

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Joint Petition of Vermont Electric Power Company, Inc.,)
and Vermont Transco LLC (collectively known as)
VELCO) and the Village of Lyndonville Electric) Docket No. ____
Department (LED) for a Certificate of Public Good)
pursuant to 30 V.S.A. § 248 authorizing the construction)
of a Substation in the Town of Lyndon, Vermont)

PREFILED TESTIMONY OF
KENNETH C. MASON
ON BEHALF OF
VILLAGE OF LYNDONVILLE ELECTRIC DEPARTMENT

Mr. Mason’s testimony addresses the need for the VELCO Substation Project (“Project”) from the perspective of LED. He describes the work that LED will conduct on its system in connection with the proposed Project. He also addresses the positive impacts on system reliability and stability, the economic benefits, and the Project’s compliance with other substantive criteria of 30 V.S.A. § 248.

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Introduction

1 Q1. Please state your name, current employer and business address.

2 A1. My name is Kenneth C. Mason. I am the manager of the Village of Lyndonville Electric
3 Department (“LED”), a municipal electric utility located at 119 Park Avenue,
4 Lyndonville, Vermont.

5

6 Q2. What is the purpose of your testimony in this proceeding?

7 A2. My testimony serves two purposes. First, I explain why LED is seeking a Certificate of
8 Public Good (“CPG”). Second, I explain LED’s interest in the proposed VELCO 115 kV
9 Substation Project, the need for this Project (30 V.S.A. § 248(b)(2)), the positive impacts
10 on system stability and reliability (30 V.S.A. § 248(b)(3)), the economic benefits (30
11 V.S.A. § 248(b)(4)), and the Project’s compliance with the other substantive criteria of 30
12 V.S.A. § 248.

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Q3. Please describe your qualifications.

A3. I have been involved in the electrical power business for approximately 37 years, working as a transmission-distribution surveyor, superintendent, and as a manager. First I worked with Central Vermont Public Service Corporation for 4 years and for the last 33 years with LED, as a superintendent for 2 years and manager for the last 31 years.

Q4. Have you previously testified in regulatory proceedings?

A4. Yes, on a number of occasions over the past 30+ years, most recently in PSB Docket No. 7067 in connection with the proposed line to serve the East Haven Wind Project.

Q5. Could you please explain why LED is seeking a CPG?

A5. LED is seeking a CPG because it will need to conduct the following work on the LED system in connection with the proposed Project. LED will remove eight poles and set twelve new 35-45 foot high poles located in proximity to VELCO's substation fence to accommodate the construction of the new 115 kV substation. In addition, two poles may be replaced in their current location to facilitate making up the new line connections, and the height of these would increase by not more than five feet. Exhibit Mallory-VELCO-3. These new wood poles and associated 477 kcmil ACSR non-specular conductor will also allow for the connection between the new substation and:

- 1 (1) the existing 34.5 kV supply line from the Higgins Hill substation;
- 2 (2) the existing LED No. 2 substation, where the current 34.5 kV supply line
- 3 terminates;
- 4 (3) the existing line to the LED Pudding Hill substation; and
- 5 (4) the existing line to the LED Burke Mountain substation.

6

7 In addition, certain equipment in the VELCO substation will be paid for and belong to
8 LED, pursuant to VELCO's Substation Participation Agreement ("Exclusive Facilities").

9 That equipment is:

- 10 (1) Three (3) of the five (5) 34.5 kV circuit breakers that comprise the 34.5 kV ring
11 bus, along with their associated disconnect switches, interconnecting buswork, supporting
12 structures, foundations and grounding.
- 13 (2) The relay and control equipment that is required to operate the above. The three
14 (3) circuit breakers that will be classified as LED Exclusive Facilities are identified on
15 the one-line diagram. Exhibit Mason-LED-1.

16

17 Q6. What is the estimated Project cost for the equipment that must be purchased and the work
18 that LED must perform?

1 A6. The budgetary estimate for LED' Exclusive Cost portion of the Substation facility is
2 \$1,572,807. In addition, the estimate for LED equipment and work done outside of the
3 substation as described in answer 5 is \$70,143.

4

5 Q7. Will LED's upgrades have any significant impact on the Section 248 criteria?

6 A7. No. All of the LED work proposed is within the area of the VELCO substation, which
7 has been fully evaluated for potential impacts on the substantive Section 248 criteria.

8

9 Q8. Please explain LED's interest in the proposed Project.

10 A8. LED has substantial interest in, and sees substantial benefit from, the proposed Project.
11 Attached hereto as Exhibit Mason-LED-2 is a letter sent to the LED customers which
12 fully sets forth the reliability-related reasons that LED supports the Project. The letter
13 relates to the history of service over the existing radial 34.5 kV line and the need for the
14 new substation.

15

16 Q9. What is LED's specific percentage share of the carrying costs of the Project for the first
17 ten years?

18 A9. 77.5%. LED and CVPS have agreed to share the Specific Facilities costs of the Project
19 for the first ten years on a 77.5% / 22.5% basis. The ratio reflects the agreed upon value
20 of the substation serving LED and backing up the Higgins Hill Substation, which serves

1 CVPS. The existing Higgins Hill substation transformer and the proposed LED
2 substation transformer are the same size and should provide reliable and redundant
3 service and accommodate load growth for 15 to 20 years.

4

5 Q10. Has LED performed any public outreach with respect to the proposed Project?

6 A10. Yes. LED has conducted extensive public outreach. Specifically, LED explained the
7 Project before a joint meeting of the Lyndon Board of Selectmen, Lyndonville Trustees
8 and the Lyndon Planning Commission with VELCO's Project Manager, Scott Mallory.
9 This meeting was warned as a public meeting and several members of the public were
10 present. In addition, for the past three years, LED has explained the proposed Project to
11 the public by sending letters to all LED customers, holding meetings, and including an
12 explanation of the Project in the 2007 and 2008 Village Reports. The Project has also
13 been the subject of numerous newspaper articles. To date, no member of the public has
14 made a negative comment about the Project to LED.

15

16 **Overview of Existing System and Project Need, System Stability, and Reliability**

17

[30 V.S.A. § 248(b)(2) and (3)]

18 Q11. Why does LED need VELCO to build the proposed substation?

19 A11. See A8. Basically, LED will be served directly from the VELCO 115 kV transmission
20 system with 34.5 kV back-up, rather than its current service exclusively from 9 miles of

1 radial 34.5 kV line. This will greatly improve reliability for LED's 5,400 customers and
2 provides an added benefit of accommodating any future load growth.

3

4 Q12. When does LED expect to begin the work that it must construct as part of the proposed
5 Project?

6 A12. VELCO has included a proposed construction schedule (see Exhibit VELCO-Mallory-5.
7 As stated above, LED must move portions of its existing 34.5 kV system in order to
8 allow for the construction of the substation. LED will begin work as soon as it and
9 VELCO have obtained all necessary approvals.

10

11 Q13. What impact will the proposed Project have on system stability and reliability?

12 A13. The proposed Project will have only positive impacts on the Petitioners, other Vermont
13 utilities, and electrical customers. Please refer to the testimony of Mr. Mallory.

14

15 **Economic Benefit**

16 [30 V.S.A. § 248(b)(4)]

17 Q14. Will the Project result in an **economic benefit** to the State?

18 A14. Yes. From LED's perspective, this Project has at least the following economic benefits:

- 19
 - Enhanced reliability, which is increasingly important to existing and potential
20 customers;

- 1 • Allowance for planned economic development on LED's system – Burke
- 2 Mountain, wood chip facility, Industrial Park, etc.;
- 3 • Increased tax base for the Town of Lyndon; and
- 4 • Reduced line losses. The energy/capacity cost saving is \$172,116 for the period
- 5 April 1, 2011 to March 31, 2012 and the kilowatt hours saved is 2,259,889
- 6 KWH's over the same period.

7

8 Q15. How will LED pay for the work it will conduct in connection with the proposed Project?

9 A15. LED has had an analysis done by its auditor of the estimated costs of its share of the

10 Specific Facilities costs (which it will pay for in the first ten years), as well as the

11 Exclusive Facilities costs for LED-owned equipment. Included in the analysis are the

12 estimated costs of operation and maintenance of LED equipment in the Substation, in

13 accordance with VELCO's Substation Participation Agreement. LED anticipates

14 borrowing the capital costs of the construction. The analysis shows that beginning in

15 year 5, the impacts of these costs are offset in LED's overall cost of service by certain

16 savings that LED enjoys as a result of the Project and that by year 10, when the Specific

17 Facilities payments end, LED will have a cumulative net reduction in costs of \$370,000.

18 Please see Exhibit Mason-LED-3. LED will be sending a letter to its customers over the

19 September month-long billing period explaining the financial aspects of the Project.

20 Please see Exhibit Mason-LED-4.

1 direction, as this will allow for the fastest and most efficient response to potential
2 substation problems.

3

4 Q18. Does this conclude your testimony?

5 A18. Yes.

EXHIBIT LIST

Exhibit Mason-LED-1	One Line Diagram
Exhibit Mason-LED-2	May 1, 2009 Letter to LED Customers
Exhibit Mason-LED-3	Cost Analysis
Exhibit Mason-LED-4	September 1, 2009 Letter to LED Customers