched new strategies in response to the increased budget and revised goals established by the Vermont Public Service Board.

A Year of Unprecedented Challenge

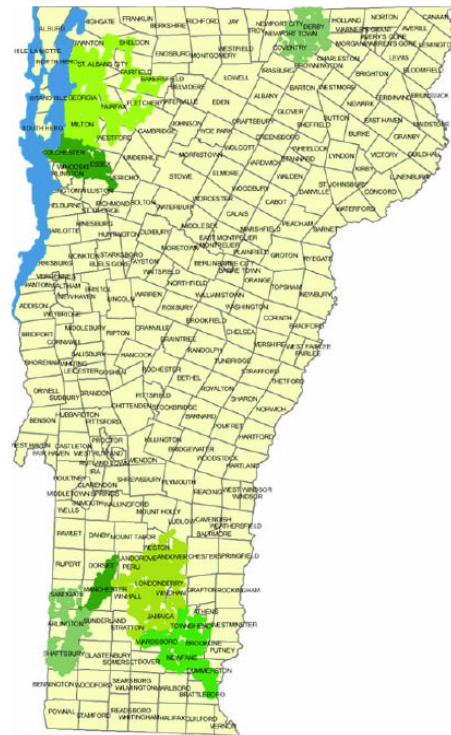
Public Service Board (PSB) orders in late 2006 and early 2007 dramatically altered the budget and performance goals for the 2006–2008 Efficiency Vermont contract. The original contract negotiated in late 2005 was revised in 2007, and now includes the following new budget and goals:

- The budget for the energy efficiency utility was increased by more than 40%
- The total megawatt-hours (MWh) savings goal was raised by 28% to 261,700 MWh
- Summer and winter peak demand savings goals were increased from 30.6 megawatts (MW) and 30.4 MW, respectively, to 37.5 MW and 41.4 MW, respectively.

The PSB also directed Efficiency Vermont to use the incremental budget increase for peak demand reductions in targeted geographic areas. This targeting initiative is intended to demonstrate the potential for using energy efficiency to defer the need for future transmission and distribution capacity investment by Vermont's electric utilities. The specific areas for this geographic targeting initiative were identified in January 2007 after a PSB workshop with the affected utilities (see map). The targeted areas are portions of the Southern Loop, Central Vermont Public Service (CVPS) territory in western Franklin County, Green Mountain Power (GMP) territory in Northern Chittenden County, and the Newport / Derby area.

Once the PSB defined the new goals and the GeoTargeted areas, Efficiency Vermont faced two challenges: (1) to identify how to achieve these higher goals; and (2) to launch the newly designed strategies in 2007 to meet the 2008 end-of-year goals.

Geographically Targeted Areas of Vermont



The Strategies

To meet these ramped-up goals, Efficiency Vermont mined its comprehensive database to identify and approach the Vermont ratepayers who have the biggest potential for achieving, influencing, or taking action to attain electrical energy and demand savings. Efficiency Vermont then aligned its existing activities with five major strategies targeted to these high-potential markets and customers, in addition to its historic major markets and the four GeoTargeted areas of the state.

By the end of 2007, all the strategies were fully under way and delivering results. The strategies and their initial successes are:

1. **Account management** — The largest electric users across the state and in GeoTargeted areas have been identified by Efficiency Vermont to receive intensive focus as a way of achieving greater participation and deeper savings. Managers from Efficiency Vermont intensified their efforts to become valued partners with these key business customers by identifying energy efficiency measures that could deliver real value to the customers. These efforts have helped to institutionalize energy efficiency as part of each company's routine planning, operations, and growth strategies. For 2007, account-managed customers were responsible for almost 60% of the MWh savings reported for the business sector. Average savings per project for these customers have grown from 55 MWh in 2006 to 115 MWh in 2007, and savings per customer are up 120% over 2006 and up 60% over 2005.
2. **High-performance partners**— Efficiency Vermont continued to strengthen its engagement with wholesale suppliers, vendors, and other professionals operating upstream from end-use customers. This included working with design and construction professionals on most of the major new commercial construction projects undertaken in 2007. It also placed more emphasis on providing incentives to distributors and suppliers for stocking high-efficiency products, negotiating purchase price buy-downs for efficient equipment with suppliers and retailers, and sponsoring code training and its annual design competition to encourage energy-efficient design.
3. **Community energy initiatives** — Outreach to local community, school, religious, business, and organizational leaders helped leverage civic pride and turn public awareness of energy efficiency into action. Efficiency Vermont engaged these leaders with targeted initiatives in specific towns, collaborated with local energy teams, and approached the largest municipal users of electricity: water and wastewater facilities and schools. Efficiency Vermont conducted campaigns and events promoting compact fluorescent lightbulbs (CFLs) in 2007 and events in Bennington, Bristol, Charlotte, Essex, Hinesburg, Montpelier, and Richmond, as well as in Hardwick and Northfield. The latter two towns had been selected for community-based energy initiatives designed to achieve specific results as part of the Efficiency Vermont 2006–2008 contract with the Public Service Board. At the end of 2007, one year prior to the end of the contract period, Hardwick had met 90% of its participation goal and 290% of its energy savings goal. By year's end, Northfield had achieved 75% of its participation goal and 120% of its energy savings goal.

4. **Direct installation of energy efficiency measures** — Commercial lighting offers some of the greatest potential for achieving energy efficiency in retrofit situations. “Direct installation” is a strategy that can overcome many market barriers and secure large savings quickly. In 2007, Efficiency Vermont began to implement an aggressive direct installation initiative in the GeoTargeted areas. Dubbed “Lighting Plus,” this initiative is directed at the 1,400 customers with annual energy use between 40 and 500 MWh per year. Lighting Plus focuses on replacement of inefficient lighting equipment, while identifying other cost-effective opportunities and arranging for appropriate follow-up. Efficiency Vermont determined that this aggressive, limited-term initiative was ideally suited for a subcontract that would encompass comprehensive recruitment, equipment procurement, management, and implementation services. After a rigorous, competitive public solicitation process, RISE Engineering was selected in September to implement this subcontract. By the end of 2007, RISE was working with Vermont-based contractors and suppliers and had completed audits at 107 facilities. RISE will continue with its audits and implement installations at a rate of more than 100 per month through 2008.

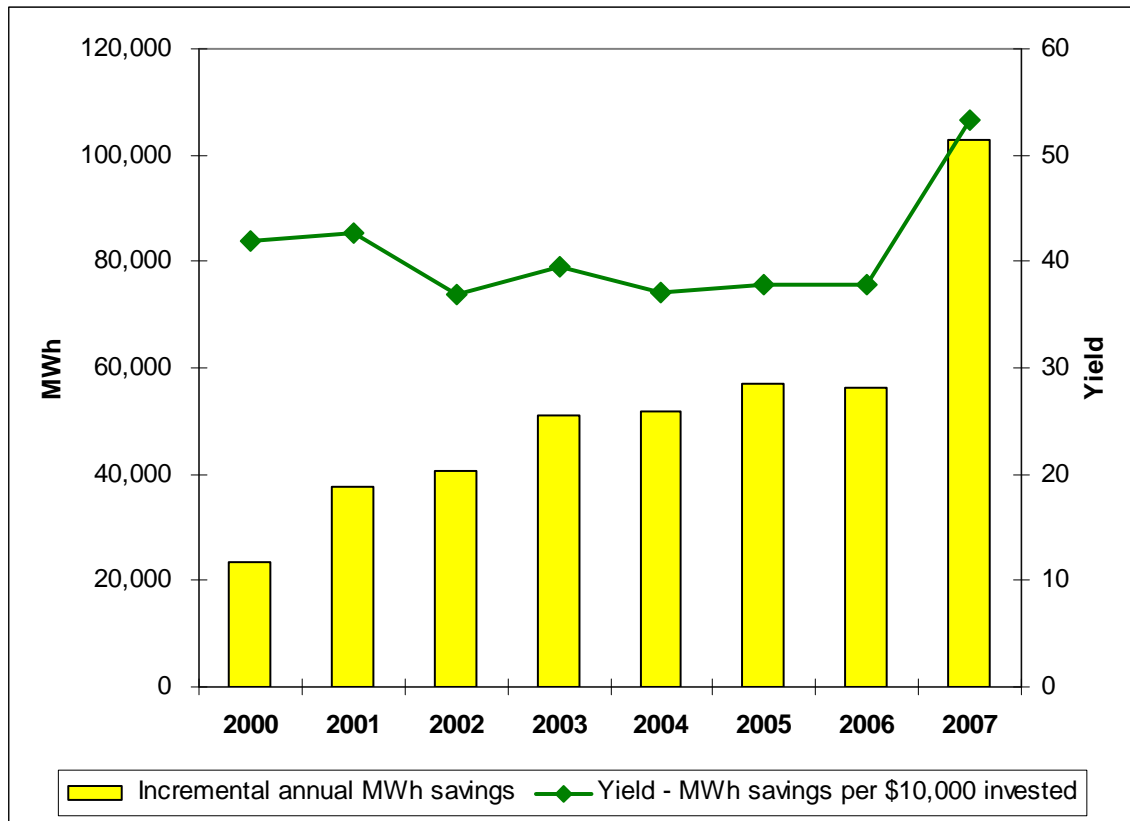
5. **Greater promotion of CFLs** — This strategy focuses on greater use of point-of-sale displays and promotion, special events, and wholesale and retail buy-down efforts. In 2007, Efficiency Vermont secured 18 new negotiated cooperative promotions (NCPs) with chains representing more than 170 supermarkets, pharmacies, hardware stores, and other retailers. NCPs allow customers to pay a discounted price that is negotiated to be slightly lower than the price of a CFL after an instant coupon, without the time and hassle of completing the coupon form. As a result, Efficiency Vermont sold an unprecedented 580,000 CFLs in 2007, 74% of which were part of NCP agreements.

During 2007, Efficiency Vermont’s GeoTargeting efforts were focused primarily on building the capacity to achieve dramatic savings in 2008. Activities included identifying the customers and strategies with the greatest potential for savings and then designing and initiating the efforts. This included implementing the account management, direct installation, and CFL promotion strategies described above in these targeted regions. By the end of 2007, energy savings for all GeoTargeted areas were 190% of savings for the same areas in 2006. Peak demand reductions increased by 90% for winter kilowatts (KW) and 270% for summer, compared to 2006.

Real Electricity Resources for Vermont

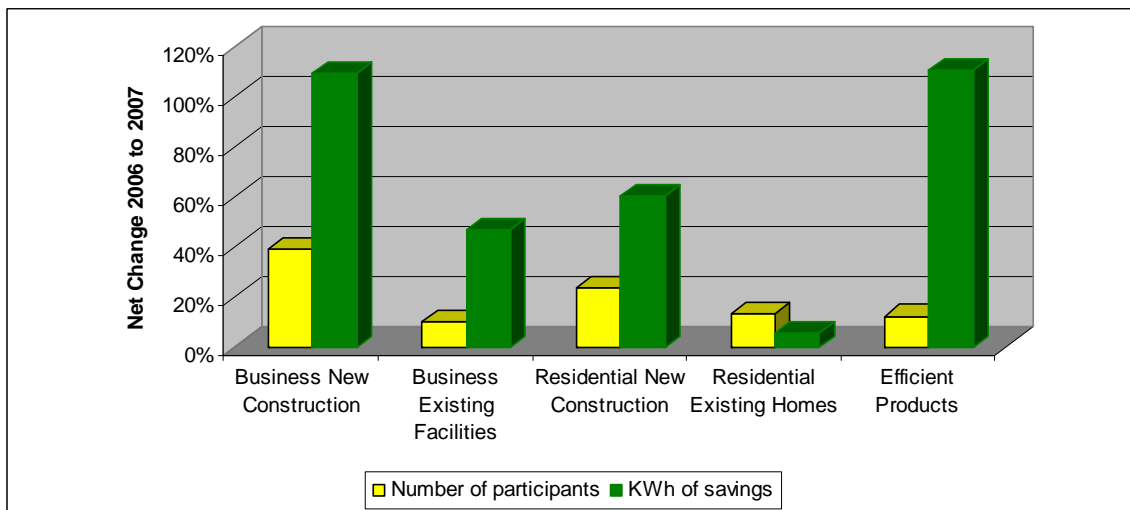
In 2007, Efficiency Vermont achieved its highest-ever savings at its most cost-effective historic yield rate. Savings for the year increased 85% over 2006 to an exceptional 103,000 MWh, while expenses increased only 30%. This outcome resulted in an unprecedented yield of 53 MWh saved for each \$10,000 invested through Efficiency Vermont.

Efficiency Vermont MWh Savings and Yield: 2000-2007



Winter peak demand savings grew to 15.5 MW, an 80% increase over 2006, whereas summer peak demand savings grew to 14.2 MW, an increase of 50% over 2006. Efficiency Vermont can attribute a portion of this level of success to the growth in both the number of participants and the annualized MWh savings in all major market sectors, as shown below:

Efficiency Vermont Growth by Market Sector - 2007 vs. 2006



Measures installed in 2007 included more efficient lighting; motors; and heating, air conditioning, and ventilation equipment, as well as industrial processes and fuel switching. More than 42% of the total annual savings came from lighting measures installed in commercial and industrial properties, and one-third resulted from residential lighting.

Efficiency Vermont is particularly proud of two additional indicators of its performance during 2007:

- The proportion of first-time participants was 74% of all business customers and just under two-thirds of all residential customers. This performance indicates Efficiency Vermont's ability to provide the opportunity for an ever-increasing group of Vermonters to participate in efficiency and conservation programs. It further demonstrates Efficiency Vermont's deeper penetration in the marketplace and its ongoing commitment to assisting customers with service in second, third, and fourth projects.
- The annualized MWh savings per business customer participant grew by 40%, from 32 in 2006 to 45 in 2007.

Real Value for Vermont

In addition to benefiting ratepayers, Vermont's continuing commitment to energy efficiency is having a profound impact on statewide electrical load growth, economic development, and regional energy policy. It is also providing revenues to the State through forward capacity payments from the regional system operator, ISO–New England. And it is now well understood that efficiency in Vermont costs ratepayers much less than would purchasing comparable electricity supply.

For 2007, the levelized cost of Efficiency Vermont's total expenditures was approximately 2.7 cents per kWh for energy efficiency. This cost per kWh does not include participating customers' additional costs and savings, such as customer contributions to the costs of efficiency measures and customer costs or savings associated with fossil fuel use, water use, or building operation and maintenance. Including these other costs and savings brings the levelized net resource cost of saved electric energy to 2.4 cents per kWh.¹ To supply the same energy and capacity over the average 10-year life of the efficiency measures installed in 2007, Vermont utilities would have to spend, based on current values of avoided costs, 10.7 cents per kWh.

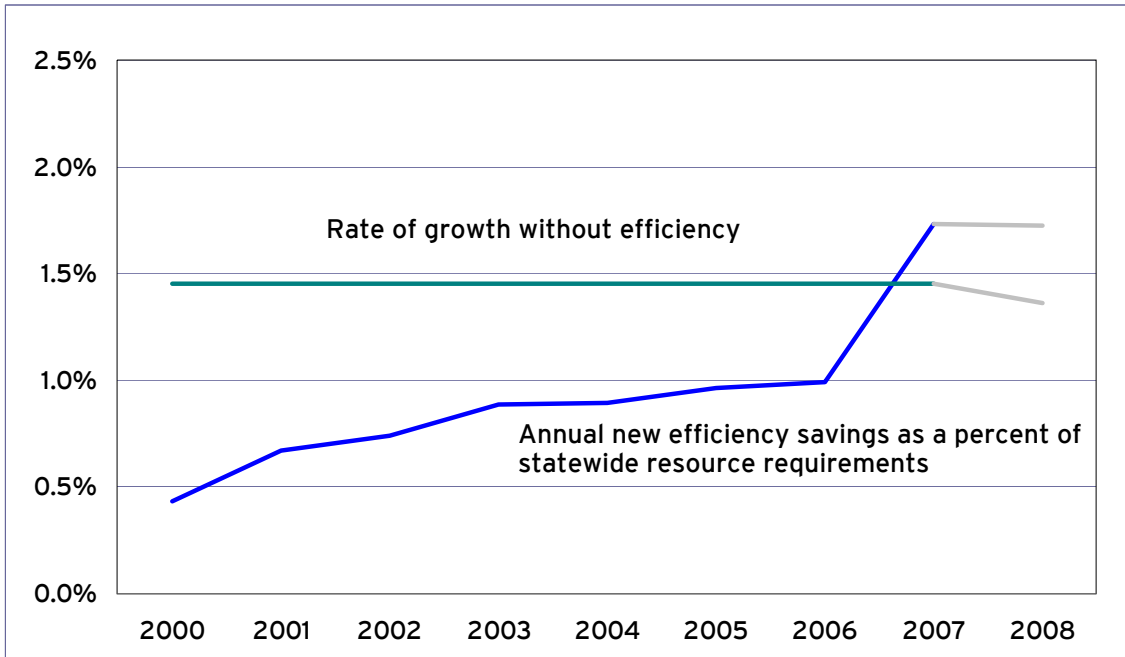
Vermont's commitment to energy efficiency and Efficiency Vermont's exemplary rate of electricity savings are continuing to gain national accolades. *Forbes* magazine recognized Vermont as the greenest state in the nation in its October 2007 issue; and in June 2007, the American Council for an Energy-Efficient Economy ranked Vermont Number 1 (with California and Connecticut) in its State Energy Efficiency Scorecard for 2006. In the latest national sales figures, Vermonters led the country in terms of the percentage of the market choosing ENERGY STAR[®] refrigerators, washing machines, and dishwashers. In

¹ Note that the levelized cost and benefit calculations used in 2007 are unique to 2007, due to the change in avoided costs and discount rates at mid-year.

addition, one-third of all new Vermont homes are built to meet ENERGY STAR label standards, a rate that is three times the national average.

In 2007, Vermont's efficiency savings were approximately 1.7% of what electricity sales would have been without efficiency, offsetting electric energy load growth despite an increase in the number of electric customers. The Vermont Department of Public Service estimated that without the savings attributed to Efficiency Vermont, electric supply would have grown at an average rate of 1.4%.

Efficiency Savings vs. Rate of Load Growth



By the close of 2007, the portion of Vermont's electrical energy needs being met through all savings delivered by Efficiency Vermont had grown to almost 7%. This is a significant portion of the state's electricity needs, effectively equivalent to Vermont's fourth-largest utility.

Efficiency Vermont continues to help stimulate the state's economy. Overall, the benefit-to-cost ratio of measures supported through Efficiency Vermont exceeds 2 to 1. In addition, there are tremendous multiplier benefits for the local economy. Every dollar spent by Efficiency Vermont leveraged \$1.05 from participant and third parties to support the installation of efficiency measures. Seventy percent of these funds went directly to contractors, installers, and the more than 380 Vermont retailers, suppliers, and distributors with which Efficiency Vermont partners to sell efficient products.

Efficiency measures installed in 2007 will provide a lifetime economic value of approximately \$76 million to Vermont ratepayers, and will result in a \$10.7 million reduction in Vermonters' retail energy costs. ("Lifetime economic value" is defined as the present value of electricity, fossil fuels, and water that are saved over the lifetime of the efficiency measures.) Approximately 45% of these costs were saved by businesses, with the remainder reflecting savings in Vermont homes.

Stimulating Vermont's Economy: Net Lifetime Economic Value for 2007

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|----------------------------|---------------------|--|
| Benefits | \$76,100,000 | Lifetime economic value of efficiency investments |
| Minus costs | \$19,300,000 | Costs paid for by investments through Efficiency Vermont |
| | \$20,400,000 | Costs paid for by participant and third-party investments |
| | \$39,700,000 | Total costs |
| Equals net benefits | \$36,400,000 | Net lifetime economic value to Vermont |

Efficiency remains the state's least-cost energy resource: It reduces contributions to greenhouse gases, it is good for economic development, and it is good for the environment. Energy efficiency will continue to play an even larger role as part of Vermont's and the region's energy resource mix for the future.