THE POWER OF EFFICIENT IDEAS EFFICIENCY VERMONT: 2002 ANNUAL REPORT







This summary highlights the 2002 accomplishments of Efficiency Vermont, the nation's first energy-efficiency utility, an entity dedicated to reducing electricity costs and increasing the capacity of the electric system through efficiency. Established by the Vermont Public Service Board in 1999, Efficiency Vermont has established a three-year record of cost-effectively reducing electricity use and expenditures through the implementation of energy efficiency measures in 67,879 businesses and households throughout the state.

Efficiency Vermont's efforts help customers and strengthen Vermont's economy as a whole. Because Efficiency Vermont partners with people and organizations to cut their electricity use and costs, less money leaves Vermont to purchase electricity that's generated out of state. The net result is that more money stays in Vermont, strengthening the local economy. Efficiency Vermont's efforts also help protect the environment by reducing pollution from electricity production.

We are pleased to provide this summary to all Vermonters who are interested in the power of efficient ideas. With that in mind, we have highlighted Efficiency Vermont's activities and results in eight sections:

- 2002: Major Accomplishments
- A Competitive and Proven Resource to Meet Vermont's Electric Needs
- Putting More Money in the Pockets of All Vermonters
- The Efficiency-Powered Economic Engine
- Keeping the Green Mountains Green
- Helping Vermont Become the Efficiency Leader
- National Recognition of Efficiency Vermont's Efforts

2002: MAJOR ACCOMPLISHMENTS

SUCCESS THROUGH PARTNERSHIPS

In 2002, Efficiency Vermont helped 32,306 electricity customers complete efficiency investments that resulted in:

- 38,363,000 kilowatt-hours (kWh) of annual energy savings. These savings cost ratepayers 52% less than what utilities would have paid for this energy on the wholesale supply market. The benefit of these savings will continue for an average of 14.4 years.
- \$25 million in lifetime economic value over the 14.4-year average lifetime of the efficiency measures installed in 2002. (Note: Lifetime economic value is defined as the present value of the electricity, fossil fuels and water that are saved over the lifetime of the efficiency measures.)
- The surpassing of Efficiency Vermont's 2002 annual energy savings target by 59%, and its three-year contract target by 17%.
- The elimination of 411,000 tons of greenhouse gas emissions that would have been generated from conventional energy sources.

Although we primarily measure our success in terms of efficiency, there were other signs of Efficiency Vermont's accomplishments in 2002, including:

- Clear evidence of large and lasting effects on the way efficiency decisions are made in Vermont's consumer and business markets.
- Recognition of Efficiency Vermont's regional and national leadership in energy efficiency.
- Meeting, and in most cases exceeding, seven specific contractual indicators of superior performance established for Efficiency Vermont by the Vermont Public Service Board.
- The verification and validation of Efficiency Vermont's performance in 2001.

As was true in 2000 and 2001, we were fortunate to have many partners who contributed to Vermont's efficiency innovations. These partners include households and businesses throughout Vermont who invested their own time and money in saving electricity; the vendors, suppliers and service professionals whose efforts were indispensable in making these savings a reality; fellow Vermont ratepayers; and the State's regulators and legislators who created Efficiency Vermont and supported its continued operation.

SUCCESS SNAPSHOT: FAIRBANKS SCALES

Efficiency Vermont worked with Fairbanks Scales to completely upgrade its lighting system. Located in St. Johnsbury, Fairbanks Scales designs and produces industrial-sized scales. It is considered to be a national leader in the weighing industry and is one of the largest employers in northeastern Vermont.

The company was burdened by having many lighting fixtures that were more than 30 years old. These lights were very inefficient and extremely expensive to replace. In fact, these antiquated fixtures cost Fairbanks Scales thousands of dollars every year in unnecessary electricity costs.

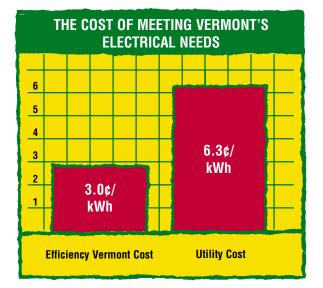
Jay Pilliod and Alison Donovan Hollingsworth, Efficiency Vermont's project managers, worked with Fairbanks Scales and Jim Kramer from Green Mountain Electric Supply over the course of three years to replace 590 light fixtures throughout the 250,000-square-foot facility. The new fixtures will have an approximate lifespan of 20 years. By working with Efficiency Vermont, Fairbanks Scales is saving \$50,000 a year from reduced energy consumption and has a more comfortable work environment for its employees.

Energy project cost	\$47,006
Efficiency Vermont incentives	\$16,229
Fairbanks Scales' net investment	\$30,777
Annual energy savings	\$50,000

A COMPETITIVE AND PROVEN RESOURCE TO MEET VERMONT'S ELECTRIC NEEDS

ENERGY EFFICIENCY: 53% LESS COSTLY THAN CONVENTIONAL SOURCES

In 2002, Efficiency Vermont and its customers invested \$16.8 million in energy efficiency measures. Over the lifetime of these measures, this investment will save 552,705,000 kWh. The chart below compares Efficiency Vermont's cost of *saving* this power to the cost for Vermont's electric utilities to *purchase* this power on the New England wholesale market. Clearly, these investments were significantly more cost-effective than conventional sources of electricity.



These efficiency investments also ease upward pressure on electricity supply prices and thereby lower the cost of electricity for all Vermonters. This is especially true during those times of the year when electricity demand is greatest and supply costs are at their highest. The reduction of electrical demand at peak periods not only helps to reduce the wholesale price on the spot market, but also serves as a hedge against long-term price increases by lowering new contract prices. These savings benefit all Vermont ratepayers through lower wholesale prices, regardless of whether they take direct advantage of Efficiency Vermont's services.

As previously mentioned, this year saw the validation of Efficiency Vermont's reported savings through 2001. These were verified in several ways, including:

- The Department of Public Service's verification review
- An annual audit
- The Public Service Board's independent consultant review.

These examinations determined that the figures we had reported were an accurate accounting of energy savings and true representations of the positive impact of Efficiency Vermont on all Vermonters.

DISTRIBUTION OF BENEFITS BY SECTOR				
	COMMERCIAL & INDUSTRIAL	RESIDENTIAL	TOTAL	
BENEFITS ACHIEVED IN 2002				
Annual kWh Savings	18,436,000 kWh (48%)	19,927,000 kWh (52%)	38,363,000 kWh	
Lifetime Economic Value	\$12,000,000 (48%)	\$13,100,000 (52%)	\$25,100,000	
CUMULATIVE BENEFITS ACHIEVED 2000-2002				
Annual kWh Savings	48,180,000 kWh (49%)	49,870,000 kWh (51%)	98,050,000 kWh	
Lifetime Economic Value	\$32,500,000 (49%)	\$33,500,000 (51%)	\$66,000,000	

PUTTING MORE MONEY IN THE POCKETS OF ALL VERMONTERS

ECONOMIC BENEFITS FROM BENNINGTON TO BARTON

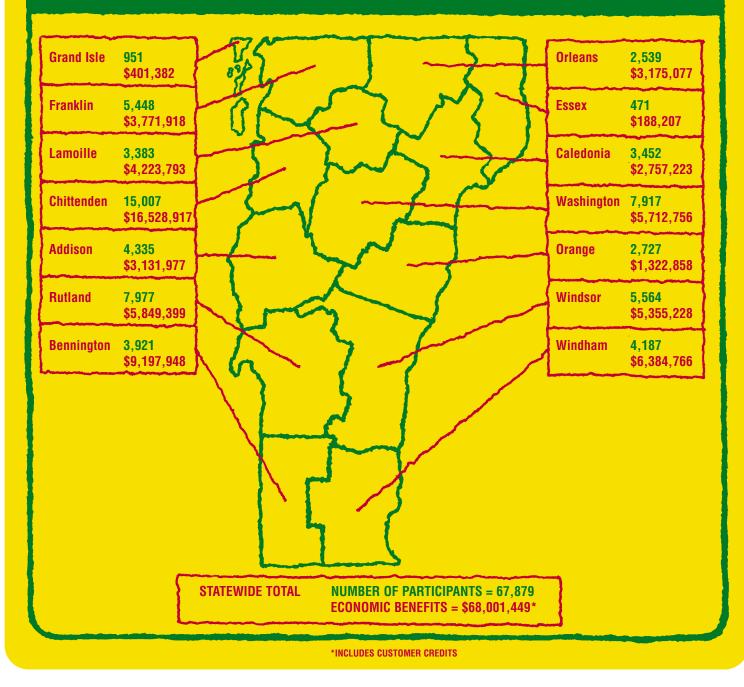
In 2002, Efficiency Vermont served 31,719 households and 587 businesses in Vermont. The energy efficiency measures these homes and businesses installed will generate \$25.1 million in lifetime economic value. These measures include:

- Lighting
- Refrigeration
- Cooking and laundry
- Air-conditioning
- Ventilation
- Switching space heat fuels
- Switching hot water fuels
- Motors
- Design assistance
- Water conservation
- Transformers
- LED exit lights
- LED traffic lights

Since a significant objective of Efficiency Vermont is to help as many Vermonters as possible, regardless of where they live or work, it is important that participation and benefits be widely distributed. The 2002 results indicate that Efficiency Vermont's success has reached every corner of our state. As in previous years, efficiency investments and their economic benefits were distributed throughout the state in roughly the same proportion as the funding that customers provided through their bills.

The widespread distribution of these benefits didn't happen by accident. Our marketing, business development and service teams have strived to establish a network of partnerships with design professionals, builders, contractors and vendors throughout the state. Additionally, targeted campaigns were undertaken to better serve those markets that were previously under-represented.

DISTRIBUTION OF PARTICIPATION AND BENEFITS BY COUNTY 3/1/2000 – 12/31/2002



THE EFFICIENCY-POWERED ECONOMIC ENGINE

BUSINESSES EARN 71% RETURN ON EFFICIENCY INVESTMENTS

Economically speaking, 2002 was a year that many people would like to forget. However, efficiency investments catalyzed by Efficiency Vermont ran counter to this negative economic trend. These efficiency investments generated strong returns both for individual investors and for the state's economy as a whole. They will continue to pay dividends in the years ahead in the form of lower expenditures on electricity, fossil fuel and water by Vermont's homes and businesses.

The average business that took advantage of Efficiency Vermont's services in 2002 will realize a return of 71% on its portion of efficiency investment costs. That rate of return outperforms all but the riskiest financial market investments. Additionally, efficiency investments made today will continue to pay off long into the future. The lifetime economic value of Efficiency Vermont's first three years of services equals \$66 million. As these savings are realized over the next 14.4 years, they will act as a time-released stimulus for Vermont's economy. The recurring savings from efficiency investments made between 2000 and 2002 will spur Vermont's economic growth in much the same way that a sustained drop in energy prices would lower the costs of living and doing business in the state.

The proceeds from these investments go into the pockets of Vermont businesses and households to be reinvested either in the purchase of other goods and services or in other assets. Either way, most of this reinvesting involves transactions with Vermont businesses. The resulting economic stimulus helps support and create Vermont jobs. In fact, according to an analysis by Skip Laitner, an expert on the economic impacts of efficiency investment, the investments catalyzed by Efficiency Vermont through 2002 will boost Vermont's economic output by \$26 million. Those investments also have created more than 100 net new full-time jobs in Vermont during the 2000-2002 period.

SUCCESS SNAPSHOT: SMUGGLERS' NOTCH DAY CARE CENTER

Smugglers' Notch Ski Resort in Jeffersonville invited Efficiency Vermont to be part of the project team for its new state-of-the-art day care center. Designed and built over a period of eight months, the new center provides excellent day care and easy access for parents. Energy-efficient lighting, heating and cooling systems provide year-round comfort and control, and ensure the center's environmental quality.

Led by project manager Jonathan Kleinman, Efficiency Vermont analyzed the costs and benefits of a high-efficiency heating system, lighting upgrades, and properly sized, efficient air-conditioning equipment. Smugglers' Notch, Carlson Mechanical of Williston, and Swaney Lighting Associates of Scarborough, Maine, worked aggressively to include cost-effective energy efficiency measures within the timeline for the project. Together, this team helped Smugglers' Notch get the best building for the money, save an estimated \$2,280 a year on energy costs and help preserve Vermont's environment.

Energy project cost	\$7,861
Efficiency Vermont incentives	\$4,535
Smugglers' Notch net investment	\$3,326
Annual energy savings	\$2,280

KEEPING THE GREEN MOUNTAINS GREEN

EFFICIENCY VERMONT: PART OF THE STATE'S ENERGY PORTFOLIO

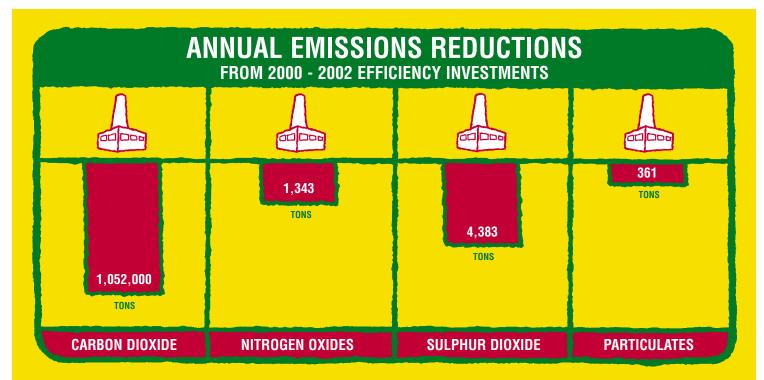
One of the biggest factors in Efficiency Vermont's success has been the creation of an energy efficiency network throughout Vermont. By cultivating and progressively strengthening our relationships with businesses, trade associations, key industries, and providers of energy efficiency products and services, we have been able to tap additional cost-effective resources in a reliable and predictable manner. This partnering process has been a key factor in enabling Efficiency Vermont to increase savings and exceed targets in each contract year. With this infrastructure in place, Vermont can now depend on energy efficiency as a ready, reliable and integral component of our state's portfolio of energy resources.

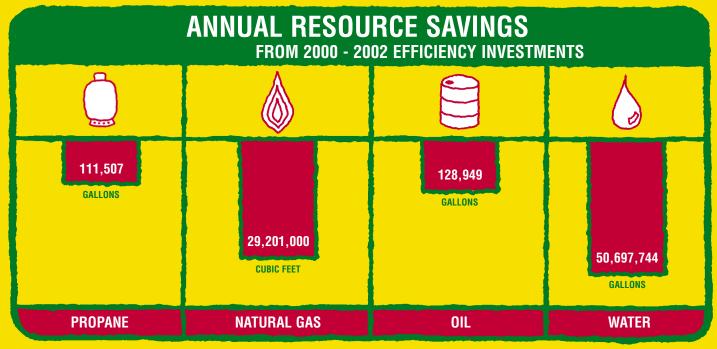
The signs of this success can be found in many places. We have increased the average number of leads for business projects by 35% from 2001 to 2002. Our returning customers provide confirmation that more Vermont businesses are making efficiency an integral part of their development planning. Attendance at our annual conference on new construction continues to attract a growing number of builders, architects, engineers and other professionals. To help more customers save more money, we have strategically hired a staff of expert personnel to provide technical assistance. As a result, we now have a staff composed of architects, engineers and energy specialists who represent some of the top national talent in the energy efficiency field.

Efficiency Vermont has also succeeded in making its efficiency projects more comprehensive. Business new construction projects are increasingly incorporating energy efficiency into all aspects of the design and build process. Additionally, there has been a substantial increase in the number of ENERGY STAR® qualified homes built in Vermont this year, in part because we have simplified the plan review process. We have also developed one of the nation's most comprehensive approaches to providing energy efficiency services to market-rate and low-income multifamily housing.

CUTTING EMISSIONS OF GREENHOUSE GASES

Efficiency is an extremely clean electricity "resource" because it reduces pollution by displacing the energy production that causes it. The table to the right shows how investments resulting from Efficiency Vermont's work cut emissions of greenhouse gases and other harmful emissions, as well as reduced consumption of other resources. In more tangible terms, removing that amount of pollution from our air has the same effect as removing 14,000 cars from Vermont's roads for a year.





HELPING VERMONT BECOME THE EFFICIENCY LEADER

A SUCCESSFUL NATIONAL MODEL

As other states strive to find more affordable and environmentally friendly ways to supply electricity while boosting their economies, Efficiency Vermont is increasingly regarded as a model for the nation. We are honored to have been contacted by organizations and government entities in states that are considering replicating Vermont's approach. We attribute this leadership reputation to the lasting impact that Efficiency Vermont and its partners are having on the way that energy efficiency decisions are made in the marketplace.

A good illustration of this impact can be seen in the air conditioning market. Despite having one of the shortest and mildest summer seasons in the nation, Vermont stands out regionally and nationally for its market share of high-efficiency air conditioners. Nationally, Vermont ranks first in the market share of energy-efficient residential room air conditioners sold in 2002. That success was due in no small measure to our partnership with participating retailers in promoting products that qualify for the ENERGY STAR label. Efficiency Vermont met with similar success in the nonresidential cooling system market. Ninety percent of the commercial heating and cooling system units that qualified for incentives from Efficiency Vermont met the highest efficiency standard, as compared to only 51% for other northeast states (NJ, CT, MA, RI) that are undertaking similar efforts.

Recent data released by the U.S. Environmental Protection Agency for 2002 reveal that Vermont leads the eastern U.S. in market share for ENERGY STAR labeled homes. Vermont also ranks third, nationally, in market share for ENERGY STAR clothes washers.



SUCCESS SNAPSHOT: NEW HOME CONSTRUCTION

Pete Paquette is one of the builders Efficiency Vermont is working with in the residential new construction market. He's built a handful of new homes with Efficiency Vermont's assistance, including a single-family home in Swanton, Vermont that's a particularly good example of efficiency.

The home was built using standard construction materials and methods, but Pete balanced window sizes with performance, heating system efficiency, and low air leakage to earn a 5-Star Energy Rating. The home features ventilation and combustion equipment for healthy indoor air quality, ENERGY STAR lighting in 11 of 18 fixtures, and an ENERGY STAR heating system and dishwasher.

Efficiency Vermont helped Pete with marketing materials, plan reviews, technical support, and testing for air sealing and indoor air quality. As a result, the home is very tightly sealed, particularly for a so-called "stick built" home. In fact, the house was selected by ENERGY STAR at the Better Buildings By Design Conference as "Best of the Best" for single-family homes under 2,000 square feet.

Annual energy cost for award-winning home	\$1,202
Annual energy cost for an identical	
home meeting minimum energy code	\$1,797

NATIONAL RECOGNITION OF EFFICIENCY VERMONT'S EFFORTS

AWARD-WINNING PERFORMANCE

Vermont's pioneering approach to energy efficiency brought increasing national attention to our state in 2002. Several recent honors exemplify this recognition:

- Efficiency Vermont was selected from among 1,200 nominees as one of the 15 finalists for the Innovation in American Government Award from Harvard's Kennedy School of Government.
- The American Council for an Energy Efficient Economy (ACEEE) placed several of Efficiency Vermont's residential services on its "Exemplary Programs" list. The ACEEE list, which will be published as a reference for energy efficiency practitioners nationwide, includes Efficiency Vermont's services in the single-family residential new construction market, the multifamily low-income market, and the lighting market (as a part of the Northeast Energy Efficiency Partnerships regional initiatives).
- The U.S. Environmental Protection Agency awarded Efficiency Vermont the New England 2002 Environmental Merit Award for outstanding efforts in preserving New England's environment.

- The U.S. Environmental Protection Agency and Department of Energy presented Efficiency Vermont with the following awards:
 - 2002 ENERGY STAR Excellence in Consumer Education for exceptional service to Vermont consumers, as part of a regional energy efficiency partnership with Northeast utilities
 - 2002 ENERGY STAR Partner of the Year, for outstanding commitment to providing expert design assistance and financial incentives to Vermonters building homes that meet or exceed ENERGY STAR standards
 - 2002 ENERGY STAR Labeled Homes Outstanding Achievement Award, for verifying more than 250 ENERGY STAR labeled homes in the past year.





SUCCESS SNAPSHOT: AUBUCHON HARDWARE

Efficiency Vermont has teamed up with Aubuchon Hardware to promote the use of energy-efficient lighting in Vermont's households. The stores promote the use of energy-efficient light bulbs by featuring large in-store displays and offering rebates to consumers. Aubuchon also took the initiative in promoting turn-ins for torchiere bulbs that are inefficient and potentially hazardous. Aubuchon has committed to a company-wide program of holding two annual turn-in events that encourage consumers to return their old bulbs for safer and more efficient replacements.

Our work with Aubuchon's Rutland store has been particularly successful. Because of our partnership, the Rutland location sells more energy-efficient bulbs than any other store in the state. According to Jeff Aubuchon, the relationship has been very beneficial. "We enjoy working with Efficiency Vermont and the results show in the performance of the program," he states. "I attribute much of the success to Efficiency Vermont and their ability to adequately and effectively market the program through various retailers. Vermont's third-party approach via Efficiency Vermont has led to an unbiased promotional effort, and Aubuchon is a proud partner."

MORE WORK AHEAD

Vermont has always been known for its pioneering spirit. The state can be proud of Efficiency Vermont's standing as a national leader in energy efficiency. The work we do has very tangible benefits for Vermont. We help businesses and households across all regions of the state who have partnered with us to reduce their costs and consumption of electricity. We strengthen the state's economy by reducing electrical demand, and therefore reducing Vermont's electric bill. In a state that values environmental responsibility, we also help to reduce pollution that could threaten the quality of life in Vermont.

The impact of the investments that Efficiency Vermont and its partners have made will continue to last for many years. However, there remains much for Efficiency Vermont to accomplish in the years to come. We will continue to innovate and expand our products and services. We will strive to partner with more Vermont businesses and households in all areas of our state. And finally, we will continue to improve the state's environment and economy for the benefit of all Vermonters.



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