

**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	
--	--

PREFILED TESTIMONY OF ANDREW MCMILLAN
ON BEHALF OF VERMONT ELECTRIC POWER COMPANY, INC.
AND VERMONT TRANSCO LLC

November 18, 2020

Andrew McMillan’s testimony presents the report titled: Irasburg Project “Natural Resources Report” prepared by Stantec, which addresses VELCO’s proposal to upgrade VELCO’s existing Irasburg Substation. Mr. McMillan also addresses the specific environmental and historic sites criteria under 30 V.S.A. § 248(b)(5).

TABLE OF CONTENTS

1.	Introduction.....	2
2.	Testimony Overview.....	3
3.	Historic Sites [30 V.S.A. § 248(b)(5)].....	4
4.	Natural Environment [30 V.S.A. § 248(b)(5)].....	5
5.	Outstanding Resource Waters [10 V.S.A. § 1424a(d) & 30 V.S.A. § 248(b)(8)] ..	6
6.	Water and Air Pollution [10 V.S.A. § 6086(a)(1)]	6
7.	Headwaters [10 V.S.A. § 6086(a)(1)(A)]	8
8.	Waste Disposal [10 V.S.A. § 6086(a)(1)(B)]	9
9.	Water Conservation & Supply [10 V.S.A. § 6086(a)(1)(C) & (a)(2)&(3)].....	11
10.	Floodways [10 V.S.A. § 6086(a)(1)(D)].....	12
11.	Streams [10 V.S.A. § 6086(a)(1)(E)].....	12
12.	Shorelines [10 V.S.A. § 6086(a)(1)(F)]	13
13.	Wetlands [10 V.S.A. § 6086(a)(1)(G)]	13
14.	Soil Erosion [10 V.S.A. § 6086(a)(4)].....	14
15.	Rare and Irreplaceable Natural Areas, Necessary Wildlife Habitat, Endangered Species [10 V.S.A. § 6086(a)(8)].....	14
16.	Greenhouse Gas Impacts [30 V.S.A. § 248(b)(5)].....	16
17.	Use of Natural Resources [30 V.S.A. § 248(b)(5)].....	18
18.	Primary Agricultural Soils [30 V.S.A. § 248(b)(5)]	18
19.	Project Permits	19
20.	Conclusion	19

EXHIBITS

Exhibit Petitioner AM-1	Résumé of Andrew K. McMillan
Exhibit Petitioner AM-2	Phase 1B Archaeological Survey and Architectural Reconnaissance Survey – VELCO Irasburg Substation Project
Exhibit Petitioner AM-3	Natural Resources Report – Substation Condition Assessment Project Irasburg Substation
Exhibit Petitioner AM-4	VELCO’s Environmental Guidance Manual
Exhibit Petitioner AM-5	VELCO’s SF6 Policy

PREFILED TESTIMONY OF ANDREW MCMILLAN
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 Andrew K. McMillan. I am the Vermont Electric Power Company,
3 Inc. (together with VT Transco LLC referred to as “VELCO”) Environmental Specialist
4 leading environmental permitting for the Irasburg Project. My business address is
5 Vermont Electric Power Company, Inc., 366 Pinnacle Ridge Road, Rutland, VT 05701.

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

8 **A2.** I received a Bachelor of Arts degree in Environmental Science from the State
9 University of New York College at Plattsburgh, with a study option in Environmental
10 Planning and Management and a minor in Applied Geographic Information Systems. I
11 have been employed by VELCO since 2009 and have worked on a variety of
12 environmental projects at VELCO. I am currently serving as the Environmental
13 Permitting Lead for the Project. In this role I am responsible for: scheduling and
14 managing the natural resource and above and below ground historic site assessments;
15 agency coordination and correspondence; environmental permitting; and subsequently,
16 construction and restoration oversight to ensure compliance with the Project’s
17 environmental permits and commitments. The years prior to my employment at VELCO,
18 I was employed as an Assistant Environmental Manager at Noble Environmental Power,

1 and as a Fish & Wildlife Technician at the New York State Department of Environmental
2 Conservation. My resume is attached as **Exhibit Petitioner AM-1**.

3

4 **Q3. Have you previously provided testimony before the Vermont Public Utility
5 Commission (the “Commission” or “PUC”)?**

6 **A3.** Yes, I have previously provided testimony in Docket No. 7763 for the Bennington
7 Substation Project, Docket No. 8385 regarding VELCO’s Newport Project, Docket No.
8 8605 for the Connecticut River Valley Project, Case No. 17-3808-PET regarding the St.
9 Albans Project, and Case No. 17-5240-PET regarding the Barre Project. I also provided
10 testimony in Case No. 19-1812-PET for the VELCO Berlin Substation Upgrade Project
11 and most recently in Case No. 20-0444-PET for the VELCO Sandbar Substation Project.
12

13 **Q4. Do you hold any professional licenses or certifications?**

14 **A4.** Yes. I am a certified Water System Operator in the State of Vermont (Operator
15 ID# OP03924) and am a Certified Professional in Erosion and Sediment Control
16 (CPESC). I also hold OSHA 40-hour certification for Hazardous Waste Operations and
17 Emergency Response (HAZWOPER) (29 CFR 1910.120).

2. **Testimony Overview**

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

19 **A5.** My testimony summarizes how the proposed upgrades to VELCO’s existing
20 Irasburg Substation (the “Project”) comply with the environmental and historic sites
21 criteria applicable to electric transmission projects under 30 V.S.A. § 248. As such, my

1 testimony provides an assessment of the Project’s potential impacts upon above and
2 below ground historic sites as well as presenting the report titled: Irasburg Project
3 “Natural Resources Report,” prepared by Stantec, which addresses VELCO’s proposal to
4 upgrade its existing substation located at 1364 Route 14, Irasburg, Vermont.
5 Specifically, my testimony addresses the following statutory criteria: outstanding
6 resource waters (10 V.S.A. § 1424a(d) and 30 V.S.A. § 248(b)(8)), air and water
7 pollution (10 V.S.A. § 6086(a)(1)), headwaters, (10 V.S.A. § 6086(a)(1)(A)), waste
8 disposal (10 V.S.A. § 6086(a)(1)(B)), water conservation & supply (10 V.S.A. §
9 6086(a)(1)(C) & (a)(2)&(3)), floodways (10 V.S.A. § 6086(a)(1)(D)), streams (10 V.S.A.
10 § 6086(a)(1)(E)), shorelines (10 V.S.A. § 6086 (a)(1)(F)), wetlands (10 V.S.A. §
11 6086(a)(1)(G)), soil erosion (10 V.S.A. § 6086 (a)(4)), and rare and irreplaceable natural
12 areas, necessary wildlife habitat, and threatened and endangered species (10 V.S.A. §
13 6086(a)(8)). My testimony also addresses additional criteria under 30 V.S.A. § 248(b)(5)
14 including historic sites, greenhouse gas impacts, use of natural resources, and primary
15 agricultural soils.

3. Historic Sites [30 V.S.A. § 248(b)(5)]

16 **Q6. Will this Project have an undue adverse effect on historic sites?**

17 **A6.** No. There are no registered historic sites within or adjacent to the Project.
18 VELCO retained The Louis Berger Group (now WSP) to perform an Archaeological
19 Resource Assessment (ARA) of the Irasburg Substation parcel and follow-up Phase 1B
20 Archaeology Survey in the vicinity of the existing Substation, as well as a Historical
21 Architectural Resource Investigation for archaeological and historic resources. As

1 confirmed by WSP in their report titled “Phase 1B Archaeological Survey and
2 Architectural Reconnaissance Survey – VELCO Irasburg Substation Project”, there are
3 no known historic sites or properties that meet the eligibility criteria for listing on the
4 state register or national register of historic places, within a 0.25-mile radius of the
5 Irasburg Substation property. WSP concluded that the Project will have no impact on
6 below or above ground historic sites. Therefore, the Project will not have an undue,
7 adverse effect on historic sites. See **Exhibit Petitioner AM-2** (Phase 1B Archaeological
8 Survey and Architectural Reconnaissance Survey Report – VELCO Irasburg Substation
9 Project).

4. Natural Environment [30 V.S.A. § 248(b)(5)]

10 **Q7. Will the proposed Project have an undue adverse effect on the applicable**
11 **Section 248 environmental criteria?**

12 **A7.** No. VELCO has considered the surrounding natural resources in the siting and
13 design of the proposed Project improvements. The proposed Project activities occur
14 predominately within the existing substation footprint atop the gravel substation yard
15 material, with temporary construction support elements (such as parking, material
16 storage, and temporary poles) sited to avoid regulated resource areas and occupy areas of
17 previous disturbance wherever possible. VELCO retained Stantec Consulting Services
18 (“Stantec”) to perform a detailed natural resource assessment of the approximately 12-
19 acre Irasburg Substation parcel, referred to as the “Study Area” in their report, attached as
20 **Exhibit Petitioner AM-3** (Stantec Irasburg Project Natural Resources Report). Stantec

1 also reviewed the Study Area for potential tie line work areas and access, as well as for
2 potential staging areas that would be used to support Project construction.

3 VELCO will follow the site specific Non-native and Invasive Species (NNIS)
4 Monitoring and Control Plan for the proposed Project as it pertains to construction and
5 post construction monitoring. The NNIS Monitoring and Control Plan is included as
6 Appendix B within Exhibit Petitioner AM-3. In addition, VELCO will perform its work
7 in accordance with the VELCO Environmental Guidance Manual (VEGM), provided as
8 **Exhibit Petitioner AM-4**. As such, the Project will not result in any undue, adverse
9 effects on the natural environment.

5. Outstanding Resource Waters [10 V.S.A. § 1424a(d) & 30 V.S.A. § 248(b)(8)]

10 **Q8. Will the Project result in an undue adverse effect on any Outstanding**
11 **Resource Waters?**

12 **A8.** No. There are no Outstanding Resource Waters within or in the vicinity of the
13 Project or Study Area. Therefore, the proposed Project will have no undue, adverse effect
14 on Outstanding Resource Waters. Exhibit Petitioner AM-3, at 2-3.

6. Water and Air Pollution [10 V.S.A. § 6086(a)(1)]

15 **Q9. Will the Project result in an undue adverse effect on air quality?**

16 **A9.** No. Work during the Project's construction phase will result in minor air
17 emissions. There will be vehicle emissions at the site from the use of diesel and gasoline
18 powered vehicles and equipment, as is necessary for construction of the proposed project
19 elements. There may also be brief releases of dust generated during equipment and
20 material transport, earthmoving, and general construction activities; however, VELCO

1 will manage dust resulting from construction activities in accordance with the Vermont
2 Standards and Specification for Erosion Prevention and Sediment Control and the
3 VEGM. Operationally, following completion of the construction phase, the proposed
4 Project will not produce any regulated air emissions. Therefore, the Project will not have
5 an undue, adverse effect on air quality.

6

7 **Q10. Will the Project result in undue adverse water quality conditions?**

8 **A10.** No. Stantec did not identify any wetlands, streams, or waterbodies within the
9 Study Area, and as the proposed Project activities occur within the VELCO-owned 12-
10 acre Study Area, the proposed Project does not pose a risk to water quality. The proposed
11 Project activities involve less than one acre of earth disturbance; therefore, the Project
12 work does not trigger the need for a Vermont Department of Environmental Conservation
13 (VT DEC) Construction Stormwater Discharge Permit. VELCO will perform the minor
14 amount of soil disturbance associated with this Project in accordance with the VEGM and
15 the applicable Erosion Prevention and Sediment Control (EPSC) Best Management
16 Practices (BMPs).

17 The Irasburg Substation is included in VELCO's *Spill Prevention, Control, and*
18 *Countermeasure (SPCC) Plan*, which addresses the operational oil-containing equipment
19 at the substation to prevent a discharge of oil into navigable waters. VELCO will adhere
20 to its SPCC Plan, which includes site-specific drainage pathways and detailed
21 information on spill response measures in order to ensure protection of navigable waters
22 in the event of a release of oil or hazardous material to the environment. There are no

1 wetlands, streams, rivers or waterbodies located within the Study Area, as determined by
2 Stantec, nor are there any such water resources within the immediate vicinity of the
3 Project site (the nearest water resource is located more than 1,000' to the east and on the
4 opposite side of Vermont Route 14). Implementation and adherence to EPSC BMPs, the
5 VEGM, VELCO's SPCC Plan, and routine environmental compliance inspections will
6 ensure protection of water quality during Project construction activities.

7 If a release of a hazardous material were to occur during the Project's
8 construction phase, VELCO would take appropriate steps to contain it; report the release
9 to the VT DEC, as necessary; remove the contaminated material from the site for proper
10 disposal; and restore the area in accordance with the VEGM (Exhibit Petitioner AM-4)
11 and applicable State and Federal Regulations. Implementation and adherence to the
12 SPCC Plan and proper site restoration through EPSC BMPs will maintain water quality at
13 the Project site following completion of the proposed upgrades. As such, there will be no
14 undue adverse effect to water quality.

7. **Headwaters [10 V.S.A. § 6086(a)(1)(A)]**

15 **Q11. Will the Project result in undue adverse effects to headwaters?**

16 **A11.** No. In order for the headwaters criteria to be met, the Project must demonstrate
17 compliance with any applicable health and environmental regulations regarding the
18 reduction of the quality of the ground or surface waters flowing through or upon lands
19 which are not devoted to intensive development. These areas are defined as: 1)
20 headwaters or watersheds characterized by steep slopes and shallow soils; 2) drainage
21 areas of 20 square miles or less; 3) above 1,500 feet elevation; 4) watersheds of public

1 water supplies designated by the Vermont ANR; or 5) areas supplying significant
2 amounts of recharge waters to aquifers. Stantec analyzed available desktop information
3 such as elevation and watershed size data and conducted field surveys in order to
4 determine if the Study Area contains any lands that meet the criteria of 10 V.S.A. §
5 6086(a)(1)(A). Exhibit Petitioner AM-3, at page 3.

6 Stantec found that the Study Area does not meet any of the five (5) sub-criteria
7 for headwaters, as such, the Project is not located within headwaters. As the proposed
8 Project will occur within the Study Area, which does not contain headwaters, the Project
9 will not result in an undue adverse effect to headwaters.

8. Waste Disposal [10 V.S.A. § 6086(a)(1)(B)]

10 **Q12. Please discuss VELCO's plans regarding waste disposal.**

11 **A12.** The Project will involve limited waste disposal, with the majority associated with
12 the Project's construction phase. VELCO will handle and dispose of the limited
13 decommissioned substation materials and waste generated as a result of this Project in
14 compliance with State of Vermont Solid Waste Management Rules. VELCO will
15 properly dispose of waste according to its material makeup in accordance with the
16 applicable waste disposal rules and regulations.

17 There is an existing, permitted onsite wastewater disposal system that serves the
18 control building bathroom (sink and toilet) that will remain in its current configuration
19 and be avoided by the Project activities, as no wastewater disposal deficiencies were
20 identified during the condition assessment effort for the proposed Project. The permitted
21 capacity of the wastewater treatment system will not change as a result of the proposed

1 Project upgrades and VELCO will install protective barriers in the area of the in-ground
2 wastewater system to prevent intrusions during Project construction.

3 VELCO will dispose of any penta-treated wood poles associated with the
4 temporary capacitor bank in accordance with the Penta BMPs.

5 VELCO will stockpile and dispose of clean wood products that are brought onsite
6 during Project construction as part of equipment and/or material deliveries (i.e. pallets) in
7 accordance with Act 148, the Universal Recycling and Composting Law.

8 The implementation and adherence to the items listed above will ensure that
9 proper waste disposal practices are performed during Project construction and operation.

10 In consultation with the VT DEC Waste Management and Prevention Division
11 (WMPD), VELCO evaluated the substation soils and concrete to determine the potential
12 for contaminants and, as a result of site assessments, determined that site soils contain
13 arsenic above the Vermont Soil Screening Values. The arsenic was determined to be
14 naturally occurring at the site, and as such, VELCO intends to handle overburden
15 materials from below grade activities onsite and in a manner that avoids regulated
16 resource areas. No other environmental contamination was identified as part of the pre-
17 characterization sampling effort.

18 The Project does not require an operational stormwater permit because the total
19 impervious area associated with the site and the proposed Project is less than one acre.

20 Therefore, the Project will not have an undue, adverse effect on waste disposal.
21 Exhibit Petitioner AM-3, at 3-4.

22

9. Water Conservation & Supply [10 V.S.A. § 6086(a)(1)(C) & (a)(2)&(3)]

1 **Q13. Please describe water conservation measures associated with the Project.**

2 **A13.** The Project will, where technically and economically feasible, incorporate
3 measures to conserve water use, recycle water, and maintain the efficient operation of
4 any such measures. There is the potential that the Project will need water for dust control
5 and other limited construction phase uses, such as washing equipment and vegetative
6 establishment; however, the amount of water used for these temporary, construction and
7 restoration-phase activities will be limited in duration and will only be utilized as
8 necessary. VELCO will limit water demand post-construction as the substation facilities
9 are not staffed on a regular basis, and only intermittently visited by maintenance
10 personnel. See Exhibit Petitioner AM-3, at 4 and 7.

11

12 **Q14. Will the Project have an undue adverse effect on water conservation?**

13 **A14.** No. The operation of the proposed facilities will not require the utilization of
14 water beyond the intermittent use of a single bathroom by maintenance personnel. As
15 such, the proposed Project will not have an undue adverse effect on water conservation.
16 Exhibit Petitioner AM-3, at 4.

17

18

1 **Q15. Will the Project burden existing water supplies?**

2 **A15.** No. The Irasburg Substation control building contains a small bathroom that is
3 served by an existing onsite drilled well. The proposed Project will not increase demand
4 for water at the site and there will be a limited demand for water post-construction, as the
5 substation facilities are not regularly staffed, and only intermittently visited by operation
6 and maintenance personnel. Water usage onsite is expected to increase temporarily
7 during construction; however, water will only be used on an as-needed basis as described
8 above. As such, the proposed Project will not burden the existing water supplies. Exhibit
9 Petitioner AM-3, at 7.

10. Floodways [10 V.S.A. § 6086(a)(1)(D)]

10 **Q16. Is any part of the Project located within a 100-year flood boundary or**
11 **floodplain?**

12 **A16.** No. Stantec analyzed the available Federal Emergency Management Agency
13 Flood Insurance Rate Maps and determined that the proposed Project is not located
14 within a floodway or floodway fringe, and that the Study Area does not contain any lands
15 that meet criteria (§ 6086(a)(1)(D)) related to floodways. As such, the Project will not
16 have an undue, adverse effect on floodways. See Exhibit Petitioner AM-3, at 4-5.

11. Streams [10 V.S.A. § 6086(a)(1)(E)]

17 **Q17. Describe any streams in the Project's vicinity.**

18 **A17.** Stantec performed a desktop evaluation and completed a field-based natural
19 resource assessment survey within the Study Area for the presence of streams. Stantec

1 did not identify any streams within the Study Area. As the Project consists of upgrades to
2 an existing facility within the existing footprint, and there are no streams located on the
3 VELCO-owned property or in the vicinity of the Project, the Project will have no undue,
4 adverse effects on streams. See Exhibit Petitioner AM-3, at 5.

12. Shorelines [10 V.S.A. § 6086(a)(1)(F)]

5 **Q18. Does the Project affect any shorelines?**

6 **A18.** No. Stantec reviewed the Study Area for shorelines and determined that there are
7 no water resource features in the Study Area that would contain a shoreline. Stantec
8 therefore concluded that the proposed Project activities would not impact the protected
9 shoreline criteria. As such, the Project will not have an undue adverse effect on
10 shorelines. See Exhibit Petitioner AM-3, at 5-6.

13. Wetlands [10 V.S.A. § 6086(a)(1)(G)]

11 **Q19. Will the Project result in undue, adverse effects to wetlands?**

12 **A19.** No. Stantec performed thorough desktop and field investigations to identify
13 wetlands within the Study Area pursuant to the United States Army Corps of Engineers
14 (ACOE) wetland delineation methodology. No wetlands were identified within the Study
15 Area, which is characterized by “excessively well drained” and “somewhat excessively
16 well drained” soils by the Natural Resource Conservation Service. As the proposed
17 Project activities are located within the existing substation or upon the uplands
18 immediately adjacent to and surrounding the existing substation that consist entirely of

1 uplands, the Project will not have an undue adverse effect on wetlands. Exhibit Petitioner
2 AM-3, at 6-7.

14. Soil Erosion [10 V.S.A. § 6086(a)(4)]

3 **Q20. Will the Project result in undue, adverse effects on soil erosion?**

4 **A20.** No. The proposed Project will involve less than one acre of regulated earth
5 disturbance, as much of the work is located within the existing substation footprint.
6 Regardless, VELCO will implement and adhere to stormwater BMPs during construction
7 and restoration of the proposed Project, which will serve to avoid and/or minimize soil
8 erosion at the site.

9 VELCO will perform all earth-disturbing activities in accordance with the
10 stormwater BMPs outlined in the VEGM and the Vermont Standards and Specifications
11 for EPSC. With the adherence to these BMPs and through routine environmental
12 compliance inspections at the site, the proposed Project activities will not cause undue,
13 adverse effects on soil erosion, or cause a reduction in the capacity of the land to hold
14 water. Exhibit Petitioner AM-3, at 7.

**15. Rare and Irreplaceable Natural Areas, Necessary Wildlife Habitat,
Endangered Species [10 V.S.A. § 6086(a)(8)]**

15 **Q21. Will the Project have an undue adverse effect on rare and irreplaceable
16 natural areas, necessary wildlife habitat, or threatened or endangered species?**

17 **A21.** No. Stantec performed an assessment for Rare and Irreplaceable Natural Areas
18 (RINA), Necessary Wildlife Habitat (NWH), and Rare Threatened and Endangered

1 (RTE) Species in 2017 and did not identify any occurrences of RINA or NWH in the
2 Study Area.

3 There are no mapped deer wintering areas within the Study Area, nor did Stantec
4 identify any suitable deer wintering habitat during the field surveys performed at the site.
5 According to the natural resource assessments performed by Stantec, which included a
6 database review for black bear mast stands and wetland feeding areas, in addition to field
7 surveys, the Study Area does not contain suitable bear habitat. As the proposed Project
8 includes upgrades to an existing facility, no impacts to NWH are expected as a result of
9 the Project. Exhibit Petitioner AM-3, at 8-9.

10 One endangered plant species, Greene's Rush (*Juncus greenei*), is mapped and
11 known to occur within the 12-acre Study Area. As such, targeted RTE surveys were
12 performed by Stantec within the Study Area for the Irasburg Substation Project in order
13 to confirm the location and extent of any RTE individuals and/or sub-populations
14 proximate to the substation that would be subject to a Threatened and Endangered
15 Species Takings Permit (Takings Permit) from the Vermont Fish and Wildlife
16 Department (VT FWD). The proposed Project elements have been sited to avoid the
17 mapped populations of Greene's Rush at the site and VELCO will install protected
18 resource area signage to prevent crews from entering these areas during construction of
19 the proposed Project. Construction crews will also receive Project-specific Environmental
20 Awareness training prior to performing any work at the site, which will include RTE-
21 specific protection measures, including, but not limited to the locations, signage, and
22 associated access limitations as they pertain to the RTE population areas at the site.

1 Through flagging, avoidance, and training, there will be no impact to RTE species as a
2 result of the proposed Project.

3 As such, the Project will have no undue adverse effect on RINA, Necessary
4 Wildlife Habitat, or Threatened or Endangered Species. Exhibit Petitioner AM-3, at 9-
5 10.

16. **Greenhouse Gas Impacts [30 V.S.A. § 248(b)(5)]**

6 **Q22. Will the proposed VELCO work or Project have any significant greenhouse**
7 **gas impacts?**

8 **A22.** No. VELCO's proposed construction activities will result in the release of minor
9 emissions associated with the operation of gasoline and diesel powered engines and
10 equipment. These activities, however, will be limited in nature and duration. Moreover,
11 there will be no sustained releases of greenhouses gases (GHG) associated with the
12 operation of the facilities.

13 The Project includes installation of one 115 kV SF6 breaker, which is similar to
14 those currently installed at numerous other VELCO substations and utilizes a temperature
15 compensated gas pressure gauge. The new 115 kV SF6 gas circuit breaker will be
16 equipped with a real-time SF6 gas pressure monitoring device, which will aid VELCO in
17 its timely detection of pressure changes that might be associated with a leak. SF6 breaker
18 pressure issues would be addressed in accordance with the inspection and monitoring
19 procedures outlined in VELCO's SF6 Policy, provided here as **Exhibit Petitioner AM-5**,
20 which has been reviewed and approved by VT ANR Air Quality and Climate Division as

1 part of previous collaborative review meetings for similar VELCO substation upgrade
2 projects.

3 The Irasburg Substation contains 164 pounds, in total, of SF6 gas within the
4 various gas-insulated equipment on site. Following completion of the proposed Project,
5 the Irasburg Substation will contain approximately 228 pounds, in total, of SF6 gas.
6 VELCO's total nameplate capacity of SF6 gas containing equipment on its entire
7 transmission system will be 31,152 pounds following the Irasburg Substation Project's
8 net increase of approximately 64 pounds of SF6. This net increase is largely the result of
9 replacing the one (1) existing circuit switcher with one (1) SF6 gas containing breaker
10 (note that the reported total nameplate capacity calculation reflects actual numbers and
11 does not reflect pending nameplate capacity changes). VELCO will ensure proper
12 handling and recycling of SF6 gas containing equipment during the Project through
13 implementation and adherence to its SF6 Policy. In compliance with the US
14 Environmental Protection Agency (EPA) Greenhouse Gas Reporting Program, VELCO
15 will report its SF6 leakage quantities to the EPA on an annual basis. VELCO provides
16 this same SF6 leakage quantity information to VT ANR as a result of previous
17 agreements. As such, there will be no undue, adverse effect associated with greenhouse
18 gas emissions associated with the proposed Project.

19

17. Use of Natural Resources [30 V.S.A. § 248(b)(5)]

1 **Q23. Will the Project work use natural resources?**

2 **A23.** VELCO will construct this Project while minimizing the use of natural resources.

3 It is expected that VELCO will use a minor amount of natural resources to complete the

4 Project, which will be mainly limited to the use of stone to surface the substation yard,

5 and the utilization of petroleum based fuels and lubricants associated with the operation

6 of gasoline and diesel powered vehicles and equipment. As such, there will be no undue

7 adverse use of natural resources.

18. Primary Agricultural Soils [30 V.S.A. § 248(b)(5)]

8 **Q24. Does the Project have an undue adverse effect on primary agricultural soils**

9 **as defined by 10 V.S.A. § 6001(15)?**

10 **A24.** As indicated on the Natural Resources Map in Figure 2 of Exhibit Petitioner AM-

11 3, there are mapped Statewide and Statewide (a) Primary Agricultural Soils (“PAS”)

12 within the 12-acre Study Area. None of these areas are currently used for agriculture

13 purposes. The proposed Project activities are largely coincident with areas of previous

14 disturbance, as this Project consists predominately of construction work within the

15 confines of the existing gravel substation yard, along with some temporary workspaces

16 along the existing substation access road. The total area of proposed impacts to mapped

17 Statewide and Statewide (a) PAS at the site consist of temporary, construction-phase

18 related impacts that are well below two acres, which will be restored to pre-existing

1 conditions as part of site restoration. As such, there will be no undue adverse impacts to
2 mapped Statewide importance soils from the Project. Exhibit Petitioner AM-3, at 10.

19. Project Permits

3 **Q25. Beyond the CPG, do the proposed Project activities trigger the need for any**
4 **environmental permits?**

5 **A25.** No, as there are no wetland or streams in the Study Area and the Project activities
6 occur primarily within the footprint of the existing substation, no ancillary environmental
7 permits are necessary for the Project work as proposed.

20. Conclusion

8 **Q26. Does this conclude your testimony at this time?**

9 **A26.** Yes, it does.