

### **Efficiency** Vermont

# 2007 Highlights

- Efficiency works. In 2007, Vermont's electric energy savings were, for the first time, large enough to offset average load growth.
- Unprecedented savings. Electricity savings in 2007 were 105,000 MWh, an 88% increase over the 56,070 MWh reported in 2006.
- More cost effectiveness. For each \$10,000 invested in savings in 2007, Efficiency Vermont saved 54 MWh, compared to 38 MWh in 2006.
- Greater participation. Efficiency Vermont helped 43,590 ratepayers save electricity in 2007, a 13% increase over 2006.
- Since 2000, approximately 60% of the state's eligible ratepayers have participated with Efficiency Vermont to save electricity.

Incremental annual MWh savings \_\_\_\_\_Yield – MWh savings per \$10,000 invested

Efficiency Vermont MWh Savings and Yield: 2000-2007

Energy savings for 2007 subject to verification by the Department of Public Service. See page 3 for more information.

## Helping Vermont meet its electricity needs...

Every kWh saved by Efficiency Vermont was a kWh that did not have to be generated or purchased by Vermont utilities.

Through energy efficiency investments made since 2000, Vermont is now using nearly 7% less energy than it would have otherwise used.

### In 2007, Efficiency Vermont and its partners:

- Decreased summer peak demand by 14.9 MW and winter peak demand by 16.1 MW a cumulative summer savings of 59 MW and winter savings of 68 MW since 2000.
- Reduced annual statewide energy requirements by 1.74%.

### The big picture

By lowering peak demand, energy efficiency reduces the need for the state's utilities to buy electricity at some of the highest prices of the year. It also makes Vermont's energy supply system more reliable and less subject to disruptions.

#### Energy Savings vs. Load Growth



### ...while saving money and strengthening Vermont's economy...

In 2007, Efficiency Vermont's cost of saving electricity with energy efficiency was 2.6¢ / kWh, compared to 3.7¢ / kWh in 2006. If you add in customer costs and savings, the actual cost of efficiency was only 2.2¢ / kWh. That's far less than the 10.7¢ / kWh that utilities would have paid for a comparable electric supply.



Efficiency Vermont's approximate cost of electric efficiency 2.6¢ / kWh

Approximate cost of comparable electric supply 10.7¢ / kWh

In 2007, benefits to Vermont ratepayers were approximately \$2 for every \$1 invested in energy efficiency. Further, Vermont businesses that participated in efficiency services realized a 36% return on their efficiency investments.

In addition, when Vermont ratepayers and their utilities invest in energy efficiency, they are buying locally, rather than sending dollars out of state to purchase electricity.

### Significant financial benefits

Lifetime economic value of Efficiency Vermont investments made in 2007: **\$85 million** 

Combined lifetime economic value of all Efficiency Vermont investments since 2000: **\$410 million** 

Over the long term, these savings will reduce the cost of living and the cost of doing business here in Vermont.

## ...and reducing our environmental impact.

When we lower electricity use, we reduce emissions from power plants that burn fossil fuels. Lower levels of emissions mean that Vermont contributes less to air pollution and global climate change.

## Electric energy efficiency measures installed in 2007 by Efficiency Vermont and its partners will result in overall reductions of the following emissions:



Carbon dioxide: 661,500 tons Nitrogen oxides: 562 tons Sulphur dioxides: 1,103 tons

Efficiency measures installed in 2007 will help homes and businesses across Vermont save the following natural resources: **Water: 283,804,000 gallons** or enough to supply 4,653 homes for a year **Oil: 3,147,000 gallons** or enough to supply 4,502 homes for a year **Propane: 4,695,000 gallons** or enough to supply 4,695 homes for a year **Natural gas: 242,377,000 cubic feet** or enough to supply 2,832 homes for a year



### **Geographic Targeting**

In 2007, Efficiency Vermont began implementing an 18-month effort to target energy efficiency savings in four specific geographic areas of the state. These are areas where costly upgrades to the electric power distribution system might be avoided or deferred by reducing the peak electric load.

### Efficiency Vermont is focusing on specific energy efficiency efforts for the 63,000 customers within the targeted areas highlighted on the map.

During the first six months of the Geographic Targeting initiative, estimated energy savings for the targeted areas increased nearly three times over what they were for a similar period in the previous year. The targeted efforts are expanding through 2008.



Pictured on the front cover are some of the many Vermonters Efficiency Vermont has worked with since its

start in 2000. From left to right are: a retail associate and an Efficiency Vermont staff member at the Rutland Aubuchon Hardware store; a young family in Georgia; new homebuilders in Addison; innkeeping staff at the Doubletree Inn in South Burlington; and engineers working on Barlow Square in Winooski. The 2007 data presented herein are based on Efficiency Vermont's estimates of preliminary savings as claimed by the Vermont Energy Investment Corporation, the implementer of the Efficiency Vermont contract. Each spring, the savings are subject to an in-depth verification process conducted by the Vermont Department of Public Service. A written report and recommendation go to the Vermont Public Service Board, which makes a final certification of the savings that can be claimed.

The 2006 comparison numbers provided throughout this flyer were drawn from the final, verified 2006 Efficiency Vermont Annual Report.

Across seven years, the average difference between the preliminary energy savings claimed by Efficiency Vermont and the final certified savings amount has been a reduction of 5.9%.



Projected annual kWh savings: Approximately 58,000

#### Projected annual cost savings: Approximately \$5,000

Participating schools: Academy School, Canal Street School, Esteyville School, Green Street School, Oak Grove School, Power House School

### Windham County Schools - Windham County, VT

The Windham Southeast Supervisory Union and the Town of Brattleboro worked with Efficiency Vermont to make energy efficiency improvements in six of their school buildings. These improvements have resulted in significant progress toward Brattleboro's 2002 goal of achieving a 20% reduction of greenhouse gas emissions in town-owned buildings and operations by 2010.

Efficiency Vermont provided technical assistance that included identifying major energy efficiency opportunities, developing a Request for Proposals, and guiding staff through the proposal review and contractor selection process. The result was an agreement with Honeywell, which installed new lighting, occupancy sensors, vending machine energy monitors, insulation, air sealing, and boilers. With financial incentives from Efficiency Vermont, nearly all of these improvements have been installed and their costs offset through the energy savings.

"This collaborative partnership is helping to save energy for our children's future." – Jean Gilbert, Windham Southeast Supervisory Union

#### HEART - Hardwick, VT

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Since 2006: Community participation approximately 31%

Reduction in electrical energy use approximately 8.9%



To achieve these goals, HEART asked Efficiency Vermont in 2007 to assist in providing energy audits and efficiency project incentives to local businesses to help with energy efficiency projects. HEART also held special promotions at local retailers to provide affordable energy-efficient lightbulbs; educated local students through special events and school energy audits; conducted do-it-yourself workshops to teach residents how to make their homes more energy efficient; installed efficient holiday lights throughout the downtown area; and promoted effective participation with Efficiency Vermont services.

"To engage the community is to breathe life into the community, and what better way than through reducing our town-wide energy use?"

– Nancy Notterman, HEART Organizer



Projected annual kWh savings: Approximately 59,000

Projected annual cost savings: Approximately \$5,000

### Energizer Battery – St. Albans, VT

Energizer — a world leader in battery technology with facilities in both St. Albans and Bennington — made a business decision to evaluate and identify opportunities for energy efficiency improvements, and asked Efficiency Vermont to help improve its energy use. After installing meters that track energy use on specific equipment, and completing an energy walk-through audit at the St. Albans facility, Efficiency Vermont project managers identified several opportunities for energy savings. Using the Efficiency Vermont evaluation of the company's equipment, and prioritizing its new equipment needs relative to the incentives Efficiency Vermont was offering, Energizer facilities managers began by installing a new, high-efficiency injection molding machine. Energizer plans to continue its partnership with Efficiency Vermont by upgrading a compressed air system, replacing an existing air dryer with a new energy-efficient model, and upgrading facility lighting.

"The energy conservation projects that Efficiency Vermont and Energizer Battery have ongoing are a very important part of our global plans for energy conservation and resource sustainability."

- Doug Manning Sr., Energizer Engineering Specialist



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