STATE OF VERMONT PUBLIC UTILITY COMMISSION

Case No. 25-

Petition of Vermont Transco LLC and Vermont Electric Power Company, Inc. ("VELCO") for a Certificate of Public Good, pursuant to 30 V.S.A. § 248, for approval to install an Advanced Power Flow Controller at the VELCO Sandbar Station in Milton, Vermont

PETITION OF VERMONT ELECTRIC POWER COMPANY, INC. AND VERMONT TRANSCO LLC FOR A CERTIFICATE OF PUBLIC GOOD PURSUANT TO 30 V.S.A. § 248

By this Petition, Vermont Electric Power Company, Inc. and Vermont Transco LLC (collectively "VELCO" or "Petitioner") request that the Vermont Public Utility Commission ("Commission") issue a Certificate of Public Good ("CPG"), pursuant to 30 V.S.A. § 248, for approval to install an Advanced Power Flow Controller at the VELCO Sandbar Station in Milton, Vermont (the "Project"). In support of this Petition, VELCO states the following based on the prefiled testimony and exhibits submitted by VELCO in this Case:

I. DESCRIPTION OF THE PETITIONER

- VELCO is a company as defined by 30 V.S.A. § 201, and as such is subject to the Commission's jurisdiction pursuant to 30 V.S.A. § 203. VELCO's office is located at 366
 Pinnacle Ridge Road in Rutland, Vermont.
- 2. VELCO owns, operates, and plans for Vermont's high voltage electric transmission system.
 - 3. Construction of the Project requires a CPG pursuant to 30 V.S.A. § 248.

II. DESCRIPTION OF THE PROJECT

- 4. The Project is further detailed in the Petitioner's prefiled testimony. This Project involves the installation of an Advanced Power Flow Controller (APFC) at the VELCO Sandbar Station in Milton.
- 5. This Project is needed to extend the life of the existing Sandbar Station Phase Shifting Transformer (PST), which controls the flow across the Sandbar PV20 line preventing overloads on the line. In 2021, the Sandbar PST experienced an internal failure resulting in the removal of the PST from service. Without the PST in service, the line remained open for approximately 5 months until another PST could be relocated from another substation. Long duration outages of this line place the power system into a contingency configuration that could manifest into large reliability challenges should a second contingency occur. Prefiled Testimony of John R. Fiske ("Fiske pf.") at 5.
- 6. The analysis of the Sandbar PST 2021 failure indicated excessive tap changes as the likely cause of the failure. The power flow on the line is increasingly more variable requiring the PST to perform more tap changes, reducing the life expectancy of the PST. The variability of the flow on the line is expected to continue to increase as the power grid integrates more renewable sources of generation. The APFC will regulate/moderate this variability to reduce the number of tap changes the PST is required to perform, thereby extending the life of the PST. Fiske pf. at 5-6.
- 7. The Project will install twelve (12) APFC modules adjacent to the existing Sandbar Station in Milton. The APFC installation requires a yard expansion of the eastern fence line of the existing station to accommodate the APFC devices (SmartValves), bus work, instrument transformers, a new 115kV station service, and connection of the APFC into the

existing Sandbar Station. The Project will include three lightning masts that will include lighting and security cameras. Lighting will only be used during maintenance events. Fiske pf. at 4-5.

- 8. The existing eastern fence line of the station will be moved approximately 187 feet to the east and 234 feet to the north to accommodate the APFC and associated equipment.

 There will be three new motor-operated load break switches installed within the existing Sandbar Station. Fiske pf. at 5.
- 9. The AFPC proposed at the Sandbar Station employs power electronics technology to control power flows on the PV20 line. The Voltage Source Converter technology selected is a single phase, modular static synchronous compensator that operates at line voltage and is installed in series with the existing PST. Fiske pf. at 6.
- 10. As part of this Project, the VELCO K19 transmission line is proposed to be relocated as it leaves the Sandbar Station to accommodate the station's yard expansion for the APFC. This relocation will require the installation of new 115kV structures with associated anchoring and hardware. Fiske pf. at 6.
- 11. Project proposed site preparation will include tree clearing and grading to facilitate the station's yard expansion, transmission line relocation, construction support area, the creation of natural resource habitat, and to improve drainage around the station. The Project also includes constructing an access drive along the northern end of the existing fence line to create an access route for construction of the APFC, access to the K19 transmission line, and access to the habitat creation area. Fiske pf. at 7.
- 12. VELCO has designated two construction support areas for the project. One construction support area is at the VT Transco owned parcel, located at 584 Bear Trap Road.

The second proposed construction support area is along the existing station driveway in an existing open area. Fiske pf. at 7.

13. Outages are required for the Project construction. Relocation of the K19 line is required to expand the station yard and will require an outage for this line work. Additionally, integration of the APFC into the existing Sandbar Station will require outages while transitioning into and out of the bypass configuration. The bypass will utilize equipment within the existing station yard. These outages are only expected to occur on station components and transmission lines, with no anticipated loss of service to customers. Fiske pf. at 7-8.

III. PROJECT COST AND SCHEDULE

- 14. The total cost of the Project is estimated at \$46,861,237 with contingency, which VELCO expects will be eligible for regionalized cost recovery. Fiske pf. at11.
- 15. VELCO is proposing to begin Project construction as soon as possible upon receiving the required permits, approvals, and materials. Currently, the estimated construction schedule is planned from March 2026 through September 2027, which assumes receipt of a CPG by February 2026. Fiske pf. at 12.
- 16. Construction is planned to 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 will take place on Sundays, federal holidays, and state holidays with the exception of Bennington Battle Day in August. VELCO requests, however, that these restrictions not apply to construction activities that VELCO must perform during any required transmission outages that may be needed to maintain system reliability. VELCO respectfully requests that it be allowed to perform construction activities on Bennington Battle Day given (i) the short

summer construction season, and (ii) that the holiday is not widely granted as a paid day off for the workers on this Project. Fiske pf. at 12-13.

IV. NOTICE REQUIREMENTS

- 17. Pursuant to 30 V.S.A. § 248(f) and Commission Rule 5.402, on April 1, 2025, VELCO issued a 45-day advance notice describing the Project, which was provided to adjoining landowners, the Milton Town Co-Managers, the Milton Selectboard, the Milton Planning Commission, the Chittenden County Regional Planning Commission, Department of Public Service, Agency of Natural Resources, Vermont Agency of Agriculture, Food, and Marketing, Vermont Division of Historic Preservation and others pursuant to Commission rules on service of advance notices.
- 18. Once the Petition is deemed complete by the Commission, service of copies of the Petition filing will be made on the parties specified in 30 V.S.A. § 248(a)(4)(C) by the Commission through ePUC and by VELCO via U.S. mail, and email where authorized. Pursuant to Commission Rule 5.407(B), VELCO will also serve the required notices of the Petition filing.

V. COMPLIANCE WITH SECTION 248 CRITERIA

19. As summarized below (and in the filed Rule 5.403(A)(16) Filing Index) and demonstrated in the prefiled testimony and exhibits and submitted by VELCO, the Project meets all Section 248 criteria:

Witness

Subject

Mr. Fiske provides an overview of the proposed Project, estimated cost and construction schedule, and explains how the Project complies with Sections 248(b)(1), (b)(2), (b)(4), (b)(5) (aesthetics, public health and safety, noise, transportation, education and municipal services, development affecting public investments), and (b)(10).

Jacob Reed Mr. Reed provides testimony demonstrating that the Project

> will not have undue adverse effects on historic sites, air and water purity, or the natural environment under 30 V.S.A.

§§ 248(b)(5) and (b)(8).

Hantz Présumé Mr. Présumé discusses the need for the Project under 30

> V.S.A. § 248(b)(2). He also explains how the Project improves system stability and reliability (b)(3), conforms with the State of Vermont's Electric Energy Plan (b)(7), and

aligns with principles for resource selection (b)(6).

Ed McGann Mr. McGann describes the proposed engineering and design

details for the Project, and also address Project need under

30 V.S.A. § 248(b)(2).

VI. CONCLUSION

WHEREFORE, VELCO respectfully requests that the Commission:

- Hold a scheduling conference, establish a schedule for this case, and issue (1) an Order approving the Project under 30 V.S.A. § 248.
- (2) Find that the proposed Project will promote the general good of the State of Vermont, and authorize VELCO to undertake the actions as described here and in its testimony and exhibits, and issue a Certificate of Public Good to that effect.
- (3) Issue any further relief as the Commission deems just and proper.

DATED at Burlington, Vermont this 30th day of June 2025.

RESPECTFULLY SUBMITTED,

VERMONT ELECTRIC POWER COMPANY, INC. and VERMONT TRANSCO LLC

By: /s/ Debra L. Bouffard Debra L. Bouffard SHEEHEY FURLONG & BEHM P.C. 30 Main Street P.O. Box 66 Burlington, VT 05402-0066 (802) 864-9891

dbouffard@sheeheyvt.com