STATE OF VERMONT PUBLIC UTILITY COMMISSION

Case No. 24- -PET

| Petition of Vermont Transco LLC and | |
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| Vermont Electric Power Company, Inc. for a | |
| certificate of public good, pursuant to | |
| 30 V.S.A. § 248, for the replacement and | |
| removal of structures on the VELCO K24-5 | |
| Line in Waterbury, Vermont | |
| | |

PREFILED TESTIMONY OF WITNESS WILLIAM F. MCNAMARA ON BEHALF OF VELCO

December 20, 2024

Mr. McNamara describes the proposed engineering and design details for the replacement of Structure LCP-020 and removal of temporary Structure LCP-021 on the VELCO K24-5 Duxbury Tap-Stowe Line in Waterbury, Vermont.

PREFILED TESTIMONY OF WILLIAM F. MCNAMARA

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

- 2 A1. My name is William F. McNamara. My business address is Vermont Electric
- 3 Power Company, Inc. and Vermont Transco LLC (collectively referred to as "VELCO" or the
- 4 "Petitioner"), 366 Pinnacle Ridge Road, Rutland, VT 05701. I am a Professional Engineer
- 5 employed by VELCO, currently working in the Engineering Department.

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- Q2. Please describe your background and experience.
- 8 **A2.** I received my Bachelor of Science degree in civil engineering from the University 9 of Vermont in 1987. Afterwards, I obtained registration as a Professional Engineer in the States 10 of New York and Vermont. I have performed in a variety of primarily technical roles, with 11 periods of both technical and operational responsibilities. These roles have involved both 12 mechanical and civil engineering projects. My transmission line experience began when I joined 13 VELCO in July 2005. Since then, I have been involved with transmission line projects ranging 14 in voltages from 46 kV to 345 kV, serving as the Project Engineer/Project Lead for the following 15 transmission line projects: West Rutland to New Haven 345 kV; Lamoille County (Duxbury to 16 Stowe) 115 kV; Southern Loop (Vernon to Newfane to Cavendish) 345 kV; Connecticut River 17 Valley Project K31 Line Rebuild (Cavendish to Ascutney); and various smaller new substation 18 driven line reroutes/modifications. I am currently Project Engineer for the transmission line 19 portions of the Franklin County Line Upgrade Project, Vermont Public Utility Commission Case

23-3734-PET. A copy of my résumé is attached as **Exhibit Petitioner WFM-1**.

| 1 | Q3. | Have you previously testified before the Public Utility Commission (the | |
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| 2 | "Commission")? | | |
| 3 | A3. | Yes. I provided testimony in connection with the Transmission Line Design | |
| 4 | aspects of the | Southern Loop Project, Docket No. 7373; the Georgia Substation Project, Docket | |
| 5 | No. 7731; the | Ascutney Substation Project, Docket No. 7751; the Bennington Substation Project, | |
| 6 | Docket No. 7 | 763; the Connecticut River Valley Project, Docket No. 8605; the Franklin County | |
| 7 | Line Upgrade | e Project, Case 23-3734-PET; and the K24-5 LCP-020 Emergency Replacement, | |
| 8 | Case 24-2234 | I-PET. | |
| 9 | | | |
| 10 | Q4. | Do you hold any professional licenses or certifications? | |
| 11 | A4. | Yes, I am registered as a Professional Engineer in the States of New York and | |
| 12 | Vermont. | | |
| 13 | | | |
| 14 | Q5. | What is the purpose of your testimony? | |
| 15 | A5. | My testimony describes the proposed engineering and design details for the | |
| 16 | replacement of Structure LCP-020 and removal of temporary Structure LCP-021 on the VELCO | | |
| 17 | K24-5 Duxbu | ary Tap-Stowe Line in Waterbury, Vermont (the "Project"). | |
| 18 | | | |
| 19 | Q6. | Have you prepared exhibits relating to this Project? | |
| 20 | A6. | Yes, Exhibit Petitioner WFM-2 contains a site plan showing original, | |
| 21 | temporary, and proposed pole locations for Project. Exhibit Petitioner WFM-3 contains a | | |
| 22 | profile view of LCP-020. Exhibit Petitioner WFM-4 contains a drawing of a steel pole vertical | | |
| 23 | dead-end structure assembly. | | |

| 1 | Q7. Please describe VELCO's proposal for a new Structure LCP-020. |
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| 2 | A7. In July and August 2024, in accordance with the Order Granting Waiver Pursuant |
| 3 | to 30 V.S.A. § 248(k) issued by the Commission on July 24, 2024 in Case No. 24-2234-PET, |
| 4 | VELCO installed temporary Structures LCP-021 and LCP-020, and removed the original LCP- |
| 5 | 020 laminate pole structure. |
| 6 | Through this Project, VELCO proposes to remove temporary Structures LCP-020 and |
| 7 | LCP-021 and install a new, permanent structure. New Structure LCP-020 is proposed to be a |
| 8 | self-supporting steel, single pole dead-end structure on a concrete foundation. Our geotechnical |
| 9 | and engineering design consultants have recommended that the new foundation be placed at least |
| 10 | 20 feet horizontally from the existing retaining wall supporting the upslope soils above the |
| 11 | access road to the adjacent development, to minimize transferring soil loads resulting from the |
| 12 | foundation to the existing retaining wall. Another structure location design criteria is that LCP- |
| 13 | 020 be located such that no angle be applied to the adjacent structure LCP-022, because an angle |
| 14 | would produce different loads on LCP-022 for which it was not designed. In order to meet these |
| 15 | two criteria, VELCO has proposed to locate new Structure LCP-020 approximately 23' north of |
| 16 | the original LCP-020 conductor attachment location, in line with the original conductor |
| 17 | alignment. See Exhibit Petitioner WFM-2. |
| 18 | This proposed location provides other design benefits due to its higher base grade, and |
| 19 | the shorter span in the direction (to the north) where the ground clearance is controlling the |
| 20 | height of the structure. The original above-grade height of LCP-020 was approximately 90 feet; |
| 21 | the proposed replacement structure is 72 feet above-grade height. The original top of pole |
| 22 | elevation was approximately six feet higher than the proposed replacement pole top elevation. |

| 1 | Q8. | Please describe the foundation needed for the installation of the new | |
|----|--------------------|--|--|
| 2 | Structure LCP-020. | | |
| 3 | A8. | VELCO proposes an approximately six-foot diameter by 30-foot-deep concrete | |
| 4 | drilled pier fo | undation with internal steel anchor bolts and secondary steel rebar cage. The | |
| 5 | specific found | lation design details are still being finalized by VELCO's engineering consultant. | |
| 6 | It is expected | that the foundation will be +/- one foot above grade on one side and +/- two and a | |
| 7 | half feet abov | e grade on the opposite side, due to the existing ground slope. | |
| 8 | | | |
| 9 | Q9. | Please describe VELCO's proposal to remove temporary Structure LCP-021. | |
| 10 | A9. | VELCO will remove existing Structure LCP-021 after new Structure LCP-020 is | |
| 11 | installed. Wi | tness Johnson provides further detail regarding the removal of temporary Structure | |
| 12 | LCP-021 and | VELCO's plans to restore the site of this temporary structure. | |
| 13 | | | |
| 14 | Q10. | Does this conclude your testimony? | |
| 15 | A10. | Yes. | |
| | | | |

DECLARATION OF WILLIAM F. MCNAMARA

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

12/20/24/s/ William F. McNamaraDateWilliam F. McNamara