

**STATE OF VERMONT
PUBLIC UTILITY COMMISSION**

Case No. _____

Petition of Vermont Transco LLC, and
Vermont Electric Power Company, Inc. (collectively, “VELCO”),
for a Certificate of Public Good pursuant to
30 V.S.A. § 248(j) authorizing upgrades
to VELCO’s existing Tafts Corner Substation,
located in Williston, Vermont

PETITION

This document and associated testimony and exhibits have been filed ePUC

The Vermont Electric Power Company, Inc. and Vermont Transco LLC (collectively referred to as VELCO, the Company, or Petitioners), in accordance with 30 V.S.A. § 248(j) and Vermont Public Utility Commission (Commission) Rule 5.400, petition the Commission for a Certificate of Public Good (CPG) for minor upgrades to the existing Tafts Corner Substation at 525 Sycamore Street in Williston, Vermont (Project). In support of this petition, VELCO states as follows:

1. VELCO is a company as defined by 30 V.S.A. § 201 and is subject to Commission jurisdiction pursuant to 30 V.S.A. § 203.
2. VELCO’s office is located at 366 Pinnacle Ridge Road in Rutland, Vermont.
3. VELCO owns, operates, and plans for Vermont’s high voltage electric transmission system.
4. VELCO operates Vermont’s high voltage electric transmission system to assure the integrity of the portion of the regional bulk power system for which it is responsible, and to assure adequate and reliable transmission of electricity to the electric distribution utilities that it serves in Vermont.

5. VELCO's Tafts Corner substation is connected to VELCO's 115 kV electric transmission network in the Williston area. The substation is connected to Green Mountain Power's (GMP) and Vermont Electric Cooperative's (VEC) sub-transmission systems in the Williston area. The distribution systems of GMP and VEC are fed from the sub-transmission system and in turn serve GMP and VEC customers.

Notice Requirements

6. As permitted under Section 248(f), VELCO obtained waivers of the need to submit 45-day advance notices to the municipal and regional planning commission from these entities. VELCO also received a waiver from the municipal selectboard as permitted under Commission Rule 5.402. Contemporaneously with this filing, VELCO sent notice of the Project to the adjoining landowners, Department of Public Service, Agency of Natural Resources, and Vermont Division for Historic Preservation. In accordance with Commission Rule 5.402(B)(3), VELCO identified the adjoining landowners using a certified copy of the Williston grand list as it existed no more than 60 days before this filing.

Project Need

7. VELCO constructed the Tafts Corner substation in 2004 to increase the reliability and load-serving capability of the 34.5 kV GMP and VEC subtransmission systems in the Williston area. In 2009 in Docket 7454, VELCO upgraded the substation to serve the local GMP and VEC 12.47 kV distribution systems.

8. The substation currently has an operational deficiency wherein VEC customers can experience long duration outages that last until VELCO restores the failed substation components. Specifically, this substation currently has an existing 115/12.47 kV "T2" transformer that feeds

six GMP and two VEC local distribution circuits that are radially served. If VELCO were to experience a failure and loss of the existing 115/12.47 kV T2 transformer, VELCO would need to install either a mobile transformer or a spare transformer that is presently located at the Tafts Corner substation. For loss of the T2 source, GMP would perform circuit restorations from other area distribution sources. GMP, however, is unable to serve the local VEC load. Due to system topology, the VEC load cannot be served from another VEC distribution source. GMP could restore power to its area customers within hours. But VEC customers would need to rely on VELCO's T2 transformer circuit restoration that is estimated to take approximately 24 hours.

9. There is currently a spare 115/13.2 kV, 56 MVA transformer (T3) at the substation that VELCO can use when the T2 transformer experiences an outage. To restore a 12.47 kV source in the spare T3 position requires VELCO to operate the substation with the 115 kV ring bus open and a significant amount of effort is required to rework (rewire and re-cable) 115 kV protection, instrumentation and control circuits on the three-terminal Tafts-Essex-Lime Kiln line. The emergency rework of the protection, instrumentation and control circuits requires de-commissioning and re-commissioning of systems. This poses additional risks to the area transmission system. The same rework is also required for scheduled maintenance of the in-service T2 transformer. The consequence is that VEC customers will experience a long duration outage until VELCO can restore the T2 circuit.

10. This Project seeks to resolve this operational deficiency that would occur during VELCO's routine maintenance and emergency situations. VELCO presented GMP and VEC with options to improve the area reliability. VELCO, GMP, and VEC agreed on an upgrade option that would:

- reduce risks by eliminating rework of 115 kV circuits;
 - support more simplified maintenance;
 - improve system reliability and load restoration times for emergencies and maintenance;
- and;
- offer reasonable cost allocations.

The restoration time for loss of the T2 transformer would be reduced to less than 2 hours from approximately 24 hours (the time required for performing local switching at the substation).

11. Installing this new breaker would allow VELCO to use the existing T3 spare transformer or a mobile transformer more efficiently when the T2 experiences an outage or is taken out of service for maintenance. The T3 transformer is already at the substation and currently has an oil containment above ground catchment membrane to contain oil spills. VELCO would only use the T3 transformer when the T2 transformer experiences outages or for planned maintenance. VELCO uses the T3 transformer for potential failures of other 115/12.47 kV and 115/13.8 kV transformers in the Chittenden County area.

12. The Project all occurs within the existing substation fence.

13. The Commission can process this petition using Section 248(j) procedures. The Project is limited in size and scope, it raises no significant issues with respect to the substantive criteria of Section 248, and the public interest is satisfied by the procedures authorized under Section 248(j). VELCO would perform the Section 248 upgrades within previously disturbed lands, all within the existing substation fence. No Project components require tree clearing. For these reasons, as well as those explained in the accompanying testimony, the Project does not raise

a significant issue with respect to the Section 248 criteria. The Project has a limited scope and there is a clear need to improve restoration times during emergencies and simplify the work for routine maintenance.

Project Components

14. The Project consists of the following primary components:
 - Install a new 11 5kV SF6 circuit breaker on existing breaker foundations, make connections to existing 115 kV ring bus, and use existing conduits for control cables.
 - Install a new T3 115 kV voltage transformer with a single foundation and steel mounting stand with associated conduits and cables.
 - Install protection relays and controls in existing relay/control panels for the 115/13.2 kV T3 transformer and 115 kV K23-40 breaker position, including all required wiring and installation of hardware, fiber optics, and materials.

Project Cost

15. VELCO estimates that the Project will cost \$753,278.

Project Schedule

16. VELCO proposes to begin Project construction as soon as possible after receiving the required permits and approvals. Currently, the estimated construction schedule would begin in June 2024 with a targeted completion date of September 2024. A failure to achieve this schedule will likely have adverse impacts on Project execution and overall Project cost. Construction would take place between the hours of 7:00 A.M. and 7:00 P.M. Monday through Friday, and between

8:00 A.M. and 5:00 P.M. on Saturdays. No construction would take place on Sundays, or state or federal holidays; although VELCO seeks to conduct activities on Bennington Battle Day given the short summer construction season, and given that the holiday is not widely granted as a paid day off for many of the workers likely to be working on the Project.

17. VELCO requests that these construction restrictions do not apply to construction activities that VELCO must perform during any required outages that may be needed to maintain system reliability.

Alternatives Considered

18. The proposed Project is the most efficient way to address the condition-related concerns. The substation's condition drives the need for the proposed Project. Energy efficiency and load management could not resolve these problems. Moreover, VELCO presented the proposed Project to the Vermont System Planning Committee (VSPC). The Project screened out of the VSPC's test for Non-Transmission Alternative (NTA) analysis, due to the need being based upon condition. Thus, VELCO did not perform an NTA analysis.

Prefiled Evidence and Compliance with Statutory Criteria (30 V.S.A. § 248(b))

19. The Project satisfies the statutory criteria contained in Section 248(b) as demonstrated by the prefiled testimony and exhibits filed with this Petition.

20. In support of this Petition, the Petitioners submit prefiled testimony and exhibits sponsored by the following witnesses:

Witnesses

Dave Haas

Subject

Provides an overview of the proposed Project's scope, cost and schedule, and explains how the Project complies with Section 248(b)(1)-(4), (b)(5) (public health

and safety, transportation, educational and municipal services, aesthetics) (and Commission Rule 5.800), and development affecting public investments); (b)(6)-(7); and (b)(10).

Jacob Reed

Provides an assessment of the Project's potential impacts upon above-ground and below-ground historic sites as well as all the Section 248(b)(5) environmental criteria, primary agricultural soils and VELCO's waste disposal practices.

Ed McGann

Describes VELCO's proposed substation design details and addresses how the Project complies with Section 248(b)(5) (public health and safety).

Request for Relief

WHEREFORE, the Petitioners respectfully request that the Commission:

- a. Issue findings consistent with this Petition and prefiled testimony and exhibits that the Project will promote the general good of the State of Vermont as required by 30 V.S.A. § 248(j);
- b. Issue a Certificate of Public Good for the Project consistent with this Petition and prefiled testimony and exhibits; and
- c. Grant such further relief as the Commission determines is necessary, just, and proper.

Dated at Montpelier, Vermont this 29th day of September, 2023.

VERMONT ELECTRIC POWER COMPANY, INC.
AND VERMONT TRANSCO LLC



By: _____

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