STATE OF VERMONT
PUBLIC SERVICE BOARD

Joint Petition of Vermont Transco, LLC, Vermont Electric Power Company, Inc. ("VELCO"), City of Burlington Electric Department ("BED") and Green Mountain Power Corporation for a certificate of public good, pursuant to 30 V.S.A. Section 248, authorizing the construction of the so-called East Avenue Loop Project in Williston, South Burlington, Colchester, Winooski and Burlington, Vermont, which consists of: (1) the replacement of 4.8 miles of an existing single 115 kV line between VELCO's Essex Substation and its East Avenue Substation with two new 115 kV lines within the same corridor; (2) expansion of the East Avenue Substation; (3) installation of a new 1.5-mile 34.5 kV line from the East Avenue Substation to BED's McNeil Substation; (4) construction of a new substation at the McNeil Generating Station; (5) installation of new and relocated equipment from BED's Lake Street Substation to the McNeil Substation; and (6) removal of several circuits connected to BED's Lake Street Substation	)	Docket No. 7314

PREFILED REBUTTAL TESTIMONY OF
MUNIR K. KASTI, P.E.
ON BEHALF OF
PETITIONERS

November 26, 2007

Summary: The purpose of Mr. Kasti's rebuttal testimony is to explain why City of South Burlington witness Juli Beth Hinds' recommendation that a single-pole, double-circuit line design configuration be utilized in the Country Club Estates and Valley Ridge neighborhoods in the City of South Burlington is not a good utility practice, and would negate the reliability benefits the Project is designed to achieve.

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1. Introduction

Q1. Please state your name.

A1. My name is Munir K. Kasti.

Q2. Have you previously filed testimony in this proceeding?

A2. Yes. I submitted direct prefiled testimony on behalf of the Petitioners in this docket.

2. Overview

Q3. What is the purpose of your rebuttal testimony?

A3. My rebuttal testimony responds to the October 12, 2007 testimony submitted by Juli Beth Hinds on behalf of the City of South Burlington (Q8 & A8), which suggests that the East Avenue Loop Project ("Project") line design be modified in the Country Club Estates and Valley Ridge neighborhoods to a single-pole, double-circuit steel pole 115 kV line design.

Q4. Do you agree that a single-pole line double-circuit design should be considered in these neighborhoods?

A4. As the Manager of Engineering and an electrical engineer with responsibility for ensuring a safe, reliable and societally cost-effective supply of electricity to BED's customers, I absolutely disagree that a single-pole, double-circuit design should be even remotely considered for any portion of the Project.

Q5. Please explain your disagreement with the City of South Burlington's proposed single-pole, double-circuit design.

A5. My disagreement with South Burlington's proposed single-pole, double-circuit design is that it does not address, and in fact perpetuates, the critical reliability problems in the City of Burlington, as well as the entire Chittenden County area, the Project is designed to resolve. I direct you to the rebuttal testimonies of Terry Cecchini and Dean LaForest for further comment on reliability issues outside the City of Burlington. My rebuttal testimony will present the City of Burlington's perspective.

Q6. What is the critical reliability problem in the City of Burlington the Project is designed to address?

A6. The existing East Avenue Substation connects to VELCO's Essex Substation via a single, radial 115 kV transmission line. The primary need for the Project is that a fault on either the sole 115 kV line presently feeding the East Avenue Substation or the East Avenue Substation transformer results in service interruption to about 40% to 50% of BED's load. The load interrupted includes critical load such as the University of Vermont, Fletcher Allen Health Care, Champlain College, the downtown commercial core, and elder care facilities. The second 115 kV line is proposed to introduce a redundant feed into the East Avenue Substation and to address this existing reliability exposure.

South Burlington does not dispute the need for the Project, and admits that it will improve the adequacy and reliability of service to ratepayers in South Burlington.

See South Burlington's Responses to PET:CSB.33 and 34, attached hereto as Exhibit PET REB.2.1. South Burlington has proposed a design that seriously compromises the reliability benefits the Project was designed to achieve. As explained in Mr. LaForest's rebuttal testimony, common mode failures of double 115 kV circuits on the same pole are treated as single-outage events since both 115 kV circuits could trip by a single event. For example, a tree contacting both circuits, a lightning strike, or equipment failure (insulator or other hardware) causing both circuits to trip will continue to result in the loss of approximately 40% to 50% of BED's load served by the East Avenue Substation.

Q7. Should the Board give any consideration to changing the design of the line to single-pole, double-circuit in the area of the two identified neighborhoods?

A7. The electrical engineers presenting testimony on behalf of the Petitioners in this proceeding agree that a single-pole, double-circuit design is not robust and would be imprudent to recommend or implement given the need to be addressed by the Project. Additionally, due to the critical nature and amount of loads served by the East Avenue Substation, the Department of Public Service's Engineer, Steven Litkovitz, supported removing BED's East Avenue load from a single contingency exposure in his testimony dated October 5, 2007.

Under South Burlington's proposal, common mode failures of double 115 kV circuit lines (a tree contacting both circuits, lightning strike, or equipment failure,

etc.) will result in service interruption to 40% to 50% of BED's distribution load served out of the East Avenue Substation. Having 40% to 50% of the city load (critical load in nature) interrupted for a common mode failure contingency (caused by a single contingency event) on the 115 kV line is not acceptable. The single-pole, double-circuit proposal does not resolve the reliability issues the Project is designed to address and hence is not "appropriate here."

The proposed Project design as submitted by the Petitioners will resolve the critical reliability problem in the City of Burlington, and has been supported by the Burlington City Council, the Burlington Business Association, and Fletcher Allen Health Care. After hearing about South Burlington's recommendation concerning the use of a single-pole, double-circuit design, the Burlington City Council adopted a resolution on November 13, 2007 reiterating its support for the Project's design as proposed by the Petitioners and expressed the City of Burlington's strenuous opposition to the City of South Burlington's proposed single-pole, double-circuit design. A copy of the City Council Resolution is attached hereto as Exhibit PET REB.2.2. I also should reemphasize that the Burlington Business Association supported a redundant source of power to the East Avenue Substation (see Exhibit PET 12.17 [supplemental filing]), and Fletcher Allen Health Care supported the Project providing a looped feed (see Exhibit PET 12.17 [supplemental filing]).

I believe expending approximately $43 Million on an electrical transmission project which does not resolve the critical reliability problems it was designed to address would be a waste of society's resources.

3. Conclusion

Q8. Does this conclude your testimony at this time?

A8. Yes, it does.

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