

STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 24-3351-INV

Investigation into the potential need for transmission system improvements identified in the 2024 Vermont Long-Range Transmission Plan	
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COMMENTS OF THE VERMONT DEPARTMENT OF PUBLIC SERVICE

On June 28, 2024, Vermont Electric Power Company (“VELCO”) filed with the Vermont Public Utility Commission (“Commission”) its 2024 Vermont Long-Range Transmission Plan (“Plan”). The Plan found, for the first time since 2015, transmission reliability deficiencies within a ten-year planning horizon. Under Docket 7081, VELCO identified the lead distribution utility for these issues as Green Mountain Power Corporation (“GMP”), which will lead a non-transmission alternative (“NTA”) study group to ascertain whether transmission upgrades proposed by VELCO to rectify the determined reliability violations can be deferred or avoided by use of NTAs. On November 5, 2024, the Commission issued an order opening a fact-finding investigation (1) into the potential need for transmission system improvements identified in the Plan, and (2) to encourage and facilitate the implementation of NTAs.

On December 27, 2024, the Commission issued an order addressing the schedule and process for the investigation. The Commission asked for, as an initial step, participants in the proceeding to “file comments and any recommendations with respect to the Plan’s conclusion that more statewide coordination and planning are needed and address how distributed generation growth can be optimally managed and coordinated. Participants’ filings should address further process, including the need for additional filings or the scheduling of workshops.” Given this order, the Department hereby responds as follows:

I. Statewide Coordination and Planning

Energy policy and planning with implications for the grid – both for and as a result of distributed energy resources (“DERs”), including electrification – is happening through multiple avenues in Vermont to varying degrees. This includes statutory requirements such as the Plan, Renewable Energy Standard (“RES”), the Comprehensive Energy Plan (“CEP”), distribution utility Integrated Resource Plans (“IRPs”), and regional and municipal Enhanced Energy Plans. Where it has oversight and/or input, the Department has attempted to make recommendations and provide tools to help align these programs and plans to optimize use of existing grid infrastructure and to minimize the need for new grid investments. These efforts include:

- CEP Chapter 4 on Grid Evolution;
- RES, and Renewable Energy for Communities proposals being finalized for this legislative session;
- Authorization, now contained in the Commission’s net-metering Rule 5.100, for locational adjuster fees to be implemented by utilities in areas where the grid is constrained;
- Act 174 standards and Generation Scenarios Planning Tool; and
- Guidance for IRPs.

Nevertheless, there is still much to do to ensure that these policies and planning efforts work in harmony to optimize DER deployment on the grid. The Vermont System Planning Committee (“VSPC”) provides a useful forum for discussion of transmission system DER hosting capacity in the particular context of developing the Plan. The 2024 Plan sets the groundwork for the NTA analysis to be conducted by GMP and the NTA study group pursuant to Docket 7081. Additional analysis currently under way at VELCO is anticipated to shed further light on the temporal and

spatial nature of the identified concerns, which will allow GMP to begin, in earnest, the development of a Reliability Plan as contemplated by the Commission Docket 7873. VELCO should include such analysis as a part of the 2027 Plan and utilize tools with dedicated time series power flow capabilities in doing so. While this may add burden to the development process, these steps will facilitate timely completion and publication of conclusions essential to the work of distribution utility planners and ostensibly facilitate more cost-effective, grid-resilient DER siting and utility infrastructure investment decisions.

Extensive participation of the distribution utilities in development of system planning assumptions through the VSPC and its subcommittees and working groups, as well as distribution utility cooperation in providing relevant time series data, is necessary to achieve a coordinated and comprehensive statewide transmission plan. Assumptions about the pace, location, and controllability of electrification loads are key to VELCO's finding of reliability deficiencies in this Plan and will be key to identification of NTAs. While not a specific focus of this immediate proceeding, the Department respectfully recommends the Commission consider whether additional process or requirements related to the load forecasting process are warranted in developing the next Plan.

The Department looks forward to comments from VELCO and the distribution utilities on the present state of planning and coordination in the state, including what communication takes place between utilities and other entities with respect to: forecast data, planning assumptions, analysis methods, and conclusions drawn. They should also describe what tools are used, and how they are used, in the development of these items listed and to what degree there is opportunity for technological coordination or efficiencies between utilities, such as might be secured through VELCO's VX Platform initiative when completed.

II. Optimally Managing and Coordinating Distributed Generation Growth

VELCO's Plan emphasizes the need to optimize the location of distributed generation. This was a key takeaway from the 2021 Plan, as well. The primary mechanisms driving distributed generation development are the programs and procurements to meet Tier II of the RES: net-metering, Standard Offer, utility procurements, and any new programs developed by the legislature and overseen by the Commission or utilities; these are the opportune places to add provisions related to the location, fuel source, data sharing requirements, funding support, and timing of generation.

In its 2024 updates to Rule 5.100, for example, the Commission included a provision allowing distribution utilities to propose tariffs that would implement locational adjustor fees (Rule 5.136) for new net-metering systems, or other new electric generation facilities, that connect within a constrained or limited headroom area of the grid. Widespread adoption of such tariffs could facilitate optimization of distributed generation interconnection across the state by proportionately dissuading interconnection of new generation resources in constrained areas. To date, no such tariff has been filed by utilities. The reasons why tariffs have not been filed are unclear; evidence shows that certain areas of the state are constrained – not only the Sheffield-Highgate Export Interface, but also on the distribution level. VELCO has also previously asserted that, if development is left to “business as usual,” the creation of additional transmission-constrained areas is likely.

The Department respectfully suggests that the Commission seek information from utilities to understand the barriers to implementing such fees – whether they are administrative, technical, or even if a determination has been made that such a fee would not help optimize the location of

generation (for example, the GMP Solar Map¹ shows significant portions of the distribution system that are served by a substation transformer with less than 10% capacity remaining; these parts of the grid are prime candidates for adoption of a locational adjustor fee tariff). Understanding whether utilities intend to file for such fees, including a timeline, and/or what is stopping them from using this tool, can help Vermont better understand if this or another solution is best poised to help optimally manage generation interconnection.

III. Further Process

The Department also respectfully recommends that the Commission request additional comments from distribution utilities and VELCO to secure a clear, comprehensive understanding of the present condition and attendant strengths and weaknesses of coordination of statewide planning work, and what steps are needed to better ensure that NTAs are truly given full, fair and timely consideration as envisioned by Docket 7081. This should include a step-by-step recitation of how: (1) effective data and information gathering and collaboration will occur; (2) load growth, load controllability and other key assumptions will be collectively determined; and (3) grid cost and resiliency factors can be better reflected in DER siting and utility infrastructure investment decisions moving forward and incorporated in the next iteration of the Plan. Additionally, information from distribution utilities on their assessment of the drawbacks, barriers, opportunities, and usefulness of locational adjustor fee tariffs (or other mechanisms) will be key to facilitating their development and enabling a rational distribution of generation resources across the state with respect to distribution and transmission capacity. The Department respectfully recommends that the Commission strongly consider holding a workshop to review the work, e.g.,

¹ <https://www.arcgis.com/apps/webappviewer/index.html?id=4eaec2b58c4c4820b24c408a95ee8956>

tools used, methodologies employed, etc., and the conclusions of the NTA study group, and to ensure that the evolving objectives of the NTA programs are met.

Thank you for the opportunity to comment on this matter. The Department looks forward to engaging in further discussion on all these items.

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