STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 25-1259-PET

Petition of Vermont Transco LLC and Vermont Electric Power Company, Inc. 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	

Order entered: 01/09/2026

FINAL ORDER GRANTING CERTIFICATE OF PUBLIC GOOD

In this order, the Vermont Public Utility Commission ("Commission") adopts the following proposal for decision.

PROPOSAL FOR DECISION

I. INTRODUCTION

This case involves a petition filed by Vermont Transco LLC and Vermont Electric Power Company, Inc. ("VELCO" or "Petitioner") requesting a Certificate of Public Good ("CPG") pursuant to 30 V.S.A. § 248 for approval to install an Advanced Power Flow Controller ("APFC") at the VELCO Sandbar Station in Milton, Vermont (the "Project").

In this proposal for decision, I recommend that the Commission approve the Project and issue a CPG, subject to conditions.

II. PROCEDURAL HISTORY

On June 30, 2025, VELCO filed a petition with supporting testimony and exhibits (the "Petition").

On August 13, 2025, the Chittenden County Regional Planning Commission ("CCRPC") filed a public comment ("CCRPC Comment") stating that the Project was generally consistent with the regional plan.

On December 10, 2025, VELCO filed a memorandum of understanding between itself and the Vermont Agency of Agriculture, Food & Markets ("AAFM") ("AAFM MOU"). The AAFM MOU includes proposed CPG conditions to ensure that the Project will not have an

undue adverse effect on the natural environment with due consideration having been given to the impacts on primary agricultural soils.

On December 10, 2025, the Vermont Department of Public Service ("Department") filed comments concluding that the Facility does not raise a significant issue with respect to the Section 248 criteria that the Department reviews and recommending that the Commission issue the requested CPG ("Department Comments").

On December 16, 2025, VELCO filed a memorandum of understanding between itself and the Vermont Agency of Natural Resources ("ANR") ("ANR MOU"). The ANR MOU includes certain CPG conditions to ensure that the Project will not cause an undue adverse effect on the natural environment.

On December 19, 2025, the Department filed a Section 202(f) determination finding that the Petition is consistent with the 2022 Vermont Electric Plan ("Department 202(f) Determination").

No other comments on the Petition were received by the Commission.

The Petitioner filed advance notice of the Project to the municipality, the regional planning commission, and adjoining landowners pursuant to 30 V.S.A. § 248(f) and Commission Rule 5.402(A) and (B). In addition, these same entities received notice of the Petition when it was filed with the Commission. No entity moved to intervene, and the statutory parties—ANR, the Department, and AAFM—have not opposed the Project subject to agreed-upon conditions. Based on my independent review and subject to the conditions discussed below, I conclude that the Project meets the substantive criteria of 30 V.S.A. § 248(b) and promotes the public good of the State.

No party has requested an evidentiary hearing or objected to the prefiled testimony and exhibits. Accordingly, the following prefiled testimony and exhibits are admitted as if presented at a hearing: the Petition; Prefiled, Supplemental Testimony and Second Supplemental Testimony of Edward J. McGann and Exhibits Petitioner EJM-1 through Petitioner EJM-6; Prefiled Testimony of Hantz A. Présumé (adopted by Edward J. McGann through August 25, 2025 Supplemental testimony) and Exhibit Petitioner HAP-1; Prefiled and Supplemental Testimony of Jacob T. Reed and Exhibits Petitioner JTR-1 through Petitioner JTR-5; Prefiled Testimony of John R. Fiske and exhibits Petitioner JRF-1 through Petitioner-JRF- 10; CCRPC

Comment; Department Comments and Section 202(f) Determination letter; the AAFM MOU and the ANR MOU.

III. FINDINGS

Based on the Petition and the accompanying record in this proceeding, I have determined that this matter is ready for decision. Based on the evidence of record, I report the following findings to the Commission in accordance with 30 V.S.A. § 8(c).

Description of the Project

1. This Project involves the installation of an APFC, which is needed to maintain reliability of power in the region by extending the life of the Milton Sandbar Station Phase Shifting Transformer ("PST"). Prefiled Testimony of John R. Fiske ("Fiske pf.") at 4.

2. The PST controls the flow across the Sandbar PV20 line preventing overloads on the line. The power flow on the line is increasingly variable requiring the PST to perform more tap changes, and 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. Fiske pf. at 5-6.

3. The APFC proposed at the Sandbar Station employs power electronics technology to control power flows on the PV20 line. The Voltage Source Converter ("VSC") technology selected is a single phase, modular static synchronous compensator that operates at line voltage and is installed in series with the existing PST. Twelve APFC modules will be installed, 4 per phase, capable of controlling power flow by injecting a capacitive or inductive reactance. The addition of this technology reduces the amount of tap changes required by the PST, thereby extending the life of the PST. Other benefits of this solution include increased precise control of power flow on the PV20 line, and for some flow control even if the PST is offline. The solution is a modular design that can be adapted for future needs. Fiske pf. at 6.

4. With the APFC and the PST operating in tandem, the effective power flow range of the combination will be widened and operate with greater power flow control precision. The power flow controls of the APFC and PST will be coordinated such that the APFC will regulate the flows faster and more precisely than the PST, and will essentially become the primary flow control device, thus reducing the PST tap changing duty. The PST should only move when the

APFC has hit its predetermined operating limits. Both devices can remain in service and operate independently if either is removed from service for planned maintenance. Prefiled Testimony of Edward J. McGann ("McGann pf.") at 3-4.

5. Disconnecting means have been provisioned to isolate and bypass the APFC for PST-only operation during planned APFC maintenance or long-term outage scenarios. Instrument transformers are included for APFC terminal voltage and current sensing as part of the protection and control design for operating and isolating the APFC. McGann pf. at 5; exh. Petitioner EJM-4.

6. The APFC will consist of four SSSC modules per phase for a total of twelve (12) devices operating on a three-phase system basis. McGann pf. at 5; exh. Petitioner EJM-4.

7. The APFC modules will be installed adjacent to the existing Sandbar Station. The height of the APFC units will be approximately 21 feet. Fiske pf. at 4.

8. Sections of the existing station bus, associated bus supports and foundations will be modified to place the APFC in the PV20 electrical path and two station service voltage transformers will be installed to maintain station service availability during APFC construction. McGann pf. at 5.

9. The eastern fence line of the existing station will be expanded to accommodate the APFC devices, 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

10. 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.

11. The Project will require VELCO to relocate sections of the existing K19 115kV transmission line for the expansion of the station and to provide access for construction. Fiske pf. at 5.

12. The APFC yard expansion will require the existing K19 line exit to be modified. The first K19 transmission line structure "Str. 1" is a three pole, wood structure, with horizontal

phase spacing. It will be replaced with two (2) single pole, steel structures with vertical phase spacing, Str. 1A and Str. 1B. McGann pf. at 6–7; exh. Petitioner EJM-6.

13. Str. 1A will be located within the Sandbar Station footprint. It will be a 76-foot-tall self- supported, galvanized steel, single pole structure, mounted on a concrete foundation. Str. 1B will be a 59-foot-tall guyed, galvanized steel, single pole, directly embedded angle dead-end structure. McGann pf. at 7; exh. Petitioner EJM-6.

14. A new Str. 1 will be located in the K19 Right of Way ("ROW") to facilitate a vertical to horizontal phase roll to align with the existing K19 horizontal phase geometry. Str. 1 will be a guyed, galvanized steel, 3-pole, directly embedded angle suspension structure, and will be approximately 52 feet tall. McGann pf. at 7; exh. Petitioner EJM-6.

15. Project 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; McGann pf. at 6; exh. Petitioner EJM-5.

16. As part of this Project, VELCO will demolish the recently purchased existing residence located west of the station. Prefiled Testimony of Jacob Reed ("Reed pf.") at 11.

17. VELCO has designated two construction support areas for the project. One construction support area is at 584 Bear Trap Road. The second proposed construction support area is along the existing VELCO station driveway in an existing open area. Fiske pf. at 7.

18. Outages are required for 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.

19. VELCO does not anticipate that the Project will require blasting to expand the station yard or install transmission line structures. However, if blasting becomes necessary, VELCO will follow its rock removal specification as well as the Vermont Department of

Environmental Conservation ("DEC") best management practices ("BMPs") for blasting. The VELCO rock removal specification is more detailed than the blasting plan that it has submitted as an exhibit in past projects. VELCO will provide this rock removal specification to contractors and include the DEC BMPs. If DEC updates its BMPs prior to the start of construction, VELCO will update its rock removal specification. Fiske pf. at 8; exh. Petitioner JRF-2.

20. VELCO estimates that the total cost of the Project is $46,861,237 with a 20% contingency. VELCO expects the new APFC to be considered a pool transmission facilities asset funded via the transmission tariff of ISO-NE, with those costs paid by the transmission owners of New England on a load ratio basis. Vermont's share of the New England load is approximately four percent. Fiske pf. at 11; exh. Petitioner JRF-3.

21. The Project may also be partially funded by the United States federal government under a Department of Energy Cooperative Agreement DE-GD0000908 (DFCA 81.254, Grid Infrastructure Deployment and Resilience), awarded October 1, 2024 to Electric Power Research Institute and VELCO. The DOE grant would reduce the pool transmission facilities funding amount required for the Project. Fiske 11-12.

22. VELCO is planning to begin construction as soon as possible upon receiving the required permits, approvals and materials. The estimated construction schedule is planned from March 2026 through September 2027. Fiske pf. at 12.

23. VELCO proposes to restrict construction hours from 7:00 A.M. to 7:00 P.M. Monday through Friday, 8:00 A.M. to 5:00 P.M. on Saturday, with no construction on state or federal holidays or Sundays except where construction activities must be performed during required outages needed to maintain system reliability. Fiske pf. at 12-13.

Review Under the Section 248 Criteria

24. The Project will not unduly interfere with the orderly development of the region. In making this finding, due consideration has been given to the recommendations of the municipal and regional planning commissions, the recommendations of the municipal legislative bodies, and the land conservation measures contained in the plan of any affected municipality. Substantial deference has been given to the land conservation measures and specific policies contained in the duly adopted regional plan. This finding is supported by the additional finding below.

25. The Project involves installing an APFC to improve the reliability of the region's existing electrical supply. The proposed Project is consistent with the Milton Town Plan and the Chittenden County Regional Plan. Fiske pf. at 15; exhs. Petitioner JRF-6 and 7.

26. Subject to the conditions adopted in the CPG, the Project will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment, the use of natural resources, or public health and safety, with due consideration being given to the criteria specified in 10 V.S.A. §§ 1424a(d) and 6086(a)(1)(A), (B), (D), (E), (F), and (G), 6086(a)(2), (3), (4), (5), (6), (7), (8), and (9), impacts on primary agricultural soils as defined in 10 V.S.A. § 6001, and greenhouse gas impacts. ANR MOU; AAFM MOU; Reed pf. at 5-22; McGann pf. at 6; Fiske pf. at 19-23; exhs. Petitioner JTR-2, JTR-3, JRF-8.

27. The Project will not affect any outstanding resource waters as defined by 10 V.S.A. § 1424a(d). Reed. pf. at 21; exh. JTR-3.

28. The Project is consistent with the 2022 Comprehensive Energy Plan approved by the Department under 30 V.S.A. § 202(f). Department Section 202(f) Determination.

Need for Present and Future Demand for Service
[30 V.S.A. § 248(b)(2)]

29. The Project will meet the need for present and future demand for service that could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy efficiency and load management measures, including but not limited to those developed pursuant to the provisions of subsection 209(d), section 218c, and subsection 218(b) of Title 30 of the Vermont Statutes annotated. This finding is supported by the additional findings below.

30. The Project is needed at this time to extend the life of the Sandbar PST, which controls the flow across the Sandbar PV20 line preventing overloads on the line. Fiske pf. at 17.

31. Operating the APFC in series with the PST and coordinating their controls will ensure adequate flow control under present and future system conditions. Non-transmission alternatives are not practical solutions to the asset condition concern. Prefiled Testimony of Hantz A. Présumé adopted by Edward McGann ("Présumé (McGann) pf.") at 7.

32. The APFC improves system reliability by reducing wear on the PST, which in turn reduces the likelihood of another PST failure. The controls of the APFC and the PST will be

coordinated so that the APFC operates first and maintains the PV20 flow within a tighter flow band. As more renewable and intermittent generation is added in New York and Vermont, VELCO anticipates that flows will vary more frequently on the PV20 line. A power electronics device such as the APFC is better suited to manage frequently changing power flows than the PST's mechanical tap changers. Présumé (McGann) pf. at 4.

33. By installing the APFC in series with the PST and by coordinating their controls, VELCO will reduce the likelihood of a future PST failure and increase the flow control range, which should help power flow. In effect, the APFC facilitates renewable generation production growth. Présumé (McGann) pf. at 4-5.

34. In the event the PST fails, the APFC will retain flow control capability, which reduces the recovery time and allows the system operators to maintain the line closed for continued system support. The APFC uses a modular design consisting of four modules per phase (twelve total), and each module contains ten inverters. The APFC can continue to operate after the failure of several inverters or entire modules. The flow control capability can be fully retained depending on the extent of APFC failures. The modular design also facilitates the relocation of the APFC to other lines in the event of a system redesign. Présumé (McGann) pf. at 5.

35. This Project is the least-cost option. VELCO issued a request for information to five companies for a power flow control device to reduce tapping on the existing PST. Of the five companies solicited, two recommended another PST in parallel or series, two did not have an offering available, and one offered the APFC device proposed for the Project. The selected alternative would reduce the number of PST tap changes, provide some redundancy allowing the line to remain in service with the PST out of service, and increase the control range with the APFC and PST in service. Additionally, the APFC provides control that is more precise, technology diversity, modular design, and a significantly shorter lead-time than a PST. This selected alternative for this Project is the most cost-efficient alternative that provides the necessary operational requirements and can be implemented in the near term to extend the life of the PST. Fiske pf. at 18.

36. The need for the Project is to extend the life of the existing PST by reducing its number of tap changes. Demand-side management or distributed generation cannot provide a direct replacement for this Project. Fiske pf. at 19.

Impact on System Stability and Reliability
[30 V.S.A. § 248(b)(3)]

37. The Project will not have an adverse effect on system stability and reliability. VELCO studies indicate that the APFC will improve system stability and reliability by more precisely regulating power flow. Présumé (McGann) pf. at 7-8.

Economic Benefit to the State
[30 V.S.A. § 248(b)(4)]

38. The Project will result in an economic benefit to the State and its residents by adding infrastructure to prevent overloading the Sandbar PV20 line. The APFC will reduce the PST tap changes, resulting in less maintenance and outage costs related to the PST. Fiske pf. at 19.

Consistency with Company's Least Cost Integrated Plan
[30 V.S.A. § 248(b)(6)]

39. VELCO does not have an integrated resource plan. As a transmission-only company, VELCO periodically performs transmission studies to determine whether reinforcements to the transmission system are necessary, and whether system constraints can be mitigated by non-transmission solutions. VELCO also produces a long-range transmission plan at least every three years. The VELCO 2024 Vermont Long-Range Transmission Plan explains that it is pursuing use of an APFC to supplement the Sandbar PST, which controls flows along the Plattsburgh-Sandbar 115 kV PV20 line. Présumé (McGann) pf. at 9-10.

Compliance with Twenty-Year Electric Plan
[30 V.S.A. § 248(b)(7)]

40. The Project is consistent with the 2022 Comprehensive Energy Plan as approved by the Department under 30 V.S.A. § 202(f). Department Section 202(f) Determination.

Existing or Planned Transmission Facilities
[30 V.S.A. § 248(b)(10)]

41. The Project can be served economically by existing or planned transmission facilities without undue adverse effects on Vermont utilities or customers. The proposed Project consists of an APFC installation at an existing station that is designed to enhance the existing utility system and to improve service to the customer. Fiske pf. at 23.

IV. MEMORANDA OF UNDERSTANDING

In the ANR MOU and AAFM MOU, ANR and AAFM recommended additional conditions to protect the natural environment and primary agricultural soils. VELCO negotiated and agreed to the ANR MOU and AAFM MOU. I recommend that the Commission accept the ANR MOU and AAFM MOU with all their provisions and conditions and require VELCO to comply with the terms and conditions of the ANR MOU and AAFM MOU as a condition of the Commission's approval of the Project.

V. CONCLUSION

Based upon the evidence in the record, I recommend that the Commission conclude that the Project, subject to the conditions set forth herein:

(a) will not unduly interfere with the orderly development of the region with due consideration having been given to the recommendations of the municipal and regional planning commissions, and the recommendations of the municipal legislative bodies;

(b) is required to meet a need for present and future demand for service which could not otherwise be provided in a more cost-effective manner through energy conservation programs and measures and energy efficiency and load-management measures, including those developed pursuant to the provisions of subsection 209(d), section 218c, and subsection 218(b) of Title 30;

(c) will not adversely affect system stability and reliability;

(d) will result in an economic benefit to the State and its residents;

(e) will not have an undue adverse effect on aesthetics, historic sites, air and water purity, the natural environment, the use of natural resources, and public health and safety, with due consideration having been given to the criteria specified in 10 V.S.A. §§ 1424a(d), impacts on

primary agricultural soils as defined in 10 V.S.A. § 6001, and 6086(a)(1) through (8) and (9)(K), and greenhouse gas impacts;

(f) is consistent with the principles for resource selection expressed in that company's approved least-cost integrated plan;

(g) is consistent with the *Vermont Twenty-Year Electric Plan*;

(h) does not involve a facility affecting or located on any segment of the waters of the State that has been designated as outstanding resource waters by the Secretary of Natural Resources;

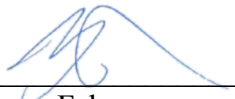
(i) does not involve a waste-to-energy facility;

(j) can be served economically by existing or planned transmission facilities without undue adverse effect on Vermont utilities or customers; and

(k) does not involve an in-state generation facility that produces electric energy using woody biomass.

This proposal for decision has not been circulated to the parties pursuant to 3 V.S.A. § 811 because it is not adverse to any party.

Date: January 9, 2026



Gregg Faber
Hearing Officer

VI. ORDER

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Public Utility Commission ("Commission") of the State of Vermont that:

1. The findings, conclusions, and recommendations of the Hearing Officer are adopted. All other findings proposed by parties, to the extent that they are inconsistent with this order, were considered and not adopted.

2. In accordance with the evidence and plans submitted in this proceeding, the installation of an Advanced Power Flow Controller at the Vermont Transco LLC and the Vermont Electric Power Company, Inc.'s ("VELCO") Sandbar Station in Milton, Vermont, proposed for construction and operation by VELCO (the "CPG Holder"), will promote the general good of the State of Vermont pursuant to 30 V.S.A. § 248, and a certificate of public good ("CPG") to that effect will be issued in this matter.

3. The memorandum of understanding ("ANR MOU") between the CPG Holder and the Vermont Agency of Natural Resources is accepted. The CPG Holder must comply with all the terms of the ANR MOU.

4. The stipulation between the CPG Holder and the Vermont Agency of Agriculture, Food and Markets ("AAFM MOU") is accepted. The CPG Holder must comply with all the terms of the AAFM MOU.

5. As a condition of this order, the CPG Holder must comply with all terms and conditions set out in the CPG issued in conjunction with this order.

Dated at Montpelier, Vermont, this 9th day of January, 2026.

Edward McNamara) PUBLIC UTILITY
)
)
Margaret Cheney) COMMISSION
)
J. Riley Allen) OF VERMONT

OFFICE OF THE CLERK

Filed: January 9, 2026

Attest: _____
Clerk of the Commission

Notice to Parties: Appeal of this decision to the Supreme Court of Vermont must be filed with the Commission within 30 days. Appeal will not stay the effect of this Order, absent further order by this Commission or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Commission within 28 days of the date of this order.

PUC Case No. 25-1259-PET - SERVICE LIST

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