

**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 Irasburg Substation, located in Irasburg, Vermont	
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PREFILED TESTIMONY OF DANIEL POULIN  
ON BEHALF OF VERMONT ELECTRIC POWER COMPANY, INC.  
AND VERMONT TRANSCO LLC

November 18, 2020

Daniel Poulin’s testimony introduces the other witnesses offering testimony in support of this Project, provides an overview of the proposed Project’s scope, cost and schedule, and explains how the Project addresses a subset of the § 248 criteria. Mr. Poulin also explains why the Section 248(j) procedures should apply to the Project.

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## **EXHIBITS**

**Exhibit Petitioner DAP-1**

**Résumé of Daniel Poulin**

**CONFIDENTIAL Exhibit  
Petitioner DAP-2**

**Irasburg Substation Condition Assessment (Filed Under  
Seal as Critical Energy Infrastructure Information)**

**Exhibit Petitioner DAP-3**

**Project Cost Estimate Summary and Schedule**

**Exhibit Petitioner DAP-4**

**45 Day Notice Package**

**Exhibit Petitioner DAP-5**

**Town Plan Excerpts**

**Exhibit Petitioner DAP-6**

**Preconstruction Sound Report**

**Exhibit Petitioner DAP-7**

**Aesthetic Report**

**PREFILED TESTIMONY OF DANIEL POULIN**  
**ON BEHALF OF VERMONT ELECTRIC POWER COMPANY, INC.**  
**AND VERMONT TRANSCO LLC**

**1. Introduction**

1 **Q1. Please state your name, occupation, and business address.**

2 **A1.** My name is Daniel Poulin. I am employed by Vermont Electric Power Company,  
3 Inc. (together with VT Transco LLC referred to as “VELCO”) as the Manager of Project  
4 Management. My business address is 366 Pinnacle Ridge Road, Rutland, Vermont  
5 05701.

6  
7 **Q2. Please describe your education and employment background.**

8 **A2.** I received my Bachelor of Science degree in Electrical Engineering from  
9 Northeastern University in 1989 and my Masters of Business Administration degree from  
10 the University of Oregon in 1999. I have been employed by VELCO since 2007. During  
11 my career, I have worked for a number of electric utility companies where I have held  
12 both engineering and management positions. Specific information regarding my work  
13 experience is detailed in my resume, attached as **Exhibit Petitioner DAP-1**.

14

15 **Q3. Do you hold any professional licenses or certifications?**

16 **A3.** Yes, I am a registered Professional Engineer in the state of Vermont.

17

18

1 **Q4. Have you previously provided testimony before the Vermont Public Utility**  
2 **Commission (“PUC” or “Commission”)?**

3 **A4.** Yes, I provided testimony in Docket No. 8205, the Georgia 115/34.5kV  
4 Interconnection Project; Docket No. 8385, the Newport Project; Docket No. 8605, the  
5 Connecticut River Valley Project; and Docket No. 8685, Case No. 18-1102-PET,  
6 authorizing the installation of equipment at the Coolidge Substation to allow for  
7 interconnection of the Coolidge Solar Project.

2. **Testimony Overview**

8 **Q5. What is the purpose of your testimony?**

9 **A5.** My testimony supports the Petition by VELCO for a Certificate of Public Good  
10 (“CPG”) pursuant to 30 V.S.A. § 248(j) with respect to upgrading VELCO’s existing  
11 substation located at 1364 Route 14, Irasburg, Vermont by replacing VELCO’s 390  
12 circuit switcher, with the a new K390 circuit breaker (the “Project”). My testimony: (1)  
13 introduces the other witnesses offering testimony in support of the Project; (2) justifies  
14 the application of the Section 248(j) procedures; (3) provides an overview of the  
15 proposed Project and the proposed schedule for Project completion and timing of needed  
16 CPG approvals; (4) provides a summary cost estimate and the expected cost treatment;  
17 and (5) explains how the proposed Project addresses a subset of the criteria under Section  
18 248.

19

20

1 **Q6. Please identify each of the witnesses other than yourself that will submit**  
2 **testimony, as well as the scope of their testimony.**

3 **A6.** In support of this Petition, VELCO submits the prefiled testimony and exhibits  
4 sponsored by the following witnesses:

5	<u>Witness</u>	<u>Subject</u>
6	Ed McGann	Discusses the engineering and design details for the
7		substation
8		
9	Andrew McMillan	Provides an assessment of the environmental and
10		historic sites criteria for the Project and VELCO's
11		waste disposal methods

12 **Q7. Why has VELCO filed this Petition under subsection (j) of Section 248?**

13 **A7.** The Project is limited in size and scope, it raises no significant issues with respect  
14 to the substantive criteria of Section 248, and VELCO believes that the public interest is  
15 satisfied by the procedures authorized under Section 248(j). VELCO will perform the  
16 Section 248 upgrade within previously disturbed lands, the work will occur within the  
17 existing substation footprint at the Irasburg substation, and thus, there are no impacts on  
18 the "Act 250" environmental and land use criteria as established by the expert reports  
19 submitted with the petition. The Project does not raise a significant issue with respect to  
20 the other Section 248 criteria given the Project's limited scope to replace equipment that  
21 is at the end of its useful life and/or in unsuitable condition.

22

23 **Q8. Please describe the existing VELCO Irasburg substation.**

24 **A8.** VELCO's Irasburg substation is located at 1364 Route 14, in the Town of

1 Irasburg, Vermont, and interconnects VELCO 115kV substations (Newport, Jay and  
2 Highgate) located in northern Vermont to other VELCO substations to the south  
3 (Sheffield, Lyndonville and St. Johnsbury). The Irasburg substation also feeds the sub-  
4 transmission 46kV system connecting to: Green Mountain Power (GMP) Lowell station,  
5 Vermont Electric Coop (VEC) Irasburg station, Washington Electric Coop (WEC)  
6 Coventry Landfill station, Barton Village Electric, and the Orleans Electric Department.

7         The VELCO Irasburg substation was built in 1973. The original build consisted of  
8 a single 115kV steel box structure and a four bay 46kV steel structure. A 115kV/46kV  
9 step down transformer powered the 46kV bus. Four breaker positions were established on  
10 the 46kV bus: the H39 bank breaker, the H14 connected to GMP Lowell, the H15  
11 connected to the VEC Irasburg substation, and the H16 connected to the Barton and  
12 Orleans systems. Originally, Irasburg substation was radially fed via an 115kV line from  
13 the VELCO St. Johnsbury Substation located to its south. In 2004 a northern 115kV tie to  
14 Newport and Highgate was established and two 115kV circuit breakers (designated K46  
15 and K47) were added at the Irasburg substation. Other modifications made in 2004  
16 included the expansion of the control building to house the new protection and control  
17 equipment, a substation yard expansion to accommodate two additional bays of 46kV  
18 steel and a new 46kV line position (H17) to connect WEC generation, at Coventry, to the  
19 Irasburg 46kV system. The Irasburg substation is currently interconnected to the 115kV  
20 system via the K47 and K46 lines.

21

1 **Q9. Please describe the deficiencies of the existing Irasburg substation and**  
2 **proposed solution.**

3 **A9.** VELCO developed an evaluation tool that it used to conduct a condition  
4 assessment of the substation. **CONFIDENTIAL Exhibit Petitioner DAP-2**, is the  
5 Irasburg Substation Condition Assessment (Assessment), which is being filed under seal  
6 as Critical Energy Infrastructure Information (CEII). The Assessment identified the need  
7 to upgrade the existing 390 circuit switcher. Below, I describe the Assessment and  
8 recommendation. Mr. McGann's testimony and exhibits include engineering and design  
9 details of the proposed upgrade.

10 *115 kV 390 Circuit Switcher (Assessment pg. 10)*

11 VELCO recommends that it replace the 115 kV, SF6, 390 circuit switcher with a  
12 115 kV SF6 breaker. VELCO will remove the existing 115 kV circuit switcher from its  
13 current location, mounted approximately 40' in the air on the 115kV steel structure, and  
14 replace it with a 115kV circuit breaker (K390) located at ground level mounted on a new  
15 concrete foundation. Mr. McGann's testimony describes the need for the new equipment.  
16 The 390 circuit switcher will be removed from the site and disposed of in accordance  
17 with VELCO's disposal methods as further discussed in Andrew McMillan's testimony.

18 While the Project is being constructed, VELCO will make further use of the  
19 scheduled bus and line outages necessary to perform the circuit switcher work, and other  
20 project efficiencies, by performing maintenance at the substation during those outages.  
21 Although these items are the replacement of existing facilities with equivalents in the  
22 ordinary course of business and are not part of the Project, we thought it prudent to let the



1 Commission know some maintenance work will be performed contemporaneously with  
2 the Project work.

3

4 **Q10. Please describe the maintenance work to be performed at the Irasburg**  
5 **substation.**

6 **A10.** At the Irasburg substation, VELCO will make repairs to the existing control  
7 building, and replace the following with equivalents: the spill containment system under  
8 the existing 115kV/46kV, 25/33/42 MVA transformer, the stand-by power generator and  
9 disconnect switches; old 46kV breakers located within the Irasburg substation, breakers  
10 and other aged equipment such as lightning arrestors.

11

12 **Q11. Please describe the major components of the Project.**

13 **A11.** VELCO proposes to construct and operate the following components for this  
14 Project:

- 15
- 16 • Replace the existing 390, 115 kV circuit switcher with a new 115 kV, SF6  
17 breaker;
  - 18 • Add a new concrete foundation for the new 115kV breaker;
  - 19 • Add a new 115 kV disconnect switch; and
  - 20 • Install (if needed) a temporary 5400KVar capacitor bank on the 46kV system  
to support voltage while the 390 circuit switcher is upgraded.

21 **Q12. Will the Project require a service outage?**

22 **A12.** To maintain electric system reliability, the Project will be constructed with limited  
23 outages of the transmission lines entering and connecting within the substation. The  
24 Project will require temporary construction as described below. Given careful planning,

1 execution, and system redundancy, VELCO does not expect that Project construction will  
2 result in the need for a customer outage.

3

4 **Q13. Please describe the temporary construction needed for this Project.**

5 **A13.** The outage requirements to perform the 390 circuit switcher replacement and  
6 maintenance related construction activities may require the installation of a temporary,  
7 portable 5.4 MVAR capacitor bank to be connected to the 46kV system. VELCO has  
8 conducted preliminary analyses indicating that it may not need the temporary capacitor  
9 bank. However, because further detailed analysis is still to be performed and the  
10 temporary capacitor bank may be required, VELCO has included it as part of the Project.

11 Additionally, the radial H16 circuit shall remain in-service during 46 kV bus  
12 outages with a temporary bypass connection to the H15 circuit utilizing a combination of  
13 temporary poles, overhead conductor, switches and ground-laid power cables. The  
14 temporary capacitor bank, if needed, and temporary bypass infrastructure will be  
15 primarily located within the VELCO's Irasburg substation fence. See Exhibit Petitioner  
16 EJM-3 for a conceptual location of the temporary construction. Following completion of  
17 the Project, the temporary construction components will be removed from the substation  
18 site.

19

20

1 **Q14. Does the Project description in your testimony differ from the Project**  
2 **description in the 45-day advance notice that VELCO provided under 30 V.S.A. §**  
3 **248(f)?**

4 **A14.** No.

5

6 **Q15. Please describe the approach for developing the Project's cost estimate.**

7 **A15.** The first step was to identify the resources required to plan, design, and construct  
8 the Project. VELCO developed the cost estimate utilizing seven categories to establish  
9 the total cost for each Project element. The seven resource categories are as follows:

- 10 • Material
- 11 • Labor
- 12 • Equipment
- 13 • Indirects
- 14 • Escalation
- 15 • Capital Interest
- 16 • Contingency

17 **Q16. Please summarize the process used to develop the direct and indirect costs.**

18 **A16.** VELCO developed the Direct Costs using cost data from projects VELCO  
19 recently completed or which are in progress. Specifically, VELCO used cost data  
20 associated with recent VELCO substation and line projects to develop the material, labor  
21 and equipment costs. VELCO utilized vendor cost data for portions of the Project scope  
22 for which VELCO did not have recent actual cost data from its prior projects.

23 VELCO estimated labor and equipment costs using preliminary detailed designs.

24 The detailed line items for each Project element were estimated into sub-categories

25 following the Federal Energy Regulatory Commission ("FERC") system of accounts.

1 Developing the cost estimates by FERC account enhances VELCO's ability to track costs  
2 in a manner consistent with the reporting format of actual costs as required by FERC.  
3 Also, escalation costs can be more accurately calculated by applying the Handy-Whitman  
4 cost index to the estimated costs by FERC account.

5 The Project team also developed the estimated costs for Indirects, Escalation,  
6 Capital Interest and Contingency.

7 VELCO estimated the Indirect Costs based on the resources required to support  
8 the Project completion by resource category. Resource categories included in the Indirect  
9 estimated costs include: Engineering and Design; Operations; Planning;  
10 Communications; Environmental Engineering; Archeological Studies; Field Surveys;  
11 Impact Mitigation; Aesthetic Impact; Legal Expenses; Regulatory Permitting and Filings;  
12 Administrative Overhead; Mobilization and Demobilization; Project Management;  
13 Construction Supervision; and Project Administration.

14 The Indirect estimated Project costs support services are based on the number of  
15 people/hours (Level of Effort or LOE) required to support the particular function as well  
16 as outsourced consulting services for each resource category (e.g. archaeology studies,  
17 engineering, and surveying, etc.).

18 VELCO Project Controls developed escalation costs by using an anticipated 2019-  
19 2021 spending plan and projected Handy-Whitman cost index and consumer price index  
20 (CPI).

21 VELCO applied Capital Interest (interest cost during construction) and also  
22 followed the Project spending plan as applied to the escalation cost calculation. The

1 Capital Interest rate is typically based on the company's credit rating and is subject to  
2 change based on the financial market conditions.

3 Finally, the Project cost estimate also accounts for a contingency of fifteen-percent  
4 (15%) due to the preliminary detailed designs and the uncertainty and risk associated with  
5 the Project level of definition.

6

7 **Q17. What is the total cost estimate for the Project based on the various cost**  
8 **elements and resource categories described?**

9 **A17.** The total cost of the Project is estimated at \$703,111. The total cost estimate is  
10 comprised of \$169,564 of Direct Costs (encompassing Material, Labor and Equipment),  
11 \$421,053 of Indirect Costs, \$14,767 in Escalation, \$13,563 in Capital Interest, and  
12 \$84,164 in Contingency. Please refer to **Exhibit Petitioner DAP-3** for a cost summary  
13 by resource category and Project elements.

14

15 **Q18. What is the design basis for the substation's Direct cost estimate?**

16 **A18.** The Direct cost estimate is based on the General Arrangement Plans and the One-  
17 Line Diagram as presented in Mr. McGann's testimony and exhibits.

18

19 **Q19. What risk elements did VELCO consider when developing the cost estimate**  
20 **and how were the risks addressed in the cost estimate?**

21 **A19.** Per standard project management practices widely recognized by organizations  
22 such as the Project Management Institute, VELCO applied contingency to the estimate to

1 account for these risks. VELCO applied a contingency of 15% to the total estimated cost  
2 based on the current level of Project definition.

3

4 **Q20. Are any portions of the Project upgrades expected to be eligible for Pool**  
5 **Transmission Facilities (“PTF”) regionalized cost recovery?**

6 **A20.** No portions of the Project are expected to be eligible for PTF cost recovery.

7 Based upon the asset classification, the costs would be considered as Vermont “common”  
8 and will be borne by the Vermont distribution utilities.

9

10 **Q21. What is the Project schedule?**

11 **A21.** We propose to begin Project construction as soon as possible after receiving the  
12 required permits and approvals, which at this time is understood to be limited to the CPG.  
13 Currently, the estimated construction schedule is from May 2021 with a targeted  
14 completion date of November 2021. This assumes receipt of a CPG by the end of May  
15 2021. A failure to achieve this schedule will likely have adverse impacts on Project  
16 execution and overall Project cost. See Exhibit Petitioner DAP-3.

17 Consistent with Commission precedent, VELCO proposes that construction will  
18 take place between the hours of 7:00 A.M. and 7:00 P.M. Monday through Friday, and  
19 between 8:00 A.M. and 5:00 P.M. on Saturdays. No construction will take place on  
20 Sundays, or state or federal holidays, although VELCO seeks to conduct activities on  
21 Bennington Battle Day given the short summer construction season, and the holiday is  
22 not widely granted as a paid day off for many of the workers likely to be working on the

1 Project. VELCO requests, however, that these restrictions do not apply to construction  
2 activities that VELCO must perform during any required outages that may be needed to  
3 maintain system reliability.

4

5 **Q22. Where will VELCO store equipment during construction?**

6 **A22.** VELCO will use a portion of its existing Irasburg land parcel to stage any  
7 material needed during construction. These staging areas will be adjacent to the existing  
8 driveway entrance to the substation and are within the Project assessment area to evaluate  
9 impacts to the relevant environmental criteria.

**3. Criteria on Public Outreach [Docket No. 7081]**

10 **Q23. Has the Project development conformed to the transmission planning**  
11 **requirements approved in the Memorandum of Understanding (MOU) of Docket**  
12 **No. 7081?**

13 **A23.** Yes.

14

15 **Q24. Please describe VELCO's public outreach efforts related to this Project.**

16 **A24.** VELCO designed the public outreach efforts to meet the requirements of the  
17 MOU from Docket No. 7081. VELCO specifically reached out to the local community in  
18 Irasburg. Once the Project's need and site details were further refined, VELCO issued a  
19 45-day advance notice describing the Project to the abutting landowners, the Town of  
20 Irasburg Selectboard, the Town of Irasburg Planning Commission, the Town Clerk, and  
21 the Northeastern Vermont Development Association. See **Exhibit Petitioner DAP-4**, the

1 45-day notice letters. All stakeholders were invited to a virtual public meeting to provide  
2 interaction for questions and feedback. The virtual public meeting was scheduled for the  
3 convenience of interested persons and one member of the Irasburg Planning Commission  
4 attended. The public has been offered other means of communicating with the VELCO  
5 project team including phone and email transmittals. The VELCO website also provides  
6 constant availability for those with internet access to Project information and provides a  
7 means of submitting requests for information via an on-line contact form.

8

9 **Q25. How did VELCO address the comments and input that were received from**  
10 **the public outreach efforts?**

11 **A25.** VELCO has not received any comments or concerns about this Project from its  
12 public outreach efforts.

**4. Orderly Development [30 V.S.A. § 248(b)(1)]**

13 **Q26. Will the Project unduly interfere with the orderly development of the region?**

14 **A26.** No. The Project will have a favorable impact on the orderly development of the  
15 region in that it will improve the reliability of the region's existing electrical supply while  
16 not adversely impacting the environment or aesthetics. The proposed Project is  
17 consistent with the Irasburg Town Plan 2019 ("Town Plan") and the Regional Plan for  
18 the Northeast Kingdom 2015-2023 ("Regional Plan") because it upgrades an existing  
19 transmission facility, rather than building new infrastructure. See **Exhibit Petitioner**  
20 **DAP-5** (Excerpts from the Town Plan and Regional Plan).



1           The proposed Project complies with the Town goals and policies by increasing  
2   electric reliability in the Irasburg area on previously developed sites and without aesthetic  
3   impact. See Exhibit Petitioner DAP-5, Town Plan Section 8, p. 74. The Project is also  
4   consistent with the Regional Plan’s Energy Goal stating that, “[a]n adequate, reliable,  
5   diverse, and secure energy supply will benefit the region,” and noting that one strategy to  
6   achieve this Goal is to “support the upgrade of regional transmission systems to continue  
7   to reduce constraints.” See Exhibit Petitioner DAP-5, Regional Plan at p. 9-10. Neither  
8   the Regional Plan nor the Town Plan contain land conservation measures applicable to  
9   the proposed Project. As such, the Project will not unduly interfere with the orderly  
10   development of the region.

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

11   **Q27. Is the Project required to meet the need for present and future demand for**  
12   **service which could not otherwise be provided in a more cost-effective manner**  
13   **through energy conservation programs and measures and energy efficiency and**  
14   **load management?**

15   **A27.** Yes. The condition of the VELCO 390 circuit switcher is the driver of the need  
16   for the proposed Project. Mr. McGann’s testimony provides further detail on the need for  
17   this Project. Energy efficiency and load management actions could not resolve this  
18   problem. VELCO presented the proposed Project to the Vermont System Planning  
19   Committee (VSPC) Geotargeting Subcommittee. The Geotargeting Subcommittee  
20   concluded that the Project screened out of the VSPC’s test for Non-Transmission  
21   Alternative (NTA) analysis. Thus, VELCO did not perform an NTA analysis.

1 **Q28. Has VELCO considered and assessed whether the proposed Project**  
2 **represents the least-cost alternative to resolving the deficiencies discussed above?**

3 **A28.** Yes, the VELCO Planning Department studied the Irasburg substation in regards  
4 to bus configuration, load growth, voltage ratings, equipment ratings, Vermont long  
5 range plans, and new generation interconnections. No planning deficiencies are noted,  
6 and no planning related improvements are recommended at the Irasburg substation.  
7 Replacing the 390 circuit switcher with a circuit breaker and disconnect is the least-cost  
8 alternative to resolve the deficiencies.

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

9 **Q29. What impact will this upgrade have on system stability and reliability?**

10 **A29.** The Project will have no adverse impact on the stability and reliability of  
11 VELCO's transmission system. The Project will improve system reliability by upgrading  
12 the 390 circuit switcher with a new circuit breaker.

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

13 **Q30. Will the Project result in an economic benefit to the State?**

14 **A30.** Yes. The Project will create economic and safety benefits to the citizens of  
15 Vermont. The Project will increase property tax revenues based on the capital investment  
16 required for the upgrades. Additionally, there will be some local economic benefits  
17 associated with engaging local businesses and contractors during the Project's  
18 construction phase.

19

**8. Air Pollution (Noise), Aesthetics, Public Health and Safety [30 V.S.A. § 248(b)(5)]**

1 **Q31. Has VELCO evaluated whether there will be sound impacts from the**  
2 **Project?**

3 **A31.** Yes. VELCO retained Resource Systems Group, Inc. (“RSG”) to conduct a noise  
4 assessment of the site which included a pre-construction sound monitoring study to  
5 determine the existing sound conditions at the Irasburg Substation, and closest residence.  
6 See **Exhibit Petitioner DAP-6.**

7  
8 **Q32. Please summarize RSG’s study and conclusion.**

9 **A32.** As described in their report, RSG conducted short-term and long-term monitoring  
10 at the Irasburg substation. The short-term monitoring included sound power  
11 measurements of the existing transformer, the existing source of sound at the substation,  
12 under ONAN (Oil Natural Air Natural) and ONAF (Oil Natural Air Forced) conditions.  
13 Long term monitoring took place on the exterior fence-line near the northeast corner and  
14 at the closest residence. Short-term measurements were collected to quantify the sound  
15 emission from the transformer. Long-term measurements were collected to determine  
16 substation sound emissions within the context of other areas.

17 RSG concluded that the upgrades at the Irasburg substation do not involve any  
18 sound sources of significance and do not include changes to the transformer, the existing  
19 source of sound at the substation. None of the upgrades are expected to result in a change

1 of sound level at the substation or the surrounding area. Therefore, no sound mitigation  
2 measures are necessary.

3

4 **Q33. Will the Project result in any adverse impacts on aesthetics?**

5 **A33.** No. VELCO retained T.J. Boyle (Boyle) to review and assess any potential  
6 impact associated with the Project. Boyle's findings are presented in **Exhibit Petitioner**  
7 **DAP-7** (VELCO Irasburg Substation Project – Aesthetic Analysis). The report concludes  
8 that the Project will have extremely limited visibility from the surrounding area and that  
9 views are substantially screened by surrounding evergreen vegetation and landform.  
10 Based on their findings, Boyle does not believe the Project will result in an undue adverse  
11 impact to the aesthetics of the area in which it is being proposed. Due to the limited  
12 visibility and existing screening, no aesthetic mitigation is needed or proposed.

13

14 **Q34. Will the Project have any adverse effects on the health, safety, or welfare of**  
15 **the public or adjoining landowners?**

16 **A34.** No. VELCO will design and construct the Project in accordance with industry  
17 safety standards, including the National Electric Safety Code requirements. The  
18 Company will adhere to prudent utility construction practices throughout the construction  
19 phase, and the Project will not endanger the public or adjoining landowners. VELCO will  
20 operate and maintain the substation equipment installed as part of this Project in the same  
21 safe manner that the company operates and maintains all of its facilities. In addition, the  
22 VELCO safety program has been updated to include special precautions to ensure worker

1 safety during the pandemic in adherence to the Governor’s executive order and Vermont  
2 Occupational Safety and Health Administration’s (VOSHA’s) mandatory safety and  
3 health practices for COVID 19.

**9. Transportation Systems/Traffic [10 V.S.A. § 6086(a)(5)]**

4 **Q35. Please describe the Project’s potential impacts with respect to use of public**  
5 **roads, waterways, railways, airports, and airways.**

6 **A35.** The Project poses no long-term traffic impacts in the Town of Irasburg. VELCO  
7 anticipates only minor, short duration traffic impacts, if any, due to deliveries of  
8 equipment and material to the substation site during the construction period (expected to  
9 be from May 2021 to November 2021). Such deliveries will use existing roads with  
10 vehicles that are commonly used on public roads. During delivery of any large  
11 equipment, VELCO will employ the services of traffic control personnel to manage  
12 traffic flow. VELCO will obtain all required highway permits associated with the work  
13 and deliveries. There will be no impacts from this Project to waterways, railways,  
14 airports, and airways.

**10. Educational & Municipal Service [10 V.S.A. § 6086(a)(6)&(7)]**

15 **Q36. What impact will the Project have on educational and municipal services?**

16 **A36.** The Project will not have any impact on educational or municipal services. With  
17 respect to educational services, the Project will not add any new students to the affected  
18 municipality. Thus, the Project will not place an unreasonable burden on the ability of a  
19 municipality to provide educational services because the Project will not require or affect  
20 educational services.

1           With respect to municipal services, the Project does not require any fire or police  
2 services beyond those typically required of other businesses, and what is currently  
3 required for the Irasburg substation.

**11.   Development Affecting Public Investments [10 V.S.A. § 6086(a)(9)(K)]**

4   **Q37.   What impact will the Project have on public investment in a public resource?**

5   **A37.**   The Project will not unnecessarily or unreasonably endanger any public or quasi-  
6 public investment in any facility, service, or lands, or materially jeopardize or interfere  
7 with the function, efficiency, or safety of, or the public’s use or enjoyment of or access to  
8 any facility, service, or lands.

**12.   Compliance with Integrated Resource Plan [30 V.S.A. § 248(b)(6)]**

9   **Q38.   Is the Project consistent with VELCO’s least cost Integrated Resource Plan?**

10   **A38.**   VELCO does not have an integrated resource plan. As a transmission-only  
11 company, VELCO periodically produces transmission studies. Specifically, VELCO  
12 issued a 2018 Vermont Long-Range Transmission Plan. The 2018 Plan explains that:

13                   The transmission plan requirements are not meant to include those  
14                   asset condition or routine projects that are proposed to maintain  
15                   existing infrastructure in acceptable working condition.  
16                   Sometimes these activities require significant projects, such as the  
17                   refurbishment of substation equipment and the replacement of a  
18                   relatively large number of transmission structures to replace aging  
19                   equipment or maintain acceptable ground clearances. Although the  
20                   plan requirements do not apply to these types of projects, VELCO  
21                   is listing these projects for the sake of information. These projects  
22                   are needed to maintain the existing system, not to address system  
23                   issues resulting from load growth, and VELCO routinely shares  
24                   plans for many of these projects with the VSPC as part of its non-  
25                   transmission alternatives (NTA) project screening process.

1 2018 VELCO Plan, at page 9. The 2018 plan acknowledged that VELCO was assessing  
2 various substations for potential refurbishments. The Irasburg project is a continuation of  
3 those types of substation assessments that maintain existing infrastructure in acceptable  
4 working condition.

**13. Compliance with Vermont Electric Energy Plan [30 V.S.A. § 248(b)(7)]**

5 **Q39. Is the Project consistent with the 2016 Comprehensive Energy Plan?**

6 **A39.** Yes. Vermont’s Twenty-Year Electric Plan (“the Plan”) adopted by the  
7 Department of Public Service (the “Department”) in January 2016 (Section 1.3) as part of  
8 the Vermont Comprehensive Energy Plan contains several basic objectives related to  
9 transmission investment that must be satisfied in serving the public interest. The Plan  
10 seeks to ensure reliability of the transmission system. The Plan also strives for the  
11 protection of public safety, preservation of the environment, and least cost planning.  
12 Similarly, the Plan recognizes statutory goals in which Vermont meets its energy service  
13 needs in a manner that is adequate, reliable, secure, and sustainable and that assures  
14 affordability. The Project strikes the proper balance between each of these objectives.  
15 Specifically, VELCO has proposed a Project that restores and maintains system reliability  
16 and safety. VELCO has asked the Department for a determination under 30 V.S.A. §  
17 202(f) that the Project is consistent with the 20-Year Plan.

18

**14. Impact on Vermont Utilities and Customers [30 V.S.A. §248(b)(10)]**

1 **Q40. Can existing or planned transmission facilities serve the Project without**  
2 **creating an undue adverse effect on Vermont utilities, customers, or existing**  
3 **transmission facilities?**

4 **A40.** Yes. Existing transmission facilities can serve the Project without creating an  
5 undue adverse effect on Vermont utilities and customers. The proposed Project consists  
6 of an upgrade at an existing substation which is designed to enhance the existing electric  
7 system and to improve service to customers. VELCO has, and will continue to coordinate  
8 the work with GMP, WEC, VEC, the Town of Barton, and the Village of Orleans to  
9 minimize impacts during construction and ensure worker safety.

**15. Conclusion**

10 **Q41. Does this conclude your testimony at this time?**

11 **A41.** Yes, it does.