

MEMORANDUM

TO: Chair Lanpher, House Committee on Appropriations
Chair Kornheiser, House Committee on Ways and Means
Chair Sheldon, House Committee on Environment and Energy

FROM: Shana Louiselle, VELCO Communications & Public Relations Manager

SUBJECT: VELCO's 2024 Vermont Long-Range Transmission Plan analysis

DATE: February 27, 2024

We are aware that aspects of VELCO's current draft 2024 Vermont Long-Range Transmission Plan have been cited by the Vermont Department of Public Service and the Vermont Legislative Joint Fiscal Office in their respective analyses of H.289, An Act Relating to the Renewable Energy Standard. While not specifically commenting on those analyses, the purpose of this memorandum is to better ensure an accurate record of the Plan's purpose, contents and conclusions.

- 1. Purpose** – Vermont law and Vermont Public Utility Commission orders require VELCO to publish a long-range transmission plan every three years to inform stakeholders about potential bulk electric system transmission needs as our grid advances. Its primary purpose is to identify future challenges to the reliability of Vermont's transmission system such that it helps VELCO meet its statutory and regulatory obligations to ensure "full, fair and timely consideration of non-transmission alternatives" to these reliability challenges. We are required to adhere to an evolving federally established planning standard to ensure the electric transmission system can reliably withstand worst-case scenarios, and that is how we perform the analysis. VELCO develops a forecast using verified, accurate data provided by Vermont energy stakeholders, e.g., distribution utilities, renewable energy developers, Efficiency Vermont, etc. While the draft 2024 Vermont Long-Range Transmission Plan offers valuable grid insights, it is important to understand that the Plan serves as a long-range planning document, not a project-specific cost estimate. Its purpose, again, is to identify potential grid performance concerns and consider various solutions, including cost-effective non-transmission alternatives, to enable VELCO to continue to reliably deliver bulk electricity to Vermont's eighteen distribution utilities. The Plan serves as an energy prompt intended to foster greater dialogue and collaboration among key stakeholders to better ensure grid reliability, affordability, and sustainability.
- 2. Contents** – The 2024 Plan offers two scenarios – essentially a high-load ("VT Roadmap") and a low-load ("Continued Growth") forecast – developed to cover possible electrification outcomes, and with no alteration to current distributed generation siting patterns. Of particular note, for the first time since 2015, load growth under one of the two forecast scenarios is projected to create grid reliability concerns within the Plan's 10-year horizon that could necessitate significant new transmission investment. Such investment can, again, only be made after full, fair, and timely consideration of cost-effective non-transmission alternatives. Publication of the Plan in June will kick off this collaborative endeavor.

In past plans, VELCO's models assumed that much of the projected load growth would be managed through appropriate load control measures. This plan, however, removes such assumptions given that broad, effective load control measures have yet to materialize. Our planners must have an accurate assessment of the magnitude of the reliability issues that may arise, and thus this change better reflects the reality we are seeing on the ground. In addition to not modeling load control management, the 2024 Plan also does not model storage or optimized generation siting patterns. Each of these three non-transmission alternatives could potentially reduce, even significantly reduce, upgrade costs from a transmission-only solution, although it would be inaccurate to describe them as no-cost solutions.

The forecasted transmission and subtransmission system reliability concerns identified as driven by additional in-state solar generation includes a total of \$1.4B in rough cost estimates if all of these concerns are addressed with transmission upgrades, and if distributed generation is installed without regard to location-specific system constraints. These upgrades could be avoided in part with storage, load management, grid-informed generation siting, and generation curtailment.

For our part, taking advantage of the opportunity to avoid these costs is why this year's report includes a call to action for greater collaboration and focus on in-state generation siting decisions – including storage – and on flexible load management to improve system resiliency, lower cost, and enhance overall system sustainability.

- 3. Conclusion** – Consistent with state regulatory requirements, the draft Plan is currently under review by the 36-member Vermont System Planning Committee. Notably, the draft Plan¹ we shared with VSPC members includes the following on page 10: “several important energy initiatives that could, and likely will, impact the analysis results presented in this Plan but were not able to be considered due to the uncertainty over outcomes. These initiatives...include...[r]eforms to the state's Renewable Energy Standard requirements under legislative consideration as we go to press.” Following VSPC review, and as also required by PUC order, VELCO will launch an additional public outreach process to receive and respond to additional input. Lastly, VELCO has a record of successful collaboration to create and implement innovative, cost-effective solutions to address our energy transformation challenges. The draft 2024 Plan represents our best attempt to identify and share the challenges we see over the mid- to longer-term in order that we might jointly produce the best outcome for our state.

VELCO welcomes the opportunity to testify before the Committee on the development of the 2024 Vermont Long-Range Transmission Plan. We are available to address any questions regarding potential transmission system upgrades and to provide clarity on the associated costs related to the Plan's findings.

¹ https://www.vermontspc.com/sites/default/files/2024-02/2024%20VLRTP_VSPC_draft_0.pdf