SAVINGS CLAIM SUMMARY

2014

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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 savings claim for 2014.

SAVINGS CLAIM SUMMARY 2014

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1. RESULTS OVERVIEW

1. RESULTS OVERVIEW

In 2014, Efficiency Vermont helped Vermonters take control of their energy costs while strengthening local economies, protecting the environment, and helping to ensure a secure energy future for the state. Efficiency Vermont designed and delivered comprehensive services to make it easy for Vermont businesses, institutions, households of all income levels, and communities to benefit from energy efficiency. These services helped Vermonters optimize their use of electricity, heating fuels, and process fuels at critical decision-making moments—regarding new construction, renovations, and equipment—and on an ongoing basis as they managed their energy use.

Efficiency Vermont's 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 2014, Efficiency Vermont:

- **Engaged and empowered Vermonters to take action** through the delivery of: 1) technical and financial information and analysis; 2) guidance about energy use and planning, efficient technologies, and building science to help Vermonters 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.
- **Helped all Vermonters benefit from efficiency** through involvement in State, regional, and national efficiency planning, policy, programming, and research efforts that have a lasting, positive impact.
- **Made efficiency the simple choice, statewide,** 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 and builders, as well as the contractors, retailers, installers, and service technicians to whom Vermonters turn for efficient services and products; and 2) maintenance of vital, long-term relationships with—and services to—equipment manufacturers, distributors, and suppliers.

The close of 2014 marked the completion of Efficiency Vermont's 2012–2014 performance period.[1] **Table 1** presents Efficiency Vermont's key results for the period.

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

Table 1. Key results for 2012–2014

	2012	2013	2014	2012–2014 Total
Energy savings in megawatt-hours (MWh)	110,179	85,582	97,358	293,119
Total Resource Benefits[2]	$118,358,445	$83,830,177	$89,929,300	$292,117,922
U.S. tons of carbon dioxide emissions avoided through efficiency	800,000	690,000	760,000	2,250,000

The above results demonstrate solid performance for 2012–2014. As shown in **Table 2**, on the following page, Efficiency Vermont achieved 107% of its MWh goals and 95% of Total Resource Benefits goals for the 2012–2014 period. These results reflect the strength of the three-year performance period structure, enabling Efficiency Vermont to make strategic adjustments in anticipation of—or response to—market forces, in accordance with the best short- and long-term interests of ratepayers.

1.1 QUANTIFIABLE PERFORMANCE INDICATORS[3]

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 (PSB) as Quantifiable Performance Indicators (QPIs) for a three-year performance period. The information in **Table 2** shows Efficiency Vermont's QPI goals and results for the 2012–2014 performance period. These results were achieved within the budget parameters set by PSB.

[2] The measure of Total Resource Benefits is the present value of lifetime economic benefits resulting from resource-saving measures, including avoided costs of electricity, fossil fuels, and water. Results are shown in 2012 dollars.

[3] 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, the Self-Managed Energy Efficiency Program, or the Green Mountain Power Community Energy & Efficiency Development (CEED) Fund.

Table 2. Selected QPI results (approximated) for the 2012–2014 performance period[4]

Key Quantifiable Performance Indicators (QPIs)	Funding Pool	2012–2014 Goals	2012–2014 Results	% of Goal Achieved
Electric savings (MWh)	Electric Efficiency Charge	274,000	293,119	107%
Total Resource Benefits	Electric Efficiency Charge	$305,984,352	$292,117,922	95%
Statewide summer peak kilowatt (kW) demand reduction	Electric Efficiency Charge	41,920	36,651	87%
Summer peak kW demand reduction in Geographic Targeting areas—Susie Wilson Road	Electric Efficiency Charge	1,570	1,626	104%
Summer peak kW demand reduction in Geographic Targeting areas—Saint Albans	Electric Efficiency Charge	1,800	2,216	123%
Ratio of gross electric benefits to spending	Electric Efficiency Charge	1.2	2.0	167%
Million British thermal unit (MMBtu) savings	Thermal Energy and Process Fuels Revenues	155,000	177,921	115%

Efficiency Vermont also engaged in efforts related to an Administrative QPI (AQPI) plan, requiring continual assessment and improvement of key business processes 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

In 2014, Efficiency Vermont:

- Continued to exceed the target metric for Management Span of Control
- Continued to train and mentor staff on lean process improvements and engaged in value stream improvement activities for six key business processes:

[4] The total electric and thermal energy and process fuel 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 Fuels revenues.

    - Prescriptive Process
    - Metering Process
    - Demand Resources Plan Proceeding
    - Engineering Custom Project Process
    - Home Performance with ENERGY STAR® Process
    - Residential New Construction Process
- Received a review of the AQPI work by Navigant Consulting, on behalf of the Vermont Public Service Department, which determined that Efficiency Vermont had met all requirements of the AQPI.

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 1.74 to 1. **Table 3** shows the factors that contributed to this ratio.

Table 3. Net lifetime economic value of electric and thermal energy efficiency investments in 2014

Benefits	$104,800,000	Total Resource Benefits
	$31,000,000	Operations and maintenance savings
	$135,800,000	**Total Benefits**
Minus Costs	$47,200,000	Efficiency Vermont resource investments
	$30,800,000	Participant and third-party investments
	$78,000,000	**Total Costs**
Equals Net Benefits	$57,800,000	**Net Lifetime Economic Value to Vermont**

Total Resource Benefits in 2014 for Efficiency Vermont's reporting categories:

Business New Construction	$13.7	million
Existing Businesses	$51.0	million
Retail Efficient Products	$21.7	million
Residential New Construction	$7.0	million
Existing Homes	$11.4	million
Customer Credit	$28	thousand

Efficiency Vermont delivered excellent value compared to the costs of other sources of energy:[5]

- Efficiency Vermont supplied electric efficiency expected to cost approximately 4.6 cents per kilowatt-hour (kWh) over the average lifetime of the efficiency measures installed in 2014. Taking into account participating customers' additional costs and savings, the levelized net resource cost of saved electric energy was 0.9 cents per kWh. By contrast, the cost of comparable electric supply was 8.3 cents per kWh.
- Efficiency Vermont's efforts that were focused on thermal energy and process fuels savings supplied efficiency in 2014 at 1.2 cents 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 2014 was 2.1 cents per MMBtu, whereas the avoided cost for that fuel was 2.9 cents per MMBtu.

Investments in energy efficiency continued to strengthen local businesses and to secure jobs. For example, 54 Vermont businesses, employing a combined 80 Home Performance with ENERGY STAR and Building Performance contractors, completed approximately 860 projects with a value of more than $6.6 million in 2014, and more than 200 additional projects were expected to be completed in the first quarter of 2015. Efficiency Vermont also helped retailers statewide promote and sell efficient products that strengthened their bottom line. In 2014, Efficiency Vermont's retail partners sold more than 3,900 energy-efficient appliances, 16,000 consumer electronics products, and 717,000 lighting products.

1.3 ELECTRIC EFFICIENCY SAVINGS[6]

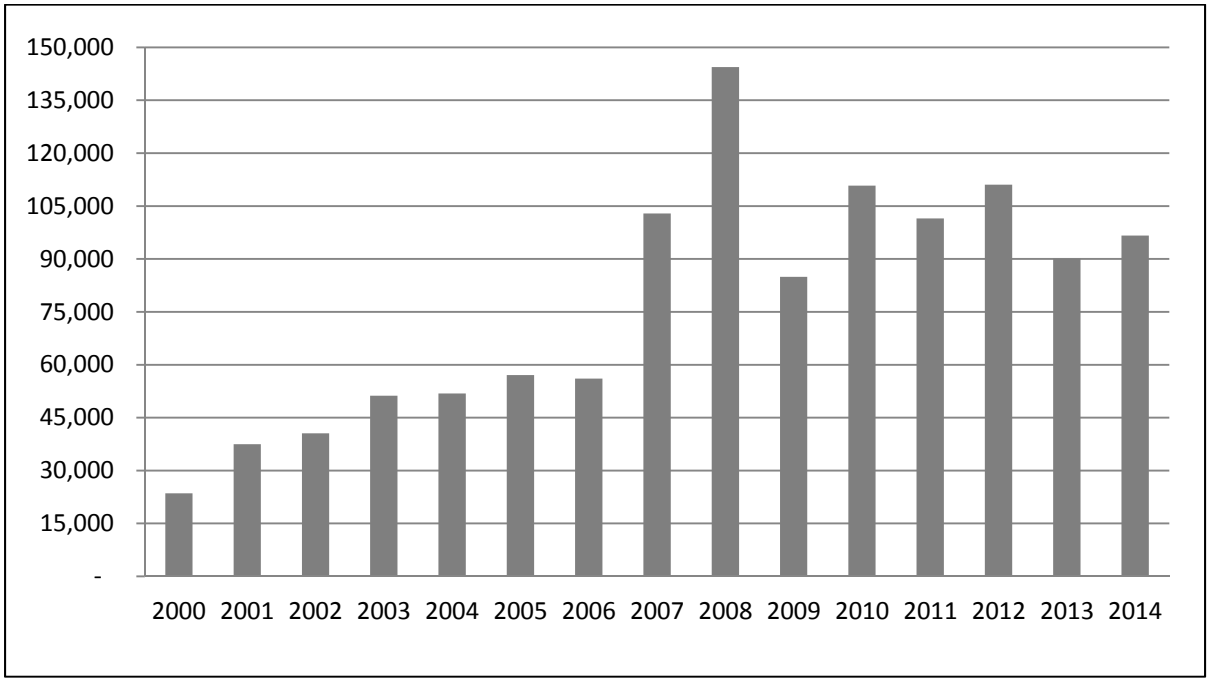
Energy savings resulting from electric efficiency measures installed in 2014 provided an estimated 1.6% of Vermont's overall electric energy requirements for the year. This percentage represents approximately $12.2 million in retail value, annually, based on a rate of 13 cents per kWh.[7] **Figure 1** and **Figure 2** show Vermont's history of energy savings from electric efficiency measures.

[5] 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 PSB in Docket 5270; and 2) costs or savings associated with fuel, water, and building operation and maintenance.

[6] All data in Section 1.3 include savings from efficiency measures installed through Burlington Electric Department and the Green Mountain Power Community Energy & Efficiency Development (CEED), with the exception of Figure 1, which includes only Efficiency Vermont results.

[7] 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 974 gigawatt-hours (GWh)[8] of savings for Vermont by the end of 2014. This figure represents 13.3% of the state's estimated electric energy requirements, with a retail value of more than $112 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. The combination of aggressive energy efficiency and local distributed generation in Vermont resulted in $400 million[9] in projects being deferred across the region overseen by the Independent System Operator–New England (ISO-NE). These savings benefited all ratepayers, whether or not they participated in Efficiency Vermont services.

[8] This number is the sum of efficiency measures reported by Efficiency Vermont, Burlington Electric Department, Customer Credit, the Green Mountain Power (GMP) Energy Efficiency Fund, and the GMP Community Energy & Efficiency Development (CEED) Fund and accounts for measures that have expired over time.

[9] ISO-NE deferred $238 million in projects in 2011. Due to continued decline of load forecasts, ISO-NE deferred an additional $161 million in projects in 2013.

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

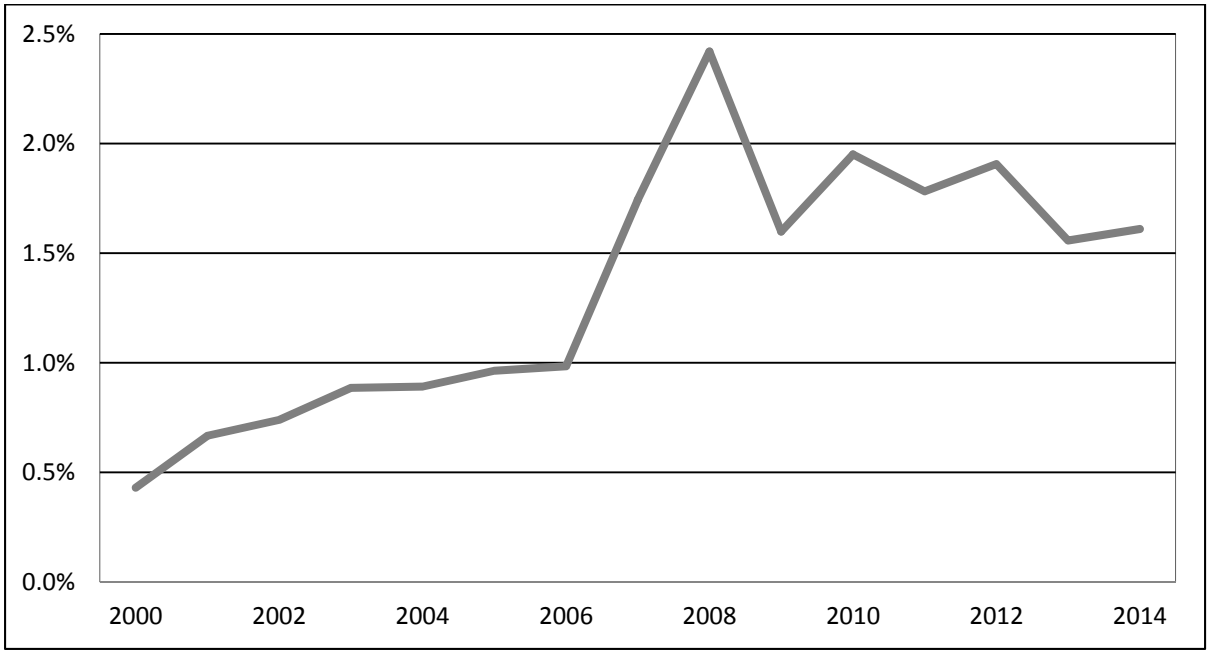
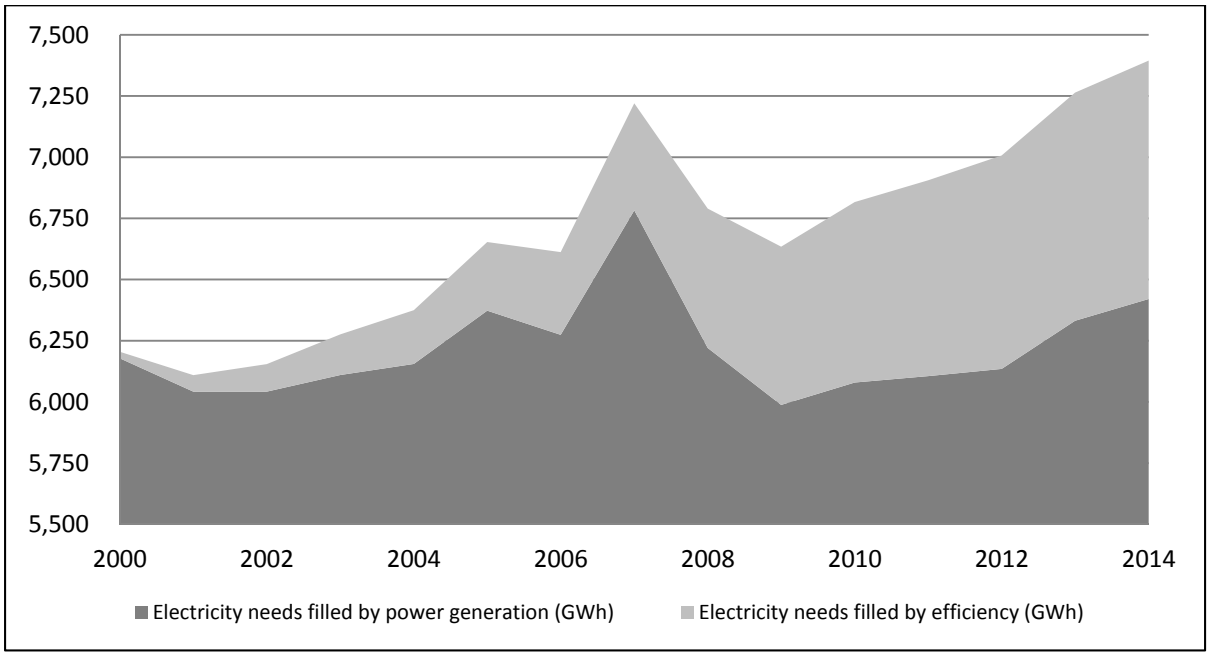


Figure 3. Cumulative impact of efficiency on growth in statewide annual electric supply requirements



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 thermal energy and process fuels (TEPF). Electric services were funded through the Energy Efficiency Charge, whereas TEPF services were funded by Vermont's Regional Greenhouse Gas Initiative revenues and by revenues earned from meeting electric capacity commitments (Efficiency Vermont 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 2014, 12% of Efficiency Vermont spending drew from TEPF funding sources. More detailed budget information is provided in Section 3.2.

1.4 THERMAL ENERGY AND PROCESS FUELS (TEPF) EFFICIENCY SAVINGS[10]

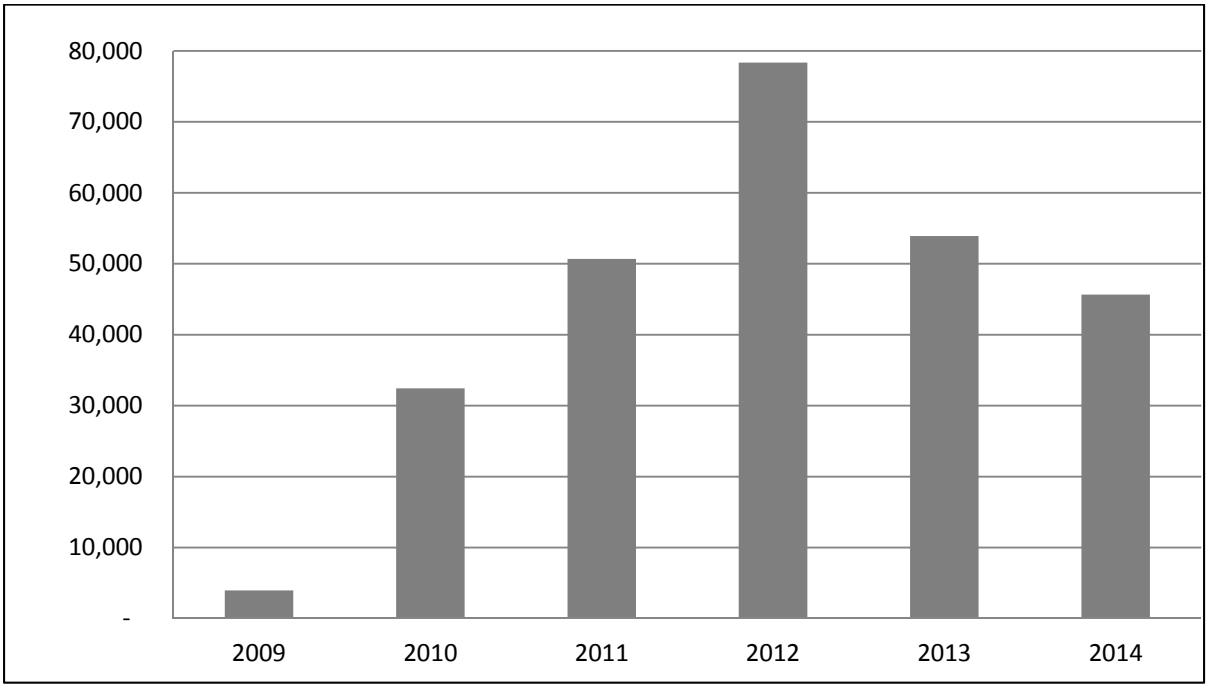
Efficiency Vermont provided both TEPF efficiency services and electric efficiency services, helping Vermont homes and businesses with a comprehensive approach to energy savings. Savings in 2014 from TEPF-funded services totaled approximately 45,660 MMBtu, acquired through the following:

- Services to Efficiency Vermont's statewide network of Home Performance with ENERGY STAR contractors, offering energy efficiency home improvements
- Technical information and financial incentives for high-efficiency residential and commercial heating equipment, including biomass systems and certain efficient oil and propane systems
- Partnerships with fuel dealers, heating contractors, and hot water system installers to enable them to provide specified services to Vermont homeowners regarding efficient heating, ventilation, and air conditioning (HVAC) systems
- Thermal-shell improvements for small businesses and private multifamily property owners through Efficiency Vermont's Building Performance service
- Coordination with affordable housing providers, the Vermont Fuel Efficiency Partnership, and Vermont's Weatherization Program to offer comprehensive multifamily services to low-income households
- Services promoting the installation of recommended efficient non-electric commercial kitchen equipment
- Thermal project partnerships with Burlington Electric Department, Vermont Gas Systems, the Green Mountain Power Community Energy & Efficiency Development (CEED) Fund, and NeighborWorks® of Western Vermont

Figure 4 shows Efficiency Vermont's annual thermal energy and process fuels savings.

[10] Savings data in this section do not include Customer Credit.

Figure 4. Efficiency Vermont's annual thermal energy and process fuels savings, in MMBtu



At the close of 2014, Efficiency Vermont had reached 115% of its target for cumulative TEPF savings for the 2012–2014 performance period.

Efficiency Vermont's TEPF services were aligned with requirements specified by the PSB 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 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 2014 provided benefits for Vermont's environment. By lowering the use of fossil fuels for electricity generation, heating, and industrial processing equipment, energy efficiency prevents associated emissions. 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. **Table 4** shows avoided pollutants over the lifetime of efficiency actions taken in each performance period year.

Table 4. Avoided pollutants over the lifetime of 2012–2014 measures, in U.S. tons

	Reduction		
Pollutant	**2012**	**2013**	**2014**
Carbon dioxide	800,000	690,000	760,000
Nitrogen oxides	86	69	82
Sulfur oxides	31	25	29

2. 2014 ACTIVITIES

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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.

2.1 SERVICES TO BUSINESS, INSTITUTIONAL & MUNICIPAL FACILITIES

Vermont businesses, institutions, and municipalities working with Efficiency Vermont in 2014 saved an approximate total of 62,200 MWh and 59,000 MMBtu from 2,980 projects, delivering Total Resource Benefits of $64.7 million to approximately 2,025 customers. The average anticipated return on investment for commercial efficiency improvements in 2014 was 54%.

Efficiency Vermont achieved the above results through activities 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

To serve the state's largest energy users—defined by their use of more than 500 MWh of electricity per year—Efficiency Vermont continued to build upon its customized approach. Efforts included the following.

Account Management

Designated Efficiency Vermont staff with specialized knowledge of working with large energy users established and maintained long-term, proactive professional relationships with individual businesses. To design and deliver effective, customized services, account managers maintained a deep understanding of each company's priorities and challenges. Efficiency Vermont helped businesses create comprehensive portfolios of savings opportunities, provided technical and financial analysis, delivered guidance in developing energy savings plans, and assisted customers in assessing and utilizing energy usage data. In addition to engaging in ongoing work with individual customers in 2014, Efficiency Vermont hosted three Best Practices Exchange events, at locations throughout the state, and published quarterly *Efficiency Connections* e-newsletters with targeted information for this market.

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 2014, Efficiency Vermont served more than 200 businesses through Account Management, garnering a combined expected annual savings of 31,000 MWh from measures completed in 2014.

Industrial Peak Initiative

In 2014, Efficiency Vermont launched an effort aimed at helping an initial group of 19 large manufacturers reduce their peak electric use and associated utility charges. The initiative featured three key components: 1) customized analysis of energy use through smart meter data, submetering, and custom analytics tools developed by Efficiency Vermont; 2) tools that allow manufacturers to predict the approach of their peak demand and when they need to take action; and 3) support designed to help customers reduce peak demand use and costs over time.

2.1.2 Small and Medium-Sized Businesses

Efficiency Vermont continued to design and implement services to meet the particular needs of businesses using up to 500 MWh per year that are not served under Efficiency Vermont's targeted market initiatives (discussed in Section 2.1.3). In 2014, Efficiency Vermont engaged in the following activities:

- Provided 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.
- Initiated outreach to a targeted group of businesses to offer services through Account Management; businesses of focus were car dealerships, nursing home/personal care facilities, fitness/recreation centers, and light industrial facilities.
- Created an online feature to enable businesses to apply for prescriptive rebates through www.efficiencyvermont.com.
- Delivered 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.
- Launched an outreach campaign providing information on saving energy, via direct mail, media advertising, events, partner interactions, and www.efficiencyvermont.com.
- Conducted phone consultations through the Customer Support team, designed to help small businesses identify savings opportunities.
- Engaged customers through the Efficiency Excellence Network of building improvement contractors, fuel dealers, electricians, and HVAC contractors (discussed in Section 2.4.3).

- Applied 2012–2013 industrial market submetering research to initiate development of software designed to streamline the submetering process, in order to help customers obtain better data about their buildings' energy use.
- Developed a weather normalization tool to provide Efficiency Vermont with an automated, streamlined approach to understanding weather-driven components of business customers' energy use.

2.1.3 TARGETED MARKETS

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 2014-specific activities that were undertaken concurrently with ongoing targeted services to each market.

Agriculture

Efficiency Vermont:

- Launched a multifaceted outreach campaign promoting bonus rebates for process equipment, ventilation, and lighting. Efforts included visits to vendors and targeted medium-sized and large farms, phone follow up with farmers with completed projects, media editorial placements, and events. The campaign resulted in multiple projects and substantial interest.
- Maintained a visible presence and disseminated information at multiple events, including the Vermont Farm Show, the Vermont Dairy Producers Conference, the Northeast Organic Farming Association of Vermont's winter conference, the St. Albans Co-op Annual Meeting, the Vermont Dairy Industry Association Conference, the 2014 Vermont Agriculture Hall of Fame induction event, and the Food Systems Summit at the University of Vermont (UVM).
- Through a research-and-development project with UVM Extension, implemented refrigeration efficiency measures for vegetable growers and gathered information useful to inform 2015 programs.
- Worked with a manufacturer to ensure that all high-performance T8 fixtures sold to Vermont farms contained qualifying lamps and ballasts.
- Established a strong relationship with Vermont Farm to Plate and interacted with the Vermont Farm & Forest Viability Program to connect Efficiency Vermont services with those who manage consulting programs for farmers.

Colleges & Universities

Efficiency Vermont helped higher-education institutions using 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, Efficiency Vermont hosted a meeting of the Vermont Campus Sustainability Network and facilitated discussions about cross-departmental teaming as a best practice for developing and executing cohesive and well-informed energy management practices. Four campuses have committed to achieve carbon neutrality within the next 10 years. This commitment requires action on energy efficiency, solid waste management, and purchasing of carbon offsets for remaining emissions.

Convenience Stores

Through an Account Management approach, Efficiency Vermont engaged with decision makers and built upon strong relationships in 2014. For the second year, to encourage multisite projects, Efficiency Vermont established a multisite project completion bonus incentive for the state's nine chain stores owning between 30 and 50 stores each. The offering provided a 20% bonus for chains completing projects in six or more stores by the end of the calendar year. A notable success of the offering was the achievement of upgrades to light-emitting diode (LED) lighting across multiple sites, including refrigerated case lights, canopy lights, and indoor overhead lighting. The indoor overhead LED was a newer measure for this market, which benefits significantly from this technology due to long store hours.

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 to help customers with ongoing improvements and to further train contractors serving this market. A total of 36 stores were audited by year-end, resulting in 33 projects. Efficiency Vermont also maintained a presence and provided sponsorship at events of the Vermont Retail & Grocers Association, including its Convention and Expo, a trade show attended by 500-plus grocers and suppliers.

Hospitals

Efficiency Vermont worked in partnership with the Vermont Association of Hospitals and Health Systems to help each hospital in the state create an Energy Action Plan (EAP). The EAP is a requirement of Vermont Act 79 and is a key component of the Healthier Hospitals Initiative, in which all Vermont hospitals enrolled in 2013 due to Efficiency Vermont's efforts. Efficiency Vermont also launched two research projects in 2014: 1) a study to establish current building performance, savings potential, and needed investment to reach

ENERGY STAR level of performance for Vermont's hospitals; and 2) a research project to better understand barriers faced by this market's key players, including facility managers and engineering and architecture firms.

K–12 Schools

In 2014, Efficiency Vermont completed the nation's first voluntary statewide K–12 energy benchmarking effort, in coordination with the Vermont Superintendents Association's School Energy Management Program (SEMP). Preliminary results showed that Vermont schools score above the national average in energy efficiency. Efficiency Vermont continued to cost share the ENERGY STAR certification process for schools; 21 schools earned certification. Efficiency Vermont also served the market through the Energy Literacy Project, discussed in Section 2.5.1; the Evergreen Loan Fund, described in Section 2.4.7; and the RELIGHT Program, supporting the use of lighting design professionals to maximize energy savings in lighting projects.

Ski Areas

Efficiency Vermont launched a limited-time initiative—targeting all Vermont ski areas—to replace inefficient ground snow guns with efficient equipment without depleting inventory or compromising quality. Through this initiative, Efficiency Vermont offered technical assistance and aggressive incentives, as well as coordination with a waste collection company to pick up old snow guns and sell them on the scrap market. Proceeds from sales were donated to learn-to-ski programs offered by the Vermont Ski Areas Association (VSAA). Efficiency Vermont also conducted snow gun testing to help resorts identify efficient snowmaking equipment when making capital project investments, and hosted Vermont's first ski areas Best Practices Exchange, which was attended by 50 ski resort leaders. Also in 2014, Efficiency Vermont attended, presented, and/or exhibited at events of the National Ski Areas Association and the VSAA.

State Buildings

Efficiency Vermont worked with the Vermont State treasurer, the Vermont Department of Buildings and General Services (BGS), and State legislators to help develop a new $8 million revolving loan fund for energy improvements to State government buildings. Efficiency Vermont supported the BGS in the development of a plan to implement the State's Energy Management Plan and to deploy the new financing mechanism. Efficiency Vermont also completed a statewide project to benchmark buildings in this market, to enable the BGS to assess its building stock for prioritization of energy efficiency projects. In addition, Efficiency Vermont worked with BGS to identify the highest-performing buildings, which will be reviewed for possible ENERGY STAR certification.

Water & Wastewater Treatment Facilities

Efficiency Vermont launched the Municipal Wastewater Treatment Facility Efficiency Upgrade initiative, providing energy audits, evaluation of facility efficiency, preliminary

design review, financial analysis, and financial support. Forty facilities signed up for the program in 2014, and a total of 33 audits were completed. Efficiency Vermont also worked with the Vermont Department of Environmental Conservation to develop an agreement through which Efficiency Vermont will conduct efficiency reviews of all major facility upgrades. In 2014, Efficiency Vermont held two roundtable meetings with a total of 50 facility representatives.

2.1.4 KEY COMMERCIAL TECHNOLOGIES

Efficiency Vermont continued to maintain awareness of efficient technologies that hold the potential to provide significant benefits to Vermont businesses. Efficiency Vermont focused also on approaches with both commercial and residential applications, such as heat pump, biomass, and solar technologies. In addition to energy savings, benefits from these technologies include greater building occupant comfort and safety, increased sales and customer loyalty, improved working and learning environments, better indoor air and lighting quality, lower tenant turnover, greater building durability, lower maintenance costs, and higher property resale value. To increase the adoption of quality technologies in a wide range of applications, Efficiency Vermont engaged in the below activities.

Commercial Lighting

Efficient lighting technologies and design continued to offer significant savings opportunities owing 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 the following:

- Efficient technologies in place of standard T8 lighting systems
- Efficient exterior lighting, including municipal street lighting
- Lighting controls
- Integral lighting systems that incorporate onboard controls with efficient lighting fixtures
- LEDs in appropriate applications
- Partnerships with lighting design professionals to maximize savings through efficient lighting design

In 2014, Efficiency Vermont undertook the following:

- Helped 22 Vermont municipalities eliminate unnecessary street lighting and convert remaining fixtures to LEDs, and signed on 23 municipalities to make these improvements in 2015
- Initiated a bonus rebate for the 2014 installation of select LED lighting fixtures, along with lighting controls
- Launched the SMARTLIGHT Summer Challenge, offering rewards to distributors exceeding their previous summer's sales

- Increased numbers of lighting distributors and designers participating in Efficiency Vermont lighting programs
- Participated and/or presented at efforts coordinated by the Lighting Energy Alliance, the Philips Lighting Application Center, and the Lightfair International conference
- Hosted the Eastern Lighting Peer Exchange in partnership with the Burlington Electric Department
- Developed a co-promotion model with LED fixture manufacturers to increase the availability of selected fixtures in Vermont, motivate distributors to stock them, and extend Efficiency Vermont rebate dollars by leveraging a manufacturer match
- Participated in the DesignLights Consortium (DLC) long-term plan committee, to provide advice regarding the scope, structure, and strategy for DLC over the next five years
- Participated in the Northeast Energy Efficiency Partnerships (NEEP) Regional Commercial Building Lighting Controls and Advanced Lighting Controls Project
- Launched the Efficiency Excellence Network of contractors, including lighting contractors, as discussed in Section 2.4.3

Heating, Ventilation, and Air Conditioning (HVAC)

Efficiency Vermont's 2014 efforts included both direct customer and upstream partnering activities designed to increase the installation of high-efficiency equipment and the optimization of entire systems. Activity highlights:

- Launched an enhanced high-performance circulator pump (HPCP) initiative—paying distributors to bring efficient pump prices in line with traditional units—with five manufacturers, 10 distributors, and 50 new eligible products
- Implemented large-scale metering, data collection, and analysis of HPCP installations in the fourth quarter, following an informative, smaller effort earlier in the year
- Launched a heat pump water heater initiative with five manufacturers and eight distributors
- Rolled out a cold-climate heat pump initiative, with nine distributors and three manufacturers
- Launched a stand-alone oil and liquefied petroleum (LP) gas heating system rebate
- Increased the replacement of commercial rooftop air-conditioning units with equipment built to U.S. Department of Energy high-efficiency standards
- Engaged in efforts focused on biomass and solar hot water technologies

A significant focus in 2014 was on building and strengthening relationships with an increasing number of manufacturers and distributors of efficient technologies. Further discussion of supply chain efforts can be found in Section 2.4.4 of this report.

Combined Heat and Power (CHP)

To promote the use of best practices and best-in-class CHP systems, Efficiency Vermont engaged operators of wastewater treatment, agricultural, industrial, and institutional

facilities that have: 1) on-site electricity generation capability; and 2) substantial heating needs. Efficiency Vermont provided financial support for third-party cost-benefit CHP feasibility studies, and for CHP systems meeting requirements established by the PSB.

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. In 2014, Efficiency Vermont launched a pay-for-performance initiative for Vermont's largest compressed air users, providing (through a competitively selected contractor) plant audits, data collection on compressed air and vacuum systems, and management of energy efficiency measure implementation. Efficiency Vermont also piloted a method of reaching smaller businesses (such as in the granite industry) through trade organizations, by which multiple sites can be "bundled" to make audits cost effective.

2.2 SERVICES TO HOMES

2.2.1 EXISTING AND NEW LOW-INCOME HOUSING

Efficiency Vermont undertook its efforts in service to low-income households 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 2014, Efficiency Vermont engaged in the following:

- Launched a new effort targeting low-income households that use more than 10,000 kWh per year, reaching out initially to households enrolled in Green Mountain Power's Energy Assistance Program. In addition to receiving installation of efficient products, homes using electricity for space or water heating were evaluated for their suitability for future receipt of heat pump equipment.
- Added LED lighting to the list of products installed in homes.
- Continued to provide training and quality assurance services for the state's weatherization agencies.
- Conducted outreach to low-income partners and mobile home parks to promote high-performance modular homes.
- Held three focus groups gathering input from owners of mobile homes to improve the Mobile Home Replacement Service and the promotion of net-zero homes in Vermont.
- Participated in a U.S. Department of Energy stakeholder group tasked with improving the baseline efficiency of manufactured homes across the country.

- Presented at the national Energy and Utility Affordability Conference about low-income efficiency program screening and challenges for thermal affordability in 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.
- Maintained 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 Boys & Girls Clubs, Franklin County Caring Communities, King Street Center, OUR House of Central Vermont, Salvation Army, Habitat for Humanity ReStore, Vermont Adult Learning, Vermont Family Network, and Vermont Foodbank.
- Launched a Nest thermostat pilot initiative serving multifamily low-income homes as well as market rate homes, as described below under "Single-Family Homes."

2.2.2 Existing Market-Rate Homes

In 2014, in an effort to increase participation and efficiency awareness as well as to reach underserved populations, Efficiency Vermont distributed energy savings kits to approximately 11,600 single-family and multifamily homes. Each kit included a compact fluorescent lightbulb (CFL), an LED light bulb, an advanced power strip, a water-saving device, and information on rebates and on ways to save energy. A survey was also included, to capture data on resulting energy-saving actions. Efficiency Vermont signed up interested parties through community events, www.efficiencyvermont.com, the toll-free Customer Support phone line, and direct-mail outreach in underserved counties.

Also in 2014, Efficiency Vermont utilized historic usage data to identify and target services to homes using electric-powered space heating and launched two data-driven services to customers in Green Mountain Power territory: 1) customized Home Energy Reports; and 2) access to usage data, analysis, and guidance through a secure portal on www.efficiencyvermont.com.

Single-Family Homes

Efficiency Vermont continued to help homeowners make comprehensive, efficient home improvements through its Home Performance with ENERGY STAR program. Efficiency Vermont continued to provide mentoring and technical support to Building Performance Institute (BPI) certified contractors. Efficiency Vermont also offered financial incentives to homeowners who completed projects with BPI-certified contractors, and engaged in program promotions. Efficiency Vermont's efforts in support of Vermont BPI contractors are discussed in greater depth in Section 2.4.3.

In 2014, Efficiency Vermont initiated efforts as the U.S. Department of Energy's Vermont Home Energy Score Partner with the formal launch of the Vermont Home Energy Labeling Advisory Board. This board will provide input, oversight, and guidance for Efficiency Vermont's implementation of the statewide home energy labeling program. The advisory board includes Vermont Gas Systems, Burlington Electric Department, Office of Economic Opportunity, weatherization agencies, NeighborWorks® of Western Vermont, Building Performance Professionals Association, and real estate industry representatives.

Efficiency Vermont also expanded on research begun in 2012 regarding Nest thermostats (designed to save energy by learning and automating use patterns) with a 2014 pilot initiative, in collaboration with Vermont Gas Systems and several fuel dealers, investigating the device's energy-saving potential in single-family market rate homes as well as in multifamily low-income homes.

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
- Prescriptive rebates for efficient equipment
- A new electric efficiency track for projects that don't entail comprehensive building upgrades
- 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 Saint Albans identified as having transmission and distribution capacity constraints. Undertaken to benefit all Vermont ratepayers, these services focused on highly cost-effective reduction of system peak capacity demands and were intended to help postpone or prevent the need for system infrastructure upgrades.

Efficiency Vermont obtained dramatic results in Saint Albans in 2014, with nearly 30% greater summer peak demand savings over 2013 and the achievement of more than 100% of the three-year QPI target for summer peak demand reduction. Efficiency Vermont achieved these targets by implementing a variety of initiatives rather than relying on a single strategy. Key approaches included large-customer Account Management, enhanced engagement with small and medium-sized businesses, intensified efficient product efforts, increased low-income services, outreach to farms, and coordination with municipalities and community groups. Services encouraged efficient approaches to new construction, retrofits, and equipment replacement, including a focus on LED lighting.

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 that had an impact on multiple sectors. 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. Efforts made with these providers included coordinated planning, program creation, information exchange, training, financial incentives, and cooperative advertising. These approaches enabled Vermont homes and businesses to have access to a valuable network of knowledgeable providers while strengthening these providers' bottom line.

2.4.1 NEW CONSTRUCTION SERVICES

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 individuals included architects, engineers, specialty design service providers, and practitioners of construction trades. Efficiency Vermont also engaged in efforts targeting developers, equipment suppliers, installation contractors, commissioning agents, appraisers, lenders, and real estate agents, as well as certain building owners as key members of project teams. Interactions with such building owners were typically 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 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 construction strategy from the earliest stages of a project. Efforts included:

- Technical assistance through the design, construction, and post-construction phases
- Market outreach and education through industry associations and events
- Prescriptive and customized financial incentives for efficient approaches, equipment, and building operation systems
- Post-occupancy operations and energy performance tracking
- Post-construction building owner engagement to identify ongoing and future savings opportunities for existing and new buildings
- Leveraging of customer interest in green building, energy performance, and green rating systems such as Leadership in Energy and Environmental Design (LEED)
- Assistance in the design of buildings capable of achieving net-zero energy use, to acquire savings as well as to increase interest in building to this standard by raising awareness and providing education
- Continued partnerships with national, regional, and international organizations, such as the American Council for an Energy-Efficient Economy, the American Institute of Architects, the Appraisal Institute, the Consortium for Energy Efficiency (CEE), the Institute for Market Transformation, the International Code Council, the New Buildings Institute, Northeast Energy Efficiency Partnerships, and the U.S. Green Building Council to promote high performance in new commercial construction

In 2014, Efficiency Vermont:

- Implemented a net-zero pilot initiative that drew interest and provided useful information about the strength of the initiative design as well as insights into beneficial adjustments
- Hosted the Design Professionals Advisory Group, created to provide critical feedback on Efficiency Vermont's 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
- Collaborated with the New Buildings Institute, National Grid, and Building Green to host Net Zero Northeast, an all-day summit of more than 100 design professionals, building owners, community planners, and others at the Vermont Statehouse
- Sponsored the Appraisal Institute's green building appraisal training for commercial appraisers
- Sponsored and exhibited at:
    - The Vermont Green Building Network regional summit of the U.S. Green Building Council
    - The ACX Architecture and Construction Expo presented jointly by the Vermont chapter of the American Institute of Architects (AIA-VT) and Construction Specifications Institute
    - An AIA-VT architects seminar

New Homes

In 2014, to help meet the range of efficiency aims that Vermonters have for their new homes, Efficiency Vermont offered technical guidance, financial assistance, and energy rating services in support of the construction of homes meeting specific levels of energy performance:

- Energy Code Plus: Homes exceeding Vermont code requirements for energy efficiency and receiving certification for Home Energy Rating System 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: Homes reaching a high level of energy efficiency that makes them well suited to achieve net-zero energy use with the incorporation of renewables. Included in this tier was the High-Performance Modular Homes service, targeting low-income homeowners.

This tiered approach assisted builders and owner-builders in meeting and exceeding Vermont Residential Building Energy Standards while promoting low-load and net-zero building practices. Also in 2014, Efficiency Vermont:

- Launched a new electric efficiency track for market rate multifamily construction.
- Saw Vermont ranked first in the country in average overall efficiency for homes with energy ratings; the nation's average efficiency rating was approximately 10% lower than Vermont's.
- Created a three-part series of online instructional videos presenting best practices in new construction.
- Hosted a ventilation training for contractors.
- Upon completion of the initial round of Value Stream Mapping workgroups, improved processes for customer outreach, new-participant welcome calls, tracking of why projects fail, and quality assurance.
- Determined that less stringent standards for windows, flat attic insulation, and below-grade foundation insulation result in lower building costs with minimal reduction in energy performance. This determination was made through energy modeling and analysis of home performance data acquired through monitors in place in high-performance homes since 2012.

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 RETAIL EFFICIENT PRODUCT SERVICES

In 2014, 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. Efficiency Vermont also provided services to encourage buyers of heat pump technologies to purchase efficient models; activities in regard to heat pump equipment with residential and commercial uses are discussed in Section 2.1.4.

Efficiency Vermont designed its services to motivate purchases by increasing efficiency knowledge and reducing the retail cost of efficient products. Support took the form of rebates, buy-downs and markdowns at the manufacturer and retail level, point-of-purchase information, advertising, promotional and public information activities, and the targeted provision of "efficiency kits" to introduce customers to specific efficient products. An essential element of Efficiency Vermont's efforts continued to be services to retailers and upstream partners in the product supply chain to ensure the availability of high-quality efficient products in Vermont stores.

In 2014, Efficiency Vermont:

- Was named the U.S. Environmental Protection Agency (EPA) 2014 ENERGY STAR Partner of the Year for Program Delivery for its retail efficient products services
- Completed the first phases of an internal assessment of the Account Management process for this market, to increase efficiency
- Joined the EPA's Retail Products Platform core team, and was elected as lead on the implementation team, to help design a midstream pilot effort
- Participated in monthly NEEP and CEE product category meetings
- Attended the 2014 EPA ENERGY STAR Partner Meeting, which included meetings with key manufacturing and retail partners

Activities in support of specific products follow.

Lighting

In 2014, Efficiency Vermont:

- Established aggressive pricing for LED decorative lights and reflectors
- Launched the "Saving is Always in Season" lighting campaign at store shelves, on radio, on TV, and at events; the campaign was a result of customer survey work
- Released a survey to collect feedback from retailers and manufacturers
- Completed research and design of an LED market strategy incorporating customer, retailer, and manufacturer survey results
- Joined the NEEP Residential Lighting Strategy stakeholder group and participated in the NEEP Residential Lighting Workshop

Appliances

In 2014, Efficiency Vermont:

- Provided consumers with the ability to apply for rebates online
- Launched rebates for dryers at two tiers of efficiency
- Conducted a metering study in the NEEP dryer baseline evaluation in Vermont
- Rolled out an early-retirement pilot initiative for air conditioners
- Reactivated a second-refrigerator retirement program
- Participated in the Northwest Energy Efficiency Alliance and NEEP heat pump water heater working groups
- Conducted an appliance and consumer electronics retailer shelf survey

Consumer Electronics

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

- Engaged with industry contacts about home energy management systems and the potential of whole home automation
- Attended the Consumer Electronics Show and held meetings with key appliance and consumer electronics manufacturers and utility partners
- Participated in working groups with:
    - NEEP and CEE regarding home energy management systems
    - CEE regarding set-top boxes

2.4.3 Services to Building Improvement Contractors

Efficiency Vermont continued work in affiliation with the Building Performance Institute (BPI) in training Vermont building improvement 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 supported certified contractors with program promotion, listings on www.efficiencyvermont.com, and consumer financial incentives for projects completed by BPI certified contractors. Contractors also were able to 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 certified contractors through its annual *Best of the Best* awards for efficient building improvements.

In 2014, Efficiency Vermont:

- Launched an expanded Efficiency Excellence Network (EEN) to include contractors who focus on residential heating systems, commercial HVAC, refrigeration, and

electrical. The EEN is designed to encourage contractors to identify and promote energy efficiency opportunities for their customers. Efficiency Vermont provides EEN contractors with training, promotion, marketing resources, and referrals to leverage their relationships with Vermont homeowners as well as with owners of small and medium-sized businesses.

- Hosted a training session for real estate professionals featuring a national leader in green appraisals, who discussed strategies that builders and appraisers can use to show the value of energy efficiency upgrades in appraisals.
- Participated in activities connected to Efficiency Vermont's Home Performance with ENERGY STAR program:
    - In partnership with RuralEdge in Lyndonville, initiated an offering for middle-income homeowners featuring enhanced initiatives, a $100 energy audit, and guidance in project completion.
    - Held a meeting of BPI-certified contractors and partners, providing updates and gathering feedback on program policies, software implementation, and contractor training.

2.4.4 Services to Equipment Supply Chain Partners and Technicians

In 2014, Efficiency Vermont:

- Saw a notable increase in distributors' sales of circulator pumps in Vermont; these were over 3,800 in 2014, compared with 300 in 2013
- Applied lessons learned—from extensive efforts in partnership with circulator pump distributors—to both wholesale and retail heat pump water heater activities, which resulted in more than double the projected sales for the year
- Expanded the Efficiency Excellence Network (described in Section 2.4.3) to encourage electrical, HVAC, and refrigeration contractors to identify and promote energy efficiency equipment and opportunities in their commercial work
- Continued to increase the number of participating distributors of high-performance circulator pumps

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, and speaking engagements
- Training workshops

- Promotional and educational campaigns

Active partnerships:

American Institute of Architects–Vermont Chapter
American Society of Heating, Refrigerating, and Air-Conditioning Engineers
Building Performance Professionals Association of Vermont
Construction Specifications Institute
Farm to Plate Network
Green Mountain Water Environment Association
Heating, Air-Conditioning and Refrigeration Distributors International
Home Builders and Remodelers Association of Vermont
ICC Building Safety Association of Vermont
Illuminating Engineering Society
Vermont Alliance of Independent Country Stores
Vermont Apartment Owners Association
Vermont Association of Hospitals and Health Systems
Vermont Association of School Business Officials
Vermont Convention Bureau
Vermont Fuel Dealers Association
Vermont Green Building Network
Vermont Green Home Alliance
Vermont Healthcare Engineers Society
Vermont Hospitality Council
Vermont Inn and Bed & Breakfast Association
Vermont Maple Sugar Makers Association
Vermont Rental Property Owners Association
Vermont Retail & Grocers 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 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 new efforts. Offered services included planning guidance, promotions, educational materials, volunteer training, and the contribution of efficient products.

In 2014, Efficiency Vermont:

- Conducted training sessions for Community Partnership Grant Program recipients
- Through a local contractor, distributed CFLs, and conducted presentations about basic energy efficiency opportunities for more than 300 Vermonters at senior meal sites
- Organized a six-part workshop series on zero-energy homes as part of the Net Zero Montpelier initiative
- Partnered with Green Mountain Power and NeighborWorks of Western Vermont to conduct a residential door-to-door outreach effort in Rutland City to promote energy efficiency
- Partnered with the Vermont Energy and Climate Action Network (a network of town energy coordinators and committees) to implement the second annual Button-Up Vermont Day, providing education to enable individuals in 31 towns to provide fellow community members with weatherization and energy efficiency information and assistance

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 2014.

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. Mechanisms included buy-down or markdown agreements at the manufacturer, distributor, supplier, and retailer level, as well as rebates and incentives for Vermonters investing in the following:

- Efficient products and equipment purchased at retail stores and through installation contractors and commercial suppliers
- 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
- 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 because of monthly energy savings that are larger than the loan payments. In 2014, Efficiency Vermont provided technical and financial analysis, promotions, and informational support for customers. Efficiency Vermont engaged with the following:

- Energy Loan Guarantee Program (launched in 2014): Large-project financing for businesses through Vermont banks and credit unions. Efficiency Vermont, in partnership with the Vermont Public Service Department (PSD), 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 provided a guarantee of 75% of loans. Efficiency Vermont provided technical assistance and cash flow analysis, determining how energy savings can support loan payments.
- Heat Saver Loan (launched in 2014): Low interest rate financing for income-qualified homeowners, to be used for heating system replacements through Efficiency Vermont's EEN and in partnership with the PSD and local credit unions.

- 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 on-bill financing for K–12 schools and municipal buildings 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. In 2014, improvements included a 50% loan advance prior to project completion, lowered fees, clarification that there is no early payoff penalty, and an interest rate buy-down funded through the PSD.
- 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.
- Agricultural Energy Efficiency Loan: Providing agricultural facilities with access to financing for energy efficiency projects.

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 coordination with:

- Burlington Electric Department and Vermont Gas Systems to ensure coordination in the implementation of thermal and electric efficiency and Non-Resource Acquisition services to optimize administrative efficiency and prevent market confusion
- Green Mountain Power Corporation (GMP) in the implementation of services through the Community Energy & Efficiency Development Fund, offering GMP customers unique services as well as shared services, through which GMP invests in existing Efficiency Vermont programs
- Vermont Public Power Supply Authority and distribution utilities across the state, including Vermont Electric Cooperative and Washington Electric Cooperative.

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 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, the Regulatory Assistance Project, and many others. 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, 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 2014:

- NEEP Regional Commercial Building Lighting Controls and Advanced Lighting Controls Project
- A metering study in the NEEP dryer baseline evaluation in Vermont
- Monthly NEEP efficient product category meetings
- NEEP Residential Lighting Strategy stakeholder group and workshop
- NEEP working groups regarding heat pump water heaters and home energy management systems

2.5 MARKET ADVANCEMENT ACTIVITIES

Efficiency Vermont 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 2014, the below activities 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.

The eight areas discussed in this section correspond to Non-Resource Acquisition budget categories, with the exception of the final subsection—2.5.8. Consumer Behavior Studies—that addresses 2014 activities funded under the smart grid 2011 carryover budget.

2.5.1 EDUCATION AND TRAINING

Codes and Standards Support—Residential and Commercial / Industrial

To help Vermonters comply with and / or surpass State energy codes for new construction and renovation projects, 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
- Disseminated codes and standards information to municipalities through meetings coordinated by regional planning commissions and through training sessions
- Held a training session for the general public regarding State residential code
- Collaborated with the PSD, the Energy Futures Group, and Navigant Consulting (code update contractor for the PSD) to provide technical assistance—including energy modeling—for State building standards updates
- Worked with other stakeholders in efforts to update residential and commercial codes and to develop a new "stretch code" that exceeds Vermont's base energy code for residential new construction

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, supported educators in enhancing school curricula and increasing student awareness of and advocacy for energy-related issues in their schools and communities. In 2014, the ELP served all 14 of Vermont's counties, reaching more than 7,500 students in 90 schools, seven homeschool groups, 13 libraries, and several summer camps and student conferences. The ELP also:

- Provided professional development or targeted teacher trainings at nine schools and at the Vermont Science Teachers Association Conference
- Presented two summer institutes for teachers
- Developed a Vermont-specific energy literacy framework and incorporated this into curriculum and professional development efforts
- Engaged in development of a "Smart Meter, Smart Grid" presentation partially funded by GMP, Burlington Electric Department, Washington Electric Cooperative, and Vermont Electric Cooperative
- Participated in 27 energy fairs and outreach events
- Updated its "Button Up!" presentation to better align with Next Generation Science Standards and developed and piloted a home walkthrough worksheet
- Developed and maintained education resources, including learning kits, brochures, a lending library, and more robust web content
- Held a stakeholder meeting to share results to date and gather input on 2015–2017 implementation.

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 2014 included:

- Provision of information and marketing and advertising promotions via print, broadcast, web-based, and social media
- An increase in customer engagement through access via www.efficiencyvermont.com to recommendations on efficiency actions, online rebate applications, 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, fairs, and trade shows
- Creation of advice columns and electronic newsletters that delivered information on energy efficiency and Efficiency Vermont's services

Better Buildings by Design Conference

Efficiency Vermont presented its annual Better Buildings by Design Conference in February. This two-day gathering is the region's premier design and construction conference, serving as a key resource to 1,000-plus construction and design professionals, and equipment installation and service contractors. The conference focused on the latest techniques and technologies for building durability, superior performance, energy efficiency, and value for both residential and business new construction as well as retrofit projects. In addition to 40 workshops and hands-on demonstrations given by industry leaders, the conference hosted a trade show of 50 exhibitors of 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 as well as efficient buildings and equipment
- Referrals to resources such as Vermont's Weatherization Program, the Renewable Energy Resource Center, the Energy Code Assistance Center, Vermont Gas Systems, Burlington Electric Department, and other distribution utilities.

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 2014, Efficiency Vermont:

- Launched, completed, and delivered final results on the joint GMP–Efficiency Vermont residential behavioral demand response pilot involving 32,000 randomly selected customers during four summer peak events
- Completed a home electricity insights pilot
- Collaborated with Burlington Electric Department to investigate AMI gateway options to allow (primarily commercial) customers access to real-time data from AMI meters using a wireless connection; the effort was completed and Efficiency Vermont developed recommendations regarding next steps
- Launched a pilot, to continue into 2015, in coordination with GMP and Middlebury College, testing the use of in-home displays and other home network devices (such as AMI gateways) to provide both residential and commercial customers with access to real-time data from AMI meters using a wireless connection
- Engaged in development of strategies and plans for build-out of submetering data infrastructure to support commercial and industrial customers; this work will continue in 2015
- Continued configuration and testing of the AMI data warehouse, including data quality and data transfer completeness investigations and testing of analytics prototypes
- Developed data analytics tools and enhancements to the tool-development platform in order to efficiently and effectively use AMI and submeter data

Technology Demonstrations

Low-cost, residential-scale remote metering to support solar thermal heating systems: The goal of this project was to identify and evaluate reliable, low-cost remote metering solutions for monitoring the performance of solar thermal systems. In partnership with solar thermal contractors and a Vermont-based solar thermal system integrator, Efficiency Vermont connected solar thermal meters, associated pumps, and sensors to an active solar water heating system. Initial findings identified optimal water usage conditions for accuracy and supported the appropriateness of requiring remote metering in Efficiency Vermont's solar water heating initiative.

Path to zero-energy homes: The goals of this effort were twofold: 1) develop and apply solutions to achieve comprehensive, deep energy retrofits and net-zero in at least 10 existing homes across Vermont; and 2) create a road map to inform program enhancements for a larger statewide approach toward achieving energy savings of 50% or greater in the residential market. In 2014, following outreach in seven towns throughout the state, Efficiency Vermont conducted consultations with 28 owners, including five with a completed zero-energy project, six in the design or construction phase, and four likely to move forward with a project in the foreseeable future. Despite the small number of homes with finished projects, Efficiency Vermont completed the effort and developed a report with lessons learned and recommendations. Additionally, Efficiency Vermont made a significant addition to the effort by

presenting a net-zero training course for Home Performance with ENERGY STAR contractors and others in the renovation, insulation, and construction industry.

Whole building control systems: This project was designed to determine savings benefits from whole building control systems. Following the initial installation of controls at a convenience store in 2013, Efficiency Vermont implemented a second whole building control system project in 2014. Installed in a different convenience store, the 2014 equipment controls HVAC and lighting systems, monitors refrigeration systems and interior air temperatures, and sends email alarms to owners regarding high temperatures, open coolers, and other conditions with an impact on products. Also in 2014, Efficiency Vermont, in partnership with the system installer, identified a new, more affordable controls system that it compared with the installed system. Initial findings suggested that although both systems offered in-depth information, the building operators lacked the time to use the controls to better manage their energy use. Final results were expected in 2015.

Ammonia refrigeration systems: In use at several industrial facilities in Vermont, large ammonia-based refrigeration systems are often the biggest energy users in a building. Efficiency Vermont undertook this project to develop a metric-based dashboard for monitoring energy performance and generating benchmarking data to define "high performance" to help ensure that a system is operating at peak efficiency. In 2014, Efficiency Vermont met with key personnel at a large ice cream manufacturer, who expressed interest in participating in the project. Efficiency Vermont also joined the Industrial Refrigeration Consortium at the University of Wisconsin in order to gain access to technical support on monitoring and benchmarking. This project will continue through 2015.

Rack hybrid systems for medium-sized grocery stores: The original aim of this project was to ascertain energy savings potential through liquid pumping amplification. Unfortunately, the system being metered presented severe mechanical issues, causing the owner to consider purchasing a new rack and rooftop condensing unit. This created an opportunity to shift the focus of this effort to identifying energy savings potential in installing a new rack system. In 2015, Efficiency Vermont will reinstall metering equipment and conduct data collection and analysis.

Domestic hot water temperature control via electronic mixing valves: This effort, in partnership with Housing Vermont, was designed to determine the benefits of using electronic mixing valves for hot water heaters to control temperatures. This project was delayed owing to an extended medical leave by the lead technical partner at Housing Vermont. At year-end, the baseline monitoring of the existing mixing valve was completed, and the electronic valve was installed and fully operational at the testing facility. Work will continue in 2015.

Visualizing resource for affordable-housing operators: Efficiency Vermont provided a grant, startup guidance, and ongoing technical feedback to Housing Vermont in support of its efforts to better manage building energy use. This project's aim was to help Housing Vermont and its software development contractor build systems that would make it easier for building

operators to understand, interpret, and apply data being generated by Housing Vermont's existing monitoring equipment. At year-end, the contractor was in the development phase. The project and Efficiency Vermont's technical involvement were expected to continue into 2015.

Efficiency Vermont / University of Vermont Extension research partnership: This effort was designed to identify energy efficiency opportunities in vegetable storage operations. Through in-person and metered data collection, Efficiency Vermont monitored temperature and humidity levels at eight operations across the state. With this information, Efficiency Vermont was able to provide each grower with an energy profile, highlighting the current state of its equipment and noting potential energy savings opportunities, and to create a walk-in cooler best practices guide for staff to use with customers. By the end of 2014, Efficiency Vermont began analysis of the cost-effectiveness of different program delivery methods to reach targeted farmers. A report will be completed in 2015, to guide program design and outreach for this market segment.

2.5.3 PLANNING AND REPORTING

Efficiency Vermont prepared and submitted required documents to the PSB, the PSD, and other required stakeholders. The below documents were presented 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.

- Triennial plan
- Annual savings claim and annual report
- Annual highlights brochure
- Monthly and quarterly reports
- Quarterly and annual budget variance reports
- Service quality reports
- Quarterly customer complaint and feedback reports
- Documents supporting PSD financial audits
- PSD monthly invoices
- Vermont Energy Investment Corporation financial audit

Demand Resources Plan

Efficiency Vermont engaged in the following activities related to 2014 reporting on the 2015–2034 Demand Resources Plan Proceeding:

- Filed budget and savings recommendations, including: 1) electric resource acquisition budgets and savings; 2) TEPF resource acquisition budgets and savings; and 3) non-resource acquisition budgets (split between electric and TEPF) and descriptions
- Commented on: 1) Energy Efficiency Utility (EEU) compensation (QPI award and operations fees) rates and budgets; 2) PSD evaluation plan and budget; 3) EEU fiscal agent and EEU fund audit budgets; and 4) impact of budget recommendations on electricity consumers' rates and bills

- Filed comments on budgets and savings recommendations
- Participated in resource acquisition elements workshop
- Participated in non-resource acquisition elements, evaluation, and compensation workshop
- Filed proposed QPI targets, and proposed QPI incentive scaling and weighting
- Filed the Demand Resources Plan Final Deliverable, consisting of required elements as defined in Section II.2.A of the Energy Efficiency Utility Process and Administration Document

Participation in State and Regional Integrated Planning

Efficiency Vermont continued its active participation in the Vermont System Planning Committee (VSPC), a collaborative body bringing together Vermont's utilities, Vermont Electric Power Company, the PSD, and individuals representing the interests of ratepayers to address approaches to electric transmission system planning and management. In 2014, Efficiency Vermont participated in VSPC's four subcommittees: Coordinating, Forecasting, Geographic Targeting, and Public Participation. In this way, Efficiency Vermont actively engaged in the VSPC's reliability planning and forecasting, energy efficiency geographic targeting, public engagement, and standard offer geographic targeting efforts. In particular, this work involved providing input to solution selection, cost allocation, and implementation planning of all identified reliability deficiencies.

ISO-NE Forward Capacity Market Participation

Vermont Energy Investment Corporation (VEIC), as the implementer of Efficiency Vermont, continued to represent the interests of Vermont ratepayers by participating in the ISO-NE Forward Capacity Market (FCM), in which Efficiency Vermont energy efficiency capacity savings are bid as a resource for the regional electric grid. VEIC delivered approximately 81.4 megawatts of peak capacity savings from Efficiency Vermont activity into the FCM in 2014. This led to approximately $4.7 million in revenues that provided funds for investment in thermal efficiency services. Efficiency Vermont's 2014 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:

- Working with the PSD as it conducted its annual savings verification to review the initial savings claim
- Participating in the Technical Advisory Group with the PSD, Burlington Electric Department, 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
- Metering, measurement, and evaluation activities related to ISO-NE FCM participation

- 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

Efficiency Vermont continued to follow rigorous 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 Business Customer Satisfaction: Developed a satisfaction survey in coordination with the PSD and, through a third-party vendor, delivered it to more than 500 business customers. Within 75 usable responses, 81% 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), residential new construction, and retrofit 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: 8 seconds.
   - Average percentage of calls answered by a live agent during normal business hours: 92%.
   - Average percentage of abandoned calls: 1%.
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: Results went beyond the 95% requirement; the actual percentage was 100%.
   - Ratio of complaints to participants: Results went beyond the required 0.5% or less;
   - Percentage of complaints closed within 12 business days of initial complaint: Results went beyond the 95% requirement; the actual percentage was 100%.

2.5.5 Policy and Public Affairs

Public Affairs

In 2014, Efficiency Vermont continued to focus on two key areas:

1. Public outreach, via media and online outlets, to increase public awareness and understanding of Efficiency Vermont, as well as engagement in its programs
2. Outreach and response to policy makers and key external stakeholders about general information and particular Efficiency Vermont activities

Highlights for the year included:

- Working with the Legislature, utilities, and other stakeholders on the passage of legislation authorizing the PSB to explore the use of Energy Efficiency Charge funds for heat pumps
- Hosting a series of Efficiency Vermont community forums to give members of the public a meaningful opportunity to engage with Efficiency Vermont leadership on plans for the next three years
- Organizing several well-attended press events to highlight major new Efficiency Vermont initiatives such as the Industrial Peak Initiative—a press event attended by Vermont Governor Peter Shumlin—and Home Energy Reports.

Regulatory Affairs

Efficiency Vermont continued to:

- Work with the PSD to write, revise, and maintain governing documents necessary for Efficiency Vermont to operate as a regulated Energy Efficiency Utility
- Review and provide advice on regulator-required, coordinated services and initiatives with Vermont's other EEU and weatherization agencies to provide seamless, cost-effective statewide energy efficiency programs
- Oversee Efficiency Vermont interactions in the ISO-NE FCM to ensure regulatory compliance and help secure financial benefits from energy efficiency in New England
- Work with the Regional Greenhouse Gas Initiative (RGGI), report greenhouse gas reductions as a result of Vermont's RGGI-funded programs, and help comprehensively identify and value all TEPF efficiency benefits
- Develop and support policy instruments that can serve as useful tools for electricity and TEPF savings through voluntary action or government adoption
- Research regulatory policies to support best practices for efficiency programs to enable continuous improvement in Efficiency Vermont's services and to support Vermont's prominence as a national leader in energy efficiency ideas and practices
- Pursue regulatory approval of flexible and robust strategies to cost-effectively avoid or control capacity and energy supply in support of electric distribution utility integrated resource planning
- Review and provide guidance on Efficiency Vermont internal policies to ensure regulatory compliance
- Participate as a party in the triennial review of distribution utilities' integrated resource plans, updating of avoided costs, and all other PSB-ordered proceedings with potential impact on energy efficiency services
- Protect confidential customer information through maintenance and fortification of internal policies, procedures, and practices

Financial Product Development

As part of its efforts to bring efficiency within reach of more Vermonters, Efficiency Vermont continued to manage relationships with financial institutions, utilities, and government leaders to reduce barriers to implementing financing mechanisms for energy efficiency projects.

Fund Leveraging

Efficiency Vermont continued to engage in activities designed to acquire public and private resources for Vermonters undertaking 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. In 2014, Efficiency Vermont submitted a proposal for a portfolio of programs and services to the GMP Community Energy & Efficiency Development Fund for GMP investment in 2015 programs. Efficiency Vermont also began the process of determining eligibility for the U.S. Department of Agriculture's Rural Utilities Service Energy Efficiency and Conservation Loan Program. Highlights of other fund leveraging efforts follow.

Energy Loan Guarantee Program: Efficiency Vermont launched large-project financing for businesses through Vermont banks and credit unions. In partnership with the PSD, 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 provided a guarantee of 75% of loans. Efficiency Vermont provided technical assistance and cash flow analysis, determining how energy savings can support loan payments.

Vermont Public Service Department Training Grant: Efficiency Vermont worked with the PSD to secure funding, for 2015 use, to support code training and blower door training, required to meet "stretch" code in 2015.

Community Energy Partnership Grant Program: Efficiency Vermont implemented 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. The grant recipients beginning implementation in 2014 were:

- 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

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 2014 can be found in the Colleges & Universities discussion in Section 2.1.3 of this report.

2.5.6 INFORMATION TECHNOLOGY

Efficiency Vermont's information technology efforts continued to be focused in two areas:

1. Information Services—optimizing 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 2014 included:

- Collaboration with GMP regarding AMI data
- A major restructure of utility data information to support integration of AMI data and to bring systems in line with industry standards for utility data storage
- Enhancements to KITT (the core application used to manage energy efficiency projects), including several major releases, an initial web version, refactoring of utility data entity structure, and improved integration with internal and web systems
- Redevelopment of CAT, focusing on analyzing the overall data architecture between systems, the creation and management of measures, a web service to power energy calculations, a user interface, and a structure in which all energy calculations are done in one place rather than across multiple applications
- Several updates to the HERO application
- Improvements in the import and export of Home Performance with ENERGY STAR data and support for the implementation of new software providing deepened services to Home Performance with ENERGY STAR customers and contractors
- Improvements in the functionality of, and several new releases of, the *Technical Reference Manual* application
- Integration of Efficiency Vermont systems with the ENERGY STAR Portfolio Manager to allow for automated data transfer
- A major effort to update systems to reflect changes resulting from the GMP purchase of Central Vermont Public Service, including integration of new data, mapping of old accounts and premises to new GMP structures, and other significant data quality assurance efforts
- Automation of the import of data from third-party efficient product vendors, speeding up the former manual process and allowing for additional error checks
- Significant efforts in support of online rebate application functionality
- Configuration of database systems to allow for 2014 project and program data collection
- Improvement of the data model for storing and managing utility data to better align the model to real-world use cases and industry standards
- The completion and release of the Energy Savvy Optix and OptiMiser integration and development of functionality to push data to these systems

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 communication, coordination of service implementation across different functions, and the management and monitoring of overall performance and spending.

2.5.8 Consumer Behavior Studies

Efficiency Vermont utilized smart grid carryover funds from 2011 to match federal funding for Vermont Electric Cooperative's Smart Grid Investment Grant study. The objective of the study was to reduce energy demand and shift peak load using variable peak pricing. In this 18-month study, 800 customers participated. Efficiency Vermont submitted a draft report to the U.S. Department of Energy for review and a final report was slated for completion in 2015.

3. RESOURCE AND NON-RESOURCE ACQUISITION RESULTS

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

3.1 Resource Acquisition Summary

	Total Efficiency Vermont Resource Acquisition	Thermal Energy and Process Fuels Resource Acquisition	Electric Resource Acquisition	Customer Credit Resource Acquisition
Efficiency Vermont Costs				
Year to Date Costs	$47,240,447	$5,428,206	$40,963,363	$848,878
* Annual Budget Estimate	$47,241,040	$5,428,263	$40,838,396	$974,382
Unspent Annual Budget Estimate	$594	$57	($124,967)	$125,504
% Annual Budget Estimate Unspent	0.0%	0.0%	-0.3%	12.9%
Other Costs and Commitments				
Participant Costs Year to Date	$29,261,625	$6,681,439	$23,222,787	($642,601)
Third Party Costs Year to Date	$1,247,149	$284,124	$963,025	$0
Savings Results				
MWh Year to Date	96,627	-743	97,358	13
MWh Cumulative starting 1/1/12	297,806	-469	293,119	5,156
Winter Peak Coincident kW Savings Results				
Winter Coincident Peak kW Year to Date	18,081	-44	18,119	5
Winter Coincident Peak kW Cumulative Starting 1/1/12	57,061	194	56,082	785
Summer Peak Coincident kW Savings Results				
Summer Coincident Peak kW Year to Date	10,936	-63	10,993	5
Summer Coincident Peak kW Cumulative Starting 1/1/12	37,335	-99	36,651	783
TRB Savings Results				
TRB Year to Date	$104,774,557	$14,816,908	$89,929,300	$28,349
TRB Cumulative Starting 1/1/12	$361,262,118	$63,778,744	$292,117,923	$5,365,451
MMBtu Savings Results				
MMBtu Year to Date	104,182	45,660	58,522	0
MMBtu Cumulative Starting 1/1/12	341,226	177,921	163,664	-359
Participation				
Partic.w/ installs Year to Date	57,486	3,351	54,134	1
Partic.w/ installs Cumulative starting 1/1/12	139,414	8,320	131,093	1

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

3.2 Budget Summary

	Budget Current Year 2014[1]	Actual Current Year 2014	%	Budget 2012-2014	Actual 2012-2014	%
RESOURCE ACQUISITION						
Electric Efficiency Funds Activities						
Business Sector	$ 23,074,600	$ 24,859,962	108%	$ 62,031,400	$ 59,284,826	96%
Customer Credit	$ 958,000	$ 834,606	87%	$ 3,038,500	$ 2,915,080	96%
Residential Sector	$ 17,077,200	$ 15,414,704	90%	$ 39,505,100	$ 42,374,611	107%
Total Electric Efficiency Funds Activities	**$ 41,109,800**	**$ 41,109,272**	**100%**	**$ 104,575,000**	**$ 104,574,517**	**100%**
Thermal Energy and Process Fuels Funds Activities						
Business Sector	$ 1,952,300	$ 771,659	40%	$ 3,034,300	$ 1,853,738	61%
Residential Sector	$ 3,384,700	$ 4,565,286	135%	$ 10,610,400	$ 11,790,913	111%
Total Thermal Energy and Process Fuels Funds Activities	**$ 5,337,000**	**$ 5,336,944**	**100%**	**$ 13,644,700**	**$ 13,644,651**	**100%**
TOTAL RESOURCE ACQUISITION	**$ 46,446,800**	**$ 46,446,216**	**100%**	**$ 118,219,700**	**$ 118,219,168**	**100%**
NON-RESOURCE ACQUISITION[2]						
Education and Training	$ 549,200	$ 549,196	100%	$ 2,186,800	$ 2,186,800	100%
Applied Research and Development	$ 416,900	$ 416,624	100%	$ 1,181,100	$ 1,180,875	100%
Planning and Reporting	$ 498,100	$ 498,069	100%	$ 1,499,000	$ 1,499,000	100%
Evaluation	$ 760,700	$ 760,649	100%	$ 2,130,500	$ 2,130,496	100%
Policy and Public Affairs	$ 526,600	$ 526,620	100%	$ 1,614,100	$ 1,614,100	100%
Information Technology	$ 978,700	$ 978,646	100%	$ 2,507,700	$ 2,507,624	100%
General Administration	$ 249,500	$ 248,775	100%	$ 774,900	$ 774,137	100%
TOTAL NON-RESOURCE ACQUISITION	**$ 3,979,700**	**$ 3,978,580**	**100%**	**$ 11,894,100**	**$ 11,893,034**	**100%**
Smart Grid (2011 Carryover)[2]	**$ 135,000**	**$ 122,824**	**91%**	**$ 272,500**	**$ 260,337**	**96%**
Operations Fee[2]	$865,700	$865,335	100%	$2,231,900	$2,231,427	100%
SUB-TOTAL COSTS (prior to Performance-Based Fee)	**$ 51,427,200**	**$ 51,412,954**	**100%**	**$ 132,618,200**	**$ 132,603,965**	**100%**
Performance-Based Fee	$ -	$ -	0%	$ 3,336,070	$ -	0%
TOTAL COSTS (including Performance-Based Fee)	**$ 51,427,200**	**$ 51,412,954**	**100%**	**$ 135,954,270**	**$ 132,603,965**	**98%**

[1] Annual budgets are provided for information purposes only. Efficiency Vermont operates under three-year Board approved budgets.

[2] NRA, Smart Grid and Operations Fee results include amounts invoiced in the NRA-Smart Grid True-up Invoice issued on February 26, 2015

3.3 Electric Performance Indicators & Minimum Requirements

QPI#	Title	Performance Indicator / Milestone	Target	Actual	%
1	Electricity Savings	Annual incremental net MWh savings	274,000	293,119	107%
2	Total Resource Benefits	Present worth of lifetime electric, fossil, and water benefits	$305,984,352	$292,117,923	95%
3	Statewide Summer Peak Demand Savings	Cumulative net summer peak demand (kW) savings	41,920	36,651	87%
4.a.	Summer Peak Demand Savings in Geographic Areas	Cumulative net summer net peak demand savings in the St Albans area	1,800	2,216	123%
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	472	125%
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%	36%	90%
7	Market Transformation Business	Instances where an energy efficiency measure supply chain partner is attached to completed business project	7,360	9,330	127%

MPR#	Title	Minimum Requirement	Minimum	Actual	%
8	Minimum Electric Benefits	Total electric benefits divided by total costs	1.2	2.0	165%
9	Threshold (or minimum acceptable) Level of Participation by Residential Customers	Total residential sector spending	$22,000,000	$43,099,216	196%
10	Threshold (or minimum acceptable) Level of Participation by Low-Income Households	Total low-income single and multifamily services spending	$7,500,000	$9,867,440	132%
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	3,856	198%
12	Geographic Equity	TRB for each geographic area is greater than values shown on Geo-Equity Table	14	14	100%
13	Administrative Efficiency - Management Span of Control	Staff-to-Supervisor FTE ratio > 8.5:1	8.5	10.2	120%
14	Administrative Efficiency - Key Process Improvements	Meet all pre-determined milestones on schedule	5	5	100%
15	Service Quality	Achieve 92 or more metric points	92	107	116%
16	Spending Threshold Variance	Incremental spending for a three-year performance period (including applicable operations fees) is less than threshold	$1,140,756	$519,602	46%

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

Geographic Area (Counties)	Minimum TRB	Actual TRB	% of Goal
Addison	$8,473,457	$14,638,977	173%
Bennington	$8,542,688	$14,698,829	172%
Caledonia	$7,185,374	$16,604,349	231%
Chittenden	$29,546,914	$72,781,356	246%
Essex / Orleans	$7,717,769	$14,282,413	185%
Franklin	$16,148,322	$25,439,109	158%
Grand Isle	$1,604,009	$1,913,683	119%
Lamoille	$5,632,070	$15,028,991	267%
Orange	$6,658,830	$7,558,546	114%
Rutland	$14,184,508	$29,667,429	209%
Washington	$13,699,893	$28,342,155	207%
Windham	$10,243,229	$32,376,135	316%
Windsor	$13,040,738	$18,785,950	144%
Total	**$142,677,800**	**$292,117,923**	**205%**

3.5 Thermal Energy and Process Fuels
Performance Indicators & Minimum Requirements

QPI#	Title	Performance Indicator / Milestone	Target	Actual	%
1	Thermal & Mechanical Energy Efficiency Savings	Annual incremental net MMBtu savings	155,000	177,921	115%
2	Residential Single Family Comprehensiveness	a. Average air leakage reduction per project	34%	32%	94%
		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%	59%	134%
		c. Percent of projects with both shell measures and heating system measures installed	16%	14%	88%

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%	86.4%	138%
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%	27.1%	159%
5	Spending Threshold Variance	Incremental spending for a three-year performance period (including applicable operations fees) is less than threshold	$116,328	$94,470	81%

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	%
1	Residential Customer Service Satisfaction: Percentage of Residential Customers who contact Efficiency Vermont and are satisfied or very satisfied with Efficiency Vermont Customer Service will be greater than or equal to 80%	performance period	NA	12	12	12	100%
2	Business Customer Service Satisfaction: Percentage of Business Customers who contact Efficiency Vermont and are satisfied or very satisfied with Efficiency Vermont Customer Service will be greater than or equal to 80%	performance period	80%	12	12	12	100%
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 ≥ 90%	annually	99%	4	12	12	100%
4	Average answer time shall be ≤ 15 seconds per call	quarterly	9	1	12	12	100%
5	Average percentage of calls answered shall be ≥ 92%	quarterly	94%	1	12	12	100%
6	Average percentage of abandoned calls shall be ≤ 3%	quarterly	1%	1	12	12	100%
7	Percentage of complaint follow-up call attempted by end of next business day shall be ≥ 95%	quarterly	100%	1	12	12	100%
8	Percentage of complaints closed within 12 business days of initial complaint call shall be ≥ 95%	quarterly	100%	1	11	12	92%
9	For each reporting year, the ratio of total complaints received per total number of Efficiency Vermont participants shall be ≤ 0.5% (one-half of one percent)	annually	0.01%	4	12	12	100%
	Totals			**37**	**107**	**108**	**99%**

3.7 Electric Resource Acquisition Summary

	Totals				Business Energy Services		Residential Energy Services			Other
Services	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
Electric Resource Acquisiton Costs										
Year to Date Costs	$41,812,240	$40,963,362	$25,283,467	$15,679,895	$3,152,429	$22,131,038	$2,521,339	$9,413,216	$3,745,340	$848,878
Annual Budget Estimate[1]	$41,812,779	$40,838,396	$23,469,185	$17,369,212	$3,859,112	$19,610,072	$3,106,683	$8,723,891	$5,538,637	$974,382
Unspent Annual Budget Estimate	$538	($124,965)	($1,814,282)	$1,689,317	$706,684	($2,520,965)	$585,345	($689,325)	$1,793,297	$125,504
% Annual Budget Estimate Unspent	0%	0%	-8%	10%	18%	-13%	19%	-8%	32%	13%
Savings Results										
MWh Year to Date	97,371	97,358	62,101	35,256	10,338	51,763	1,851	30,209	3,196	13
MWh Cumulative starting 1/1/12	298,275	293,119	180,648	112,471	35,822	144,826	5,066	98,392	9,013	5,156
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	107%	94%	139%	136%	87%	127%	150%	82%	nap
Winter Coincident Peak kW Year to Date	18,124	18,119	10,301	7,818	1,491	8,811	351	6,804	663	5
Winter Coincident Peak kW Cumulative starting 1/1/12	56,867	56,082	27,633	28,449	4,592	23,041	1,064	25,615	1,771	785
Summer Coincident Peak kW Year to Date	10,998	10,993	6,785	4,208	1,559	5,226	203	3,693	311	5
Summer Coincident Peak kW Cumulative starting 1/1/12	37,434	36,651	21,950	14,701	5,129	16,821	582	13,295	824	783
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	87%	75%	116%	101%	70%	73%	125%	63%	nap
TRB Year to Date	$89,957,649	$89,929,300	$60,000,737	$29,928,563	$12,887,179	$47,113,558	$6,755,876	$20,611,918	$2,560,769	$28,349
TRB Cumulative starting 1/1/12	$297,483,374	$292,117,923	$191,033,573	$101,084,349	$54,789,324	$136,244,249	$23,895,188	$67,888,834	$9,300,327	$5,365,451
3-Year TRB Goal	nap	$305,984,400	$205,215,200	$100,769,200	$29,586,596	$175,628,583	$26,959,595	$53,725,933	$20,083,646	nap
% of 3-Year TRB Goal	nap	95%	93%	100%	185%	78%	89%	126%	46%	nap
Associated Benefits										
MMBtu Year to Date	58,522	58,522	49,282	9,240	7,854	41,428	12,661	(3,723)	302	0
MMBtu Cumulative starting 1/1/12	163,305	163,664	133,865	29,799	56,604	77,261	40,351	(11,431)	879	(359)
Participation										
Partic.w/ installs Year to Date	54,135	54,134	2,489	51,645	192	2,297	1,458	36,990	13,197	1
Partic.w/ installs Cumulative starting 1/1/12	131,094	131,093	6,540	124,553	573	5,967	3,842	98,583	22,128	1

[1] 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 2014	Cumulative starting 1/1/12	Cumulative starting 1/1/12
# participants with installations	37,483	54,135	131,094	131,094
Operating Costs				
Administration	$1,440,935	$3,345,878	$6,107,129	$6,107,129
Operations and Implementation	$4,944,156	$5,077,234	$14,289,871	$14,289,871
Strategy and Planning	$1,735,071	$1,537,498	$4,652,934	$4,652,934
Subtotal Operating Costs	**$8,120,163**	**$9,960,610**	**$25,049,934**	**$25,049,934**
Technical Assistance Costs				
Services to Participants	$4,924,708	$3,987,615	$13,596,176	$13,596,176
Services to Trade Allies	$392,440	$1,559,789	$2,296,467	$2,296,467
Subtotal Technical Assistance Costs	**$5,317,148**	**$5,547,404**	**$15,892,643**	**$15,892,643**
Support Services				
Transportation	$369	$4,255	$4,623	$4,623
Targeted Implementation	$4,584	$1,407	$5,991	$5,991
Consulting	$315,962	$490,162	$911,282	$911,282
Marketing	$2,507,460	$2,177,538	$5,973,105	$5,973,105
EM&V	$146,611	$183,942	$516,438	$516,438
Policy	$35,328	$61,712	$199,017	$199,017
Information Technology	$1,218	$80,913	$82,411	$82,411
Customer Support	$207,074	$400,744	$787,512	$787,512
Business Development	$24,833	$19,090	$51,065	$51,065
Subtotal Support Services Costs	**$3,243,439**	**$3,419,764**	**$8,531,443**	**$8,531,443**
Incentive Costs				
Incentives to Participants	$15,634,949	$22,831,035	$56,723,746	$56,723,746
Incentives to Trade Allies	$36,917	$53,428	$164,974	$164,974
Subtotal Incentive Costs	**$15,671,866**	**$22,884,463**	**$56,888,720**	**$56,888,720**
Total Efficiency Vermont Costs	**$32,352,615**	**$41,812,241**	**$106,362,740**	**$106,362,740**
Total Participant Costs	$23,822,816	$22,580,185	$47,729,857	$47,729,857
Total Third Party Costs	$855,513	$963,025	$3,122,038	$3,122,038
Total Resource Acquisition Costs	**$57,030,944**	**$65,355,452**	**$157,214,634**	**$157,214,634**
Annualized MWh Savings	89,679	97,371	298,275	298,275
Lifetime MWh Savings	1,041,327	1,176,398	3,462,960	3,462,960
TRB Savings (2012 $)	$88,029,132	$89,957,649	$297,483,374	297,483,374
Winter Coincident Peak kW Savings	16,656	18,124	56,867	56,867
Summer Coincident Peak kW Savings	11,222	10,998	37,434	37,434
Annualized MWh Savings/Participant	2.393	1.799	2.275	2.275
Weighted Lifetime	11.6	12.1	11.6	11.6

Annualized MWh Savings (adjusted for measure life)	296,475
Winter Coincident Peak kW Savings (adjusted for measure life)	56,422
Summer Coincident Peak kW Savings (adjusted for measure life)	37,259

3.9 Electric Resource Acquisition excluding Customer Credit

	Prior Year	Current Year 2014	Cumulative starting 1/1/12	Cumulative starting 1/1/12
# participants with installations	37,482	54,134	131,093	131,093
Operating Costs				
Administration	$1,403,504	$3,251,821	$5,967,931	$5,967,931
Operations and Implementation	$4,938,142	$5,041,412	$14,243,354	$14,243,354
Strategy and Planning	$1,734,846	$1,536,195	$4,651,203	$4,651,203
Subtotal Operating Costs	**$8,076,492**	**$9,829,427**	**$24,862,489**	**$24,862,489**
Technical Assistance Costs				
Services to Participants	$4,910,593	$3,960,700	$13,533,039	$13,533,039
Services to Trade Allies	$390,635	$1,550,011	$2,279,143	$2,279,143
Subtotal Technical Assistance Costs	**$5,301,228**	**$5,510,711**	**$15,812,182**	**$15,812,182**
Support Services				
Transportation	$368	$4,219	$4,587	$4,587
Targeted Implementation	$4,560	$1,397	$5,957	$5,957
Consulting	$315,626	$486,521	$907,151	$907,151
Marketing	$2,501,344	$2,164,691	$5,950,771	$5,950,771
EM&V	$145,587	$182,632	$513,021	$513,021
Policy	$35,204	$60,970	$192,698	$192,698
Information Technology	$1,212	$80,370	$81,860	$81,860
Customer Support	$206,716	$397,867	$783,851	$783,851
Business Development	$24,713	$18,575	$50,426	$50,426
Subtotal Support Services Costs	**$3,235,329**	**$3,397,241**	**$8,490,322**	**$8,490,322**
Incentive Costs				
Incentives to Participants	$13,782,194	$22,172,567	$54,067,857	$54,067,857
Incentives to Trade Allies	$36,917	$53,416	$164,962	$164,962
Subtotal Incentive Costs	**$13,819,111**	**$22,225,983**	**$54,232,819**	**$54,232,819**
Total Efficiency Vermont Costs	**$30,432,161**	**$40,963,363**	**$103,397,812**	**$103,397,812**
Total Participant Costs	$22,772,102	$23,222,787	$48,290,495	$48,290,495
Total Third Party Costs	$855,513	$963,025	$3,122,038	$3,122,038
Total Resource Acquisition Costs	**$54,059,776**	**$65,149,175**	**$154,810,345**	**$154,810,345**

Annualized MWh Savings	85,582	97,358	293,119	293,119
Lifetime MWh Savings	982,537	1,176,145	3,388,223	3,388,223
TRB Savings (2012 $)	$83,830,177	$89,929,300	$292,117,923	$292,117,923
Winter Coincident Peak kW Savings	15,993	18,119	56,082	56,082
Summer Coincident Peak kW Savings	10,561	10,993	36,651	36,651
Annualized MWh Savings/Participant	2.283	1.798	2.236	2.236
Weighted Lifetime	11.5	12.1	11.6	11.6

Annualized MWh Savings (adjusted for measure life)	291,319
Winter Coincident Peak kW Savings (adjusted for measure life)	55,638
Summer Coincident Peak kW Savings (adjusted for measure life)	36,476

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.	1,162	3,649	3,405	55,168	313	538	14,287	0	$725,507	$777,681
Cooking and Laundry	3,786	918	768	12,843	131	99	3,682	29,327	$280,271	$1,252,377
Design Assistance	266	579	535	3,242	22	24	2,179	0	$931,106	$571,336
Electronics	15,190	3,632	3,855	17,071	421	415	191	0	$464,262	-$173,932
Hot Water Efficiency	13,067	1,024	899	12,359	151	84	2,593	7,795	$397,282	$275,021
Hot Water Fuel Switch	115	302	456	9,052	47	23	-1,231	0	$40,456	$113,362
Industrial Process Eff.	80	18,981	20,191	243,197	4,276	1,174	21,129	-1,009	$4,213,116	$6,011,144
Lighting	44,318	51,805	52,065	616,992	10,587	6,750	-15,989	0	$11,178,632	$10,516,523
Motors	498	6,173	5,895	68,901	815	784	512	0	$950,206	$1,001,502
Other Efficiency	1,953	136	123	1,559	15	15	0	0	$162,802	-$144,127
Other Fuel Switch	249	359	355	8,040	51	50	-1,114	0	$34,925	$227,400
Other Indirect Activity	21	0	0	0	0	0	8,508	0	$862,206	-$862,206
Refrigeration	3,924	6,155	5,904	65,342	668	653	624	27	$1,092,289	$760,198
Space Heat Efficiency	905	2,254	2,109	43,368	489	109	15,948	0	$625,201	$2,219,296
Space Heat Fuel Switch	6	161	170	4,819	32	0	-190	0	$11,260	$59,543
Ventilation	959	1,193	1,112	13,976	94	270	7,338	0	$199,929	$614,970
Water Conservation	6	37	35	215	6	5	54	196	$3,117	$2,700
Totals		97,358	97,876	1,176,145	18,119	10,993	58,522	36,335	$22,172,567	$23,222,787

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
Barton	289	137	139	1,653	24	16	88	73	$52,303	$21,200	$116,657
Burlington	15	4	3	69	1	0	1	10	$906	$2,237	$5,478
Enosburg Falls	302	430	444	5,540	78	50	-155	146	$84,140	$114,474	$332,587
Green Mountain	40,691	80,807	81,392	982,810	14,835	8,979	51,345	27,909	$17,788,244	$18,826,119	$73,947,577
Hardwick	1,151	570	602	6,627	119	74	-93	380	$153,370	$83,506	$406,672
Hyde Park	237	233	256	2,629	47	26	-32	108	$58,257	$34,019	$161,375
Jacksonville	74	20	20	239	4	3	0	26	$7,492	$6,170	$15,322
Johnson	240	150	153	1,682	32	19	-45	38	$39,598	$27,309	$99,920
Ludlow	229	445	450	4,343	120	106	378	140	$103,736	$93,811	$468,893
Lyndonville	917	1,129	1,162	13,088	216	131	1,416	349	$317,364	$290,349	$1,259,168
Morrisville	572	795	839	8,697	167	114	337	464	$216,475	$107,093	$692,869
Northfield	310	869	801	11,456	144	114	-314	109	$151,215	$401,075	$694,578
Orleans	157	454	456	1,713	53	92	-6	21	$42,783	$7,862	$110,016
Stowe	358	2,084	2,042	24,069	450	275	-354	385	$487,309	$933,772	$1,587,690
Swanton	682	853	895	9,903	155	97	228	448	$246,753	$186,456	$704,215
VT Electric Coop	6,092	7,447	7,330	89,400	1,493	792	5,101	4,590	$2,126,802	$1,777,607	$8,291,845
Washington Electric	1,818	932	891	12,227	183	108	629	1,139	$295,821	$309,728	$1,034,438
Totals		97,358	97,876	1,176,145	18,119	10,993	58,522	36,335	$22,172,567	$23,222,787	$89,929,300

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	3,311	4,996	4,846	64,468	909	747	2,733	1,053	$1,065,860	$781,993
Bennington	3,570	5,545	5,738	62,169	1,080	632	2,439	2,149	$1,301,970	$1,395,695
Caledonia	3,122	2,866	2,958	32,535	573	389	1,673	1,423	$788,855	$570,842
Chittenden	8,167	22,026	21,655	267,137	3,628	2,770	5,034	10,360	$3,875,423	$5,029,074
Essex	523	687	683	6,329	134	78	-53	226	$135,779	$53,763
Franklin	5,404	11,468	11,193	130,259	1,756	1,384	13,263	3,290	$2,402,132	$1,977,637
Grand Isle	1,367	809	768	10,378	143	107	56	696	$208,117	$183,257
Lamoille	2,273	4,914	4,977	57,613	1,067	581	1,530	1,657	$1,476,877	$1,477,347
Orange	3,404	2,613	2,567	32,923	497	346	250	1,344	$684,223	$607,737
Orleans	2,961	3,569	3,600	40,607	722	422	2,763	1,550	$873,479	$823,713
Rutland	5,331	9,562	10,083	105,773	1,967	909	11,015	3,242	$2,781,434	$2,347,367
Washington	4,972	12,327	12,574	157,201	2,394	1,295	-2,117	3,081	$2,780,151	$3,184,100
Windham	4,017	10,353	10,703	142,840	2,209	675	17,968	3,182	$2,628,125	$3,517,998
Windsor	5,712	5,623	5,531	65,913	1,040	658	1,969	3,081	$1,170,143	$1,272,264
Totals	54,134	97,358	97,876	1,176,145	18,119	10,993	58,522	36,335	$22,172,567	$23,222,787

3.13 Electric Resource Acquisition Total Resource Benefits

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	$73,197,316
Fossil Fuel Savings (Costs)	$1,073,050	$13,074,671
Water Savings (Costs)	$268,948	$3,655,827
Total	**$1,341,998**	**$89,929,300**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**97,876**	**86,377**	**97,358**
Winter on peak	37,654	33,105	37,574
Winter off peak	31,376	27,567	31,463
Summer on peak	15,372	13,774	13,774
Summer off peak	13,473	11,935	13,211
Coincident Demand Savings (kW)			
Winter	19,887	16,472	18,119
Shoulder	0	0	0
Summer	11,389	9,948	10,993

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**34,795**	**36,335**	**447,659**
Annualized fuel savings (increase) MMBtu Total	**63,856**	**58,522**	**805,299**
LP	13,544	13,315	251,741
NG	22,335	21,764	272,467
Oil/Kerosene	24,050	20,569	248,513
Wood	2,755	2,834	30,523
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$3,933,664**	**$3,703,454**	**$38,666,148**

Net Societal Benefits	$118,117,858

3.14 Electric Business Energy Services Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	2,297	2,489	6,540
Operating Costs			
Administration	$654,544	$2,044,812	$3,252,661
Operations and Implementation	$1,559,630	$2,124,418	$4,911,559
Strategy and Planning	$1,597,430	$1,445,550	$4,231,344
Subtotal Operating Costs	**$3,811,605**	**$5,614,780**	**$12,395,563**
Technical Assistance Costs			
Services to Participants	$3,319,272	$3,079,666	$9,370,650
Services to Trade Allies	$273,687	$1,141,879	$1,646,454
Subtotal Technical Assistance Costs	**$3,592,959**	**$4,221,545**	**$11,017,104**
Support Services			
Transportation	$46	$901	$948
Targeted Implementation	$1,613	$1,073	$2,685
Consulting	$185,927	$237,672	$450,050
Marketing	$722,475	$860,847	$2,023,413
EM&V	$112,795	$107,651	$358,634
Policy	$14,345	$28,544	$81,494
Information Technology	$429	$1,585	$2,111
Customer Support	$100,546	$227,459	$410,874
Business Development	$9,849	$1,500	$17,899
Subtotal Support Services Costs	**$1,148,026**	**$1,467,232**	**$3,348,107**
Incentive Costs			
Incentives to Participants	$8,317,652	$13,941,464	$33,401,641
Incentives to Trade Allies	$27,545	$38,446	$134,579
Subtotal Incentive Costs	**$8,345,196**	**$13,979,910**	**$33,536,221**
Total Efficiency Vermont Costs	**$16,897,785**	**$25,283,468**	**$60,296,995**
Total Participant Costs	$17,351,265	$16,391,404	$39,004,090
Total Third Party Costs	($0)	$9,100	$264,145
Total Resource Acquisition Costs	**$34,249,049**	**$41,683,972**	**$99,565,230**

Annualized MWh Savings	50,859	62,101	180,648
Lifetime MWh Savings	667,804	797,697	2,345,126
TRB Savings (2012 $)	$54,166,544	$60,000,737	$191,033,573
Winter Coincident Peak kW Savings	7,600	10,301	27,633
Summer Coincident Peak kW Savings	6,053	6,785	21,950
Annualized MWh Savings/Participant	22.142	24.950	27.622
Weighted Lifetime	13.1	12.8	13.0

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.	192	3,443	3,190	52,433	298	497	14,287	0	$679,971	$733,493
Cooking and Laundry	20	32	30	469	5	7	660	416	$7,769	$52,573
Design Assistance	246	579	535	3,242	22	24	2,179	0	$920,121	$569,921
Electronics	119	317	277	1,498	85	5	191	0	$13,728	$77,828
Hot Water Efficiency	79	81	73	760	14	12	1,856	1,648	$25,765	$19,427
Hot Water Fuel Switch	3	48	53	1,454	8	3	-160	0	$2,111	$24,032
Industrial Process Eff.	80	18,981	20,191	243,197	4,276	1,174	21,129	-1,009	$4,213,116	$6,011,144
Lighting	1,964	26,196	23,380	348,918	4,044	3,608	-11,103	0	$5,825,321	$6,821,550
Motors	149	5,941	5,684	66,172	710	693	512	0	$706,302	$928,196
Other Efficiency	133	136	123	1,559	15	15	0	0	$60,502	-$38,827
Other Fuel Switch	3	273	263	5,465	30	34	-830	0	$19,356	$216,572
Other Indirect Activity	5	0	0	0	0	0	8,508	0	$842,206	-$842,206
Refrigeration	195	4,177	3,794	46,033	486	424	624	27	$378,882	$437,614
Space Heat Efficiency	52	694	672	10,337	201	31	4,439	0	$62,562	$748,486
Space Heat Fuel Switch	4	145	153	4,335	23	0	-136	0	$11,260	$46,707
Ventilation	92	1,040	977	11,644	79	255	7,072	0	$169,374	$583,664
Water Conservation	2	18	18	180	4	4	54	196	$3,117	$1,230
Totals		62,101	59,413	797,697	10,301	6,785	49,282	1,278	$13,941,464	$16,391,404

3.16 Electric Residential Energy Services Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	35,185	51,645	124,553
Operating Costs			
Administration	$748,960	$1,207,009	$2,715,271
Operations and Implementation	$3,378,512	$2,916,993	$9,331,796
Strategy and Planning	$137,416	$90,645	$419,859
Subtotal Operating Costs	**$4,264,888**	**$4,214,647**	**$12,466,925**
Technical Assistance Costs			
Services to Participants	$1,591,321	$881,034	$4,162,389
Services to Trade Allies	$116,948	$408,132	$632,689
Subtotal Technical Assistance Costs	**$1,708,269**	**$1,289,166**	**$4,795,078**
Support Services			
Transportation	$321	$3,318	$3,639
Targeted Implementation	$2,947	$324	$3,272
Consulting	$129,698	$248,849	$457,101
Marketing	$1,778,869	$1,303,844	$3,927,358
EM&V	$32,792	$74,981	$154,387
Policy	$20,859	$32,426	$111,205
Information Technology	$783	$78,785	$79,749
Customer Support	$106,169	$170,407	$372,977
Business Development	$14,864	$17,075	$32,527
Subtotal Support Services Costs	**$2,087,304**	**$1,930,009**	**$5,142,215**
Incentive Costs			
Incentives to Participants	$5,464,543	$8,231,103	$20,666,215
Incentives to Trade Allies	$9,373	$14,970	$30,383
Subtotal Incentive Costs	**$5,473,915**	**$8,246,073**	**$20,696,598**
Total Efficiency Vermont Costs	**$13,534,376**	**$15,679,895**	**$43,100,817**
Total Participant Costs	$5,420,837	$6,831,382	$9,286,405
Total Third Party Costs	$855,514	$953,925	$2,857,893
Total Resource Acquisition Costs	**$19,810,726**	**$23,465,202**	**$55,245,115**
Annualized MWh Savings	34,723	35,256	112,471
Lifetime MWh Savings	314,733	378,448	1,043,097
TRB Savings (2012 $)	$29,663,633	$29,928,563	$101,084,349
Winter Coincident Peak kW Savings	8,393	7,818	28,449
Summer Coincident Peak kW Savings	4,508	4,208	14,701
Annualized MWh Savings/Participant	0.987	0.683	0.903
Weighted Lifetime	9.1	10.7	9.3

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.	970	206	215	2,735	15	41	0	0	$45,536	$44,188
Cooking and Laundry	3,766	887	738	12,374	126	92	3,022	28,910	$272,502	$1,199,804
Design Assistance	20	0	0	0	0	0	0	0	$10,985	$1,415
Electronics	15,071	3,315	3,578	15,573	336	410	0	0	$450,534	-$251,761
Hot Water Efficiency	12,988	943	826	11,598	136	72	737	6,146	$371,518	$255,594
Hot Water Fuel Switch	112	253	403	7,598	39	20	-1,071	0	$38,345	$89,330
Lighting	42,354	25,609	28,685	268,074	6,543	3,142	-4,886	0	$5,353,310	$3,694,972
Motors	349	232	212	2,729	105	91	0	0	$243,904	$73,306
Other Efficiency	1,820	0	0	0	0	0	0	0	$102,300	-$105,300
Other Fuel Switch	246	86	92	2,575	21	16	-284	0	$15,568	$10,828
Other Indirect Activity	16	0	0	0	0	0	0	0	$20,000	-$20,000
Refrigeration	3,729	1,978	2,110	19,309	182	229	0	0	$713,407	$322,583
Space Heat Efficiency	853	1,560	1,437	33,032	288	78	11,510	0	$562,639	$1,470,811
Space Heat Fuel Switch	2	16	16	484	8	0	-54	0	$0	$12,836
Ventilation	867	153	135	2,332	15	15	266	0	$30,556	$31,306
Water Conservation	4	19	17	35	2	1	0	0	$0	$1,470
Totals		35,256	38,463	378,448	7,818	4,208	9,240	35,057	$8,231,103	$6,831,382

3.18 Thermal Energy and Process Fuels Resource Acquisition Summary

				Business Energy Services		Residential Energy Services		
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
Costs								
Year to Date Costs	$5,426,218	$784,854	$4,641,364	$12,559	$772,295	$2,406	$394,845	$4,244,113
Annual Budget Estimate[1]	$5,428,263	$1,985,684	$3,442,578	$239,894	$1,745,790	$3,000	$180,000	$3,259,578
Unspent Annual Budget Estimate	$2,044	$1,200,830	($1,198,786)	$227,335	$973,495	$594	($214,845)	($984,535)
% Annual Budget Estimate Unspent	0%	60%	-35%	95%	56%	20%	-119%	-30%
Savings Results								
MMBtu Year to Date	45,660	15,086	30,574	1,853	13,233	102	6,439	24,033
MMBtu Cumulative starting 1/1/12	177,921	100,090	77,831	27,840	72,250	745	6,439	70,646
3-Year MMBtu Goal	155,000	94,200	60,800	30,000	64,200	800	800	60,000
% of 3-Year MMBtu Goal	115%	106%	128%	93%	113%	93%	805%	118%
Associated Electric Benefits								
MWh Year to Date	(743)	126	(870)	(0)	126	(1)	(992)	123
MWh Cumulative starting 1/1/12	(469)	(105)	(364)	25	(129)	(5)	(992)	633
Winter Coincident Peak kW Year to Date	(44)	39	(83)	4	35	(0)	(153)	70
Winter Coincident Peak kW Cumulative starting 1/1/12	194	17	178	(34)	51	(1)	(153)	332
Summer Coincident Peak kW Year to Date	(63)	15	(78)	4	12	(0)	(78)	(0)
Summer Coincident Peak kW Cumulative starting 1/1/12	(99)	(22)	(76)	32	(55)	(0)	(78)	2
Participation								
Partic.w/ installs Year to Date	3,351	249	3,102	15	234	16	338	2,748
Partic.w/ installs Cumulative starting 1/1/12	8,320	616	7,704	82	534	89	338	7,277

[1] Annual budgets are provided for information purposes only. Efficiency Vermont operates under three-year Board approved budgets.

3.19 Thermal Energy and Process Fuels Resource Acquisition

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	2,831	3,351	8,320
Operating Costs			
Administration	$150,800	$426,546	$735,230
Operations and Implementation	$1,359,493	$1,130,979	$3,060,702
Strategy and Planning	$79,422	$42,615	$153,563
Subtotal Operating Costs	**$1,589,715**	**$1,600,141**	**$3,949,496**
Technical Assistance Costs			
Services to Participants	$166,071	$443,724	$643,107
Services to Trade Allies	$37	$496	$543
Subtotal Technical Assistance Costs	**$166,108**	**$444,220**	**$643,650**
Support Services			
Transportation	$43	$670	$713
Targeted Implementation	$586	$77	$664
Consulting	$46,861	$159,248	$213,215
Marketing	$425,328	$358,061	$853,915
EM&V	$7,294	$21,788	$37,987
Policy	$3,604	$10,895	$19,755
Information Technology	$156	$28,050	$28,244
Customer Support	$33,569	$88,170	$135,997
Business Development	$2,927	$4,054	$7,083
Subtotal Support Services Costs	**$520,369**	**$671,012**	**$1,297,573**
Incentive Costs			
Incentives to Participants	$2,272,910	$2,577,384	$7,590,798
Incentives to Trade Allies	$156,383	$133,462	$394,471
Subtotal Incentive Costs	**$2,429,293**	**$2,710,845**	**$7,985,269**
Total Efficiency Vermont Costs	**$4,705,485**	**$5,426,218**	**$13,875,987**
Total Participant Costs	$8,866,159	$6,681,439	$17,754,173
Total Third Party Costs	$322,812	$284,124	$1,332,760
Total Resource Acquisition Costs	**$13,894,456**	**$12,391,781**	**$32,962,920**
Annualized MMBtu Savings	53,899	45,660	177,921
Lifetime MMBtu Savings	929,260	754,936	3,089,236
TRB Savings (2012 $)	$19,223,959	$14,816,908	$63,778,744
Annualized MMBtu Savings/Participant	19.039	13.626	21.385
Weighted Lifetime	17.2	16.5	17.4

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.	11	-42	-41	-627	-22	0	360	0	$0	$67,312
Cooking and Laundry	29	0	0	4	0	0	565	0	$13,250	$33,445
Hot Water Efficiency	497	-997	-859	-12,949	-154	-78	8,083	92	$389,194	-$72,426
Hot Water Fuel Switch	3	2	2	46	0	0	-22	0	$0	$2,800
Industrial Process Eff.	1	16	18	243	5	0	7,174	0	$93,750	$226,700
Motors	15	67	64	674	12	12	426	0	$2,200	$6,970
Other Efficiency	1,159	0	0	0	0	0	0	0	$1,000	-$1,000
Other Indirect Activity	166	0	0	0	0	0	0	0	$349,334	-$239,205
Space Heat Efficiency	2,772	240	239	4,386	124	0	27,279	2	$1,683,798	$5,680,244
Space Heat Fuel Switch	88	-30	-34	-775	-13	0	1,447	0	$44,107	$843,812
Ventilation	138	0	0	-4	4	4	349	0	$750	$132,786
Totals		-743	-611	-9,000	-44	-63	45,660	93	$2,577,384	$6,681,439

3.21 Thermal Energy and Process Fuels Resource Acquisition
Total Resource Benefits

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	($504,973)
Fossil Fuel Savings (Costs)	$1,227,127	$15,314,590
Water Savings (Costs)	$697	$7,291
Total	**$1,227,824**	**$14,816,908**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**(611)**	**(659)**	**(743)**
Winter on peak	(234)	(254)	(288)
Winter off peak	(165)	(184)	(198)
Summer on peak	(114)	(119)	(119)
Summer off peak	(98)	(103)	(114)
Coincident Demand Savings (kW)			
Winter	(26)	(40)	(44)
Shoulder	0	0	0
Summer	(54)	(57)	(63)

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**102**	**93**	**856**
Annualized fuel savings (increase) MMBtu Total	**49,997**	**45,660**	**754,936**
LP	12,576	12,162	200,861
NG	0	0	0
Oil/Kerosene	41,275	36,468	589,730
Wood	(3,856)	(2,951)	(35,604)
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$761**	**$745**	**($8,328)**

Net Societal Benefits	**$12,133,598**

3.22 Thermal Energy and Process Fuels
Business Energy Services Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	204	249	616
Operating Costs			
Administration	$12,333	$51,786	$76,856
Operations and Implementation	$16,277	$5,246	$33,546
Strategy and Planning	$15,266	$8,573	$33,082
Subtotal Operating Costs	**$43,876**	**$65,606**	**$143,484**
Technical Assistance Costs			
Services to Participants	$5,790	$209,683	$225,765
Services to Trade Allies	$10	$0	$20
Subtotal Technical Assistance Costs	**$5,800**	**$209,683**	**$225,784**
Support Services			
Transportation	$0	$236	$236
Targeted Implementation	$21	$65	$86
Consulting	$516	$24,019	$25,895
Marketing	$2,774	$84,753	$90,407
EM&V	$632	$11,587	$13,257
Policy	$68	$4,900	$8,077
Information Technology	$6	$3,586	$3,593
Customer Support	$858	$39,452	$42,124
Business Development	$106	$3,396	$3,506
Subtotal Support Services Costs	**$4,983**	**$171,993**	**$187,182**
Incentive Costs			
Incentives to Participants	$487,521	$331,632	$1,310,984
Incentives to Trade Allies	$5,664	$5,940	$18,004
Subtotal Incentive Costs	**$493,185**	**$337,572**	**$1,328,988**
Total Efficiency Vermont Costs	**$547,844**	**$784,854**	**$1,885,437**
Total Participant Costs	$2,645,200	$829,287	$4,915,442
Total Third Party Costs	$0	$0	$0
Total Resource Acquisition Costs	**$3,193,043**	**$1,614,141**	**$6,800,879**
Annualized MMBtu Savings	33,128	15,086	100,090
Lifetime MMBtu Savings	546,944	222,317	1,685,890
TRB Savings (2012 $)	$10,919,641	$4,656,861	$36,207,210
Annualized MMBtu Savings/Participant	162.391	60.587	162.484
Weighted Lifetime	16.5	14.7	16.8

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
Cooking and Laundry	17	0	0	4	0	0	565	0	$13,250	$32,075
Hot Water Efficiency	167	0	0	0	0	0	1,081	0	$33,750	$23,749
Industrial Process Eff.	1	16	18	243	5	0	7,174	0	$93,750	$226,700
Motors	1	67	63	669	12	12	406	0	$2,200	$4,800
Other Efficiency	109	0	0	0	0	0	0	0	$1,000	-$1,000
Other Indirect Activity	2	0	0	0	0	0	0	0	$94,495	$270
Space Heat Efficiency	147	44	44	772	19	0	5,125	0	$87,437	$377,773
Space Heat Fuel Switch	3	-1	-1	-9	0	0	603	0	$5,000	$158,171
Ventilation	1	0	0	-4	4	4	133	0	$750	$6,750
Totals		126	124	1,675	39	15	15,086	0	$331,632	$829,287

3.24 Thermal Energy and Process Fuels
Residential Energy Services Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	2,627	3,102	7,704
Operating Costs			
Administration	$138,467	$374,760	$658,374
Operations and Implementation	$1,343,216	$1,125,733	$3,027,156
Strategy and Planning	$64,156	$34,042	$120,482
Subtotal Operating Costs	**$1,545,839**	**$1,534,536**	**$3,806,012**
Technical Assistance Costs			
Services to Participants	$160,281	$234,041	$417,343
Services to Trade Allies	$27	$496	$523
Subtotal Technical Assistance Costs	**$160,308**	**$234,537**	**$417,866**
Support Services			
Transportation	$43	$434	$477
Targeted Implementation	$565	$13	$578
Consulting	$46,344	$135,229	$187,320
Marketing	$422,554	$273,308	$763,508
EM&V	$6,662	$10,201	$24,730
Policy	$3,536	$5,995	$11,678
Information Technology	$150	$24,463	$24,650
Customer Support	$32,711	$48,718	$93,873
Business Development	$2,821	$658	$3,577
Subtotal Support Services Costs	**$515,386**	**$499,019**	**$1,110,391**
Incentive Costs			
Incentives to Participants	$1,785,390	$2,245,751	$6,279,814
Incentives to Trade Allies	$150,719	$127,522	$376,467
Subtotal Incentive Costs	**$1,936,110**	**$2,373,273**	**$6,656,281**
Total Efficiency Vermont Costs	**$4,157,642**	**$4,641,364**	**$11,990,550**
Total Participant Costs	$6,220,960	$5,852,152	$12,838,731
Total Third Party Costs	$322,812	$284,124	$1,332,760
Total Resource Acquisition Costs	**$10,701,414**	**$10,777,640**	**$26,162,040**
Annualized MMBtu Savings	20,771	30,574	77,831
Lifetime MMBtu Savings	382,316	532,619	1,403,346
TRB Savings (2012$)	$8,304,318	10,160,047	$27,571,534
Annualized MMBtu Savings/Participant	7.907	9.856	10.103
Weighted Lifetime	18.4	17.4	18.0

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.	11	-42	-41	-627	-22	0	360	0	$0	$67,312
Cooking and Laundry	12	0	0	0	0	0	0	0	$0	$1,370
Hot Water Efficiency	330	-997	-859	-12,949	-154	-78	7,002	92	$355,444	-$96,175
Hot Water Fuel Switch	3	2	2	46	0	0	-22	0	$0	$2,800
Motors	14	0	0	5	0	0	19	0	$0	$2,170
Other Efficiency	1,050	0	0	0	0	0	0	0	$0	$0
Other Indirect Activity	164	0	0	0	0	0	0	0	$254,839	-$239,475
Space Heat Efficiency	2,625	196	196	3,614	105	0	22,154	2	$1,596,361	$5,302,471
Space Heat Fuel Switch	85	-30	-33	-766	-13	0	844	0	$39,107	$685,642
Ventilation	137	0	0	0	0	0	216	0	$0	$126,036
Totals		-870	-735	-10,676	-83	-78	30,574	93	$2,245,752	$5,852,152

4. MAJOR MARKET RESOURCE ACQUISITION RESULTS

4.1 Electric Business New Construction Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	187	192	573
Operating Costs			
Administration	$168,073	$207,602	$505,594
Operations and Implementation	$273,134	$388,554	$842,851
Strategy and Planning	$560,470	$282,473	$1,304,521
Subtotal Operating Costs	**$1,001,677**	**$878,629**	**$2,652,966**
Technical Assistance Costs			
Services to Participants	$1,073,623	$772,599	$2,752,636
Services to Trade Allies	$80,784	$187,498	$334,688
Subtotal Technical Assistance Costs	**$1,154,407**	**$960,097**	**$3,087,324**
Support Services			
Transportation	$13	$104	$118
Targeted Implementation	$466	$29	$494
Consulting	$49,899	$69,195	$126,292
Marketing	$211,493	$37,905	$382,575
EM&V	$24,950	$4,508	$69,413
Policy	$4,194	$2,165	$17,395
Information Technology	$124	$1,585	$1,737
Customer Support	$29,642	$9,931	$63,935
Business Development	$2,348	$1,500	$3,942
Subtotal Support Services Costs	**$323,130**	**$126,921**	**$665,901**
Incentive Costs			
Incentives to Participants	$1,255,868	$1,183,579	$3,845,231
Incentives to Trade Allies	$3,412	$3,203	$23,309
Subtotal Incentive Costs	**$1,259,281**	**$1,186,782**	**$3,868,540**
Total Efficiency Vermont Costs	**$3,738,494**	**$3,152,429**	**$10,274,731**
Total Participant Costs	$3,836,645	$2,095,903	$11,563,000
Total Third Party Costs	$0	$0	$43
Total Resource Acquisition Costs	**$7,575,138**	**$5,248,332**	**$21,837,774**
Annualized MWh Savings	10,173	10,338	35,822
Lifetime MWh Savings	142,722	148,323	519,050
TRB Savings (2012 $)	$13,512,066	$12,887,179	$54,789,324
Winter Coincident Peak kW Savings	1,227	1,491	4,592
Summer Coincident Peak kW Savings	1,399	1,559	5,129
Annualized MWh Savings/Participant	54.403	53.846	62.517
Weighted Lifetime	14.0	14.3	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.	51	879	780	13,230	107	153	0	0	$187,567	$127,988
Cooking and Laundry	9	19	17	242	3	4	119	71	$1,764	$6,829
Design Assistance	12	12	11	129	1	1	0	0	$25,455	$97,575
Hot Water Efficiency	1	0	0	0	0	0	110	0	$0	$4,600
Industrial Process Eff.	4	1,408	1,432	23,048	267	265	2,771	-1,009	$54,910	$214,155
Lighting	177	4,699	4,171	66,875	650	765	-2,489	0	$703,774	$835,176
Motors	25	969	858	12,564	142	103	494	0	$72,113	$129,437
Other Efficiency	8	0	0	0	0	0	0	0	$2,500	$4,000
Other Fuel Switch	1	3	3	58	0	4	-10	0	$256	$4,121
Other Indirect Activity	1	0	0	0	0	0	0	0	$4,783	-$4,783
Refrigeration	28	1,858	1,651	23,785	229	207	0	15	$80,982	$229,025
Space Heat Efficiency	16	150	133	2,484	35	19	3,403	0	$8,365	$233,278
Space Heat Fuel Switch	1	78	81	2,332	17	0	-235	0	$1,561	$3,439
Ventilation	35	264	234	3,578	40	38	3,637	0	$39,550	$211,017
Water Conservation	1	0	0	0	0	0	54	76	$0	$45
Totals		10,338	9,370	148,323	1,491	1,559	7,854	-847	$1,183,579	$2,095,903

4.3 Electric Business New Construction Total Resource Benefits

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	$10,586,872
Fossil Fuel Savings (Costs)	$128,503	$2,462,891
Water Savings (Costs)	($6,333)	($162,581)
Total	**$122,170**	**$12,887,182**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**9,370**	**9,162**	**10,338**
Winter on peak	3,764	3,677	4,173
Winter off peak	2,565	2,510	2,816
Summer on peak	1,897	1,856	1,856
Summer off peak	1,143	1,119	1,239
Coincident Demand Savings (kW)			
Winter	1,380	1,355	1,491
Shoulder	0	0	0
Summer	1,435	1,411	1,559

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**(843)**	**(847)**	**(23,782)**
Annualized fuel savings (increase) MMBtu Total	**7,810**	**7,854**	**140,626**
LP	4,473	4,475	95,831
NG	2,464	2,500	29,788
Oil/Kerosene	262	261	5,785
Wood	610	609	9,195
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$29,802**	**$29,731**	**$313,958**

Net Societal Benefits	**$15,495,417**

4.4 Electric Business Existing Facilities Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	2,110	2,297	5,967
Operating Costs			
Administration	$486,471	$1,837,210	$2,747,067
Operations and Implementation	$1,286,496	$1,735,865	$4,068,707
Strategy and Planning	$1,036,961	$1,163,076	$2,926,823
Subtotal Operating Costs	**$2,809,928**	**$4,736,151**	**$9,742,598**
Technical Assistance Costs			
Services to Participants	$2,245,649	$2,307,067	$6,618,015
Services to Trade Allies	$192,903	$954,381	$1,311,766
Subtotal Technical Assistance Costs	**$2,438,552**	**$3,261,448**	**$7,929,781**
Support Services			
Transportation	$33	$797	$830
Targeted Implementation	$1,147	$1,044	$2,191
Consulting	$136,028	$168,478	$323,758
Marketing	$510,981	$822,942	$1,640,838
EM&V	$87,845	$103,143	$289,221
Policy	$10,151	$26,379	$64,098
Information Technology	$305	$0	$374
Customer Support	$70,904	$217,528	$346,938
Business Development	$7,502	$0	$13,957
Subtotal Support Services Costs	**$824,896**	**$1,340,311**	**$2,682,206**
Incentive Costs			
Incentives to Participants	$7,061,783	$12,757,884	$29,556,410
Incentives to Trade Allies	$24,132	$35,243	$111,270
Subtotal Incentive Costs	**$7,085,916**	**$12,793,127**	**$29,667,680**
Total Efficiency Vermont Costs	**$13,159,291**	**$22,131,038**	**$50,022,265**
Total Participant Costs	$13,514,620	$14,295,501	$27,441,090
Total Third Party Costs	($0)	$9,100	$264,102
Total Resource Acquisition Costs	**$26,673,911**	**$36,435,639**	**$77,727,456**
Annualized MWh Savings	40,686	51,763	144,826
Lifetime MWh Savings	525,082	649,374	1,826,076
TRB Savings (2012 $)	$40,654,478	$47,113,558	$136,244,249
Winter Coincident Peak kW Savings	6,374	8,811	23,041
Summer Coincident Peak kW Savings	4,654	5,226	16,821
Annualized MWh Savings/Participant	19.283	22.535	24.271
Weighted Lifetime	12.9	12.5	12.6

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.	141	2,563	2,410	39,203	191	344	14,287	0	$492,405	$605,505
Cooking and Laundry	11	13	13	227	2	3	541	345	$6,005	$45,745
Design Assistance	234	567	524	3,113	21	22	2,179	0	$894,666	$472,346
Electronics	119	317	277	1,498	85	5	191	0	$13,728	$77,828
Hot Water Efficiency	78	81	73	760	14	12	1,747	1,648	$25,765	$14,827
Hot Water Fuel Switch	3	48	53	1,454	8	3	-160	0	$2,111	$24,032
Industrial Process Eff.	76	17,574	18,760	220,149	4,010	910	18,358	0	$4,158,206	$5,796,989
Lighting	1,787	21,496	19,209	282,044	3,394	2,843	-8,614	0	$5,121,547	$5,986,374
Motors	124	4,972	4,826	53,608	567	590	19	0	$634,190	$798,759
Other Efficiency	125	136	123	1,559	15	15	0	0	$58,002	-$42,827
Other Fuel Switch	2	270	260	5,407	30	30	-820	0	$19,100	$212,451
Other Indirect Activity	4	0	0	0	0	0	8,508	0	$837,424	-$837,424
Refrigeration	167	2,319	2,144	22,248	257	217	624	12	$297,901	$208,589
Space Heat Efficiency	36	544	539	7,853	166	12	1,035	0	$54,197	$515,208
Space Heat Fuel Switch	3	67	72	2,003	7	0	99	0	$9,699	$43,268
Ventilation	57	777	743	8,067	39	217	3,435	0	$129,823	$372,647
Water Conservation	1	18	18	180	4	4	0	120	$3,117	$1,185
Totals		51,763	50,043	649,374	8,811	5,226	41,428	2,125	$12,757,884	$14,295,501

4.6 Electric Business Existing Facilities Total Resource Benefits

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	$40,267,173
Fossil Fuel Savings (Costs)	$801,323	$6,711,013
Water Savings (Costs)	$15,894	$133,844
Total	**$817,217**	**$47,112,030**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**50,043**	**45,931**	**51,763**
Winter on peak	18,860	17,207	19,530
Winter off peak	16,716	15,169	17,554
Summer on peak	7,368	6,964	6,964
Summer off peak	7,100	6,590	7,296
Coincident Demand Savings (kW)			
Winter	8,924	8,010	8,811
Shoulder	0	0	0
Summer	4,975	4,730	5,226

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**2,353**	**2,125**	**15,516**
Annualized fuel savings (increase) MMBtu Total	**49,121**	**41,428**	**402,422**
LP	4,023	3,678	40,446
NG	14,511	12,938	111,363
Oil/Kerosene	29,343	23,469	252,263
Wood	1,650	1,756	6,928
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$2,154,527**	**$2,134,942**	**$20,851,365**

Net Societal Benefits	$62,286,672

4.7 Electric Residential New Construction Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	1,354	1,458	3,842
Operating Costs			
Administration	$230,910	$123,801	$586,438
Operations and Implementation	$753,879	$588,417	$2,007,306
Strategy and Planning	$23,264	$24,914	$75,344
Subtotal Operating Costs	**$1,008,053**	**$737,132**	**$2,669,088**
Technical Assistance Costs			
Services to Participants	$1,078,636	$588,585	$2,615,859
Services to Trade Allies	$21,485	$29,815	$69,104
Subtotal Technical Assistance Costs	**$1,100,120**	**$618,400**	**$2,684,962**
Support Services			
Transportation	$30	$861	$891
Targeted Implementation	$1,047	$236	$1,283
Consulting	$24,124	$87,685	$128,196
Marketing	$330,920	$309,399	$825,154
EM&V	$8,811	$30,655	$55,473
Policy	$6,579	$17,887	$44,751
Information Technology	$278	$13,093	$13,435
Customer Support	$17,033	$69,291	$109,227
Business Development	$5,282	$12,397	$17,888
Subtotal Support Services Costs	**$394,105**	**$541,504**	**$1,196,298**
Incentive Costs			
Incentives to Participants	$361,397	$622,766	$1,300,622
Incentives to Trade Allies	$923	$1,537	$2,471
Subtotal Incentive Costs	**$362,320**	**$624,303**	**$1,303,093**
Total Efficiency Vermont Costs	**$2,864,598**	**$2,521,339**	**$7,853,441**
Total Participant Costs	$1,508,491	$1,514,011	$2,876,485
Total Third Party Costs	$32,296	$61,422	$118,226
Total Resource Acquisition Costs	**$4,405,385**	**$4,096,772**	**$10,848,152**
Annualized MWh Savings	1,635	1,851	5,066
Lifetime MWh Savings	26,628	32,292	86,563
TRB Savings (2012 $)	$6,803,767	$6,755,876	$23,895,188
Winter Coincident Peak kW Savings	356	351	1,064
Summer Coincident Peak kW Savings	168	203	582
Annualized MWh Savings/Participant	1.207	1.270	1.319
Weighted Lifetime	16.3	17.4	17.1

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.	143	80	71	1,200	15	12	0	0	$22,335	$8,990
Cooking and Laundry	609	78	67	1,084	19	12	434	3,164	$4,822	$128,456
Design Assistance	4	0	0	0	0	0	0	0	$400	$0
Hot Water Efficiency	555	2	2	48	0	0	846	899	$18,220	-$11,978
Lighting	1,444	858	856	11,772	179	70	-46	0	$222,312	$217,050
Motors	16	25	23	381	2	2	0	0	$2,931	$3,775
Other Efficiency	7	0	0	0	0	0	0	0	$102,000	-$102,000
Other Fuel Switch	150	40	51	1,211	10	7	-138	0	$803	$10,813
Refrigeration	688	97	89	1,329	9	11	0	0	$6,488	$56,572
Space Heat Efficiency	604	553	491	13,527	104	78	11,299	0	$231,521	$1,178,189
Ventilation	607	117	103	1,740	12	11	266	0	$10,934	$24,145
Totals		1,851	1,752	32,292	351	203	12,661	4,063	$622,766	$1,514,011

4.9 Electric Residential New Construction Total Resource Benefits

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	$2,090,253
Fossil Fuel Savings (Costs)	$254,397	$4,242,287
Water Savings (Costs)	$30,341	$423,337
Total	**$284,738**	**$6,755,876**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**1,752**	**1,643**	**1,851**
Winter on peak	633	595	675
Winter off peak	689	650	730
Summer on peak	209	195	195
Summer off peak	220	203	225
Coincident Demand Savings (kW)			
Winter	350	319	351
Shoulder	0	0	0
Summer	195	184	203

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**3,914**	**4,063**	**52,058**
Annualized fuel savings (increase) MMBtu Total	**12,578**	**12,661**	**296,607**
LP	4,731	4,775	112,600
NG	6,640	6,680	155,009
Oil/Kerosene	484	484	11,508
Wood	723	720	17,460
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$43,918**	**$39,105**	**$569,195**

Net Societal Benefits	$6,676,277

4.10 Electric Efficient Products Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	29,077	36,990	98,583
Operating Costs			
Administration	$273,224	$690,109	$1,241,862
Operations and Implementation	$1,044,452	$1,357,199	$3,278,644
Strategy and Planning	$12,446	$14,706	$35,268
Subtotal Operating Costs	**$1,330,121**	**$2,062,014**	**$4,555,774**
Technical Assistance Costs			
Services to Participants	$262,053	$127,855	$636,480
Services to Trade Allies	$75,971	$323,067	$472,834
Subtotal Technical Assistance Costs	**$338,024**	**$450,922**	**$1,109,313**
Support Services			
Transportation	$27	$182	$209
Targeted Implementation	$931	$50	$981
Consulting	$56,874	$63,705	$165,004
Marketing	$768,622	$725,434	$1,883,808
EM&V	$8,894	$11,241	$34,199
Policy	$5,829	$8,745	$32,538
Information Technology	$248	$2,769	$3,073
Customer Support	$38,705	$48,299	$123,015
Business Development	$4,695	$2,622	$7,503
Subtotal Support Services Costs	**$884,826**	**$863,045**	**$2,250,331**
Incentive Costs			
Incentives to Participants	$4,236,136	$6,025,202	$14,823,024
Incentives to Trade Allies	$0	$12,033	$12,107
Subtotal Incentive Costs	**$4,236,136**	**$6,037,235**	**$14,835,131**
Total Efficiency Vermont Costs	**$6,789,107**	**$9,413,216**	**$22,750,549**
Total Participant Costs	$3,695,000	$5,002,146	$5,214,897
Total Third Party Costs	$755,115	$804,677	$2,415,429
Total Resource Acquisition Costs	**$11,239,221**	**$15,220,039**	**$30,380,875**
Annualized MWh Savings	31,380	30,209	98,392
Lifetime MWh Savings	265,732	308,183	837,888
TRB Savings (2012 $)	$20,674,216	$20,611,918	$67,888,834
Winter Coincident Peak kW Savings	7,694	6,804	25,615
Summer Coincident Peak kW Savings	4,167	3,693	13,295
Annualized MWh Savings/Participant	1.079	0.817	0.998
Weighted Lifetime	8.5	10.2	8.5

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.	802	118	137	1,421	0	25	0	0	$20,250	$28,350
Cooking and Laundry	2,859	717	590	10,014	95	72	2,566	24,296	$175,845	$1,048,498
Electronics	2,961	2,720	2,996	13,196	276	335	0	0	$233,870	-$252,216
Hot Water Efficiency	315	746	640	9,733	114	59	-1,461	39	$260,566	$264,750
Lighting	28,096	23,627	26,767	244,578	6,005	2,964	-4,827	0	$4,670,591	$3,450,088
Motors	305	143	127	1,434	94	88	0	0	$236,973	$64,567
Other Efficiency	558	0	0	0	0	0	0	0	$0	-$3,000
Refrigeration	2,228	1,290	1,496	10,866	118	149	0	0	$137,715	$191,855
Space Heat Efficiency	158	847	791	16,940	101	1	0	0	$289,393	$209,253
Totals		30,209	33,546	308,183	6,804	3,693	-3,723	24,335	$6,025,202	$5,002,146

4.12 Electric Efficient Products Total Resource Benefits

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	$18,150,327
Fossil Fuel Savings (Costs)	($104,796)	($267,729)
Water Savings (Costs)	$181,782	$2,729,248
Total	**$76,987**	**$20,611,846**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**33,546**	**26,801**	**30,209**
Winter on peak	13,244	10,600	12,030
Winter off peak	10,297	8,240	9,244
Summer on peak	5,452	4,359	4,359
Summer off peak	4,552	3,605	3,990
Coincident Demand Savings (kW)			
Winter	8,566	6,186	6,804
Shoulder	0	0	0
Summer	4,476	3,342	3,693

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**22,582**	**24,335**	**340,093**
Annualized fuel savings (increase) MMBtu Total	**(5,214)**	**(3,723)**	**(12,577)**
LP	287	341	4,618
NG	692	717	10,325
Oil/Kerosene	(6,228)	(3,834)	(24,114)
Wood	(313)	(328)	(4,208)
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$1,651,229**	**$1,447,763**	**$16,375,855**

Net Societal Benefits	**$31,715,568**

4.13 Electric Existing Homes Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	4,754	13,197	22,128
Operating Costs			
Administration	$244,826	$393,099	$886,970
Operations and Implementation	$1,580,181	$971,377	$4,045,846
Strategy and Planning	$101,706	$51,025	$309,247
Subtotal Operating Costs	**$1,926,714**	**$1,415,502**	**$5,242,063**
Technical Assistance Costs			
Services to Participants	$250,633	$164,594	$910,050
Services to Trade Allies	$19,493	$55,250	$90,752
Subtotal Technical Assistance Costs	**$270,125**	**$219,844**	**$1,000,802**
Support Services			
Transportation	$264	$2,275	$2,539
Targeted Implementation	$969	$39	$1,008
Consulting	$48,700	$97,458	$163,901
Marketing	$679,327	$269,011	$1,218,396
EM&V	$15,088	$33,085	$64,715
Policy	$8,450	$5,794	$33,916
Information Technology	$258	$62,923	$63,240
Customer Support	$50,432	$52,818	$140,735
Business Development	$4,886	$2,056	$7,136
Subtotal Support Services Costs	**$808,373**	**$525,460**	**$1,695,586**
Incentive Costs			
Incentives to Participants	$867,009	$1,583,135	$4,542,569
Incentives to Trade Allies	$8,450	$1,400	$15,805
Subtotal Incentive Costs	**$875,459**	**$1,584,535**	**$4,558,375**
Total Efficiency Vermont Costs	**$3,880,671**	**$3,745,340**	**$12,496,826**
Total Participant Costs	$217,346	$315,224	$1,195,024
Total Third Party Costs	$68,103	$87,827	$324,238
Total Resource Acquisition Costs	**$4,166,121**	**$4,148,392**	**$14,016,088**
Annualized MWh Savings	1,708	3,196	9,013
Lifetime MWh Savings	22,373	37,973	118,646
TRB Savings (2012 $)	$2,185,649	$2,560,769	$9,300,327
Winter Coincident Peak kW Savings	344	663	1,771
Summer Coincident Peak kW Savings	173	311	824
Annualized MWh Savings/Participant	0.359	0.242	0.407
Weighted Lifetime	13.1	11.9	13.2

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.	25	8	7	114	0	4	0	0	$2,951	$6,848
Cooking and Laundry	298	91	81	1,276	11	9	22	1,451	$91,835	$22,850
Design Assistance	16	0	0	0	0	0	0	0	$10,585	$1,415
Electronics	12,110	594	581	2,377	60	75	0	0	$216,664	$455
Hot Water Efficiency	12,118	194	184	1,817	22	13	1,353	5,208	$92,732	$2,822
Hot Water Fuel Switch	112	253	403	7,598	39	20	-1,071	0	$38,345	$89,330
Lighting	12,814	1,125	1,061	11,724	359	108	-13	0	$460,407	$27,834
Motors	28	63	62	914	9	1	0	0	$4,000	$4,963
Other Efficiency	1,255	0	0	0	0	0	0	0	$300	-$300
Other Fuel Switch	96	45	41	1,364	11	8	-146	0	$14,766	$15
Other Indirect Activity	16	0	0	0	0	0	0	0	$20,000	-$20,000
Refrigeration	813	591	525	7,114	54	69	0	0	$569,203	$74,157
Space Heat Efficiency	91	160	155	2,565	84	0	210	0	$41,725	$83,369
Space Heat Fuel Switch	2	16	16	484	8	0	-54	0	$0	$12,836
Ventilation	260	36	32	592	3	4	0	0	$19,622	$7,161
Water Conservation	4	19	17	35	2	1	0	0	$0	$1,470
Totals		3,196	3,166	37,973	663	311	302	6,659	$1,583,135	$315,225

4.15 Electric Existing Homes Total Resource Benefits

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	$2,102,692
Fossil Fuel Savings (Costs)	($6,378)	($73,790)
Water Savings (Costs)	$47,263	$531,979
Total	**$40,886**	**$2,560,881**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**3,166**	**2,839**	**3,196**
Winter on peak	1,153	1,026	1,165
Winter off peak	1,109	997	1,118
Summer on peak	445	400	400
Summer off peak	459	417	462
Coincident Demand Savings (kW)			
Winter	667	603	663
Shoulder	0	0	0
Summer	309	282	311

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**6,790**	**6,659**	**63,774**
Annualized fuel savings (increase) MMBtu Total	**(440)**	**302**	**(21,779)**
LP	30	46	(1,755)
NG	(1,971)	(1,072)	(34,019)
Oil/Kerosene	189	189	3,070
Wood	85	77	1,148
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$54,188**	**$51,912**	**$555,775**

Net Societal Benefits	$1,943,924

4.16 Thermal Energy and Process Fuels
Business New Construction Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	28	15	82
Operating Costs			
Administration	$1,512	$2,458	$6,659
Operations and Implementation	$1,106	$412	$2,464
Strategy and Planning	$270	$819	$1,724
Subtotal Operating Costs	**$2,888**	**$3,688**	**$10,847**
Technical Assistance Costs			
Services to Participants	$2,343	$486	$6,523
Services to Trade Allies	$2	$0	$3
Subtotal Technical Assistance Costs	**$2,345**	**$486**	**$6,526**
Support Services			
Transportation	$0	$1	$1
Targeted Implementation	$3	$0	$3
Consulting	$54	$72	$339
Marketing	$261	$256	$965
EM&V	$100	$25	$229
Policy	$10	$15	$134
Information Technology	$1	$11	$12
Customer Support	$134	$57	$474
Business Development	$16	$10	$27
Subtotal Support Services Costs	**$578**	**$447**	**$2,184**
Incentive Costs			
Incentives to Participants	$60,375	$7,937	$187,245
Incentives to Trade Allies	$0	$0	$0
Subtotal Incentive Costs	**$60,375**	**$7,937**	**$187,245**
Total Efficiency Vermont Costs	**$66,186**	**$12,559**	**$206,802**
Total Participant Costs	$562,913	$48,301	$1,677,464
Total Third Party Costs	$0	$0	$0
Total Resource Acquisition Costs	**$629,099**	**$60,860**	**$1,884,266**

Annualized MMBtu Savings	7,152	1,853	27,840
Lifetime MMBtu Savings	149,072	33,779	571,588
TRB Savings (2012 $)	$3,965,032	$772,904	$15,160,428
Annualized MMBtu Savings/Participant	255.444	123.541	339.509
Weighted Lifetime	20.6	18.2	20.5

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
Cooking and Laundry	2	0	0	0	0	0	288	0	$750	$7,083
Space Heat Efficiency	13	0	0	0	0	0	802	0	$6,437	$37,598
Space Heat Fuel Switch	1	0	0	4	0	0	630	0	$0	-$3,130
Ventilation	1	0	0	-4	4	4	133	0	$750	$6,750
Totals		0	0	0	4	4	1,853	0	$7,937	$48,301

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

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	$10,324
Fossil Fuel Savings (Costs)	$35,151	$762,580
Water Savings (Costs)	$0	$0
Total	**$35,151**	**$772,904**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**0**	**(0)**	**(0)**
Winter on peak	0	0	0
Winter off peak	0	0	0
Summer on peak	(0)	(0)	(0)
Summer off peak	(0)	(0)	(0)
Coincident Demand Savings (kW)			
Winter	4	4	4
Shoulder	0	0	0
Summer	3	3	4

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**0**	**0**	**0**
Annualized fuel savings (increase) MMBtu Total	**1,964**	**1,853**	**33,779**
LP	1,818	1,707	31,452
NG	0	0	0
Oil/Kerosene	146	146	2,328
Wood	0	0	0
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$316**	**$269**	**$4,032**

Net Societal Benefits	**$951,828**

4.19 Thermal Energy and Process Fuels
Business Existing Facilities Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	176	234	534
Operating Costs			
Administration	$10,821	$49,328	$70,198
Operations and Implementation	$15,171	$4,835	$31,082
Strategy and Planning	$14,996	$7,755	$31,358
Subtotal Operating Costs	**$40,988**	**$61,918**	**$132,637**
Technical Assistance Costs			
Services to Participants	$3,447	$209,197	$219,242
Services to Trade Allies	$8	$0	$17
Subtotal Technical Assistance Costs	**$3,456**	**$209,197**	**$219,258**
Support Services			
Transportation	$0	$235	$235
Targeted Implementation	$18	$64	$83
Consulting	$463	$23,947	$25,557
Marketing	$2,514	$84,497	$89,442
EM&V	$532	$11,561	$13,028
Policy	$58	$4,885	$7,942
Information Technology	$5	$3,576	$3,582
Customer Support	$725	$39,395	$41,650
Business Development	$91	$3,386	$3,479
Subtotal Support Services Costs	**$4,405**	**$171,546**	**$184,997**
Incentive Costs			
Incentives to Participants	$427,146	$323,695	$1,123,738
Incentives to Trade Allies	$5,664	$5,940	$18,004
Subtotal Incentive Costs	**$432,810**	**$329,635**	**$1,141,742**
Total Efficiency Vermont Costs	**$481,658**	**$772,295**	**$1,678,635**
Total Participant Costs	$2,082,286	$780,986	$3,237,978
Total Third Party Costs	$0	$0	$0
Total Resource Acquisition Costs	**$2,563,944**	**$1,553,281**	**$4,916,613**
Annualized MMBtu Savings	25,975	13,233	72,250
Lifetime MMBtu Savings	397,872	188,538	1,114,302
TRB Savings (2012 $)	$6,954,609	$3,883,957	$21,046,782
Annualized MMBtu Savings/Participant	147.587	56.551	135.301
Weighted Lifetime	15.3	14.2	15.4

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	15	0	0	4	0	0	277	0	$12,500	$24,992
Hot Water Efficiency	16	0	0	0	0	0	1,081	0	$33,750	$23,749
Industrial Process Eff.	1	16	18	243	5	0	7,174	0	$93,750	$226,700
Motors	1	67	63	669	12	12	406	0	$2,200	$4,800
Other Efficiency	109	0	0	0	0	0	0	0	$1,000	-$1,000
Other Indirect Activity	2	0	0	0	0	0	0	0	$94,495	$270
Space Heat Efficiency	134	44	44	772	19	0	4,323	0	$81,000	$340,175
Space Heat Fuel Switch	2	-1	-1	-13	0	0	-27	0	$5,000	$161,300
Totals		126	124	1,676	35	12	13,233	0	$323,695	$780,986

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

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	$114,650
Fossil Fuel Savings (Costs)	$318,346	$3,769,307
Water Savings (Costs)	$0	$0
Total	**$318,346**	**$3,883,957**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**124**	**112**	**126**
Winter on peak	56	50	57
Winter off peak	44	40	45
Summer on peak	15	14	14
Summer off peak	9	8	9
Coincident Demand Savings (kW)			
Winter	36	32	35
Shoulder	0	0	0
Summer	11	11	12

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**0**	**0**	**0**
Annualized fuel savings (increase) MMBtu Total	**15,474**	**13,233**	**188,538**
LP	2,944	2,826	46,982
NG	0	0	0
Oil/Kerosene	14,209	11,734	161,453
Wood	(1,679)	(1,326)	(19,896)
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$751**	**$593**	**$8,894**

Net Societal Benefits	**$4,385,011**

4.22 Thermal Energy and Process Fuels
Residential New Construction Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	34	16	89
Operating Costs			
Administration	$74	$271	$451
Operations and Implementation	$0	$6	$6
Strategy and Planning	$160	$13	$173
Subtotal Operating Costs	**$234**	**$291**	**$630**
Technical Assistance Costs			
Services to Participants	$0	$5	$5
Services to Trade Allies	$0	$0	$0
Subtotal Technical Assistance Costs	**$0**	**$5**	**$5**
Support Services			
Transportation	$0	$0	$0
Targeted Implementation	$0	$0	$0
Consulting	$0	$1	$1
Marketing	$0	$2	$2
EM&V	$0	$0	$0
Policy	$0	$0	$0
Information Technology	$0	$0	$0
Customer Support	$0	$1	$6
Business Development	$0	$0	$0
Subtotal Support Services Costs	**$0**	**$4**	**$10**
Incentive Costs			
Incentives to Participants	$4,335	$2,107	$12,416
Incentives to Trade Allies	$0	$0	$200
Subtotal Incentive Costs	**$4,335**	**$2,107**	**$12,616**
Total Efficiency Vermont Costs	**$4,569**	**$2,406**	**$13,261**
Total Participant Costs	$85,292	$44,413	$49,263
Total Third Party Costs	$0	$0	$0
Total Resource Acquisition Costs	**$89,861**	**$46,820**	**$62,524**
Annualized MMBtu Savings	391	102	745
Lifetime MMBtu Savings	5,872	1,530	12,205
TRB Savings (2012 $)	$337,982	$194,881	$593,236
Annualized MMBtuSavings/Participant	11.513	6.374	8.373
Weighted Lifetime	15.0	15.0	16.4

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	16	-1	-1	-11	0	0	102	0	$2,107	$44,413
Totals		-1	-1	-11	0	0	102	0	$2,107	$44,413

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

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	($277)
Fossil Fuel Savings (Costs)	$27,770	$195,158
Water Savings (Costs)	$0	$0
Total	**$27,770**	**$194,881**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**(1)**	**(1)**	**(1)**
Winter on peak	(0)	(0)	(0)
Winter off peak	(0)	(0)	(0)
Summer on peak	(0)	(0)	(0)
Summer off peak	(0)	(0)	(0)
Coincident Demand Savings (kW)			
Winter	(0)	(0)	(0)
Shoulder	0	0	0
Summer	(0)	(0)	(0)

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**0**	**0**	**0**
Annualized fuel savings (increase) MMBtu Total	**102**	**102**	**1,530**
LP	351	351	5,262
NG	0	0	0
Oil/Kerosene	1,011	1,011	15,166
Wood	(1,260)	(1,260)	(18,899)
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$642**	**$642**	**$9,626**

Net Societal Benefits	$351,024

4.25 Thermal Energy and Process Fuels
Efficient Products Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	0	338	338
Operating Costs			
Administration	$0	$41,594	$41,594
Operations and Implementation	$0	$2,444	$2,444
Strategy and Planning	$0	$542	$542
Subtotal Operating Costs	**$0**	**$44,581**	**$44,581**
Technical Assistance Costs			
Services to Participants	$0	$909	$909
Services to Trade Allies	$0	$0	$0
Subtotal Technical Assistance Costs	**$0**	**$909**	**$909**
Support Services			
Transportation	$0	$1	$1
Targeted Implementation	$0	$0	$0
Consulting	$0	$135	$135
Marketing	$0	$483	$483
EM&V	$0	$47	$47
Policy	$0	$28	$28
Information Technology	$0	$20	$20
Customer Support	$0	$1,298	$1,298
Business Development	$0	$19	$19
Subtotal Support Services Costs	**$0**	**$2,033**	**$2,033**
Incentive Costs			
Incentives to Participants	$0	$347,322	$347,322
Incentives to Trade Allies	$0	$0	$0
Subtotal Incentive Costs	**$0**	**$347,322**	**$347,322**
Total Efficiency Vermont Costs	**$0**	**$394,845**	**$394,845**
Total Participant Costs	$0	($248,187)	($248,187)
Total Third Party Costs	$0	$0	$0
Total Resource Acquisition Costs	**$0**	**$146,658**	**$146,658**

Annualized MMBtu Savings	0	6,439	6,439
Lifetime MMBtu Savings	0	83,927	83,927
TRB Savings (2012 $)	0	$1,092,158	$1,092,158
Annualized MMBtu Savings/Participant	0	19.050	19.050
Weighted Lifetime	0	13.0	13.0

4.26 Thermal Energy and Process Fuels Efficient Products - End Use Breakdown

End Use	# of Participants	Net MWH Saved	Gross MWH Saved	Net Lifetime MWH Saved	Net Winter KW Saved	Net Summer KW Saved	Net Other Fuel MMBTU	Net Water CCF Saved	Participant Incentives Paid	Participant Costs
Hot Water Efficiency	338	-992	-854	-12,892	-153	-78	6,439	12	$347,322	-$248,187
Totals		-992	-854	-12,892	-153	-78	6,439	12	$347,322	-$248,187

4.27 Thermal Energy and Process Fuels
Efficient Products Total Resource Benefits

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	($792,346)
Fossil Fuel Savings (Costs)	$166,547	$1,883,567
Water Savings (Costs)	$90	$937
Total	**$166,637**	**$1,092,158**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**(854)**	**(879)**	**(992)**
Winter on peak	(343)	(354)	(401)
Winter off peak	(273)	(281)	(316)
Summer on peak	(129)	(133)	(133)
Summer off peak	(108)	(112)	(124)
Coincident Demand Savings (kW)			
Winter	(135)	(139)	(153)
Shoulder	0	0	0
Summer	(68)	(70)	(78)

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**12**	**12**	**108**
Annualized fuel savings (increase) MMBtu Total	**6,250**	**6,439**	**83,927**
LP	2,062	2,158	28,049
NG	0	0	0
Oil/Kerosene	4,604	4,711	61,478
Wood	(417)	(424)	(5,581)
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$0**	**$0**	**$0**

Net Societal Benefits	$1,297,529

4.28 Thermal Energy and Process Fuels
Existing Homes Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	2,593	2,748	7,277
Operating Costs			
Administration	$138,393	$332,895	$616,328
Operations and Implementation	$1,343,216	$1,123,283	$3,024,706
Strategy and Planning	$63,997	$33,487	$119,766
Subtotal Operating Costs	**$1,545,605**	**$1,489,664**	**$3,760,801**
Technical Assistance Costs			
Services to Participants	$160,281	$233,127	$416,429
Services to Trade Allies	$27	$496	$523
Subtotal Technical Assistance Costs	**$160,308**	**$233,623**	**$416,952**
Support Services			
Transportation	$43	$433	$475
Targeted Implementation	$565	$12	$577
Consulting	$46,344	$135,093	$187,184
Marketing	$422,554	$272,822	$763,022
EM&V	$6,662	$10,153	$24,682
Policy	$3,536	$5,968	$11,650
Information Technology	$150	$24,443	$24,630
Customer Support	$32,711	$47,419	$92,568
Business Development	$2,821	$639	$3,558
Subtotal Support Services Costs	**$515,386**	**$496,982**	**$1,108,348**
Incentive Costs			
Incentives to Participants	$1,781,055	$1,896,323	$5,920,077
Incentives to Trade Allies	$150,719	$127,522	$376,267
Subtotal Incentive Costs	**$1,931,775**	**$2,023,845**	**$6,296,344**
Total Efficiency Vermont Costs	**$4,153,073**	**$4,244,113**	**$11,582,444**
Total Participant Costs	$6,135,668	$6,055,926	$13,037,655
Total Third Party Costs	$322,812	$284,124	$1,332,760
Total Resource Acquisition Costs	**$10,611,553**	**$10,584,162**	**$25,952,858**
Annualized MMBtu Savings	20,380	24,033	70,646
Lifetime MMBtu Savings	376,444	447,162	1,307,214
TRB Savings (2012 $)	$7,966,336	$8,873,008	$26,978,298
Annualized MMBtu Savings/Participant	7.859	8.746	9.708
Weighted Lifetime	18.5	18.6	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.	11	-42	-41	-627	-22	0	360	0	$0	$67,312
Cooking and Laundry	12	0	0	0	0	0	0	0	$0	$1,370
Hot Water Efficiency	143	-5	-5	-57	-1	0	563	80	$8,123	$152,012
Hot Water Fuel Switch	3	2	2	46	0	0	-22	0	$0	$2,800
Motors	14	0	0	5	0	0	19	0	$0	$2,170
Other Efficiency	1,050	0	0	0	0	0	0	0	$0	$0
Other Indirect Activity	164	0	0	0	0	0	0	0	$254,839	-$239,475
Space Heat Efficiency	2,625	196	196	3,614	105	0	22,154	2	$1,596,361	$5,302,471
Space Heat Fuel Switch	69	-29	-32	-754	-13	0	742	0	$37,001	$641,228
Ventilation	137	0	0	0	0	0	216	0	$0	$126,036
Totals		123	120	2,227	70	0	24,033	81	$1,896,323	$6,055,926

4.30 Thermal Energy and Process Fuels
Existing Homes Total Resource Benefits

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	$162,677
Fossil Fuel Savings (Costs)	$679,313	$8,703,977
Water Savings (Costs)	$607	$6,354
Total	**$679,920**	**$8,873,008**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**120**	**109**	**123**
Winter on peak	54	49	56
Winter off peak	64	58	73
Summer on peak	0	0	0
Summer off peak	1	1	1
Coincident Demand Savings (kW)			
Winter	70	64	70
Shoulder	0	0	0
Summer	(0)	(0)	(0)

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**90**	**81**	**748**
Annualized fuel savings (increase) MMBtu Total	**26,206**	**24,033**	**447,162**
LP	5,402	5,121	89,116
NG	0	0	0
Oil/Kerosene	21,305	18,866	349,305
Wood	(500)	59	8,771
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**($948)**	**($758)**	**($30,880)**

Net Societal Benefits	**$5,148,206**

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.**

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

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	1	1	1
Operating Costs			
Administration	$37,432	$94,058	$139,197
Operations and Implementation	$6,014	$35,822	$46,517
Strategy and Planning	$225	$1,303	$1,731
Subtotal Operating Costs	**$43,670**	**$131,183**	**$187,445**
Technical Assistance Costs			
Services to Participants	$14,115	$26,915	$63,136
Services to Trade Allies	$1,805	$9,778	$17,324
Subtotal Technical Assistance Costs	**$15,920**	**$36,693**	**$80,460**
Support Services			
Transportation	$1	$36	$36
Targeted Implementation	$24	$10	$33
Consulting	$336	$3,641	$4,131
Marketing	$6,116	$12,847	$22,334
EM&V	$1,024	$1,310	$3,416
Policy	$125	$743	$6,318
Information Technology	$6	$544	$551
Customer Support	$359	$2,877	$3,661
Business Development	$119	$515	$639
Subtotal Support Services Costs	**$8,109**	**$22,522**	**$41,121**
Incentive Costs			
Incentives to Participants	$1,852,755	$658,468	$2,655,890
Incentives to Trade Allies	$0	$12	$12
Subtotal Incentive Costs	**$1,852,755**	**$658,480**	**$2,655,902**
Total Efficiency Vermont Costs	**$1,920,454**	**$848,878**	**$2,964,928**
Total Participant Costs	$1,050,714	($642,601)	($560,638)
Total Third Party Costs	$0	$0	$0
Total Resource Acquisition Costs	**$2,971,168**	**$206,277**	**$2,404,290**
Annualized MWh Savings	4,097	13	5,156
Lifetime MWh Savings	58,790	253	74,737
TRB Savings (2012 $)	$4,198,955	$28,349	$5,365,451
Winter Coincident Peak kW Savings	663	5	785
Summer Coincident Peak kW Savings	661	5	783
Annualized MWh Savings/Participant	4097.362	12.719	5156.350
Weighted Lifetime	14.3	19.9	14.5

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
Lighting	1	0	0	5	0	0	0	0	$644,218	-$643,622
Motors	1	12	11	247	5	5	0	0	$14,250	$1,021
Totals		13	11	253	5	5	0	0	$658,468	-$642,601

5.1.4 Customer Credit Total Resource Benefits

Avoided Cost Benefits	2014	Lifetime (Present Value)
Avoided Cost of Electricity	nap	$28,349
Fossil Fuel Savings (Costs)	$0	$0
Water Savings (Costs)	$0	$0
Total	**$0**	**$28,349**

Electric Energy & Demand Benefits	Savings at Meter		Savings at Generation
	Gross	Net	Net
Annualized Energy Savings (MWh): Total	**11**	**11**	**13**
Winter on peak	4	4	4
Winter off peak	4	4	4
Summer on peak	2	2	2
Summer off peak	2	2	2
Coincident Demand Savings (kW)			
Winter	5	5	5
Shoulder	0	0	0
Summer	5	5	5

Thermal & Other Benefits	Gross	Net	Lifetime Net
Annualized Water Savings (ccf)	**0**	**0**	**0**
Annualized fuel savings (increase) MMBtu Total	**0**	**0**	**0**
LP	0	0	0
NG	0	0	0
Oil/Kerosene	0	0	0
Wood	0	0	0
Solar	0	0	0
Other	0	0	0
Annualized savings (increase) in O&M($)	**$16**	**$16**	**$239**

5.2 GEOGRAPHIC TARGETING (ELECTRIC)

Based on recommendations from the Vermont System Planning Committee (VSPC) and direction from the Vermont Public Service Board (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. These efforts benefit all electric ratepayers across the state by reducing expensive power supply purchases, and potentially deferring or avoiding the need for costly system upgrades.

In 2012-2013, the Board established two geographically targeted areas. The first was a part of Saint Albans and the second was an area in Essex Junction and Colchester. In 2014, the Saint Albans area was the sole geographically targeted part of Vermont, owing to the fact that the VSPC recommended, and the Board subsequently ordered, that the Essex Junction/Colchester area have its designation discontinued for 2014.

5.2.1 Electric Geographic Targeting Summary

	Geographic Area		
	Susie Wilson	Saint Albans	Combined
Efficiency Vermont Costs			
Incentives (Participant and Trade Ally)	$0	$1,579,524	$1,579,524
Allocated Non-Incentives	$0	$1,508,636	$1,508,636
Year to Date Costs	$0	$3,088,159	$3,088,159
Costs Starting 1/1/12	$3,408,657	$6,042,658	$9,451,316
Other Costs and Commitments			
Participant Costs Year to Date	$0	$1,187,842	$1,187,842
Third Party Costs Year to Date	$0	$43,972	$43,972
MWh Savings Results			
Annualized MWh Year to Date	-	7,765	7,765
Annualized MWh Cumulative Starting 1/1/12	12,150	17,007	29,158
Lifetime MWh Savings (2014)	-	89,656	89,656
Annualized MWh Savings/Participant	NA	3.360	3.360
Weighted Lifetime	NA	11.5	11.5
Summer Peak Coincident kW Savings Results			
Summer Coincident Peak kW Year to Date	-	946	946
Summer Coincident Peak kW Cumulative Starting 1/1/12	1,626	2,216	3,842
Summer Coincident Peak kW Goal	1,570	1,800	
% of Summer Coincident Peak kW Goal	104%	123%	
TRB Savings Results			
TRB Year to Date	$0	$7,010,185	$7,010,185
TRB Cumulative Starting 1/1/12	$13,468,472	$15,463,192	$28,931,664
Participation			
Participants with installations Year to Date	-	2,311	2,311
Participants with installations Cumulative Starting 1/1/12	3,406	3,643	7,049

5.2.2 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.	39	840	789	12,007	75	155	13,247	0	$252,887	$39,136
Cooking and Laundry	111	38	32	525	5	4	83	976	$20,294	$40,067
Design Assistance	62	0	0	0	0	0	0	0	$72,497	$12,425
Electronics	1,181	161	149	568	21	9	0	0	$25,451	$16,898
Hot Water Efficiency	1,140	43	39	472	12	11	85	505	$16,976	$3,666
Hot Water Fuel Switch	14	42	53	1,254	5	4	-162	0	$15,245	$17,359
Industrial Process Eff.	5	1,017	1,017	11,682	143	81	0	0	$28,060	$245,246
Lighting	2,137	2,794	2,737	33,826	538	357	-755	0	$624,495	$485,241
Motors	15	1,856	1,832	20,528	245	228	0	0	$319,805	$259,962
Other Efficiency	231	0	0	0	0	0	0	0	$0	$0
Other Fuel Switch	8	10	9	298	2	2	-30	0	$7,697	-$3,582
Refrigeration	273	921	855	7,847	98	92	0	2	$174,951	$66,171
Space Heat Efficiency	4	26	25	432	3	0	13	0	$4,832	$4,744
Ventilation	33	18	17	217	0	6	98	0	$8,183	$508
Totals		7,765	7,554	89,656	1,149	946	12,580	1,483	$1,571,373	$1,187,842

6. SUBMARKET RESOURCE ACQUISITION RESULTS—ELECTRIC ONLY

6.1 Electric Market Rate Multifamily New Construction Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	256	233	719
Costs			
EVT Incentives	$130,415	$108,060	$319,185
Participant Costs	$221,249	$205,111	$656,842
Third Party Costs	$0	$0	$9,072
Annualized MWh Savings	618	477	1,475
Lifetime MWh Savings	9,434	7,055	22,984
TRB Savings (2012$)	$1,541,900	$1,265,552	$4,689,184
Winter Coincident Peak KW Savings	106	74	250
Summer Coincident Peak KW Savings	69	71	199
Annualized MWh Savings/Participant	2.414	2.048	2.052
Weighted Lifetime	15	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.	105	73	65	1,097	15	11	0	0	$19,727	$6,398
Cooking and Laundry	183	27	25	380	3	2	68	748	$3,060	$26,720
Design Assistance	4	0	0	0	0	0	0	0	$400	$0
Hot Water Efficiency	172	0	0	0	0	0	626	366	$18,218	-$13,056
Lighting	228	244	218	3,035	38	24	-44	0	$54,175	$27,868
Motors	16	25	23	381	2	2	0	0	$2,931	$3,775
Other Fuel Switch	88	24	31	725	6	4	-82	0	$764	$5,770
Refrigeration	228	21	21	357	2	2	0	0	$4,184	$14,386
Space Heat Efficiency	181	34	30	595	6	24	1,236	0	$835	$124,357
Ventilation	148	28	26	485	2	2	266	0	$3,765	$8,893
Totals		477	438	7,055	74	71	2,070	1,114	$108,060	$205,111

6.3 Electric Market Rate Multifamily Retrofit Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	16	9	306
Costs			
EVT Incentives	$30,725	$4,419	$117,675
Participant Costs	$93,886	$4,082	$273,049
Third Party Costs	$0	$0	$0
Annualized MWh Savings	110	58	656
Lifetime MWh Savings	2,120	857	9,926
TRB Savings (2012$)	$204,360	$44,051	$843,113
Winter Coincident Peak KW Savings	40	9	179
Summer Coincident Peak KW Savings	6	0	32
Annualized MWh Savings/Participant	6.880	6.419	2.143
Weighted Lifetime	19	15	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
Hot Water Efficiency	2	0	0	3	0	0	0	4	$5	$0
Lighting	6	1	1	4	0	0	0	0	$55	$0
Motors	2	56	55	840	8	0	0	0	$4,000	$3,658
Refrigeration	1	1	1	9	0	0	0	0	$250	$490
Ventilation	1	0	0	2	0	0	0	0	$110	-$67
Totals		58	57	857	9	0	0	4	$4,419	$4,082

6.5 Electric Low Income Multifamily New Construction and Retrofit Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	561	609	3,094
Costs			
EVT Incentives	$164,309	$220,726	$767,812
Participant Costs	$84,345	$117,439	$895,775
Third Party Costs	$0	$31,349	$51,349
Annualized MWh Savings	471	546	2,240
Lifetime MWh Savings	6,083	7,316	34,076
TRB Savings (2012$)	$769,953	$400,100	$4,114,290
Winter Coincident Peak KW Savings	77	90	386
Summer Coincident Peak KW Savings	42	57	229
Annualized MWh Savings/Participant	0.840	0.897	0.724
Weighted Lifetime	13	13	15

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.	16	6	6	95	0	1	0	0	$2,251	$6,301
Cooking and Laundry	179	12	11	173	1	1	22	403	$6,615	$9,785
Design Assistance	16	0	0	0	0	0	0	0	$10,585	$1,415
Electronics	123	6	5	24	1	1	0	0	$2,175	$219
Hot Water Efficiency	129	19	18	191	2	1	14	181	$3,047	$0
Lighting	535	235	209	2,888	51	24	-13	0	$52,746	$23,388
Motors	24	4	4	44	0	0	0	0	$0	$1,200
Other Efficiency	332	0	0	0	0	0	0	0	$300	-$300
Other Fuel Switch	75	22	19	659	5	4	-75	0	$900	$2,660
Other Indirect Activity	16	0	0	0	0	0	0	0	$20,000	-$20,000
Refrigeration	254	197	175	2,389	18	23	0	0	$107,295	$77,488
Space Heat Efficiency	16	18	16	447	10	0	88	0	$0	$8,026
Ventilation	170	26	23	405	2	2	0	0	$14,812	$7,257
Totals		546	486	7,316	90	57	37	584	$220,726	$117,439

6.7 Electric Low Income Multifamily New Construction Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	95	132	425
Costs			
EVT Incentives	$66,485	$114,083	$270,338
Participant Costs	$53,964	$136,622	$428,235
Third Party Costs	$0	$0	$0
Annualized MWh Savings	187	326	854
Lifetime MWh Savings	2,801	4,912	13,743
TRB Savings (2012$)	$477,491	$803,242	$2,747,482
Winter Coincident Peak KW Savings	32	42	142
Summer Coincident Peak KW Savings	16	31	108
Annualized MWh Savings/Participant	1.973	2.470	2.010
Weighted Lifetime	15	15	16

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.	38	7	6	103	0	1	0	0	$2,608	$2,592
Cooking and Laundry	63	11	9	149	0	0	94	409	$712	$14,968
Hot Water Efficiency	63	0	0	0	0	0	452	534	$2	$1,078
Lighting	131	207	196	3,102	29	16	-2	0	$98,263	-$34,719
Other Fuel Switch	62	16	21	486	4	3	-55	0	$39	$5,043
Refrigeration	108	25	22	356	2	3	0	0	$2,304	$16,656
Space Heat Efficiency	63	8	7	157	1	2	1,433	0	$2,987	$126,476
Ventilation	111	52	46	560	6	6	0	0	$7,169	$4,527
Totals		326	308	4,912	42	31	1,922	942	$114,083	$136,622

6.9 Electric Low Income Multifamily Retrofit Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	466	609	2,866
Costs			
EVT Incentives	$97,824	$220,726	$611,557
Participant Costs	$30,381	$117,439	$604,162
Third Party Costs	$0	$31,349	$51,349
Annualized MWh Savings	284	546	1,712
Lifetime MWh Savings	3,282	7,316	25,245
TRB Savings (2012$)	$292,462	$400,100	$2,170,050
Winter Coincident Peak KW Savings	45	90	286
Summer Coincident Peak KW Savings	26	57	152
Annualized MWh Savings/Participant	0.609	0.897	0.597
Weighted Lifetime	12	13	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
Air Conditioning Eff.	16	6	6	95	0	1	0	0	$2,251	$6,301
Cooking and Laundry	179	12	11	173	1	1	22	403	$6,615	$9,785
Design Assistance	16	0	0	0	0	0	0	0	$10,585	$1,415
Electronics	123	6	5	24	1	1	0	0	$2,175	$219
Hot Water Efficiency	129	19	18	191	2	1	14	181	$3,047	$0
Lighting	535	235	209	2,888	51	24	-13	0	$52,746	$23,388
Motors	24	4	4	44	0	0	0	0	$0	$1,200
Other Efficiency	332	0	0	0	0	0	0	0	$300	-$300
Other Fuel Switch	75	22	19	659	5	4	-75	0	$900	$2,660
Other Indirect Activity	16	0	0	0	0	0	0	0	$20,000	-$20,000
Refrigeration	254	197	175	2,389	18	23	0	0	$107,295	$77,488
Space Heat Efficiency	16	18	16	447	10	0	88	0	$0	$8,026
Ventilation	170	26	23	405	2	2	0	0	$14,812	$7,257
Totals		546	486	7,316	90	57	37	584	$220,726	$117,439

6.11 Electric Business Non-Farm Equipment Replacement Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	1,633	1,717	4,441
Costs			
EVT Incentives	$4,221,244	$4,994,470	$14,433,246
Participant Costs	$4,586,202	$4,222,608	$12,419,438
Third Party Costs	$0	$0	$225,000
Annualized MWh Savings	19,546	21,496	68,837
Lifetime MWh Savings	249,129	258,842	831,700
TRB Savings (2012$)	$16,799,448	$15,899,594	$55,158,764
Winter Coincident Peak KW Savings	3,289	3,078	10,311
Summer Coincident Peak KW Savings	2,542	2,982	9,167
Annualized MWh Savings/Participant	11.969	12.520	15.500
Weighted Lifetime	13	12	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.	103	1,523	1,399	27,356	135	220	2	0	$420,245	$359,957
Cooking and Laundry	6	4	4	78	1	1	82	3	$4,931	$14,336
Design Assistance	16	6	6	12	0	1	0	0	$78,820	$20,151
Electronics	76	202	173	1,005	69	5	0	0	$9,715	$9,631
Hot Water Efficiency	12	0	0	3	0	0	925	484	$645	$0
Hot Water Fuel Switch	1	20	21	585	3	2	-61	0	$1	$8,999
Industrial Process Eff.	28	1,778	1,936	18,827	216	197	295	0	$116,115	$316,603
Lighting	1,502	15,312	13,695	179,178	2,384	2,196	-6,885	0	$4,078,995	$2,716,179
Motors	35	1,384	1,301	15,551	121	207	117	0	$107,720	$225,628
Other Efficiency	76	5	4	71	0	0	0	0	$14,775	-$14,229
Other Fuel Switch	1	178	168	3,562	20	20	-820	0	$10,000	$91,000
Refrigeration	84	836	788	8,485	90	91	0	12	$85,735	$92,439
Space Heat Efficiency	16	28	25	482	8	2	1,129	0	$8,195	$41,008
Space Heat Fuel Switch	1	45	48	1,347	0	0	-171	0	$8,399	$9,601
Ventilation	14	176	166	2,300	30	41	1,568	0	$50,179	$331,305
Totals		21,496	19,735	258,842	3,078	2,982	-3,817	498	$4,994,470	$4,222,608

6.13 Electric Business Non-Farm Retrofit Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	453	428	1,307
Costs			
EVT Incentives	$2,643,010	$7,309,568	$13,478,239
Participant Costs	$8,829,418	$9,934,187	$28,219,384
Third Party Costs	($0)	$9,100	$39,101
Annualized MWh Savings	20,523	28,244	70,052
Lifetime MWh Savings	268,431	367,622	924,758
TRB Savings (2012$)	$23,353,286	$29,618,637	$75,926,974
Winter Coincident Peak KW Savings	2,970	5,462	11,614
Summer Coincident Peak KW Savings	2,049	1,940	6,936
Annualized MWh Savings/Participant	45.305	65.992	53.597
Weighted Lifetime	13	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.	38	1,029	1,000	11,567	54	122	14,285	0	$70,160	$244,707
Cooking and Laundry	5	9	9	149	2	2	459	343	$1,074	$31,408
Design Assistance	219	561	518	3,101	21	21	2,179	0	$815,846	$452,195
Electronics	43	116	104	493	16	0	191	0	$4,013	$68,197
Hot Water Efficiency	53	5	5	27	6	8	668	1,123	$2,202	$54
Hot Water Fuel Switch	2	29	32	869	5	1	-99	0	$2,110	$15,032
Industrial Process Eff.	48	15,795	16,823	201,321	3,794	713	18,063	0	$4,041,891	$5,479,836
Lighting	198	5,716	5,101	95,927	920	613	-1,712	0	$900,794	$3,228,092
Motors	32	3,087	3,078	32,956	354	337	-104	0	$418,340	$474,009
Other Efficiency	27	131	118	1,488	15	15	0	0	$42,755	-$28,126
Other Fuel Switch	1	92	92	1,844	10	11	0	0	$9,100	$121,451
Other Indirect Activity	4	0	0	0	0	0	8,508	0	$837,424	-$837,424
Refrigeration	33	849	789	7,224	88	74	624	0	$103,101	$127,657
Space Heat Efficiency	20	517	514	7,371	158	10	-94	0	$46,001	$474,200
Space Heat Fuel Switch	2	22	25	656	7	0	270	0	$1,300	$33,667
Ventilation	7	269	263	2,448	9	10	1,867	0	$10,340	$48,047
Water Conservation	1	18	18	180	4	4	0	120	$3,117	$1,185
Totals		28,244	28,490	367,622	5,462	1,940	45,104	1,586	$7,309,568	$9,934,187

6.15 Electric Market Rate Single Family Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	3,332	11,748	15,523
Costs			
EVT Incentives	$192,642	$639,593	$962,656
Participant Costs	$86,706	$187,345	$510,151
Third Party Costs	$0	$209	$89,108
Annualized MWh Savings	515	1,642	2,711
Lifetime MWh Savings	8,655	19,204	40,596
TRB Savings (2012$)	$1,054,940	$1,501,158	$3,271,464
Winter Coincident Peak KW Savings	108	381	620
Summer Coincident Peak KW Savings	56	149	255
Annualized MWh Savings/Participant	0.154	0.140	0.175
Weighted Lifetime	17	12	15

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.	7	1	1	15	0	2	0	0	$700	-$21
Electronics	11,594	534	528	2,134	54	67	0	0	$193,495	-$2,331
Hot Water Efficiency	11,594	97	96	870	11	6	1,339	4,407	$76,068	$2,431
Hot Water Fuel Switch	107	236	388	7,070	36	19	-1,012	0	$27,700	$88,100
Lighting	11,598	619	612	6,519	199	55	0	0	$310,769	$766
Other Efficiency	6	0	0	0	0	0	0	0	$0	$0
Other Fuel Switch	7	7	7	208	2	1	-21	0	$700	$1,540
Space Heat Efficiency	34	141	138	2,108	74	0	122	0	$30,161	$86,360
Space Heat Fuel Switch	1	9	10	279	5	0	-30	0	$0	$10,500
Totals		1,642	1,780	19,204	381	149	399	4,407	$639,593	$187,345

6.17 Electric Low Income Single Family Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	958	936	3,776
Costs			
EVT Incentives	$545,819	$718,397	$2,850,682
Participant Costs	$6,374	$6,359	$25,007
Third Party Costs	$5,845	($5,989)	($6,100)
Annualized MWh Savings	799	949	3,935
Lifetime MWh Savings	8,316	10,597	42,879
TRB Savings (2012$)	$633,887	$615,460	$3,015,701
Winter Coincident Peak KW Savings	151	183	685
Summer Coincident Peak KW Savings	86	105	385
Annualized MWh Savings/Participant	0.834	1.014	1.042
Weighted Lifetime	10	11	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.	2	0	0	4	0	1	0	0	$0	$568
Cooking and Laundry	119	79	70	1,103	10	8	0	1,047	$85,220	$13,065
Electronics	435	55	49	219	6	7	0	0	$20,994	$2,567
Hot Water Efficiency	437	78	69	754	9	6	0	617	$13,612	$391
Hot Water Fuel Switch	5	18	16	528	3	1	-59	0	$10,645	$1,230
Lighting	756	270	240	2,313	108	29	0	0	$96,837	$3,681
Motors	2	3	3	30	0	0	0	0	$0	$106
Other Efficiency	917	0	0	0	0	0	0	0	$0	$0
Other Fuel Switch	14	17	15	496	4	3	-50	0	$13,166	-$4,186
Refrigeration	558	393	349	4,716	36	46	0	0	$461,659	-$3,822
Space Heat Efficiency	41	1	1	10	0	0	0	0	$11,565	-$11,018
Space Heat Fuel Switch	1	7	6	205	4	0	-24	0	$0	$2,336
Ventilation	89	10	9	185	1	2	0	0	$4,700	-$30
Water Conservation	4	19	17	35	2	1	0	0	$0	$1,470
Totals		949	843	10,597	183	105	-134	1,664	$718,397	$6,359

6.19 Electric Large Industrial Summary

	Prior Year	Current Year 2014	Cumulative starting 1/1/12
# participants with installations	63	65	99
Costs			
EVT Incentives	$1,533,551	$5,618,007	$8,204,558
Participant Costs	$5,656,246	$4,802,820	$16,223,180
Third Party Costs	($0)	$0	($0)
Annualized MWh Savings	14,520	18,203	45,977
Lifetime MWh Savings	175,407	223,384	562,879
TRB Savings (2012$)	$17,057,918	$19,085,862	$57,218,216
Winter Coincident Peak KW Savings	2,592	4,030	8,430
Summer Coincident Peak KW Savings	1,303	1,036	3,752
Annualized MWh Savings/Participant	230.478	280.044	464.412
Weighted Lifetime	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.	4	364	352	3,961	29	75	0	0	$29,273	$57,689
Cooking and Laundry	2	4	4	53	1	2	22	7	$315	$805
Design Assistance	34	271	252	1,111	16	16	336	0	$430,440	$105,802
Electronics	1	45	40	224	8	4	0	0	$4,190	$8,380
Hot Water Efficiency	3	0	0	0	0	0	359	595	$828	$0
Hot Water Fuel Switch	1	20	21	585	3	2	-61	0	$1	$8,999
Industrial Process Eff.	25	13,891	14,893	172,691	3,492	534	17,350	0	$3,933,854	$4,414,349
Lighting	34	1,061	956	15,196	154	122	-321	0	$159,862	$303,429
Motors	16	2,188	2,159	23,477	284	240	-106	0	$340,270	$386,047
Other Efficiency	2	0	0	0	0	0	0	0	$0	$0
Other Fuel Switch	1	178	168	3,562	20	20	-820	0	$10,000	$91,000
Other Indirect Activity	3	0	0	0	0	0	8,508	0	$687,424	-$687,424
Refrigeration	2	10	9	116	4	4	0	0	$2,602	$6,331
Space Heat Efficiency	2	31	30	352	10	8	1,627	0	$940	$70,915
Space Heat Fuel Switch	1	45	48	1,347	0	0	-171	0	$8,399	$9,601
Ventilation	4	78	70	530	5	4	351	0	$6,491	$25,711
Water Conservation	1	18	18	180	4	4	0	120	$3,117	$1,185
Totals		18,203	19,019	223,384	4,030	1,036	27,074	722	$5,618,007	$4,802,820

7. LIST OF SUPPORT DOCUMENTS, BY SERVICE

DOCUMENTS, CORRESPONDING MARKETS, AND 2014 STATUS

#	Document Name / Title	Major Market	Status	Date
57	Levelized Costs - Revision to include TEPF funding	EVT-Wide	Under internal review	3/7/2014
103	Savings claim approach for Energy Savings Kits Program	RES	Under internal review	3/25/2014
104	Room Air Conditioner recycling program	RES	Under internal review	9/24/2014
105	Upstream Cold Climate Heat Pump	C&I, RES	Implemented	10/13/2014
106	Maple Reverse Osmosis	C&I	Draft	10/29/2014
107	Residential Behavior	RES	Draft	11/13/2014

Key:

EVT-Wide Efficiency Vermont-Wide

RES Residential

C&I Commercial & Industrial

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, 2014, through December 31, 2014. Similarly, measure savings are for measures installed during the period January 1, 2014, through December 31, 2014.

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

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

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

8.2 DEFINITIONS AND REPORT TEMPLATE

The table templates that appear in the 2014 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.

	Prior Year	Current Year 2014	Cumulative starting 1/1/12	Cumulative starting 1/1/12
	(1)	(2)	(3)	(4)
# participants with installations	(5)			
Operating Costs				
Administration	(6)			
Operations and Implementation	(7)			
Strategy and Planning	(8)			
Subtotal Operating Costs	(9)			
Technical Assistance Costs				
Services to Participants	(10)			
Services to Trade Allies	(11)			
Subtotal Technical Assistance Costs	(12)			
Support Services				
Transportation	(13)			
Targeted Implementation	(14)			
Consulting	(15)			
Marketing	(16)			
EM&V	(17)			
Policy	(18)			
Information Technology	(19)			
Customer Support	(20)			
Business Development	(21)			
Subtotal Support Services Costs	(22)			
Incentive Costs				
Incentives to Participants[1]	(23)			
Incentives to Trade Allies	(24)			
Subtotal Incentive Costs	(25)			
Total Efficiency Vermont Costs	(26)			
Total Participant Costs	(27)			
Total Third Party Costs	(28)			
Total Resource Acquisition Costs	(29)			
Annualized MWh Savings	(30)			
Lifetime MWh Savings	(31)			
TRB Savings (2012 $)	(32)			
Winter Coincident Peak kW Savings	(33)			
Summer Coincident Peak kW Savings	(34)			
Annualized MWh Savings/Participant	(35)			
Weighted Lifetime	(36)			
Annualized MWh Savings (adjusted for measure life)	(37)			
Winter Coincident Peak kW Savings (adjusted for measure life)	(38)			
Summer Coincident Peak kW Savings (adjusted for measure life)	(39)			

X.X.X. Breakdown Report

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

Footnotes for the report table templates:

(1) Activity for the prior reporting year.

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

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

(4) Data reported for ALL performance periods (2012 - future periods) starting January 1, 2012 through December 31, 2014.

(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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