



---

ANNUAL REPORT

2013

NOVEMBER 26, 2014

128 LAKESIDE AVENUE, SUITE 401

BURLINGTON, VERMONT 05401

(888) 921-5990

[WWW.EFFICIENCYVERMONT.COM](http://WWW.EFFICIENCYVERMONT.COM)



This report is submitted to the Vermont Public Service Board and to the Vermont Public Service Department, in fulfillment of the regulatory requirement for submitting Efficiency Vermont's Annual Report 2013.





## ANNUAL REPORT 2013

### TABLE OF CONTENTS

<b>1.</b>	<b>RESULTS OVERVIEW</b>	<b>1</b>
1.1	QUANTIFIABLE PERFORMANCE INDICATORS	2
1.2	ECONOMIC BENEFITS	4
1.3	ELECTRIC EFFICIENCY SAVINGS	5
1.4	THERMAL ENERGY AND PROCESS FUEL EFFICIENCY SAVINGS	8
1.5	ENVIRONMENTAL BENEFITS	10
<b>2.</b>	<b>2013 ACTIVITIES</b>	<b>11</b>
2.1	BUSINESS, INSTITUTIONAL, AND MUNICIPAL FACILITY SERVICES	12
2.1.1	VERMONT'S LARGEST ENERGY USERS	12
2.1.2	SMALL BUSINESSES	13
2.1.3	TARGETED MARKETS	14
2.1.4	KEY COMMERCIAL TECHNOLOGIES	17
2.2	RESIDENTIAL SERVICES	19
2.2.1	EXISTING AND NEW LOW-INCOME HOUSING	19
2.2.2	EXISTING MARKET-RATE HOMES	19
2.3	SERVICES TO GEOGRAPHICALLY TARGETED AREAS	20
2.4	ACTIVITIES IN SERVICE TO MULTIPLE CUSTOMER SECTORS	21
2.4.1	SERVICES TO DESIGNERS AND BUILDERS OF NEW BUILDINGS	21
2.4.2	SERVICES TO BUILDING IMPROVEMENT CONTRACTORS	23
2.4.3	SERVICES TO EQUIPMENT SUPPLY CHAIN PARTNERS AND TECHNICIANS	24
2.4.4	SERVICES TO BUYERS OF RETAIL EFFICIENT PRODUCTS	25
2.4.5	TRADE ASSOCIATION PARTNERSHIPS	26
2.4.6	COMMUNITY-BASED ACTIVITIES	27
2.4.7	FINANCIAL SERVICES	28
2.4.8	COORDINATION WITH DISTRIBUTION UTILITIES	29
2.4.9	STATE, REGIONAL, AND NATIONAL PARTNERSHIPS	30
2.5	MARKET ADVANCEMENT ACTIVITIES	30
2.5.1	EDUCATION AND TRAINING	30
2.5.2	APPLIED RESEARCH AND DEVELOPMENT	32
2.5.3	PLANNING AND REPORTING	34
2.5.4	EVALUATION	35

2.5.5	POLICY AND PUBLIC AFFAIRS	37
2.5.6	INFORMATION TECHNOLOGY	39
2.5.7	GENERAL ADMINISTRATION	40
<b>3.</b>	<b>RESOURCE AND NON-RESOURCE ACQUISITION RESULTS</b>	<b>41</b>
3.1	RESOURCE ACQUISITION SUMMARY	43
3.2	BUDGET SUMMARY	44
	<i>Quality Performance Indicators and Minimum Performance Requirements</i>	
3.3	2012 – 2014 ELECTRIC PERFORMANCE INDICATORS & MINIMUM REQUIREMENTS	45
3.4	2012 – 2014 ELECTRIC MINIMUM TRB PER GEOGRAPHIC AREA (QPI #12)	46
3.5	2012 – 2014 THERMAL ENERGY AND PROCESS FUELS FUNDS PERFORMANCE INDICATORS & MINIMUM REQUIREMENTS	47
3.6	SERVICE QUALITY AND RELIABILITY SUMMARY REPORT	48
	<b>ELECTRIC</b>	
	<i>Combined Resource Acquisition</i>	
3.7	ELECTRIC RESOURCE ACQUISITION SUMMARY	49
3.8	DETAIL SUMMARY, INCLUDING CUSTOMER CREDIT	50
3.9	DETAIL SUMMARY, EXCLUDING CUSTOMER CREDIT	51
3.10	END USE BREAKDOWN	52
3.11	UTILITY BREAKDOWN	53
3.12	COUNTY BREAKDOWN	54
3.13	TOTAL RESOURCE BENEFITS	55
	<i>Business Energy Services</i>	
3.14	SUMMARY	56
3.15	END USE BREAKDOWN	57
	<i>Residential Energy Services</i>	
3.16	SUMMARY	58
3.17	END USE BREAKDOWN	59
	<b>THERMAL ENERGY AND PROCESS FUELS</b>	
	<i>Combined Resource Acquisition</i>	
3.18	SUMMARY	60
3.19	DETAIL SUMMARY	61
3.20	END USE BREAKDOWN	62
3.21	TOTAL RESOURCE BENEFITS	63
	<i>Business Energy Services</i>	
3.22	SUMMARY	64
3.23	END USE BREAKDOWN	65
	<i>Residential Energy Services</i>	
3.24	SUMMARY	66
3.25	END USE BREAKDOWN	67

<b>4.</b>	<b>MAJOR MARKET RESOURCE ACQUISITION RESULTS</b>	<b>69</b>
	<b>ELECTRIC</b>	
	<i>Business New Construction</i>	
4.1	SUMMARY	71
4.2	END USE BREAKDOWN	72
4.3	TOTAL RESOURCE BENEFITS	73
	<i>Business Existing Facilities</i>	
4.4	SUMMARY	74
4.5	END USE BREAKDOWN	75
4.6	TOTAL RESOURCE BENEFITS	76
	<i>Residential New Construction</i>	
4.7	SUMMARY	77
4.8	END USE BREAKDOWN	78
4.9	TOTAL RESOURCE BENEFITS	79
	<i>Efficient Products</i>	
4.10	SUMMARY	80
4.11	END USE BREAKDOWN	81
4.12	TOTAL RESOURCE BENEFITS	82
	<i>Existing Homes</i>	
4.13	SUMMARY	83
4.14	END USE BREAKDOWN	84
4.15	TOTAL RESOURCE BENEFITS	85
	<b>THERMAL ENERGY AND PROCESS FUELS</b>	
	<i>Business New Construction</i>	
4.16	SUMMARY	86
4.17	END USE BREAKDOWN	87
4.18	TOTAL RESOURCE BENEFITS	88
	<i>Business Existing Facilities</i>	
4.19	SUMMARY	89
4.20	END USE BREAKDOWN	90
4.21	TOTAL RESOURCE BENEFITS	91
	<i>Residential New Construction</i>	
4.22	SUMMARY	92
4.23	END USE BREAKDOWN	93
4.24	TOTAL RESOURCE BENEFITS	94
	<i>Efficient Products</i>	
4.25	SUMMARY	95
4.26	END USE BREAKDOWN	96

4.27	TOTAL RESOURCE BENEFITS	97
	<i>Existing Homes</i>	
4.28	SUMMARY	98
4.29	END USE BREAKDOWN	99
4.30	TOTAL RESOURCE BENEFITS	100
<b>5.</b>	<b>SPECIAL PROGRAMS</b>	<b>101</b>
5.1	CUSTOMER CREDIT PROGRAM	103
5.1.1	NARRATIVE	103
5.1.2	SUMMARY	104
5.1.3	END USE BREAKDOWN	105
5.1.4	TOTAL RESOURCE BENEFITS	106
5.2	GEOGRAPHIC TARGETING (ELECTRIC)	107
5.2.1	COMBINED SUMMARY	108
5.2.2	SUSIE WILSON RD – END USE BREAKDOWN	109
5.2.3	SAINT ALBANS – END USE BREAKDOWN	110
<b>6.</b>	<b>SUBMARKET RESOURCE ACQUISITION RESULTS—ELECTRIC ONLY</b>	<b>111</b>
	<i>Market Rate Multifamily New Construction</i>	
6.1	SUMMARY	113
6.2	END USE BREAKDOWN	114
	<i>Market Rate Multifamily Retrofit</i>	
6.3	SUMMARY	115
6.4	END USE BREAKDOWN	116
	<i>Low Income Multifamily New Construction and Retrofit</i>	
6.5	SUMMARY	117
6.6	END USE BREAKDOWN	118
	<i>Low Income Multifamily New Construction</i>	
6.7	SUMMARY	119
6.8	END USE BREAKDOWN	120
	<i>Low Income Multifamily Retrofit</i>	
6.9	SUMMARY	121
6.10	END USE BREAKDOWN	122
	<i>Business Non-Farm Equipment Replacement</i>	
6.11	SUMMARY	123
6.12	END USE BREAKDOWN	124
	<i>Business Non-Farm Retrofit</i>	
6.13	SUMMARY	125



6.14	END USE BREAKDOWN	126
	<i>Market Rate Single Family</i>	
6.15	SUMMARY	127
6.16	END USE BREAKDOWN	128
	<i>Low Income Single Family</i>	
6.17	SUMMARY	129
6.18	END USE BREAKDOWN	130
	<i>Large Industrial</i>	
6.19	SUMMARY	131
6.20	END USE BREAKDOWN	132
<b>7.</b>	<b>LIST OF SUPPORT DOCUMENTS, BY SERVICE</b>	<b>133</b>
7.1	DOCUMENTS, CORRESPONDING MARKETS, AND 2013 STATUS	135
<b>8.</b>	<b>DEFINITIONS AND END NOTES</b>	<b>137</b>
8.1	DATA TABLES OVERVIEW	139
8.2	DEFINITIONS AND REPORT TEMPLATE	139



## **1. RESULTS OVERVIEW**



## 1. RESULTS OVERVIEW

In 2013, Efficiency Vermont helped Vermont businesses, institutions, households of all income levels, and communities get the most out of their energy dollars while strengthening local economies and protecting the environment. Efficiency Vermont's comprehensive, statewide electric and thermal energy efficiency services helped Vermonters at critical decision-making moments in new construction projects, during renovations, and in the purchase of efficient equipment. Of equal importance was Efficiency Vermont's work to help Vermonters obtain optimal savings by approaching efficiency, on the customer's terms, as an energy management process rather than a one-time project.

Efficiency Vermont's ongoing success in obtaining cost-effective energy savings continued to define efficiency as the cleanest, least expensive, and most locally-acquired way to reduce Vermonters' energy costs and to meet the state's energy needs. In 2013, Efficiency Vermont worked to:

- **Motivate energy efficiency actions** with: 1) technical and financial analysis; 2) information about energy use and planning, efficient technologies, and building science to empower Vermonters with the ability to identify how their actions control their energy costs, and 3) resources to bring efficiency within financial reach for Vermonters of all income levels and to enable Vermonters in all regions of the state to make informed decisions about cost-effective efficiency investments to benefit their households, businesses, and communities.
- **Make efficiency the standard** by ensuring that high-quality, efficient technologies and approaches are available and knowledgeably installed and serviced through: 1) training and support for building retrofit and new-construction designers, contractors, as well as the builders, retailers, installers, and service technicians to whom Vermonters turn for efficient services and products, and 2) maintenance of upstream relationships with and services to equipment manufacturers, distributors, and suppliers.
- **Benefit Vermonters** through involvement in state, regional, and national efficiency planning, policy, programming, and research efforts that have a lasting, positive impact.

The close of 2013 marked the completion of two of the three years in Efficiency Vermont's current performance period<sup>1</sup>. Fittingly, the energy-related savings acquired through Efficiency Vermont's efforts in these two years was at or above two-thirds of most key savings goals for the 2012-2014 period. Although this short-term alignment is neither a requirement nor an aim of Efficiency Vermont's long-term efforts, it is an indicator of strong progress toward overarching three-year goals.

---

<sup>1</sup> Efficiency Vermont's performance periods and savings goals are established with the Vermont Public Service Board, as discussed in Section 1.1.

Efficiency Vermont maintained this progress despite relatively slow energy savings results in the first half of 2013. Through its rigorous, ongoing monitoring of its performance, Efficiency Vermont was able to identify and reverse early 2013 results through aggressive program adjustments that increased participation. The positive momentum from these program modifications was expected to continue into the final year of the performance period.

Corresponding to energy savings amounts was the level of economic benefit to Vermont resulting from Efficiency Vermont's work. As detailed in Section 1.2, Efficiency Vermont's 2013 services resulted in \$59.1 million in net, lifetime economic value to Vermont. Although this single-year result was lower than the previous year's, a period-to-date figure of \$161.4 million<sup>2</sup> positioned Efficiency Vermont well for a successful 2012-2014 performance period yielding benefits of deep value to Vermont.

### 1.1 QUANTIFIABLE PERFORMANCE INDICATORS<sup>3</sup>

Efficiency Vermont continued to operate under a performance-based model. This model ties a significant portion of compensation to specific, aggressive goals in order to encourage high levels of performance, innovation, quality, and operational efficiency. These goals—for specified energy savings acquisitions, administrative performance elements, and other areas—are established with the Vermont Public Service Board as Quantifiable Performance Indicators (QPIs) for a three-year performance period. The results shown in **Table 1** reveal strong progress toward Efficiency Vermont's QPI goals for the 2012-2014 performance period. These results were achieved within the budget parameters set by the Vermont Public Service Board.

---

<sup>2</sup> In the first year of the 2012-2014 period, Efficiency Vermont's services resulted in \$102.3 million in net, lifetime economic value to Vermont. Source: Efficiency Vermont 2012 Annual Report.

<sup>3</sup> Unless otherwise noted, results provided in the narrative section of this report include Customer Credit data, but do not include savings from efficiency measures installed via Burlington Electric Department, Vermont Gas Systems, or the Green Mountain Power Energy Efficiency Fund.

**Table 1. Selected QPI results (approximated) and progress toward 2012–2014 goals<sup>4</sup>**

Key Quantifiable Performance Indicators (QPIs)	Funding Pool	Period to Date Results	3-year Goal	% of 3-year Goal Achieved
Electric savings (in megawatt-hours)	Electric Efficiency Charge	195,761	274,000	71%
Total Resource Benefits	Electric Efficiency Charge	\$202,188,622	\$315,710,000	64%
Summer peak kilowatt (kW) demand reduction	Electric Efficiency Charge	25,658	41,920	61%
Summer peak kW demand reduction in Geographic Targeting areas - St. Albans	Electric Efficiency Charge	1,269	1,800	71%
Summer peak kW demand reduction in Geographic Targeting areas - Susie Wilson Road	Electric Efficiency Charge	1,626	1,570	104%
Ratio of gross electric benefits to spending	Electric Efficiency Charge	2.3	1.2	190%
MMBtu Savings (in million British thermal units)	Thermal Energy and Process Fuel Revenues	132,261	155,000	85%

Efficiency Vermont also engaged in efforts related to an Administrative QPI plan, requiring continual assessment of operations and service delivery. This plan establishes performance indicators under two main categories:

- Management Span of Control, intended to optimize administrative efficiencies while ensuring continued market impact and effectiveness.
- Key Process Improvements, utilizing lean processes to provide value to customers by increasing efficiency.

<sup>4</sup> The total electric and MMBtu savings in this table may differ from the summed savings shown in the remainder of the narrative of this document, which reports the results of efforts funded by both the Energy Efficiency Charge and Thermal Energy and Process Fuel revenues.

In 2013, Efficiency Vermont:

- continued to exceed the target metric for management span of control;
- trained 30% of staff on lean processes and value stream mapping, and
- met a 2013 milestone requirement of the Administrative QPI plan by completing value stream mapping workshops and establishing baseline performance metrics for six key processes:
  - Prescriptive Process (2012 completion)
  - Metering Process (2012 completion)
  - Demand Resources Plan Proceeding
  - Engineering Custom Project Process
  - Home Performance with ENERGY STAR® Process
  - Residential New Construction Process

Full results of QPI activities are provided in Section 3.3 through Section 3.6 of this report.

## 1.2 ECONOMIC BENEFITS

Efficiency Vermont continued to provide a solid economic value for Vermonters. One measure of this value can be seen in the benefit-to-cost ratio, which was 1.83 to 1. **Table 2** shows the factors that contributed to this ratio.

**Table 2. Net lifetime economic value of electric and thermal energy efficiency investments in 2013**

Benefits	\$107,300,000	Total Resource Benefits
	\$22,900,000	Operations and maintenance savings
	\$130,200,000	<b>Total Benefits</b>
Minus Costs	\$37,100,000	Efficiency Vermont resource investments
	\$33,900,000	Participant and third-party investments
	\$71,000,000	<b>Total Costs</b>
Equals Net Benefits	<u>\$59,200,000</u>	<b>Net Lifetime Economic Value to Vermont</b>

Total Resource Benefits in 2013 for Efficiency Vermont’s reporting categories:

Business New Construction	\$17.5 million
Existing Businesses	\$47.6 million
Retail Efficient Products	\$20.7 million
Residential New Construction	\$7.1 million
Existing Homes	\$10.2million
Customer Credit	\$4.2 million



Efficiency Vermont delivered excellent value compared to the costs of other sources of energy<sup>5</sup>:

- Efficiency Vermont supplied electric efficiency in 2013 at 4.2 cents per kilowatt-hour (kWh). Taking into account participating customers' additional costs and savings, the levelized net resource cost of saved electric energy in 2013 was 1.2 cents per kWh. By contrast, the cost of comparable electric supply in 2013 was 8.4 cents per kWh.
- Efficiency Vermont's efforts focused on thermal energy and process fuels (TEPF) supplied fossil fuel efficiency in 2013 at less than \$10 per million British thermal units (MMBtu). Taking into account participating customers' additional costs and savings, the levelized net resource cost of fossil fuel saved through efficiency in 2013 was \$16 per MMBtu, whereas the avoided cost for that fuel was \$27 per MMBtu.<sup>6</sup>

Investments in energy efficiency continued to strengthen local businesses and to secure jobs. For example, Vermont's 70 Home Performance with ENERGY STAR and Building Performance contractors completed approximately 1,190 projects with a value of \$8.5 million in 2013. Efficiency Vermont also helped retailers statewide to promote and sell efficient products that strengthen their bottom line. In 2013, local retail sales of energy-efficient appliances, lighting, and consumer electronics promoted by Efficiency Vermont totaled approximately \$13.8 million.

### 1.3 ELECTRIC EFFICIENCY SAVINGS<sup>7</sup>

Energy savings resulting from electric efficiency measures installed in 2013 provided an estimated 1.58% of Vermont's overall electric energy requirements for the year. This percentage represents approximately \$11.7 million in retail value, annually, based on a rate of 13 cents per kWh<sup>8</sup>. **Figure 1** and **Figure 2** show Vermont's history of energy savings from electric efficiency measures.

---

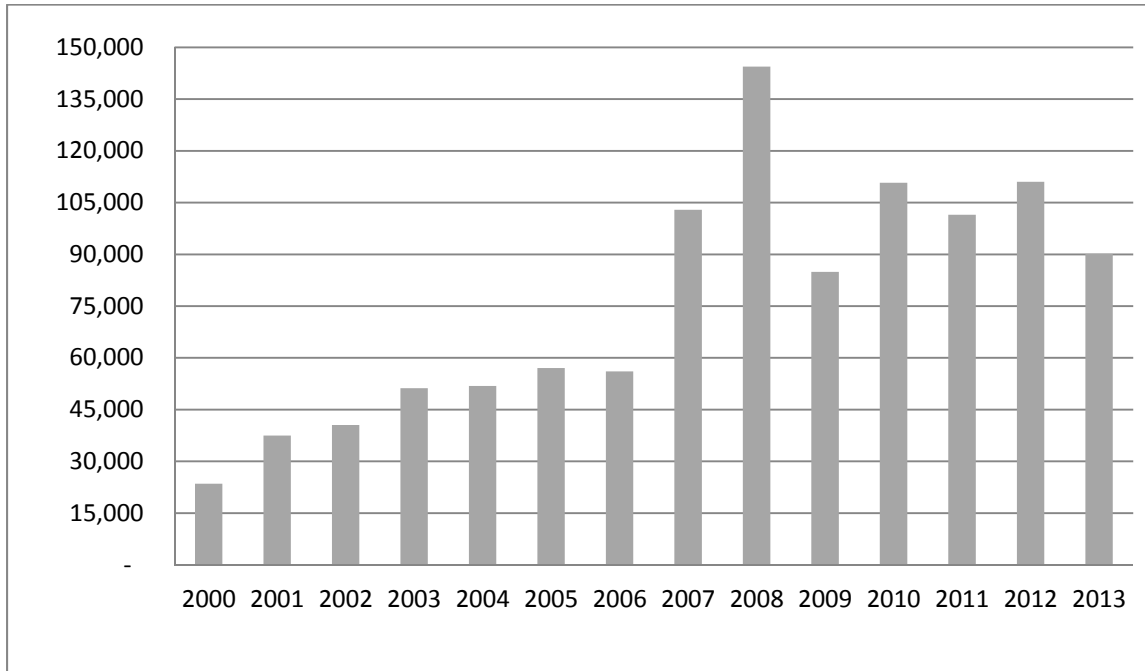
<sup>5</sup> Numbers in the two ensuing bulleted items do not include Customer Credit. The "levelized net resource cost of saved electric energy" comprises: 1) Efficiency Vermont costs of delivery, plus customer and third-party contributions to measure costs, all adjusted to reflect the comparative risk adjustment of 10% adopted by the Vermont Public Service Board in Docket 5270, and 2) costs or savings associated with fuel, water, and building operation and maintenance.

<sup>6</sup> The levelized net resource cost of fossil fuel savings were off by a factor of 1,000 in the original filing. These values were updated on May 27, 2015.

<sup>7</sup> All data in Section 1.3 includes savings from efficiency measures installed v Burlington Electric Department and the Green Mountain Power Energy Efficiency Fund, with the exception of Figure 1, which includes only Efficiency Vermont results.

<sup>8</sup> This represents a blended average of commercial, industrial, and residential rates.

**Figure 1. Efficiency Vermont annualized megawatt-hour savings**

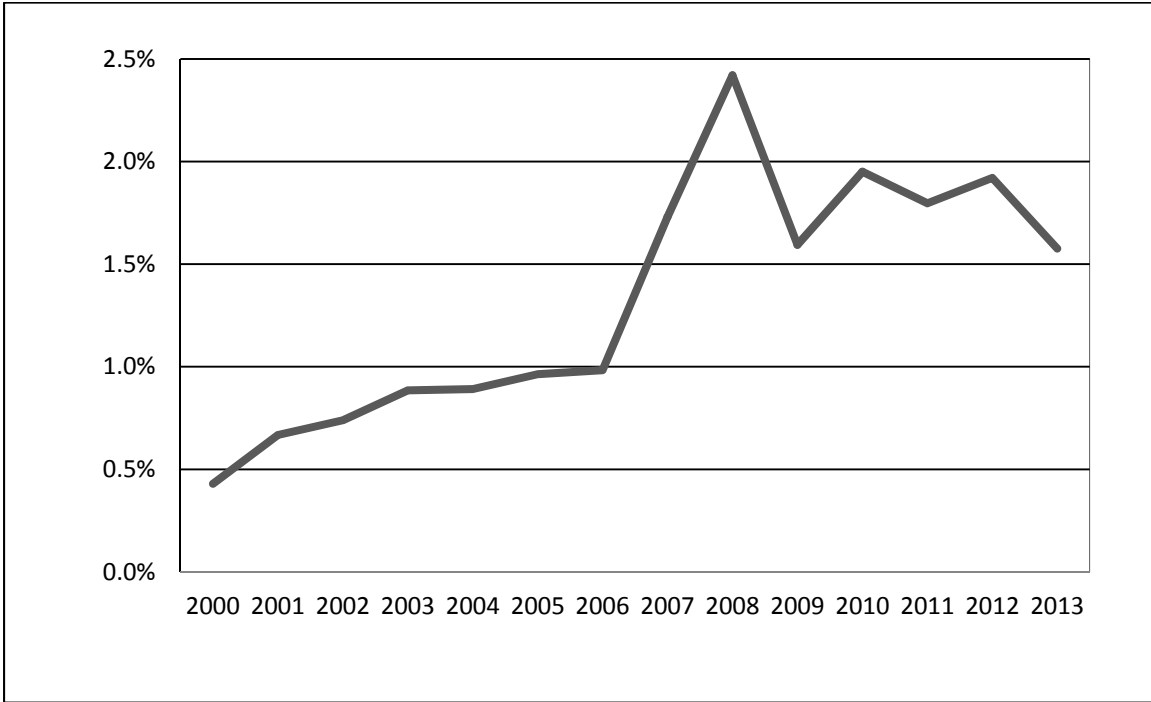


Cumulatively, efficiency measures installed since 2000 provided 930 gigawatt-hours<sup>9</sup> of savings for Vermont by the end of 2013. This figure represents 12.8% of the state’s estimated electric energy requirements, with a retail value of more than \$107.6 million, based on a rate of 13 cents per kWh. As the lowest-cost approach to fulfilling these requirements, energy efficiency significantly strengthens Vermont’s ability to limit energy cost increases and corresponding consumer rate hikes. This impact becomes greater as the share of energy needs supplied by efficiency increases. **Figure 3** shows the increasing percentage of Vermont’s annual electric needs met by efficiency savings.

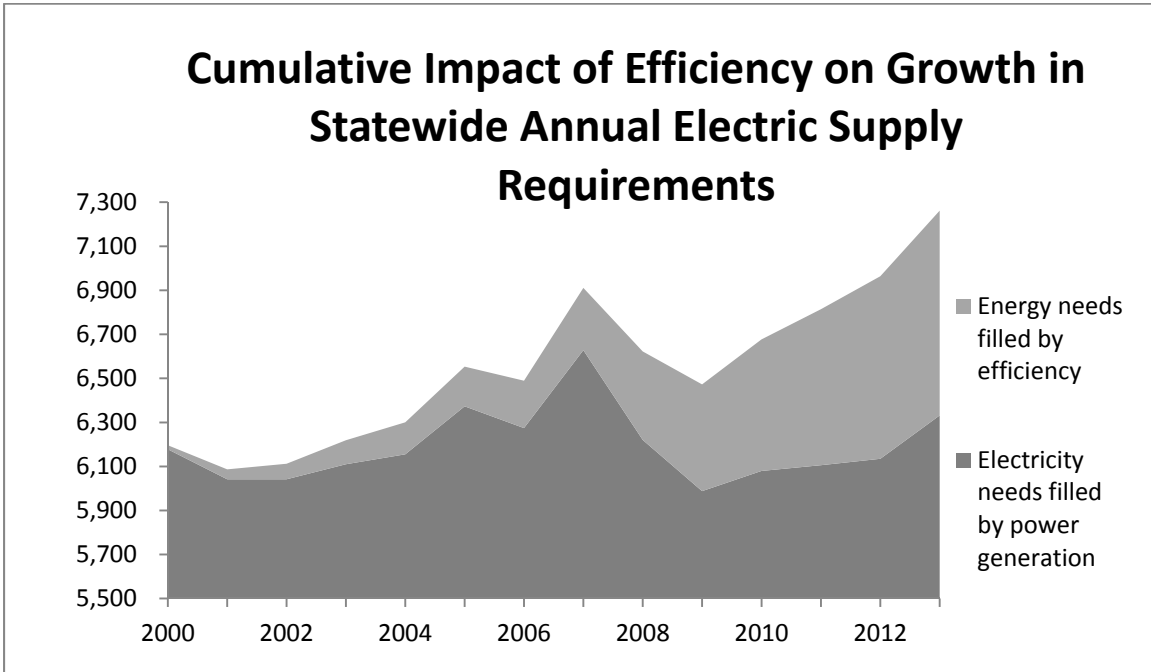
Energy efficiency also provided significant benefits to Vermonters via avoided or deferred transmission and distribution investments. According to the Vermont Electric Power Company, the combination of aggressive energy efficiency and local distributed generation in Vermont resulted in \$400 million in projects being deferred across the region overseen by the Independent System Operator - New England (ISO-NE). These savings benefited all ratepayers; participant and non-participant alike.

<sup>9</sup> This number is the sum of efficiency measures reported by Efficiency Vermont, Burlington Electric Department, Customer Credit, GMP Energy Efficiency Fund and GMP Community Energy & Efficiency Development Fund.

**Figure 2. Savings from efficiency as a percentage of statewide electric resource requirements**



**Figure 3. Vermont's annual electric needs, in gigawatt-hours**



In accordance with Vermont Public Service Board and statutory requirements, the funding source for Efficiency Vermont’s electric efficiency services was separate and distinct from funding sources for efficiency services related to unregulated TEPF (also referred to as “thermal efficiency” services). Electric services were funded through the Energy Efficiency Charge, whereas TEPF services were funded by Vermont’s Regional Greenhouse Gas Initiative (RGGI) revenues and by revenues earned from meeting electric capacity commitments (demand savings) bid into the regional grid’s Forward Capacity Market (FCM). The Efficiency Vermont administrator, the Vermont Energy Investment Corporation, bids these expected demand savings into the FCM on behalf of the State of Vermont. Efficiency Vermont ensured that, from the customer’s perspective, provision of services was seamless, regardless of the funding source. In 2013, 13% of Efficiency Vermont spending<sup>10</sup> drew from TEPF funding sources. More detailed budget information is provided in Section 3.2.

#### 1.4 THERMAL ENERGY AND PROCESS FUEL EFFICIENCY SAVINGS<sup>11</sup>

Efficiency Vermont provided thermal energy and process fuel (TEPF) efficiency services in addition to electric efficiency services, helping Vermont homes and businesses to reduce their fossil fuel use and allowing for a comprehensive approach to energy savings. Savings in 2013 from TEPF-funded services totaled approximately 53,900 MMBtu, acquired through such services as:

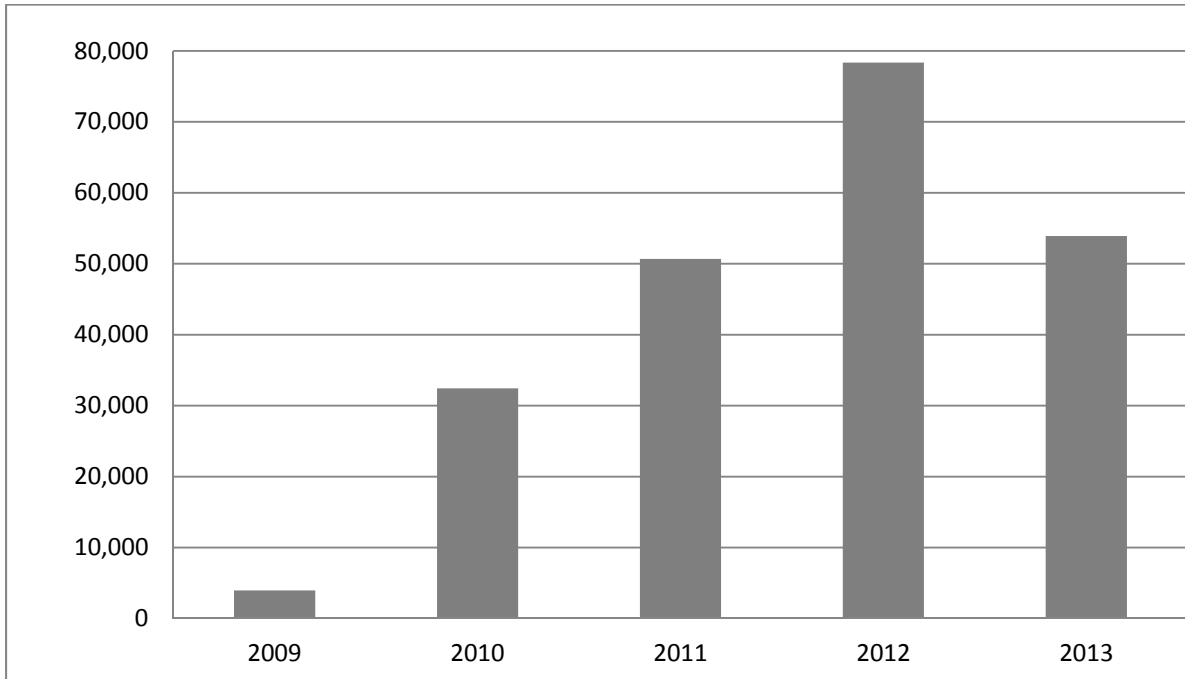
- Home Performance with ENERGY STAR and its business-facility counterpart, Building Performance, supplying building improvements that cut heating fuel use;
- technical information and financial incentives for high-efficiency residential and commercial heating equipment, including biomass systems, and
- thermal project partnerships with Vermont Gas Systems, the Green Mountain Power (GMP) Community Energy & Efficiency Development Fund and NeighborWorks® of Western Vermont, as well as with the Vermont Fuel Efficiency Partnership and Vermont’s Weatherization Program, both of which focus on service to low-income households.

---

<sup>10</sup> Excluding smart grid carryover funds.

<sup>11</sup> Savings data in this section do not include Customer Credit.

**Figure 4. Efficiency Vermont’s annual thermal energy and process fuel savings, in MMBtu**



As noted in Section 1, 2013 energy savings occurred in a year of aggressive third- and fourth-quarter program adjustments that corrected initially slow participation. At the close of 2013, Efficiency Vermont had reached 85% of its target for cumulative TEPF savings at the two-year mark of its 2012-2014 performance period.

In June 2013, Section 209(e)(2) of Act 89 became effective, requiring the allocation of program costs among the funding sources for the regulated and unregulated fuel sectors in proportion to benefits provided to each sector. Accordingly, Efficiency Vermont shifted more of the burden of residential and business thermal costs to TEPF funding, thereby effectively reducing available TEPF funding. Efficiency Vermont's TEPF services were aligned with requirements specified by the Vermont Public Service Board and also supported Vermont State energy policy goals as outlined in Section 581 of Act 92 (the Vermont Energy Efficiency and Affordability Act, enacted in 2008) and the 2011 Vermont Comprehensive Energy Plan. A key provision of Act 92 is improving the energy fitness of 80,000 homes by 2020. Although TEPF funding levels were not sufficient on their own to achieve these numbers, Efficiency Vermont continued to design TEPF services to be scalable to levels consistent with these public policy goals.

## 1.5 ENVIRONMENTAL BENEFITS

In addition to energy savings and economic benefits, Efficiency Vermont’s performance in 2013 provided benefits for Vermont’s environment. These benefits resulted from avoided emissions associated with the use of fossil fuels for electricity generation, heating, and industrial processing equipment. Efficiency’s role in pollution prevention is of particular note in times of peak electricity demand, when additional fossil fuel-fired power plants are brought on line. In these times, efficiency measures—such as the use of efficient air conditioners instead of inefficient models during a heat wave—provide their optimal environmental benefit. Avoided pollutants over the lifetime of measures:

Carbon dioxide	690,000 U.S. tons
Nitrogen oxides	69 U.S. tons
Sulfur oxides	25 U.S. tons

Avoidance of these pollutants resulted in a combined environmental benefit equal to that of taking 131,800 gasoline-powered cars off the road for a year.

## **2. 2013 ACTIVITIES**

## 2. 2013 ACTIVITIES

Efficiency Vermont designed and delivered customer-focused services to make it as simple as possible for all Vermonters to obtain the benefits of comprehensive energy efficiency. Central to these services were Efficiency Vermont's objective guidance and technical expertise.

In 2013, Efficiency Vermont received three exemplary program awards from the Washington, D.C. based nonprofit, the American Council for an Energy-Efficient Economy. The awards, presented every five years, recognized the following Efficiency Vermont services as among the best in the nation:

- Low-income
- Retail efficient products; residential lighting
- Residential new construction – award shared with partner Vermont Gas Systems

### 2.1 BUSINESS, INSTITUTIONAL, AND MUNICIPAL FACILITY SERVICES

Savings acquired by Vermont businesses, institutions, and municipalities working with Efficiency Vermont in 2013 totaled approximately 51,000 megawatt-hours (MWh) and 77,900 MMBtu from 2,860 projects delivering Total Resource Benefits of \$65.1 million to approximately 2,500 customers. The average anticipated return on investment for commercial efficiency improvements in 2013 was 36%.

The above results were achieved through Efficiency Vermont's activities undertaken in support of the construction of new high-performance commercial buildings (discussed in Section 2.4.1) and in service to existing commercial facilities. Highlights of efforts in existing buildings follow here.

#### 2.1.1 VERMONT'S LARGEST ENERGY USERS

Efficiency Vermont maintained its customized approach to serving the state's largest energy users, which are defined by their use of more than 500 MWh of electricity per year. Efforts included:

##### **Account Management**

Designated Efficiency Vermont staff, with specialized knowledge of working with large energy users, continued to establish and maintain long-term, proactive professional relationships with individual businesses. Through this approach, Efficiency Vermont gained an understanding of companies' particular priorities and was able to design and deliver customized services. These services included help in creating comprehensive portfolios of



savings opportunities, technical and financial analyses, guidance in developing energy savings plans, and assistance in assessing and utilizing energy usage data.

In addition to working with individual customers in 2013, Efficiency Vermont:

- held two Vermont Facilities Exchange Experience meetings, in service to facility managers for institutions and large educational campuses;
- held three Best Practices Exchange forums around Vermont, to enable firsthand information sharing between Efficiency Vermont and account-managed customers,
- continued the creation of an e-newsletter for this sector, and
- achieved the aims of its annual Customer Advisory Group in the course of individual customer meetings and, so, postponed convening for the year. The aims of the group are to: 1) reinforce the partnerships between Efficiency Vermont and customers; 2) enable customers to provide feedback about their needs and priorities and about Efficiency Vermont communications and services, and 3) enable Efficiency Vermont to use feedback to better tailor approaches to meet customers' needs.

Such approaches aimed to best position businesses to: 1) deepen savings; 2) successfully complete multiple projects over time; 3) utilize best practices in energy use management, and 4) engage in continuous energy improvement, which helps customers look holistically at their energy use to obtain sustainable and verifiable energy savings. In 2013, more than 225 businesses were served through Account Management, garnering a combined savings of \$4.2 million in annual energy costs from measures completed in 2013.

### **Energy Leadership Challenge**

Efficiency Vermont completed its initiative designed to encourage Vermont's largest energy users to reduce their electricity consumption by 7.5% over the course of two years. The 69 companies that participated in the Energy Leadership Challenge (ELC) achieved savings of more than \$5.4 million in annual energy costs from the 2011 ELC launch through its completion in July of 2013. All participating companies increased their use of energy management practices.

#### **2.1.2 SMALL BUSINESSES**

Efficiency Vermont continued to design and implement services targeting the particular needs of small businesses, providing businesses using up to 100 MWh per year with:

- technical guidance and education about efficiency opportunities, technologies, and financial solutions through direct customer interaction and strategic outreach via numerous avenues, including business media placements, chambers of commerce, business associations, and utility partners;
- thermal efficiency services through Building Performance. This service, modeled after Home Performance with ENERGY STAR, provides incentives to qualifying small

businesses and rental property owners completing efficiency improvements with certified Building Performance contractors, and

- phone consultations, through the Customer Support Department, designed to help small businesses identify savings opportunities. Efficiency Vermont launched this depth of service in 2013, with an initial 180 businesses.

### 2.1.3 TARGETED MARKETS

For large and small commercial customers alike, Efficiency Vermont continued to implement targeted initiatives — each with its particular approaches, energy-saving measures, and incentives — to address the priorities, challenges, and motivations of specific markets. These markets were: agriculture, colleges & universities, commercial real estate, convenience stores, grocery stores, hospitals, K–12 schools, lodging facilities, restaurants, retail stores, ski areas, State buildings, and water & wastewater facilities.

Highlights of activities in selected targeted markets follow. These highlights provide a glimpse of 2013-specific activities that were undertaken concurrently with ongoing targeted services to each market.

#### **Agriculture**

Efficiency Vermont conducted a pilot light-emitting diode (LED) lighting program with seven farms. By year-end, six of the farms had completed installations of a variety of LED light fixtures in their animal housing. Efficiency Vermont monitored these installations to determine fixture quality, light output, and fixture durability. Pilot results will be used to develop an LED offering for this market. Also, in response to customer feedback and in an effort to capture missed savings opportunities, Efficiency Vermont started offering custom services to encourage the installation of efficient exhaust ventilation equipment and circulation fans.

#### **Colleges & Universities**

Efficiency Vermont helped higher-education institutions that were starting to use their newly created Green Revolving Funds (GRF) to finance campus energy efficiency projects. As noted in Section 2.4.7, Efficiency Vermont's GRF efforts are among those that leverage a modest amount of energy efficiency utility resources to draw higher amounts of new project funding without additional ratepayer investment. In addition, through Account Management relationships in each institution, Efficiency Vermont identified several areas of opportunity for future savings that will be explored in 2014 to determine potential. These include data centers, commercial kitchens, and lighting controls.

## **Convenience Stores**

To significantly streamline participation for customers in this market, Efficiency Vermont made a change enabling all convenience store project rebates to be processed through standard rebate forms. The multiple benefits of this change include empowering the customer with immediate information about incentive levels, a single point of entry, no analysis delay, and greater process clarity with no loss of options for custom projects or technical review. Efficiency Vermont also launched a multisite project completion bonus incentive for chains owning between 30 and 50 stores.

## **Grocery Stores**

To find deeper and more comprehensive savings and to increase participation, Efficiency Vermont launched the Grocery Audit Initiative (GAI), which was implemented by a contractor. The GAI measured and analyzed store energy use for all systems and their interactive effects. The effort was implemented to model a continuous engagement process, which Efficiency Vermont will use in engaging customers in ongoing improvements and to further train contractors serving this market. A total of 25 stores were audited by year-end and resulting information was transferred to Efficiency Vermont for follow-up services. Efficiency Vermont also partnered with the Vermont Grocers' Association (VGA) to have a presence at the VGA Food Industry Expo drawing 1,000 attendees. In addition, with VGA and the Vermont Retail Association, Efficiency Vermont hosted a workshop on store energy performance, a webinar on energy cost reduction, and a webinar on the GAI.

## **Hospitals**

In 2013, Efficiency Vermont successfully enrolled every hospital in the state in the national Healthier Hospitals Initiative (HHI), making Vermont the first state in the nation with 100% participation. The HHI calls on each hospital to reduce its energy consumption by 3%, 5%, or 10% by 2015. In alignment with the HHI and the newly passed Vermont Act 79 — requiring hospitals to create, implement, document, and track an Energy Action Plan (EAP) — Efficiency Vermont presented a "Vermont Healthier Hospitals" workshop, which included information on energy reduction approaches, the provision of an EAP template, one-on-one assistance, and mechanisms for documenting and tracking energy use reductions. By year-end, four hospitals had declared their aim to achieve ENERGY STAR status within three years, making them the first to target this designation in Vermont.

## **K–12 Schools**

In partnership with the Vermont Superintendents Association, Efficiency Vermont launched Project Green School, which aims to help all Vermont schools achieve ENERGY STAR status. The launch was highlighted by an event honoring 11 schools in Vermont which, through partnerships with Efficiency Vermont, had already upgraded their facilities and received ENERGY STAR designation. Also, Efficiency Vermont and the Vermont Agency of Education (VAE) jointly published and distributed a document providing K-12 schools with strategies for optimally effective and efficient classroom lighting. The publication was the result of

2012 classroom lighting research conducted by Efficiency Vermont with support from the VAE. Efficiency Vermont also continued to conduct the Whole School Energy Challenge in partnership with the Vermont Energy Education Program and the VSA's School Energy Management Program. Initiated in 2011, the challenge engaged teams of students, administrators, teachers, and facility staff in implementing an energy-saving action plan. By the close of 2013 – two and a half years into the challenge – 13 Vermont schools were actively engaged, reducing their electricity use by an average of approximately 7%.

### **Ski Areas**

Efficiency Vermont conducted significant amounts of snow gun testing in the first and fourth quarters of the year. Results of the first-quarter testing were shared at the National Ski Areas Association Eastern Show, at which Efficiency Vermont presented as part of a panel on sustainability. Efficiency Vermont continued to implement its Account Management services with the largest of the state's resorts, taking a holistic approach encompassing saving opportunities in kitchens and building projects. Efficiency Vermont also met with the board of the Vermont Ski Areas Association to ascertain current industry needs and best methods to communicate valuable snow gun testing data.

### **State Buildings**

Efficiency Vermont continued its efforts to obtain savings in State-operated buildings in collaboration with the Environmental Office of the Vermont Department of Buildings and General Services (BGS). These efforts were in alignment with the goals of the 2010 State Agency Energy Plan.

2013 began in a period of ongoing rebuilding of State facilities following Tropical Storm Irene. Efficiency Vermont participated as a partner in efficient redesign and reconstruction efforts, including such projects as the near-net-zero<sup>12</sup> Bennington Welcome Center, the new State Hospital facility, the University of Vermont/State Health Lab, and the Waterbury Complex. Midyear saw an increased return of State resources to existing buildings. The BGS, the Vermont State Treasurer's Office, and Efficiency Vermont worked to develop a cohesive energy management plan for State buildings. As a result, BGS has identified a goal to achieve ENERGY STAR certification in all eligible state buildings.

Also in 2013, Efficiency Vermont assisted the BGS in securing an authorized supplier for LED lighting through a request-for-proposal process, with additional review and support from Optimal Energy, to accelerate the process of transitioning the State lighting inventory to LEDs wherever appropriate.

---

<sup>12</sup> A net-zero property generates as much energy as it uses. When a building achieves net-zero energy use, all its consumption needs are met through energy efficiency and renewable energy systems.

## **Water & Wastewater Treatment Facilities**

Efficiency Vermont's comprehensive process audits of treatment facilities proved highly effective in 2013. Most notable was Efficiency Vermont's identification, in a large industrial wastewater facility, of sizable electricity savings that made a planned multimillion-dollar upgrade unnecessary. Also in 2013, Efficiency Vermont held industry roundtable meetings centered on continuous energy improvement.

### **2.1.4 KEY COMMERCIAL TECHNOLOGIES**

Efficiency Vermont continued its efforts to increase the adoption of efficiency technologies with the potential to provide significant benefits in a wide range of commercial applications. In addition to energy savings, these benefits include greater building occupant comfort and safety, increased sales and customer loyalty, improved working and learning environments, better indoor air and lighting quality, less tenant turnover, greater building durability, lower maintenance costs, and higher resale value. Highlights of activities in 2013:

#### **Commercial Lighting**

Efficient lighting technologies and design continued to offer significant savings opportunities thanks to their broad applicability across commercial markets. Efficiency Vermont engaged in partnerships with lighting distributors and manufacturers, monitored and evaluated emerging lighting technologies (for possible inclusion in services), and provided technical guidance and promotions regarding a range of approaches, including:

- efficient technologies in place of standard T8 lighting systems;
- efficient exterior lighting, including municipal street lighting;
- lighting controls;
- LEDs in appropriate applications, and
- partnerships with lighting design professionals to maximize savings.

Key activities in 2013:

- To increase customer savings opportunities, Efficiency Vermont completed enhancements to the RELIGHT program, which provides incentives to customers working with lighting designers. Changes included reducing square footage requirements, increasing non-school audit rebate levels, and clarifying audit information. Both the RELIGHT program and the SMARTLIGHT program (discounted replacement lighting for contractors and business customers offered through distributors) ended the year with a strong uptick in participation.
- Efficiency Vermont's Municipal Street Lighting Program, in partnership with GMP, completed LED installation projects in 25 communities. This success followed the late 2012 deferral of multiple projects due to the lowered availability of crews providing aid to southern New England utilities following Hurricane Sandy.

## **Heating, Ventilation, and Air Conditioning (HVAC)**

Efficiency Vermont's HVAC efforts were designed to encourage the installation of high-efficiency equipment and the optimization of entire systems. In 2013, Efficiency Vermont launched a study to evaluate the savings potential of retrofitting specified commercial, rooftop air conditioning units with advanced controllers, in parallel with encouraging customers to replace end-of-life equipment with equipment built to new U.S. Department of Energy high-efficiency standards.

A significant focus in 2013 was on building and strengthening relationships with manufacturers and distributors, and leveraging advances in heat-pump, efficient motor, and control technologies. Discussion of these supply chain efforts can be found in Section 2.4.3 of this report.

Efficiency Vermont's 2013 efforts included an increased level of activity regarding heat pump technologies. Efficiency Vermont:

- created the industry's first efficiency standards for cold-climate heat-pump technology;
- provided technical advice to large commercial facilities about heat pump technologies;
- established a heat-pump strategy team, tasked with identifying and addressing challenges and opportunities related to increasing the adoption of this efficient technology in Vermont, and
- launched a high-performance circulator pump initiative — paying distributors to bring efficient pump prices in line with traditional units — and laid the groundwork for a 2014 heat-pump water heater offering. Both of these efforts are described in Section 2.4.3.

## **Combined Heat and Power**

Efficiency Vermont provided technical and financial assistance to customers engaged in, or planning, combined heat and power (CHP) projects. In the third quarter, Efficiency Vermont also initiated feasibility studies in the healthcare, industrial, and wastewater markets to determine the applicability of CHP at several facilities around the state.

## **Industrial Process Equipment**

Efficiency Vermont continued to work with Vermont manufacturers and other businesses to identify improvements for pumps, motor controls, aeration technologies, and such systems as compressed air, and process heating and cooling.

## 2.2 RESIDENTIAL SERVICES

### 2.2.1 EXISTING AND NEW LOW-INCOME HOUSING

Efficiency Vermont's efforts in service to low-income households were undertaken in close collaboration with long-standing partners: 1) low-income housing and service providers, including the Vermont Foodbank; 2) agencies of Vermont's Weatherization Program; 3) affordable housing funders, including the Vermont Housing and Conservation Board (VHCB) and the Vermont Housing Finance Agency (VHFA), and 4) multifamily housing developers, including Housing Vermont. In 2013, Efficiency Vermont:

- initiated a service to replace inefficient refrigerators with new, efficient units in partnership with the Vermont Department of Health's Women, Infants, and Children nutrition program;
- coordinated with multiple partner organizations in the distribution of efficient lighting. Partners included the Vermont Foodbank, Boys & Girls Club, Vermont Affordable Housing Coalition, Vermont Refugee Resettlement Program, Salvation Army, Habitat for Humanity ReStore and the Korean People Association of Vermont;
- continued to coordinate with the Central Vermont Community Action Council in support of the Vermont Fuel Efficiency Partnership to improve the energy efficiency of multifamily buildings housing low-income Vermonters, and
- Launched the pilot High-Performance Mobile Home initiative, partnering with the Vermont Housing Conservation Board, the Champlain Valley Office of Economic Opportunity, the University of Vermont, the High Meadows Fund, the Vermont Community Foundation, and Vermod High Performance Manufactured Housing (a Vermont mobile home manufacturer) to design and create the first high-performance mobile home. Initially designed as a replacement alternative for mobile homes damaged or destroyed by Tropical Storm Irene, this structure meets Efficiency Vermont's High-Performance Home criteria and provides a home that is extremely durable, healthy, comfortable, and affordable: Monthly energy costs are expected to be less than \$16. The high level of efficiency built into these homes ensures that operating costs remain low over time and, with minimal solar equipment, the homes approach net-zero.

### 2.2.2 EXISTING MARKET-RATE HOMES

In 2013, in an effort to increase participation and efficiency awareness as well as to reach underserved populations, Efficiency Vermont distributed energy savings kits to approximately 3,190 single-family and multifamily homes. Each kit included a CFL, an advanced power strip, water-saving devices, and information on saving energy. A survey was also included, to capture data on resulting energy-saving actions. Efficiency Vermont identified interested parties through community events, schools, [www.encyvermont.com](http://www.encyvermont.com), Customer Support staff, mailings to customers with recently completed efficiency projects, and direct-mail outreach to targeted counties.

## **Single-Family Homes**

Efficiency Vermont continued to help homeowners make comprehensive, efficient home improvements through its Home Performance with ENERGY STAR program. Efficiency Vermont provided support for contractor training through the Building Performance Institute (BPI), offered financial incentives to homeowners who completed projects with BPI-certified contractors, and engaged in program promotions. BPI efforts are discussed in greater depth in Section 2.4.2.

## **Multifamily Homes**

To educate, motivate, and assist decision makers connected to market-rate multifamily housing, Efficiency Vermont provided services targeting these properties' owners. Services included:

- technical and financial support for energy audits and comprehensive building upgrades delivered by contractors trained through Efficiency Vermont's Building Performance program, as described in the discussion of Vermont's small businesses in Section 2.1.2;
- prescriptive rebates for efficient equipment, and
- dissemination of information to property owners about efficient technologies and available services through the Vermont Apartment Owners Association and the Vermont Rental Property Owners Association.

## **2.3 SERVICES TO GEOGRAPHICALLY TARGETED AREAS**

Efficiency Vermont provided services targeting parts of St. Albans, Essex, and Colchester owing to these areas' transmission and distribution capacity constraints. Undertaken to benefit all Vermont ratepayers, these services focused on highly cost-effective reduction of system peak capacity demands, to help postpone or avoid the need for system infrastructure upgrades.

Services encouraged efficient approaches to new construction, retrofits, and equipment replacement, including a focus on LED lighting. Efficiency Vermont first focused on customers with the largest summer peak demand load, through individualized customer Account Management and customized peak demand reduction projects. In addition to this commercial and industrial focus, Geographic Targeting efforts were undertaken in service to small and medium-sized businesses, farms, schools, and municipal new construction and development.

By the end of 2013, Efficiency Vermont had surpassed its three-year performance target in the Susie Wilson Road Geographically Targeted area. The Vermont Systems Planning Committee issued a recommendation, to the Vermont Public Service Board, to discontinue



Geographic Targeting services to this area owing to a lower load forecast. A number of factors, including slower load growth, contributed to this updated forecast.

## 2.4 ACTIVITIES IN SERVICE TO MULTIPLE CUSTOMER SECTORS

While targeting specific markets, as described above in Sections 2.1 through 2.3, Efficiency Vermont also provided services with an impact on multiple sectors. This approach continued to be essential to the achievement of Efficiency Vermont's market transformation and energy savings goals.

A key element of this cross-sector approach was Efficiency Vermont's ongoing partnering with the businesses that Vermonters turn to for efficient products and services. These partnerships, although not always evident to the general public, have a profound impact on Vermonters' ability to lower energy use in their homes and places of business. The commitment and skill of these partners continued to be fundamental to the success of Efficiency Vermont's aims. Efforts with these providers included coordinated planning, program creation, information exchange, training, financial incentives, and cooperative advertising. These partnerships continued to enable Vermont homes and businesses to have access to a valuable network of knowledgeable providers while strengthening these providers' bottom line.

### 2.4.1 SERVICES TO DESIGNERS AND BUILDERS OF NEW BUILDINGS

Efficiency Vermont's support for the creation of efficient new buildings continued to focus primarily on the professionals engaged in architectural design and construction. These included architects, engineers, specialty design service providers, and practitioners of construction trades. Efficiency Vermont also engaged in efforts targeting equipment suppliers, installation contractors, commissioning agents, appraisers, lenders, and real estate agents, as well as certain building owners as key members of project teams, particularly in regard to construction undertaken by institutions, by government agencies, and by large businesses with multiple buildings. In addition, Efficiency Vermont recognized and publicized exceptional achievement by design and construction practitioners through its annual *Best of the Best* awards for new high-performance buildings and homes.

#### **Business New Construction**

Efficiency Vermont maintained its delivery of customized and streamlined services to encourage a comprehensive approach to designing efficient buildings; integrating energy efficiency decisions into the process and including energy goals as part of the overall building goals from the earliest stages of a project. Efforts included:

- technical assistance through the design, construction, and post-construction phases;
- analytical tool development and application to evaluate efficiency options;

- prescriptive and customized financial incentives for efficient approaches, equipment, and building operation systems;
- post-occupancy performance tracking and engagement with building owners to identify ongoing and future savings opportunities;
- leveraging of customer interest in green building, energy performance, and green rating systems such as Leadership in Energy and Environmental Design (LEED);
- training and information provision to a range of key parties involved in new construction projects, and
- continued partnerships with national, regional, and international organizations, such as the American Council for an Energy-Efficient Economy, the Consortium for Energy Efficiency, the Construction Specifications Institute, the Institute for Market Transformation, the International Code Council, and the New Buildings Institute.

In 2013, Efficiency Vermont:

- launched a new campaign encouraging project enrollment early in the design process, offering customers guidance on setting energy goals, and including a path toward accomplishing net-zero construction;
- hosted the first meeting of the Design Professionals Advisory Group, initiated to provide critical feedback on Efficiency Vermont's programs and services, gain insight into industry trends and needs, and better understand the opportunities for partnering with design professionals to advance high-performance design and construction best practices, and
- conducted training sessions on Act 250 requirements and on high-performance new construction.

## **New Homes**

To assist builders and owner-builders in meeting and exceeding Vermont Residential Building Energy Standards, while promoting low-load and net-zero building practices, Efficiency Vermont offered services in support of the construction of homes meeting specific levels of energy performance. Services included technical guidance, energy rating services, and financial assistance. Tiers, in increasing order of energy performance, were:

- Energy Code Plus: Homes exceeding Vermont code requirements for energy efficiency and receiving certification for Home Energy Rating and Vermont Residential Building Energy Standards.
- Vermont ENERGY STAR Homes: Homes achieving national ENERGY STAR Home certification and meeting elevated criteria for thermal and electric efficiency and water management.
- High-Performance Homes: In 2013, Efficiency Vermont initiated a pilot third tier. These homes are defined by having reached a high level of energy efficiency that makes them well-suited to achieve net-zero energy use with the incorporation of renewables.

Also in 2013, Efficiency Vermont:

- incorporated an enhanced incentive into the Energy Code Plus tier in an effort to encourage increased participation by builders and homeowners;
- undertook value stream mapping to assess areas of program delivery for process improvement;
- leveraged relationships with building supply firms and Green Mountain Power to distribute information to customers building new homes;
- received national recognition for its Residential New Construction program, which was named an exemplary program by the American Council for an Energy-Efficient Economy. Vermont Gas Systems was recognized as a program co-sponsor, and
- was awarded a 2013 *ENERGY STAR Leadership in Housing Award*.

### **New Construction Information and Education**

Efficiency Vermont continued to provide energy efficiency information and education to professionals and tradespeople involved in new construction and renovation projects through the Energy Code Assistance Center and the annual Better Buildings by Design Conference. Discussion of these efforts can be found in Section 2.5.1.

#### **2.4.2 SERVICES TO BUILDING IMPROVEMENT CONTRACTORS**

Efficiency Vermont continued to support the Building Performance Institute (BPI) in training Vermont contractors to identify and address a range of thermal and electric efficiency issues in buildings. With this training, contractors become certified to deliver comprehensive retrofit efficiency services to residences, through Efficiency Vermont's Home Performance with ENERGY STAR program, and/or to small businesses and rental properties, through Efficiency Vermont's Building Performance program. Efficiency Vermont provides certified contractors with ongoing support through extensive program promotion, self-marketing training, listings on [www.encyciencyvermont.com](http://www.encyciencyvermont.com), and consumer financial incentives for projects completed by BPI certified contractors. Contractors also receive education through Efficiency Vermont's annual Better Buildings by Design Conference (discussed in Section 2.5.1). Efficiency Vermont recognized and publicized exceptional achievement by BPI-certified contractors through its annual *Best of the Best* awards for efficient retrofit projects.

In 2013, Efficiency Vermont:

- launched, in collaboration with the Vermont Fuel Dealers Association, the Efficiency Excellence Network (EEN). The EEN is designed to provide fuel dealers and HVAC contractors with training in home efficiency, enabling them to conduct home energy checkups and to advise customers looking for ways to reduce their heating bills. EEN members will be able to collaborate with Home Performance with ENERGY STAR contractors qualified to provide more in-depth guidance on energy usage, and to complete comprehensive home energy projects.

- through a partnership with the Green Mountain Power Community Energy & Efficiency Development Fund and the Vermont Fuel Dealers Association, participated in heat-pump training for contractors;
- presented a quarterly educational webinar series for contractors;
- piloted an online form, for Home Performance with ENERGY STAR customers, generating more than 500 inquiries addressed by Customer Support staff;
- invested in software upgrades for the Home Performance with ENERGY STAR and Building Performance programs. Systems began rollout in late 2013 and will continue throughout 2014 to improve program management, customer service, and program efficiency. The systems enable:
  - homeowners to do a streamlined self-audit and to choose a contractor online;
  - contractors to enter audit information on job sites through portable electronic devices, calculate energy savings potential, and standardize audit reports for customers;
  - improvements, by Efficiency Vermont, to program management capabilities and communications with contractors.
- successfully motivated increased participation in a slow market through:
  - a campaign offering limited-time project completion bonuses, supported by extensive promotions targeting homes and small businesses and alignment with the Vermont Home Energy Challenge (described in Section 3.4.6), and
  - outreach to stalled audits in municipal buildings.
- formed an Advisory Group consisting of contractors, utility representatives, and other stakeholders, to provide input for program planning.

#### 2.4.3 SERVICES TO EQUIPMENT SUPPLY CHAIN PARTNERS AND TECHNICIANS

In 2013, Efficiency Vermont:

- launched a high-performance circulator pump offering, paying distributors to bring efficient pump prices in line with traditional units. This buy-down — along with promotions, point-of-purchase displays, and special packaging — was successful in increasing purchases of this technology. Begun in late 2013, this initiative is expected to result in significant savings in 2014;
- laid the groundwork for a 2014 offering that will make heat-pump water heaters — for both residential and commercial use — available to contractors at a reduced cost. This offering will be made possible through Efficiency Vermont incentives provided to supply houses;
- to better understand the needs of the HVAC supply chain, established a relationship with Heating, Air-conditioning, and Refrigeration Distributors International, a trade association representing more than 475 distributors and close to 500 suppliers, manufacturers, and service vendors;
- continued to maintain the growing Trade Ally Advisory Group of contractors, with five roundtable discussions throughout the state;

- with the launch of the Grocery Audit Initiative (discussed in Section 2.1.3 - Grocery Stores), acquired store energy use data for use in training contractors serving this market;
- partnered with the Vermont Grocers' Association to host an informational meeting for refrigeration contractors;
- hosted trainings for pool dealers about efficient pool pumps;
- continued the RELIGHT and SMARTLIGHT programs (discussed in Section 2.1.4 — Commercial Lighting), providing, respectively, incentives to customers working with lighting designers and discounted replacement lighting equipment for contractors and business customers offered through distributors, and
- through the Better Buildings by Design Conference (discussed in Section 2.4.1), provided education for HVAC system designers, equipment installers, and service technicians. Efficiency Vermont recognized and publicized exceptional achievement by HVAC system designers through its annual *Best of the Best* awards for efficient new construction and major renovation projects.

#### 2.4.4 SERVICES TO BUYERS OF RETAIL EFFICIENT PRODUCTS

Efficiency Vermont provided support for a range of consumer products that met or exceeded efficiency standards set by the U.S. Department of Energy's ENERGY STAR program, including lighting, appliances, air conditioners, dehumidifiers, pool pumps, and electronics. Services were designed to motivate product purchases by increasing efficiency knowledge and reducing purchase costs for Vermonters making retail purchases for their homes and businesses. Support took the form of rebates, cost buy-downs at the distribution level, point-of-purchase display materials, advertising, and other promotional and public information activities. Efficiency Vermont also continued to provide services to retailers and upstream players in the product supply chain to ensure the availability of high-quality efficient products in Vermont stores.

#### **Lighting**

In 2013, Efficiency Vermont:

- implemented a CFL market-lift pilot, a new program design that rewards retailers only for increases from historic sales levels rather than providing incentives for every sale. Efficiency Vermont was one of three U.S. utilities creating pilots to test this new approach in coordination with Northeast Energy Efficiency Partnerships (NEEP);
- to accelerate use of ENERGY STAR certified LED bulbs, signed on as a partner in the EPA LED Bulb Challenge, which provides educational and promotional support to U.S. retailers accepting a challenge to sell a combined 20 million bulbs by Earth Day 2014;
- continued an educational campaign – developed as a result of recently changed federal lighting standards – to help consumers understand how to select lighting products based on lumens rather than watts;

- was selected by the EPA as one of two utilities in the country to run a community-based social marketing pilot program, which leverages personal interactions among community members to motivate action. Efficiency Vermont designed an LED-sale fundraiser, which it implemented in partnership with three Vermont schools. Providing informational and promotional support and bulbs (procured through upstream incentives to manufacturers who provided bulbs at cost), the pilot resulted in the sale of more than 1,000 bulbs.
- was named *2013 Utility Program of the Year* by Canadian efficient-lighting manufacturer Greenlite, and
- as a participant in the NEEP Northeast Retail Products Initiative, was recognized by the EPA with a *2013 ENERGY STAR Sustained Excellence Award* honoring continued leadership in protecting the environment through energy efficiency.

## Appliances

In 2013, Efficiency Vermont:

- instituted retail rebates and accompanying retail partnerships and promotions for heat-pump water heaters and for a clothes dryer that demands less energy;
- resumed the Second Refrigerator Retirement Program after a 2012 hiatus, to remove high-demand units from use through financial incentives, free pickup, and recycling, and
- became a U.S. Environmental Protection Agency Responsible Appliance Disposal partner.

## Consumer Electronics

In addition to continuing its efforts to encourage the use of efficient electronics, Efficiency Vermont:

- conducted trial monitoring of energy use in college dormitory rooms using advanced power strips (APS);
- initiated research on television energy consumption, and
- engaged in planning and assessment of:
  - changes to APS promotions, to encourage more retailer participation;
  - a second-television recycling program;
  - APS Tier 2 savings potential for Vermont markets;
  - the usage and energy savings potential of home energy management systems.

### 2.4.5 TRADE ASSOCIATION PARTNERSHIPS

In addition to engaging in direct customer interaction, Efficiency Vermont worked with professional and trade member organizations representing a wide range of constituents. Efficiency Vermont was able to inform business customers about best practices via trusted channels and with targeted messaging resonating with markets' particular priorities through:

- association newsletters and websites;
- technical materials;
- event sponsorship, conference and trade show participation, speaking engagements;
- training workshops, and
- promotional and educational campaigns.

Active partnerships:

American Institute of Architects–Vermont Chapter	Vermont Association of Hospitals and Health Systems
American Society of Heating, Refrigerating, and Air-Conditioning Engineers Building Performance Professionals Association of Vermont	Vermont Association of School Business Officials
Building Safety Association of Vermont	Vermont Convention Bureau
Construction Specifications Institute	Vermont Fuel Dealers Association
Green Mountain Water Environment Association	Vermont Green Building Network
Heating, Air-Conditioning and Refrigeration Distributors International	Vermont Green Home Alliance
Home Builders and Remodelers Association of Vermont	Vermont Grocers' Association
Illuminating Engineering Society	Vermont Healthcare Engineers Society
Northeast Organic Farming Association of Vermont	Vermont Hospitality Council
Vermont Alliance of Independent Country Stores	Vermont Inn and Bed & Breakfast Association
Vermont Apartment Owners Association	Vermont Maple Sugar Makers Association
	Vermont Rental Property Owners Association
	Vermont Retail Association
	Vermont Rural Water Association
	Vermont Ski Areas Association
	Vermont Superintendents Association

#### 2.4.6 COMMUNITY-BASED ACTIVITIES

Throughout the state, Efficiency Vermont engaged with Vermonters interested in leading or joining efforts to reduce energy use in their towns, institutions, and local households. Efficiency Vermont strategically partnered with town officials, town energy committees, local organizations, and businesses to increase the impact of existing efforts or to support interest in creating new groups devoted to efficiency efforts. Offered services included planning guidance, promotions, educational materials, volunteer training, and the contribution of efficient products.

In 2013, Efficiency Vermont:

- partnered with the Vermont Energy and Climate Action Network (VECAN; a network of town energy coordinators and committees) to launch the statewide 2013 Vermont Home Energy Challenge. Seventy-nine communities competed with towns in their region to weatherize 3% of local homes in a one-year period by working with Home Performance with ENERGY STAR contractors;
- also in partnership with VECAN, instituted the state's first Button-Up Vermont Day, providing education to enable individuals in 30 towns to provide fellow community members with weatherization and energy efficiency information and assistance;

- conducted regional forums, for more than 50 communities, on ways that municipalities can promote energy efficient new residential and commercial construction, and
- worked in partnership with businesses to motivate their employees to save energy at home through the Employee Energy Efficiency Challenge.

#### 2.4.7 FINANCIAL SERVICES

In its ongoing commitment to help Vermonters overcome financial barriers to investing in cost-effective efficiency for their buildings and equipment, Efficiency Vermont engaged in the following efforts in 2013.

##### **Product and Service Price Reductions**

To motivate Vermonters to make energy-efficient choices in the marketplace, Efficiency Vermont targeted specific products and services for purchase price reductions. Primary mechanisms were: 1) negotiated cooperative promotions that provide incentives to manufacturers and retailers—both independent and chain stores—to lower the retail price of products, and 2) rebates and financial incentives for:

- lighting, HVAC equipment — including specified biomass heating systems — refrigeration, compressed air systems, specified heat-pump technologies, and cost-effective, custom efficiency services and equipment projects;
- process equipment for such businesses as farms, ski areas, manufacturers, and industrial facilities;
- the incorporation of advanced, cost-effective techniques and approaches that enable the design and construction of high-performance residential and commercial buildings;
- thermal building upgrades made by Building Performance contractors in small commercial and multifamily properties, and
- comprehensive home improvement projects conducted by Home Performance with ENERGY STAR contractors.

##### **Financing for Energy Efficiency Projects**

Efficiency Vermont continued to work with lenders to ensure the availability of cost-effective financing for energy efficiency projects. By including energy savings in the repayment formula, lenders may be able to provide funding for individuals and businesses not otherwise qualifying for financing. In many instances, such financing creates a positive cash flow for borrowers thanks to monthly energy savings that are larger than the loan payments. In 2013, Efficiency Vermont provided technical and financial analysis, promotions, and informational support for customers. Efficiency Vermont engaged with the following:

- Business Energy Loan with Opportunities Credit Union: Increasing businesses' opportunities to finance efficiency projects by factoring energy savings into loan qualification calculations.
- Green Mountain Power (GMP) EverGreen Fund: Zero-interest financing for Vermont's K–12 schools located in GMP service territory.



- Municipal Tax-Exempt Leasing: Opportunities for municipalities to make energy-saving upgrades, in facilities such as K–12 schools, without raising budgets or establishing bonds.
- Property Assessed Clean Energy (PACE): Home loans secured by a property lien and repaid as an added assessment to property taxes. If the property is sold, the lien becomes an obligation of the new owners. In the fourth quarter of 2013, the first subscription period for residential PACE took place, with more than 20 towns eligible.
- Green Revolving Fund: Financing for colleges, universities, and other nonprofit institutions, with financial support from the High Meadows Fund and in partnership with the Sustainable Endowments Institute.

### **Financing Education and Analysis**

To enable Vermonters to be aware of, understand, and make decisions regarding financing options, Efficiency Vermont provided easy access to information by phone, through its website, in printed materials, and in media placements. Efficiency Vermont continued to provide financial analysis for custom projects to help customers understand the financial aspects of efficiency investments.

### **Financial Product Development and Fund Leveraging**

Efficiency Vermont continued its efforts to 1. increase financing opportunities for Vermonters engaged in energy efficiency projects, and 2. leverage public and private resources to draw new funding for energy efficiency efforts without additional ratepayer investment. These efforts are discussed in Section 2.5.5.

#### **2.4.8 COORDINATION WITH DISTRIBUTION UTILITIES**

Efficiency Vermont continued its work with Vermont Gas Systems and Burlington Electric Department (BED) to ensure coordination in the implementation of efficiency services as well as in specific initiatives, such as those connected to the advanced metering infrastructure. In 2013, for example, Efficiency Vermont worked with Vermont Gas Systems and BED to develop an agreement for coordination of services. Efficiency Vermont also worked closely with the Vermont Public Service Department and BED to make substantial revisions to one of the Energy Efficiency Utilities' governing documents, the "Process and Administration of an Order of Appointment."

Efficiency Vermont also maintained its coordination with Green Mountain Power Corporation (GMP) in the implementation of services through the GMP Energy Efficiency Fund and GMP Community Energy & Efficiency Development Fund. These efforts offer GMP customers unique services as well as shared services, through which GMP invests in existing Efficiency Vermont programs.

## 2.4.9 STATE, REGIONAL AND NATIONAL PARTNERSHIPS

In service to Vermonters and in support of the State's energy goals, Efficiency Vermont continued to leverage the expertise and resources of entities engaged in a range of energy and efficiency endeavors, both in Vermont and outside the state. Efficiency Vermont also shared its own expertise at regional and national gatherings, enabling Vermont to be both recognized for its innovations and informed by best practices in other states. In Vermont, partners included the High Meadows Fund, the Vermont Housing and Conservation Board, and the Regulatory Assistance Project. On a regional and national level, Efficiency Vermont maintained ongoing partnerships with such organizations as the Northeast Energy Efficiency Partnerships (NEEP), the New Buildings Institute, the Consortium for Energy Efficiency, ENERGY STAR, Top Ten USA, and the American Council for an Energy-Efficient Economy, working to share information on best practices and to establish uniform product eligibility criteria and program designs.

A sample of efforts that Efficiency Vermont engaged in with NEEP in 2013:

- a survey of energy efficiency cost-effectiveness issues and practices in the Northeast
- data analysis of lighting that has entered the market after the passage of the Energy Independence and Security Act of 2007;
- a review of the remaining useful life of equipment in early-replacement programs;
- an incremental-cost study;
- load shape research on HVAC equipment variable frequency drives as well as on commercial refrigeration equipment, and
- finalization of reports on cost-effectiveness testing guidance and on emerging-technologies research.

## 2.5 MARKET ADVANCEMENT ACTIVITIES

Efficiency Vermont's success in acquiring energy savings in 2013 was a result of more than a single year's services. Since its inception, Efficiency Vermont has engaged in efforts that build customer awareness and knowledge, help shape energy and efficiency policies, and identify approaches for optimal service development, delivery, and improvement. In 2013, the below activities – corresponding to Non-Resource Acquisition budget categories – continued to be essential to Efficiency Vermont's efforts to deepen energy savings and to have a lasting, positive impact on Vermont households, businesses, and communities.

### 2.5.1 EDUCATION AND TRAINING

#### **Codes and Standards Support – Residential and Commercial & Industrial**

Efficiency Vermont:

- continued staffing the Energy Code Assistance Center, providing assistance to homeowners, building professionals, and towns seeking information on technical and compliance aspects of the State's Residential Building Energy Standards and Commercial Building Energy Standards;

- provided three code and above-code trainings to building materials suppliers;
- conducted energy code outreach and education to real estate and building professionals through the Vermont Green Home Alliance;
- participated in the triennial code revision process for residential and commercial buildings;
- conducted a study with the New Buildings Institute to identify precedent and options for applying a commercial stretch code, and
- created the *Municipal Guide to Vermont Energy Codes and Above-Code Programs* and distributed it during visits with officials in most Vermont towns. These visits were made, through meetings organized in partnership with regional planning commissions and the Vermont League of Cities and Towns, to assist in compliance with Act 89 and to encourage participation in Efficiency Vermont's above-code programs. Meetings with remaining towns will be conducted in 2014.

### **Energy Literacy Project**

Through its Energy Literacy Project (ELP), Efficiency Vermont continued to coordinate with Vermont teachers, schools, and K–12 associations to increase students' knowledge of energy and efficiency, as well as to increase energy-saving actions in homes, schools, and communities. The Vermont Energy Education Program, under contract with Efficiency Vermont to implement this project, provided support to educators in enhancing school curricula and increasing student awareness of and advocacy for energy-related issues in their schools and communities. In 2013, the ELP reached more than 5,600 students, 800 teachers, and 600 community members in 12 of Vermont's 14 counties, and participated in community events to publicize the project.

### **General Public Education**

To motivate and empower the general public to take energy-saving actions, Efficiency Vermont continued activities designed to increase public awareness of: 1) energy efficiency and its benefits; 2) actions that lower energy use, and 3) Efficiency Vermont as a resource for comprehensive energy efficiency solutions. Methods used in 2013 included:

- provision of information and marketing and advertising promotions via print, broadcast, web-based, and social media;
- increasing customer engagement through online access, at [www.encyvermont.com](http://www.encyvermont.com), to recommendations on efficiency actions, online access to rebates, information about efficient technologies and approaches, identification of qualified local service providers, locations of retailers selling efficient products, and information on a range of other efficiency and energy topics;
- dissemination of information at home shows, community events, and trade shows, and
- creation of advice columns, and electronic newsletters that deliver information on energy efficiency and Efficiency Vermont's services.

## **Better Buildings by Design Conference**

More than 1,000 architects, builders, and contractors attended Efficiency Vermont's Better Buildings by Design Conference 2013 in February. This two-day event focused on the latest techniques and technologies for building durability, superior performance, energy efficiency, and value for both residential and business new construction and retrofit projects. In addition to workshops and hands-on demonstrations given by industry leaders, the conference hosted a trade show featuring the latest efficient technologies.

## **Customer Support**

Vermonters continued to have easy access to expert energy efficiency information and guidance through Efficiency Vermont's toll-free call center, which provided:

- help for commercial and residential customers in understanding their energy use and engaging in energy management;
- comprehensive information related to Efficiency Vermont's services and about efficient buildings and equipment, and
- referrals to resources such as Vermont's Weatherization Program, the Renewable Energy Resource Center, Vermont Gas Systems, and the Energy Code Assistance Center.

### 2.5.2 APPLIED RESEARCH AND DEVELOPMENT

Efficiency Vermont undertook several research and development projects to gather information on areas with potential for inclusion in future programming. The projects spanned a variety of technology applications and customer segments.

#### **Smart Grid and Advanced Metering Infrastructure (AMI)**

In 2013, Efficiency Vermont:

- continued to work with distribution utilities that are implementing AMI to develop data transfer requirements for smart meter interval data;
- completed a competitive process and awarded a contract to a provider of an energy efficiency data analytics platform to facilitate AMI data transfer from utilities to Efficiency Vermont;
- with Vermont Public Service Department review and input, updated privacy policies regarding AMI and smart-meter-enabled services;
- engaged in three pilots using available data from former Central Vermont Public Service territory:
  - using data analysis to determine potential savings opportunities;
  - conducting whole-building data analysis of commercial and industrial facilities
  - testing of a residential data analysis platform
- developed and tested prototype tools and methods for extracting useful information from data and communicating this information meaningfully to users;
- participated in the BED evaluation of in-home display options, and

- partnered with BED on an evaluation of AMI meter gateway systems, providing primarily commercial and industrial customers with real-time data.

### **Consumer Behavior Studies**

Efficiency Vermont utilized smart grid carryover funds from 2011 to match federal funding for two consumer behavior studies: Vermont Electric Cooperative's Smart Grid Investment Grant (SGIG) study and the Weatherization Innovation Pilot Program (WIPP) study. The objective of both studies was to reduce energy demand through customers' utilization of in-home displays and personalized web pages showing hourly electricity usage and costs.

Efficiency Vermont submitted WIPP study final reports to the U.S. Department of Energy (DOE), with evaluation results expected post-2013. The SGIG study continued, with more than 800 of the initial 850 participants. The process evaluation of the study's first year is expected to be published on the DOE's website in 2014.

### **Technology Demonstrations**

Remote Savings Assessment Pilot: This pilot program installed meters and monitored various technologies at nine small businesses. Technologies included dehumidification, HVAC air handlers, and refrigeration. The effort also provided sub-metering, high-usage diagnostics, and assistance in retro-commissioning rooftop units. The project and a final report of findings and recommendations were completed.

Ductless Heat Pumps: Scheduled to run through the end of the 2013-2014 heating season, this effort collected data on the operation of heat pumps in four homes, to develop a method to quantify energy savings in homes with varying levels of shell efficiency. Structures included both single-family and multifamily buildings, existing and new construction, and a variety of architectural designs and periods.

SkySpark Data Analytics Software: Using this software, a contractor remotely collected and analyzed data from a large hospital to verify results of a complex series of controls optimization efforts in several air-handling units. The effort demonstrated the software's potential for use in verifying savings resulting from operational improvements.

Electric Vehicles as a Grid Resource: Research was conducted to deepen understanding of the benefits, technology requirements, and policy implications for the use of electric vehicles in the frequency-regulation market and the Forward Capacity Market. Efforts will continue in 2014.

Continuous Energy Improvement (CEI) Dashboard: This study monitored the impact of real-time data systems in a large manufacturing facility, providing equipment operators with feedback on energy use per unit produced and other critical production measurements. A report will be available in 2014.

Lighting Controls: This research was undertaken to determine the cost effectiveness of advanced lighting control systems as compared with stand-alone controls in commercial offices. The project was completed and a report is available.

Gamification and Customer Engagement: This pilot was designed to investigate gamification as a way to increase energy-saving actions. Efficiency Vermont designed an interactive, online tool to be used by customers participating in the meter loan program (customers can borrow meters to measure the energy use of electrical equipment). Development was under way in 2013, in preparation for future launch.

Whole-Building Control Systems: The aim of this effort was to determine the effectiveness of web-based, wireless controls as a way for convenience store owners to manage equipment energy use in multiple locations. Efforts, focused on two locations of a convenience store chain, were under way and scheduled to be completed in late 2014.

Domestic Hot Water Control via Electronic Mixing Valves: In partnership with Housing Vermont, this pilot was designed to compare a standard water heating recirculation system with an electronic mixing valve to determine the cost-effectiveness of applying this technology in multifamily and commercial buildings. In 2013, the valve was installed at a test site and data analysis was expected to be completed in 2014.

Efficiency Vermont and University of Vermont Research Partnership: To investigate improved heating, ventilation, and refrigeration approaches for commercial greenhouses, Efficiency Vermont began site visits to identify key efficiency opportunities and to assess data findings on 10 farms. The study is expected to be completed in 2014.

Ventilation Approaches for Residential Buildings: This 2013-2014 effort was initiated, in partnership with Housing Vermont, to compare five ventilation approaches through their use in identical dwellings (apartments, mobile homes, townhouses) in residential subdivisions. In 2013, all ventilation and monitoring system installations were complete and data collection was begun. Data evaluation will take place in 2014.

### 2.5.3 PLANNING AND REPORTING

Efficiency Vermont prepared and submitted required documents to the Vermont Public Service Board, the Vermont Public Service Department, and required stakeholders. These documents included an annual plan, an annual savings claim, an annual highlights brochure, and monthly and quarterly performance and financial reports. These activities were undertaken in fulfillment of requirements specified under agreements with State agencies, to maintain accountability and to provide accurate tracking of progress for service delivery optimization, for public benefit, and for the benefit of entities outside Vermont seeking replication. Efficiency Vermont also continued its participation in state and regional planning efforts, including:

## **Demand Resources Plan (DRP)**

In 2013, Efficiency Vermont:

- participated in the Vermont Public Service Board's process in opening the 2013 DRP proceeding;
- led three days of process improvement workshops to learn from the inaugural DRP proceeding and identify areas of opportunity to improve the process;
- worked with the Department and BED to identify and agree on technical and policy inputs to the scenario modeling so one tool could be used; and
- collaborated with the Vermont Public Service Department on scenario modeling as directed by Vermont Public Service Board order. This effort was a recommendation developed in the Key Business Process Improvement work focusing on identifying significant improvements to the DRP process that was held in early 2013. By year-end, the three scenarios ordered by the Vermont Public Service Board had been modeled and filed by Efficiency Vermont.

## **Vermont System Planning Committee (VSPC)**

Efficiency Vermont continued its active participation in the VSPC, a collaborative body bringing together Vermont's utilities, Vermont Electric Power Company, the Vermont Public Service Department, and individuals representing the interests of ratepayers to address approaches to electric transmission system reliability. In 2013, Efficiency Vermont also participated in VSPC subcommittees addressing Geographic Targeting, public engagement, and load forecasting.

## **ISO-NE Forward Capacity Market Participation**

Efficiency Vermont continued its participation in the Independent System Operator-New England (ISO-NE) Forward Capacity Market (FCM), in which energy efficiency savings are bid as a resource for the regional grid. Vermont Energy Investment Corporation met its commitments to deliver savings from Efficiency Vermont activity in the FCM in 2013, with approximately 74 megawatts of peak capacity reduction provided during the summer of 2013. This led to approximately \$3.97 million in revenues in 2013 that provided funds for investment in thermal efficiency services. With the retirement of Vermont Yankee Nuclear Power Station, Efficiency Vermont's 2013 FCM commitments represented Vermont's single largest peak capacity provider, increasing grid capacity by lowering demand.

### **2.5.4 EVALUATION**

As an essential part of its reporting efforts, Efficiency Vermont undertook activities designed to maintain the accuracy of reported savings claims, including:

- maintaining and updating the Technical Reference Manual, which characterizes energy-saving measures on the basis of several parameters: Annual electric savings, annual coincident peak savings, annual fossil fuel energy savings, incremental costs and measure lives, and other applicable resource savings such as water savings and operational and maintenance cost savings;

- working with the Vermont Public Service Department as it conducted its annual savings verification to review the initial savings claim;
- participating in the Technical Advisory Group with the Vermont Public Service Department, BED, and other stakeholders to resolve any issues arising from the annual savings verification process and to provide a proactive mechanism for developing energy characterization and savings calculations, and
- metering, measurement, and evaluation activities related to ISO-NE FCM participation.

Efficiency Vermont continued to follow rigorous, ongoing quality management protocols in alignment with Quantifiable Performance Indicators (see Sections 3.3 through 3.5) and with the Service Quality and Reliability Plan (SQRP) (see Section 3.6), which defines customer service performance standards in four service categories:

1. General Customer Satisfaction: With a contractor and the Public Service Department, Efficiency Vermont developed a general satisfaction survey and delivered it to 2,000 residential customers. Within 311 usable responses, 53.8% of customers reported positive or insignificant differences between expectations and actual experiences, meeting or exceeding SQRP standards.
2. Project Customer Satisfaction: Efficiency Vermont surveyed customers upon completion of business projects (prescriptive and custom) and residential new construction, retrofit, and metering projects. More than 90% of respondents rated service, on a scale of one to five (five being excellent), as three or greater, exceeding the SQRP performance standard.
3. Incoming Call Responsiveness: Efficiency Vermont exceeded each of the below performance standards, based upon automated tracking of all incoming calls.
  - Average answer time: 15 seconds
  - Average percentage of calls answered: 92%
  - Average percentage of abandoned calls: 3%
4. Complaint Rate and Resolution: Efficiency Vermont conducted tracking of all customer concerns or comments requiring internal referral and subsequent follow-up for resolution, with the below results.
  - Percentage of complaint follow-up calls attempted by end of next business day: 95% (Standard exceeded.)
  - Ratio of complaints to participants: No more than one half of one percent. (Standard exceeded.)
  - Percentage of complaints closed within 12 business days of initial complaint: 95% (Standard exceeded for all quarters but one, when the result was 91%.)



## 2.5.5 POLICY AND PUBLIC AFFAIRS

### Public Affairs

Efficiency Vermont provided energy, financial, and economic information and analysis to policy makers, State agencies, utilities, and other key stakeholders. These efforts were undertaken in ongoing support of the State's 2011 Comprehensive Energy Plan goals and long-term energy planning. In 2013, Efficiency Vermont:

- provided briefings to House and Senate legislative committees to discuss the economic benefits of Efficiency Vermont's work;
- provided a briefing to the legislative Climate Caucus on how energy efficiency supports the State's climate change goals;
- offered expert testimony and input on pieces of legislation throughout the 2013 session, consistent with Efficiency Vermont's status as an appointed energy efficiency utility;
- continued participation in the residential building energy label working group process required by Act 89, and
- participated in a Vermont Public Service Board proceeding regarding Act 89, with respect to thermal efficiency, as well as a proceeding to review and recommend avoided costs for efficiency programs.

Efficiency Vermont also continued to strategically disseminate information, aligned with Vermont energy policy priorities and Efficiency Vermont goals, to deepen knowledge of and engagement in energy efficiency actions among targeted populations. Efforts included:

- coordination with print- and web-based media in the publication of articles on key topics;
- broadcast news- and informational-program appearances by Efficiency Vermont subject-matter experts, and
- in-depth discussion of energy issues and their relation to Efficiency Vermont's work, through publication on [www.encyvermont.com](http://www.encyvermont.com) of:
  - Efficiency Vermont's blog *Energy. Forward.*, providing timely discussion of efficiency activities under way throughout the state and presenting Efficiency Vermont research of value to Vermonters who want to deepen their involvement in their energy use;
  - a library of white papers developed by Efficiency Vermont, sharing the latest thinking, analysis, and cutting-edge research on the future of energy efficiency.

### Regulatory Affairs

Efficiency Vermont continued to:

- revise, and maintain governing documents necessary for Efficiency Vermont to operate in compliance as a regulated energy efficiency utility;
- protect confidential customer information through maintenance and fortification of internal policies, procedures, and practices;

- participate in Vermont Public Service Board proceedings that affect energy efficiency implementation in Vermont;
- work with the Regional Greenhouse Gas Initiative to support regional cap-and-trade and provide savings information and case studies for annual reports, and
- develop and support policy instruments for electricity and thermal energy efficiency savings.

## **Financial Product Development**

### Efficiency Vermont:

- worked with the Vermont State Treasurer, Vermont Public Service Department officials, and Vermont Economic Development Authority (VEDA) regarding options for financing of energy efficiency projects;
- in coordination with VEDA, developed guidelines and a process for the Vermont Energy Efficiency Loan Guarantee Program, a partnership of Efficiency Vermont and VEDA, for a 2014 launch;
- worked with representatives of the Vermont Bankers Association and Vermont credit union to identify demand issues and areas of improvement in loan application processes for residential and small business customers, and
- through a relationship with Opportunities Credit Union (OCU), substantially improved and increased the size of business loan and agricultural loan programs by reducing the linked deposit requirement. This will allow for five times as many loans to be made for the same amount of Efficiency Vermont funds deposited at OCU.

## **Fund Leveraging**

Efficiency Vermont continued to engage in activities designed to acquire public and private resources for Vermonters engaged in efficiency projects in their homes and businesses. This approach multiplies the impact of ratepayer dollars by using a modest amount of funds to draw higher amounts of new resources without additional ratepayer investment. Highlights of fund leveraging efforts follow.

### Community Energy Partnership Grant Program

Efficiency Vermont launched a grant program for nonprofit organizations serving low-income Vermonters. The Community Energy Partnership Grant Program leverages Efficiency Vermont funding to acquire third-party resources to reach Vermonters – with efficient products and assistance – through existing, trusted connections. Five grant recipients were chosen for implementation in 2014:

- COVER Home Repair — working with very low-income Vermonters
- Central Vermont Community Action Council — providing home day care
- Energy Co-op of Vermont — reaching mobile home owners
- Onion River Exchange — helping low-income Vermonters through a time bank
- Committee on Temporary Shelter – serving marginally housed Vermonters

### Energy Loan Guarantee Program

Efficiency Vermont prepared for the 2014 launch of large-project financing for businesses through Vermont banks and credit unions. In partnership with the Vermont Public Service Department, Efficiency Vermont obtained funding to establish a loan loss reserve through a U.S. Department of Energy grant to the State Energy Program. The Vermont Economic Development Authority will provide a guarantee of 75% of loans.

### Green Revolving Fund for Colleges & Universities

Efficiency Vermont's Green Revolving Fund (GRF) initiative continued to leverage funds through the deployment of private capital as a financing mechanism for efficiency projects on Vermont higher education campuses. Highlights of GRF activities in 2013 can be found in the Colleges & Universities discussion in Section 2.1.3 of this report.

### Green Mountain Power EverGreen Fund

Zero-interest financing for Vermont's K–12 schools located in GMP service territory, as noted in Section 2.4.7.

### Community Energy & Efficiency Development Fund

Details are provided in Section 2.4.8.

## 2.5.6 INFORMATION TECHNOLOGY

In 2013, Efficiency Vermont's information technology (IT) department split into two divisions:

1. Information Services — maintaining the long-standing IT focus on computer infrastructure, critical data and document management, substantial support for reporting and analytics, and ongoing attention to improving and updating existing applications and processes.
  
2. Strategic Technology Services — deepening Efficiency Vermont's ability to serve Vermonters with software development, acquisition, and integration, as well as continuing best-practice data stewardship to ensure customer privacy, security, and alignment with customer data usage preferences. Notable activities in 2013 included:
  - the release of an electronic Technical Reference Manual (TRM), streamlining the process of measure characterization development and management, and
  - extensive preparation, planning, and contracting for future deployment of:
    - a web-based TRM;
    - an energy efficiency data analytics platform to utilize interval data from utilities that have deployed advanced meters;
    - a secure web portal, using Green Button technology, offering customers access to usage data, as well as Efficiency Vermont's analysis, and guidance; through [www.encyvermont.com](http://www.encyvermont.com);
    - a web-based project tracking and management tool for customers and contractors engaged in Home Performance with ENERGY STAR projects;

- computer software providing Home Performance with ENERGY STAR contractors with a comprehensive on-site audit tool;
- new tools to enable increased automation of Efficiency Vermont's data analysis
- a mobile application for retail account managers, and
- planned pilot efforts: 1) using interval data to measure savings associated with changes customer make in how they use energy, and 2) utilizing aggregate data in forecasting and trend analyses.

#### 2.5.7 GENERAL ADMINISTRATION

In support of the efforts discussed in this Report, Efficiency Vermont continued to undertake activities centering on such needs as staff meetings, coordination of service implementation across different functions, and the management, and monitoring of overall performance and spending.

### **3. RESOURCE AND NON-RESOURCE ACQUISITION RESULTS**

The tables presented in this section contain information on results from both Resource Acquisition and Non-Resource Acquisition activity, as well as a summary of Service Quality and Reliability.



### 3.1 Resource Acquisition Summary

	Total Efficiency Vermont Resource Acquisition	Thermal Energy and Process Fuels Resource Acquisition	Electric Resource Acquisition	Customer Credit Resource Acquisition
<b>Efficiency Vermont Costs</b>				
Year to Date Costs	\$37,060,921	\$4,705,653	\$30,434,814	\$1,920,454
* Annual Budget Estimate	\$41,097,070	\$4,765,770	\$34,600,300	\$1,731,000
Unspent Annual Budget Estimate	\$4,036,150	\$60,118	\$4,165,486	(\$189,454)
% Annual Budget Estimate Unspent	10%	1%	12%	-11%
<b>Other Costs and Commitments</b>				
Participant Costs Year to Date	\$32,688,975	\$8,866,159	\$22,772,102	\$1,050,714
Third Party Costs Year to Date	\$1,178,326	\$322,812	\$855,513	\$0
<b>Savings Results</b>				
MWh Year to Date	90,125	446	85,582	4,097
MWh Cumulative starting 1/1/12	201,179	275	195,761	5,144
<b>Winter Peak Coincident kW Savings Results</b>				
Winter Coincident Peak kW Year to Date	16,797	141	15,993	663
Winter Coincident Peak kW Cumulative Starting 1/1/12	38,981	238	37,963	779
<b>Summer Peak Coincident kW Savings Results</b>				
Summer Coincident Peak kW Year to Date	11,253	32	10,561	661
Summer Coincident Peak kW Cumulative Starting 1/1/12	26,400	-36	25,658	778
<b>TRB Savings Results</b>				
TRB Year to Date	\$107,253,092	\$19,223,959	\$83,830,177	\$4,198,955
TRB Cumulative Starting 1/1/12	\$257,579,719	\$50,053,994	\$202,188,622	\$5,337,102
<b>MMBtu Savings Results</b>				
MMBtu Year to Date	108,196	53,899	54,657	-359
MMBtu Cumulative Starting 1/1/12	237,043	132,261	105,142	-359
<b>Participation</b>				
Partic.w/ installs Year to Date	40,314	2,831	37,482	1
Partic.w/ installs Cumulative starting 1/1/12	84,971	5,297	79,673	1

\* Annual projections are estimates only and provided for informational purposes.

### 3.2 Budget Summary

	<u>Budget</u> <u>Current Year</u> <u>2013<sup>1</sup></u>	<u>Actual</u> <u>Current Year</u> <u>2013</u>	<u>%</u>	<u>Budget</u> <u>2012-2014<sup>2</sup></u>	<u>Actual</u> <u>2012-2014</u>	<u>%</u>
<b>RESOURCE ACQUISITION</b>						
<i><u>Electric Efficiency Funds Activities</u></i>						
Business Sector	\$ 21,445,900	\$ 16,615,618	77%	\$ 62,031,400	\$ 34,424,864	55%
Customer Credit	\$ 1,701,900	\$ 1,888,167	111%	\$ 3,038,500	\$ 2,080,474	68%
Residential Sector	<u>\$ 12,572,700</u>	<u>\$ 13,307,510</u>	<u>106%</u>	<u>\$ 39,505,100</u>	<u>\$ 26,959,907</u>	<u>68%</u>
<b>Total Electric Efficiency Funds Activities</b>	<b><u>\$ 35,720,500</u></b>	<b><u>\$ 31,811,295</u></b>	<b><u>89%</u></b>	<b><u>\$ 104,575,000</u></b>	<b><u>\$ 63,465,245</u></b>	<b><u>61%</u></b>
<i><u>Thermal Energy and Process Fuels Funds Activities</u></i>						
Business Sector	\$ 1,171,400	\$ 538,633	46%	\$ 3,034,300	\$ 1,082,080	36%
Residential Sector	<u>\$ 3,514,300</u>	<u>\$ 4,087,906</u>	<u>116%</u>	<u>\$ 10,610,400</u>	<u>\$ 7,225,627</u>	<u>68%</u>
<b>Total Thermal Energy and Process Fuels Funds Activities</b>	<b><u>\$ 4,685,700</u></b>	<b><u>\$ 4,626,539</u></b>	<b><u>99%</u></b>	<b><u>\$ 13,644,700</u></b>	<b><u>\$ 8,307,707</u></b>	<b><u>61%</u></b>
<b>TOTAL RESOURCE ACQUISITION</b>	<b><u>\$ 40,406,200</u></b>	<b><u>\$ 36,437,834</u></b>	<b><u>90%</u></b>	<b><u>\$ 118,219,700</u></b>	<b><u>\$ 71,772,951</u></b>	<b><u>61%</u></b>
<b>NON-RESOURCE ACQUISITION</b>						
Education and Training	\$ 800,200	\$ 803,247	100%	\$ 2,462,100	\$ 1,637,604	67%
Applied Research and Development	\$ 405,300	\$ 495,313	122%	\$ 1,311,500	\$ 764,251	58%
Planning and Reporting	\$ 490,500	\$ 617,767	126%	\$ 1,333,200	\$ 1,000,932	75%
Evaluation	\$ 800,200	\$ 738,313	92%	\$ 2,461,400	\$ 1,369,847	56%
Policy and Public Affairs	\$ 345,600	\$ 531,740	154%	\$ 1,047,800	\$ 1,087,480	104%
Information Technology	\$ 832,300	\$ 825,934	99%	\$ 2,522,700	\$ 1,528,978	61%
General Administration	<u>\$ 249,500</u>	<u>\$ 269,048</u>	<u>108%</u>	<u>\$ 755,400</u>	<u>\$ 525,362</u>	<u>70%</u>
<b>TOTAL NON-RESOURCE ACQUISITION</b>	<b><u>\$ 3,923,600</u></b>	<b><u>\$ 4,281,362</u></b>	<b><u>109%</u></b>	<b><u>\$ 11,894,100</u></b>	<b><u>\$ 7,914,454</u></b>	<b><u>67%</u></b>
<b>Smart Grid (2011 Carryover)</b>	<b><u>\$ 156,600</u></b>	<b><u>\$ 55,849</u></b>	<b><u>36%</u></b>	<b><u>\$ 473,200</u></b>	<b><u>\$ 137,513</u></b>	<b><u>29%</u></b>
Operations Fee	<u>\$761,900</u>	<u>\$697,694</u>	<u>92%</u>	<u>\$2,236,900</u>	<u>\$1,366,092</u>	<u>61%</u>
<b>SUB-TOTAL COSTS (prior to Performance-Based Fee)</b>	<b><u>\$ 45,248,300</u></b>	<b><u>\$ 41,472,739</u></b>	<b><u>92%</u></b>	<b><u>\$ 132,823,900</u></b>	<b><u>\$ 81,191,011</u></b>	<b><u>61%</u></b>
Performance-Based Fee	\$ -	\$ -	0%	\$ 3,330,800	\$ -	0%
<b>TOTAL COSTS (including Performance-Based Fee)</b>	<b><u>\$ 45,248,300</u></b>	<b><u>\$ 41,472,739</u></b>	<b><u>92%</u></b>	<b><u>\$ 136,154,700</u></b>	<b><u>\$ 81,191,011</u></b>	<b><u>60%</u></b>
<sup>1</sup> Annual budgets are provided for information purposes only. Efficiency Vermont operates under three-year Board approved budgets. <sup>2</sup> Thermal Energy and Process Fuels Budgets have been adjusted to include projected revenue increase as filed January 10, 2014						



### 3.3 Electric Performance Indicators & Minimum Requirements

QPI#	Title	Performance Indicator / Milestone	Target	Actual	%
1	Electricity Savings	Annual incremental net MWh savings	274,000	195,761	71%
2	Total Resource Benefits	Present worth of lifetime electric, fossil, and water benefits	\$315,710,000	\$202,188,622	64%
3	Statewide Summer Peak Demand Savings	Cumulative net summer peak demand (kW) savings	41,920	25,658	61%
4.a.	Summer Peak Demand Savings in Geographic Areas	Cumulative net summer net peak demand savings in the St Albans area	1,800	1,269	71%
4.b.		Cumulative net summer net peak demand savings in the Susie Wilson area	1,570	1,626	104%
5	Business Comprehensiveness	Custom, business retrofit or equipment replacement projects with multiple end-uses	378	153	40%
6	Market Transformation Residential	Vermont 1-4 unit residential new construction program participation in 2014 as % of total 1-4 unit building permits in 2013	40%	0%	0%
7	Market Transformation Business	Instances where an energy efficiency measure supply chain partner is attached to completed business project	7,360	4,142	56%

MPR#	Title	Minimum Requirement	Minimum	Actual	%
8	Minimum Electric Benefits	Total electric benefits divided by total costs	1.2	2.3	190%
9	Threshold (or minimum acceptable) Level of Participation by Residential Customers	Total residential sector spending	\$22,000,000	\$27,420,921	125%
10	Threshold (or minimum acceptable) Level of Participation by Low-Income Households	Total low-income single and multifamily services spending	\$7,500,000	\$6,986,610	93%
11	Threshold (or minimum acceptable) Level of Participation by Small Business Customers	Number of total non-residential premises with annual electric use of 40,000 kWh/yr or less that acquire kwh savings	1,950	2,985	153%
12	Geographic Equity	TRB for each geographic area is greater than values shown on Geo-Equity Table	14	11	79%
13	Administrative Efficiency - Management Span of Control	Staff-to-Supervisor FTE ratio > 8.5:1	8.5	12.1	142%
14	Administrative Efficiency - Key Process Improvements	Meet all pre-determined milestones on schedule	5	3	60%
15	Service Quality	Achieve 92 or more metric points	92	67	73%

### 3.4 Electric Minimum TRB per Geographic Area (QPI #12)

Geographic Area (Counties)	Minimum TRB	Actual TRB	% of Goal
Addison	\$8,473,457	\$9,495,017	112%
Bennington	\$8,542,688	\$9,999,537	117%
Caledonia	\$7,185,374	\$13,784,933	192%
Chittenden	\$29,546,914	\$53,553,238	181%
Essex / Orleans	\$7,717,769	\$9,883,999	128%
Franklin	\$16,148,322	\$15,475,889	96%
Grand Isle	\$1,604,009	\$1,161,274	72%
Lamoille	\$5,632,070	\$10,511,872	187%
Orange	\$6,658,830	\$5,263,138	79%
Rutland	\$14,184,508	\$19,946,615	141%
Washington	\$13,699,893	\$18,622,542	136%
Windham	\$10,243,229	\$20,589,279	201%
Windsor	\$13,040,738	\$13,901,290	107%
<b>Total</b>	<b>\$142,677,800</b>	<b>\$202,188,622</b>	<b>142%</b>

### 3.5 Thermal Energy and Process Fuels Funds Performance Indicators & Minimum Requirements

QPI#	Title	Performance Indicator / Milestone	Target	Actual	%
1	Thermal & Mechanical Energy Efficiency Savings <sup>1</sup>	Annual incremental net MMBtu savings	155,000	132,261	85%
2	Residential Single Family Comprehensiveness	a. Average air leakage reduction per project	34%	31%	91%
		b. Percent of projects with square feet of insulation added equivalent to at least 50% of the home's finished square feet of floor area	44%	85%	193%
		c. Percent of projects with both shell measures and heating system measures installed	16%	13%	81%

MPR#	Title	Minimum Requirement	Minimum	Actual	%
3	Threshold (or minimum acceptable) Level of Participation by Residential Customers	Residential sector spending as % of total spending	62.5%	87.0%	139%
4	Threshold (or minimum acceptable) Level of Participation by Low-Income Households	Low-income single- and multi-family spending as % of total spending	17.0%	32.5%	191%

<sup>1</sup> Target pending Board approval. Revised target filed March 4, 2014.

### 3.6 Service Quality and Reliability Summary Report

Metric #	Metric Description	Reporting Frequency	Actual Performance this Period	Points Earned this Period	Cumulative 2012-14 Points Earned	Total Possible 2012-14 Points	%
1A	Residential Customer Service Satisfaction: Percentage of service categories with average respondent rating better than benchmark shall be $\geq 50\%$	performance period	96%	6	6	6	100%
1B	Residential Customer Service Satisfaction: Percentage of service categories with average respondent rating worse than benchmark shall be $\leq 20\%$	performance period	4%	6	6	6	100%
2A	Business Customer Service Satisfaction: Percentage of service categories with average respondent rating better than benchmark shall be $\geq 50\%$	performance period	NA	NA	0	6	0%
2B	Business Customer Services Satisfaction: Percentage of service categories with average respondent rating worse than benchmark shall be $\leq 20\%$	performance period	NA	NA	0	6	0%
3	Customer Satisfaction upon Project Completion: Per each market segment, annual percentage of survey respondents with average service ratings of 3 (or better) shall be $\geq 90\%$	annually	98%	4	8	12	67%
4	Average answer time shall be $\leq 15$ seconds per call	quarterly	8	1	8	12	67%
5	Average percentage of calls answered shall be $\geq 92\%$	quarterly	94%	1	8	12	67%
6	Average percentage of abandoned calls shall be $\leq 3\%$	quarterly	2%	1	8	12	67%
7	Percentage of complaint follow-up call attempted by end of next business day shall be $\geq 95\%$	quarterly	100%	1	8	12	67%
8	Percentage of complaints closed within 12 business days of initial complaint call shall be $\geq 95\%$	quarterly	100%	1	7	12	58%
9	For each reporting year, the ratio of total complaints received per total number of Efficiency Vermont participants shall be $\leq 0.5\%$ (one-half of one percent)	annually	0.1%	4	8	12	67%
<b>Totals</b>				<b>25</b>	<b>67</b>	<b>108</b>	<b>62%</b>

### 3.7 Electric Resource Acquisition Summary

Services	Totals				Business Energy Services		Residential Energy Services			Other
	All Resource Acquisition (including CC)	Efficiency Vermont Resource Acquisition	Subtotal Business Energy Services	Subtotal Residential Energy Services	Business New Construction	Business Existing Facilities	Residential New Construction	Efficient Products	Existing Homes	Customer Credit Program
<b>Electric Resource Acquisition Costs</b>										
Year to Date Costs	\$32,352,615	\$30,432,161	\$16,897,785	\$13,534,376	\$3,738,494	\$13,159,291	\$2,864,598	\$6,789,107	\$3,880,671	\$1,920,454
Annual Budget Estimate <sup>1</sup>	\$36,331,300	\$34,600,300	\$21,812,600	\$12,787,700	\$3,070,900	\$18,741,700	\$3,132,500	\$6,108,900	\$3,546,300	\$1,731,000
Unspent Annual Budget Estimate	\$3,978,685	\$4,168,139	\$4,914,815	(\$746,676)	(\$667,594)	\$5,582,409	\$267,902	(\$680,207)	(\$334,371)	(\$189,454)
% Annual Budget Estimate Unspent	11%	12%	23%	-6%	-22%	30%	9%	-11%	-9%	-11%
<b>Savings Results</b>										
MWh Year to Date	89,679	85,582	50,859	34,723	10,173	40,686	1,635	31,380	1,708	4,097
MWh Cumulative starting 1/1/12	200,905	195,761	118,547	77,214	25,484	93,063	3,215	68,182	5,817	5,144
3-Year MWh Goal	nap	274,000	193,200	80,800	26,400	166,800	4,000	65,800	11,000	nap
% of 3-Year MWh Goal	nap	71%	61%	96%	97%	56%	80%	104%	53%	nap
Winter Coincident Peak kW Year to Date	16,656	15,993	7,600	8,393	1,227	6,374	356	7,694	344	663
Winter Coincident Peak kW Cumulative starting 1/1/12	38,742	37,963	17,331	20,631	3,101	14,230	713	18,810	1,108	779
Summer Coincident Peak kW Year to Date	11,222	10,561	6,053	4,508	1,399	4,654	168	4,167	173	661
Summer Coincident Peak kW Cumulative starting 1/1/12	26,436	25,658	15,165	10,493	3,570	11,595	378	9,602	513	778
3-Year Summer Coincident Peak kW Goal	nap	41,920	29,220	12,700	5,100	24,120	800	10,600	1,300	nap
% of 3-Year Summer Coincident Peak kW Goal	nap	61%	52%	83%	70%	48%	47%	91%	39%	nap
TRB Year to Date	\$88,029,132	\$83,830,177	\$54,166,544	\$29,663,633	\$13,512,066	\$40,654,478	\$6,803,767	\$20,674,216	\$2,185,649	\$4,198,955
TRB Cumulative starting 1/1/12	\$207,525,725	\$202,188,622	\$131,032,836	\$71,155,786	\$41,902,146	\$89,130,691	\$17,139,312	\$47,276,915	\$6,739,558	\$5,337,102
3-Year TRB Goal	nap	\$315,710,000	\$211,737,900	\$103,972,100	\$30,527,000	\$181,210,900	\$27,816,500	\$55,433,600	\$20,722,000	nap
% of 3-Year TRB Goal	nap	64%	62%	68%	137%	49%	62%	85%	33%	nap
<b>Associated Benefits</b>										
MMBtu Year to Date	54,298	54,657	44,741	9,916	15,382	29,359	11,697	(2,232)	450	(359)
MMBtu Cumulative starting 1/1/12	104,782	105,142	84,583	20,559	48,750	35,833	27,690	(7,708)	577	(359)
<b>Participation</b>										
Partic.w/ installs Year to Date	37,483	37,482	2,297	35,185	187	2,110	1,354	29,077	4,754	1
Partic.w/ installs Cumulative starting 1/1/12	79,674	79,673	4,960	74,713	401	4,559	2,386	62,756	9,571	1

<sup>1</sup> Annual budgets are provided for information purposes only. Efficiency Vermont operates under three-year Board approved budgets.

### 3.8 Electric Resource Acquisition including Customer Credit

	Prior Year	Current Year 2013	Cumulative starting 1/1/12	Cumulative starting 1/1/12
<b># participants with installations</b>	43,687	37,483	79,674	79,674
<b>Operating Costs</b>				
Administration	\$1,320,315	\$1,440,935	\$2,761,250	\$2,761,250
Operations and Implementation	\$4,267,788	\$4,944,156	\$9,211,944	\$9,211,944
Strategy and Planning	\$1,380,366	\$1,735,071	\$3,115,437	\$3,115,437
<b>Subtotal Operating Costs</b>	<b>\$6,968,468</b>	<b>\$8,120,163</b>	<b>\$15,088,631</b>	<b>\$15,088,631</b>
<b>Technical Assistance Costs</b>				
Services to Participants	\$4,681,893	\$4,924,708	\$9,606,601	\$9,606,601
Services to Trade Allies	\$344,238	\$392,440	\$736,678	\$736,678
<b>Subtotal Technical Assistance Costs</b>	<b>\$5,026,131</b>	<b>\$5,317,148</b>	<b>\$10,343,279</b>	<b>\$10,343,279</b>
<b>Support Services</b>				
Transportation	\$0	\$369	\$369	\$369
Targeted Implementation	\$0	\$4,584	\$4,584	\$4,584
Consulting	\$105,158	\$315,962	\$421,120	\$421,120
Marketing	\$1,288,107	\$2,507,460	\$3,795,567	\$3,795,567
EM&V	\$185,885	\$146,611	\$332,496	\$332,496
Policy	\$101,976	\$35,328	\$137,304	\$137,304
Information Technology	\$279	\$1,218	\$1,498	\$1,498
Customer Support	\$179,693	\$207,074	\$386,768	\$386,768
Business Development	\$7,142	\$24,833	\$31,975	\$31,975
<b>Subtotal Support Services Costs</b>	<b>\$1,868,241</b>	<b>\$3,243,439</b>	<b>\$5,111,679</b>	<b>\$5,111,679</b>
<b>Incentive Costs</b>				
Incentives to Participants <sup>1</sup>	\$18,257,763	\$15,634,949	\$33,892,712	\$33,892,712
Incentives to Trade Allies	\$74,629	\$36,917	\$111,546	\$111,546
<b>Subtotal Incentive Costs</b>	<b>\$18,332,392</b>	<b>\$15,671,866</b>	<b>\$34,004,258</b>	<b>\$34,004,258</b>
<b>Total Efficiency Vermont Costs</b>	<b>\$32,195,232</b>	<b>\$32,352,615</b>	<b>\$64,547,847</b>	<b>\$64,547,847</b>
<b>Total Participant Costs</b>	\$21,313,027	\$23,822,816	\$45,135,842	\$45,135,842
<b>Total Third Party Costs</b>	\$2,159,012	\$855,513	\$3,014,526	\$3,014,526
<b>Total Resource Acquisition Costs</b>	<b>\$55,667,271</b>	<b>\$57,030,944</b>	<b>\$112,698,215</b>	<b>\$112,698,215</b>

<b>Annualized MWh Savings</b>	111,225	89,679	200,905	200,905
<b>Lifetime MWh Savings</b>	1,245,235	1,041,327	2,286,562	2,286,562
<b>TRB Savings (2012 \$)</b>	\$119,496,592	\$88,029,132	\$207,525,725	\$207,525,725
<b>Winter Coincident Peak kW Savings</b>	22,086	16,656	38,742	38,742
<b>Summer Coincident Peak kW Savings</b>	15,214	11,222	26,436	26,436
<b>Annualized MWh Savings/Participant</b>	2.546	2.393	2.522	2.522
<b>Weighted Lifetime</b>	11.2	11.6	11.4	11.4

<b>Annualized MWh Savings (adjusted for measure life)</b>	200,067
<b>Winter Coincident Peak kW Savings (adjusted for measure life)</b>	38,617
<b>Summer Coincident Peak kW Savings (adjusted for measure life)</b>	26,297

<sup>1</sup> Business Existing Facilities (BEF) incentives were under stated by \$39,716 (~ 0.4%) in 2012 monthly invoices due to an error in the GMP Energy Efficiency Fund BEF Mutual Fund cost allocation. The adjustment to correct the error was in the March 2013 GMP and EVT invoices and included above. Incentives are accurately reported in table 3.10, 3.11 and 3.12.

### 3.9 Electric Resource Acquisition excluding Customer Credit

	<u>Prior Year</u>	<u>Current Year 2013</u>	<u>Cumulative starting 1/1/12</u>	<u>Cumulative starting 1/1/12</u>
<b># participants with installations</b>	43,686	37,482	79,673	79,673
<b><u>Operating Costs</u></b>				
Administration	\$1,312,607	\$1,403,504	\$2,716,111	\$2,716,111
Operations and Implementation	\$4,263,107	\$4,938,142	\$9,201,249	\$9,201,249
Strategy and Planning	<u>\$1,380,162</u>	<u>\$1,734,846</u>	<u>\$3,115,009</u>	<u>\$3,115,009</u>
<b>Subtotal Operating Costs</b>	<b><u>\$6,955,876</u></b>	<b><u>\$8,076,492</u></b>	<b><u>\$15,032,368</u></b>	<b><u>\$15,032,368</u></b>
<b><u>Technical Assistance Costs</u></b>				
Services to Participants	\$4,659,786	\$4,910,593	\$9,570,380	\$9,570,380
Services to Trade Allies	\$338,497	\$390,635	\$729,132	\$729,132
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$4,998,283</u></b>	<b><u>\$5,301,228</u></b>	<b><u>\$10,299,511</u></b>	<b><u>\$10,299,511</u></b>
<b><u>Support Services</u></b>				
Transportation	\$0	\$368	\$368	\$368
Targeted Implementation	\$0	\$4,560	\$4,560	\$4,560
Consulting	\$105,005	\$315,626	\$420,630	\$420,630
Marketing	\$1,284,736	\$2,501,344	\$3,786,080	\$3,786,080
EM&V	\$184,803	\$145,587	\$330,390	\$330,390
Policy	\$96,525	\$35,204	\$131,729	\$131,729
Information Technology	\$278	\$1,212	\$1,490	\$1,490
Customer Support	\$179,268	\$206,716	\$385,984	\$385,984
Business Development	<u>\$7,137</u>	<u>\$24,713</u>	<u>\$31,851</u>	<u>\$31,851</u>
<b>Subtotal Support Services Costs</b>	<b><u>\$1,857,752</u></b>	<b><u>\$3,235,329</u></b>	<b><u>\$5,093,081</u></b>	<b><u>\$5,093,081</u></b>
<b><u>Incentive Costs</u></b>				
Incentives to Participants <sup>1</sup>	\$18,113,096	\$13,782,194	\$31,895,291	\$31,895,291
Incentives to Trade Allies	\$74,629	\$36,917	\$111,546	\$111,546
<b>Subtotal Incentive Costs</b>	<b><u>\$18,187,725</u></b>	<b><u>\$13,819,111</u></b>	<b><u>\$32,006,837</u></b>	<b><u>\$32,006,837</u></b>
<b>Total Efficiency Vermont Costs</b>	<b><u>\$31,999,637</u></b>	<b><u>\$30,432,161</u></b>	<b><u>\$62,431,797</u></b>	<b><u>\$62,431,797</u></b>
<b>Total Participant Costs</b>	\$21,231,064	\$22,772,102	\$44,003,165	\$44,003,165
<b>Total Third Party Costs</b>	<u>\$2,159,012</u>	<u>\$855,513</u>	<u>\$3,014,526</u>	<u>\$3,014,526</u>
<b>Total Resource Acquisition Costs</b>	<b><u>\$55,389,712</u></b>	<b><u>\$54,059,776</u></b>	<b><u>\$109,449,488</u></b>	<b><u>\$109,449,488</u></b>
<b><u>Annualized MWh Savings</u></b>				
Annualized MWh Savings	110,179	85,582	195,761	195,761
Lifetime MWh Savings	1,229,541	982,537	2,212,078	2,212,078
TRB Savings (2012 \$)	\$118,358,445	\$83,830,177	\$202,188,622	\$202,188,622
Winter Coincident Peak kW Savings	21,970	15,993	37,963	37,963
Summer Coincident Peak kW Savings	15,097	10,561	25,658	25,658
Annualized MWh Savings/Participant	2.522	2.283	2.457	2.457
Weighted Lifetime	11.2	11.5	11.3	11.3
<b>Annualized MWh Savings (adjusted for measure life)</b>				194,923
<b>Winter Coincident Peak kW Savings (adjusted for measure life)</b>				37,837
<b>Summer Coincident Peak kW Savings (adjusted for measure life)</b>				25,519

<sup>1</sup> Business Existing Facilities (BEF) incentives were under stated by \$39,716 (~ 0.4%) in 2012 monthly invoices due to an error in the GMP Energy Efficiency Fund BEF Mutual Fund cost allocation. The adjustment to correct the error was in the March 2013 GMP and EVT invoices and included above. Incentives are accurately reported in table 3.10, 3.11 and 3.12.

### 3.10 Electric Resource Acquisition - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	1,181	2,287	2,123	38,081	147	322	957	0	\$412,783	\$894,159
Cooking and Laundry	4,095	1,000	833	14,055	146	108	3,948	32,593	\$283,559	\$1,381,505
Design Assistance	109	796	714	4,010	53	47	396	0	\$439,859	\$303,086
Electronics	6,096	4,218	4,533	20,718	427	490	0	0	\$456,478	-\$308,183
Hot Water Efficiency	4,418	370	346	3,244	49	31	2,579	10,561	\$96,705	\$115,709
Hot Water Fuel Switch	92	260	371	7,527	43	24	-1,015	0	\$40,308	\$93,185
Industrial Process Eff.	71	9,337	9,630	124,387	1,559	843	8,336	640	\$723,191	\$4,335,146
Lighting	27,549	52,608	53,367	596,275	11,337	7,114	-17,066	0	\$9,018,753	\$10,783,145
Motors	329	5,643	5,406	64,197	596	801	26,514	0	\$567,932	\$1,150,987
Other Efficiency	1,368	686	654	5,538	207	18	578	57	\$192,013	\$17,051
Other Fuel Switch	231	82	100	2,452	20	16	-207	0	\$4,475	\$13,592
Other Indirect Activity	3	0	0	0	0	0	196	0	\$37,723	-\$11,440
Refrigeration	3,977	6,264	6,140	73,172	727	566	-10	6	\$1,157,773	\$1,725,328
Space Heat Efficiency	460	1,090	1,021	16,060	582	55	19,130	0	\$215,918	\$1,563,368
Space Heat Fuel Switch	6	99	103	2,968	33	0	-156	0	\$15,007	\$205,666
Ventilation	898	843	780	9,853	66	127	10,477	0	\$80,003	\$509,797
<b>Totals</b>		85,582	86,124	982,537	15,993	10,561	54,657	43,856	\$13,742,478	\$22,772,102



### 3.11 Electric Resource Acquisition - Utility Breakdown

Utility	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU Saved	Net Water CCF Saved	Participant Incentives Paid	Participant Costs	Net TRB Saved
<b>Barton</b>	232	97	101	931	23	12	12	219	\$30,267	\$10,960	\$85,065
<b>Burlington</b>	34	13	18	210	2	2	-23	0	\$1,664	\$16,194	\$10,640
<b>Enosburg Falls</b>	224	329	349	3,351	82	38	-50	169	\$48,049	\$48,643	\$238,428
<b>Green Mountain</b>	27,720	71,757	72,346	825,290	12,918	9,030	53,217	33,562	\$11,254,081	\$19,112,672	\$70,838,841
<b>Hardwick</b>	698	418	441	4,218	102	47	63	383	\$79,949	\$54,727	\$360,399
<b>Hyde Park</b>	197	240	263	2,174	65	30	-13	204	\$47,219	\$23,562	\$163,229
<b>Jacksonville</b>	40	24	24	178	7	2	-4	21	\$3,368	\$2,648	\$13,300
<b>Johnson</b>	179	720	662	9,486	123	70	-123	78	\$113,969	\$197,589	\$620,882
<b>Ludlow</b>	185	908	885	7,528	520	78	-172	126	\$118,631	\$96,814	\$593,661
<b>Lyndonville</b>	555	548	584	5,259	138	77	18	571	\$110,211	\$60,559	\$487,391
<b>Morrisville</b>	454	967	1,007	9,868	207	123	-76	479	\$165,103	\$106,975	\$746,156
<b>Northfield</b>	263	676	728	7,877	120	111	198	138	\$92,119	\$119,287	\$617,873
<b>Orleans</b>	136	79	81	863	20	9	7	81	\$20,981	\$13,610	\$54,660
<b>Stowe</b>	304	2,107	2,019	26,828	399	193	-237	339	\$280,742	\$954,094	\$1,802,324
<b>Swanton</b>	475	666	687	7,645	124	77	-141	432	\$112,810	\$130,930	\$532,973
<b>VT Electric Coop</b>	4,555	5,477	5,369	64,662	1,027	597	1,903	5,786	\$1,119,229	\$1,688,769	\$6,099,933
<b>Washington Electric</b>	1,231	556	561	6,170	115	67	79	1,270	\$144,085	\$134,067	\$564,421
<b>Totals</b>		85,582	86,124	982,537	15,993	10,561	54,657	43,856	\$13,742,478	\$22,772,102	\$83,830,177

### 3.12 Electric Resource Acquisition - County Breakdown

County	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Addison	2,183	3,345	3,266	38,386	601	525	329	2,099	\$661,671	\$862,341
Bennington	2,011	4,771	5,026	54,010	933	624	407	2,494	\$859,930	\$1,294,027
Caledonia	1,872	1,962	2,053	20,170	444	306	-197	1,472	\$419,223	\$250,288
Chittenden	7,327	24,710	24,621	282,293	4,583	3,087	15,281	12,118	\$3,634,743	\$5,764,465
Essex	474	281	288	2,916	74	29	20	410	\$65,473	\$53,200
Franklin	2,683	8,149	7,959	99,481	1,232	1,026	3,812	2,951	\$1,180,811	\$1,795,817
Grand Isle	617	504	479	5,635	100	60	98	601	\$101,218	\$133,477
Lamoille	1,844	5,043	5,010	60,571	1,025	494	-341	1,871	\$770,473	\$1,693,452
Orange	2,048	2,512	2,454	27,998	488	307	902	1,792	\$448,434	\$453,884
Orleans	2,472	2,462	2,417	28,174	483	293	1,416	2,868	\$581,331	\$844,827
Rutland	3,923	9,504	9,852	105,979	1,685	1,227	3,752	4,258	\$1,408,355	\$2,365,410
Washington	4,150	8,753	8,899	97,067	1,561	1,074	1,529	4,315	\$1,405,095	\$2,697,850
Windham	2,477	8,098	8,383	94,747	1,437	874	26,393	3,346	\$1,230,653	\$3,217,084
Windsor	3,401	5,487	5,417	65,110	1,347	634	1,257	3,262	\$975,071	\$1,345,981
<b>Totals</b>	<b>37,482</b>	<b>85,582</b>	<b>86,124</b>	<b>982,537</b>	<b>15,993</b>	<b>10,561</b>	<b>54,657</b>	<b>43,856</b>	<b>\$13,742,478</b>	<b>\$22,772,102</b>

### 3.13 Electric Resource Acquisition Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$66,017,033
Fossil Fuel Savings (Costs)	\$839,557	\$13,113,794
Water Savings (Costs)	\$327,480	\$4,698,882
<b>Total</b>	<b>\$1,167,036</b>	<b>\$83,830,177</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>86,124</b>	<b>75,928</b>	<b>85,582</b>
Winter on peak	32,998	28,987	32,899
Winter off peak	26,952	23,748	27,489
Summer on peak	14,124	12,530	12,530
Summer off peak	12,049	10,666	11,803
<u>Coincident Demand Savings (kW)</u>			
Winter	17,502	14,539	15,993
Shoulder	0	0	0
Summer	11,031	9,558	10,561

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>42,479</b>	<b>43,856</b>	<b>561,327</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>56,426</b>	<b>54,657</b>	<b>834,723</b>
LP	11,672	11,448	220,423
NG	16,657	17,308	256,952
Oil/Kerosene	16,138	14,082	190,661
Wood	6,668	6,203	95,585
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>\$2,675,659</b>	<b>\$2,461,242</b>	<b>\$27,191,905</b>

<b>Net Societal Benefits</b>	<b>\$112,278,405</b>
------------------------------	----------------------

### 3.14 Electric Business Energy Services Summary

	<u>Prior Year</u>	<u>Current Year 2013</u>	<u>Cumulative starting 1/1/12</u>
<b># participants with installations</b>	3,412	2,297	4,960
<b><u>Operating Costs</u></b>			
Administration	\$553,305	\$654,544	\$1,207,849
Operations and Implementation	\$1,227,510	\$1,559,630	\$2,787,140
Strategy and Planning	\$1,188,364	\$1,597,430	\$2,785,795
<b>Subtotal Operating Costs</b>	<b><u>\$2,969,179</u></b>	<b><u>\$3,811,605</u></b>	<b><u>\$6,780,784</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$2,969,752	\$3,319,272	\$6,289,024
Services to Trade Allies	\$230,888	\$273,687	\$504,575
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$3,200,640</u></b>	<b><u>\$3,592,959</u></b>	<b><u>\$6,793,599</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$46	\$46
Targeted Implementation	\$0	\$1,613	\$1,613
Consulting	\$26,450	\$185,927	\$212,378
Marketing	\$440,091	\$722,475	\$1,162,566
EM&V	\$138,188	\$112,795	\$250,983
Policy	\$38,605	\$14,345	\$52,950
Information Technology	\$98	\$429	\$526
Customer Support	\$82,868	\$100,546	\$183,414
Business Development	\$6,549	\$9,849	\$16,399
<b>Subtotal Support Services Costs</b>	<b><u>\$732,849</u></b>	<b><u>\$1,148,026</u></b>	<b><u>\$1,880,875</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$11,142,527	\$8,317,652	\$19,460,178
Incentives to Trade Allies	\$68,589	\$27,545	\$96,133
<b>Subtotal Incentive Costs</b>	<b><u>\$11,211,115</u></b>	<b><u>\$8,345,196</u></b>	<b><u>\$19,556,311</u></b>
<b>Total Efficiency Vermont Costs</b>	<b><u>\$18,113,784</u></b>	<b><u>\$16,897,785</u></b>	<b><u>\$35,011,569</u></b>
<b>Total Participant Costs</b>	\$18,776,040	\$17,351,265	\$36,127,305
<b>Total Third Party Costs</b>	\$255,045	(\$0)	\$255,044
<b>Total Resource Acquisition Costs</b>	<b><u>\$37,144,869</u></b>	<b><u>\$34,249,049</u></b>	<b><u>\$71,393,918</u></b>

<b>Annualized MWh Savings</b>	67,687	50,859	118,547
<b>Lifetime MWh Savings</b>	879,626	667,804	1,547,430
<b>TRB Savings (2012 \$)</b>	\$76,866,292	\$54,166,544	\$131,032,836
<b>Winter Coincident Peak kW Savings</b>	9,731	7,600	17,331
<b>Summer Coincident Peak kW Savings</b>	9,112	6,053	15,165
<b>Annualized MWh Savings/Participant</b>	19.838	22.142	23.901
<b>Weighted Lifetime</b>	13.0	13.1	13.1

<sup>1</sup> Business Existing Facilities (BEF) incentives were under stated by \$39,716 (~ 0.4%) in 2012 monthly invoices due to an error in the GMP Energy Efficiency Fund BEF Mutual Fund cost allocation. The adjustment to correct the error was in the March 2013 GMP and EVT invoices and included above. Incentives are accurately reported in table 3.15.

### 3.15 Electric Business Energy Services - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	164	2,087	1,914	35,439	136	281	957	0	\$361,114	\$863,739
Cooking and Laundry	12	51	48	791	10	9	575	632	\$6,953	\$30,038
Design Assistance	109	796	714	4,010	53	47	396	0	\$439,859	\$303,086
Electronics	5	36	33	374	4	4	0	0	\$7,493	\$28,350
Hot Water Efficiency	15	75	71	774	13	9	679	1,144	\$8,331	\$62,566
Hot Water Fuel Switch	4	41	44	962	9	7	-121	0	\$2,506	\$16,585
Industrial Process Eff.	71	9,337	9,630	124,387	1,559	843	8,336	640	\$723,191	\$4,335,146
Lighting	1,849	26,537	24,269	363,233	3,937	3,592	-11,750	0	\$5,468,287	\$7,895,790
Motors	129	5,547	5,322	62,900	589	778	26,514	0	\$542,955	\$1,116,665
Other Efficiency	279	686	654	5,538	207	18	578	57	\$192,013	\$17,051
Other Indirect Activity	3	0	0	0	0	0	196	0	\$37,723	-\$11,440
Refrigeration	152	4,266	3,955	54,518	544	334	-10	6	\$375,628	\$1,647,651
Space Heat Efficiency	55	616	597	4,620	460	22	10,162	0	\$53,675	\$369,489
Space Heat Fuel Switch	3	89	93	2,660	28	0	-114	0	\$11,704	\$199,296
Ventilation	45	696	646	7,597	50	110	8,344	0	\$46,503	\$477,252
<b>Totals</b>		50,859	47,990	667,804	7,600	6,053	44,741	2,479	\$8,277,935	\$17,351,265

## 3.16 Electric Residential Energy Services Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	40,274	35,185	74,713
<b><u>Operating Costs</u></b>			
Administration	\$759,302	\$748,960	\$1,508,262
Operations and Implementation	\$3,035,597	\$3,378,512	\$6,414,109
<u>Strategy and Planning</u>	<u>\$191,798</u>	<u>\$137,416</u>	<u>\$329,214</u>
<b>Subtotal Operating Costs</b>	<b><u>\$3,986,697</u></b>	<b><u>\$4,264,888</u></b>	<b><u>\$8,251,585</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$1,690,034	\$1,591,321	\$3,281,355
<u>Services to Trade Allies</u>	<u>\$107,609</u>	<u>\$116,948</u>	<u>\$224,557</u>
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$1,797,643</u></b>	<b><u>\$1,708,269</u></b>	<b><u>\$3,505,912</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$321	\$321
Targeted Implementation	\$0	\$2,947	\$2,947
Consulting	\$78,554	\$129,698	\$208,253
Marketing	\$844,644	\$1,778,869	\$2,623,514
EM&V	\$46,614	\$32,792	\$79,406
Policy	\$57,920	\$20,859	\$78,779
Information Technology	\$180	\$783	\$964
Customer Support	\$96,400	\$106,169	\$202,570
<u>Business Development</u>	<u>\$588</u>	<u>\$14,864</u>	<u>\$15,452</u>
<b>Subtotal Support Services Costs</b>	<b><u>\$1,124,902</u></b>	<b><u>\$2,087,304</u></b>	<b><u>\$3,212,206</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$6,970,570	\$5,464,543	\$12,435,112
<u>Incentives to Trade Allies</u>	<u>\$6,040</u>	<u>\$9,373</u>	<u>\$15,413</u>
<b>Subtotal Incentive Costs</b>	<b><u>\$6,976,610</u></b>	<b><u>\$5,473,915</u></b>	<b><u>\$12,450,525</u></b>
<b><u>Total Efficiency Vermont Costs</u></b>	<b><u>\$13,885,853</u></b>	<b><u>\$13,534,376</u></b>	<b><u>\$27,420,228</u></b>
<b>Total Participant Costs</b>	\$2,455,023	\$5,420,837	\$7,875,860
<b><u>Total Third Party Costs</u></b>	<b><u>\$1,903,968</u></b>	<b><u>\$855,514</u></b>	<b><u>\$2,759,481</u></b>
<b>Total Resource Acquisition Costs</b>	<b><u>\$18,244,844</u></b>	<b><u>\$19,810,726</u></b>	<b><u>\$38,055,570</u></b>
<b><u>Annualized MWh Savings</u></b>			
Annualized MWh Savings	42,492	34,723	77,214
Lifetime MWh Savings	349,915	314,733	664,649
TRB Savings (2012 \$)	\$41,492,153	\$29,663,633	\$71,155,786
Winter Coincident Peak kW Savings	12,238	8,393	20,631
Summer Coincident Peak kW Savings	5,985	4,508	10,493
Annualized MWh Savings/Participant	1.055	0.987	1.033
Weighted Lifetime	8.2	9.1	8.6

### 3.17 Electric Residential Energy Services - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	1,017	200	209	2,642	11	42	0	0	\$51,669	\$30,420
Cooking and Laundry	4,083	949	785	13,264	136	100	3,373	31,961	\$276,605	\$1,351,467
Electronics	6,091	4,182	4,500	20,343	423	486	0	0	\$448,985	-\$336,533
Hot Water Efficiency	4,403	295	275	2,470	36	22	1,900	9,416	\$88,374	\$53,143
Hot Water Fuel Switch	88	219	328	6,565	34	17	-894	0	\$37,802	\$76,600
Lighting	25,700	26,071	29,099	233,042	7,400	3,522	-5,315	0	\$3,550,465	\$2,887,355
Motors	200	96	85	1,297	7	23	0	0	\$24,977	\$34,322
Other Efficiency	1,089	0	0	0	0	0	0	0	\$0	\$0
Other Fuel Switch	231	82	100	2,452	20	16	-207	0	\$4,475	\$13,592
Refrigeration	3,825	1,998	2,185	18,654	183	232	0	0	\$782,144	\$77,678
Space Heat Efficiency	405	474	424	11,440	122	33	8,968	0	\$162,243	\$1,193,879
Space Heat Fuel Switch	3	10	11	308	5	0	-42	0	\$3,303	\$6,370
Ventilation	853	148	134	2,257	16	16	2,133	0	\$33,500	\$32,545
<b>Totals</b>		<b>34,723</b>	<b>38,134</b>	<b>314,733</b>	<b>8,393</b>	<b>4,508</b>	<b>9,916</b>	<b>41,377</b>	<b>\$5,464,543</b>	<b>\$5,420,837</b>

### 3.18 Thermal Energy and Process Fuels Resource Acquisition Summary

Services				Business Energy Services		Residential Energy Services		
	Efficiency Vermont Services and Initiatives	Subtotal Business Energy Services	Subtotal Residential Energy Services	Business New Construction	Business Existing Facilities	Residential New Construction	Efficient Products	Existing Homes
<b>Costs</b>								
Year to Date Costs	\$4,705,486	\$547,844	\$4,157,642	\$66,186	\$481,658	\$4,569	\$0	\$4,153,073
Annual Budget Estimate <sup>1</sup>	\$4,765,900	\$1,191,500	\$3,574,400	\$238,300	\$953,200	\$35,700	\$0	\$3,538,700
Unspent Annual Budget Estimate	\$60,414	\$643,656	(\$583,242)	\$172,114	\$471,542	\$31,131	\$0	(\$614,373)
% Annual Budget Estimate Unspent	1%	54%	-16%	72%	49%	nap	nap	-17%
<b>Savings Results</b>								
MMBtu Year to Date	53,899	33,128	20,771	7,152	25,975	391	nap	20,380
MMBtu Cumulative starting 1/1/12	132,261	85,004	47,257	25,987	59,018	643	nap	46,614
3-Year MMBtu Goal <sup>2</sup>	155,000	94,200	60,800	30,000	64,200	800	nap	60,000
% of 3-Year MMBtu Goal	85%	90%	78%	87%	92%	80%	nap	78%
<b>Associated Electric Benefits</b>								
MWh Year to Date	446	173	273	49	124	(4)	nap	277
MWh Cumulative starting 1/1/12	275	(231)	505	25	(255)	(5)	nap	510
Winter Coincident Peak kW Year to Date	141	(1)	142	(17)	15	(1)	nap	143
Winter Coincident Peak kW Cumulative starting 1/1/12	238	(22)	261	(38)	16	(1)	nap	261
Summer Coincident Peak kW Year to Date	32	31	1	19	12	(0)	nap	1
Summer Coincident Peak kW Cumulative starting 1/1/12	(36)	(38)	2	29	(66)	(0)	nap	2
<b>Participation</b>								
Partic.w/ installs Year to Date	2,831	204	2,627	28	176	34	nap	2,593
Partic.w/ installs Cumulative starting 1/1/12	5,297	391	4,906	68	323	73	nap	4,833

<sup>1</sup> Annual budgets are provided for information purposes only. Efficiency Vermont operates under three-year Board approved budgets.

<sup>2</sup> 3-Year MMBtu Goal has been revised based on the latest revenue projections. The revised Goal was filed March 4, 2014 and is pending Board approval.



### 3.19 Thermal Energy and Process Fuels Resource Acquisition

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	2,397	2,831	5,297
<b><u>Operating Costs</u></b>			
Administration	\$157,884	\$150,800	\$308,684
Operations and Implementation	\$570,063	\$1,359,493	\$1,929,556
<u>Strategy and Planning</u>	<u>\$31,525</u>	<u>\$79,422</u>	<u>\$110,948</u>
<b>Subtotal Operating Costs</b>	<b><u>\$759,473</u></b>	<b><u>\$1,589,715</u></b>	<b><u>\$2,349,187</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$33,313	\$166,071	\$199,384
Services to Trade Allies	\$10	\$37	\$47
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$33,323</u></b>	<b><u>\$166,108</u></b>	<b><u>\$199,430</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$43	\$43
Targeted Implementation	\$0	\$586	\$586
Consulting	\$7,106	\$46,861	\$53,967
Marketing	\$70,526	\$425,328	\$495,854
EM&V	\$8,906	\$7,294	\$16,199
Policy	\$5,255	\$3,604	\$8,859
Information Technology	\$38	\$156	\$194
Customer Support	\$14,258	\$33,569	\$47,827
<u>Business Development</u>	<u>\$103</u>	<u>\$2,927</u>	<u>\$3,030</u>
<b>Subtotal Support Services Costs</b>	<b><u>\$106,191</u></b>	<b><u>\$520,369</u></b>	<b><u>\$626,560</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$2,740,503	\$2,272,910	\$5,013,414
Incentives to Trade Allies	\$104,626	\$156,383	\$261,010
<b>Subtotal Incentive Costs</b>	<b><u>\$2,845,130</u></b>	<b><u>\$2,429,293</u></b>	<b><u>\$5,274,424</u></b>
<b>Total Efficiency Vermont Costs</b>	<b><u>\$3,744,116</u></b>	<b><u>\$4,705,485</u></b>	<b><u>\$8,449,602</u></b>
<b>Total Participant Costs</b>	<b>\$11,072,734</b>	<b>\$8,866,159</b>	<b>\$19,938,893</b>
<b>Total Third Party Costs</b>	<b>\$1,048,636</b>	<b>\$322,812</b>	<b>\$1,371,448</b>
<b>Total Resource Acquisition Costs</b>	<b><u>\$15,865,486</u></b>	<b><u>\$13,894,456</u></b>	<b><u>\$29,759,943</u></b>
<b><u>Annualized MMBtu Savings</u></b>			
Annualized MMBtu Savings	78,361	53,899	132,261
Lifetime MMBtu Savings	1,405,054	929,260	2,334,300
TRB Savings (2012 \$)	\$30,830,035	\$19,223,959	\$50,053,994
Annualized MMBtu Savings/Participant	32.691	19.039	24.969
Weighted Lifetime	17.9	17.2	17.6

### 3.20 Thermal Energy and Process Fuels Services & Initiatives - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	10	70	61	1,457	-7	17	191	0	\$5,000	\$216,041
Cooking and Laundry	18	0	0	0	0	0	42	0	\$1,500	\$5,867
Design Assistance	8	34	31	172	0	4	3,104	0	\$86,350	\$132,709
Hot Water Efficiency	230	5	5	72	1	0	1,045	114	\$7,236	\$124,231
Hot Water Fuel Switch	6	11	13	338	2	1	-17	0	\$0	\$8,259
Industrial Process Eff.	7	0	0	0	0	0	9,091	0	\$102,002	\$619,525
Motors	21	26	26	392	3	3	3,012	0	\$27,280	\$121,559
Other Efficiency	1,208	5	4	121	1	0	2,143	2,677	\$11,462	\$459,038
Other Indirect Activity	303	0	0	0	0	0	0	0	\$200,510	-\$152,094
Refrigeration	1	0	0	0	0	0	928	0	\$5,146	-\$5,144
Space Heat Efficiency	2,693	309	306	5,527	143	5	32,909	1	\$1,776,085	\$6,010,119
Space Heat Fuel Switch	127	-10	-11	-137	-2	0	593	0	\$46,038	\$1,214,380
Ventilation	195	-4	-4	-60	1	1	859	0	\$4,302	\$111,669
<b>Totals</b>		446	430	7,883	141	32	53,899	2,792	\$2,272,910	\$8,866,159

## 3.21 Thermal Energy and Process Fuels Resource Acquisition Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$595,312
Fossil Fuel Savings (Costs)	\$1,069,376	\$18,141,666
Water Savings (Costs)	\$20,883	\$486,981
<b>Total</b>	<b>\$1,090,259</b>	<b>\$19,223,959</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>430</b>	<b>396</b>	<b>446</b>
Winter on peak	163	148	168
Winter off peak	176	159	212
Summer on peak	56	55	55
Summer off peak	36	35	38
<u>Coincident Demand Savings (kW)</u>			
Winter	144	128	141
Shoulder	0	0	0
Summer	30	29	32

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>2,832</b>	<b>2,792</b>	<b>67,962</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>58,589</b>	<b>53,899</b>	<b>929,260</b>
LP	15,420	14,837	277,753
NG	6,612	6,214	93,176
Oil/Kerosene	37,758	33,223	543,728
Wood	(1,195)	(371)	14,612
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>(\$6,475)</b>	<b>(\$5,187)</b>	<b>(\$152,285)</b>

<b>Net Societal Benefits</b>	<b>\$15,869,322</b>
------------------------------	---------------------

## 3.22 Thermal Energy and Process Fuels Business Energy Services Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	188	204	391
<b><u>Operating Costs</u></b>			
Administration	\$12,737	\$12,333	\$25,070
Operations and Implementation	\$12,022	\$16,277	\$28,300
Strategy and Planning	\$9,242	\$15,266	\$24,508
<b>Subtotal Operating Costs</b>	<b><u>\$34,002</u></b>	<b><u>\$43,876</u></b>	<b><u>\$77,878</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$10,291	\$5,790	\$16,082
Services to Trade Allies	\$10	\$10	\$20
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$10,301</u></b>	<b><u>\$5,800</u></b>	<b><u>\$16,101</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$0	\$0
Targeted Implementation	\$0	\$21	\$21
Consulting	\$1,360	\$516	\$1,876
Marketing	\$2,879	\$2,774	\$5,654
EM&V	\$1,039	\$632	\$1,670
Policy	\$3,108	\$68	\$3,177
Information Technology	\$1	\$6	\$7
Customer Support	\$1,814	\$858	\$2,672
Business Development	\$4	\$106	\$110
<b>Subtotal Support Services Costs</b>	<b><u>\$10,205</u></b>	<b><u>\$4,983</u></b>	<b><u>\$15,188</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$491,831	\$487,521	\$979,352
Incentives to Trade Allies	\$6,400	\$5,664	\$12,064
<b>Subtotal Incentive Costs</b>	<b><u>\$498,231</u></b>	<b><u>\$493,185</u></b>	<b><u>\$991,416</u></b>
<b><u>Total Efficiency Vermont Costs</u></b>	<b><u>\$552,740</u></b>	<b><u>\$547,844</u></b>	<b><u>\$1,100,583</u></b>
<b>Total Participant Costs</b>	\$4,086,155	\$2,645,200	\$6,731,355
<b><u>Total Third Party Costs</u></b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>
<b>Total Resource Acquisition Costs</b>	<b><u>\$4,638,895</u></b>	<b><u>\$3,193,043</u></b>	<b><u>\$7,831,938</u></b>
<b><u>Annualized MMBtu Savings</u></b>			
Annualized MMBtu Savings	51,876	33,128	85,004
Lifetime MMBtu Savings	916,629	546,944	1,463,573
TRB Savings (2012 \$)	\$20,630,708	\$10,919,641	\$31,550,349
Annualized MMBtu Savings/Participant	275.938	162.391	217.402
Weighted Lifetime	17.7	16.5	17.2

### 3.23 Thermal Energy and Process Fuels Business Energy Services - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	1	82	73	1,649	0	17	0	0	\$5,000	\$75,000
Cooking and Laundry	2	0	0	0	0	0	42	0	\$1,500	\$3,893
Design Assistance	8	34	31	172	0	4	3,104	0	\$86,350	\$132,709
Hot Water Efficiency	4	0	0	0	0	0	270	0	\$6,700	\$4,229
Industrial Process Eff.	7	0	0	0	0	0	9,091	0	\$102,002	\$619,525
Motors	2	26	26	392	3	3	2,998	0	\$27,280	\$120,295
Other Efficiency	65	5	4	121	1	0	2,143	2,677	\$11,462	\$459,038
Refrigeration	1	0	0	0	0	0	928	0	\$5,146	-\$5,144
Space Heat Efficiency	171	29	30	485	-6	5	14,255	0	\$230,077	\$805,096
Space Heat Fuel Switch	6	-2	-3	-36	-1	0	-253	0	\$9,000	\$424,682
Ventilation	6	-1	-1	-13	2	2	550	0	\$3,004	\$5,877
<b>Totals</b>		173	161	2,772	-1	31	33,128	2,677	\$487,521	\$2,645,200

## 3.24 Thermal Energy and Process Fuels Residential Energy Services Summary

	<u>Prior Year</u>	<u>Current Year 2013</u>	<u>Cumulative starting 1/1/12</u>
<b># participants with installations</b>	2,209	2,627	4,906
<b><u>Operating Costs</u></b>			
Administration	\$145,147	\$138,467	\$283,613
Operations and Implementation	\$558,041	\$1,343,216	\$1,901,256
<u>Strategy and Planning</u>	<u>\$22,283</u>	<u>\$64,156</u>	<u>\$86,439</u>
<b>Subtotal Operating Costs</b>	<b><u>\$725,470</u></b>	<b><u>\$1,545,839</u></b>	<b><u>\$2,271,309</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$23,021	\$160,281	\$183,302
Services to Trade Allies	\$0	\$27	\$27
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$23,021</u></b>	<b><u>\$160,308</u></b>	<b><u>\$183,329</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$43	\$43
Targeted Implementation	\$0	\$565	\$565
Consulting	\$5,747	\$46,344	\$52,091
Marketing	\$67,646	\$422,554	\$490,200
EM&V	\$7,867	\$6,662	\$14,529
Policy	\$2,147	\$3,536	\$5,683
Information Technology	\$37	\$150	\$187
Customer Support	\$12,444	\$32,711	\$45,155
<u>Business Development</u>	<u>\$99</u>	<u>\$2,821</u>	<u>\$2,919</u>
<b>Subtotal Support Services Costs</b>	<b><u>\$95,986</u></b>	<b><u>\$515,386</u></b>	<b><u>\$611,372</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$2,248,672	\$1,785,390	\$4,034,062
Incentives to Trade Allies	\$98,226	\$150,719	\$248,946
<b>Subtotal Incentive Costs</b>	<b><u>\$2,346,899</u></b>	<b><u>\$1,936,110</u></b>	<b><u>\$4,283,008</u></b>
<b><u>Total Efficiency Vermont Costs</u></b>	<b><u>\$3,191,376</u></b>	<b><u>\$4,157,642</u></b>	<b><u>\$7,349,018</u></b>
<b>Total Participant Costs</b>	\$6,986,579	\$6,220,960	\$13,207,538
<b><u>Total Third Party Costs</u></b>	<b><u>\$1,048,636</u></b>	<b><u>\$322,812</u></b>	<b><u>\$1,371,448</u></b>
<b>Total Resource Acquisition Costs</b>	<b><u>\$11,226,591</u></b>	<b><u>\$10,701,414</u></b>	<b><u>\$21,928,005</u></b>
<b><u>Annualized MMBtu Savings</u></b>			
Annualized MMBtu Savings	26,485	20,771	47,257
Lifetime MMBtu Savings	488,425	382,316	870,727
TRB Savings (2012\$)	\$10,199,327	\$8,304,318	\$18,503,645
Annualized MMBtu Savings/Participant	11.990	7.907	9.632
Weighted Lifetime	18.4	18.4	18.4

### 3.25 Thermal Energy and Process Fuels Residential Energy Services - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	9	-13	-13	-192	-7	0	191	0	\$0	\$141,041
Cooking and Laundry	16	0	0	0	0	0	0	0	\$0	\$1,974
Hot Water Efficiency	226	5	5	72	1	0	774	114	\$536	\$120,002
Hot Water Fuel Switch	6	11	13	338	2	1	-17	0	\$0	\$8,259
Motors	19	0	0	0	0	0	14	0	\$0	\$1,264
Other Efficiency	1,143	0	0	0	0	0	0	0	\$0	\$0
Other Indirect Activity	303	0	0	0	0	0	0	0	\$200,510	-\$152,094
Space Heat Efficiency	2,522	280	276	5,042	149	0	18,654	1	\$1,546,008	\$5,205,023
Space Heat Fuel Switch	121	-8	-8	-102	-2	0	846	0	\$37,038	\$789,699
Ventilation	189	-3	-3	-47	0	0	309	0	\$1,297	\$105,792
<b>Totals</b>		273	269	5,111	142	1	20,771	115	\$1,785,390	\$6,220,960





## **4. MAJOR MARKET RESOURCE ACQUISITION RESULTS**



## 4.1 Electric Business New Construction Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	229	187	401
<b><u>Operating Costs</u></b>			
Administration	\$129,919	\$168,073	\$297,992
Operations and Implementation	\$181,164	\$273,134	\$454,298
Strategy and Planning	\$461,578	\$560,470	\$1,022,048
<b>Subtotal Operating Costs</b>	<b><u>\$772,660</u></b>	<b><u>\$1,001,677</u></b>	<b><u>\$1,774,337</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$906,413	\$1,073,623	\$1,980,037
Services to Trade Allies	\$66,406	\$80,784	\$147,190
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$972,819</u></b>	<b><u>\$1,154,407</u></b>	<b><u>\$2,127,226</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$13	\$13
Targeted Implementation	\$0	\$466	\$466
Consulting	\$7,197	\$49,899	\$57,097
Marketing	\$133,176	\$211,493	\$344,670
EM&V	\$39,955	\$24,950	\$64,906
Policy	\$11,036	\$4,194	\$15,231
Information Technology	\$29	\$124	\$152
Customer Support	\$24,363	\$29,642	\$54,004
Business Development	\$94	\$2,348	\$2,441
<b>Subtotal Support Services Costs</b>	<b><u>\$215,850</u></b>	<b><u>\$323,130</u></b>	<b><u>\$538,980</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$1,405,784	\$1,255,868	\$2,661,652
Incentives to Trade Allies	\$16,694	\$3,412	\$20,106
<b>Subtotal Incentive Costs</b>	<b><u>\$1,422,478</u></b>	<b><u>\$1,259,281</u></b>	<b><u>\$2,681,758</u></b>
<b>Total Efficiency Vermont Costs</b>	<b><u>\$3,383,808</u></b>	<b><u>\$3,738,494</u></b>	<b><u>\$7,122,302</u></b>
<b>Total Participant Costs</b>	<b>\$5,630,452</b>	<b>\$3,836,645</b>	<b>\$9,467,097</b>
<b>Total Third Party Costs</b>	<b><u>\$43</u></b>	<b><u>\$0</u></b>	<b><u>\$43</u></b>
<b>Total Resource Acquisition Costs</b>	<b><u>\$9,014,304</u></b>	<b><u>\$7,575,138</u></b>	<b><u>\$16,589,442</u></b>
<b><u>Annualized MWh Savings</u></b>			
Annualized MWh Savings	15,310	10,173	25,484
Lifetime MWh Savings	228,005	142,722	370,727
TRB Savings (2012 \$)	\$28,390,079	\$13,512,066	\$41,902,146
Winter Coincident Peak kW Savings	1,875	1,227	3,101
Summer Coincident Peak kW Savings	2,171	1,399	3,570
Annualized MWh Savings/Participant	66.857	54.403	63.550
Weighted Lifetime	14.9	14.0	14.5

## 4.2 Electric Business New Construction - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	57	778	691	12,734	27	164	479	0	\$164,229	\$433,702
Cooking and Laundry	6	24	22	310	4	3	294	270	\$1,225	\$5,415
Design Assistance	3	0	0	0	0	0	0	0	\$10,296	\$31,700
Hot Water Efficiency	4	14	12	137	3	2	374	20	\$4,761	\$52,375
Industrial Process Eff.	2	622	599	9,007	68	63	4,748	640	\$19,998	\$627,950
Lighting	176	5,413	4,826	76,536	751	763	-2,237	0	\$673,818	\$1,082,185
Motors	37	1,141	1,012	16,510	104	132	140	0	\$179,007	\$313,712
Other Efficiency	24	94	83	1,021	17	3	281	57	\$15,801	\$98,187
Refrigeration	31	1,755	1,559	21,623	227	203	0	6	\$117,255	\$474,714
Space Heat Efficiency	19	-63	-56	-796	-37	18	9,139	0	\$31,794	\$255,964
Space Heat Fuel Switch	2	53	55	1,591	18	0	19	0	\$11,704	\$198,296
Ventilation	30	344	305	4,049	44	48	2,145	0	\$25,979	\$262,445
<b>Totals</b>		10,173	9,109	142,722	1,227	1,399	15,382	993	\$1,255,868	\$3,836,645

### 4.3 Electric Business New Construction Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$10,469,449
Fossil Fuel Savings (Costs)	\$181,170	\$2,926,647
<u>Water Savings (Costs)</u>	<u>\$7,427</u>	<u>\$115,970</u>
<b>Total</b>	<b>\$188,597</b>	<b>\$13,512,066</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>9,109</b>	<b>9,028</b>	<b>10,173</b>
Winter on peak	3,109	3,079	3,495
Winter off peak	2,844	2,817	3,161
Summer on peak	1,697	1,684	1,684
Summer off peak	1,459	1,448	1,603
<u>Coincident Demand Savings (kW)</u>			
Winter	1,128	1,115	1,227
Shoulder	0	0	0
Summer	1,278	1,266	1,399

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>1,006</b>	<b>993</b>	<b>14,084</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>15,382</b>	<b>15,382</b>	<b>250,163</b>
LP	2,559	2,556	58,063
NG	7,058	7,056	107,296
Oil/Kerosene	2,346	2,110	29,795
Wood	(1,332)	(1,096)	(16,229)
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>\$54,842</b>	<b>\$54,516</b>	<b>\$810,184</b>

<b>Net Societal Benefits</b>	<b>\$14,327,040</b>
------------------------------	---------------------

## 4.4 Electric Business Existing Facilities Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	3,183	2,110	4,559
<b><u>Operating Costs</u></b>			
Administration	\$423,386	\$486,471	\$909,857
Operations and Implementation	\$1,046,346	\$1,286,496	\$2,332,843
Strategy and Planning	\$726,786	\$1,036,961	\$1,763,747
<b>Subtotal Operating Costs</b>	<b><u>\$2,196,519</u></b>	<b><u>\$2,809,928</u></b>	<b><u>\$5,006,447</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$2,063,339	\$2,245,649	\$4,308,988
Services to Trade Allies	\$164,482	\$192,903	\$357,385
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$2,227,821</u></b>	<b><u>\$2,438,552</u></b>	<b><u>\$4,666,373</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$33	\$33
Targeted Implementation	\$0	\$1,147	\$1,147
Consulting	\$19,253	\$136,028	\$155,281
Marketing	\$306,915	\$510,981	\$817,896
EM&V	\$98,233	\$87,845	\$186,078
Policy	\$27,569	\$10,151	\$37,719
Information Technology	\$69	\$305	\$374
Customer Support	\$58,505	\$70,904	\$129,410
Business Development	\$6,456	\$7,502	\$13,957
<b>Subtotal Support Services Costs</b>	<b><u>\$516,999</u></b>	<b><u>\$824,896</u></b>	<b><u>\$1,341,895</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$9,736,743	\$7,061,783	\$16,798,526
Incentives to Trade Allies	\$51,895	\$24,132	\$76,027
<b>Subtotal Incentive Costs</b>	<b><u>\$9,788,637</u></b>	<b><u>\$7,085,916</u></b>	<b><u>\$16,874,553</u></b>
<b>Total Efficiency Vermont Costs</b>	<b><u>\$14,729,976</u></b>	<b><u>\$13,159,291</u></b>	<b><u>\$27,889,267</u></b>
<b>Total Participant Costs</b>	\$13,145,588	\$13,514,620	\$26,660,208
<b>Total Third Party Costs</b>	\$255,002	(\$0)	\$255,001
<b>Total Resource Acquisition Costs</b>	<b><u>\$28,130,565</u></b>	<b><u>\$26,673,911</u></b>	<b><u>\$54,804,476</u></b>

<b>Annualized MWh Savings</b>	52,377	40,686	93,063
<b>Lifetime MWh Savings</b>	651,621	525,082	1,176,703
<b>TRB Savings (2012 \$)</b>	\$48,476,213	\$40,654,478	\$89,130,691
<b>Winter Coincident Peak kW Savings</b>	7,856	6,374	14,230
<b>Summer Coincident Peak kW Savings</b>	6,941	4,654	11,595
<b>Annualized MWh Savings/Participant</b>	16.455	19.283	20.413
<b>Weighted Lifetime</b>	12.4	12.9	12.6

<sup>1</sup> Business Existing Facilities (BEF) incentives were under stated by \$39,716 (~ 0.4%) in 2012 monthly invoices due to an GMP Energy Efficiency Fund BEF Mutual Fund cost allocation. The adjustment to correct the error was in the March 2013 EVT invoices and included above. Incentives are accurately reported in table 4.5.

## 4.5 Electric Business Existing Facilities - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	107	1,309	1,223	22,704	109	116	479	0	\$196,885	\$430,038
Cooking and Laundry	6	27	26	481	6	5	281	362	\$5,729	\$24,623
Design Assistance	106	796	714	4,010	53	47	396	0	\$429,563	\$271,386
Electronics	5	36	33	374	4	4	0	0	\$7,493	\$28,350
Hot Water Efficiency	11	61	59	637	11	8	305	1,124	\$3,570	\$10,191
Hot Water Fuel Switch	4	41	44	962	9	7	-121	0	\$2,506	\$16,585
Industrial Process Eff.	69	8,715	9,031	115,381	1,491	780	3,588	0	\$703,193	\$3,707,196
Lighting	1,673	21,124	19,443	286,698	3,186	2,829	-9,514	0	\$4,794,469	\$6,813,605
Motors	92	4,407	4,309	46,390	485	645	26,373	0	\$363,947	\$802,954
Other Efficiency	255	592	571	4,517	191	15	297	0	\$176,212	-\$81,135
Other Indirect Activity	3	0	0	0	0	0	196	0	\$37,723	-\$11,440
Refrigeration	121	2,511	2,396	32,896	317	131	-10	0	\$258,373	\$1,172,936
Space Heat Efficiency	36	679	653	5,416	497	4	1,023	0	\$21,880	\$113,526
Space Heat Fuel Switch	1	36	38	1,069	10	0	-133	0	\$0	\$1,000
Ventilation	15	352	341	3,548	6	62	6,199	0	\$20,523	\$214,806
<b>Totals</b>		40,686	38,881	525,082	6,374	4,654	29,359	1,486	\$7,022,067	\$13,514,620

## 4.6 Electric Business Existing Facilities Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$35,297,115
Fossil Fuel Savings (Costs)	\$482,386	\$5,219,445
Water Savings (Costs)	\$11,117	\$137,918
<b>Total</b>	<b>\$493,503</b>	<b>\$40,654,478</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>38,881</b>	<b>36,093</b>	<b>40,686</b>
Winter on peak	14,890	13,746	15,602
Winter off peak	12,460	11,570	13,826
Summer on peak	6,217	5,794	5,794
Summer off peak	5,313	4,982	5,515
<u>Coincident Demand Savings (kW)</u>			
Winter	6,286	5,794	6,374
Shoulder	0	0	0
Summer	4,537	4,211	4,654

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>1,641</b>	<b>1,486</b>	<b>16,221</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>33,273</b>	<b>29,359</b>	<b>328,682</b>
LP	4,024	3,655	53,211
NG	4,010	3,782	31,061
Oil/Kerosene	18,368	15,818	158,649
Wood	6,810	6,071	85,733
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>\$1,212,433</b>	<b>\$1,196,200</b>	<b>\$14,499,556</b>

<b>Net Societal Benefits</b>	<b>\$55,944,337</b>
------------------------------	---------------------



## 4.7 Electric Residential New Construction Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	1,043	1,354	2,386
<b><u>Operating Costs</u></b>			
Administration	\$231,727	\$230,910	\$462,638
Operations and Implementation	\$665,010	\$753,879	\$1,418,889
Strategy and Planning	\$27,166	\$23,264	\$50,430
<b>Subtotal Operating Costs</b>	<b><u>\$923,903</u></b>	<b><u>\$1,008,053</u></b>	<b><u>\$1,931,956</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$948,638	\$1,078,636	\$2,027,274
Services to Trade Allies	\$17,804	\$21,485	\$39,288
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$966,442</u></b>	<b><u>\$1,100,120</u></b>	<b><u>\$2,066,562</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$30	\$30
Targeted Implementation	\$0	\$1,047	\$1,047
Consulting	\$16,387	\$24,124	\$40,511
Marketing	\$184,835	\$330,920	\$515,755
EM&V	\$16,007	\$8,811	\$24,818
Policy	\$20,284	\$6,579	\$26,864
Information Technology	\$64	\$278	\$342
Customer Support	\$22,904	\$17,033	\$39,937
Business Development	\$209	\$5,282	\$5,491
<b>Subtotal Support Services Costs</b>	<b><u>\$260,690</u></b>	<b><u>\$394,105</u></b>	<b><u>\$654,795</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$316,459	\$361,397	\$677,856
Incentives to Trade Allies	\$11	\$923	\$934
<b>Subtotal Incentive Costs</b>	<b><u>\$316,470</u></b>	<b><u>\$362,320</u></b>	<b><u>\$678,790</u></b>
<b>Total Efficiency Vermont Costs</b>	<b><u>\$2,467,505</u></b>	<b><u>\$2,864,598</u></b>	<b><u>\$5,332,103</u></b>
<b>Total Participant Costs</b>	<b>\$1,362,473</b>	<b>\$1,508,491</b>	<b>\$2,870,965</b>
<b>Total Third Party Costs</b>	<b><u>\$56,804</u></b>	<b><u>\$32,296</u></b>	<b><u>\$89,100</u></b>
<b>Total Resource Acquisition Costs</b>	<b><u>\$3,886,783</u></b>	<b><u>\$4,405,385</u></b>	<b><u>\$8,292,167</u></b>
<b><u>Annualized MWh Savings</u></b>			
Annualized MWh Savings	1,580	1,635	3,215
Lifetime MWh Savings	27,643	26,628	54,271
TRB Savings (2012 \$)	\$10,335,545	\$6,803,767	\$17,139,312
Winter Coincident Peak kW Savings	358	356	713
Summer Coincident Peak kW Savings	210	168	378
Annualized MWh Savings/Participant	1.515	1.207	1.347
Weighted Lifetime	17.5	16.3	16.9

## 4.8 Electric Residential New Construction - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	215	82	73	1,216	11	14	0	0	\$30,539	\$1,691
Cooking and Laundry	623	62	53	851	18	11	370	2,719	\$12,158	\$120,119
Hot Water Efficiency	600	2	2	55	0	0	509	1,739	\$17,450	-\$10,219
Lighting	1,342	836	758	9,935	201	74	-75	0	\$142,046	\$173,910
Motors	115	58	51	900	6	4	0	0	\$4,354	\$27,821
Other Fuel Switch	221	71	91	2,144	18	14	-176	0	\$1,121	\$10,495
Refrigeration	647	81	74	1,127	8	10	0	0	\$10,746	\$39,677
Space Heat Efficiency	356	365	320	9,082	86	33	8,936	0	\$134,936	\$1,120,702
Ventilation	617	77	69	1,318	8	8	2,133	0	\$8,048	\$24,295
<b>Totals</b>		1,635	1,491	26,628	356	168	11,697	4,458	\$361,397	\$1,508,491

## 4.9 Electric Residential New Construction Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$1,845,487
Fossil Fuel Savings (Costs)	\$199,247	\$4,507,297
Water Savings (Costs)	\$33,308	\$450,981
<b>Total</b>	<b>\$232,555</b>	<b>\$6,803,765</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>1,491</b>	<b>1,451</b>	<b>1,635</b>
Winter on peak	533	517	587
Winter off peak	572	560	629
Summer on peak	187	180	180
Summer off peak	200	194	214
<u>Coincident Demand Savings (kW)</u>			
Winter	332	323	356
Shoulder	0	0	0
Summer	159	152	168

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>4,395</b>	<b>4,458</b>	<b>53,346</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>11,406</b>	<b>11,697</b>	<b>257,578</b>
LP	3,872	3,955	94,233
NG	6,128	6,343	132,803
Oil/Kerosene	158	158	3,946
Wood	1,246	1,244	26,574
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>\$27,936</b>	<b>\$27,330</b>	<b>\$332,590</b>

<b>Net Societal Benefits</b>	<b>\$5,651,138</b>
------------------------------	--------------------

## 4.10 Electric Efficient Products Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	34,376	29,077	62,756
<b><u>Operating Costs</u></b>			
Administration	\$278,530	\$273,224	\$551,754
Operations and Implementation	\$876,300	\$1,044,452	\$1,920,751
<u>Strategy and Planning</u>	<u>\$8,116</u>	<u>\$12,446</u>	<u>\$20,562</u>
<b>Subtotal Operating Costs</b>	<b><u>\$1,162,946</u></b>	<b><u>\$1,330,121</u></b>	<b><u>\$2,493,067</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$246,572	\$262,053	\$508,625
Services to Trade Allies	\$73,796	\$75,971	\$149,767
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$320,368</u></b>	<b><u>\$338,024</u></b>	<b><u>\$658,392</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$27	\$27
Targeted Implementation	\$0	\$931	\$931
Consulting	\$44,425	\$56,874	\$101,299
Marketing	\$389,752	\$768,622	\$1,158,374
EM&V	\$14,065	\$8,894	\$22,958
Policy	\$17,964	\$5,829	\$23,793
Information Technology	\$57	\$248	\$305
Customer Support	\$36,011	\$38,705	\$74,717
<u>Business Development</u>	<u>\$186</u>	<u>\$4,695</u>	<u>\$4,882</u>
<b>Subtotal Support Services Costs</b>	<b><u>\$502,460</u></b>	<b><u>\$884,826</u></b>	<b><u>\$1,387,286</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$4,561,686	\$4,236,136	\$8,797,822
<u>Incentives to Trade Allies</u>	<u>\$74</u>	<u>\$0</u>	<u>\$74</u>
<b>Subtotal Incentive Costs</b>	<b><u>\$4,561,760</u></b>	<b><u>\$4,236,136</u></b>	<b><u>\$8,797,896</u></b>
<b><u>Total Efficiency Vermont Costs</u></b>	<b><u>\$6,547,533</u></b>	<b><u>\$6,789,107</u></b>	<b><u>\$13,336,640</u></b>
<b>Total Participant Costs</b>	\$212,751	\$3,695,000	\$3,907,750
<b><u>Total Third Party Costs</u></b>	<b><u>\$1,610,752</u></b>	<b><u>\$755,115</u></b>	<b><u>\$2,365,867</u></b>
<b><u>Total Resource Acquisition Costs</u></b>	<b><u>\$8,371,036</u></b>	<b><u>\$11,239,221</u></b>	<b><u>\$19,610,257</u></b>
<b><u>Annualized MWh Savings</u></b>			
Annualized MWh Savings	36,802	31,380	68,182
Lifetime MWh Savings	263,973	265,732	529,705
TRB Savings (2012 \$)	\$26,602,699	\$20,674,216	\$47,276,915
Winter Coincident Peak kW Savings	11,117	7,694	18,810
Summer Coincident Peak kW Savings	5,435	4,167	9,602
Annualized MWh Savings/Participant	1.071	1.079	1.086
Weighted Lifetime	7.2	8.5	7.8

## 4.11 Electric Efficient Products - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	789	116	135	1,397	0	25	0	0	\$19,850	\$27,910
Cooking and Laundry	3,335	822	674	11,505	110	83	2,997	28,355	\$196,015	\$1,228,985
Electronics	2,611	4,032	4,356	19,744	406	464	0	0	\$365,341	-\$316,833
Hot Water Efficiency	16	0	0	0	0	0	0	0	\$6,400	\$6,667
Lighting	20,074	24,804	27,947	219,097	7,033	3,399	-5,228	0	\$3,254,764	\$2,706,415
Motors	65	32	28	320	0	19	0	0	\$19,361	\$4,289
Refrigeration	2,574	1,538	1,774	12,948	141	178	0	0	\$364,686	\$28,199
Space Heat Efficiency	13	36	34	721	4	0	0	0	\$9,719	\$9,367
<b>Totals</b>		31,380	34,947	265,732	7,694	4,167	-2,232	28,355	\$4,236,136	\$3,695,000

## 4.12 Electric Efficient Products Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$17,071,922
Fossil Fuel Savings (Costs)	(\$42,638)	\$323,534
Water Savings (Costs)	\$211,801	\$3,278,295
<b>Total</b>	<b>\$169,163</b>	<b>\$20,673,751</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>34,947</b>	<b>27,840</b>	<b>31,380</b>
Winter on peak	13,833	11,083	12,578
Winter off peak	10,500	8,283	9,294
Summer on peak	5,777	4,653	4,653
Summer off peak	4,837	3,823	4,228
<u>Coincident Demand Savings (kW)</u>			
Winter	9,410	6,994	7,694
Shoulder	0	0	0
Summer	4,885	3,772	4,167

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>26,261</b>	<b>28,355</b>	<b>396,484</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>(3,588)</b>	<b>(2,232)</b>	<b>13,338</b>
LP	605	676	9,049
NG	807	837	12,060
Oil/Kerosene	(5,311)	(4,521)	(7,746)
Wood	0	0	0
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>\$1,366,405</b>	<b>\$1,168,184</b>	<b>\$11,456,292</b>

<b>Net Societal Benefits</b>	<b>\$36,015,879</b>
------------------------------	---------------------

## 4.13 Electric Existing Homes Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	4,855	4,754	9,571
<b><u>Operating Costs</u></b>			
Administration	\$249,045	\$244,826	\$493,871
Operations and Implementation	\$1,494,287	\$1,580,181	\$3,074,469
Strategy and Planning	\$156,516	\$101,706	\$258,222
<b>Subtotal Operating Costs</b>	<b><u>\$1,899,848</u></b>	<b><u>\$1,926,714</u></b>	<b><u>\$3,826,562</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$494,824	\$250,633	\$745,456
Services to Trade Allies	\$16,009	\$19,493	\$35,502
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$510,833</u></b>	<b><u>\$270,125</u></b>	<b><u>\$780,958</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$264	\$264
Targeted Implementation	\$0	\$969	\$969
Consulting	\$17,743	\$48,700	\$66,443
Marketing	\$270,058	\$679,327	\$949,385
EM&V	\$16,542	\$15,088	\$31,630
Policy	\$19,672	\$8,450	\$28,122
Information Technology	\$59	\$258	\$317
Customer Support	\$37,485	\$50,432	\$87,916
Business Development	\$193	\$4,886	\$5,080
<b>Subtotal Support Services Costs</b>	<b><u>\$361,753</u></b>	<b><u>\$808,373</u></b>	<b><u>\$1,170,126</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$2,092,425	\$867,009	\$2,959,434
Incentives to Trade Allies	\$5,955	\$8,450	\$14,405
<b>Subtotal Incentive Costs</b>	<b><u>\$2,098,381</u></b>	<b><u>\$875,459</u></b>	<b><u>\$2,973,840</u></b>
<b>Total Efficiency Vermont Costs</b>	<b><u>\$4,870,814</u></b>	<b><u>\$3,880,671</u></b>	<b><u>\$8,751,486</u></b>
<b>Total Participant Costs</b>	<b>\$879,799</b>	<b>\$217,346</b>	<b>\$1,097,145</b>
<b>Total Third Party Costs</b>	<b><u>\$236,411</u></b>	<b><u>\$68,103</u></b>	<b><u>\$304,514</u></b>
<b>Total Resource Acquisition Costs</b>	<b><u>\$5,987,025</u></b>	<b><u>\$4,166,121</u></b>	<b><u>\$10,153,145</u></b>
<b><u>Annualized MWh Savings</u></b>			
Annualized MWh Savings	4,110	1,708	5,817
Lifetime MWh Savings	58,300	22,373	80,673
TRB Savings (2012 \$)	\$4,553,909	\$2,185,649	\$6,739,558
Winter Coincident Peak kW Savings	764	344	1,108
Summer Coincident Peak kW Savings	340	173	513
Annualized MWh Savings/Participant	0.846	0.359	0.608
Weighted Lifetime	14.2	13.1	13.9

## 4.14 Electric Existing Homes - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	13	2	2	29	0	3	0	0	\$1,280	\$819
Cooking and Laundry	125	65	58	908	8	6	7	887	\$68,433	\$2,362
Electronics	3,480	150	145	600	17	22	0	0	\$83,644	-\$19,700
Hot Water Efficiency	3,787	293	273	2,415	35	22	1,390	7,677	\$64,524	\$56,695
Hot Water Fuel Switch	88	219	328	6,565	34	17	-894	0	\$37,802	\$76,600
Lighting	4,284	431	394	4,009	166	48	-12	0	\$153,656	\$7,030
Motors	20	6	5	77	1	0	0	0	\$1,262	\$2,212
Other Efficiency	1,089	0	0	0	0	0	0	0	\$0	\$0
Other Fuel Switch	10	10	10	307	2	2	-31	0	\$3,354	\$3,097
Refrigeration	604	378	337	4,579	35	44	0	0	\$406,712	\$9,802
Space Heat Efficiency	36	72	70	1,638	32	0	32	0	\$17,588	\$63,810
Space Heat Fuel Switch	3	10	11	308	5	0	-42	0	\$3,303	\$6,370
Ventilation	236	71	65	939	8	8	0	0	\$25,452	\$8,250
<b>Totals</b>		1,708	1,696	22,373	344	173	450	8,564	\$867,009	\$217,346



## 4.15 Electric Existing Homes Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$1,333,060
Fossil Fuel Savings (Costs)	\$19,391	\$136,871
Water Savings (Costs)	\$63,826	\$715,718
<b>Total</b>	<b>\$83,218</b>	<b>\$2,185,649</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>1,696</b>	<b>1,516</b>	<b>1,708</b>
Winter on peak	633	561	637
Winter off peak	576	517	580
Summer on peak	245	219	219
Summer off peak	241	219	243
<u>Coincident Demand Savings (kW)</u>			
Winter	346	313	344
Shoulder	0	0	0
Summer	172	156	173

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>9,177</b>	<b>8,564</b>	<b>81,192</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>(47)</b>	<b>450</b>	<b>(15,038)</b>
LP	612	606	5,867
NG	(1,346)	(710)	(26,268)
Oil/Kerosene	577	518	6,016
Wood	(56)	(16)	(493)
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>\$14,043</b>	<b>\$15,012</b>	<b>\$93,282</b>

<b>Net Societal Benefits</b>	<b>\$340,010</b>
------------------------------	------------------

## 4.16 Thermal Energy and Process Fuels Business New Construction Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	41	28	68
<b><u>Operating Costs</u></b>			
Administration	\$2,689	\$1,512	\$4,201
Operations and Implementation	\$947	\$1,106	\$2,053
Strategy and Planning	<u>\$635</u>	<u>\$270</u>	<u>\$905</u>
<b>Subtotal Operating Costs</b>	<b><u>\$4,271</u></b>	<b><u>\$2,888</u></b>	<b><u>\$7,159</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$3,693	\$2,343	\$6,036
Services to Trade Allies	<u>\$2</u>	<u>\$2</u>	<u>\$3</u>
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$3,695</u></b>	<b><u>\$2,345</u></b>	<b><u>\$6,039</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$0	\$0
Targeted Implementation	\$0	\$3	\$3
Consulting	\$212	\$54	\$266
Marketing	\$449	\$261	\$709
EM&V	\$104	\$100	\$204
Policy	\$109	\$10	\$119
Information Technology	\$0	\$1	\$1
Customer Support	\$283	\$134	\$417
Business Development	<u>\$1</u>	<u>\$16</u>	<u>\$16</u>
<b>Subtotal Support Services Costs</b>	<b><u>\$1,158</u></b>	<b><u>\$578</u></b>	<b><u>\$1,737</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$118,934	\$60,375	\$179,309
Incentives to Trade Allies	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>Subtotal Incentive Costs</b>	<b><u>\$118,934</u></b>	<b><u>\$60,375</u></b>	<b><u>\$179,309</u></b>
<b>Total Efficiency Vermont Costs</b>	<b><u>\$128,058</u></b>	<b><u>\$66,186</u></b>	<b><u>\$194,244</u></b>
<b>Total Participant Costs</b>	\$1,629,163	\$562,913	\$2,192,076
<b>Total Third Party Costs</b>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>Total Resource Acquisition Costs</b>	<b><u>\$1,757,221</u></b>	<b><u>\$629,099</u></b>	<b><u>\$2,386,320</u></b>
<b>Annualized MMBtu Savings</b>	18,834	7,152	25,987
<b>Lifetime MMBtu Savings</b>	388,736	149,072	537,808
<b>TRB Savings (2012 \$)</b>	\$10,422,492	\$3,965,032	\$14,387,524
<b>Annualized MMBtu Savings/Participant</b>	459.371	255.444	382.156
<b>Weighted Lifetime</b>	20.6	20.8	20.7

## 4.17 Thermal Energy and Process Fuels Business New Construction - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	1	82	73	1,649	0	17	0	0	\$5,000	\$75,000
Industrial Process Eff.	1	0	0	0	0	0	1,787	0	\$4,353	\$10,257
Refrigeration	1	0	0	0	0	0	928	0	\$5,146	-\$5,144
Space Heat Efficiency	23	-31	-28	-616	-18	0	4,395	0	\$39,871	\$369,264
Space Heat Fuel Switch	2	-1	-1	-15	0	0	-507	0	\$3,000	\$107,660
Ventilation	6	-1	-1	-13	2	2	550	0	\$3,004	\$5,877
<b>Totals</b>		49	43	1,006	-17	19	7,152	0	\$60,375	\$562,913

## 4.18 Thermal Energy and Process Fuels Business New Construction Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$85,244
Fossil Fuel Savings (Costs)	\$160,888	\$3,879,788
Water Savings (Costs)	\$0	\$0
<b>Total</b>	<b>\$160,888</b>	<b>\$3,965,032</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>43</b>	<b>44</b>	<b>49</b>
Winter on peak	2	2	2
Winter off peak	(11)	(11)	(12)
Summer on peak	34	34	34
Summer off peak	19	19	21
<u>Coincident Demand Savings (kW)</u>			
Winter	(15)	(15)	(17)
Shoulder	0	0	0
Summer	17	17	19

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>7,063</b>	<b>7,152</b>	<b>149,072</b>
LP	7,185	7,172	143,722
NG	0	0	0
Oil/Kerosene	564	564	14,094
Wood	(686)	(583)	(8,743)
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>\$34</b>	<b>\$29</b>	<b>\$438</b>

<b>Net Societal Benefits</b>	<b>\$4,721,212</b>
------------------------------	--------------------

## 4.19 Thermal Energy and Process Fuels Business Existing Facilities Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	147	176	323
<b><u>Operating Costs</u></b>			
Administration	\$10,048	\$10,821	\$20,869
Operations and Implementation	\$11,076	\$15,171	\$26,247
Strategy and Planning	\$8,607	\$14,996	\$23,603
<b>Subtotal Operating Costs</b>	<b><u>\$29,731</u></b>	<b><u>\$40,988</u></b>	<b><u>\$70,719</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$6,598	\$3,447	\$10,045
Services to Trade Allies	\$8	\$8	\$17
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$6,606</u></b>	<b><u>\$3,456</u></b>	<b><u>\$10,062</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$0	\$0
Targeted Implementation	\$0	\$18	\$18
Consulting	\$1,147	\$463	\$1,610
Marketing	\$2,431	\$2,514	\$4,945
EM&V	\$934	\$532	\$1,467
Policy	\$2,999	\$58	\$3,057
Information Technology	\$1	\$5	\$6
Customer Support	\$1,530	\$725	\$2,255
Business Development	\$3	\$91	\$94
<b>Subtotal Support Services Costs</b>	<b><u>\$9,047</u></b>	<b><u>\$4,405</u></b>	<b><u>\$13,452</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$372,897	\$427,146	\$800,043
Incentives to Trade Allies	\$6,400	\$5,664	\$12,064
<b>Subtotal Incentive Costs</b>	<b><u>\$379,297</u></b>	<b><u>\$432,810</u></b>	<b><u>\$812,107</u></b>
<b><u>Total Efficiency Vermont Costs</u></b>	<b><u>\$424,682</u></b>	<b><u>\$481,658</u></b>	<b><u>\$906,340</u></b>
<b>Total Participant Costs</b>	\$2,456,992	\$2,082,286	\$4,539,279
<b>Total Third Party Costs</b>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>Total Resource Acquisition Costs</b>	<b><u>\$2,881,674</u></b>	<b><u>\$2,563,944</u></b>	<b><u>\$5,445,618</u></b>
<b>Annualized MMBtu Savings</b>	33,042	25,975	59,018
<b>Lifetime MMBtu Savings</b>	527,893	397,872	925,764
<b>TRB Savings (2012 \$)</b>	\$10,208,215	\$6,954,609	\$17,162,825
<b>Annualized MMBtu Savings/Participant</b>	224.776	147.587	182.717
<b>Weighted Lifetime</b>	16.0	15.3	15.7

## 4.20 Thermal Energy and Process Fuels Business Existing Facilities - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Cooking and Laundry	2	0	0	0	0	0	42	0	\$1,500	\$3,893
Design Assistance	8	34	31	172	0	4	3,104	0	\$86,350	\$132,709
Hot Water Efficiency	4	0	0	0	0	0	270	0	\$6,700	\$4,229
Industrial Process Eff.	6	0	0	0	0	0	7,304	0	\$97,649	\$609,268
Motors	2	26	26	392	3	3	2,998	0	\$27,280	\$120,295
Other Efficiency	65	5	4	121	1	0	2,143	2,677	\$11,462	\$459,038
Space Heat Efficiency	148	60	58	1,102	12	5	9,860	0	\$190,206	\$435,832
Space Heat Fuel Switch	4	-1	-2	-21	0	0	254	0	\$6,000	\$317,022
<b>Totals</b>		124	118	1,766	15	12	25,975	2,677	\$427,146	\$2,082,286

## 4.21 Thermal Energy and Process Fuels Business Existing Facilities Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$121,081
Fossil Fuel Savings (Costs)	\$443,074	\$6,355,745
Water Savings (Costs)	\$20,024	\$477,783
<b>Total</b>	<b>\$463,098</b>	<b>\$6,954,609</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>118</b>	<b>110</b>	<b>124</b>
Winter on peak	39	36	41
Winter off peak	47	44	53
Summer on peak	19	18	18
Summer off peak	13	12	14
<u>Coincident Demand Savings (kW)</u>			
Winter	16	14	15
Shoulder	0	0	0
Summer	12	11	12

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>2,704</b>	<b>2,677</b>	<b>66,924</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>28,790</b>	<b>25,975</b>	<b>397,872</b>
LP	2,435	2,326	49,867
NG	6,587	6,192	92,883
Oil/Kerosene	17,911	15,412	215,943
Wood	1,858	2,046	39,181
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>\$581</b>	<b>\$459</b>	<b>\$6,882</b>

<b>Net Societal Benefits</b>	<b>\$8,414,773</b>
------------------------------	--------------------

## 4.22 Thermal Energy and Process Fuels Residential New Construction Summary

	<u>Prior Year</u>	<u>Current Year</u> <b>2012</b>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	39	34	73
<b><u>Operating Costs</u></b>			
Administration	\$106	\$74	\$180
Operations and Implementation	\$0	\$0	\$0
<u>Strategy and Planning</u>	<u>\$0</u>	<u>\$160</u>	<u>\$160</u>
<b>Subtotal Operating Costs</b>	<b><u>\$106</u></b>	<b><u>\$234</u></b>	<b><u>\$339</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$0	\$0	\$0
<u>Services to Trade Allies</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$0	\$0
Targeted Implementation	\$0	\$0	\$0
Consulting	\$0	\$0	\$0
Marketing	\$0	\$0	\$0
EM&V	\$0	\$0	\$0
Policy	\$0	\$0	\$0
Information Technology	\$0	\$0	\$0
Customer Support	\$6	\$0	\$6
<u>Business Development</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>Subtotal Support Services Costs</b>	<b><u>\$6</u></b>	<b><u>\$0</u></b>	<b><u>\$6</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$5,974	\$4,335	\$10,309
<u>Incentives to Trade Allies</u>	<u>\$200</u>	<u>\$0</u>	<u>\$200</u>
<b>Subtotal Incentive Costs</b>	<b><u>\$6,174</u></b>	<b><u>\$4,335</u></b>	<b><u>\$10,509</u></b>
<b><u>Total Efficiency Vermont Costs</u></b>	<b><u>\$6,285</u></b>	<b><u>\$4,569</u></b>	<b><u>\$10,854</u></b>
<b>Total Participant Costs</b>	\$4,850	\$85,292	\$90,142
<b><u>Total Third Party Costs</u></b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>
<b><u>Total Resource Acquisition Costs</u></b>	<b><u>\$11,135</u></b>	<b><u>\$89,861</u></b>	<b><u>\$100,996</u></b>
<b><u>Annualized MMBtu Savings</u></b>			
Annualized MMBtu Savings	252	391	643
Lifetime MMBtu Savings	4,803	5,872	10,675
TRB Savings (2012 \$)	\$60,373	\$337,982	\$398,355
Annualized MMBtu Savings/Participant	6.456	11.513	8.811
Weighted Lifetime	19.1	15.0	16.6



### 4.23 Thermal Energy and Process Fuels Residential New Construction - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Space Heat Fuel Switch	34	-1	-1	-15	0	0	189	0	\$3,038	\$81,789
Ventilation	33	-3	-3	-47	0	0	202	0	\$1,297	\$3,503
<b>Totals</b>		-4	-4	-62	-1	0	391	0	\$4,335	\$85,292

## 4.24 Thermal Energy and Process Fuels Residential New Construction Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	(\$3,464)
Fossil Fuel Savings (Costs)	\$32,370	\$341,445
Water Savings (Costs)	\$0	\$0
<b>Total</b>	<b>\$32,370</b>	<b>\$337,982</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>(4)</b>	<b>(4)</b>	<b>(4)</b>
Winter on peak	(1)	(1)	(2)
Winter off peak	(2)	(2)	(2)
Summer on peak	(0)	(0)	(0)
Summer off peak	(0)	(0)	(0)
<u>Coincident Demand Savings (kW)</u>			
Winter	(1)	(1)	(1)
Shoulder	0	0	0
Summer	(0)	(0)	(0)

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>391</b>	<b>391</b>	<b>5,872</b>
LP	1,115	1,115	16,722
NG	0	0	0
Oil/Kerosene	642	642	9,633
Wood	(1,366)	(1,366)	(20,484)
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>(\$12)</b>	<b>(\$12)</b>	<b>(\$183)</b>

<b>Net Societal Benefits</b>	<b>\$498,479</b>
------------------------------	------------------

## 4.25 Thermal Energy and Process Fuels Efficient Products Summary

	<u>Prior Year</u>	<u>Current Year</u> <b>2013</b>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	nap	nap	nap
<b><u>Operating Costs</u></b>			
Administration	nap	nap	nap
Operations and Implementation	nap	nap	nap
<u>Strategy and Planning</u>	<u>nap</u>	<u>nap</u>	<u>nap</u>
<b>Subtotal Operating Costs</b>	<b><u>nap</u></b>	<b><u>nap</u></b>	<b><u>nap</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	nap	nap	nap
<u>Services to Trade Allies</u>	<u>nap</u>	<u>nap</u>	<u>nap</u>
<b>Subtotal Technical Assistance Costs</b>	<b><u>nap</u></b>	<b><u>nap</u></b>	<b><u>nap</u></b>
<b><u>Support Services</u></b>			
Transportation	nap	nap	nap
Targeted Implementation	nap	nap	nap
Consulting	nap	nap	nap
Marketing	nap	nap	nap
EM&V	nap	nap	nap
Policy	nap	nap	nap
Information Technology	nap	nap	nap
Customer Support	nap	nap	nap
<u>Business Development</u>	<u>nap</u>	<u>nap</u>	<u>nap</u>
<b>Subtotal Support Services Costs</b>	<b><u>nap</u></b>	<b><u>nap</u></b>	<b><u>nap</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	nap	nap	nap
<u>Incentives to Trade Allies</u>	<u>nap</u>	<u>nap</u>	<u>nap</u>
<b>Subtotal Incentive Costs</b>	<b><u>nap</u></b>	<b><u>nap</u></b>	<b><u>nap</u></b>
<b><u>Total Efficiency Vermont Costs</u></b>	<b><u>nap</u></b>	<b><u>nap</u></b>	<b><u>nap</u></b>
<b>Total Participant Costs</b>	nap	nap	nap
<b><u>Total Third Party Costs</u></b>	<u>nap</u>	<u>nap</u>	<u>nap</u>
<b><u>Total Resource Acquisition Costs</u></b>	<b><u>nap</u></b>	<b><u>nap</u></b>	<b><u>nap</u></b>
<b><u>Annualized MMBtu Savings</u></b>			
Annualized MMBtu Savings	nap	nap	nap
Lifetime MMBtu Savings	nap	nap	nap
TRB Savings (2012 \$)	nap	nap	nap
Annualized MMBtu Savings/Participant	nap	nap	nap
Weighted Lifetime	nap	nap	nap

## 4.26 Heating and Process Fuels Efficient Products - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
<b>Totals</b>	nap	nap	nap	nap	nap	nap	nap	nap	nap	nap

## 4.27 Thermal Energy and Process Fuels Efficient Products Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	nap
Fossil Fuel Savings (Costs)	nap	nap
Water Savings (Costs)	nap	nap
<b>Total</b>	<b>nap</b>	<b>nap</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	nap	nap	nap
Winter on peak	nap	nap	nap
Winter off peak	nap	nap	nap
Summer on peak	nap	nap	nap
Summer off peak	nap	nap	nap
<u>Coincident Demand Savings (kW)</u>			
Winter	nap	nap	nap
Shoulder	nap	nap	nap
Summer	nap	nap	nap

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>nap</b>	<b>nap</b>	<b>nap</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>nap</b>	<b>nap</b>	<b>nap</b>
LP	nap	nap	nap
NG	nap	nap	nap
Oil/Kerosene	nap	nap	nap
Wood	nap	nap	nap
Solar	nap	nap	nap
Other	nap	nap	nap
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>nap</b>	<b>nap</b>	<b>nap</b>

<b>Net Societal Benefits</b>	<b>nap</b>
------------------------------	------------

## 4.28 Thermal Energy and Process Fuels Existing Homes Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	2,170	2,593	4,833
<b><u>Operating Costs</u></b>			
Administration	\$145,041	\$138,393	\$283,434
Operations and Implementation	\$558,041	\$1,343,216	\$1,901,256
Strategy and Planning	<u>\$22,283</u>	<u>\$63,997</u>	<u>\$86,280</u>
<b>Subtotal Operating Costs</b>	<b><u>\$725,365</u></b>	<b><u>\$1,545,605</u></b>	<b><u>\$2,270,970</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$23,021	\$160,281	\$183,302
Services to Trade Allies	\$0	\$27	\$27
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$23,021</u></b>	<b><u>\$160,308</u></b>	<b><u>\$183,329</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$43	\$43
Targeted Implementation	\$0	\$565	\$565
Consulting	\$5,747	\$46,344	\$52,091
Marketing	\$67,646	\$422,554	\$490,200
EM&V	\$7,867	\$6,662	\$14,529
Policy	\$2,147	\$3,536	\$5,683
Information Technology	\$37	\$150	\$187
Customer Support	\$12,438	\$32,711	\$45,149
Business Development	<u>\$99</u>	<u>\$2,821</u>	<u>\$2,919</u>
<b>Subtotal Support Services Costs</b>	<b><u>\$95,980</u></b>	<b><u>\$515,386</u></b>	<b><u>\$611,366</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$2,242,698	\$1,781,055	\$4,023,754
Incentives to Trade Allies	\$98,026	\$150,719	\$248,746
<b>Subtotal Incentive Costs</b>	<b><u>\$2,340,725</u></b>	<b><u>\$1,931,775</u></b>	<b><u>\$4,272,499</u></b>
<b><u>Total Efficiency Vermont Costs</u></b>	<b><u>\$3,185,091</u></b>	<b><u>\$4,153,073</u></b>	<b><u>\$7,338,164</u></b>
<b>Total Participant Costs</b>	\$6,981,729	\$6,135,668	\$13,117,396
<b>Total Third Party Costs</b>	<u>\$1,048,636</u>	<u>\$322,812</u>	<u>\$1,371,448</u>
<b>Total Resource Acquisition Costs</b>	<b><u>\$11,215,456</u></b>	<b><u>\$10,611,553</u></b>	<b><u>\$21,827,009</u></b>
<b>Annualized MMBtu Savings</b>			
Annualized MMBtu Savings	26,233	20,380	46,614
Lifetime MMBtu Savings	483,622	376,444	860,052
TRB Savings (2012 \$)	\$10,138,954	\$7,966,336	\$18,105,290
Annualized MMBtu Savings/Participant	12.089	7.859	9.645
Weighted Lifetime	18.4	18.5	18.5

## 4.29 Thermal Energy and Process Fuels Existing Homes - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	9	-13	-13	-192	-7	0	191	0	\$0	\$141,041
Cooking and Laundry	16	0	0	0	0	0	0	0	\$0	\$1,974
Hot Water Efficiency	226	5	5	72	1	0	774	114	\$536	\$120,002
Hot Water Fuel Switch	6	11	13	338	2	1	-17	0	\$0	\$8,259
Motors	19	0	0	0	0	0	14	0	\$0	\$1,264
Other Efficiency	1,143	0	0	0	0	0	0	0	\$0	\$0
Other Indirect Activity	303	0	0	0	0	0	0	0	\$200,510	-\$152,094
Space Heat Efficiency	2,522	280	276	5,042	149	0	18,654	1	\$1,546,008	\$5,205,023
Space Heat Fuel Switch	87	-7	-7	-86	-1	0	657	0	\$34,000	\$707,909
Ventilation	156	0	0	0	0	0	107	0	\$0	\$102,290
<b>Totals</b>		<b>277</b>	<b>273</b>	<b>5,174</b>	<b>143</b>	<b>1</b>	<b>20,380</b>	<b>115</b>	<b>\$1,781,055</b>	<b>\$6,135,668</b>

## 4.30 Thermal Energy and Process Fuels Existing Homes Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$392,451
Fossil Fuel Savings (Costs)	\$433,044	\$7,564,687
Water Savings (Costs)	\$860	\$9,199
<b>Total</b>	<b>\$433,903</b>	<b>\$7,966,336</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>273</b>	<b>246</b>	<b>277</b>
Winter on peak	124	111	126
Winter off peak	141	127	172
Summer on peak	4	4	4
Summer off peak	4	4	4
<u>Coincident Demand Savings (kW)</u>			
Winter	144	130	143
Shoulder	0	0	0
Summer	1	1	1

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>128</b>	<b>115</b>	<b>1,038</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>22,344</b>	<b>20,380</b>	<b>376,444</b>
LP	4,685	4,224	67,442
NG	25	22	294
Oil/Kerosene	18,641	16,605	304,058
Wood	(1,001)	(468)	4,658
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>(\$7,078)</b>	<b>(\$5,662)</b>	<b>(\$159,422)</b>

<b>Net Societal Benefits</b>	<b>\$2,234,858</b>
------------------------------	--------------------



## 5. SPECIAL PROGRAMS

### 5.1 CUSTOMER CREDIT PROGRAM

### 5.2 GEOGRAPHIC TARGETING (ELECTRIC)

The tables presented in **Section 5.2** contain results from Resource Acquisition (electric only) activity in the Geographic Targeting areas described in **Section 2.3**. The areas of focus for Geographic Targeting were the same in 2013 as in 2012.



## 5.1 CUSTOMER CREDIT PROGRAM

### 5.1.1 NARRATIVE

The Customer Credit program (CCP) provides an alternative path for qualified large businesses showing the capability and resources to identify, analyze, and undertake efficiency projects, and to self-implement energy efficiency measures. Approved project costs are reimbursed up to a maximum of 90% of the company's electric Energy Efficiency Charge payments with time-bound limitations.

CCP customers can receive reimbursement for any retrofit or market-driven project that saves electrical energy and passes the Vermont societal cost-effectiveness test. Once a qualifying customer elects to participate in the CCP, that customer is no longer eligible to participate in other Efficiency Vermont programs.

All CCP projects must be initiated by the customer. In addition, the customer or its contractors must complete all technical analysis. Market-driven projects are eligible for incentives equal to 100% of the incremental measure cost. For retrofit projects, customers can receive incentives that reduce the customer payback time to 12 months. If qualifying incentives exceed the net present value of the savings when screened, the incentive is capped at the net present value amount.

### ELIGIBLE MARKET

To be eligible for CCP, customers must:

- Never have accepted cash incentives from any Vermont utility Demand Side Management program
- Have ISO 14001 certification

## 5.1.2 Customer Credit Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	1	1	1
<b><u>Operating Costs</u></b>			
Administration	\$7,707	\$37,432	\$45,139
Operations and Implementation	\$4,681	\$6,014	\$10,695
Strategy and Planning	\$203	\$225	\$428
<b>Subtotal Operating Costs</b>	<b><u>\$12,592</u></b>	<b><u>\$43,670</u></b>	<b><u>\$56,262</u></b>
<b><u>Technical Assistance Costs</u></b>			
Services to Participants	\$22,107	\$14,115	\$36,222
Services to Trade Allies	\$5,741	\$1,805	\$7,546
<b>Subtotal Technical Assistance Costs</b>	<b><u>\$27,848</u></b>	<b><u>\$15,920</u></b>	<b><u>\$43,768</u></b>
<b><u>Support Services</u></b>			
Transportation	\$0	\$1	\$1
Targeted Implementation	\$0	\$24	\$24
Consulting	\$153	\$336	\$490
Marketing	\$3,371	\$6,116	\$9,487
EM&V	\$1,082	\$1,024	\$2,106
Policy	\$5,451	\$125	\$5,576
Information Technology	\$1	\$6	\$8
Customer Support	\$425	\$359	\$784
Business Development	\$5	\$119	\$124
<b>Subtotal Support Services Costs</b>	<b><u>\$10,489</u></b>	<b><u>\$8,109</u></b>	<b><u>\$18,598</u></b>
<b><u>Incentive Costs</u></b>			
Incentives to Participants	\$144,667	\$1,852,755	\$1,997,422
Incentives to Trade Allies	\$0	\$0	\$0
<b>Subtotal Incentive Costs</b>	<b><u>\$144,667</u></b>	<b><u>\$1,852,755</u></b>	<b><u>\$1,997,422</u></b>
<b>Total Efficiency Vermont Costs</b>	<b><u>\$195,595</u></b>	<b><u>\$1,920,454</u></b>	<b><u>\$2,116,050</u></b>
<b>Total Participant Costs</b>	<b>\$81,963</b>	<b>\$1,050,714</b>	<b>\$1,132,677</b>
<b>Total Third Party Costs</b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>	<b><u>\$0</u></b>
<b>Total Resource Acquisition Costs</b>	<b><u>\$277,558</u></b>	<b><u>\$2,971,168</u></b>	<b><u>\$3,248,727</u></b>
<b>Annualized MWh Savings</b>	1,046	4,097	5,144
<b>Lifetime MWh Savings</b>	15,694	58,790	74,484
<b>TRB Savings (2012 \$)</b>	\$1,138,147	\$4,198,955	\$5,337,102
<b>Winter Coincident Peak kW Savings</b>	117	663	779
<b>Summer Coincident Peak kW Savings</b>	117	661	778
<b>Annualized MWh Savings/Participant</b>	1046.270	4097.362	5143.632
<b>Weighted Lifetime</b>	15.0	14.3	14.5

<sup>1</sup> Incentives to Participants in tables 5.1.2 and 5.1.3 reflect incentives paid to the customer in 2013 but not the full amount due. The incentive owed exceeds the customers' energy efficiency charge (EEC) available balance through December 2013. EVT will continue to make monthly payments as additional EEC is accrued and the incentive balance is expected to be fully paid by September 2014. Regarding savings, since the project was completed in 2013, table 5.1.3 (KIT data) reports full savings in 2013.

### 5.1.3 Customer Credit - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Industrial Process Eff.	1	984	873	12,089	174	174	0	0	\$286,858	\$91,084
Lighting	1	3,113	2,766	46,701	489	486	-359	0	\$1,565,897	\$959,630
<b>Totals</b>		4,097	3,639	58,790	663	661	-359	0	\$1,852,755	\$1,050,714

## 5.1.4 Customer Credit Total Resource Benefits

Avoided Cost Benefits	2013	Lifetime (Present Value)
Avoided Cost of Electricity	nap	\$4,244,010
Fossil Fuel Savings (Costs)	(\$4,853)	(\$45,055)
Water Savings (Costs)	\$0	\$0
<b>Total</b>	<b>(\$4,853)</b>	<b>\$4,198,955</b>

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
<u>Annualized Energy Savings (MWh): Total</u>	<b>3,639</b>	<b>3,639</b>	<b>4,097</b>
Winter on peak	1,180	1,180	1,339
Winter off peak	1,238	1,238	1,389
Summer on peak	597	597	597
Summer off peak	624	624	690
<u>Coincident Demand Savings (kW)</u>			
Winter	602	602	663
Shoulder	0	0	0
Summer	598	598	661

Thermal & Other Benefits	Gross	Net	Lifetime Net
<b>Annualized Water Savings (ccf)</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Annualized fuel savings (increase) MMBtu Total</b>	<b>(359)</b>	<b>(359)</b>	<b>(5,392)</b>
LP	0	0	0
NG	(359)	(360)	(5,392)
Oil/Kerosene	0	0	0
Wood	0	0	0
Solar	0	0	0
Other	0	0	0
<b>Annualized savings (increase) in O&amp;M(\$)</b>	<b>\$58,450</b>	<b>\$58,450</b>	<b>\$876,752</b>

## 5.2 GEOGRAPHIC TARGETING (ELECTRIC)

Based on recommendations from the Vermont System Planning Committee (VSPC) and direction from the Vermont Public Service Board, Efficiency Vermont implements energy efficiency efforts within specific geographic regions of the state to help relieve the electric load on constrained transmission and distribution systems and potentially defer the need for costly system upgrades.

The two geographically targeted areas that were been established by the Vermont Public Service Board for 2012 remained the same for 2013. The first is in the area of Saint Albans. It consists of approximately 1,100 commercial / industrial accounts and 5,900 residential accounts. The second is an area in Essex Junction and Colchester. It consists of approximately 1,300 commercial / industrial accounts and 7,500 residential accounts.

## 5.2.1 Electric Geographic Targeting Summary

	Geographic Area		
	Susie Wilson	Saint Albans	Combined
<b>Efficiency Vermont Costs</b>			
Incentives (Participant and Trade Ally)	\$773,076	\$686,850	\$1,459,926
Allocated Non-Incentives	\$1,110,335	\$1,083,921	\$2,194,256
Year to Date Costs	\$1,883,411	\$1,770,772	\$3,654,182
Costs Starting 1/1/12	\$3,408,657	\$2,954,498	\$6,363,156
<b>Other Costs and Commitments</b>			
Participant Costs Year to Date	\$1,625,143	\$1,250,512	\$2,875,656
Third Party Costs Year to Date	\$6,104	\$3,389	\$9,493
<b>MWh Savings Results</b>			
Annualized MWh Year to Date	5,134	5,147	10,281
Annualized MWh Cumulative Starting 1/1/12	12,150	9,242	21,393
Lifetime MWh Savings	63,241	65,861	129,102
Annualized MWh Savings/Participant	3.278	7.178	4.503
Weighted Lifetime	12	13	13
<b>Summer Peak Coincident kW Savings Results</b>			
Summer Coincident Peak kW Year to Date	756	686	1,442
Summer Coincident Peak kW Cumulative Starting 1/1/12	1,626	1,269	2,896
Summer Coincident Peak kW Goal	1,570	1,800	
% of Summer Coincident Peak kW Goal	104%	71%	
<b>TRB Savings Results</b>			
TRB Year to Date	\$6,072,833	\$4,679,381	\$10,752,213
TRB Cumulative Starting 1/1/12	\$13,468,472	\$8,453,007	\$21,921,479
<b>Participation</b>			
Participants with installations Year to Date	1,566	717	2,283
Participants with installations Cumulative Starting 1/1/12	3,406	1,579	4,985



## 5.2.2 Electric Geographic Targeting Susie Wilson - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	114	675	627	14,357	51	99	0	0	\$64,436	\$173,279
Cooking and Laundry	214	38	31	530	5	4	203	1,602	\$7,980	\$55,772
Design Assistance	7	244	218	1,215	9	9	396	0	\$47,735	\$76,305
Electronics	60	7	6	27	1	1	0	0	\$1,875	-\$270
Hot Water Efficiency	146	33	33	295	4	2	592	1,114	\$6,702	\$46,101
Hot Water Fuel Switch	8	19	27	560	3	1	-74	0	\$5,500	\$4,500
Industrial Process Eff.	5	94	114	1,146	2	18	-80	0	\$28,750	\$20,576
Lighting	1,327	3,697	3,626	41,587	713	536	-1,333	0	\$521,692	\$684,462
Motors	62	51	49	676	2	6	0	0	\$23,806	\$107,606
Other Efficiency	21	19	19	94	8	0	3	0	\$11,832	\$84,350
Other Fuel Switch	85	35	44	1,049	9	7	-115	0	\$100	\$3,651
Refrigeration	167	48	52	482	5	6	0	0	\$10,745	\$8,467
Space Heat Efficiency	5	-131	-116	-1,944	-46	0	6,505	0	\$24,583	\$181,280
Ventilation	93	306	278	3,167	17	69	3,847	0	\$15,190	\$179,065
<b>Totals</b>		5,134	5,008	63,241	782	756	9,943	2,716	\$770,925	\$1,625,143

### 5.2.3 Electric Geographic Targeting Saint Albans - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	20	243	218	4,489	4	51	71	0	\$47,253	\$128,022
Cooking and Laundry	141	28	23	386	4	3	101	1,011	\$7,139	\$41,530
Design Assistance	7	0	0	0	0	0	0	0	\$53,518	\$3,595
Electronics	57	3	3	11	0	0	0	0	\$1,517	-\$345
Hot Water Efficiency	60	12	10	109	2	1	15	117	\$1,897	\$2,920
Hot Water Fuel Switch	10	22	37	675	3	2	-97	0	\$5,500	\$5,200
Industrial Process Eff.	4	618	659	5,178	74	60	0	0	\$10,500	\$36,694
Lighting	518	2,981	2,845	38,627	456	438	-1,522	0	\$435,517	\$540,370
Motors	8	335	311	4,424	29	34	4,836	0	\$23,500	\$113,650
Other Efficiency	51	27	27	136	11	0	0	0	\$990	\$0
Other Fuel Switch	36	14	16	418	3	3	-45	0	\$2,989	\$2,205
Refrigeration	115	858	800	11,293	109	94	0	0	\$90,472	\$362,289
Space Heat Efficiency	35	1	1	15	0	0	0	0	\$883	\$7,633
Ventilation	51	6	5	101	0	0	57	0	\$2,830	\$6,750
<b>Totals</b>		5,147	4,955	65,861	697	686	3,417	1,128	\$684,506	\$1,250,512

## **6. SUBMARKET RESOURCE ACQUISITION RESULTS—**

### **ELECTRIC ONLY**



## 6.1 Electric Market Rate Multifamily New Construction Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	230	256	486
<b>Costs</b>			
<b>EVT Incentives</b>	\$80,710	\$130,415	\$211,125
<b>Participant Costs</b>	\$230,482	\$221,249	\$451,731
<b>Third Party Costs</b>	\$9,072	\$0	\$9,072
<b>Annualized MWh Savings</b>	380	618	998
<b>Lifetime MWh Savings</b>	6,496	9,434	15,930
<b>TRB Savings (2012\$)</b>	\$1,881,732	\$1,541,900	\$3,423,632
<b>Winter Coincident Peak KW Savings</b>	70	106	176
<b>Summer Coincident Peak KW Savings</b>	59	69	127
<b>Annualized MWh Savings/Participant</b>	1.652	2.414	2.053
<b>Weighted Lifetime</b>	17	15	16

## 6.2 Electric Market Rate Multifamily New Construction - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	215	78	70	1,166	10	14	0	0	\$30,013	\$1,217
Cooking and Laundry	255	24	22	335	3	2	118	1,004	\$10,922	\$39,568
Hot Water Efficiency	222	0	0	0	0	0	441	1,224	\$17,449	-\$11,073
Lighting	256	330	296	4,033	56	32	-59	0	\$57,231	\$56,297
Motors	55	39	34	600	4	3	0	0	\$2,625	\$21,984
Other Fuel Switch	176	54	68	1,606	13	10	-117	0	\$336	\$6,561
Refrigeration	255	24	23	403	2	3	0	0	\$7,330	\$8,815
Space Heat Efficiency	33	25	21	611	13	0	873	0	\$634	\$79,630
Ventilation	254	44	41	680	4	5	1,932	0	\$3,874	\$18,251
<b>Totals</b>		618	576	9,434	106	69	3,188	2,227	\$130,415	\$221,249

## 6.3 Electric Market Rate Multifamily Retrofit Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	283	16	299
<b>Costs</b>			
<b>EVT Incentives</b>	\$82,530	\$30,725	\$113,255
<b>Participant Costs</b>	\$175,082	\$93,886	\$268,968
<b>Third Party Costs</b>	\$0	\$0	\$0
<b>Annualized MWh Savings</b>	488	110	598
<b>Lifetime MWh Savings</b>	6,950	2,120	9,070
<b>TRB Savings (2012\$)</b>	\$594,702	\$204,360	\$799,062
<b>Winter Coincident Peak KW Savings</b>	131	40	170
<b>Summer Coincident Peak KW Savings</b>	27	6	32
<b>Annualized MWh Savings/Participant</b>	1.724	6.880	2.000
<b>Weighted Lifetime</b>	14	19	15

## 6.4 Electric Market Rate Multifamily Retrofit - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	1	0	0	3	0	0	0	0	\$180	\$20
Cooking and Laundry	6	1	1	11	0	0	4	25	\$709	\$491
Hot Water Efficiency	7	6	6	83	1	0	120	4	\$3	\$31,152
Lighting	15	14	13	246	6	2	0	0	\$8,734	-\$1,308
Refrigeration	6	9	8	102	1	1	0	0	\$2,837	\$10,363
Space Heat Efficiency	6	58	57	1,449	30	0	0	0	\$12,022	\$52,208
Ventilation	6	23	22	225	2	2	0	0	\$6,240	\$960
<b>Totals</b>		110	108	2,120	40	6	124	29	\$30,725	\$93,886



## 6.5 Electric Low Income Multifamily New Construction and Retrofit Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	2,207	561	2,702
<b><u>Costs</u></b>			
<b>EVT Incentives</b>	\$382,777	\$164,309	\$547,086
<b>Participant Costs</b>	\$693,990	\$84,345	\$778,336
<b>Third Party Costs</b>	\$20,000	\$0	\$20,000
<b>Annualized MWh Savings</b>	1,222	471	1,694
<b>Lifetime MWh Savings</b>	20,676	6,083	26,759
<b>TRB Savings (2012\$)</b>	\$2,944,237	\$769,953	\$3,714,190
<b>Winter Coincident Peak KW Savings</b>	219	77	296
<b>Summer Coincident Peak KW Savings</b>	130	42	172
<b>Annualized MWh Savings/Participant</b>	0.554	0.840	0.627
<b>Weighted Lifetime</b>	17	13	16

## 6.6 Electric Low Income Multifamily New Construction & Retrofit - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	0	3	3	50	1	0	0	0	\$526	\$474
Cooking and Laundry	90	12	11	170	1	0	61	381	\$1,652	\$16,626
Electronics	48	2	2	10	0	0	0	0	\$1,118	\$0
Hot Water Efficiency	249	62	60	539	6	4	242	1,646	\$1,515	\$934
Lighting	391	220	202	2,668	45	20	-28	0	\$74,622	\$10,368
Motors	80	25	22	376	4	2	0	0	\$2,991	\$8,049
Other Efficiency	153	0	0	0	0	0	0	0	\$0	\$0
Other Fuel Switch	45	18	23	538	4	3	-59	0	\$785	\$3,934
Refrigeration	267	76	68	989	7	9	0	0	\$62,871	\$1,631
Space Heat Efficiency	10	19	17	293	5	0	337	0	\$3,042	\$35,046
Ventilation	150	34	30	450	4	4	201	0	\$15,186	\$7,285
<b>Totals</b>		471	437	6,083	77	42	754	2,026	\$164,309	\$84,345

## 6.7 Electric Low Income Multifamily New Construction Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	198	95	293
<b>Costs</b>			
<b>EVT Incentives</b>	\$89,770	\$66,485	\$156,255
<b>Participant Costs</b>	\$237,648	\$53,964	\$291,613
<b>Third Party Costs</b>	\$0	\$0	\$0
<b>Annualized MWh Savings</b>	341	187	528
<b>Lifetime MWh Savings</b>	6,030	2,801	8,831
<b>TRB Savings (2012\$)</b>	\$1,466,749	\$477,491	\$1,944,240
<b>Winter Coincident Peak KW Savings</b>	69	32	100
<b>Summer Coincident Peak KW Savings</b>	61	16	77
<b>Annualized MWh Savings/Participant</b>	1.720	1.973	1.802
<b>Weighted Lifetime</b>	18	15	17

## 6.8 Electric Low Income Multifamily New Construction - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	0	3	3	50	1	0	0	0	\$526	\$474
Cooking and Laundry	62	8	8	116	0	0	59	319	\$785	\$14,755
Hot Water Efficiency	63	0	0	0	0	0	229	516	\$0	\$855
Lighting	95	116	109	1,381	18	10	-16	0	\$52,928	-\$10,477
Motors	60	19	17	300	2	1	0	0	\$1,728	\$5,838
Other Fuel Switch	45	18	23	538	4	3	-59	0	\$785	\$3,934
Refrigeration	94	12	10	176	1	1	0	0	\$3,416	\$2,192
Space Heat Efficiency	0	10	9	196	4	0	304	0	\$2,142	\$29,350
Ventilation	61	2	1	44	0	0	201	0	\$4,174	\$7,044
<b>Totals</b>		187	180	2,801	32	16	718	835	\$66,485	\$53,964

## 6.9 Electric Low Income Multifamily Retrofit Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	2,034	466	2,474
<b>Costs</b>			
<b>EVT Incentives</b>	\$293,007	\$97,824	\$390,831
<b>Participant Costs</b>	\$456,342	\$30,381	\$486,723
<b>Third Party Costs</b>	\$20,000	\$0	\$20,000
<b>Annualized MWh Savings</b>	882	284	1,166
<b>Lifetime MWh Savings</b>	14,646	3,282	17,928
<b>TRB Savings (2012\$)</b>	\$1,477,488	\$292,462	\$1,769,950
<b>Winter Coincident Peak KW Savings</b>	150	45	196
<b>Summer Coincident Peak KW Savings</b>	69	26	95
<b>Annualized MWh Savings/Participant</b>	0.433	0.609	0.471
<b>Weighted Lifetime</b>	17	12	15

## 6.10 Electric Low Income Multifamily Retrofit - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Cooking and Laundry	28	4	3	53	0	0	2	62	\$867	\$1,871
Electronics	48	2	2	10	0	0	0	0	\$1,118	\$0
Hot Water Efficiency	186	62	60	539	6	4	13	1,130	\$1,515	\$79
Lighting	296	104	92	1,287	27	10	-12	0	\$21,694	\$20,844
Motors	20	6	5	77	1	0	0	0	\$1,262	\$2,212
Other Efficiency	153	0	0	0	0	0	0	0	\$0	\$0
Refrigeration	173	65	57	813	6	8	0	0	\$59,455	-\$561
Space Heat Efficiency	10	9	8	96	1	0	32	0	\$900	\$5,696
Ventilation	89	32	28	406	3	3	0	0	\$11,011	\$241
<b>Totals</b>		284	258	3,282	45	26	36	1,192	\$97,824	\$30,381

## 6.11 Electric Business Non-Farm Equipment Replacement Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	2,300	1,633	3,362
<b>Costs</b>			
<b>EVT Incentives</b>	\$5,307,948	\$4,221,244	\$9,436,976
<b>Participant Costs</b>	\$3,685,101	\$4,586,202	\$8,195,030
<b>Third Party Costs</b>	\$250,000	\$0	\$225,000
<b>Annualized MWh Savings</b>	28,373	19,546	47,341
<b>Lifetime MWh Savings</b>	331,426	249,129	572,858
<b>TRB Savings (2012\$)</b>	\$22,984,074	\$16,799,448	\$39,259,170
<b>Winter Coincident Peak KW Savings</b>	4,014	3,289	7,233
<b>Summer Coincident Peak KW Savings</b>	3,707	2,542	6,185
<b>Annualized MWh Savings/Participant</b>	12.336	11.969	14.081
<b>Weighted Lifetime</b>	12	13	12

## 6.12 Electric Business Non-Farm Equipment Replacement - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	92	1,025	949	19,039	91	81	0	0	\$165,599	\$254,870
Cooking and Laundry	5	22	21	416	5	4	142	299	\$1,279	\$9,214
Design Assistance	12	1	1	1	0	0	0	0	\$17,085	\$7,179
Electronics	1	0	0	2	0	0	0	0	\$20	\$0
Hot Water Efficiency	2	0	0	0	0	0	56	98	\$1	\$13
Hot Water Fuel Switch	1	5	5	155	0	1	-15	0	\$500	\$476
Industrial Process Eff.	38	2,003	2,146	28,840	360	256	393	0	\$251,568	\$942,955
Lighting	1,452	13,798	12,491	169,812	2,129	1,921	-6,285	0	\$3,544,541	\$2,713,744
Motors	31	1,084	1,021	13,862	103	166	574	0	\$97,883	\$207,175
Other Efficiency	78	126	113	1,948	17	9	0	0	\$24,690	\$23,941
Other Indirect Activity	1	0	0	0	0	0	0	0	\$9,680	\$0
Refrigeration	88	935	875	10,368	139	47	-10	0	\$90,875	\$309,639
Space Heat Efficiency	22	418	392	2,683	435	3	80	0	\$15,272	\$33,480
Space Heat Fuel Switch	1	36	38	1,069	10	0	-133	0	\$0	\$1,000
Ventilation	9	91	86	934	1	52	3,728	0	\$2,252	\$82,517
<b>Totals</b>		19,546	18,138	249,129	3,289	2,542	-1,469	397	\$4,221,244	\$4,586,202



## 6.13 Electric Business Non-Farm Retrofit Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	630	453	1,000
<b>Costs</b>			
<b>EVT Incentives</b>	\$3,669,237	\$2,643,010	\$6,147,007
<b>Participant Costs</b>	\$10,038,022	\$8,829,418	\$18,272,870
<b>Third Party Costs</b>	\$30,002	(\$0)	\$30,001
<b>Annualized MWh Savings</b>	22,141	20,523	41,725
<b>Lifetime MWh Savings</b>	302,339	268,431	555,905
<b>TRB Savings (2012\$)</b>	\$23,919,885	\$23,353,286	\$46,193,093
<b>Winter Coincident Peak KW Savings</b>	3,304	2,970	6,134
<b>Summer Coincident Peak KW Savings</b>	3,050	2,049	4,977
<b>Annualized MWh Savings/Participant</b>	35.145	45.305	41.725
<b>Weighted Lifetime</b>	14	13	13

## 6.14 Electric Business Non-Farm Retrofit - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	17	283	274	3,665	18	35	479	0	\$31,286	\$175,168
Cooking and Laundry	1	5	5	65	1	1	139	63	\$4,450	\$15,409
Design Assistance	95	795	713	4,009	53	47	396	0	\$412,478	\$264,207
Electronics	4	36	32	373	4	4	0	0	\$7,473	\$28,350
Hot Water Efficiency	6	42	42	447	7	5	249	1,026	\$344	\$3,609
Hot Water Fuel Switch	2	9	10	273	0	2	-29	0	\$1,508	\$14,946
Industrial Process Eff.	32	6,685	6,860	85,881	1,128	522	3,195	0	\$450,084	\$2,760,482
Lighting	185	7,169	6,809	114,709	1,026	891	-3,209	0	\$1,153,568	\$4,103,730
Motors	37	3,131	3,118	30,597	345	461	25,799	0	\$238,210	\$536,329
Other Efficiency	165	462	455	2,556	172	6	297	0	\$151,208	-\$104,855
Other Indirect Activity	2	0	0	0	0	0	196	0	\$28,043	-\$11,440
Refrigeration	10	1,383	1,349	20,510	149	65	0	0	\$139,479	\$831,149
Space Heat Efficiency	14	261	261	2,732	62	0	942	0	\$6,608	\$80,045
Ventilation	6	261	255	2,613	6	10	2,471	0	\$18,272	\$132,290
<b>Totals</b>		20,523	20,185	268,431	2,970	2,049	30,926	1,090	\$2,643,010	\$8,829,418

## 6.15 Electric Market Rate Single Family Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	659	3,332	3,969
<b>Costs</b>			
<b>EVT Incentives</b>	\$136,444	\$192,642	\$329,086
<b>Participant Costs</b>	\$236,101	\$86,706	\$322,807
<b>Third Party Costs</b>	\$88,899	\$0	\$88,899
<b>Annualized MWh Savings</b>	568	515	1,082
<b>Lifetime MWh Savings</b>	12,854	8,655	21,508
<b>TRB Savings (2012\$)</b>	\$723,726	\$1,054,940	\$1,778,666
<b>Winter Coincident Peak KW Savings</b>	137	108	245
<b>Summer Coincident Peak KW Savings</b>	52	56	107
<b>Annualized MWh Savings/Participant</b>	0.862	0.154	0.273
<b>Weighted Lifetime</b>	23	17	20

## 6.16 Electric Market Rate Single Family - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	11	1	1	24	0	3	0	0	\$1,100	\$550
Electronics	3,127	115	114	459	14	17	0	0	\$67,705	-\$19,855
Hot Water Efficiency	3,133	72	72	645	12	6	1,257	4,653	\$42,951	\$25,341
Hot Water Fuel Switch	85	207	317	6,210	32	16	-853	0	\$31,100	\$74,366
Lighting	3,223	100	99	815	45	12	0	0	\$47,386	-\$12,786
Other Efficiency	9	0	0	0	0	0	0	0	\$0	\$0
Other Fuel Switch	7	7	7	208	2	1	-21	0	\$700	\$3,097
Space Heat Efficiency	12	5	5	92	1	0	0	0	\$1,700	\$8,872
Space Heat Fuel Switch	2	7	7	202	4	0	-26	0	\$0	\$6,370
Ventilation	1	0	0	0	0	0	0	0	\$0	\$750
<b>Totals</b>		515	621	8,655	108	56	357	4,653	\$192,642	\$86,706

## 6.17 Electric Low Income Single Family Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	1,884	958	2,800
<b>Costs</b>			
<b>EVT Incentives</b>	\$1,586,467	\$545,819	\$2,132,285
<b>Participant Costs</b>	\$12,274	\$6,374	\$18,648
<b>Third Party Costs</b>	(\$5,957)	\$5,845	(\$111)
<b>Annualized MWh Savings</b>	2,187	799	2,986
<b>Lifetime MWh Savings</b>	23,966	8,316	32,282
<b>TRB Savings (2012\$)</b>	\$1,766,354	\$633,887	\$2,400,241
<b>Winter Coincident Peak KW Savings</b>	351	151	502
<b>Summer Coincident Peak KW Savings</b>	194	86	280
<b>Annualized MWh Savings/Participant</b>	1.161	0.834	1.066
<b>Weighted Lifetime</b>	11	10	11

## 6.18 Electric Low Income Single Family - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	1	0	0	3	0	1	0	0	\$0	\$249
Cooking and Laundry	91	60	53	844	8	6	0	801	\$66,857	\$0
Electronics	309	33	29	131	3	4	0	0	\$14,821	\$155
Hot Water Efficiency	465	153	136	1,148	16	12	0	1,890	\$20,055	\$123
Hot Water Fuel Switch	3	12	11	355	2	1	-41	0	\$6,702	\$2,234
Lighting	765	213	189	1,662	89	24	0	0	\$75,842	\$279
Other Efficiency	927	0	0	0	0	0	0	0	\$0	\$0
Other Fuel Switch	3	3	3	99	1	1	-10	0	\$2,654	\$0
Refrigeration	425	305	271	3,663	28	35	0	0	\$344,420	\$0
Space Heat Efficiency	8	0	0	0	0	0	0	0	\$2,966	-\$2,966
Space Heat Fuel Switch	1	4	3	105	2	0	-16	0	\$3,303	\$0
Ventilation	140	16	14	307	2	2	0	0	\$8,200	\$6,300
<b>Totals</b>		799	709	8,316	151	86	-67	2,691	\$545,819	\$6,374

## 6.19 Electric Large Industrial Summary

	<u>Prior Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting 1/1/12</u>
<b># participants with installations</b>	58	63	78
<b>Costs</b>			
<b>EVT Incentives</b>	\$1,123,373	\$1,533,551	\$2,755,315
<b>Participant Costs</b>	\$6,035,999	\$5,656,246	\$11,838,897
<b>Third Party Costs</b>	\$0	(\$0)	(\$0)
<b>Annualized MWh Savings</b>	13,727	14,520	28,864
<b>Lifetime MWh Savings</b>	170,735	175,407	356,106
<b>TRB Savings (2012\$)</b>	\$21,571,218	\$17,057,918	\$39,154,868
<b>Winter Coincident Peak KW Savings</b>	1,881	2,592	4,521
<b>Summer Coincident Peak KW Savings</b>	1,450	1,303	2,830
<b>Annualized MWh Savings/Participant</b>	236.672	230.478	370.049
<b>Weighted Lifetime</b>	12	12	12

## 6.20 Electric Large Industrial - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Air Conditioning Eff.	11	386	345	6,799	4	104	0	0	\$29,429	\$197,101
Cooking and Laundry	1	10	9	127	1	1	0	42	\$107	\$893
Design Assistance	12	461	413	2,303	42	38	0	0	\$198,559	\$137,623
Hot Water Efficiency	2	31	31	279	3	2	368	248	\$6,033	\$44,649
Industrial Process Eff.	23	6,168	6,413	80,460	1,173	417	876	0	\$447,274	\$2,606,667
Lighting	39	2,605	2,466	34,714	420	317	-1,088	0	\$380,919	\$926,312
Motors	22	3,158	3,098	31,279	384	368	20,552	0	\$270,871	\$519,419
Other Efficiency	10	54	48	366	7	7	3	0	\$12,418	\$39,284
Other Indirect Activity	2	0	0	0	0	0	196	0	\$21,120	-\$11,440
Refrigeration	4	1,153	1,129	16,676	160	29	0	0	\$109,821	\$780,764
Space Heat Efficiency	4	249	241	-62	381	1	6,801	0	\$30,934	\$191,775
Ventilation	2	247	225	2,466	16	19	1,020	0	\$26,066	\$223,198
<b>Totals</b>		14,520	14,419	175,407	2,592	1,303	28,728	290	\$1,533,551	\$5,656,246



## **7. LIST OF SUPPORT DOCUMENTS, BY SERVICE**



## 7. LIST OF SUPPORT DOCUMENTS, BY SERVICE

### 7.1 DOCUMENTS, CORRESPONDING MARKETS, AND 2013 STATUS

#	Document Name / Title	Major Market	Status	Date
70	Commercial New Construction - Determining baseline for HVAC (and other) equipment	BES	Revision, On hold, Draft in Process	8/22/2012
95	Market Lift Pilot for Retail Lighting Promotions	BES	Implemented	1/1/2013
96	Commercial Kitchen Equipment	BES	Implemented	7/1/2013
97	Cold Climate Heat Pumps	RES, BES, MF	Draft, Under review by DPS	7/3/2013
98	High Performance Circulator Pump Initiative	RES, BES	Draft, Under review by DPS	9/30/2013
99	HVAC Upstream Heat Pump Water Heater program	RES	Draft, Under internal review	9/30/2013
100	High Efficiency Clothes Dryer Pilot for Retail Promotions	RES	Draft, Under internal review	10/1/2013
101	Baselines and Savings Claims for Heat Pumps	RES, BES, MF	Draft, Under internal review	11/21/2013
102	Heat Pump Retrofit Program	RES	Draft, Under internal review	12/2/2013

**Key:**

- BEF** Business Existing Facilities
- BNC** Business New Construction
- EH** Existing Homes
- EP** Efficient Products
- RNC** Residential New Construction



## **8. Definitions and End Notes**



## 8. DEFINITIONS AND END NOTES

### 8.1 DATA TABLES OVERVIEW

1 – Section **8.2** includes a list of definitions for items in the data tables.

2 – Data items for which data are not available are labeled “nav.” Data items for which data are not applicable are labeled “nap” or “NA”

3 – Except where noted, Efficiency Vermont expenditures data in this report were incurred during the period January 1, 2013, through December 31, 2013. Similarly, measure savings are for measures installed during the period January 1, 2013, through December 31, 2013.

4 – Efficiency Vermont Resource Acquisition and Non Resource Acquisition costs include an operations fee of 1.71% and are reported in all applicable cost categories. The operations fees for “Incentives to Participants” are reported with the “Administration” costs.

5 – Data for “Incentives to Participants” in Tables **3.8, 3.9, 3.14, 3.16, 3.19, 3.22 3.24, 4.1, 4.4, 4.7, 4.10, 4.13, 4.16, 4.19, 4.22, 4.25, 4.28,** and **5.1.2** are based on financial data from Vermont Energy Investment Corporation’s (VEIC’s) accounting system. “Participant Incentives Paid” on all other tables are based on data entered in Efficiency Vermont’s Knowledge-based Information Technology Tool (KITT) tracking system.

6 – “Annualized MWh Savings (adjusted for measure life),” “Winter Coincident Peak kW Savings (adjusted for measure life),” and “Summer Coincident Peak kW Savings (adjusted for measure life)” on Tables **3.8** and **3.9** are provided for reference only. These data exclude savings for measures that have reached the end of their specified lifetime.

### 8.2 DEFINITIONS AND REPORT TEMPLATE

The table templates that appear in the 2013 Efficiency Vermont Savings Claim Summary/Annual Report were developed as a collaborative effort among Efficiency Vermont, the Vermont Public Service Department, and Burlington Electric Department. Note that there are two major table formats, one for the markets and services summary and the other for breakdowns by end use, county, and utility savings.

The definitions of the data reported in these tables follow. The numbers in parentheses on the template refer to the footnoted definitions that immediately follow.

	<u>Prior</u> <u>Year</u>	<u>Current Year</u> <u>2013</u>	<u>Cumulative</u> <u>starting</u> <u>1/1/12</u>	<u>Cumulative</u> <u>starting</u> <u>1/1/12</u>
	(1)	(2)	(3)	(4)
<b># participants with installations</b>	(5)			
<b><u>Operating Costs</u></b>				
Administration	(6)			
Operations and Implementation	(7)			
<u>Strategy and Planning</u>	(8)			
<b>Subtotal Operating Costs</b>	(9)			
<b><u>Technical Assistance Costs</u></b>				
Services to Participants	(10)			
<u>Services to Trade Allies</u>	(11)			
<b>Subtotal Technical Assistance Costs</b>	(12)			
<b><u>Support Services</u></b>				
Transportation	(13)			
Targeted Implementation	(14)			
Consulting	(15)			
Marketing	(16)			
EM&V	(17)			
Policy	(18)			
Information Technology	(19)			
Customer Support	(20)			
<u>Business Development</u>	(21)			
<b>Subtotal Support Services Costs</b>	(22)			
<b><u>Incentive Costs</u></b>				
Incentives to Participants <sup>1</sup>	(23)			
<u>Incentives to Trade Allies</u>	(24)			
<b>Subtotal Incentive Costs</b>	(25)			
<b><u>Total Efficiency Vermont Costs</u></b>				
	(26)			
<b>Total Participant Costs</b>	(27)			
<b><u>Total Third Party Costs</u></b>	(28)			
<b><u>Total Resource Acquisition Costs</u></b>				
	(29)			
<b>Annualized MWh Savings</b>	(30)			
<b>Lifetime MWh Savings</b>	(31)			
<b>TRB Savings (2012 \$)</b>	(32)			
<b>Winter Coincident Peak kW Savings</b>	(33)			
<b>Summer Coincident Peak kW Savings</b>	(34)			
<b>Annualized MWh Savings/Participant</b>	(35)			
<b>Weighted Lifetime</b>	(36)			
<b>Annualized MWh Savings (adjusted for measure life)</b>				
			(37)	
<b>Winter Coincident Peak kW Savings (adjusted for measure life)</b>				
			(38)	
<b>Summer Coincident Peak kW Savings (adjusted for measure life)</b>				
			(39)	



## X.X.X. Breakdown Report

End Use or Utility or County	# of Participants	Net MWh Saved	Gross MWh Saved	Net Lifetime MWh Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBtu	Net Water CCF	Participant Incentives Paid	Participant Costs
	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)

### Footnotes for the report table templates:

(1) Activity for the prior reporting year.

(2) Activity for the current reporting year. For savings, the figure reported is estimated savings for measures actually implemented for the current reporting period. Savings are reported in at generation and net of all approved adjustment factors, except as otherwise noted.

(3) Data reported for the current performance period (2012-2014) starting January 1, 2012 through December 31, 2013.

(4) Data reported for ALL performance periods (2012 - future periods) starting January 1, 2012 through December 31, 2013.

(5) Number of customers with installed measures. The “# participants with installations” is counted by summing unique physical locations (sites) where efficiency measures have been installed for the reporting period. For multifamily, the “#of participants with installations” is counted by summing the number of individual units. Under “Cumulative starting 1/1/12” customers are counted once, regardless of the number of times the customer participates in Efficiency Vermont services throughout the period. Whenever Efficiency Vermont works in collaboration with other providers of efficiency services, the same participants may be counted and reported by more than one organization. As a result, total statewide participation might be less than the sum of all the organizations’ reported participants.

(6) Costs include Efficiency Vermont senior management, budgeting and financial oversight.

(7) Costs directly associated with the operations and implementation of resource acquisition activities.

(8) Costs related to program design, planning, screening, and other similar strategy and planning functions.

(9) Subtotal of all operating costs detailed in the categories above: (6) + (7) + (8).

(10) Costs related to technical assistance, conducting technical analyses, preparing packages of efficiency measures, contract management, and project follow-up provided to customers.

(11) Costs related to technical assistance, educational or other support services provided to entities other than individual participants, such as trade allies, manufacturers, wholesalers, builders, and architects.

(12) Subtotal reflecting total technical assistance costs: (10) + (11).

(13) Costs related to support provided by the VEIC transportation division.

- (14) Costs related to support provided by the VEIC targeted implementation division.
- (15) Costs related to support provided by the VEIC consulting division.
- (16) Costs related to support provided by the VEIC marketing division.
- (17) Costs related to support provided by the VEIC evaluation, measurement and verification division.
- (18) Costs related to support provided by the VEIC policy division.
- (19) Costs related to support provided by the VEIC information technology division.
- (20) Costs related to support provided by the VEIC customer support services division.
- (21) Costs related to support provided by the VEIC business development division.
- (22) Total cost of Support Services.
- (23) Direct payments to participants to defray the costs of specific efficiency measures.
- (24) Incentives paid to manufacturers, wholesalers, builders, retailers, or other non-customer stakeholders that do not defray the costs of specific efficiency measures.
- (25) Subtotal reflecting total incentive costs: (23) + (24).
- (26) Total costs incurred by Efficiency Vermont. All costs are in nominal dollars: (9) + (12) + (22) + (25).
- (27) Total costs incurred by participants and related to Efficiency Vermont or utility activities. This category includes the participant contribution to the capital costs of installed measures and to specific demand-side-management (DSM)-related services, such as technical assistance or energy ratings.
- (28) Total costs incurred by third parties (i.e., entities other than Efficiency Vermont, utilities, and participants) and directly related to Efficiency Vermont or utility DSM activities. This category includes contributions by third parties to the capital costs of installed measures and to specific DSM-related services, such as technical assistance or energy ratings.
- (29) Total cost of Resource Acquisition: (26) + (27) + (28).
- (30) Annualized MWh savings at generation, net of all approved adjustment factors (e.g., free riders, spillover, line loss) for measures installed during the current reporting period.
- (31) Lifetime estimated MWh savings for measures installed during the current reporting year, at generation and net of all approved adjustment factors. (Typically, this value is calculated by multiplying estimated annualized savings by the life of the measure.)
- (32) Total Resource Benefits (TRB) savings for measures installed during the current reporting year. TRB includes gross electric benefits, fossil fuel savings, and water savings. TRB is stated in 2012 dollars throughout the report. Whenever Efficiency Vermont works in collaboration with other providers of efficiency services, the same savings might be counted and reported by more than one organization. As a result, the total statewide savings might be less than the sum of all the organizations' reported savings.
- (33) Estimated impact of measures at time of winter system peak, at generation, net of adjustment factors.

(34) Estimated impact of measures at time of summer system peak, at generation, net of adjustment factors.

(35) Annualized MWh savings per participant, net at generation: (30) ÷ (5).

(36) Average lifetime, in years, of measures weighted by savings: (31) ÷ (30).

(37) Adjusted annualized MWh savings at generation and net of all approved adjustment factors (e.g., free riders, spillover, line loss) for measures installed during the current reporting period. These data include savings for measures that have not yet expired during the reporting period and exclude savings for measures that have reached the end of their specified lifetime.

(38) Adjusted impact of measures at time of winter system peak, at generation, net of adjustment factors. These data include savings for measures that have not yet expired during the reporting period and exclude savings for measures that have reached the end of their specified lifetime.

(39) Adjusted impact of measures at time of summer system peak, at generation, net of adjustment factors. These data include savings for measures that have not yet expired during the reporting period and exclude savings for measures that have reached the end of their specified lifetime.

**Items 40-49 reflect installed measures for the current reporting period.**

(40) Number of participants with installed measures for the “End Use, Utility and County Breakdown.” Whenever Efficiency Vermont works in collaboration with other providers of efficiency services, the same participants may be counted and reported by more than one organization. As a result, total statewide participation might be less than the sum of all the organizations’ reported participants.

(41) Annualized MWh savings at generation, net of all approved adjustment factors (e.g., free riders, spillover, line loss) for measures installed during the current reporting period. This is the same number as reported on line (30).

(42) Annualized MWh savings, gross at the customer meter.

(43) Lifetime estimated MWh savings for measures installed during the current reporting period, at generation and net of all approved adjustment factors. This is the same number as that reported on line (31).

(44) Estimated impact of measures at time of winter system peak, at generation, net of adjustment factors. This is the same number as that reported on line (33).

(45) Estimated impact of measures at time of summer system peak, at generation, net of adjustment factors. This is the same number as that reported on line (34).

(46) MMBtu estimated to be saved (positive) or used (negative) for alternative fuels as a result of measures installed in the end use.

(47) Water saved (positive) or used (negative) as a result of measures installed in the end use.

(48) Incentives paid by Efficiency Vermont to participants for measures installed during the current reporting period. This is the same number as that reported on line (23).

(49) Costs incurred by participants and related to Efficiency Vermont or utility activities. This is the same number as that reported on line (27).







128 LAKESIDE AVENUE, SUITE 401

BURLINGTON, VERMONT 05401

(888) 921-5990

[WWW.EFFICIENCYVERMONT.COM](http://WWW.EFFICIENCYVERMONT.COM)