

STATE OF VERMONT  
PUBLIC UTILITY COMMISSION

Case No. 24-\_\_\_\_-PET

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 authorizing upgrades to VELCO’s )  
existing Windsor Substation, located in Windsor, )  
Vermont )

PREFILED TESTIMONY AND EXHIBITS OF WILLIAM J. ALLARD  
FOR VERMONT ELECTRIC POWER COMPANY, INC. AND VERMONT TRANSCO LLC

Summary of testimony: Mr. Allard presents the Windsor Substation Project and identifies the other witnesses offering evidence in support of VELCO’s petition for a certificate of public good. Mr. Allard also provides testimony on several Section 248(b) review criteria: § 248(b)(1) (orderly development of the region); § 248(b)(4) (economic benefit to the State); § 248(b)(5) & 10 V.S.A. § 6086(a)(5) (transportation systems and traffic); § 248(b)(5) & 10 V.S.A. § 6086(a)(6) & (7) (educational and municipal services); § 248(b)(5) & 10 V.S.A. § 6086(a)(9)K (development affecting public investments); § 248(b)(6) (compliance with integrated resource plan); § 248(b)(7) (compliance with the Vermont Electric Energy Plan); § 248(b)(10) (impact on other Vermont utilities and their customers).

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**EXHIBIT LIST**

Exhibit PET-WJA-1	Resume of William J. Allard
Exhibit PET-WJA-2	VELCO Windsor Substation Condition Assessment (filed under seal as Confidential Critical Energy Infrastructure Information)
Exhibit PET-WJA-3	VELCO Rock Removal Specification
Exhibit PET-WJA-4	Project Cost Estimate Summary
Exhibit PET-WJA-5	45-Day Advance Notice Package
Exhibit PET-WJA-6	Town and Regional Plan Excerpts
Exhibit PET-WJA-7	June 21, 2023 VSPC Final Meeting Minutes
Exhibit PET-WJA-8	2022 Comprehensive Energy Plan Excerpts
Exhibit PET-WJA-9	Windsor Vegetation Clearing Plan

1           **Introduction and Qualifications**

2    Q1.    Please state your name, occupation, and business address.

3    A1.    My name is William J. Allard. I am a Project Management Professional (PMP)  
4           employed by Planet Forward Energy Systems, LLC (PFES), which is now part of  
5           Qualus, as a Senior Consultant. My business address is 155 Merfield LN, Pittsford  
6           VT 05763. I am serving as the Project Manager for VELCO's Windsor Substation  
7           Project.

8    Q2.    Please describe your educational background and professional experience.

9    A2.    I earned an MBA and a Bachelor of Arts in Business from the College of St. Joseph as  
10           well as an Associates of Science in Electrical Engineering from Vermont Technical  
11           College. I am a certified Project Management Professional, PMP # 1647971. My  
12           background and professional experience are presented in my resume, which is  
13           offered with my testimony as Exhibit PET-WJA-1.

14           **Purpose of Testimony**

15    Q3.    What is the purpose of your testimony?

16    A3.    My testimony introduces VELCO's Windsor Substation Project and the other  
17           witnesses offering testimony in support of the VELCO's petition for a certificate of  
18           public good (CPG) for the Project pursuant to 30 V.S.A. § 248. I present the schedule  
19           for the Project's construction and a summary of the cost estimate and the expected

1 cost treatment for the Project. I also explain how the Project satisfies several of the  
2 Section 248(b) review criteria.

3 Q4. Please identify the other witnesses providing evidence in support of VELCO's  
4 petition.

5 A4. The other witnesses testifying in support of the Project are:

6	<u>Witness</u>	<u>Subject Matter</u>
7	Edward J. McGann	Discusses the engineering and design details for
8		the substation and addresses public health and
9		safety
10	Jacob T. Reed	Explains how the Project will not have an undue
11		adverse impact on the natural environment and
12		historic sites under 30 V.S.A. § 248(b)(5)
13	Michael J. Buscher	Addresses the Project's potential impacts on
14		aesthetics

15 **Project Background and Description**

16 Q5. Please describe the VELCO Windsor substation.

17 A5. The VELCO Windsor substation was commissioned in 1978 and is located at 488  
18 Hunt Road in Windsor, Vermont. It sits on two parcels of land comprising  
19 approximately 20.8 acres adjacent to Interstate 91. The substation is a 115kV/46kV  
20 radial facility that feeds Green Mountain Power's (GMP) sub-transmission system in  
21 the Windsor and Taftsville areas, enabling GMP to serve its retail electric  
22 customers. Access to the substation is from the north side of Hunt Road by a paved

1 drive. The driveway crosses a short section of Vermont Agency of Transportation  
2 (VTrans) property associated with Interstate 91.

3 Q6. What is the primary deficiency that the Project is intended to address?

4 A6. The primary deficiencies the Project is intended to address are the substation's  
5 control building and the 115 kV circuit switcher.

6 *Control Building*

7 VELCO evaluated the control building condition of structure members, efficiency of  
8 the insulation systems, adequacy of climate control systems, footprint for present  
9 working clearance, and potential for infrastructure expansion. Given the age and  
10 vintage of the existing control building, its space constraints, and that most internal  
11 equipment is due for an upgrade, it is recommended for replacement. The following  
12 items were found:

- 13 • The building lacks two paths for egress.
- 14 • The interior floor is exposed concrete that has some cracking.
- 15 • The building lacks restroom facilities for workers.
- 16 • The climate control and hydrogen exhaust systems are outdated and  
17 inefficient.
- 18 • The facility requires an additional eye washing station to meet VELCO's  
19 current standards.
- 20 • The interior and exterior lighting is inefficient.

- 1 • Most of the internal equipment is aged or obsolete and unsupported by the  
2 vendor.
- 3 • The limited physical space within the control building could not  
4 accommodate planned telecommunication expansion, planned P & C  
5 panels, the desired battery transfer scheme, the installation of additional  
6 and new AC distribution panels, and an automatic transfer switch.

7 VELCO proposes constructing a new 32' x 62' building to adequately house the P &  
8 C equipment, DC station service, AC station service, telecommunication  
9 equipment, security systems, and other ancillary systems. The new control building  
10 is planned for the northern side of the substation. Disposal of the existing control  
11 building will be done in accordance with VELCO's disposal practices as further  
12 discussed in Jacob Reed's prefiled testimony under the waste disposal criterion.

### 13 *Circuit Switcher*

14 Circuit switchers are used as part of a transformer differential scheme that  
15 will isolate a transformer for various fault conditions. A circuit switcher is a  
16 technical solution for transformer protection and isolation, but it has drawbacks  
17 and limitations. As an example, depending on the manufacturer and style, circuit  
18 switchers installed on elevated structures are inherently more difficult to maintain,  
19 and do not have integral current transformers that can provide overlapping zones of  
20 protection. When provided the opportunity in capital project upgrades, VELCO will  
21 use a circuit breaker instead of a circuit switcher. A circuit breaker is located closer

1 to the ground, has internal bushing current transformers, and includes other  
2 miscellaneous features not found on a circuit switcher. Together, these circuit  
3 breaker features make it technically superior and easier to maintain than a circuit  
4 switcher. The circuit switcher currently has only one trip coil and does not provide  
5 redundant protection. VELCO protects its transformer with redundant protections  
6 systems. Tripping a single trip coil poses a common mode of failure to the  
7 redundant protection schemes.

8 VELCO proposes installing a new K780 circuit breaker with remote  
9 monitoring capability. A circuit breaker solution offers the benefits of placing the  
10 interrupting equipment at ground level for improved inspection and maintenance  
11 access. In addition, the circuit breaker is equipped with a current transformer  
12 complement that improves transformer protections and adds a second trip coil to  
13 comply with current VELCO standards.

14 VELCO will remove the existing 780 circuit switcher from the site and  
15 properly dispose of it in accordance with VELCO's disposal practices as further  
16 discussed in Jacob Reed's prefiled testimony under the waste disposal criterion.

17 Q7. What type of circuit breaker is VELCO planning to use for the Project?

18 A7. VELCO plans to use a vacuum breaker for this Project. If a vacuum breaker is not  
19 available as a result of procurement delays, defects in the delivered unit, or other  
20 unanticipated circumstances, an SF6 breaker will be installed instead.



1 Q8. How did VELCO identify the substation's primary deficiencies?

2 A8. VELCO uses a 20-year plan for substation operability and reliability. In 2023, the  
3 company used an evaluation tool that it created to perform condition assessments  
4 of its facilities to identify deficiencies in equipment and site conditions at the  
5 Windsor substation. Using current standards and evaluation criteria, the condition  
6 assessment identified the control building as the primary deficiency and identified  
7 several other deficiencies that the Windsor Substation Project will address. A copy  
8 of the Windsor Substation Condition Assessment is provided with my testimony as  
9 Exhibit PET-WJA-2. The exhibit is being provided under seal because it contains  
10 critical energy infrastructure information (CEII).

11 Q9. Did VELCO look at whether the Project is appropriately sized and whether the  
12 Project is the best option for handling future additional load that may arise (e.g.,  
13 from decarbonization efforts to electrify transportation, heating, and cooling)?

14 A9. Yes. VELCO's planning department evaluated a variety of scenarios to ensure  
15 system reliability under each scenario. VELCO's planning department performs  
16 system planning studies with all lines in service and with one or more network  
17 elements out of service. All VELCO transmission and Vermont subtransmission  
18 equipment is monitored for any violation based on the specific ratings of each  
19 network element, such that if there is a violation of thermal or voltage limits: the  
20 rating of the equipment can be improved by physical or relay setting modification;

1 the element can be replaced entirely; or the System Operator can reposition the  
2 transmission system in real time to avoid or reduce the impact of the event that  
3 would cause the violation. The scenarios that are evaluated include one in which  
4 winter load increases due in part to electrification from decarbonization efforts.  
5 Here, a review of the 2021 20-year transmission plan indicated that there are no  
6 capacity concerns with respect to serving local load. The use of grid enhancing  
7 technologies, including storage, is not warranted currently since we have not  
8 identified any capacity or operational concerns requiring consideration of such  
9 technologies. However, the Project includes telecommunication improvements  
10 that should enable the future use of these technologies as needed.

11 Q10. If load or generation increases more than anticipated, will the substation be able to  
12 handle the increase?

13 A10. Yes, so long as load or generation increases in a predictable and gradual manner.  
14 As noted earlier, the Project already anticipates increased load in the winter due in  
15 part to electrification from decarbonization efforts. The forecasts that underlie our  
16 studies are based on known information and reasonable projections, such as  
17 economic data, demographics, technology adoption, public policies, and so on.  
18 Unpredictable changes, such as new industrial load or new large-scale generation,  
19 could require additional capacity, but such future changes are unknown at this  
20 time.

1 Q11. In considering the scope and design of the Project, did VELCO evaluate extreme  
2 weather trends that may affect this substation?

3 A11. Yes. VELCO's assessment report looks at opportunities for storm-hardening its  
4 infrastructure, including a review of flood risks and flood mitigation when building or  
5 renovating infrastructure.

6 Q12. Please describe the modifications to the substation that VELCO will undertake in  
7 connection with the Project.

8 A12. The primary Project components consist of the following:

- 9 • Replace and relocate the existing 20' X 28' control building with a 32' X 62'  
10 control building that can accommodate a new protection and control  
11 system, redundant AC & DC station services, communication equipment,  
12 security systems, and new bathroom facilities. The new control building will  
13 be in the northwest corner of the substation yard.
- 14 • Replace and expand the existing perimeter fence to accommodate the new  
15 control building and improve access around the energized equipment.
- 16 • Replace the existing 115 kV circuit switcher with a circuit breaker that meets  
17 VELCO's current design standards.
- 18 • Reconstruct and widen the driveway to 20 feet with a turnaround.
- 19 • Relocate approximately 620 feet of driveway and the entryway onto Hunt  
20 Road.

- 1           • Improve site drainage.
- 2           • Perform tree clearing to accommodate the temporary infrastructure,
- 3           temporary construction support area, expanded substation and
- 4           improvements, and the relocated driveway entrance.
- 5           • Replace the existing 46kV dead-end structure on the south side of the station
- 6           just outside the fence near the entrance gate to accommodate temporary
- 7           substation equipment, the expansion of the substation yard for clearance to
- 8           energized equipment, and the vehicle turnaround area.

9   Q13. Please describe the construction support area shown on Exhibit PET-EJM-3.

10   A13. The construction support area shown on Exhibit PET-EJM-3 is a previously disturbed  
11       area that was used by Green Mountain Power to support its reconstruction of a 46  
12       kV transmission line that extends from Taftsville to Windsor.<sup>1</sup> The location is  
13       convenient to support this Project’s construction, and its reuse as a construction  
14       support area minimizes the need to impact undisturbed locations.

15   Q14. Please outline the construction sequence and hours of construction.

16   A14. The Project is scheduled to start early in 2026 with tree clearing to be done during  
17       winter conditions to minimize impacts. A temporary work access route, which uses  
18       a portion of the existing transmission right of way, will be used for tree clearing and  
19       other work activities to the west of the existing driveway. The 46kV dead-end

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<sup>1</sup> The Commission approved the rebuild in case 22-3085-PET.

1 structure just outside the substation fence will be replaced, followed closely by  
2 groundwork, fence expansion, and driveway and drainage work. A culvert that is  
3 currently under the substation will be abandoned due to its deteriorating condition.  
4 Portions of the culvert will be removed, and other portions will be filled and sealed  
5 with flow fill material. A new culvert will be constructed that will avoid any  
6 equipment by being routed from the south side of the station to the east of the 46kV  
7 equipment and then back to the north side of the station. The culvert will be sized to  
8 accommodate future storms. The next step will be to start construction of the new  
9 control building and foundation work. A temporary 46 kV feed to the GMP system  
10 will be installed. This temporary substation will consist of a mobile transformer and  
11 mobile substation installed on the south side of the substation inside a temporary  
12 fence. The temporary substation will allow for the bypass of the substation,  
13 followed by the above-grade work to replace equipment. When the work is  
14 complete, the equipment and building will be tested, commissioned, and placed  
15 into service. After the upgraded substation is in service, the temporary substation  
16 equipment will be removed, the old control building will be demolished, and the site  
17 restored. The temporary work access route will be reseeded and mulched to  
18 facilitate vegetation regrowth.

19 Construction will take place between the hours of 7:00 A.M. and 7:00 P.M.  
20 Monday through Friday, and between 8:00 A.M. and 5:00 P.M. on Saturdays. No  
21 construction will take place on Sundays, or state or federal holidays, except for

1 Bennington Battle Day. VELCO seeks permission to conduct construction related  
2 activities on Bennington Battle Day (August 16) given the short summer  
3 construction season and the fact that the State holiday is not a paid day off for  
4 many of the construction workers that are expected to be working on the Project.  
5 VELCO also requests that the Commission allow VELCO to perform construction  
6 activities during outages that may be required to maintain electric system reliability,  
7 as well as activities associated with filling the power transformer with oil.

8 Q15. Is VELCO planning to obtain all collateral permits required for the Project before  
9 beginning site preparation and construction?

10 A15. Yes.

11 Q16. Please describe the vegetation clearing plan for the Project.

12 A16. VELCO will remove approximately 1.99 acres of vegetation to construct the Project.  
13 Tree removal includes trees on the substation's Western side for clearance and the  
14 installation of a safety fence above the rock wall. Trees will also be removed along  
15 the path of the new section of driveway and around the turnaround area. The trees  
16 will be chipped on site and spread. VELCO will also stump and grub in areas where  
17 necessary such as where the safety fence will be placed above the substation and  
18 the rerouted driveway path. Please see Exhibit PET-WJA-9. No plantings are required  
19 for aesthetic mitigation as detailed in testimony and attachments provided by Mike  
20 Buscher.

1 Q17. Please explain whether the Project will involve blasting.

2 A17. Yes, VELCO will need to perform blasting to remove approximately 5,726 cubic  
3 yards of ledge where VELCO plans to construct the new control building. VELCO will  
4 follow its rock removal specification, as well as the Vermont Department of  
5 Environmental Conservation (DEC) best management practices (BMPs) for blasting.  
6 Please see Exhibit PET-WJA-3. VELCO will provide this rock removal specification to  
7 contractors and include the Agency of Natural Resources' (ANR) BMPs. When ANR  
8 updates its BMPs, VELCO will update its rock removal specifications accordingly.  
9 After the necessary ledge has been blasted, VELCO's contractor will process the  
10 rock on site, using a portable diesel-powered rock crusher. The rock will be  
11 processed as it is removed intermittently over a period of approximately four to  
12 eight weeks. During the process, the contractor will manage dust by spraying water  
13 on the conveyer and jaws of the crusher as necessary. The temporary sound  
14 generated from the crusher will not be continuous.

15 **Project Cost Estimate**

16 Q18. What is the estimated total cost for the Project?

17 A18. The total cost of the Project is estimated at \$21,293,023. The total cost estimate is  
18 comprised of \$9,364,999 of Direct Costs (encompassing Material, Labor, and  
19 Equipment), \$6,612,145 of Indirect Costs, \$968,761 in Escalation, \$1,013,037 in

1 Capital Interest, and \$3,334,082 in Contingency. Please refer to Exhibit PET-WJA-4  
2 for a cost summary by resource category and Project elements.

3 Q19. What is the design basis for the cost estimate?

4 A19. The cost estimate is based on the design level detail required by Commission Rule  
5 5.403(C) as shown in the General Arrangement Plans and the One-Line Diagram  
6 that Mr. McGann presents in his prefiled testimony and exhibits.

7 Q20. Please explain how the Project's cost estimate was developed.

8 A20. The first step was to identify the resources required to plan, design, and construct  
9 the Project. VELCO developed the cost estimate using seven categories to establish  
10 the total cost for each Project element. The seven resource categories are as  
11 follows:

- 12 • Material
- 13 • Labor
- 14 • Equipment
- 15 • Indirects
- 16 • Escalation
- 17 • Capital Interest
- 18 • Contingency

19 Q21. How did VELCO develop the Project's direct and indirect costs?



1 A21. VELCO developed the direct costs using cost data from projects VELCO recently  
2 completed or are in progress. Specifically, VELCO used cost data associated with  
3 recent VELCO substation and line projects to develop the material, labor and  
4 equipment costs. VELCO used vendor cost data for portions of the Project scope for  
5 which VELCO did not have recent actual cost data from its other projects.

6 VELCO estimated labor and equipment costs using preliminary detailed  
7 designs. The detailed line items for each Project element were estimated into sub-  
8 categories following the Federal Energy Regulatory Commission (FERC) system of  
9 accounts. Developing the cost estimates by FERC accounts enhances VELCO's  
10 ability to track costs in a manner consistent with the reporting format of actual  
11 costs as required by FERC. Also, escalation costs can be more accurately  
12 calculated by applying the Handy-Whitman cost index to the estimated costs by  
13 FERC account.

14 The Project team also developed the estimated costs for indirects,  
15 escalation, capital interest, and contingency.

16 VELCO estimated the indirect costs based on the resources required to  
17 support the Project completion by resource category. Resource categories in the  
18 indirect estimated costs include: engineering and design; operations; planning;  
19 communications; environmental engineering; archeological studies; field surveys;  
20 impact mitigation; aesthetic impact; legal expenses; regulatory permitting and

1 filings; administrative overhead; mobilization and demobilization; project  
2 management; construction supervision; and project administration.

3 The estimated indirect cost for support services is based on the number of  
4 people hours (level of effort or LOE) required to support particular functions, as well  
5 as outsourced consulting services for each resource category (archaeology studies,  
6 engineering, surveying, etc.).

7 VELCO Project Controls developed escalation costs by using an anticipated  
8 2025-2027 spending plan and projected Handy-Whitman cost index and consumer  
9 price index (CPI).

10 VELCO applied capital interest (interest cost during construction) and  
11 followed the Project spending plan as applied to the escalation cost calculation.  
12 The capital interest rate is typically based on the company's credit rating and is  
13 subject to change based on the financial market conditions.

14 Finally, the Project cost estimate also accounts for a contingency of twenty  
15 percent (20%) due to the preliminary detailed designs and the uncertainty and risk  
16 associated with the Project level of definition.

17 Q22. What risk elements were considered when developing the cost estimate and how  
18 were those addressed?

19 A22. The risk elements that were considered are the Project duration, level of certainty  
20 regarding ground condition for below-grade work, required environmental mitigation  
21 measures, volatility regarding escalation rates, temporary configurations necessary

1 to support construction, and potential resource constraints at the anticipated time  
2 of construction. Per widely recognized standard project management practices,  
3 VELCO applied contingency to the estimate to account for these risks.

4 **Rule 5.403(A)(20): Summary of Community Outreach Efforts**

5 Q23. Has the Project development conformed to the transmission planning requirements  
6 approved in the Memorandum of Understanding (MOU) of Docket No. 7081?

7 A23. Yes.

8 Q24. Please summarize your community outreach efforts in advance of filing the Petition  
9 for a CPG.

10 A24. VELCO designed the public outreach efforts to meet the requirements of the MOU  
11 in Docket No. 7081. VELCO reached out to the Town of Windsor. Once the Project's  
12 need and site details were further refined, VELCO issued a 45-day advance notice  
13 describing the Project that was sent to the abutting landowners, the Windsor Select  
14 Board, the Windsor Planning Commission, the Mount Ascutney Regional  
15 Commission (MARC), and the Agency of Transportation. The notice was also  
16 uploaded to ePUC and posted on VELCO's website. Our team met with the Windsor  
17 Planning Commission on February 8, 2024, to review the project details and answer  
18 questions. All abutting landowners were invited to a public meeting to provide  
19 interaction for questions and feedback, but no abutting landowners or members of  
20 the public attended, and none provided comments to us. VELCO has offered the

1 public other means of communicating about the Project, including phone and email  
2 transmittals. The VELCO website also provides constant availability for those with  
3 internet access to Project information and provides a means of submitting requests  
4 for information via an online contact form. A copy of the 45-day notice is provided  
5 with my testimony as Exhibit PET-WJA-5.

6 **Rule 5.403(A)(3): Summary of Comments Received in the 45-Day Advance**  
7 **Notice Period**

8 Q25. Please summarize the comments you received in response to the 45-day advance  
9 notice issued for the Project and how VELCO's petition responds to those  
10 comments.

11 A25. We received comments from ANR on issues relating to existing and new impervious  
12 surfaces, necessary wildlife habitat, collateral permits, blasting, and hazardous  
13 materials. We also received comments from the Agency of Agriculture, Food &  
14 Markets (AAFM) that the agency described as "general comments" on primary  
15 agricultural soils. I provide more information about the comments we received and  
16 VELCO's response to them below.

17 *Existing and New Impervious Surfaces*

18 ANR asked that VELCO's petition identify and quantify all impervious  
19 surfaces associated with the Project and the property on which the Project will be  
20 constructed and to show the existing and new impervious surface areas on the  
21 Project plans. The information ANR requested is included in Mr. Reed's prefiled

1 testimony and shown on Exhibits PET-EJM-3 and PET-EJM-5 offered with Mr.

2 McGann's prefiled testimony.

3 *Necessary Wildlife Habitat re: Pool-Breeding Amphibians and Northern Long-eared*  
4 *Bat*

5 ANR also asked that VELCO include a summary of necessary wildlife habitat  
6 assessments that were conducted in relation to the Project with particular attention  
7 to pool-breeding amphibian habitat, due to the presence of a vernal pool identified  
8 on the Project site, and Northern Long-Eared Bat habitat. VELCO was asked to  
9 describe the specific measures that will be taken to avoid, minimize, and mitigate  
10 impacts to pool-breeding amphibian habitat, how VELCO intends to protect pool  
11 hydrology, and whether VELCO will retain downed woody debris on the forest floor.  
12 ANR also asked for details on erosion prevention and sediment control fencing and  
13 how that fencing may affect the pool-breeding amphibian habitat. With respect to  
14 the Northern Long-Eared Bat, ANR requested that VELCO identify and quantify all  
15 tree clearing associated with the Project and explain the Project's potential impacts  
16 to Northern Long-Eared Bat and what measures VELCO will take to avoid such  
17 impacts. Mr. Reed's prefiled testimony addresses ANR's comments on habitat for  
18 pool-breeding amphibians and the Northern Long-Eared Bat.

19 *Collateral ANR Permits*

20 ANR's comments requested VELCO to identify all ANR collateral permits  
21 that the Project requires and when VELCO intends to obtain those permits.

1 VELCO's response to this comment is provided in my testimony in A15, above, and  
2 in Mr. Reed's prefiled testimony.

3 *Blasting*

4 ANR asked VELCO to identify and discuss blasting protocols, including  
5 compliance with the Department of Environmental Conservation best management  
6 practices for blasting (BMPs). This issue is addressed in my testimony at A17,  
7 above.

8 *Hazardous Materials*

9 ANR asked VELCO to identify the potential for hazardous materials to be  
10 present at the Project site and how VELCO will investigate and manage their  
11 presence before, during, and after construction. Mr. Reed's prefiled testimony  
12 addresses this comment.

13 *AAFM Comments on Primary Agricultural Soils*

14 AAFM asked VELCO to include information in its petition on the presence of,  
15 and potential Project impacts to, primary agricultural soils. It requested several  
16 generic CPG conditions related to the protection of primary agricultural soils. Mr.  
17 Reed's testimony and Exhibit PET-JTR-2 explain why AAFM's generic CPG conditions  
18 are not appropriate for this Project, which involves the upgrade of a critical existing  
19 component of Vermont's high-voltage electric transmission system in an area that  
20 is already developed, isolated, and has lost its agricultural potential.

1           **Section 248(b)(1): Orderly Development of the Region**

2    Q26. Please identify Exhibit PET-WJA-6.

3    A26. Exhibit PET-WJA-6 consists of excerpts from the 2022 MARC (Mount Ascutney  
4           Regional Commission) Regional Plan and Windsor Town Plan that are relevant to  
5           the orderly development of the region criterion, 30 V.S.A. § 248(b)(1).

6    Q27. What, if any, Project-related recommendations has VELCO received from the Town  
7           of Windsor and MARC?

8    A27. VELCO did not receive any recommendations or comments from Windsor or MARC  
9           in advance of filing the petition for the Windsor Substation Project.

10   Q28. Will the Project unduly interfere with the orderly development of the region?

11   A28. No, it will not. The Project is an upgrade to an existing development whose purpose  
12           is to ensure reliable electric service. Reliable electric service is crucial for orderly  
13           development in several ways. It attracts businesses and industries, supports  
14           infrastructure projects, ensures a high quality of life for residents, and maintains  
15           public safety. Without reliable electric service, development can be hindered,  
16           businesses may be reluctant to invest, and residents may face difficulties in their  
17           daily lives. These principles are acknowledged by the Mount Ascutney Regional  
18           Plan: “The provision of electric utility services enables developers to plan for  
19           building structures and developing land at significant cost reductions and increased  
20           efficiencies.” See Exhibit PET-WJA-6 at 60. Further, the Project location is not within

1 an area identified for land conservation in the Windsor Town Plan or Mount  
2 Ascutney Regional Plan, and sensitive natural resources protected by Section 248  
3 will not be adversely impacted. Please refer to the testimony of Jacob Reed in this  
4 regard. As such, the Project promotes the orderly development of the region.

5 **Section 248(b)(2): Need for Present and Future Demand for Service**

6 Q29. Is the Project required to meet present and future demand for electric service that  
7 cannot otherwise be provided in a more cost-effective manner through energy  
8 conservation programs and measures and energy efficiency and load  
9 management?

10 A29. Yes, it is. The VELCO Windsor substation conditions that I describe above drive the  
11 need for this Project. Energy efficiency and load management actions could not  
12 resolve the problems identified in the conditions assessment. VELCO presented the  
13 Project to the Vermont System Planning Committee (VSPC) Geographic Targeting  
14 Subcommittee on June 21, 2023. The Geographic Targeting Subcommittee  
15 concluded that the Project screened out of the VSPC's test for Non-Transmission  
16 Alternative (NTA) analysis. Thus, VELCO did not perform an NTA analysis for the  
17 Windsor Substation Project. Please see Exhibit PET-WJA-7 for the June 21, 2023  
18 VSPC Final meeting minutes.

19 **Section 248(b)(3): Impact on Electric System Stability and Reliability**

20 Q30. What impact will the Project have on electric system stability and reliability?



1 A30. The Project will have no adverse impact on the stability and reliability of VELCO's  
2 transmission system. In fact, the Project will improve system safety and reliability  
3 by replacing equipment of less-than-adequate condition.

4 **Section 248(b)(4): Economic Benefit to the State and Its Residents**

5 Q31. What, if any, economic benefits to the State and its residents will result from the  
6 Project?

7 A31. The Project will create economic and safety benefits to Vermont and its residents.  
8 The Project will increase property tax revenues based on the capital investment  
9 required for the upgrades. Additionally, the Project will provide some local  
10 economic benefits associated with engaging local businesses and contractors  
11 during the Project's construction phase. Moreover, as I noted in connection with the  
12 orderly development criterion above, maintaining a reliable electric grid helps  
13 attract investment and supports commerce in the State.

14 **Section 248(b)(5): Traffic and Transportation, Municipal Services, Development**  
15 **Affecting Public Investments, and Public Health and Safety**

16 *Traffic and Transportation*

17 Q32. Will the Project cause unreasonable congestion or unsafe conditions with respect  
18 to the use of highways, waterways, railways, airports or airways?

19 A32. No. Construction will involve only short-term, periodic traffic impacts due to  
20 deliveries of equipment and materials. If needed during delivery of any large

1 equipment, VELCO will employ traffic control services to manage traffic flow.  
2 VELCO will obtain all required highway permits associated with the work and  
3 deliveries.

4 *Municipal Services and Educational Services*

5 Q33. What impact will the Project have on the ability of the town to provide municipal or  
6 other government services?

7 A33. As an upgrade to an existing VELCO transmission facility, the Project will not impact  
8 local educational services or impact the provision of municipal or other  
9 governmental services.

10 *Development Affecting Public Investments*

11 Q34. Will the Project materially jeopardize or unreasonably interfere with the function,  
12 efficiency, or safety of, or the public's use and enjoyment of or access to any public  
13 or quasi-public investment, service or lands?

14 A34. No, it will not. The only public or quasi-public investments that may be affected by  
15 the Project are Hunt Road and GMP's facilities that are served by the substation.  
16 The impact on Hunt Road will be limited to the construction of substation upgrades,  
17 including a new entrance to the substation from Hunt Road. The Project's  
18 construction impacts are necessary, reasonable, and temporary. The Project plans  
19 address the need for continued electric service during construction, and VELCO  
20 does not expect retail customers to experience disruptions in service during that

1 period. No change in access to the substation will result from the Project, as the  
2 public is not permitted to enter the substation for safety and security reasons.

3 *Public Health and Safety*

4 Q35. Will the Project have an undue adverse impact on public health and safety?

5 A35. No, it will not. The Project will advance public health and safety by upgrading the  
6 Windsor substation to current VELCO standards that are intended to ensure safe  
7 and reliable electric transmission service. Site preparation and construction  
8 activities, including necessary blasting, will be done in accordance with applicable  
9 BMPs and permit conditions.

10 **Section 248(b)(6): Compliance with Integrated Resource Plan**

11 Q36. How is the Project compliant with the applicable Integrated Resource Plan?

12 A36. As a transmission-only company, VELCO does not have an integrated resource  
13 plan. Instead, VELCO undertakes transmission studies for long-term transmission  
14 planning. The most recent long-term transmission plan was issued this year. The  
15 2024 Vermont Long-Range Transmission Plan<sup>2</sup> identifies the Windsor substation as  
16 a transmission asset that requires refurbishment. The Windsor Substation Project is  
17 thus compliant with the company's 2024 Long-Range Transmission Plan because it  
18 is needed to maintain VELCO's existing infrastructure.

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<sup>2</sup> VELCO's 2024 Long-Range Transmission Plan is available for download at:  
[https://www.velco.com/sites/default/files/2024-09/101252\\_Velco\\_CC24\\_singles.pdf](https://www.velco.com/sites/default/files/2024-09/101252_Velco_CC24_singles.pdf).

1           **Section 248(b)(7): Consistency with the Vermont Electric Plan**

2    Q37. Is the Project consistent with the Vermont Electric Plan?

3    A37. Yes, the Project is consistent with the 2022 Comprehensive Energy Plan (CEP).

4           VELCO’s high-voltage transmission system is the backbone of Vermont’s electric  
5           energy system and is needed to maintain “a vibrant, resilient, and robust economy  
6           and for the health and well-being of all Vermonters.” See Exhibit PET-WJA-8 at 3.

7           The Project is the affordable and least-cost option for achieving the goals of  
8           reliability, safety, and resilience for the electric transmission system that the CEP  
9           calls for. See Exhibit PET-WJA-8 at 17, 20. As I mentioned previously, the Project is  
10          designed to accommodate expected growth and anticipates increased load in the  
11          winter arising from decarbonization efforts that the CEP envisions to address  
12          climate change. Exhibit PET-WJA-8 at 4, 8, 10. VELCO has requested a  
13          determination from the Vermont Department of Public Service that the Project is  
14          consistent with the 2022 CEP per 30 V.S.A. § 202(f).

15           **Section 248(b)(10): Impact on Vermont Utilities or Customers**

16    Q38. Can the Project be served economically by existing or planned transmission  
17          facilities?

18    A38. Yes. The Project is an upgrade of an existing transmission substation and will  
19          ensure continued reliable electric service to VELCO’s customers, Vermont’s  
20          electric distribution utilities.

1 Q39. Will the Project have an undue adverse impact on Vermont's utilities or their  
2 customers?

3 A39. No, it will not. The Project will enhance the network reliability that Vermont's  
4 electric utilities rely upon to provide service to retail customers. In addition, the  
5 upgrades will be coordinated with GMP to minimize impacts to retail electric  
6 customers during construction.

7 **Conclusion and Declaration**

8 Q40. Does this conclude your testimony?

9 A40. Yes.

10 DECLARATION OF WILLIAM J. ALLARD

11 I declare that the testimony and exhibits that I have sponsored are true and  
12 accurate to the best of my knowledge and belief and were prepared by me or under my  
13 direct supervision. I understand that if the above statement is false, I may be subject to  
14 sanctions by the Commission pursuant to 30 V.S.A. § 30.

15

16 /s/William J. Allard  
17 William J. Allard