

STATE OF VERMONT  
PUBLIC SERVICE BOARD

Docket No. 6962

Investigation into City of Burlington Electric )	Hearing at
Department's Integrated Resource Plan filed on )	Montpelier, Vermont
April 22, 2004 )	February 17, 2005

Order entered: 5/5/2005

PRESENT: John Randall Pratt, Hearing Officer

APPEARANCES: John Cotter, Esq.  
for Vermont Department of Public Service

William F. Ellis, Esq.  
McNeil, Leddy & Sheahan, P.C.  
for City of Burlington Electric Department

**I. BACKGROUND**

The City of Burlington Electric Department ("BED"), filed its 2004 Integrated Resource Plan ("IRP") on April 22, 2004.

On June 3, 2004, I held a prehearing conference in this docket. William F. Ellis, Esq., for BED, and John Cotter, Esq., for the Vermont Department of Public Service ("Department"), entered appearances. At the prehearing conference, the parties requested, and I granted, time for informal discussions to try to resolve the Department's concerns regarding the content of BED's IRP.

After being duly noticed, a public hearing was held in Burlington on July 29, 2004.

BED filed prefiled testimony in support of the IRP on August 3, 2004, and filed minor revisions to the IRP on August 12, 2004.

On December 27, 2004, BED and the Department jointly filed a Memorandum of Understanding ("Exhibit Joint-1" or "MOU") between them. (A copy of the MOU is attached hereto as Appendix I.) The MOU results from negotiations between BED and the Department, and makes certain modifications to the IRP which satisfy the Department's concerns. These modifications are described in more detail below. The MOU states that the Board should

approve BED's IRP and that such approval would approve the decision-making process described therein, but would not specifically approve any of the methods, tools, or outcomes that may result from that process. The MOU also provides that BED is to make a compliance filing with the Board and the Department setting forth the amendments and modifications to the IRP described in the MOU.

On February 17, 2005, I held a Technical Hearing on the MOU. The parties entered into evidence the IRP, the MOU and sworn testimony supporting the MOU. No one appeared in opposition to the MOU.

I have reviewed the record in this docket. I conclude that the MOU and the IRP, as modified by the MOU, will provide for a reasonable and effective resource planning process for BED. As required by 30 V.S.A. § 218(c), it describes a decision-making process that is likely to meet BED's customers' need for energy services at the lowest present value life cycle cost, including environmental and economic costs. As such, it will promote the general good of the State. Accordingly, I recommend that the MOU be approved by the Board in its entirety.

## **II. FINDINGS OF FACT**

Based upon the evidence of record, including the agreements contained in the MOU, I hereby report the following findings and conclusions to the Board in accordance with 30 V.S.A. § 8.

1. BED filed its 2004 Integrated Resource Plan with the Board on April 22, 2004.
2. BED's IRP includes the Company's expected load predictions, transmission and distribution system capacity and expectations, demand-side management programs, and resource portfolio forecasts. IRP, generally.
3. BED's IRP employs scenario analysis and decision analysis methodologies. IRP at 1-5.
4. BED's IRP forecasts anticipated residential, commercial, industrial, and street-lighting loads, including peak demand and total energy requirements. The IRP includes load-sensitivity analyses, which value the forecasts under variable and uncertain future predicted outcomes. IRP Section 3.

5. BED's IRP addresses the transmission and distribution system, with an emphasis on customer safety, minimized system losses, economical reliability, and plans to identify and address areas for improvement. IRP Section 4.

6. DSM programs, plans, costs, and opportunities are described in BED's IRP. By Order of September 30, 1999, in Docket 5980, the Board established the Energy Efficiency Utility ("EEU"), currently operated as Efficiency Vermont ("EVT"). Accompanying that Order was a Bilateral Agreement between BED and the Department,<sup>1</sup> which was modified and approved by the Board on September 22, 2000, also in Docket 5980. Based in large part on BED's commitment to continue its current and pursue new energy efficiency programs, the Board allowed BED to deliver the statewide efficiency programs in its service territory.<sup>2</sup> Nonetheless, BED has worked effectively with EVT, to the benefit of both EVT and BED's ratepayers. BED's recent energy efficiency implementation efforts have exceeded BED's savings targets. Considering both BED's territory-specific energy efficiency programs and the statewide programs that it implemented, in 2002 BED exceeded its own energy efficiency targets by 92%. BED exceeded its 2002 budget for spending on energy efficiency programs by 38%, primarily due to higher than expected customer participation in a number of the programs. However, BED's cost per annualized Mwh savings was below projections. On the whole, the additional achieved savings more than exceeded the cost overrun in BED's DSM programs. In other words, in 2002, BED achieved more cost-effective energy savings than it had forecast. BED's IRP projects that its DSM efforts will continue to provide a long-term energy resource. IRP Section 5.

7. BED's IRP analyzes its current resource portfolio; evaluates its capacity, duration, and volatility; and describes the diversification strategy BED employs to mitigate the risk inherent in its current and future resource selections. IRP Section 6.

8. Based on the IRP's analysis of a resource acquisition strategy, BED sets out an action plan to achieve a least-cost, robust, and reliable resource mix. The action plan addresses each scenario of the most important variables to resource acquisition decisions. A major component of this strategy is the investment in an upgrade to the McNeil generating station. BED states that based on its scenario analysis, it will only make an investment in a fluidized bed at the McNeil station if Renewable

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1. Docket 5980, Order of 9/30/1999, at Appendix U.

2. With the exception of specifically dedicated funds to support BED's share of the Emerging Markets Program. Docket 5980, Order of 10/22/2000, at 20 (ordering clause 8).

Portfolio Standard ("RPS") legislation and the sale of Renewable Energy Certificates ("REC"s) allow it.<sup>3</sup> IRP at page 7-1.

9. The Department and BED engaged in negotiations regarding this IRP which have resulted in an MOU. The MOU recommends that the Board approve the IRP, as modified and amended in the MOU. The MOU was filed with the Board on December 27, 2004. MOU, ¶ 1.

10. The MOU provides that approval of the proposed IRP would constitute approval of only the decision-making process described in the IRP, and would not constitute specific approval of any of the methods, tools, or outcomes that may result from that process. MOU, ¶ 5.

11. The MOU provides that BED will make a compliance filing with the Board and the Department, setting forth the amendments and modifications to the IRP described in the MOU, within thirty days of a final Board Order in this Docket. MOU, ¶ 5.

12. The MOU reaffirms BED's ongoing duty to:

- a. monitor key uncertainties and the continued accuracy of assumptions and data in the IRP;
- b. continually evaluate the decision-making process and adapt it to new accommodate new techniques or information as necessary;
- c. continually reevaluate the merits of its decisions.

MOU, ¶ 6.

13. Under the terms of the MOU, BED will amend and modify its 2004 IRP as follows:

- a. Section 4.5.2 of the IRP will be modified to reflect BED's position regarding the Northwest Reliability Project ("NRP"), proposed by Vermont Electric Power Company, Inc., as the NRP affects the East Avenue and Queen City substations. The NRP would supply a second 115 kV transmission supply to BED's Queen City substation, and would not alleviate BED's concerns about the reliability of the electricity supply to the East Avenue substation. Accordingly, BED is

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3. I am persuaded that BED is adequately evaluating the possible outcomes of both RPS legislation in Vermont and the future value of RECs on the whole. Accordingly, I do not recommend delaying or conditioning approval of BED's IRP on the ultimate outcome of either of these variables.

participating with Green Mountain Power Corporation and the Department in an Area Specific Collaborative to evaluate alternatives, including distributed generation and demand-side management alternatives. MOU, ¶ 2.a.

- b. The third bulleted portion of Section 4.6.2. of the IRP, entitled East Avenue Loop and Waterfront Relocation Project, is to be replaced with language that refers to discussions of this project in the IRP. MOU, ¶ 2.b.
- c. The last paragraph of Section 6.6.4 of the IRP will be replaced with language providing that BED will pursue cost-effective demand-side management ("DSM") opportunities as they arise. MOU, ¶ 2.c.
- d. Added to the Action Plan set out in the IRP will be a provision stating that, in addition to implementing DSM at the existing pace, BED will pursue cost-effective DSM opportunities as they arise. MOU, ¶ 2.d.

14. The MOU provides that BED will use the spreadsheet attached to the MOU to determine the values for the factors in the formula used in its Distribution Transformers Acquisition Procedure. The Distribution Transformers Acquisition Procedure is a program BED uses to make purchase decisions based on 20-year societal-cost analysis. The formula inputs determine transformer costs by adding calculated purchase-price factors to load-loss and no-load-loss amounts. MOU, ¶ 3; IRP at 9-4.

15. The MOU provides that in the event BED moves the 34.5 kV-to-13.8 kV transformer currently located at the Lake Street Substation, BED will analyze and implement, in a timely manner, all cost-effective capacitor-installation, circuit-balancing, and phase-balancing opportunities arising from such reconfiguration. MOU, ¶ 4.

16. As amended by the MOU, BED's IRP constitutes a least-cost integrated plan for providing resources to its customers. IRP and MOU, generally.

### **III. DISCUSSION AND CONCLUSION**

30 V.S.A. § 218(c) sets out the statutory standard that BED's IRP must meet. Section 218(c) describes a "least cost integrated plan" as:

a plan for meeting the public's need for energy services, after safety concerns are addressed, at the lowest possible present value life cycle cost, including

environmental and economic costs, through a strategy combining investments and expenditures on energy supply, transmission and distribution efficiency, and comprehensive energy efficiency programs.<sup>4</sup>

BED's IRP, as modified by the MOU, presents a least-cost, integrated, resource acquisition plan for the provision of electricity services to its customers. The IRP employs scenario analysis and decision analysis tools to meet the requirements set out in Section 218(c), and to ensure resource selections that are "robust across a wide range of feasible scenarios, rather than avoided cost analysis seeking to optimize a solution to a narrow range of alternatives."<sup>5</sup>

The MOU filed in this docket makes modest adjustments to BED's IRP, which improve the thorough planning process set out in the IRP. The MOU also reiterates BED's continuing obligation to monitor, evaluate and update the planning process and its results. In the MOU, BED and the Department request that the Board approve the decision-making methodology described by BED's IRP.

I have reviewed the MOU, its attachments, and the testimony of the various parties. I find that based upon all of the foregoing and the evidence in the record, the MOU between BED and the Department promotes the general good of the State and provides a reasonable basis for concluding that the requirements of 30 V.S.A. § 218(c) have been met. I, therefore, recommend that the MOU be approved in its entirety by the Board.

Neither BED nor the Department addressed the requirements for filing BED's next IRP.<sup>6</sup> I conclude that an approximately three-year cycle would be reasonable and appropriate. Thus, I recommend that the Board require BED to file its next IRP on or before May 1, 2008.

The parties have waived their right to service of this Proposal for Decision in accordance with 3 V.S.A. § 811.

DATED at Montpelier, Vermont, this 3rd day of May, 2005.

s/John Randall Pratt

John Randall Pratt  
Hearing Officer

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4. 30 V.S.A. § 218(c)(a)(1).

5. Docket 6290, Order of 7/16/2002.

6. Wherefore, the parties did not waive their rights to comment on this recommendation.

### V. ORDER

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

1. The Findings and Conclusion of the Hearing Officer are adopted.
2. The Memorandum of Understanding ("MOU") filed December 27, 2004, between the City of Burlington Electric Department ("BED") and the Vermont Department of Public Service (Attachment 1 to this Order), is approved in its entirety.
3. Consistent with the MOU, BED shall amend and modify its IRP as follows:
  - a. Section 4.5.2 of the IRP shall be replaced with the new section described in the MOU at ¶ 2.a.
  - b. The third bulleted paragraph of Section 4.6.2 of the IRP, entitled East Avenue Loop and Waterfront Relocation Project, shall be replaced by the following: "East Avenue Loop: This project would improve electric service reliability for BED's East Avenue Substation and is discussed in Sections 4.5.2 and 4.6.1 above."
  - c. The last full paragraph of Section 6.6.4 shall be replaced with the following: "In addition to administering its core programs, BED will pursue cost-effective Demand-Side Management ("DSM") opportunities as they arise."
  - d. The sixth bulleted item on page 7-2 shall be amended to read: "Continue DSM implementation at the existing pace, and pursue cost-effective DSM opportunities as they arise."
4. BED shall use the spreadsheet attached to the MOU to determine the factors for the formula in its Distribution Transformers Acquisition Procedure, subject to two conditions:
  - a. The inputs to cells B14 through B24 will be updated as needed.
  - b. The Avoided Capacity Cost and Avoided Energy Cost formulas will be updated using initial values that are based on an October, 2004, analysis. BED shall review the energy and capacity rates at least annually after implementation, and upon consultation with the Department, ensure that they remain appropriate.
5. In the event BED moves the 34.5 kV-to-13.8 kV transformer currently located at the Lake Street Substation, BED shall analyze and implement, in a timely manner, all cost-effective capacitor-installation, circuit-balancing, and phase-balancing opportunities arising from such reconfiguration.

6. BED's IRP, as modified by the MOU, is approved as it relates to the decision-making process described in the IRP, as modified by the MOU. Today's Order does not approve the specific methods, tools, and outcomes that may result from that process.

7. BED shall file, within thirty days of this Order, a compliance filing that sets forth the amendments and modifications to the IRP described herein.

8. BED shall file its next IRP on or before May 1, 2008.

DATED at Montpelier, Vermont, this 5th day of May, 2005.

<u>s/James Volz</u>	)	PUBLIC SERVICE
	)	
<u>s/David C. Coen</u>	)	
	)	BOARD
	)	OF VERMONT
<u>s/John D. Burke</u>	)	

OFFICE OF THE CLERK

FILED: May 5, 2005

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: Clerk@psb.state.vt.us)*

*Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.*