

STATE OF VERMONT  
PUBLIC SERVICE BOARD

EEU-2010-06

In re: EEU Demand Resources Plan

Order entered: 8/1/2011

**ORDER RE: ENERGY EFFICIENCY UTILITY  
ELECTRIC BUDGETS FOR DEMAND RESOURCES PLAN**

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## I. INTRODUCTION

The Public Service Board ("Board") initiated this workshop process to develop the first Long-Term Demand Resources Plan ("DRP") for the Energy Efficiency Utility<sup>1</sup> ("EEU") program. Key elements of the DRP are annual electric efficiency budgets for a twenty-year period and annual estimated heating-and-process-fuels efficiency budgets for a ten-year period.<sup>2</sup> These long-term budgets are comprised of several components, including: resource-acquisition activities (including some geographic targeting activities);<sup>3</sup> non-resource-acquisition activities; evaluation activities; fiscal agent costs; and EEU operations fees and performance-based payments. In this Order, we make determinations regarding these various components in order to establish long-term electric<sup>4</sup> budgets for the EEU program. All components of the long-term budgets we establish today will be revisited every three years through subsequent workshop processes.

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1. Efficiency Vermont delivers the EEU's services throughout most of the state. The City of Burlington Electric Department ("BED") delivers EEU services in its service territory.

2. As determined by the Board in Docket 7466 (the Board's investigation into the EEU structure), the DRP will also include: (1) year-by-year values for statewide demand-side electricity resource acquisition savings goals by calendar year for a twenty-year period, and year-by-year values for statewide heating-and-process-fuels savings goals by calendar year for a ten-year period; (2) budgets and performance indicators for each EEU; (3) budgets for geographically targeted energy efficiency services, to the extent authorized by the Board; and (4) the EEUs' compensation structures, including the description of, and budgets and any fees and/or performance indicators for, both resource-acquisition and non-resource-acquisition activities to be performed by an EEU, and the amount of compensation that should be held-back to serve as a performance award, if applicable. "Process and Administration of an Energy Efficiency Utility Order of Appointment" dated 12/20/10 at 8-9.

3. Resource-acquisition activities are those which lead directly to measurable savings. Geographic-targeting activities are a type of resource-acquisition activities; they are energy efficiency services that are provided in specific, identified geographic regions for the express purpose of delaying or avoiding investments in transmission or generation infrastructure. Non-resource-acquisition activities are those which advance the EEU program's goal of saving energy, but do not lead directly to measurable savings (for example, energy efficiency training and education activities).

4. From an implementation perspective, electric and heating-and-process-fuel efficiency services are often integrated. However, the two types of efficiency services have different funding sources, and Vermont law sets forth various factors that the Board must consider when establishing electric efficiency budgets that do not apply to the establishment of estimated budgets for heating-and-process-fuel efficiency services. Instead, because heating-and-process-fuel services are funded by net revenues from the regional Forward Capacity Market ("FCM") and the Regional Greenhouse Gas Initiative ("RGGI"), the Board cannot establish in advance the actual budgets for these services. We will estimate long-term heating-and-process-fuel budgets in a future Order.

Vermont law requires EEU budgets funded via the Energy Efficiency Charge ("EEC") to be set at a level that would realize "all reasonably available, cost-effective energy efficiency," and sets forth specific objectives for the Board to consider when setting electric EEU budgets.<sup>5</sup> After considering all these factors, we establish funding levels for the electric portion of the EEU program of \$40.1 million in 2012, \$42.8 million in 2013, \$45.9 million in 2014.<sup>6</sup> In addition, for planning purposes, we establish annual electric EEU budgets for the years 2015 through 2031.<sup>7</sup> We further determine that for 2012 and 2013, up to 10 percent of Efficiency Vermont's electric resource-acquisition budget will be directed towards geographic-targeting ("GT") activities. For 2014 and beyond, the Board will determine appropriate GT funding levels and revenue sources on a case-by-case basis that will be informed by a collaborative, objective and transparent Vermont System Planning Committee ("VSPC")<sup>8</sup> process.

The long-term budgets we establish today will be incorporated into the DRP and used by the EEUs and other entities for planning purposes. While most of these annual budgets (those for 2015 through 2031) are subject to revision in later DRPs, the electric efficiency budgets for 2012, 2013, and 2014 (including all of their components) are the actual budgets that will be used in those years.

This Order follows a complex, nine-month workshop process on numerous issues related to the development of the DRP. These issues were grouped into five parallel tracks, each of which included at least one workshop and multiple opportunities for participants to file written comments. Today's Order does not make all of the decisions necessary to finalize the DRP.

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5. 30 V.S.A. § 209(d)(4) and (e)(14).

6. This equates to approximately a 4.2 percent increase in the EEC rates in 2012, a 6.7 percent increase in the EEC rates in 2013, and a 7.2 percent increase in the EEC rates in 2014. All budgets discussed in this Order are expressed in nominal dollars.

7. Annual electric budgets for the years 2015 through 2031 are shown in Appendix A to this Order. Appendix A also shows how these annual amounts are divided among the various electric budget components.

8. The VSPC and its associated planning process were created in Docket 7081 (the Board's investigation into least-cost integrated resource planning for Vermont Electric Power Company, Inc.'s transmission system) to facilitate consideration of cost-effective non-transmission alternatives to new transmission projects. The VSPC provides for increased collaboration among utilities and transparency of the planning process.

Instead it addresses only those issues which need to be resolved to establish electric budget levels. The remaining issues will be resolved in future Board orders.

As part of this process, participants presented two separate electric efficiency potential studies, and considered several possible scenarios for electric efficiency resource-acquisition budget levels before making their overall electric efficiency budget recommendations. These recommendations can be divided into three groups: (1) conducting further processes, including considering reducing the EEU's current electric efficiency budget of \$38.5 million, before establishing future budgets; (2) increasing the EEU budget to a level sufficient to acquire three percent savings relative to annual energy usage (after an initial ramp-up period); and (3) increasing the EEU electric efficiency budget to \$46.7 million plus evaluation and certain administrative costs in 2012, \$64.7 million plus evaluation and certain administrative costs in 2013, and \$92 million plus evaluation and certain administrative costs in 2014. In addition, the Board received approximately 20 public comments, primarily from commercial and industrial customers, regarding the EEU electric efficiency budget levels. Nearly all the public comments expressed concern regarding the magnitude of the EEC, and recommended considering reducing the EEUs' electric efficiency budget.

In this Order, we conclude that additional cost-effective electric energy efficiency is reasonably available, and therefore we are increasing the electric EEU budget. This additional investment in cost-effective energy efficiency will result in total electric costs to Vermont that are lower than they would otherwise be by providing savings to consumers who install electric efficiency measures as well as savings to all ratepayers through reduced need for power purchases by utilities, deferred need for system upgrades such as new transmission facilities, and other statewide savings.

However, through the existing EEU funding mechanism, increased spending on electric efficiency also raises rates at a time when Vermonters are still recovering from the recent economic downturn. The EEC, although small in relation to total electric charges, is additive in relation to overall rates. Today's decision establishing new EEU budget levels is likely to increase rates (above what they would be at the current EEU budget level) by less than 0.1%,

0.4%, and 0.8% percent in 2012, 2013, and 2014, respectively.<sup>9</sup> The impact of increasing the charge will be most felt by large industrial and commercial users who are competing in a global marketplace, and by low- and middle-income residential customers who are facing increased costs of living.

While all EEU investments are ultimately cost-effective and provide a significant net benefit to Vermont, the out-of-pocket cost of efficiency services is borne up front. In this respect, investing in efficiency is similar to investing in a retirement account — viewed from a long-term perspective, the best approach is to invest today the maximum amount allowable; however, during difficult economic times many people cannot afford to do so. We recognize that is the situation many Vermont residents and businesses face today with respect to investing in energy efficiency.

Our concern regarding the impact of electricity rates on the welfare of Vermont businesses and residents during the current slow economic recovery has contributed to our decision to increase the EEU budget at a slower pace than that recommended by some workshop participants. This slower pace recognizes the current conditions of the state and global economy, and the pressures these conditions exert on businesses and individuals. In addition, this slower pace reflects the practical difficulties associated with ramping up energy efficiency sources too quickly, and will enable the EEUs to plan for and implement their services in the most cost-effective manner. Nevertheless, viewed over the DRP's twenty-year planning horizon, the long-term electric budgets we establish today will enable the EEUs to acquire all reasonably available, cost-effective electric energy efficiency.

## **II. BACKGROUND AND PROCEDURAL HISTORY**

### **A. Background**

In 2009, the Board opened Docket 7466 to consider a petition filed by the DPS regarding the EEU program structure. In a series of Orders, we determined that the EEU program structure

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9. Vermont Department of Public Service ("DPS") Statewide Rate and Bill Impact Spreadsheet, filed 5/17/11, comparing cells R18, R19 and R20 of tab Rate Impact Analysis when cell B1 is set at "Scenario 3 – Status Quo Budgets" versus "Scenario 2 – Growth to 3 Percent Savings". As discussed in Section IV.E.4, below, the actual rate impacts are likely to be less than this.

should be modified to an Order of Appointment model<sup>10</sup> and we issued Orders of Appointment to Vermont Energy Investment Corporation ("VEIC")<sup>11</sup> and BED to serve as EEUs.<sup>12</sup> At the same time that we issued VEIC's Order of Appointment we approved a document entitled Process and Administration of an Energy Efficiency Utility Order of Appointment ("Process and Administration Document") that describes the overall EEU program structure under the Order of Appointment model.

The Process and Administration Document includes provisions regarding the development of a Long-Term Demand Resources Plan for the EEU program. These provisions describe the contents of a DRP as well as the process to be followed to develop a DRP.

Consistent with the Process and Administration Document, on September 9, 2010, we issued an Order initiating this workshop process to develop the first DRP.<sup>13</sup> Because this process was not a formal docket, there were no parties and no deadlines for intervention. Rather, anyone who wished could at any time start to participate in the proceedings. In this Order, we use the term "participants" to refer to all those who filed formal written comments or who asked to be included on the Board's e-mail service list for this process, regardless of the extent to which they actually attended the workshops. This e-mail service list is attached as Appendix B.

The Board conducted the initial workshop in this process on September 22, 2010.

Subsequently we established a schedule for this proceeding that was based on a schedule proposed by the DPS. This schedule divided the issues associated with developing the DRP into five tracks: (A) Electric Resource Acquisition; (B) Heating-and-Process-Fuels Resource Acquisition; (C) Geographic Targeting; (D) Non-Resource Acquisition and Evaluation; and

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10. Order of 11/24/09, generally.

11. VEIC serves as Efficiency Vermont.

12. Order of 12/20/10, and Order of 4/19/11, respectively.

13. As explained in the September 9, 2010, Order, the parties to Docket 7466 were still finalizing a draft Process and Administration Document at that time. However, because the creation of the first DRP was expected to take many months and it was desirable for the completed DRP to be incorporated into various electric utility planning efforts in 2011, it was necessary to begin the development of the first DRP prior to finalizing the Process and Administration Document. Order of 9/9/10 at 2-3.

(E) Performance Indicators and Compensation Structure.<sup>14</sup> We assigned Board staff to lead each of the tracks.<sup>15</sup> Activities proceeded in parallel in each track, although schedules were coordinated. Each track's procedural history is described in a separate section in Appendix C.

## **B. Participants' Summary Budget Recommendations**

At the April 20, 2011, workshop in Track A, Board staff provided participants with a spreadsheet template to enable participants to summarize their recommendations from the various tracks and clearly indicate which amounts are proposed to be collected via the EEC.<sup>16</sup> Board staff requested that participants file completed versions of this template with their overall budget recommendations.

On May 27, 2011, BED, Central Vermont Public Service Corporation ("CVPS"), the DPS, Green Mountain Power Corporation ("GMP"), Vermont Businesses for Social Responsibility ("VBSR"), and VEIC separately filed final budget recommendations which summarized their recommendations from all tracks. On that same date, the Conservation Law Foundation ("CLF") and the Vermont Public Interest Research Group ("VPIRG") filed joint budget recommendations. On May 30, 2011, the Associated Industries of Vermont ("AIV") filed its budget recommendations. These filings are referred to herein by the participant's name(s) followed by "Comments."

On June 14, 2011, CLF and VPIRG filed joint reply comments on participants' final budget recommendations. On June 17, 2011, AIV and 19 other business and economic development organizations (referred to herein collectively as the "20 Business Organizations") filed joint reply comments.<sup>17</sup> Also on June 17, 2011, BED, DPS, the Lake Champlain Regional

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14. *See*, Memorandum from Ann Bishop, Chief Economist, to EEU E-mail Service List, Re: Next Steps in EEU-2010-06 (EEU Demand Resources Plan), dated October 4, 2010, and attached schedule.

15. Memorandum from Susan M. Hudson, Clerk of the Board, to EEU-2010-06 (EEU Demand Resources Plan) E-mail Service List, Re: Assignment of Board Staff and Revised Schedule, dated November 1, 2010.

16. An electronic version of the spreadsheet template was provided to participants on April 22, 2011, via e-mail message from Ann Bishop, Board staff, to the EEU-2010-06 (DRP) E-mail Service List.

17. The 19 other business and economic development organizations are: Associated General Contractors of Vermont; Barre Granite Association; Bennington County Industrial Corporation; Central Vermont Economic



Chamber of Commerce ("LCCC") and VEIC separately filed reply comments. These filings are referred to herein by the participant's name(s) followed by "Reply Comments."

On June 29, 2011, CVPS filed a response to VEIC's reply comments (referred to herein as "CVPS June 29 Response").

On June 29, 2011, and July 1, 2011, VEIC and the DPS, respectively, filed revised budget recommendations that incorporate the effects of the Board's May 26, 2011, Order regarding which entity will conduct FCM evaluation activities.

On July 6, 2011, AIV filed additional comments responding to other parties' reply comments (referred to herein as "AIV Additional Comments").

### **III. PARTICIPANTS' RECOMMENDATIONS**

BED, CVPS, GMP, the DPS, and VEIC filed comprehensive 20-year recommendations for electric EEU services. CLF and VPIRG filed joint six-year recommendations for electric resource-acquisition and non-resource-acquisition services; their recommendations did not address evaluation, fiscal agent, and compensation costs. The 20 Business Organizations filed joint descriptive budget recommendations for electric EEU services.<sup>18</sup> LCCC and VBSR separately filed descriptive budget recommendations for those same services. Participants' recommendations for the first three years are summarized in the table below.<sup>19</sup>

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Development Corporation; Franklin County Industrial Development Corporation; Green Mountain Dairy Farmers Cooperative Federation; Green Mountain Economic Development Corporation; Lamoille Economic Development Corporation; National Federation of Independent Business/VT; Rutland Economic Development Corporation; United Dairy Farmers Association of Vermont; Vermont Association of REALTORS; Vermont Energy Partnership; Vermont Farm Bureau; Vermont Forest Products Association; Vermont Fuel Dealers Association; Vermont Grocers Association; Vermont Ski Areas Association; and Vermont Vehicle and Automotive Distributors Association.

18. AIV and the 19 other business organizations also recommend that the Board reexamine and develop possible alternative funding mechanisms to the EEC and, when appropriate, adjust EEU budgets to best incorporate such alternatives. We discuss this recommendation in Section IV.F.8, below.

19. BED originally recommended annual budgets that were less than \$50 different from those recommended by the DPS. BED Budget Recommendation Spreadsheet that accompanied the BED Comments. However, BED stated in its reply comments that it "is in general agreement with the DPS's BED EEU program budget recommendations." BED Reply Comments at 1. Therefore, BED is shown in this chart as supporting the DPS's recommended electric budget levels.

<b>Comparison of Recommended Budget Levels for 2012, 2013, and 2014, and Cumulative Funding</b> <i>Nominal Dollars in Millions</i>				
<b>Participant</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>3-Year Total Budget</b>
DPS, BED, CVPS, GMP	\$40.1	\$42.8	\$45.9	\$128.8
VEIC	\$46.1	\$50.6	\$56.0	\$152.8
CLF/VPIRG	\$46.7 for resource- acquisition and non-resource- acquisition activities	\$64.7 for resource- acquisition and non-resource- acquisition activities	\$92 for resource- acquisition and non-resource- acquisition activities	\$203.3 for resource- acquisition and non-resource- acquisition activities
20 Business Organizations	Board should postpone decision on EEU budgets until avoided costs and related assumptions are updated so that rate and bill impact projections can be revised. Board should analyze one or more scenarios reducing the EEU budgets utilizing updated avoided costs and related assumptions.			
LCCC	Does not endorse specific funding proposal. States that it is important to accurately assess the rate impacts of any proposed increase in funding for the EEU, including the effect of updated avoided energy costs on those rate impacts.			
VBSR	Supports increased investment in efficiency.			

Longer-term, the DPS, BED, CVPS and GMP recommend electric EEU budgets that increase each year, from approximately \$48.7 million in 2015 to approximately \$63.2 million in 2021 and approximately \$85.3 million in 2031. VEIC recommends electric EEU budgets that increase each year, from approximately \$62.5 million in 2015 to approximately \$71.4 million in 2021 and approximately \$80.1 million in 2031. CLF and VPIRG recommend electric EEU budgets of approximately \$120.4 in 2015, \$123.6 million in 2016, and \$126.8 million in 2017 (only for resource-acquisition and non-resource-acquisition activities).

Both the short- and long-term budget recommendations described above reflect participants' recommendations on various budget components. These components include: electric resource-acquisition activities (including some geographic-targeting activities); non-

resource-acquisition activities; evaluation activities; fiscal agent costs; and EEU operations fees and performance-based payments. Participants' recommendations on these individual components, as well as on certain policy issues related to these budget components, are described in the sections of this order that discuss those components and issues.

#### **IV. DISCUSSION**

30 V.S.A. § 209(d)(4) provides the Board with the following guidance for determining the electric EEU budget:

The charge established by the board pursuant to subdivision (3) of this subsection shall be in an amount determined by the board by rule or order that is consistent with the principles of least cost integrated planning as defined in section 218c of this title. As circumstances and programs evolve, the amount of the charge shall be reviewed for unrealized energy efficiency potential and shall be adjusted as necessary in order to realize all reasonably available, cost-effective energy efficiency savings. In setting the amount of the charge and its allocation, the board shall determine an appropriate balance among the following objectives, provided, however, that particular emphasis shall be accorded to the first four of these objectives: reducing the size of future power purchases; reducing the generation of greenhouse gases; limiting the need to upgrade the state's transmission and distribution infrastructure; minimizing the costs of electricity; providing efficiency and conservation as a part of a comprehensive resource supply strategy; providing the opportunity for all Vermonters to participate in efficiency and conservation programs; and the value of targeting efficiency and conservation efforts to locations, markets or customers where they may provide the greatest value.

In addition, 30 V.S.A. § 209(e)(14) requires the Board to consider the impact on retail rates of electric efficiency programs.

We have considered all these factors in determining reasonable electric EEU budget levels, taking into consideration not only the substantial net benefits of electric efficiency but also the rate impacts that the EEC will have on Vermont's electric customers.

##### **A. System Benefits of Electric Efficiency Programs**

The benefits of electric efficiency programs to customers who participate in those programs are widely recognized — electric efficiency programs help customers reduce their

electricity consumption, thereby lowering their bills. In addition, Vermont ratepayers who do not participate in electric efficiency programs also benefit from those programs.

Because electric efficiency investments are only made if they are cost-effective, they reduce the total cost of providing electricity, resulting in lower rates at the time of the utility's next rate case than would be the case without the energy efficiency investment. In other words, there are "system benefits" associated with electric efficiency investments that accrue to all ratepayers, regardless of whether they participate in the energy efficiency programs. These system benefits include:

- reduced power purchases and transmission costs that a utility would otherwise have had to incur;
- reduced reserve margins that a utility would otherwise have had to meet;<sup>20</sup>
- reduced ancillary service charges that a utility would otherwise have had to incur;<sup>21</sup>
- reduced transmission line losses that a utility would otherwise have experienced;<sup>22</sup>
- reduced costs of hedging against volatility; and
- deferred need for transmission or distribution system upgrades.

While many of these system benefits are difficult to quantify, they are nonetheless significant.

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20. For reliability purposes, utilities are required to demonstrate that they can provide a certain percentage of power generation, beyond that which they expect to actually need, for the purpose of covering contingencies. This extra power generation is referred to as a "reserve margin." The costs of reserve margins are charged to all utility customers. Therefore, if one customer uses less power, the utility's required reserve margin is lower, and all customers benefit.

21. Ancillary services are necessary services for the electricity system to operate reliably. These include services that enable the system operator to exactly match electricity demand and supply at every moment, which is necessary to prevent changes in voltage levels and system outages. All customers benefit when a utility's purchases of ancillary services are decreased.

22. Under the laws of physics, line losses increase exponentially as transmission loads increase linearly. All customers pay for line losses. When one customer reduces his or her demand, less generation is transmitted from the source to the customer and line losses are lower, thereby benefitting all customers.

**B. Participants' Electric-Resource-Acquisition Budget Recommendations**

As noted above, resource-acquisition activities are those which lead directly to measurable savings. Resource-acquisition activities are the largest component of each EEU's annual electric budgets.

The following table compares participants' electric resource-acquisition budget recommendations for the years 2012-2014. As indicated, some participants made separate recommendations for Efficiency Vermont's and BED's electric resource-acquisition budgets, while others combined their recommendations for both entities.

<b>Comparison of Recommended Electric-Resource-Acquisition Budget Levels for 2012, 2013, and 2014, and Cumulative Funding</b> <i>Nominal Dollars in Millions</i>				
<b>Participant</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>3-Year Budget Total</b>
DPS, BED, CVPS, GMP	EVT: \$32.5 BED: \$1.9	EVT: \$34.7 BED: \$2.0	EVT: \$37.4 BED: \$2.2	EVT: \$104.5 BED: \$6.1
VEIC	EVT: \$38.3 BED: \$1.9	EVT: \$42.2 BED: \$2.0	EVT: \$47.1 BED: \$2.2	EVT: \$127.6 BED: \$6.1
CLF/VPIRG*	Combined: \$46.7	Combined: \$64.7	Combined: \$92.0	Combined: \$203.3
20 Business Organizations	Board should postpone decision on EEU budgets until avoided costs and related assumptions are updated so that rate and bill impact projections can be revised. Board should analyze one or more scenarios reducing the EEU budgets utilizing updated avoided costs and related assumptions.			
LCCC	Does not endorse specific funding proposal. States that it is important to accurately assess the rate impacts of any proposed increase in funding for the EEU, including the effect of updated avoided energy costs on those rate impacts.			
VBSR	Supports increased investment in efficiency			

\*CLF and VPIRG did not recommend separate amounts for Efficiency Vermont's and BED's electric resource acquisition budgets. Their recommended budgets shown in this chart combine both resource-acquisition and non-resource-acquisition activities for both Efficiency Vermont and BED.

According to the DPS, its recommendation for Efficiency Vermont's electric resource acquisition budget (which is supported by BED, CVPS and GMP) was initially based upon the amount the DPS asserts would be necessary for Efficiency Vermont to acquire three percent savings relative to annual energy usage (after an initial ramp-up period). However, subsequent to making its budget recommendation, the DPS recommended that a portion of Efficiency Vermont's electric resource-acquisition budget be used for geographic-targeting activities (this recommendation is discussed further in Section IV.F.1, below). The DPS acknowledges that, if the Board accepts this recommendation, the lower energy savings yields from geographic-targeting activities will likely result in acquisition of slightly less than three percent savings relative to annual energy usage.<sup>23</sup>

VEIC contends that its recommendation would enable Efficiency Vermont to acquire three percent savings relative to annual energy usage (after an initial ramp-up period).<sup>24</sup>

The DPS states that its recommendation regarding electric resource acquisition budgets for BED (which is supported by BED, CVPS, GMP and VEIC) was arrived at by increasing BED's budgets by the same percentage that Efficiency Vermont's budgets increased. According to the DPS, this is appropriate because the budget increase that would be required to meet the Three Percent Scenario savings targets in BED's service territory would be too large, but the Status Quo Scenario would not allow BED to acquire all reasonably available cost-effective potential in BED's territory as aggressively as possible.<sup>25</sup>

CLF and VPIRG assert that their recommendation would enable the EEU program to acquire all reasonably achievable electric efficiency savings (after an initial ramp-up period). They recommend that the Board allocate their recommended amounts between Efficiency Vermont and BED, and between resource-acquisition and non-resource-acquisition activities.

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23. The DPS estimates that energy savings yields would be between 0.1 percent and 0.2 percent lower in each year if the Board accepts its geographic-targeting recommendation. DPS Reply Comments at 2.

24. VEIC expressly states that it is "neutral" with respect to CLF's and VPIRG's 2012-2014 budget proposal. VEIC asserts that because VEIC has not estimated the costs of redeploying programs to spend the additional funds most cost-effectively, it cannot verify the estimates of electricity savings and net economic benefits CLF and VPIRG project. VEIC Comments at 2.

25. DPS Scenario Analysis Letter at 15.

The 20 Business Organizations contend that energy efficiency can greatly benefit Vermont employers, but the cost of supporting EEU programs through the EEC can create short- and long-term financial burdens for Vermont employers. Therefore, the 20 Business Organizations recommend that possible reductions in EEU budgets be considered, along with alternative funding mechanisms to reduce dependence on the EEC and better balance program funding goals with rate impact concerns. In addition, the 20 Business Organizations assert that any budget decisions should be made in the context of more up-to-date and realistic assumptions about avoided costs and other considerations affecting rate and bill impacts on ratepayers.

LCCC states that it is aware that updated avoided energy costs may be developed this summer, and that such work may lead to lower avoided energy costs which could increase future rate assumptions. LCCC asserts that it values energy efficiency efforts and the work done by the EEU's with its member businesses, but it is unable to endorse a specific EEU funding plan because LCCC needs to be able to judge as accurately as possible the rate impact of any funding plan on its members.

VBSR maintains that Efficiency Vermont has been a highly cost-effective program for Vermont homes and businesses, helps to keep Vermont energy costs low, and supports the local economy. Therefore VBSR supports increased investment in energy efficiency.

### **C. Reasonably Available Cost-Effective Energy Efficiency Savings**

30 V.S.A. § 209(d)(4) requires that the EEU budget "be adjusted as necessary in order to realize all reasonably available, cost-effective energy efficiency savings."

#### **1. Electric Efficiency Potential Studies**

A common way to assess the amount of available cost-effective energy efficiency savings is to conduct an energy efficiency potential study. These studies typically measure energy efficiency potential in one or more of the following ways: technical potential; economic potential; and maximum achievable potential (sometimes also referred to as maximum achievable cost-effective potential). Technical potential considers what is technically possible from an engineering perspective. Economic potential includes only those technically feasible

energy efficiency measures that are also cost effective. Maximum achievable potential (or maximum achievable cost-effective potential) includes those technically feasible and cost-effective measures that are also reasonably possible to be installed.

The DPS and VEIC independently performed achievable-potential studies, referred to herein as the "DPS Study" and the "VEIC Study," respectively.

The DPS Study considered the energy efficiency potential in three areas: statewide; the portion of the state served by Efficiency Vermont; and BED's service territory. The following table summarizes the energy efficiency potential the DPS Study found in those three areas.

<b>DPS Study: Statewide Energy Efficiency Potential</b> <i>% of Projected 2031 kWh Sales</i>			
Territory	Technical Potential	Economic Potential	Maximum Achievable Potential
Statewide	31.7%	29.2%	25.4%
Efficiency Vermont	31.8%	29.3%	25.5%
BED	30.0%	27.5%	24.1%

Source: DPS Study at 5.

The DPS Study also considered the potential for demand savings. It found that the statewide maximum achievable potential for demand savings was 22.9 percent of the forecasted statewide winter peak, and 19.9 percent of the forecasted statewide summer peak.<sup>26</sup> The DPS Study concluded that there are significant potential net-present-value savings to Vermont ratepayers from the acquisition of the maximum achievable potential — approximately \$2.4 billion (in 2012 dollars) — and that the cost of acquiring the estimated maximum achievable potential over the 20-year study period is approximately \$942 million (in 2012 dollars).<sup>27</sup>

VEIC filed in this workshop process an achievable-potential study that it performed in 2010 for the Vermont Electric Power Company, Inc. ("VELCO"). The VEIC Study considered

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26. DPS Study at 5.

27. DPS Study at 6.



the maximum achievable potential on a statewide basis and in 16 separate "load zones."<sup>28</sup> The VEIC Study found that the maximum achievable potential savings on a statewide basis were 33.25 percent of projected 2031 kWh sales and 31.74 percent of summer and winter peak kW sales.<sup>29</sup> The VEIC Study concluded that there are significant potential net-present-value savings to Vermont ratepayers from the acquisition of the statewide maximum achievable potential — approximately \$2.1 billion (in 2011 dollars) — and that the cost of acquiring the estimated maximum achievable potential over the 20-year study period is approximately \$1.5 billion (in 2011 dollars).<sup>30</sup>

An achievable-potential study is a complex undertaking that requires a variety of assumptions including, among others: what incentive levels would be paid to participants; what efficiency measures are expected to be available; how the cost of those measures will change over time; how energy efficiency standards will change over time; and free-ridership and spillover rates.<sup>31</sup> The nature of these assumptions can have a significant impact on the study's results. Workshop participants explored the assumptions used by the DPS and VEIC in their achievable-potential studies. Both studies used the Vermont Technical Reference Manual as the main data source for measure costs, savings and useful lives. In addition, the two studies generally employed similar measure characterizations and energy efficiency potential

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28. This workshop process did not discuss the VEIC Study's estimates of the energy efficiency potential in the 16 load zones.

29. VEIC Scenario Analysis Results Narrative, Revised Tables 8 and 11, as filed on 4/30/11.

30. VEIC Presentation at 2/18/11 Workshop at 47-48; VEIC Scenario Analysis Results Narrative at 2, 5.

31. Free riders are participants in an energy efficiency program who would have adopted an energy efficiency technology or improvement in the absence of a program or financial incentive. Free drivers are individuals or businesses that adopt an energy efficient product or service because of an energy efficiency program, but are difficult to identify either because they do not receive an incentive or are not aware of the program. Non-participant spillover refers to savings from efficiency projects implemented by those who did not directly participate in a program, but which nonetheless occurred due to the influence of the program. Participant spillover refers to additional energy efficiency actions taken by program participants as a result of program influence, but actions that go beyond those directly subsidized or required by the program. DPS Study at 8.

strategies.<sup>32</sup> However, there were also some material differences in the assumptions used by the two studies, including:

- the DPS Study did not include the IBM load or energy efficiency potential while the VEIC Study did;<sup>33</sup>
- the DPS Study results are net at the customer meter while the VEIC Study results are net at generation (this means that the VEIC Study results incorporate line losses and therefore are higher);
- the DPS Study assumed a net-to-gross ratio<sup>34</sup> of one while VEIC's net-to-gross ratio varied by program and end use;<sup>35</sup>
- the two studies utilized different paces for retrofit activities, which would particularly affect savings in the early years of the studies;<sup>36</sup> and
- the two studies treated equipment that is already energy efficient differently.<sup>37</sup>

Despite using these different assumptions, both studies concluded that there is significant achievable potential for electric efficiency in Vermont over the next 20 years; no participant disputed this conclusion.

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32. DPS Cover Letter accompanying final DPS Study, dated April 8, 2011, at 1-2.

33. Because IBM participates in the Self-Managed Energy Efficiency Program, it is not eligible to receive services from Efficiency Vermont.

34. Net-to-gross ratio is a factor representing net program savings divided by gross program savings that is applied to gross program impacts to convert them into net program load impacts. Net energy or demand savings refer to the portion of gross savings that is attributable to the program. This involves separating out the impacts that are a result of other influences, such as consumer self-motivation. DPS Study at 9.

35. Tr. 2/18/11 at 75-76 (Wickenden).

36. Tr. 2/18/11 at 117 (Huber). There is an error in the transcript on pages 116-117; the transcript shows that Board staff provided the information about the pace of retrofit activities, when it was clearly Mr. Huber who provided this information.

37. The DPS Study excluded measures that are currently efficient from the eligible pool of measures to determine the potential for savings during the study period while the VEIC Study allowed all measures, regardless of current efficiency, to become eligible over time for future participation in energy efficiency programs, then applied unique free-ridership and spillover rates to net out the impact on future savings and costs. DPS Cover Letter accompanying final DPS Study, dated April 8, 2011, at 2.

## **2. Electric Budget and Savings Scenario Analyses**

The Board directed participants to analyze the following three electric budget and savings scenarios in this proceeding:

- acquire all economically achievable potential through a flat budget (adjusted for inflation) over 20 years (referred to herein as the "Economically Achievable Scenario");
- acquire three percent savings relative to annual energy usage (referred to herein as the "Three Percent Savings Scenario"); and
- establish "status quo" plus inflation budget levels (referred to herein as the "Status Quo Scenario").<sup>38</sup>

The DPS presented separate analyses of all three scenarios for Efficiency Vermont's and BED's service areas. Each analysis covered the 2012-2031 time period.

VEIC analyzed the Three Percent Savings Scenario and the Status Quo Scenario for Efficiency Vermont's service area; each analysis covered the 2012-2031 time period.<sup>39</sup> VEIC also presented a scenario which it called the Maximum Achievable Scenario (referred to herein as the VEIC Maximum Achievable Scenario) that is based on its potential study and, according to VEIC, represents an upper limit on how much cost-effective electricity savings can be delivered by the EEU in the shortest time period.<sup>40</sup>

CLF and VPIRG jointly presented an additional scenario, which it called the Reasonably Achievable Scenario and is referred to herein as the "CLF/VPIRG Reasonably Achievable Scenario." The CLF/VPIRG Reasonably Achievable Scenario covered the 2012-2017 time period and included budgets for the state as a whole.<sup>41</sup>

The results of the various scenario analyses for the 2012-2014 time period are shown in the following table.

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38. Order of 10/21/10 at 1.

39. In its filings, VEIC refers to its analysis of the Status Quo Scenario as the "Flat Budget Scenario."

40. VEIC Scenario Analysis Results Narrative at 13.

41. The CLF/VPIRG presentation of its scenario included a graph showing approximate savings for the 2012-2017 time period, but did not include specific annual savings values. Presentation by William Steinhurst, Synapse Energy Economics, on behalf of CLF and VPIRG, dated May 6, 2011 (referred to herein as "Steinhurst Presentation") at slide 4.

<b>Results of Scenario Analyses</b>						
<i>Costs Shown in Millions of Nominal Dollars, Except Where Noted Otherwise</i>						
<i>Annual Savings Shown in MWh</i>						
	<b>2012</b>		<b>2013</b>		<b>2014</b>	
<b>Scenario</b>	<b>Costs</b>	<b>Savings</b>	<b>Costs</b>	<b>Savings</b>	<b>Costs</b>	<b>Savings</b>
<i>Efficiency Vermont Area</i>						
DPS Economically Achievable	\$72	123	\$74	126	\$76	126
DPS Three Percent Savings	\$35	130	\$38	131	\$41	134
VEIC Three Percent Savings	\$40	126	\$43	131	\$47	138
DPS Status Quo	\$34	124	\$35	120	\$36	117
VEIC Status Quo	\$34	111	\$34	110	\$34	109
<i>BED Area</i>						
DPS Economically Achievable	\$4.6	8.5	\$4.7	8.7	\$4.8	8.8
DPS Three Percent Savings	\$1.9	7.3	\$2.2	7.9	\$2.5	8.5
DPS Status Quo	\$2.0	7.8	\$2.0	7.5	\$2.1	7.3
<i>Statewide</i>						
VEIC Maximum Achievable	\$103	202	\$127	254	\$142	285
CLF/VPIRG Reasonably Achievable (in 2011 dollars)	\$45		\$61		\$85	

Sources: VEIC Scenario Analysis Results Narrative at 12, 24; DPS Scenario Results Letter at 6, 8, 9, and 11. DPS Letter of April 19, 2011, at 2; DPS Presentation of April 20, 2011 at 9; Steinhurst Presentation at slide 2.

The scenario analyses included information regarding their electric rate and bill impacts. These are discussed in Section IV.E.4, below.

Workshop participants explored the assumptions and methodologies used in the various scenario analyses. For example, while both the DPS and VEIC performed Three Percent Savings Scenario analyses for the area served by Efficiency Vermont, they used significantly different approaches. The DPS performed a "top-down" analysis while VEIC performed a "bottom-up" analysis. That is, the DPS used its technical potential study and historical data to inform its yield

rates for the overall program as a whole,<sup>42</sup> while VEIC calculated yield rates at the individual measure level. In addition, the two entities allocated spending differently between the residential and business sectors, and used different measure mixes.<sup>43</sup>

In contrast, CLF and VPIRG started with the results of the three scenarios presented by VEIC and considered various factors including: the difference in savings and net benefits that would be achieved under the Three Percent Savings Scenario versus the VEIC Maximum Achievable Scenario; historical budget and savings trends; and the EEUs' ability to effectively ramp up their activities in response to past budget increases.<sup>44</sup>

GMP, CVPS, LCCC, and the 20 Business Organizations expressed concern with the avoided cost assumptions used in the analyses.<sup>45</sup> They note that a regional study is now underway which is likely to lead to significantly lower avoided costs.<sup>46</sup> These entities are particularly concerned that significantly lower avoided costs will increase the rate and bill impacts resulting from the various scenarios. This concern is discussed in Section IV.E.4, below.

### **3. Discussion**

Both the DPS Study and the VEIC Study help inform our assessment of the reasonably available cost-effective electric efficiency savings in Vermont. The differences in their results highlight the difficulty in precisely calculating the achievable potential for energy efficiency savings. After reviewing both studies, we are persuaded that significant achievable electric

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42. DPS Scenario Analysis Letter at 2.

43. Tr. 4/20/11 at 20-22 (Hakstian, Wickenden, and Poor).

44. Tr. 5/6/11 at 31 (Steinhurst); tr. 5/6/11 at 31-33 (Moore).

45. Both EEUs use avoided costs of electricity and other fuels that are approved by the Board when screening efficiency measures for cost-effectiveness.

46. Periodically the DPS proposes new avoided costs for use by EEUs in program and measure cost-effectiveness screening. Any such proposed changes to avoided costs must be reviewed and approved by the Board prior to their implementation. The Board last approved changes to avoided costs in November 2009.

Historically, the DPS has participated in a biennial regional avoided cost study that has served as the basis for its recommendations regarding changes to avoided costs. The DPS stated it has recently received a draft version of the report from the contractor performing the study. This draft report shows a significant reduction in avoided energy costs, offset slightly by an increase in capacity costs. DPS Reply Comments at 2-3.

efficiency potential continues to exist in Vermont, despite the EEU program's acquisition of cost-effective electric savings over the last ten years. In addition, consistent with the results of both studies, we determine that the reasonably available cost-effective energy efficiency potential in Vermont is higher than that which could be acquired by the current electric EEU program budget level.

This conclusion is further supported by the EEUs' actual implementation experience. Historically, their levelized costs of energy efficiency have been significantly below what it would cost Vermont electric utilities to supply the same energy and capacity over the average life of the efficiency measures, based on avoided costs at the time the measures were installed. For example, in 2008, Efficiency Vermont's levelized cost of energy efficiency was approximately 3.1 cents per kWh. That figure increased slightly to approximately 3.8 cents per kWh in 2009, and 4.1 cents per kWh in 2010.<sup>47</sup> In comparison, it is estimated that it would cost electric utilities 14 cents per kWh, 14.8 cents per kWh, and 14.4 cents per kWh to supply the same energy and capacity over the average life of the measures installed in 2008, 2009, and 2010, respectively.<sup>48</sup> These results indicate that additional energy efficiency investments would be cost-effective.

However, both the DPS Study and the VEIC Study assume that EEUs would pay incentives equal to 100 percent of the measure cost. This assumption is appropriate when determining the theoretical maximum efficiency potential. Nevertheless, in practice, in many instances it is not necessary for an EEU to pay such a large incentive and, as the DPS asserts, to do so unnecessarily would not be a reasonable use of ratepayer funds.<sup>49</sup> Paying lower incentives generally results in slightly lower participation rates, but also in significantly lower program costs.

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47. Efficiency Vermont 2008 Annual Report Executive Summary at i; Efficiency Vermont 2009 Annual Report Executive Summary at ii; Efficiency Vermont Year 2010 Savings Claim at 2. The 2008 and 2009 calculations are based on savings that have been verified by the DPS, while the 2010 calculation is based on Efficiency Vermont's savings claim that, at as of the date this Order was written, had not yet been verified by the DPS.

48. Efficiency Vermont 2008 Annual Report Executive Summary at i; Efficiency Vermont 2009 Highlights at 1; Efficiency Vermont Year 2010 Savings Claim at 2.

49. DPS Comments at 7-8.

In addition, the studies do not fully take into account the complexity and lead time required to create the additional infrastructure necessary to expand programs and increase service delivery. As the DPS contends, while it is technically possible to ramp up services quickly and spend ratepayer money cost-effectively, thoughtful program design and implementation, and the associated infrastructure, take time to develop.<sup>50</sup> For example, when the Board increased the EEU budget in 2006 and directed the EEU to implement geographic targeting, it took Efficiency Vermont approximately six months to develop a request for proposals, conduct the competitive solicitation, and select a vendor to implement a direct-install program.<sup>51</sup> It is important for the EEU's to plan for and implement their services in the most cost-effective manner possible. Establishing a budget that would require too rapid an increase in spending ignores the significant practical difficulties in ramping up energy efficiency sources that quickly in a cost-effective manner.

For these reasons, we conclude that both studies represent a high estimate of the reasonably available, cost-effective electric efficiency savings in Vermont.

As a result, the scenario analyses help us assess the reasonably available cost-effective electric efficiency savings in Vermont. These analyses do not all assume 100 percent incentive levels for all measures and provide options for increasing energy efficiency spending at different paces. In addition, the analyses used different assumptions regarding sector equity and yield rates (among other items). We found the participants' extensive explanations of the differences between the two analyses of the Three Percent Savings Scenario (and the achievable-potential studies) to be particularly valuable, as they highlighted the significance of some of the key variables and analytical assumptions.<sup>52</sup> A comparison of the results of the various scenarios supports our determination that the reasonably available cost-effective electric efficiency potential in Vermont is higher than that which could be acquired by the current electric EEU program budget level.

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50. DPS Comments at 8.

51. Order of 8/29/08 Re: Energy Efficiency Utility Budget for Calendar Years 2009, 2010, and 2011 at 14.

52. *See, e.g.*, VEIC Comments at 9-13; DPS Reply Comments at 5-7; VEIC Reply Comments at 1-3.

#### **D. Statutory Requirements Given "Particular Emphasis"**

The statute requires the Board to give "particular emphasis" to four objectives:

- (1) reducing the size of future power purchases; (2) reducing the generation of greenhouse gases;
- (3) limiting the need to upgrade the state's transmission and distribution infrastructure; and
- (4) minimizing the costs of electricity. We discuss each of these in turn.

##### **1. Reducing the Size of Future Power Purchases**

All energy efficiency savings reduce future power needs. Currently, energy efficiency savings allow Vermont's utilities to either purchase less electricity from the regional wholesale market or to sell excess energy in this market. The value of reductions in market purchases or increases in market sales are dependent on prices in the regional wholesale market; that value will change as market prices change.

In addition, because many energy efficiency measures have long lives,<sup>53</sup> energy efficiency measures installed today have the ability to reduce the size of future long-term power purchases. Vermont's most significant sources of power are the long-term contracts with Hydro-Québec and Vermont Yankee, which collectively account for approximately two-thirds of electric power consumed in the State. The vast majority of the power purchases under these contracts is currently scheduled to end in 2012 and 2015. The state's utilities have made arrangements to replace a portion of these contracts.<sup>54</sup> Even under the most optimistic assumptions regarding achievable energy efficiency potential, the state's utilities would not be able to acquire sufficient energy efficiency savings to supplant the remaining need for new generating plants or sizable additional power contracts; however, increased investment in energy

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53. While the average lifetime of measures installed by Efficiency Vermont has ranged from 10 to 15 years, many measures, particularly those associated with new construction or other building modifications, have considerably longer lives.

54. These arrangements include, among others, a new contract with Hydro-Québec for a significant amount of power.



efficiency measures with long lives could reduce the size of the purchases that would be required.<sup>55</sup>

## **2. Reducing the Generation of Greenhouse Gases**

Due to the resource mix of Vermont's utilities, the State's emissions of greenhouse gases from electric generating sources is currently very low; as AIV notes, electricity accounts for only a small percentage of the greenhouse gases Vermont emits.<sup>56</sup> Generation sources of greenhouse-gas emissions in Vermont are primarily the fossil-fuel-fired peaking units owned by Vermont utilities. Therefore, reducing greenhouse-gas emissions within Vermont would require targeted energy efficiency aimed at reducing peak loads, thereby reducing the amount of time that fossil-fuel-fired peaking units are required to run.

However, because Vermont participates in the New England regional power market, Vermont's statewide efficiency investments have an impact throughout the entire region. In the New England region, natural gas-fired plants are typically on the margin; increased energy efficiency investment in Vermont would avoid the emissions produced by the natural gas plant on the margin, wherever the plant is located. According to the DPS, in 2009, every MWh saved by efficiency programs in Vermont prevented 828 pounds of greenhouse gases from being emitted into the atmosphere.<sup>57</sup>

In addition, capacity savings achieved by Efficiency Vermont and BED via electric efficiency investments generate revenues from the FCM that Vermont law requires to be used for heating-and-process-fuel programs. Vermont law also requires that net revenues from RGGI be used for heating-and-process-fuel efficiency programs. These programs, which directly reduce

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55. We recognize that investing now in measures with short lifetimes may not affect the size of contracts that would replace the current long-term contracts with Vermont Yankee and Hydro-Québec. However, investments in measures with long lifetimes could.

56. AIV Comments at 4.

57. The average marginal emissions rate for ISO-New England, Inc. in 2009 was 828 lb/MWh CO<sub>2</sub>. DPS Comments at 9.

oil, propane, kerosene, and wood consumption in Vermont, also directly reduce the generation of greenhouse gases.<sup>58</sup>

### **3. Deferring Transmission and Distribution Upgrades**

The Board has previously recognized the role that energy efficiency can play in deferring transmission and distribution upgrades. When reviewing transmission upgrades, the Board is required by statute to determine whether a proposed project:

is required to meet the need for present and future demand for service which could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy efficiency and load management measures, including but not limited to those developed pursuant to the provisions of sections 209(d), 218(c), and 218(b) of this title.<sup>59</sup>

In a June 20, 2007, Order in Docket 7081, the Board approved a Memorandum of Understanding ("MOU"), arising out of a collaborative process, that established both an integrated least-cost planning process for the Vermont transmission system, and the VSPC. The VSPC will help facilitate better cooperation and coordination among utilities in considering both transmission and non-transmission alternatives. The MOU also provides that the EEU is to be a non-voting participant of the VSPC,<sup>60</sup> and as such, the EEU would have the opportunity to participate and assist in planning activities, including a defined role relating to forecasting demand savings.<sup>61</sup>

On January 8, 2007, the Board issued an Order that directed Efficiency Vermont to target capacity reductions in four geographic areas, to work toward deferring or obviating transmission

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58. DPS Comments at 9.

59. 30 V.S.A. § 248(b)(2).

60. While the MOU and the June 20 Order refer to "the EEU," it is clear that they refer to Efficiency Vermont. Because BED is an electric distribution utility, it is a voting member of the VSPC.

61. The June 20 Order further stated that, if the EEU structure was altered: it may be appropriate to revisit some aspects of the role of the EEU in the transmission-planning process set forth in the MOU. In particular, it may be appropriate to consider whether the EEU should remain a non-voting participant in the VSPC, or whether it should be given voting status, and if so, what effect that might have on the VSPC's voting structure.

Docket 7081, Order of June 20, 2007, at 37.

upgrades. On August 29, 2008, the Board found that early results indicated that GT efforts had been successful and that it was appropriate to continue GT at least through 2011.

On November 4, 2008, the Board directed Efficiency Vermont to target capacity reductions in four geographic areas, including three from the January 8, 2007, Order.

On January 7, 2011, the DPS filed a report regarding its investigation of the GT program for the period 2007-2009. Based on this report and discussions within the DRP GT process, we conclude that the delivery of GT services by an EEU has the potential to address distribution utility supply problems and/or transmission reliability deficiencies. As the delivery of GT services by an EEU has been shown to be cost effective, and may likely have benefits outside of a GT territory, we find it appropriate to continue the deployment of these programs.

We reach this decision despite CVPS's assertion that declining peak loads due to reduced economic activity and future EEU programs would eliminate avoidable transmission and distribution upgrades due to growth.<sup>62</sup> While it is true that statewide load growth is forecast to be virtually flat, it is expected that there will remain areas of the state where load growth (including peak load growth) will continue to occur and lead to a need for transmission and distribution upgrades. It is these upgrades that robust energy efficiency programs can delay or avoid. In addition, we note that approximately \$5 billion of transmission investment is planned for the New England region. Since Vermont pays a portion of those costs based on its peak demand at the time of, and relative to, the region's peak demand, reducing Vermont's peak demand can have a significant effect on the share of costs that Vermont ratepayers must pay.<sup>63</sup>

As discussed in Section IV.F.1, below, we conclude that it is appropriate to alter the GT-territory selection process and review the mechanism for setting the GT budget. To date, the Board has established GT areas through a workshop process. As described further, below, we will rely on the VSPC process to identify and prioritize constrained areas for GT services, and to

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62. CVPS Comments at 5. AIV also asserts that given the virtually flat load growth projected for the future in Vermont, it is unclear what impact demand is going to have on necessary transmission projects. AIV Comments at 5.

63. DPS Reply Comments at 5.

propose funding requirements and appropriate funding mechanisms for GT services in those constrained areas.

We conclude that the GT activities should be funded, at least in part, from the EEC in 2012 and 2013; if additional funding is necessary to achieve the goals of GT programs, the Board will develop a mechanism for additional funding. The budget for GT activities collected through the EEC in 2012 and 2013 will be set at 10 percent of Efficiency Vermont's electric resource-acquisition budget, a budget level that is similar to historical GT budgets. The 2014 GT budget will be informed by the VSPC process, and the Board will determine the appropriate budget collection mechanism for 2014 during a process involving the VSPC and other stakeholders. When updating savings forecasts and developing quantifiable performance indicators in this proceeding, participants should assume that Efficiency Vermont's 2014 electric resource-acquisition budget includes no funding for geographic-targeting activities.

#### **4. Minimizing the Costs of Electricity**

Power costs are a significant component of Vermont electric utilities' total costs of providing service to their customers. Marginal energy and capacity needs, especially during peak times, are typically met through regional wholesale electricity market purchases, contributing disproportionately to power costs. Historically, market prices have been volatile, and increases in these costs have been one of the factors driving electric-utility rate increase requests. Energy efficiency that reduces peak load would therefore lower the locational marginal clearing price, thereby lowering the cost of electricity that is purchased from the market (and potentially lowering the cost of future power contracts that are indexed to the market). These benefits would stabilize and reduce power costs, and ultimately rates.

As noted by the DPS, a number of other difficult-to-quantify potential benefits of energy efficiency investments help to minimize the costs of electricity.<sup>64</sup> These system benefits are discussed in detail in Section IV.A, above.

The rate and bill impacts of energy efficiency investments are addressed further in Section IV.E.4, below.

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64. DPS Comments at 9.

## **E. Other Statutory Requirements**

In addition to those objectives to which the Board is required to give "particular emphasis," there are four more objectives that the Board must consider in determining an appropriate budget level for the EEU: (1) providing efficiency and conservation as part of a comprehensive resource-supply strategy; (2) providing the opportunity for all Vermonters to participate in efficiency and conservation programs; (3) targeting efficiency and conservation efforts to locations, markets or customers where they may provide the greatest value; and (4) rate impacts. We discuss each of these below.

### **1. Providing Efficiency and Conservation as a Part of a Comprehensive Resource Supply Strategy**

Vermont law has long required electric utilities to include efficiency and conservation as part of their integrated resource plans.<sup>65</sup> In addition, electric utilities must consider whether the need for new transmission or generation resources can be met more cost-effectively by investment in energy efficiency.<sup>66</sup>

When the EEU began operation, the Board deemed the EEU's programs to satisfy electric utilities' obligations to conduct system-wide energy efficiency programs in their service territories. Efficiency Vermont then provides information about the results of its activities to electric utilities so that the utilities can incorporate those results into their integrated resource plans. In addition, as discussed above, Efficiency Vermont participates in an integrated least-cost planning process for the Vermont transmission system as a non-voting member of the VSPC.

Furthermore, the recent changes to the EEU structure have strengthened the EEUs' ability to provide efficiency and conservation as part of a comprehensive resource supply strategy. As we previously found, two benefits of a long-term appointment for an EEU are:

- better alignment with the EEU's role in long-term planning and forecasting by Vermont utilities, including participation in the [VSPC]; and

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65. *See*, 30 V.S.A. § 218c.

66. *See*, 30 V.S.A. § 248(b)(2).

- greater consistency with the requirement that the EEU maintain capabilities to respond to Vermont utilities' requests for Distributed Utility Planning and implementation.<sup>67</sup>

In addition, when we decided that a DRP should be developed, we expressly found that it should include operating assumptions for 20-year electric budgets and savings goals that could be used for long-term electricity resource planning by EEUs, the DPS, distribution utilities and VELCO.<sup>68</sup>

CVPS recommends that the Board give Efficiency Vermont greater planning discretion and assign it the responsibility to coordinate with electric utilities to improve the efficacy and value of EEU services within a utility's resource portfolio and service area.<sup>69</sup> The DPS and VEIC support coordination among Efficiency Vermont and electric utilities. However, both entities express concern that CVPS's original recommendation could be read as urging that the Board direct Efficiency Vermont to become more focused on individual electric utility service territories.<sup>70</sup>

We reiterate our previous support for coordination among Efficiency Vermont and electric utilities; as noted above, we found that better alignment between the EEU's role in long-term planning and forecasting by Vermont utilities is one of the benefits provided by the new EEU structure. Nevertheless, we emphasize that each electric utility remains responsible for its own integrated resource planning activities, and Efficiency Vermont's primary focus should remain on delivering statewide and geographically targeted services, not on service-territory-specific services.

## **2. Providing the Opportunity for all Vermonters to Participate in Efficiency and Conservation Programs**

Section 209(e)(1) directs the Board to:

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67. Docket 7466, Order of 11/24/09 at 29 (finding 26).

68. Docket 7466, Order of 11/24/00 at 65 (finding 108).

69. CVPS June 29 Response.

70. VEIC Reply Comments at 8; DPS Reply Comments at 9.

Ensure that all retail consumers, regardless of retail electricity or gas provider, will have an opportunity to participate in and benefit from a comprehensive set of cost-effective energy efficiency programs and initiatives designed to overcome barriers to participation.

This is also one of the objectives in 30 V.S.A. § 209(d)(4) that the Board must balance when determining the amount of the EEU budget.

This statutory requirement relates more to the policy guidance given by the Board to the EEU's regarding distributional equity, and thus to the design of the EEU's service offerings, than to the overall EEU budget level. Historically, the Board sought to balance this statutory objective with the one (discussed below) regarding targeting of energy efficiency, by ensuring that the EEU's provide a variety of service offerings so that all Vermont electric ratepayers will continue to have the opportunity to participate in their programs.

Both EEU's Orders of Appointment require them to strive to ensure that the benefits of system-wide services, initiatives and other activities, exclusive of geographically targeted initiatives approved by the Board, generally reflect the level of contribution to EEU costs by ratepayers, as reflected in EEC payments, by customer class (and, for VEIC only, by geographic region of the State), unless otherwise determined by the Board.<sup>71</sup> In addition, the performance mechanism currently in effect for VEIC includes provisions related to equity considerations that require VEIC to provide certain levels of service to residential customers, to low-income customers, to small-business customers, and in each county.<sup>72</sup> BED's Order of Appointment to serve as an EEU also includes provisions related to equity considerations that require BED to provide certain levels of service to low-income customers and to small-business customers.<sup>73</sup>

#### **a. Sector Equity**

VEIC states that it and the DPS have agreed that, for the purpose of developing the DRP, 53 percent of EEC contributions to Efficiency Vermont are forecasted to derive from business

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71. Order of Appointment for VEIC issued December 20, 2010, at 5; Order of Appointment for BED, issued April 19, 2011, at 5.

72. Order of Appointment for VEIC, issued December 20, 2010, at 30.

73. Order of Appointment for BED, issued April 19, 2011, at 5.

customers and 47 percent from residential customers. VEIC asserts that this ratio is significantly different than VEIC's 2011 budgeted program spending and forecasted benefits, which reflect a higher ratio of business to residential services (60 percent to 40 percent). VEIC contends that if the Board were to require Efficiency Vermont to strictly adhere to a distribution of benefits among customer classes that generally reflect their EEC contributions starting in 2012, "the practical effect would be that VEIC's sector level staffing patterns, initiative planning, marketing, and ultimately sector level efficiency implementation activity would require dramatic realignment."<sup>74</sup> Specifically, VEIC would "severely cut back business retrofit investment and ramp up residential programs."<sup>75</sup> According to VEIC, this would have the effect of reducing Efficiency Vermont's total yield rate because the increased residential spending would have a lower yield than the displaced business spending. Therefore, VEIC recommends that the Board relax the requirement that benefits among customer classes generally reflect their EEC contributions.<sup>76</sup>

The DPS states that both VEIC's and the DPS's analyses show that commercial programs generally have greater capacity impacts than do residential programs, and that these capacity impacts "provide a great net-benefit to the state as a whole."<sup>77</sup> Therefore, the DPS asserts that a strict adherence to a policy of sector benefits commensurate with the share of EEC contributions is no longer appropriate. The DPS adds that performance metrics can serve to maintain equity balance among sectors as appropriate, and these metrics should be developed as part of this DRP proceeding.<sup>78</sup>

No other party commented on sector equity.

It is important to maximize the value that can be obtained for Vermont from energy efficiency investments. However, this desire must be tempered by the statutory requirement that

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74. VEIC Scenario Analysis Results Narrative at 52.

75. VEIC Comments at 3.

76. VEIC Comments at 3.

77. DPS Comments at 7.

78. DPS Comments at 7.



all Vermonters who pay the EEC must have the opportunity to participate in EEU programs. We conclude that relaxing the policy of matching sector benefits with share of EEC contributions will provide an appropriate balance between equity considerations and the desire to obtain the most cost-effective savings, but only if the EEUs are subject to some equity constraints to ensure that all customers who pay the EEC have the opportunity to participate in EEU programs.<sup>79</sup> Absent such equity constraints, focusing solely on acquiring the most cost-effective savings could lead to the elimination of services to some customer groups who are more expensive to serve. Therefore, we determine today that we will adopt appropriate equity constraints as part of our future decision in this proceeding regarding quantifiable performance indicators. We encourage participants to collaborate on the development of such equity constraints.

#### **b. Low-Income Equity**

The EEUs' cost per kWh of annual electricity savings from low-income investment is considerably higher than that of investments in other markets because EEUs generally pay for the full cost of measure installation. As a result, the Board has historically included an equity constraint regarding spending on low-income customers to ensure these customers are served.

The DPS states that its analyses and budget recommendations were completed with the assumption that low-income spending would remain constant (plus inflation) throughout the 20-year period. However, the DPS recommends that further research be done in this proceeding, and that stakeholders be directed to submit proposed low-income spending amounts along with their proposed quantifiable performance indicators.<sup>80</sup>

VEIC states that in its analyses, it assumed low-income spending would remain roughly constant at approximately \$2 million per year.<sup>81</sup> VEIC recommends against increasing low-income program spending at the expense of more cost-effective non-low-income residential or business investments. VEIC asserts that, if the Board does not accept its recommendation,

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79. While no party specifically addressed the issue of sector equity with respect to BED, our determination on this issue applies to BED as well as Efficiency Vermont.

80. DPS Comments at 7; DPS Reply Comments at 7.

81. VEIC Scenario Analysis Results Narrative at 53.

having a more accurate assessment of low-income annual contributions and estimated benefits will help inform decisions concerning potential changes. Therefore, VEIC recommends that the DPS be tasked with determining the approximate level of annual low-income residential EEC contributions so as to more accurately estimate proportionate benefits levels. In addition, VEIC recommends that the DPS evaluate low-income participation in Efficiency Vermont's non-low-income programs and estimate the annual benefits low-income customers derive from them. Finally, VEIC recommends that the EEC contributions and efficiency results of businesses, institutions and organizations that directly serve and provide benefits to the low-income population be included when considering the determination of low-income benefit proportionality.<sup>82</sup>

No other party commented on the appropriate level of low-income spending.

The Board has long recognized that efficiency programs that serve low-income customers have higher costs per kWh of savings because of the need to pay for the full cost of measure installation. As a result, since the EEU's inception the Board has specified an amount to be spent on low-income programs to ensure that low-income customers have the opportunity to participate in EEU programs.<sup>83</sup> In practice, as noted by VEIC, EEUs' spending on low-income customers is likely higher than indicated by its low-income programs because low-income customers also participate in non-low-income programs, such as the Efficient Products Program.<sup>84</sup>

Based on the information presented to date in this proceeding, it appears that it would be appropriate to maintain the current level of low-income spending, plus inflation, throughout the 20-year planning period of the DRP. However, the DPS has stated it would like to perform some research and analysis regarding whether this level would provide equitable treatment to low-income customers, and VEIC has suggested some items to be included in such an analysis. In

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82. VEIC Comments at 4.

83. For the 2000-2002 time period, the Board specified a budget for low-income programs. For all subsequent performance periods, the Board established a minimum level of spending on low-income customers which effectively meant spending on low-income programs due to the difficulty of identifying low-income customer participation in non-low-income programs.

84. VEIC Comments at 4.

addition, we note that, in Docket 7535, we have determined that CVPS and GMP shall develop low-income rate designs for their service territories.<sup>85</sup> It is unclear to us what, if any, impact this decision should have on the amount that should be spent on low-income energy efficiency programs. Therefore, we will defer making a final determination on the minimum amount of low-income spending that should be made by each EEU until our future order regarding quantifiable performance indicators. Participants may present additional analyses related to this issue for our consideration; if no such analyses are submitted, we will base our determination on the information presented to date in this proceeding.

### **3. Targeting Efficiency and Conservation Efforts to Locations, Markets or Customers Where They May Provide the Greatest Value**

There is significant value in targeting energy efficiency because some types of customers and some locations are more costly to provide with energy efficiency services than others, and because the system benefits of energy efficiency investments in some locations are higher than in others. There are three types of targeting that can be achieved: (1) targeting energy efficiency savings within a geographic area to defer the need for transmission and generation infrastructure; (2) achieving peak load reductions by focusing on particular efficiency measures; and (3) providing more funding for those programs that achieve the greatest savings possible for the least amount of investment. It is anticipated that there would be substantial overlap between these goals.

As explained earlier in this Order, we have determined that it is appropriate to continue Efficiency Vermont's geographic-targeting efforts. Ten percent of the Efficiency Vermont electric resource-acquisition budget for 2012 and 2013 (approximately the same dollar amount currently budgeted for geographic targeting) will be made available for geographic targeting in those years. If additional funding is necessary to achieve the goals of GT programs in those years, the Board will develop a mechanism for additional funding. To the extent that it is later determined that this budget level is not needed, the funds not directed to GT programs will be directed to statewide resource-acquisition efforts. The 2014 GT budget will be determined in a

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85. Docket 7535, Order of 7/22/11 at 88 (Order paragraph 3).

subsequent proceeding that will be informed by the VSPC process, and the Board will determine the appropriate budget collection mechanism for 2014 during a process involving the VSPC and stakeholders.

#### **4. Rate and Bill Impacts**

Just as the system-wide benefits of investments in energy efficiency accrue to all customers, all customers also pay some of the costs of those investments — i.e., those costs paid by the EEU's.<sup>86</sup> In addition, reduced electricity consumption means that a utility's fixed costs are spread among a smaller kWh and kW base (or at least a kWh and kW base that is growing more slowly), which can put upward pressure on utility rates. Therefore, in order to fully understand the effect of energy efficiency programs on customers, it is necessary to look at the effect those programs have on both the rates paid by customers and customers' total utility bills.

##### **a. Efficiency Vermont and Statewide Analyses**

In this proceeding, VEIC and the DPS separately analyzed the rate and bill impacts of implementing the various scenarios discussed in Section IV.C.2, above. Both participants' analyses examined the effect of energy efficiency programs on total utility bills, including the EEC component. They calculated average rate and bill impacts, and expressed them as differences from what average rates and bills would have been under a "base case." However, the base case used by the DPS included no energy efficiency programs, while the base case used by VEIC was the Status Quo scenario. In addition, the DPS analyzed the rate and bill impacts for the state as a whole (excluding only participants in the Self-Managed Energy Efficiency Program) for each scenario,<sup>87</sup> while VEIC analyzed just the area served by Efficiency Vermont for the Status Quo Scenario and Three Percent Savings Scenario.<sup>88</sup> The two participants also presented the results of the analyses differently. The DPS presented year-by-year results while

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86. The recipients of the energy efficiency measures and third persons pay the remainder of the costs of those investments.

87. DPS Scenario Analysis Letter at 12.

88. VEIC Scenario Analysis Results Narrative at 12.

VEIC provided levelized results over 6 years, 20 years and 32 years. In addition, the DPS analyzed the bill impacts for program participants and non-participants separately, and expressed the results in dollar terms only, while VEIC analyzed the bill impacts for participants and non-participants combined, and expressed the results in both dollar terms and percentage changes.

Despite these differences, VEIC's and the DPS's analyses produced generally consistent, but not identical, results. For example, both analyses showed that the rate impacts of the Three Percent Savings Scenario are only slightly greater than the impacts of the Status Quo Scenario. In addition, both analyses showed that the rate impacts of the Economically Achievable Scenario or the VEIC Maximum Achievable Scenario were significantly larger. The bill impact analyses are more difficult to compare directly since VEIC's combine participants and non-participants while the DPS's does not. Nevertheless, both analyses show small changes between the Three Percent Savings Scenario and the Status Quo Scenario, and much larger changes under the Economically Achievable Scenario or the VEIC Maximum Achievable Scenario.

The results of the two rate-and-bill-impact analyses are described below. In the tables showing the near-term results, positive percentages show rate or bill increases, while negative percentages indicate rate or bill decreases (compared to the base case). In the DPS's analysis, each year's impact is compared to the base case for that year; percentage and dollar amounts are not cumulative. In VEIC's analysis, rate and bill changes are converted to 2011 dollars and levelized over a six-year period; the percentage change compares the levelized values with the levelized values of the base case.

<b>Statewide Average Annual Rate Impacts – DPS Analysis</b> <i>Compared to No Efficiency Programs</i>			
	Status Quo	Three Percent Savings	Economically Achievable
2012	6%	6%	12%
2013	7%	7%	12%
2014	7%	8%	13%

Source: DPS Scenario Analysis Letter at 13; DPS Presentation of April 20, 2011, at 22.

<b>Statewide Residential Average Bill Impacts – DPS Analysis</b> <i>Compared to No Efficiency Programs</i>						
	<b>Participant Average Annual Bill Reduction</b>			<b>Non-Participant Average Annual Bill Increase</b>		
	Status Quo	Three Percent Savings	Economically Achievable	Status Quo	Three Percent Savings	Economically Achievable
2012	(\$171)	(\$170)	(\$126)	\$65	\$66	\$122
2013	(\$172)	(\$168)	(\$126)	\$71	\$75	\$129
2014	(\$173)	(\$166)	(\$125)	\$77	\$86	\$138

Source: DPS Statewide Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Bill Impact Analysis.

<b>Statewide Commercial Average Bill Impacts – DPS Analysis</b> <i>Compared to No Efficiency Programs</i>						
	<b>Participant Average Annual Bill Reduction</b>			<b>Non-Participant Average Annual Bill Increase</b>		
	Status Quo	Three Percent Savings	Economically Achievable	Status Quo	Three Percent Savings	Economically Achievable
2012	(\$1,105)	(\$1,101)	(\$883)	\$338	\$344	\$634
2013	(\$1,114)	(\$1,097)	(\$885)	\$371	\$393	\$677
2014	(\$1,124)	(\$1,091)	(\$886)	\$402	\$447	\$722

Source: DPS Statewide Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Bill Impact Analysis.

<b>Statewide Industrial Average Bill Impacts – DPS Analysis</b> <i>Compared to No Efficiency Programs</i>						
	<b>Participant Average Annual Bill Reduction</b>			<b>Non-Participant Average Annual Bill Increase</b>		
	Status Quo	Three Percent Savings	Economically Achievable	Status Quo	Three Percent Savings	Economically Achievable
2012	(\$79,979)	(\$79,657)	(\$63,991)	\$24,371	\$24,800	\$45,662
2013	(\$80,056)	(\$78,791)	(\$63,110)	\$27,289	\$28,970	\$49,811
2014	(\$80,344)	(\$77,826)	(\$62,375)	\$30,010	\$33,353	\$53,863

Source: DPS Statewide Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Bill Impact Analysis.

Over the long term, the DPS's analysis shows the annual rate impacts of the three scenarios (compared to the base case for each year of no efficiency programs) ramping up in the first ten years to 8 percent, 10 percent, and 15 percent for the Status Quo, Three Percent Savings, and Economically Achievable Scenarios, respectively, then declining to 1 percent, 2 percent, and 5 percent for the three scenarios in 2031.<sup>89</sup>

The DPS's bill impact analysis shows a similar pattern for non-participants in all customer classes of increasing annual impacts for approximately the first 10 years (compared to the base case for each year of no efficiency programs), followed by decreasing impacts. All participants experienced larger average annual bill reductions in each year of the study period under the Status Quo Scenario. However, all participants in the Three Percent Savings Scenario experienced smaller average annual bill reductions in the early years of the study, followed by larger bill reductions.<sup>90</sup> In the Economically Achievable Scenario, residential and industrial participants experienced smaller average annual bill reductions in the early years of the study,

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89. DPS Statewide Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Rate Impact Analysis. These are annual percentage changes compared to the base case in each year; they are not cumulative.

90. The year in which the bill reductions began to increase varied by customer class. DPS Statewide Rate and Bill Impact Spreadsheet, filed 5/17/11 at tab Bill Impact Analysis.

followed by larger bill reductions, while commercial customers experienced larger average annual bill reductions in each year of the study period.<sup>91</sup>

The DPS states that the rate and bill impacts for the Three Percent and Status Quo Scenarios are likely "somewhat overstated" for four reasons.

First, according to the DPS, if the Board adopts its geographic-targeting and sector-benefit equity recommendations, rate impacts under the Three Percent Scenario would be materially reduced and bills would be significantly lowered relative to its analysis summarized above.<sup>92</sup> The DPS asserts that this is because geographic targeting programs, which are directed at capacity savings, have significant benefits which more than outweigh the reductions in annual energy savings benefits that result from the lower \$/kWh yield of geographic targeting programs. In addition, according to the DPS, relaxing the sector-benefit equity requirement is likely to increase commercial programs which in turn increase capacity benefits that accrue to all ratepayers.

Second, the DPS states that not all benefits to the electric system are included in the rate and bill impact analysis. These difficult-to-quantify benefits discussed in Section IV.A, above, accrue to all ratepayers.

Third, the DPS asserts that as a result of Efficiency Vermont's program design, the number of non-participants in the industrial sector should be minimized, and the average bill impact for commercial non-participants is likely to be lower than stated because large commercial customers have been historically more likely to participate in efficiency programs. Therefore, according to the DPS, commercial customers with large bills are less likely to be represented in the category of non-participants.

Finally, the cumulative benefits of energy efficiency are likely understated in the DPS's scenario analysis due to differences in the likely mix of measures that would be implemented and

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91. DPS Statewide Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Bill Impact Analysis.

92. DPS Comments at 11-12. The DPS Comments only addressed the rate and bill impacts of its recommendation, its Three Percent Savings Scenario.



a larger than likely drop in residential savings in 2020 (that carry through to the end of the study period) as a result of new federal lighting standards that will take effect in that year.<sup>93</sup>

The DPS also states that a value for environmental externalities is not included in its rate and bill analysis; if the costs of carbon emissions are internalized, efficiency investments will further lower rates.<sup>94</sup>

<b>VEIC Service Area Average Rate and Bill Impacts – VEIC Analysis</b> <i>Compared to Status Quo Scenario</i> <i>Levelized over Six Years</i>						
	<b>Status Quo</b>		<b>Three Percent Savings</b>		<b>VEIC Maximum Achievable</b>	
	Rates	Bills	Rates	Bills	Rates	Bills
Residential	0.0%	0.0%	0.5%	0.2%	8.2%	0.6%
Commercial and Industrial	0.0%	0.0%	3.4%	0.6%	15.2%	6.7%

Source: VEIC Scenario Analysis Results Narrative at 36.

Levelized over 20 years, VEIC's analysis shows rate impacts of just under one to two percent for each customer class for the Fixed Savings Scenario, and rate impacts of between almost 10 to just over 15 percent for the VEIC Maximum Achievable Scenario.<sup>95</sup>

Levelized over 20 years, VEIC's bill impact analysis shows both the Three Percent Savings and the VEIC Maximum Achievable Scenarios would result in bill decreases for commercial and industrial customers of between three and four percent compared to the Status Quo Scenario. Residential customers would also experience bill decreases of approximately two percent under the VEIC Maximum Achievable Scenario, but would experience bill increases of approximately 0.1 percent under the Three Percent Savings Scenario.<sup>96</sup>

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93. DPS Comments at 11-12; letter from Walter (T.J.) Poor, Energy Program Specialist, DPS, to Susan M. Hudson, Clerk, Board, Re DPS Revised Demand Resource Plan Scenario Analysis, dated May 17, 2011, at 2-3.

94. DPS Reply Comments at 5.

95. VEIC converted rate and bill changes to 2011 dollars and levelized them over a 20-year period; the percentage change compares the levelized values with the levelized values of the base case.

96. VEIC Scenario Analysis Results Narrative at 36.

CLF and VPIRG also provided information regarding the rate and bill impacts of the proposed CLF/VPIRG Reasonably Available Scenario. They assert that the CLF/VPIRG Reasonably Available Scenario would result in a better balance of the economic benefits of energy efficiency programs with their rate impacts. These participants state that cost-effectiveness studies show that for every dollar invested in energy efficiency, Vermonters save approximately 2.5 dollars. Therefore, according to CLF and VPIRG, since the CLF/VPIRG Reasonably Available Scenario exceeds the Three Percent Savings Scenario budget by \$62 million over the 2012-2014 time period, the CLF/VPIRG Reasonably Available Scenario would reduce Vermonters' electricity costs by \$155 million more than the Three Percent Savings Scenario. In addition, CLF and VPIRG contend that, in general, customers who participate in EEU programs experience bill reductions, despite any rate increases. They assert that increased budgets would enable more Vermonters to participate in EEU programs, thereby increasing the number of Vermonters who experience bill reductions. CLF and VPIRG argue that, based on historic rates of participation per dollar spent, the CLF/VPIRG Reasonably Achievable Scenario would result in participation rates by 2014 of 31 percent of residential customers and 42 percent of business customers, and by 2017 of 55 percent of residential customers and 71 percent of business customers.<sup>97</sup>

#### **b. Analysis of BED's Service Territory**

The DPS also separately analyzed the rate and bill impacts on BED ratepayers of implementing the various scenarios. It used the same methodology as in its statewide analysis. The following tables summarize the near-term results of this rate-and-bill-impact analysis. Positive percentages show rate or bill increases, while negative percentages indicate rate or bill decreases (compared to the base case). Each year's impact is compared to the base case for that year; percentage and dollar amounts are not cumulative.

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97. Steinhurst Presentation at slides 14-20.

<b>BED Average Rate Impacts – DPS Analysis</b> <i>Compared to No Efficiency Programs</i>			
	Status Quo	Three Percent Savings	Economically Achievable
2012	5%	5%	10%
2013	5%	6%	11%
2014	6%	7%	12%

Source: DPS BED Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Rate Impact Analysis.

<b>BED Residential Average Bill Impacts – DPS Analysis</b> <i>Compared to No Efficiency Programs</i>						
	<b>Participant Average Annual Bill Reduction</b>			<b>Non-Participant Average Annual Bill Increase</b>		
	Status Quo	Three Percent Savings	Economically Achievable	Status Quo	Three Percent Savings	Economically Achievable
2012	(\$192)	(\$191)	(\$148)	\$53	\$54	\$108
2013	(\$195)	(\$191)	(\$148)	\$60	\$65	\$120
2014	(\$198)	(\$190)	(\$147)	\$69	\$78	\$134

Source: DPS BED Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Bill Impact Analysis.

<b>BED Commercial Average Bill Impacts – DPS Analysis</b> <i>Compared to No Efficiency Programs</i>						
	<b>Participant Average Annual Bill Reduction</b>			<b>Non-Participant Average Annual Bill Increase</b>		
	Status Quo	Three Percent Savings	Economically Achievable	Status Quo	Three Percent Savings	Economically Achievable
2012	(\$1,272)	(\$1,268)	(\$1,045)	\$287	\$293	\$588
2013	(\$1,298)	(\$1,279)	(\$1,056)	\$329	\$355	\$653
2014	(\$1,325)	(\$1,285)	(\$1,061)	\$374	\$427	\$727

Source: DPS BED Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Bill Impact Analysis.

<b>BED Industrial Average Bill Impacts – DPS Analysis</b> <i>Compared to No Efficiency Programs</i>						
	<b>Participant Average Annual Bill Reduction</b>			<b>Non-Participant Average Annual Bill Increase</b>		
	Status Quo	Three Percent Savings	Economically Achievable	Status Quo	Three Percent Savings	Economically Achievable
2012	(\$103,571)	(\$103,230)	(\$85,232)	\$23,278	\$23,731	\$47,699
2013	(\$105,123)	(\$103,522)	(\$84,948)	\$27,292	\$29,421	\$54,107
2014	(\$106,798)	(\$103,460)	(\$84,466)	\$31,385	\$35,816	\$61,030

Source: DPS BED Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Bill Impact Analysis.

Over the long term, the DPS's analysis shows the annual rate impacts of the three scenarios (compared to the base case for each year) ramping up in the first ten years to 8 percent, 11 percent, and 17 percent for the Status Quo, Three Percent Savings, and Economically Achievable Scenarios, respectively, then declining to 5 percent, 9 percent, and 14 percent for the three scenarios in 2031.<sup>98</sup>

The DPS's bill impact analysis shows much more variability than in the area served by Efficiency Vermont. For example, the analysis shows that:

- under the Status Quo Scenario, non-participants would experience larger annual bill increases until 2023, followed by smaller annual bill increases;
- under the Three Percent Scenario, residential and industrial non-participants would experience larger bill increases in each year except 2020, while commercial non-participants would experience larger increases until 2026, followed by smaller increases until a larger increase in 2031; and
- under the Economically Achievable Scenario, all non-participant classes would experience larger bill increases each year.

The analysis also shows that, compared to the previous year:

- under the Status Quo Scenario, participants in all customer classes would experience larger bill reductions each year;

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98. DPS BED Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Bill Impact Analysis. Each year's impact is compared to the base case for that year; percentage and dollar amounts are not cumulative.

- under the Three Percent Scenario, residential participants would experience smaller bill reductions until 2017 at which time the reductions would begin to grow each year, commercial participants would experience larger bill reductions each year, and industrial participants would experience both smaller and larger bill reductions until 2020 after which time they would experience only larger bill reductions; and
- under the Economically Achievable Scenario, residential participants would experience smaller bill reductions, generally followed by larger bill reductions, commercial participants would experience larger bill reductions almost every year, and industrial participants would experience primarily smaller bill reductions until 2020 followed by larger reductions.<sup>99</sup>

The DPS states that the rate and bill impacts for the Three Percent and Status Quo Scenarios are likely "somewhat overstated" for the same reasons as its statewide analysis described above.<sup>100</sup>

BED asserts that some factors used in the DPS's rate and bill impact analysis may not appropriately reflect BED's system. In particular, the retail rate escalator, average energy line loss, summer and winter peak line losses, and residential annual kWh usage may be different in BED's service territory. BED states that it has been working with the DPS on possible revisions to the DPS's rate and bill impact analysis for BED.<sup>101</sup>

### **c. Avoided Costs and Other Assumptions Used in Cost-Effectiveness Screening**

GMP, CVPS, LCCC and the 20 Business Organizations expressed concern that the rate and bill impact analyses described above were performed using current avoided costs even though a regional study is underway that is likely to lead to lower energy avoided costs starting in 2012. These participants contend that using materially lower energy avoided costs could result in significantly larger rate and bill impacts. For example, GMP asserts that its analysis suggests that the long-term rate impact could grow from the approximately 10 percent reflected in the

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99. DPS BED Rate and Bill Impact Spreadsheet, filed 5/17/11, at tab Bill Impact Analysis.

100. Letter from Walter (T.J.) Poor, Energy Program Specialist, DPS, to Susan M. Hudson, Clerk, Board, Re DPS Revised Demand Resource Plan Scenario Analysis, dated May 17, 2011, at 2-3.

101. BED Reply Comments at 1. We note that, as of the date of this Order, no such revisions have been filed with the Board.

DPS's analysis to approximately 18 percent.<sup>102</sup> The 20 Business Organizations recommend that the Board wait to establish EEU program budgets until there is greater certainty regarding the avoided costs and other assumptions used in cost-effective screening.<sup>103</sup>

GMP and CVPS also contend that the transmission and distribution ("T&D") component of avoided costs should be updated.<sup>104</sup> CVPS asserts that the current T&D avoided costs are too high, and recommends that the Board establish separate area-specific T&D avoided costs for use in target areas with load growth.<sup>105</sup>

CLF and VPIRG argue that the Board should reject adjustments to the budget based on assertions regarding future avoided costs because the new avoided cost study is not yet available. In addition, they contend that the current avoided costs are significantly lower than the actual societal cost because the externality values used in the avoided costs are too low.<sup>106</sup>

The DPS states that it recently received a draft version of the new regional avoided cost study. According to the DPS, this draft shows a substantial reduction in avoided energy costs, mitigated slightly by an increase in capacity costs.<sup>107</sup> While the DPS has not yet reviewed this study and is not recommending any specific action regarding the avoided costs contained therein at this time,<sup>108</sup> the DPS did analyze the rate impacts of its budget recommendation<sup>109</sup> using the draft avoided costs. In addition, the DPS analyzed the rate impacts with the underlying base utility rate escalation adjusted to reflect lower overall energy costs and resulting price escalation

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102. GMP Comments at 1.

103. 20 Business Organizations Reply Comments at 1.

104. GMP Comments at 2.

105. CVPS Comments at 8.

106. CLF and VPIRG Reply Comments at 1.

107. VEIC asserts that the draft study predicts that long-run avoided energy costs will fall approximately 22 percent and avoided generating capacity costs will rise approximately 80 percent. VEIC Reply Comments at 4.

108. The DPS has indicated that it will be proposing updated avoided costs in July 2011.

109. The DPS recommends that the budget be set at the levels shown in the Three Percent Savings Scenario for Efficiency Vermont, and that the budgets for BED should be increased by the same percentage that Efficiency Vermont's increase.

that would tend to be below the historical average. The following tables show the near-term results of the DPS's analysis on a statewide and BED-specific basis; positive percentages show rate increases (compared to the base case of no efficiency programs).

<b>Rate Impacts of DPS Recommended Statewide EEC-Funded Budgets Using Current and Draft New Avoided Costs</b>			
	2009 Avoided Costs 2.3% Escalation Rate (as filed May 17)	Draft 2011 Avoided Costs 2.3% Escalation Rate	Draft 2011 Avoided Costs 1.4% Escalation Rate
2012	6.3%	6.7%	6.9%
2013	7.1%	7.9%	8.0%
2014	8.0%	9.2%	9.2%

Source: DPS Reply Comments at 3.

<b>Rate Impacts of DPS Recommended BED EEC-Funded Budgets Using Current and Draft New Avoided Costs</b>			
	2009 Avoided Costs 2.3% Escalation Rate (as filed May 17)	Draft 2011 Avoided Costs 2.3% Escalation Rate	Draft 2011 Avoided Costs 1.4% Escalation Rate
2012	5.0%	5.3%	5.4%
2013	5.9%	6.5%	6.5%
2014	6.7%	7.6%	7.6%

Source: DPS Reply Comments at 3.

VEIC also analyzed the rate and bill impacts of the draft avoided costs. The following table shows the near-term results of VEIC's analysis; positive percentages show rate increases (compared to the base case of the Status Quo Scenario).

<b>Rate Impacts of VEIC Recommended Efficiency Vermont EEC-Funded Budgets Using Current and Draft New Avoided Costs <i>Compared to Status Quo Scenario; Levelized Over Six Years</i></b>		
	2009 Avoided Costs	Draft 2011 Avoided Costs
Residential	0.5%	0.53%
Commercial and Industrial	3.4%	3.9%

Source: VEIC Scenario Analysis Results Narrative at 36; VEIC Reply Comments at 4.

#### **d. Discussion**

We recognize that any individual customer would be likely to experience rate and bill impacts different from the average results produced by the analyses described above. This is because any individual customer's rate impact will depend on the consumer's specific usage level and pattern, and on the customer's rates, which vary by utility service territory and customer class. In addition, any individual customer's bill impact will be affected by whether the customer participated in any of the EEU's programs. Those who participated will have lowered their electricity consumption, and thereby their utility bills, while those who did not participate will not experience the same bill reductions. It is impractical to perform an analysis that would take into account all of these variables. Nevertheless, we conclude that the analyses provide useful information regarding the average rate and bill impacts of the various budget scenarios. The EEUs deliver services throughout the state, and it is appropriate to consider the average impacts of their activities when determining their budgets.

Several participants have questioned the accuracy of the rate and bill impact analyses presented in this proceeding because avoided costs are likely to be different in 2012. Specifically, they note that it is widely expected that the regional avoided cost study will show that energy avoided costs have decreased materially. In addition, we have already determined that the externality component of current avoided costs should be revisited when we consider revised energy avoided costs later this year,<sup>110</sup> and are currently considering in a separate proceeding (EEU-2011-01 (Cost-Effectiveness Analysis) whether the T&D component should be revisited as well.<sup>111</sup>

We conclude that it would be inappropriate to make assumptions in this proceeding regarding possible changes to avoided costs; we will consider such changes in a separate proceeding when they are proposed. However, we find it useful to treat the DPS's and VEIC's rate impact analyses using updated energy avoided costs and base escalation rates as a sensitivity

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110. Memorandum from Susan M. Hudson, Clerk of the Board, to EEU-2011-01 (Cost-Effectiveness Analysis) E-mail Service List, Re: Request to Revisit the Externality Adjustment Used in EEU Cost-Effectiveness Analysis of Efficiency Investments, dated March 31, 2011.

111. We expressly do not rule in this Order on whether the T&D component should be revisited. We will make this decision in EEU-2011-01.



analysis. That is, the analyses show that significant changes in avoided costs result in modest changes to rate impacts. In light of this result, we do not find it appropriate to wait to establish electric EEU budgets until the new avoided costs have been determined as the 20 Business Organizations have recommended. Determining electric EEU budgets now is necessary to complete all the steps in the DRP process, and will provide the EEUs with sufficient time to plan for implementation of 2012 energy efficiency activities and will facilitate the coordination of EEU efficiency activities into VELCO's long-term plan.

VEIC contends that the DPS has made three errors in its rate and bill analysis that lead it to incorrectly conclude that VEIC's recommended higher budgets for the Three Percent Savings Scenario imply significant adverse rate impacts relative to bill savings.<sup>112</sup> We have taken these arguments and the DPS's assertions regarding its conclusion that the results of its rate and bill impact analyses are somewhat overstated into account in our determination today. Both participants' comments give us comfort that the rate and bill impacts of the budgets we establish today will be less than the DPS's analysis would indicate.

The information presented to us during this process reinforces our long-standing conclusion that the provision of energy efficiency services to Vermont's electricity customers is a cost-effective way of reducing Vermont's power costs below what they otherwise would be, thus tempering increases in customers' electric bills. We do realize, however, that this statewide effect is not evenly distributed among all Vermont electric ratepayers. Even though, as a whole, Vermont's electric bills will be lower because of energy efficiency programs, there may be some individual customers who experience higher electric bills, largely because such customers do not participate in programs offered by the EEUs. We are, however, encouraged that approximately 95 percent of industrial customers located in the area served by Efficiency Vermont and all three

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112. Specifically, according to VEIC, the DPS acknowledged it has underestimated savings for the Three Percent Savings Scenario which would result in higher rates and bills. Second, VEIC asserts that the DPS assumed the same percentage of savings from each of the four energy avoided-cost periods while VEIC found a higher percentage of the savings in the peak energy periods than in the off-peak periods; understating avoided costs leads to overstating the rate and bill impacts. Finally, VEIC contends that the DPS assumes the same amount of per-participant kWh savings for all scenarios which results in greater per-participant bill reductions in the Status Quo Scenario than in the Three Percent Savings Scenario, even though in actuality the Three Percent Savings Scenario will have either more participants or higher savings per participant than the Status Quo Scenario. VEIC Comments at 13-14.

of BED's industrial customers have participated in EEU programs in the past, many of them multiple times at multiple facilities.<sup>113</sup> Such participation should enable those customers to experience electric bill reductions, despite rate increases due to increased EEU budgets.<sup>114</sup>

Nevertheless, we understand that, while residential customers generally focus on their bills (rather than on utility rates), some businesses, particularly those that compete in a global marketplace, focus on utility rates rather than on customer bills. As AIV asserts, these customers are inherently more cost sensitive and can make significant economic decisions regarding employment and investment based on marginal changes in the costs of doing business that might appear comparatively small to residential customers.<sup>115</sup> For these commercial and industrial customers, any increase in rates matters, regardless of what that rate increase might mean for those customers' bills. Furthermore, for large users of electricity, even a small kWh and kW charge can result in a significant dollar payment.

As 30 V.S.A. § 209(e)(14) requires, we have considered the impact on retail electric rates of programs delivered by the EEU. Our concern regarding the rate impact of increasing the EEU budget contributed to our decision regarding how quickly to phase in the increase in the EEU budget to the level at which the EEU could acquire all the cost-effective energy efficiency that is reasonably available.

## **F. Program Design Issues**

### **1. Geographic Targeting**

Section II.1.A.(b) of the Process and Administration document provides that the DRP process shall, to the extent authorized by the Board, include consideration and development of

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113. DPS Reply Comments at 8.

114. AIV contends that some participating ratepayers might be considered "under-participating" in that their participation benefits do not exceed EEC-rate-related costs. AIV Comments at 3-4; AIV Additional Comments at 4. We recognize this possibility and have included it in our consideration of rate and bill impacts of programs delivered by the EEU.

115. AIV Comments at 3.

budgets for geographically targeted energy efficiency services that may address distributed utility Supply Problems and/or transmission Reliability Deficiencies.

The DPS states that, pursuant to 30 V.S.A. § 209(d)(4), the Board must consider efficiency funding in light of the goals of deferring transmission and distribution upgrades and to target efficiency to locations where it has the greatest value. Because of this statutory requirement, and the showing in the DPS evaluation of GT programs that GT efficiency investments have been cost effective,<sup>116</sup> the DPS recommends that GT continue. The DPS recommends allocating 90 percent of the approved Efficiency Vermont resource-acquisition budget to statewide resource-acquisition programs, and the remainder of the budget to GT programs, as necessary. The DPS states that 10 percent of the DPS's proposed resource-acquisition budget would be roughly equal to recent spending on GT programs. To the extent that GT funding requirements are less than the amount available, the DPS recommends that any unspent budgeted GT funding should be used to supplement spending on statewide services. If GT funding requirements are greater than the amount available, the DPS recommends that the Board determine the appropriate funding mechanism that would be utilized to collect additional monies; such a mechanism could include an EEC-adder as provided for in the Docket 7081 MOU creating the VSPC, an addition to the statewide EEC, or via incorporation into distribution utility rates.

The DPS recommends that the VSPC planning process be utilized to identify areas to be considered for GT services, analyze spending requirements, and identify the appropriate allocation of the benefits of any deferral. The DPS further recommends that this process allow the opportunity for full participation by all of Vermont's utilities and other interested parties.

The DPS also provided a rough schedule for implementing the VSPC process this year to identify GT areas:

- June - VSPC Energy Efficiency and Forecasting ("EE&F") subcommittee presents recommendation to full VSPC to assume obligation to make initial determinations of GT areas;

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<sup>116</sup> The DPS asserts that geographic targeting programs, which are directed at capacity savings, have significant benefits which more than outweigh the reductions in annual energy savings benefits that result from the lower \$/kWh yield of geographic targeting programs. DPS Comments at 11.

- June-August - VSPC EE&F subcommittee analyzes potential targeted areas;
- September - Full VSPC reviews EE&F subcommittee recommendations, votes on targeted areas and cost allocation, and provides recommendations to the Board; and
- October - Board decision on GT areas (if any) and associated funding mechanisms.

CVPS states that energy efficiency, as a part of a utility resource portfolio, can be employed to cost-effectively reduce system supply problems and reliability deficiencies. CVPS believes that the basic structure of Efficiency Vermont delivering GT services funded via the EEC has served Vermont well and should be continued. CVPS supports the DPS proposal that 10 percent of Efficiency Vermont's resource-acquisition budget be allocated to fund GT services, and believes that these amounts should be large enough to address both system-wide and GT energy efficiency requirements. CVPS states that EEUs should utilize local area avoided costs when implementing EEU services to help solve local problems. CVPS recommends that a stakeholder group be constituted to develop proposals for localized T&D avoided costs.

CVPS notes the importance of the collaboration between Efficiency Vermont and the host utility to seek implementation strategies that maximize the value of EEU services and take into account the individual utility's integrated planning activities. CVPS believes that this collaboration could take place under the auspices of the VSPC, which may also help to integrate Efficiency Vermont's efforts with VELCO's long-term transmission planning. CVPS contends that the VSPC process may be able to resolve geographic-equity concerns. Finally, CVPS recommends that GT resource-acquisition services continue to be delivered in targeted areas in coordination with the host distribution utilities.

GMP believes that GT should continue, and that a pre-determined budget should be built from the ground up each year.

VEIC recommends that a GT capacity-reduction needs assessment be conducted through the VSPC EE&F subcommittee. VEIC states that the VSPC EE&F subcommittee could estimate the level of capacity reduction needed to defer or avoid new transmission and/or distribution projects, estimate the costs and timing of those projects, estimate the value of the deferral or avoidance, estimate the statewide attribution of benefits resulting from the GT proposals, and

make a VSPC-supported recommendation to the Board. VEIC estimates that the VSPC process will result in a VSPC recommendation in the fall of 2011, and that at that time the Board will be able to convene a proceeding to accurately assess the GT capacity needs, budgets and funding mechanism. VEIC recommends that, if GT is to continue, the funding of GT services should be incremental to the statewide budgets currently under consideration. VEIC believes that, rather than the DPS proposal to adopt a funding level now, a more accurate and equitable proposal would first identify GT areas, determine funding needs, and quantify and allocate incremental benefits prior to the Board adopting a GT budget. VEIC states that funding GT programs incrementally to statewide budgets would allow it to proceed with its 2012-2014 statewide program implementation planning in a timely and efficient manner.

VPPSA notes that GT has been a subject of concern for VPPSA member systems for some time. VPPSA believes that this proceeding has thus far yielded effective collaboration, and believes that the further refinement of the process through VSPC participation will be a benefit to all stakeholders and will ultimately yield the most efficient and equitable use of efficiency funds. VPPSA supports the suggestions made by VEIC as they offer the benefit of VSPC involvement prior to the determination of any specific GT funding.

We conclude that it is reasonable to continue GT programs through at least 2014. The DPS evaluation report shows that: GT programs achieved substantial peak reductions incremental to statewide efforts; GT programs achieved higher savings per utility premise than other EEU programs; and participation in EEU programs in GT territories was greater than in non-GT territories. Further, the evaluation report shows that each GT program has been cost-effective, with an average benefit/cost ratio of 2.03.<sup>117</sup> No participant was able to determine whether GT programs have yet been able to defer or avoid a specific transmission or distribution upgrade; most participants held that more experience with GT would be necessary to make such a determination.

Most participants agree, and no participant objects, to the use of the VSPC process to identify GT areas. We conclude that the current GT areas should continue to receive GT services

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117. *Process and Impact Evaluation of Efficiency Vermont's 2007-2009 Geotargeting Program, Final Report*, prepared for the Vermont Department of Public Service by Navigant Consulting Inc., dated January 7, 2011, at 100.

until the VSPC process has been fully developed and implemented.<sup>118</sup> If the current GT areas are ultimately identified by the VSPC process as appropriate areas for GT services, these areas may be given priority for the purposes of program continuity. If the current GT areas are not identified by the VSPC process as appropriate for GT services, the GT services in these areas will be phased out.

GT programs are cost-effective and, regardless of the lack of quantitative determination that such efforts have managed to defer or obviate the need for transmission or distribution upgrades, the GT programs provide system benefits and therefore benefit all ratepayers. Accordingly, it is appropriate for some portion of GT services to be funded through statewide EEC collections in the near term, at least until the VSPC process has been implemented and provided additional detail on the distribution of GT program benefits. We find the Department's recommendation that the budget level for GT programs be maintained consistent with historical levels to be a reasonable starting point. To the extent that the VSPC process determines that this budget level is not needed, the funds not directed to GT programs will be directed to statewide resource-acquisition efforts. If the VSPC process recommends that additional funding be provided for GT efforts during the 2012 to 2014 time-frame, the Board will determine whether additional funding should be made available as well as the appropriate mechanism for raising such funds, which could include area-specific adders as provided for under the Docket 7081 MOU.

Utilizing the VSPC process to select GT areas will better integrate utility planning with the GT programs. In order to ensure sufficient integration, the Board requires that any GT-area proposal as a result of the VSPC process include a comprehensive plan that is developed jointly by the host utility and Efficiency Vermont. This plan should include at a minimum: the constraint(s) identified by the VSPC, the projected costs and resources available to alleviate the constraint(s), specific resource-acquisition targets and dates, and importantly, what non-transmission alternatives ("NTA") the host utility would pursue on its own to complement the GT services. We also require the host utility to work with the EEU to provide updates on the GT

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118. The DPS and VEIC each state that the VSPC process will be able to provide GT-territory recommendations to the Board by the fall of 2011.

programs, the details of which will be worked out in the VSPC process for identifying GT areas. As discussed in Section V.B, below, the Board directs staff to conduct proceedings to develop and implement a GT-territory selection process informed by the VSPC.

## **2. Advanced Metering Infrastructure ("AMI")-Related Activities**

Section II.1.A.(f) of the Process and Administration Document states that the DRP process shall include definition of any services to be provided by the EEU related to measures that may be enabled by AMI.

The DPS recommends that AMI-related activities be defined as non-resource-acquisition ("NRA") activities and funded through this portion of the budget. The DPS recommends that the EEUs perform these activities without claiming direct savings toward performance goals because it is not clear that AMI measures will be cost-effective under the State Screening Tool.

CLF supports treating AMI efficiency measures as NRA budget items. GMP "agrees with the spirit" of the DPS's recommendation. CVPS agrees with the DPS recommendation to include AMI efficiency activities in the NRA budget.

Vermont is investing significant monies in AMI activities, and it is important that the EEUs coordinate with the electric utilities on the efficiency components of AMI. However, given the uncertainty regarding savings from EEU activities in this area, we are persuaded that it is appropriate for the EEUs to treat AMI-related activities as NRA activities, and that these activities should be funded through the NRA portion of the budget. We encourage the EEUs, the distribution utilities and the DPS to also monitor the results of these activities and, if appropriate, propose that AMI-related activities be shifted from the NRA portion of the budget to the resource-acquisition portion in the future.

## **3. Electro-Technologies**

Section II.1.A.(d) of the Process and Administration document provides that the DRP process may include consideration of the potential for both electro- and non-electro-technologies.

The DPS asserts that electric energy efficiency funds should not be used to promote electro-technologies that would increase the need for infrastructure capacity. However, the DPS

contends that the EEU's should be able to support the technology with electric energy efficiency funds in situations where electric energy and demand consumption can both be reduced cost-effectively. The DPS continues: "This recommendation does not mean that EEU's should be precluded from using other resources to support electro-technologies that have other desirable net benefits." For example, heating-and-process-fuel efficiency funds may be used to support electro-technologies such as retrofitting a fossil heating system to an electric heat pump. The DPS suggests that the EEU's could recommend space and water heat pump technologies, when appropriate, even if they do not offer incentives.

CLF supports not using electric efficiency funds to promote increasing electric usage through electro-technologies. GMP "agrees with the spirit" of the DPS's recommendation. Regarding electro-technologies, CVPS states that the effort to recommend a technology to a customer be separated from the provision of an incentive. CVPS agrees with the DPS that it may not be appropriate to provide incentives in some circumstances, particularly where it has the potential to increase the need for new infrastructure. CVPS states that the EEU's should consider the application of both electro- and non-electro-technologies that can help to improve the customer's overall energy efficiency and overall societal cost-effectiveness through the delivery of EEU services.

We are persuaded that electric efficiency funds should not be used for any technology that would increase the need for infrastructure capacity. We recognize that in certain situations, such as in geographically targeted areas, it may be appropriate for the EEU's to consider promoting electro-technologies that would cost-effectively reduce both peak demand and electric energy usage. Furthermore, in light of their roles in heating-and-process-fuel efficiency efforts, we encourage the EEU's to discuss electro-technology options with customers as appropriate. However, we determine that the EEU's should not be permitted to offer incentives for these projects using electric efficiency funds unless the projects cost-effectively reduce both peak demand and electric energy usage. We encourage the EEU's, distribution utilities, and the DPS to reevaluate this approach over the course of the implementation period by monitoring the impacts of electro-technology measures.



#### **4. Electric Non-Resource Acquisition**

Section II.1.A. of the Process and Administration Document provides that the DRP process shall include consideration of appropriate NRA budgets for the EEU's.

##### **a. Efficiency Vermont**

VEIC's NRA proposal includes activities funded by both EEC and heating-and-process-fuel funds. The aspects of VEIC's NRA proposal funded by heating-and-process-fuel funds will be addressed in a future order.

VEIC structured its EEC-funded NRA proposal with the following seven categories: (1) Education; (2) Applied Research and Development (including AMI-related activities); (3) Planning and Reporting; (4) Evaluation; (5) Policy and Public Affairs; (6) Information Technology; and (7) Administration. VEIC's budgets are based on historical spending. In its proposal, VEIC provided modeling assumptions used to derive the budget estimates and explanations to support the allocation of costs among NRA budget items and resource-acquisition budget categories.

The Department and VEIC held numerous discussions on the EEC-funded tasks and associated budgets that are described in the NRA proposal. As a result of this collaboration, the Department supports the EEC-funded proposal.<sup>119</sup> No other party filed comments on VEIC's NRA proposal.

We recognize that NRA activities are valuable aspects of energy efficiency service delivery even though the activities may not directly acquire efficiency savings. We find that VEIC's budget assumptions appear to be reasonable. In order to monitor these activities, we direct VEIC to track spending by budget category.<sup>120</sup>

We determine that VEIC's total three-year budget for electric-efficiency-related NRA activities during the 2012-2014 time period will be \$9,701,000. However, the most recent filing

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119. The Department and VEIC did not reach consensus agreement on the issue of measurement and verification ("M&V") activities associated with the State's participation in the ISO-NE FCM. On May 25, 2011, the Board issued an Order determining that the DPS should continue to conduct these activities.

120. Section III.8 of VEIC's Order of Appointment governs the potential transfer of funds among these seven NRA budget categories. Order of Appointment for VEIC, issued December 20, 2010, at 10.

does not provide detail for the EEC-funded NRA budget by category. Therefore, we require VEIC to provide a compliance filing, for Board approval, consisting of a summary table showing electric-efficiency-related NRA amounts allocated to each of the seven budget categories for the 2012-2014 time period as a whole.

**b. BED**

BED's NRA proposal includes activities funded by both EEC and heating-and-process-fuel funds. The aspects of BED's NRA proposal funded by heating-and-process-fuel funds will be addressed in a future order.

BED structured its EEC-funded NRA proposal using the same seven categories used by VEIC. BED states that it worked with the DPS and VEIC on the development of the specific initiatives. The DPS only commented on BED's proposed heating-and-process-fuel-related NRA activities.

We find that BED's budget assumptions appear to be reasonable and as with VEIC, we direct BED to track spending on these activities by budget category.<sup>121</sup>

We determine that BED's total three-year budget for electric-efficiency-related NRA activities will be \$601,000 for the 2012-2014 time period. However, the most recent filing does not provide detail for the EEC-funded NRA budget by category. Therefore, we require BED to provide a compliance filing, for Board approval, consisting of a summary table showing electric-efficiency-related NRA amounts allocated to each of the seven budget categories for the 2012-2014 time period as a whole.

**5. DPS Evaluation Plan and Budget**

Section II.1.A.(d) of the Process and Administration document states that the DRP shall include budgets to support the DPS's evaluation of the EEU's. The DPS filed its Energy Efficiency Evaluation Plan for 2012-2014 on March 3, 2011. The Evaluation Plan included

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121. Section III.4 of BED's Order of Appointment governs the potential transfer of funds among these seven NRA budget categories. Order of Appointment for BED, issued April 19, 2011, at 8.

activities and budgets funded by both EEC and heating-and-process-fuel funds.<sup>122</sup> The aspects of the Evaluation Plan funded by heating-and-process-fuel funds, including FCM evaluation activities, will be addressed in a future order.

The DPS proposed an EEC-funded evaluation budget for the 2012-2014 time period of \$2,871,200. In the past, the Evaluation Plan and budget were built from the top down using a fixed percentage of the EEU program's three-year budget. The 2009-2011 budget for EEC-funded activities was \$2,800,435, which is comparable to the proposed budget. However, for the 2012-2014 budget cycle, the DPS has built the evaluation budget from the ground up. The DPS asserts that this approach has better enabled it to plan for both in-house and contracted evaluation activities.

On April 1, 2011, the DPS filed a revised Evaluation Plan and budget based on the comments and discussion at the March 16 workshop. The overall budget increased by \$130,700 from \$4,896,900 to \$5,027,600. Only the heating-and-process-fuels budget increased in order to reflect cost-sharing among EEC and heating-and-process-fuels evaluation activities. The EEC and FCM budgets were reduced slightly.

VEIC's initial comments on the DPS Evaluation Plan focused on FCM verification activities. However, on April 17, 2011, VEIC filed additional comments stating that "with the exception of the Department's proposal regarding its participation in the Forward Capacity Measurement and Verification activities, VEIC supports the Department's revised plan and associated budgets."<sup>123</sup> No other party filed comments on the DPS Evaluation Plan.

We find the DPS's EEC-funded evaluation proposal to be a reasonable approach. Accordingly, the electric portion of the Evaluation Plan and associated three-year budget of

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122. Some of the activities described in the Evaluation Plan will be partially funded by the GMP Energy Efficiency Fund.

123. In our May 25, 2011, Order in this proceeding, we determined that the DPS should continue to carry out the evaluation activities associated with M&V for the FCM.

\$2,847,000 is approved. We encourage the DPS to seek further efficiencies in its electric evaluation activities through continued coordination with VEIC and BED.<sup>124</sup>

Because EEC rates are set separately for BED customers than for customers in the rest of the state, it is also necessary to determine what portion of the DPS's EEC-funded evaluation costs will be paid for by BED customers. In the past, BED customers have paid for evaluation costs specific to BED, as well as a percentage of the DPS's overall costs of evaluating the EEU program. Consistent with this practice, we determine that BED customers should pay \$191,010 of the DPS's EEC-funded evaluation costs during the 2012-2014 time period. This amount is comprised of \$42,514 in evaluation costs specific to BED,<sup>125</sup> and \$148,496 in other DPS evaluation costs.<sup>126</sup>

## **6. VEIC Compensation Structure**

As set forth in Section III of the VEIC Order of Appointment, VEIC's compensation is comprised of three components: (1) reimbursement of actual incurred costs for both resource-acquisition and non-resource-acquisition activities; (2) performance compensation to be paid based on the attainment of Quantifiable Performance Indicators ("QPIs") that are established as part of the DRP process; and (3) operations fees that may be charged as a percentage of all or a portion of reimbursed costs, on both resource-acquisition and NRA activities.

As part of the DRP process, parties were requested to file their recommendations regarding the appropriate set-aside of the Efficiency Vermont budget to provide both the

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124. Historically, at the end of every three-year performance period, the Board has determined the amount of unspent funds in the EEU Fund (including funds collected via the EEC and interest earned on the Fund) and how those monies will be used (subject to certain parameters set forth in PSB Rule 5.300). The Board intends to continue this practice. Therefore, if further efficiencies lead to any unspent electric evaluation funds from the 2012-2014 time period, the Board will determine how these funds will be used at the same time that it addresses any other unspent funds in the EEU Fund.

125. This amount is 10 percent higher than that budgeted for the 2009-2011 time period. This is the same percentage increase that was applied to the 2006-2008 budgeted amounts.

126. This amount is calculated by subtracting the BED-specific evaluation costs from the DPS's evaluation budget for the 2012-2014 time period, and multiplying this figure by 5.3 percent, which is BED's share of Efficiency Vermont's and BED's budgets for electric resource-acquisition, non-resource-acquisition, and compensation (in other words, all items other than DPS evaluation costs and fiscal agent and related costs).

performance compensation and operations fee for VEIC. On April 8, 2011, the DPS and VEIC filed a joint recommendation regarding the amount of the "set-aside" for a performance award and for an operations fee. In response to questions raised at the April 20 budget workshop, on May 27, 2011, VEIC filed supplemental comments to substantiate the compensation proposal. No other comments on compensation were filed.

The DPS and VEIC agree upon a compensation set-aside of 4.1 percent of the total approved Efficiency Vermont budget,<sup>127</sup> with 60 percent of that amount to be used for a performance award and 40 percent of that amount to be used for the operations fee. They recommend splitting the total compensation set-aside between electric and heating-and-process-fuel activities in proportion to their share of their overall Efficiency Vermont budget.<sup>128</sup> This Order addresses only the portion of the compensation set-aside that is funded via the EEC.

The DPS and VEIC contend that the proposed compensation set-aside provides a strong incentive for VEIC to meet its performance targets, while ensuring the efficient operation of Efficiency Vermont. In its May 27 filing, VEIC provided information indicating that VEIC's compensation as a percentage of portfolio spending remains at the bottom of the range of compensation paid for efficiency program administration in other jurisdictions, with other jurisdictions ranging between approximately 4.5 to 11 percent.<sup>129</sup> The DPS and VEIC assert that the proposed operations fee will improve the financial stability of VEIC by ensuring that VEIC has sufficient access to working capital and lower borrowing costs. The DPS and VEIC further contend that the proposed compensation structure will enable VEIC to invest in infrastructure on an ongoing basis, which is expected to provide benefits to ratepayers in the form of improved services delivery, both in quantity and quality. VEIC states that the compensation is justified

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127. For the set-aside purposes, the Efficiency Vermont budget includes costs for the resource-acquisition and NRA activities, as well as the absolute dollar amount of the set-aside itself.

128. The DPS and VEIC originally agreed that the percent operation fee by funding source and activity (e.g., EEC versus heating-and-process-fuel funded and amounts for non-resource acquisition) would be established with the QPIs later in this workshop process. However, in order to enable the Board to establish firm EEC-funded budgets, they subsequently included recommended splits by funding source in their overall budget recommendations. *See, e.g.*, DPS Budget Recommendation Spreadsheet filed 7/1/11, and VEIC Budget Recommendation Spreadsheet filed 6/29/11.

129. VEIC Comments at 6.

given the risks it faces to the successful operation of Efficiency Vermont, including economic downturns and the reduction in available efficiency potential due to the implementation of new codes and standards.

We conclude that the proposed compensation set-aside provides a strong incentive for VEIC to meet its performance targets, while providing benefits to ratepayers in the form of improved service delivery. While the proposed compensation set-aside is higher than the 2009-2011 performance period set-aside of 3.41 percent, it is consistent with the 2006-2008 performance period set-aside of 4.09 percent, and remains at the bottom of the range of compensation paid for efficiency program administration in other jurisdictions. The proposed operations fee will improve the financial stability of VEIC which will in turn facilitate the efficient operation of Efficiency Vermont, thereby benefiting ratepayers.

Therefore, we determine that the following is appropriate: (1) a compensation set-aside for electric services of 4.1 percent; (2) the use of 60 percent of that amount for a performance award; and (3) the use of 40 percent of that amount for the operations fee. Under the electric budgets we establish for Efficiency Vermont in this Order, the compensation set-aside will be \$4,885,610 over the 2012-2014 time period. This amount includes \$1,954,240 in operations fees and \$2,931,370 for performance-based compensation.

We further determine that the portion of the electric compensation set-aside to be allocated to non-resource-acquisition activities will be determined as part of the additional proceedings related to compensation that are set forth in Section V, below.

## **7. Fiscal Agent and Related Costs**

The DPS's, VEIC's, and BED's budget recommendations include annual amounts for the costs of the fiscal agent and for the independent audit of the EEU Fund. Their proposed amounts for the 2012-2014 time period are shown in the following table.

<b>DPS, VEIC and BED Recommendations for Fiscal Agent and Related Costs</b>			
	2012	2013	2014
Fiscal Agent	\$25,650	\$26,317	\$27,001
EEU Fund Audit	\$15,390	\$15,790	\$16,201

Source: DPS Budget Recommendation Spreadsheet filed 7/1/11; BED Budget Recommendation Spreadsheet filed 5/27/11; VEIC Budget Recommendation Spreadsheet filed 6/29/11.

No party objected to the DPS's, VEIC's and BED's recommendation.

We find the recommendation reasonable and determine that the budgets for fiscal agent and EEU Fund Audit costs shall be as shown in Appendix A to this Order.

Because EEC rates are set separately for BED customers than for customers in the rest of the state, it is also necessary to determine what portion of the fiscal agent and EEU Fund Audit costs will be paid for by BED customers. In the past, BED customers have paid for a percentage of these costs. Consistent with this practice, we determine that BED customers should pay \$4,180 in fiscal agent costs and \$2,510 in EEU Fund Audit costs during the 2012-2014 time period.<sup>130</sup>

**8. Alternative Funding Mechanisms**

AIV recommends that the Board reopen consideration of options for financing mechanisms to replace the EEC in whole or in part. It asserts that many of the problems associated with EEU budgets could be mitigated by finding alternatives to the EEC, particularly by developing mechanisms to pay for technical assistance and efficiency projects more directly out of the savings generated by those projects.<sup>131</sup> The 20 Business Organizations contend that alternative funding mechanisms to reduce dependence on the EEC would help better balance program funding goals with rate impact concerns.<sup>132</sup>

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130. These amounts are calculated by multiplying the 2012-2014 budgets for the fiscal agent and the EEU Fund Audit by 5.3 percent, which is BED's share of Efficiency Vermont's and BED's budgets for electric resource-acquisition, non-resource-acquisition, and compensation (in other words, all items other than DPS evaluation costs and fiscal agent and related costs).

131. AIV Comments at 6.

132. 20 Business Organizations Comments at 1.

The DPS does not object to an informal proceeding to examine alternative funding mechanisms to the EEC. VEIC asserts, on the basis of its analysis described below, that amortization is "not worth considering" unless the Board establishes electric EEU budgets significantly higher than those required to meet the Three Percent Savings Scenario.<sup>133</sup> No other party commented on AIV's recommendation.

In 2006, the Board found that financing the EEU budget over the lifetime of the energy savings would significantly mitigate the rate impacts of increasing the EEU budget. Therefore the Board initiated a workshop process to explore the feasibility of financing energy efficiency, through such means as bonding or securitization, to mitigate the short-term rate impacts of investing in energy efficiency.<sup>134</sup> This process did not result in any immediate financing alternatives.

In the current workshop process, VEIC considered the bill and rate impacts of financing and amortizing the EEU budget over five years under the Three Percent Savings Scenario and the VEIC Maximum Achievable Scenario. In VEIC's analysis, rate and bill changes are converted to 2011 dollars and levelized over a six-year period; the percentage change compares the levelized values with the levelized values of the base case. The near-term results of VEIC's analysis are summarized in the following table; positive percentages show rate or bill increases, while negative percentages indicate rate or bill decreases (compared to the base case of the Status Quo Scenario).

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133. VEIC Scenario Analysis Results Narrative at 10.

134. Order of 8/2/06 Re: Energy Efficiency Utility Budget for Calendar Years 2006, 2007 and 2008, at 20-23.



<b>VEIC Service Area Average Rate and Bill Impacts</b> <b>Expensing Versus Five-Year Amortization</b> <i>Compared to Status Quo Scenario</i> <i>Levelized over Six Years</i>								
	Three Percent Savings				VEIC Maximum Achievable			
	Expensing		Amortization		Expensing		Amortization	
	Rates	Bills	Rates	Bills	Rates	Bills	Rates	Bills
Residential	0.5%	0.2%	0.2%	-0.1%	8.2%	0.6%	5.5%	-1.8%
Commercial and Industrial	3.4%	0.6%	2.3%	-0.4%	15.2%	6.7%	11.8%	3.0%

Source: VEIC Scenario Analysis Results Narrative at 36, 40.

Given that the budget levels we establish today are less than those analyzed by VEIC in its Three Percent Savings Scenario, the differences between expensing and amortizing those costs are likely to be even smaller than shown in the above table for that scenario. In addition, when levelized over a longer time period, the differences between expensing and amortizing the EEU budget become even smaller. For example, levelized over 20 years, the analysis shows that, if the budget were amortized, commercial and industrial customers would experience equivalent bill reductions of 3.2 percent, and slightly higher rate impacts (2.1 percent compared to 2.0 percent). Levelized over 32 years, according to the analysis, commercial and industrial customers would experience higher bills and rates if the budget were amortized than if it were expensed.<sup>135</sup>

For this reason, we conclude that we will not reopen a generic investigation into financing options for the EEU budget at this time. However, if AIV or the 20 Business Organizations wish to file a specific financing proposal with us, we will open a proceeding to consider it.

**G. EEU Electric Budget Determination**

For 20 years, Vermont law has required electric and gas utilities to consider energy efficiency along with generation, transmission, and distribution options when determining how

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135. VEIC Scenario Analysis Results Narrative at 36, 40.

they can provide least-cost service to their customers.<sup>136</sup> This law recognizes that implementing energy efficiency, when it is cost-effective, results in total utility costs that are lower than they otherwise would be.

Since March 2000, Efficiency Vermont (rather than individual electric utilities) has delivered system-wide electric efficiency programs.<sup>137</sup> This change in implementation did not, however, change the underlying economics. The EEU's implementation of cost-effective energy efficiency still results in total electric costs (including the EEU's costs) that are lower than they otherwise would be.

Lower total electric costs for desired levels of electric service benefit all Vermonters, and thus it is important for electric utilities, state policymakers, and regulators to take all appropriate steps to lower these costs.<sup>138</sup> One such step is to acquire all reasonably available, cost-effective energy efficiency savings, as Vermont law requires. This requirement benefits all electric ratepayers because cost-effective energy efficiency produces the system benefits described in Section IV.A, above, which reduce costs that would otherwise be passed on to all ratepayers in the form of higher rates at the time of a utility's next rate case. These system benefits are in addition to the bill reductions experienced by ratepayers who actually install energy efficiency measures and therefore consume less electricity.

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136. *See*, 30 V.S.A. § 218c.

137. BED is an exception to this statement. Consistent with the Board-approved settlement that created the EEU program, in 1999 BED filed a proposal to deliver most of the EEU's system-wide energy efficiency programs in its service territory. In light of BED's experience delivering energy efficiency programs and its desire to continue to serve its customers in this manner, the Board approved BED's proposal with the requirement that BED work closely with Efficiency Vermont to ensure that the same energy efficiency services were offered to all Vermonters. Every three years since then (matching the three-year contract cycle with the entity serving as Efficiency Vermont) the Board re-evaluated whether BED should continue to deliver most of the EEU's system-wide energy efficiency programs in its service territory. Earlier this year, after conducting a comprehensive Initial Overall Performance Assessment of BED, the Board issued BED an Order of Appointment to serve as an EEU through December 31, 2021.

138. This is particularly important in light of three challenges facing our state: (1) Vermont is located at the end of the energy pipeline, far from fossil-fuel and large hydro sources; (2) Vermont is one of the most rural states in the U.S., and it costs more to serve customers in less densely populated areas; and (3) Vermont's mountainous terrain increases transmission and distribution construction and maintenance costs.

After reviewing the information presented to us during this budget-setting process, we conclude that an increase in the EEU program budget for electric efficiency services is necessary in order to enable both EEUs to acquire all reasonably-available, cost-effective electric efficiency savings. This conclusion is supported by the EEUs' actual implementation experience, the DPS Study, the VEIC Study, and the scenario analyses performed by various participants.

The fact that the EEUs have historically achieved savings at a levelized cost that is considerably below what it would cost an electric utility to provide the same energy and capacity over the average lifetime of the efficiency measures (based on avoided costs in effect at the time the measures were installed) indicates that, even with potential increases in the EEUs' levelized cost of acquiring energy efficiency, additional investments would be cost-effective. In addition, even though we concluded in Section IV.C, above, that the DPS Study and the VEIC Study provided high estimates of the reasonably-available, cost-effective electric efficiency potential during the 20-year period covered by the studies, we nevertheless determined that both studies show there is significant additional electric efficiency potential. Furthermore, the scenario analyses showed that, even with incentive levels of less than 100 percent and changes to the pace at which the electric efficiency is acquired, the reasonably available cost-effective electric efficiency potential in Vermont is higher than that which could be acquired by the current electric EEU program budget level.

We have also taken into account the objectives set forth in 30 V.S.A. § 209(d)(4) as that statute requires. All four objectives to which we are required to give "particular emphasis" are advanced by the acquisition of additional cost-effective electric efficiency, which the EEUs could do if the EEU program budget for electric services were increased.

At the same time, however, 30 V.S.A. § 209(e)(14) requires us to consider the effect of the EEU program on rates. The rate and bill impact analyses presented in this proceeding demonstrate that, even though increased investment in electric efficiency will reduce Vermonters' electric costs over the long term, in the short term, budget increases will increase electric rates for all customers and bills for non-participants.

Ultimately we determine that electric EEU program budgets of \$40.1 million in 2012, \$42.8 million in 2013, and \$45.9 million in 2014 provide the best balance among all the statutory

criteria we are required to consider, and phase in the increase in the EEU budgets at an appropriate rate to the level at which the EEUs could acquire all the cost-effective electric efficiency that is reasonably available. These budgets include sufficient funds for both EEUs' electric resource-acquisition and non-resource-acquisition activities, the DPS's evaluation activities, VEIC's compensation, and fiscal agent costs, while not unduly increasing rates and non-participant bills. These budgets also include funds for geographic-targeting activities in 2012 and 2013 which will enable Efficiency Vermont to target constrained areas where transmission and distribution system upgrades may be able to be deferred or avoided.<sup>139</sup>

We expressly note that while our decision today is very similar to the DPS's overall electric budget recommendation which, for Efficiency Vermont, is premised on its Three Percent Savings Scenario, we are not ruling on what budget level would be necessary for Efficiency Vermont to achieve three percent annual electricity savings. VEIC asserts that higher electric resource acquisition budgets would be necessary to achieve this goal; the DPS itself acknowledges that using some of these funds for geographic targeting would likely result in Efficiency Vermont achieving less than three percent savings. As discussed in Section V, below, workshop participants will have the opportunity to propose electric energy and capacity savings goals (among other quantifiable performance indicators), and we will consider those proposals in a subsequent order.

Instead, our decision today is based on the need to balance competing statutory objectives. As in previous EEU program budget determinations, the achievable-potential studies, the scenario analyses and participants' recommendations have helped us understand the impacts of various budget options. However, budget-setting is not an exact science. Rather, it requires the exercise of judgment and expertise to evaluate the range of possible EEU program budgets and consider participants' arguments in light of the statutory objectives.

For example, the participants disagree regarding the impact of energy efficiency investments on job creation in Vermont. AIV asserts that EEU budgets that are too high would

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139. As described in Section IV.D.3, above, the 2014 GT budget will be determined through the VSPC process and the Board will establish the appropriate budget collection mechanism for 2014 through a process involving the VSPC and interested parties.

impose short- and long-term costs on commercial and industrial ratepayers that could lead to reduced wages, employment and investment in Vermont.<sup>140</sup> In contrast, the DPS contends that energy efficiency has been shown to have significant positive impacts on state economies. For example, the DPS refers to a 2009 study of the economic impact of energy efficiency investment in Massachusetts showed that every \$1 million of investment in energy efficiency resulted in 22.9 job-years, \$1.126 million in earnings (compensation associated with employment) and \$1.478 million in value added.<sup>141</sup> VEIC cites another study which examined California's experience from 1976 to 2006. This study found that for every new job foregone in oil, gas, and electric power, 50 new jobs were created in California.<sup>142</sup>

It can be difficult to apply economic development impact studies based on other state experiences to Vermont, especially where there are meaningful differences in economic conditions and size. In addition, we do not have sufficient information regarding the studies' assumptions and methodologies to evaluate the extent to which they address the competitiveness concerns raised by the 20 Business Organizations in this proceeding.<sup>143</sup>

Nevertheless, the participants' disagreement regarding this issue highlights one of the challenges associated with establishing budgets for energy efficiency — statewide impacts can hide the impacts on individual ratepayers. That is, while increased investment in energy efficiency may be likely to lead long-term to overall job creation on a statewide basis, the effect can be just the opposite on an individual customer, particularly when that customer is competing in a global marketplace. This conclusion is supported by many of the public comments we received in this proceeding which discuss the challenges faced by individual business customers. For this reason, we have carefully considered bill and rate impacts on both program participants and non-participants.

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140. AIV Comments at 1.

141. According to the DPS, "value added" represents the value that is added by the application of labor and capital in converting intermediate inputs to finished products. Summed across industries, it is a measure of overall economic activity, which includes earnings, interest, and profits. DPS Reply Comments at 7.

142. VEIC Reply Comments at 5.

143. AIV Additional Comments at 1-3.

We are not persuaded by VEIC's, CLF's and VPIRG's arguments that the rate and bill impacts of higher budgets than those we approve today would be reasonable in light of the benefits of energy efficiency investments. Those benefits are significant:

- electric efficiency investments have been highly cost-effective, and an estimated 80 percent of funds invested in efficiency remain in Vermont, benefitting the local economy;<sup>144</sup>
- the benefits to Vermont's economy include both direct and indirect economic stimulus;<sup>145</sup>
- higher budgets would provide more Vermonters with an opportunity to participate in EEU programs, and participants generally experience bill decreases that offset any EEC rate increases.<sup>146</sup>

Nevertheless, as noted by AIV and the DPS, there have been significant percentage increases in EEC rates in 2010 and 2011,<sup>147</sup> and we conclude that, in light of the slow economic recovery, it is appropriate to moderate the rate of further increases over the next three years.

Similarly, we do not accept AIV's argument that the rate and bill impacts of the budgets we establish today are so high as to be unreasonable in the context of 30 V.S.A. § 209(d)(4).<sup>148</sup> In addition, we are not persuaded by AIV's argument that neither the objective of deferring transmission and distribution projects nor the objective of reducing future power purchases can be considered a "meaningful counterbalance" to the cost of electricity because their "real value" is reflected primarily in rates and thus already factored in to the goal of minimizing electricity

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144. According to VBSR, the benefit-cost ratio for Efficiency Vermont programs, in terms of energy cost savings versus Efficiency Vermont program costs, was 2.4 to 1 and the avoided energy costs for the business sector was \$67 million. VBSR Comments at 1.

145. As stated by VEIC, the direct economic impact comes from substituting local goods and services for imported electric energy and capacity with less local content. For example, building retrofits are labor intensive and produce jobs that must be located physically in Vermont. The indirect stimulus comes from bill savings; participating customers have more money at their disposal to spend or invest, thereby creating a multiplier effect on economic activity. According to VEIC, some studies estimate that the induced effects of this multiplier effect account for more than 90 percent of net job creation. VEIC Reply Comments at 5-6.

146. Steinhurst Presentation at slides 16-18.

147. AIV Comments at 3; DPS Comments at 3.

148. AIV Comments at 4.

costs.<sup>149</sup> There is a tension in the statute between the objectives of minimizing both short- and long-term electricity costs. Minimizing long-term costs requires an up-front investment in efficiency which increases short-term costs, particularly for non-participants. The budgets we establish today will reduce long-term electricity costs with only modest rate and bill impacts.

For two reasons, we also do not accept the recommendation of the 20 Business Organizations that we conduct further proceedings, including consideration of scenarios with smaller budgets, before establishing future electric EEU program budgets. First, this request is not timely. All workshop participants had the opportunity to propose budget and savings scenarios for analysis and to comment on the proposed scenarios. AIV did not file any proposed scenarios or comment on those that were filed.<sup>150</sup> Second, and more importantly, as discussed above, the information presented in this proceeding clearly illustrates that there is additional reasonably available cost-effective electric efficiency beyond that which could be acquired at current budget levels. Reducing the EEU electric budgets would remove the EEU program from the path toward acquiring all reasonably available cost-effective electric efficiency, which would be contrary to the statutory requirement of 30 V.S.A. § 209(d)(4).

On balance, the budgets set forth in this Order will provide significant benefits to Vermont ratepayers. These long-term benefits outweigh the short-term economic impacts associated with the increased electric EEU budgets.

#### **V. NEXT STEPS IN THIS PROCEEDING**

There are three areas in which further steps will be necessary before Vermont's first DRP can be finalized: (1) heating-and-process-fuel budgets; (2) geographic targeting areas and budgets; and (3) EEU QPIs. We address each of these areas below.

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149. AIV Comments at 5.

150. *See*, Order of 10/21/10, Order Determining Scenarios for Analysis of Electric and Heating-and-Process-Fuel Efficiency Resource Acquisition, at 2.

### **A. Heating-and-Process-Fuel Budgets**

Pursuant to Sections 209(d)(7) and (8), the funding for heating-and-process-fuel efficiency activities is provided by proceeds from RGGI and FCM auctions. Since the amount collected from these auctions is not known in advance, the Board cannot establish firm budget levels for heating-and-process-fuel activities. Instead, participants in Track B of the DRP process have proposed three-year and ten-year estimates of the heating-and-process-fuel budgets. The three-year budget estimates will be used to establish heating-and-process-fuel quantitative performance indicators and the ten-year budget estimates will inform the longer term planning activities of the EEU.

The Board will issue a subsequent order that determines the three- and ten-year heating-and-process-fuel budget estimates, and will also address the design of heating-and-process-fuel programs to be implemented by the EEUs during the 2012 to 2014 time period.

### **B. Geographic Targeting**

We have determined that it is appropriate to continue geographic-targeting efforts, at least through 2014. We direct staff to conduct additional proceedings to implement the VSPC GT-territory selection process and develop further information, either through written filings or a workshop process, to determine the specific areas that should be geographically targeted for capacity reductions in the 2012-2014 budget period. The determination shall be informed primarily by a VSPC process that will identify candidate areas and their associated budgets, the appropriate allocation of benefits, and funding mechanisms. If the sum of the associated budgets for the selected GT areas exceeds the amounts available from the EEC for the 2012-2013 budget years, we direct staff to develop proposals for appropriate funding mechanisms to cover the difference. Once we have ruled on the specific areas that should be geographically targeted in the 2012-2014 budget period, we direct staff to initiate a proceeding to determine the appropriate funding mechanism(s) for the selected GT areas for the 2014 budget year.



### **C. EEU QPIs**

On February 4, 2011, the Board issued an Order determining the framework that workshop participants should use to develop proposed electric QPIs for the 2012-2014 budget period for both VEIC and BED. In its May 27 filing, VEIC filed a proposed schedule for workshop participants to file: (1) an updated forecast of 2012-2031 electrical savings and benefits; and (2) proposed electric QPIs.<sup>151</sup> Given that the Board may approve updated avoided costs this year,<sup>152</sup> VEIC recommends that the updated forecast and proposed electric QPIs be filed by September 12, 2011. No other workshop participants filed comments on the proposed schedule.

We determine that it is appropriate for workshop participants to file proposed electric QPIs for VEIC and BED after Board approval of updated avoided costs. Such filings should include appropriate equity constraints as discussed in Section IV.E.2.a, above. We direct workshop participants to file an updated forecast and proposed electric QPIs by September 12, 2011.<sup>153</sup> We direct Board staff to conduct additional proceedings to determine QPIs for the 2012-2014 budget period. These proceedings should include a workshop, scheduled after the September 12 filings, to discuss the updated electrical forecast and proposed QPIs and the opportunity for workshop participants to file written comments.

## **VI. CONCLUSION**

In this Order, we establish the actual electric EEU budgets that will be used in 2012, 2013, and 2014. In addition, for planning purposes, we establish annual electric EEU budgets for

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151. VEIC's May 27 filing also included a proposed schedule for an updated forecast of 2012-2031 heating-and-process-fuels savings and benefits and proposed heat-and-process-fuel QPIs. We will address those recommendations in a future order.

152. Periodically the DPS proposes new avoided costs for use by the EEU in program and measure screening. Any such proposed changes to avoided costs must be reviewed and approved by the Board prior to their implementation. The Board last approved changes to avoided costs in November 2009. The DPS has indicated that it will be proposing updated avoided costs in July 2011.

153. We recognize that the September 12 filing date is dependent on Board approval of updated avoided costs and may be subject to revision.

the years 2015 through 2031. Furthermore, we make determinations regarding the various components of each of these annual budgets.

## **VII. ORDER**

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board ("Board") of the State of Vermont that:

1. The Energy Efficiency Utility ("EEU") program electric budgets for the 2012 – 2014 time period shall be:

- 2012 – \$40.1 million
- 2013 – \$42.8 million
- 2014 – \$45.9 million

2. The EEU electric budgets for the 2015 – 2031 time period and the components of the EEU electric budgets for the 2012 – 2031 time period (including the Department of Public Service's ("DPS") electric EEU monitoring and evaluation budgets, the City of Burlington Electric Department's ("BED") share of the total electric EEU program budget, and Vermont Energy Investment Corporation's ("VEIC") compensation budgets, among others) shall be those shown in Appendix A to this Order.

3. Board staff shall conduct additional proceedings to implement the VSPC geographic-targeting-territory selection process and develop further information, either through written filings or a workshop process, to determine the specific areas that should be geographically targeted for capacity reductions in the 2012-2014 budget period.

4. In 2012 and 2013, ten percent of Efficiency Vermont's electric resource-acquisition budgets as shown on Attachment A shall be allocated to geographic-targeting activities. If, after the further process described in Paragraph 3, above, the Board determines that these budget levels are higher than needed, the funds not directed to geographic-targeting programs shall be directed to statewide resource-acquisition efforts.

5. The Board will determine the 2014 budget for geographic-targeting activities after being informed by the Vermont System Planning Committee ("VSPC") process. The Board will

determine the appropriate budget collection mechanism for 2014 through a process involving the VSPC and interested persons.

6. EEU's shall treat Advanced-Metering-Infrastructure-related activities as non-resource-acquisition activities.

7. EEU's shall not offer incentives for electro-technologies unless the projects cost-effectively reduce both peak demand and electric energy usage.

8. The electric portion of the DPS's 2012-2014 energy efficiency evaluation plan is approved.

9. On or before August 17, 2011, VEIC shall file, for Board approval, a summary table showing the allocation of its electric efficiency-related non-resource-acquisition budget for the 2012-2014 time period as a whole among the seven categories of electric non-resource-acquisition activities. On or before the same date, BED shall file, for Board approval, a similar table for its 2012-2014 electric non-resource-acquisition budget.

10. On or before September 12, 2011, workshop participants shall file an updated forecast of 2012-2031 electrical savings and benefits and proposed electric quantifiable performance indicators for the 2012-2014 budget period. Such filings shall include appropriate equity constraints. Board staff shall conduct additional proceedings to determine quantifiable performance indicators for the 2012-2014 budget period, including a workshop and written filings.

11. In participants' filings regarding proposed quantifiable performance indicators, participants may submit additional analyses related to whether the current level of spending by the EEU's on low-income programs, plus inflation, would provide equitable treatment to low-income customers over the 20-year term of the Long-Term Demand Resources Plan.

Dated at Montpelier, Vermont, this 1st day of August, 2011.

s/ James Volz )

) PUBLIC SERVICE

s/ David C. Coen )

) BOARD

s/ John D. Burke )

) OF VERMONT

OFFICE OF THE CLERK

FILED: August 1, 2011

ATTEST: s/ Susan m. Hudson  
Clerk of the Board

*NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: psb.clerk@state.vt.us)*

**Appendix A:**  
**EEU Program Electric Budgets**  
**Board Determination**

	2012	2013	2014	3-yr Total	2015	2016	2017
<b>Funded via EEC</b>							
Electric Resource Acquisition							
Efficiency Vermont	\$32,482,600	\$34,706,540	\$37,385,900	\$104,575,040	\$40,340,759	\$43,469,256	\$46,584,795
BED	\$1,880,000	\$2,014,000	\$2,170,000	\$6,064,000	\$2,337,666	\$2,513,980	\$2,696,148
Non-Resource Acquisition							
Efficiency Vermont	\$3,032,000	\$3,264,000	\$3,405,000	\$9,701,000	\$ 3,058,530	\$ 3,333,810	\$ 3,504,830
BED	\$197,000	\$201,000	\$203,000	\$601,000	\$145,300	\$154,600	\$158,400
Operations and QPI Fees					\$1,855,444	\$2,000,965	\$2,141,475
Operations Fees	\$607,340	\$649,340	\$697,560	\$1,954,240			
QPI Awards	\$911,020	\$974,010	\$1,046,340	\$2,931,370			
DPS Evaluation					\$959,971	\$959,971	\$959,971
Rest of State	\$885,180	\$885,300	\$885,430	\$2,655,910			
BED	\$63,820	\$63,700	\$63,570	\$191,090			
Fiscal Agent					\$27,703	\$28,423	\$29,162
Rest of State	\$24,290	\$24,930	\$25,570	\$74,790			
BED	\$1,360	\$1,390	\$1,430	\$4,180			
EEU Fund Audit					\$16,622	\$17,054	\$17,497
Rest of State	\$14,570	\$14,950	\$15,350	\$44,870			
BED	\$820	\$840	\$850	\$2,510			
<b>EEC-Funded Subtotal</b>	<b>\$40,100,000</b>	<b>\$42,800,000</b>	<b>\$45,900,000</b>	<b>\$128,800,000</b>	<b>\$48,741,995</b>	<b>\$52,478,059</b>	<b>\$56,092,279</b>

**Appendix A:**  
**EEU Program Electric Budget**  
**Board Determination**

	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>
<b>Funded via EEC</b>							
Electric Resource Acquisition							
Efficiency Vermont	\$48,034,051	\$49,645,840	\$51,279,154	\$52,828,643	\$54,549,928	\$56,254,913	\$58,069,805
BED	\$2,780,382	\$2,868,773	\$2,966,063	\$3,056,968	\$3,149,249	\$3,243,315	\$3,349,072
Non-Resource Acquisition							
Efficiency Vermont	\$ 3,302,660	\$ 3,599,780	\$ 3,783,100	\$ 3,565,290	\$ 3,887,450	\$ 4,084,480	\$ 3,849,120
BED	\$154,000	\$163,600	\$167,600	\$163,100	\$172,900	\$177,100	\$172,400
Operations and QPI Fees	\$2,194,792	\$2,276,403	\$2,354,069	\$2,411,002	\$2,498,365	\$2,579,682	\$2,647,212
Operations Fees							
QPI Awards							
DPS Evaluation	\$1,034,533	\$1,034,533	\$1,034,533	\$1,119,804	\$1,119,804	\$1,119,804	\$1,206,781
Rest of State							
BED							
Fiscal Agent	\$29,921	\$30,699	\$31,497	\$32,316	\$33,156	\$34,018	\$34,902
Rest of State							
BED							
EEU Fund Audit	\$17,952	\$18,419	\$18,898	\$19,389	\$19,894	\$20,411	\$20,941
Rest of State							
BED							
<b>EEC-Funded Subtotal</b>	<b>\$57,548,290</b>	<b>\$59,638,047</b>	<b>\$61,634,914</b>	<b>\$63,196,513</b>	<b>\$65,430,746</b>	<b>\$67,513,724</b>	<b>\$69,350,234</b>

**Appendix A:**  
**EEU Program Electric Budget**  
**Board Determination**

EEU-2010-06

	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>	<b>2031</b>
<b>Funded via EEC</b>							
Electric Resource Acquisition							
Efficiency Vermont	\$59,920,919	\$61,707,337	\$63,157,477	\$65,086,641	\$66,982,240	\$69,058,751	\$71,418,979
BED	\$3,453,508	\$3,568,530	\$3,648,111	\$3,764,671	\$3,881,651	\$4,004,169	\$4,149,095
Non-Resource Acquisition							
Efficiency Vermont	\$ 4,197,930	\$ 4,409,660	\$ 4,156,150	\$ 4,533,620	\$ 4,763,060	\$ 4,481,810	\$ 4,797,630
BED	\$183,400	\$185,600	\$182,100	\$193,400	\$195,700	\$192,200	\$203,900
Operations and QPI Fees	\$2,741,265	\$2,826,691	\$2,877,851	\$2,976,466	\$3,067,317	\$3,144,070	\$3,258,479
Operations Fees							
QPI Awards							
DPS Evaluation	\$1,206,781	\$1,206,781	\$1,306,250	\$1,306,250	\$1,306,250	\$1,407,709	\$1,407,709
Rest of State							
BED							
Fiscal Agent	\$35,810	\$36,741	\$37,696	\$38,676	\$39,682	\$40,714	\$41,772
Rest of State							
BED							
EEU Fund Audit	\$21,486	\$22,045	\$22,618	\$23,206	\$23,809	\$24,428	\$25,063
Rest of State							
BED							
<b>EEC-Funded Subtotal</b>	<b>\$71,761,099</b>	<b>\$73,963,384</b>	<b>\$75,388,253</b>	<b>\$77,922,930</b>	<b>\$80,259,710</b>	<b>\$82,353,851</b>	<b>\$85,302,626</b>

**Appendix B: E-Mail Service List for This Proceeding**

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## **Appendix C: Procedural History**

### **A. Track A – Electric Resource Acquisition**

On October 21, 2010, the Board issued an Order determining that workshop participants should analyze three electric budget and savings scenarios, which are described in Section IV.C.2, above.<sup>154</sup>

On January 20, 2011, VEIC filed a presentation regarding its analysis of maximum economically achievable electricity savings from unconstrained investment in energy efficiency over the time period 2012 through 2031. This analysis was commissioned by VELCO, and is sometimes referred to as the "Forecast 20" study.

On February 3, 2011, the DPS filed a draft electric efficiency potential study.

On February 18, 2011, Board staff conducted a workshop at which the DPS presented its draft electric efficiency potential study and VEIC presented its Forecast 20 study.

On April 8, 2011, the DPS filed the final version of its electric efficiency potential study.

Also on April 8, 2011, VEIC filed the results of its analysis of the three electric scenarios identified in the October 21, 2010, Order, and its electric resource-acquisition budget recommendations.

On April 11, 2011, the DPS filed the results of its analysis of the three electric scenarios identified in the October 21, 2010, Order, and its electric resource-acquisition budget recommendations. On April 19, 2011, the DPS filed a correction to its analysis of one of the scenarios.

On April 20, 2011, the Board conducted a workshop at which the DPS and VEIC presented the results of their electric scenario analyses and their electric resource acquisition budget recommendations.

On April 30, 2011, VEIC filed information requested by the Board at the April 20 workshop.

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154. Order of 10/21/2010 at 1. This Order also addressed a heating-and-process-fuel scenario. This aspect of the Order is discussed in the procedural history for the heating-and-process-fuels resource acquisition track.

On May 2, 2011, VELCO informed the Board and workshop participants that it could incorporate the results of an energy efficiency forecast received as late as September 2011 into its 2012 Long-Range Transmission Plan.<sup>155</sup>

On May 6, 2011, Board staff conducted a workshop at which CLF and VPIRG presented the results of their joint electric scenario analysis and their joint electric resource acquisition budget recommendations.

On May 16, 2011, CLF and VPIRG jointly filed responses to questions raised by Board staff at the May 6 workshop.

On May 17, 2011, the DPS filed revisions to its scenario analysis and updated statewide and BED-specific rate-and-bill-impact analyses.

### **B. Track B – Heating-and-Process-Fuels Resource Acquisition**

Participants have provided estimated three- and ten-year heating-and-process-fuel budgets. They have also submitted recommendations regarding the heating-and-process-fuel programs to be delivered by the EEU's. Participants explored these issues further in multiple workshops and written filings. These issues will be addressed by the Board in a subsequent order.

### **C. Track C – Geographic Targeting**

On October 4, 2010, Board staff issued a scheduling memorandum that established a preliminary schedule for the GT track. The preliminary schedule included a DPS-led evaluation of GT programs, workshops to discuss the evaluation's results, and a workshop to determine next steps in the DRP GT track.

On December 10, 2010, the DPS filed a draft evaluation report regarding their investigation into the "proof of concept" of the GT program as a means to quickly capture energy and demand savings as a way of possibly deferring or avoiding transmission and distribution

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155. E-mail message from Deena Frankel, VELCO, to EEU-2010-06 (DRP) E-mail Service List, Re: EEU-2010-06--VELCO follow up on DRP workshop question, dated May 2, 2011.

projects.<sup>156</sup> On December 13, 2010, Board staff held a workshop at which the DPS and its consultants presented the results of their investigation. On December 23, 2010, comments on the draft evaluation report were submitted by CVPS, GMP and VEIC.

On January 7, 2011, the DPS filed the final report on its evaluation of the GT program. On January 13, 2011, comments regarding the GT program were filed by CVPS, GMP and VEIC.

On February 7, 2011, Board staff issued a memorandum requesting additional input from participants on the GT program. On March 18, 2011, comments in response to this memorandum were filed by the DPS, CVPS, GMP and VPPSA.

On May 10, 2011, Board staff held a workshop to discuss participants' comments and to further refine the implementation of the GT program. On May 27, 2011, comments based on the workshop discussion were submitted by the DPS, CVPS, GMP and VPPSA. The DPS filed an additional proposal on June 7, 2011. Reply comments on both the May 27 and June 7 filings were submitted by the DPS, CVPS, VEIC and VPPSA on June 17, 2011.

#### **D. Track D – Non-Resource Acquisition and Evaluation**

On November 19, 2010, Board staff conducted a workshop at which VEIC and BED presented preliminary proposals for non-resource-acquisition ("NRA") activities and associated budgets.

On November 19, 2010, the DPS filed a letter recommending that Advanced Metering Infrastructure ("AMI")-related activities be treated as NRA activities and funded through this portion of the budget. Reply comments were filed by CLF, GMP, and CVPS on November 30, 2010.

On January 31, 2011, BED filed its revised NRA proposal for 2012-14.

On February 3, 2011, VEIC filed its revised NRA proposal for 2012-14.

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156. This report was filed to fulfill a Board request that the DPS "work with Efficiency Vermont and the Vermont electric utilities to develop the evaluation measurements necessary to determine whether geographically targeted energy efficiency can achieve the intended result of deferring transmission and distribution upgrades." *Order Re Geographic Targeting of Energy Efficiency Utility Funds*, Order of 1/8/07 at 5.

On March 3, 2011, the DPS filed a letter stating its general support of VEIC's NRA proposal and budget. However, the DPS objected to VEIC performing FCM verification activities exclusively and recommended that this issue be further discussed among the parties. On March 18, 2011, the DPS filed comments stating that it had reviewed BED's NRA proposal and had no objections. No other parties filed comments on the NRA proposals.

The DPS filed its Energy Efficiency Evaluation Plan for 2012-14 on March 3, 2011. The DPS proposes an EEC-funded evaluation budget of \$2,871,200 and a heating-and-process-fuel-funded evaluation budget of \$176,800.

Board staff conducted a workshop on March 16, 2011, to discuss the DPS's Energy Efficiency Evaluation Plan proposal.

On April 1, 2011, the DPS filed a revised Energy Efficiency Evaluation Plan and budget.

On April 3, 2011, VEIC filed comments on the DPS Evaluation Plan. VEIC reiterated its proposal to perform Measurement and Verification ("M&V") activities associated with its participation in the FCM itself rather than have the DPS continue to perform these activities. On April 17, 2011, VEIC filed additional comments stating that "with the exception of the Department's proposal regarding its participation in the Forward Capacity Measurement and Verification activities, VEIC supports the Department's revised plan and associated budgets."

No other party filed comments on the DPS Evaluation Plan.

On April 22, 2011, the DPS filed a response to VEIC's reply comments regarding the FCM M&V activities.

On May 25, 2011, the Board issued an Order determining that the DPS should continue to carry out the evaluation activities associated with M&V for the FCM.

#### **E. Track E – Performance Indicators and Compensation Structure**

On November 1, 2010, the DPS and VEIC separately filed proposed frameworks to develop heating-and-process-fuel QPIs. On November 5, 2010, BED filed comments on the DPS's framework. On November 8, 2010, CVPS and VEIC separately filed comments on the DPS's proposed framework.

On December 1, 2010, the Board issued an Order determining the framework that workshop participants should use to develop proposed heating-and-process-fuel QPIs.

On January 11, 2011, the DPS filed a proposed framework for electric QPIs. The Department represented that the VEIC supported the proposed framework. On January 12, 2011, BED filed comments on the DPS's proposed framework.

On January 13, 2011, Board staff held a workshop to discuss the DPS's proposed framework for electric QPIs. On January 21, 2011, GMP filed comments on the DPS's proposed framework.

On February 4, 2011, the Board issued an Order determining the framework that workshop participants should use to develop electric QPIs.

On April 8, 2011, the DPS and VEIC filed a joint recommendation regarding the amount of the "set-aside" for a performance award and for an operations fee. On May 27, 2011, VEIC filed supplemental comments to substantiate the compensation proposal. No other comments on compensation were filed.

In its May 27 filing, VEIC filed a proposed schedule for next steps in Track E. VEIC recommended that electric and heating-and-process-fuel QPIs be filed by September 12, 2011.