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ANNUAL REPORT

2013

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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

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## **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.

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<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.

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<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.

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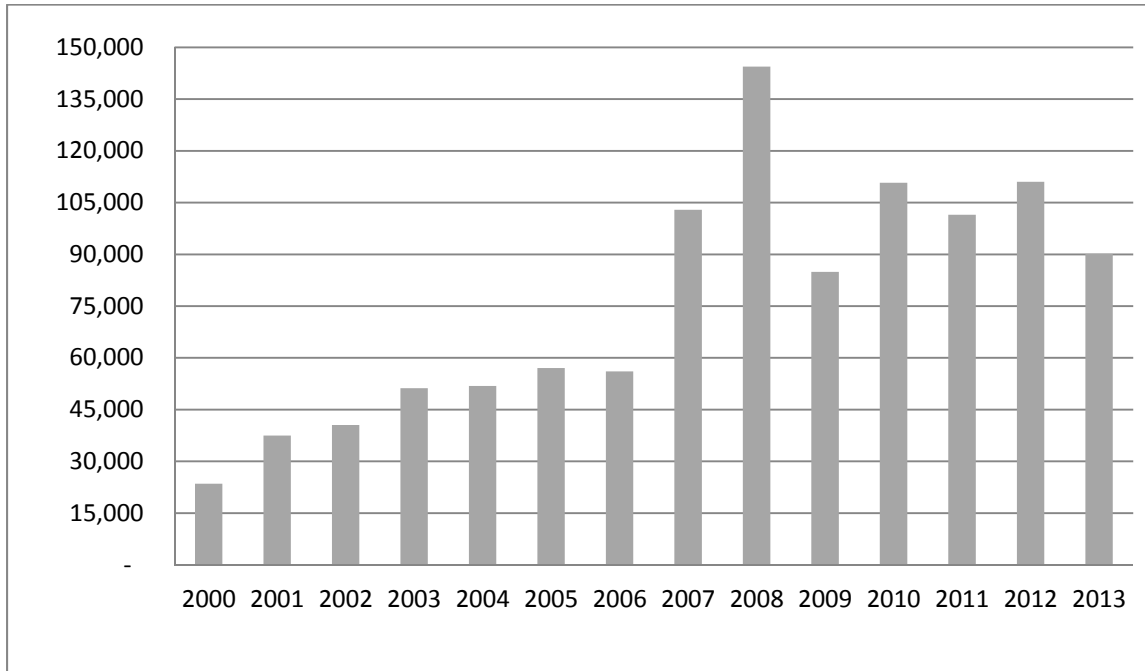
<sup>5</sup> Numbers in the two ensuing bulleted items do not include Customer Credit. The "levelized net resource cost of saved electric energy" comprises: 1) Efficiency Vermont costs of delivery, plus customer and third-party contributions to measure costs, all adjusted to reflect the comparative risk 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**

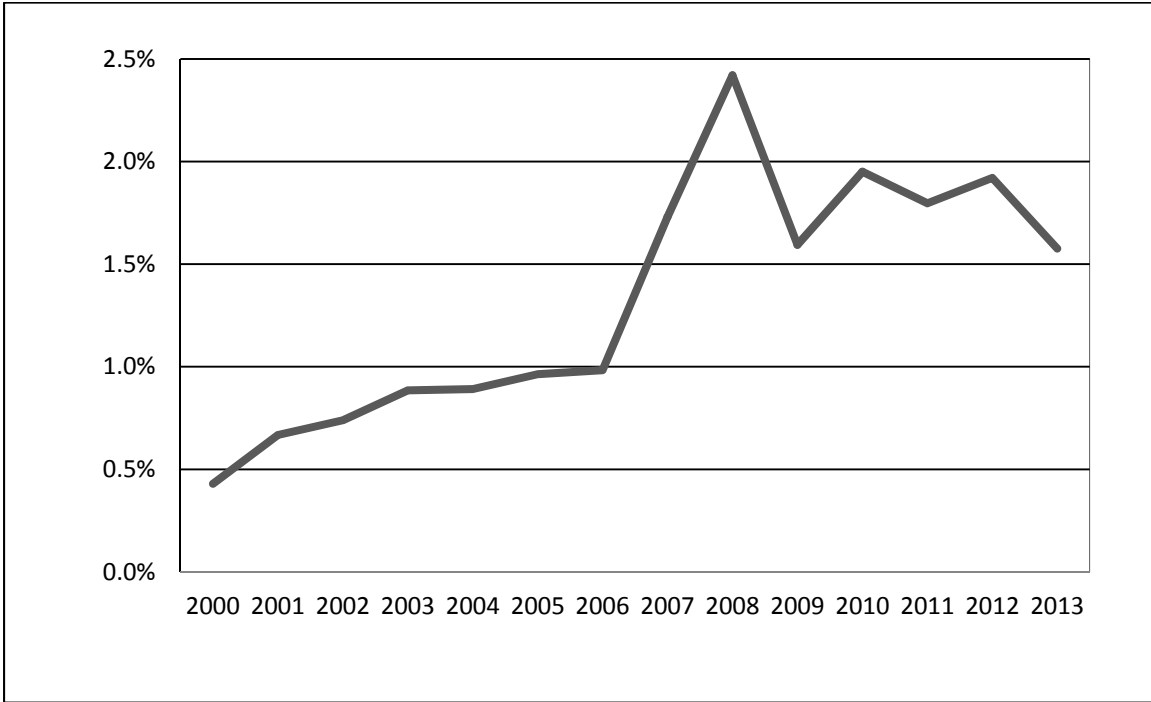


Cumulatively, efficiency measures installed since 2000 provided 930 gigawatt-hours<sup>9</sup> of savings for Vermont by the end of 2013. This figure represents 12.8% of the state’s estimated electric energy requirements, with a retail value of more than \$107.6 million, based on a rate of 13 cents per 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.

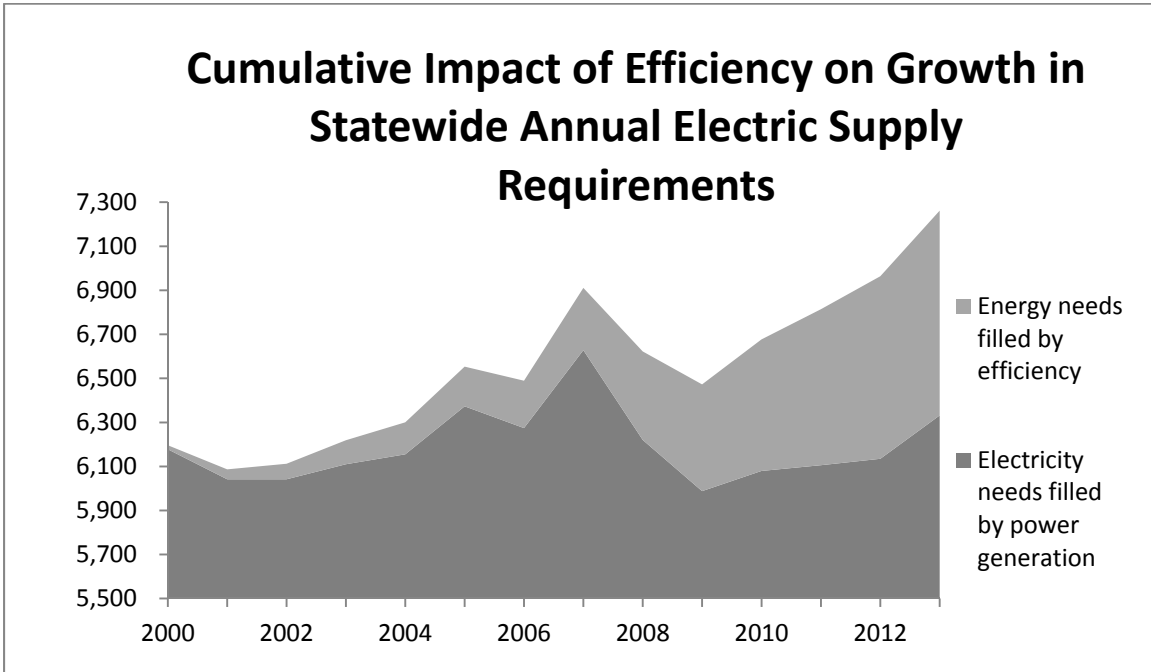
Energy efficiency also provided significant benefits to Vermonters via avoided or deferred transmission and distribution investments. According to the Vermont Electric Power Company, the combination of aggressive energy efficiency and local distributed generation in Vermont resulted in \$400 million 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:

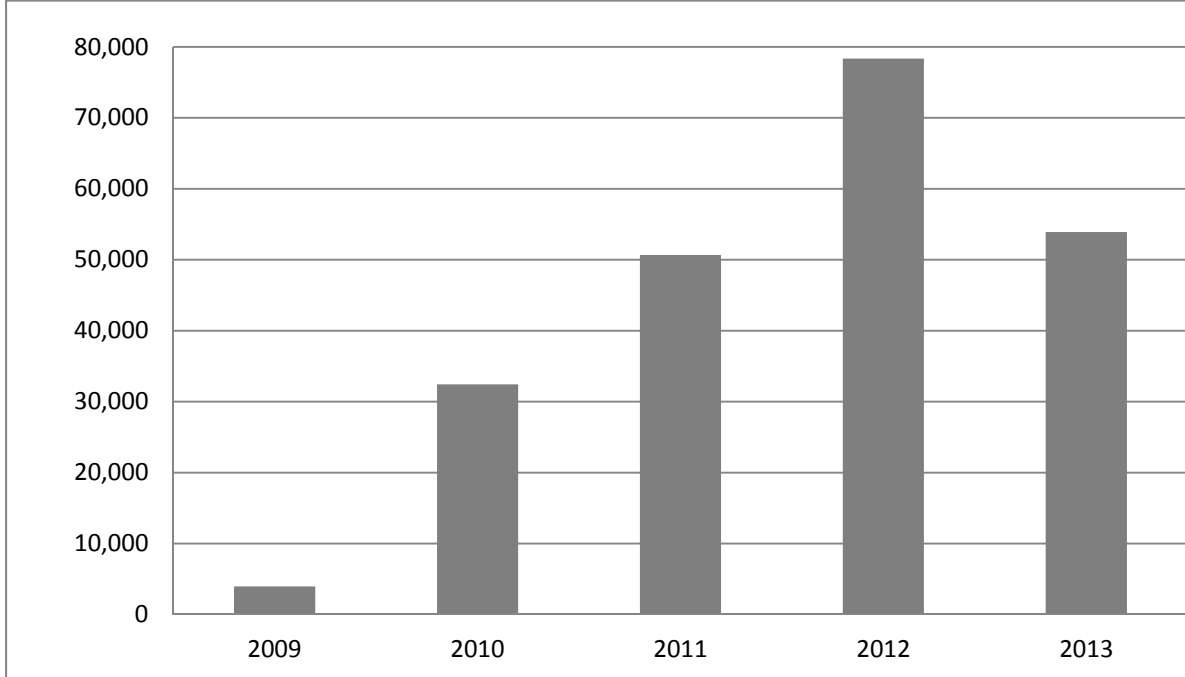
- Home Performance with ENERGY STAR and its business-facility counterpart, Building Performance, supplying building improvements that cut heating fuel use;
- technical information and financial incentives for high-efficiency residential and commercial heating equipment, including biomass systems, and
- 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.

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<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.

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<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.encyvermont.com](http://www.encyvermont.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<br>Efficiency Vermont<br>Resource Acquisition | Thermal Energy and<br>Process Fuels<br>Resource Acquisition | Electric<br>Resource Acquisition | Customer Credit<br>Resource<br>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><br><u>Current Year</u><br><u>2013<sup>1</sup></u> | <u>Actual</u><br><u>Current Year</u><br><u>2013</u> | <u>%</u>           | <u>Budget</u><br><u>2012-2014<sup>2</sup></u> | <u>Actual</u><br><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.<br><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<br>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<br>(Counties) | Minimum<br>TRB       | Actual<br>TRB        | % of<br>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<br>2013 | Cumulative<br>starting 1/1/12 | Cumulative<br>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<br/>2013</u> | <u>Cumulative<br/>starting 1/1/12</u> | <u>Cumulative<br/>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<br>(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<br/>2013</u> | <u>Cumulative<br/>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><br><u>2013</u> | <u>Cumulative</u><br><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><br><u>2013</u> | <u>Cumulative</u><br><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<br>(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<br/>2013</u> | <u>Cumulative<br/>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>Total Efficiency Vermont Costs</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>Total Third Party Costs</b>             | <u>\$0</u>                | <u>\$0</u>                   | <u>\$0</u>                            |
| <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<br/>2013</u> | <u>Cumulative<br/>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><br><u>2013</u> | <u>Cumulative</u><br><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<br>(Present Value) |
|-----------------------------|------------------|-----------------------------|
| Avoided Cost of Electricity | nap              | \$10,469,449                |
| Fossil Fuel Savings (Costs) | \$181,170        | \$2,926,647                 |
| Water Savings (Costs)       | \$7,427          | \$115,970                   |
| <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><br><u>2013</u> | <u>Cumulative</u><br><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>             | <b>\$13,145,588</b>        | <b>\$13,514,620</b>                | <b>\$26,660,208</b>                         |
| <b>Total Third Party Costs</b>             | <b><u>\$255,002</u></b>    | <b><u>(\$0)</u></b>                | <b><u>\$255,001</u></b>                     |
| <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<br>(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><br><u>2013</u> | <u>Cumulative</u><br><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>Annualized MWh Savings</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<br>(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><br><u>2013</u> | <u>Cumulative</u><br><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<br>(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><br><u>2013</u> | <u>Cumulative</u><br><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<br>(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><br><u>2013</u> | <u>Cumulative</u><br><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                                     |
| <u>Strategy and Planning</u>                | <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                                     |
| <u>Services to Trade Allies</u>             | <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                                       |
| <u>Business Development</u>                 | <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                                   |
| <u>Incentives to Trade Allies</u>           | <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<br>(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><br><u>2013</u> | <u>Cumulative</u><br><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<br>(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<br/>2012</u> | <u>Cumulative<br/>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<br>(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><br><b>2013</b> | <u>Cumulative</u><br><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<br>Participants | Net<br>MWH<br>Saved | Gross<br>MWH<br>Saved | Net<br>Lifetime<br>MWH<br>Saved | Net<br>Winter<br>KW<br>Saved | Net<br>Summer<br>KW<br>Saved | Net<br>Other<br>Fuel<br>MMBTU | Net<br>Water<br>CCF<br>Saved | Participant<br>Incentives<br>Paid | Participant<br>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<br>(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<br/>2013</u> | <u>Cumulative<br/>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<br>(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><br><u>2013</u> | <u>Cumulative</u><br><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<br>(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><br><u>2013</u> | <u>Cumulative</u><br><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><br><u>2013</u> | <u>Cumulative</u><br><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><br><u>2013</u> | <u>Cumulative</u><br><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><br><u>2013</u> | <u>Cumulative</u><br><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><br><u>2013</u> | <u>Cumulative</u><br><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><br><u>2013</u> | <u>Cumulative</u><br><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><br><u>2013</u> | <u>Cumulative</u><br><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><br><u>2013</u> | <u>Cumulative</u><br><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><br><u>2013</u> | <u>Cumulative</u><br><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><br><u>2013</u> | <u>Cumulative</u><br><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 (KIT) 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><br><u>Year</u> | <u>Current Year</u><br><u>2013</u> | <u>Cumulative</u><br><u>starting</u><br><u>1/1/12</u> | <u>Cumulative</u><br><u>starting</u><br><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<br>or Utility<br>or County | # of<br>Participants | Net<br>MWh<br>Saved | Gross<br>MWh<br>Saved | Net<br>Lifetime<br>MWh<br>Saved | Net<br>Winter<br>KW<br>Saved | Net<br>Summer<br>KW Saved | Net Other<br>Fuel<br>MMBtu | Net<br>Water<br>CCF | Participant<br>Incentives<br>Paid | Participant<br>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).







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