



July 15, 2025

Ms. Holly Anderson, Clerk
Vermont Public Utility Commission
112 State Street, Drawer 20
Montpelier, VT 05620

Re: Case 24 - 3351 – Vermont’s Long Range Transmission Plan

Dear Ms. Anderson,

Pursuant to Public Utility Commission (“Commission” or “PUC”) Order of May 27, 2025 in the above-captioned proceeding, the City of Burlington Electric Department (“BED”) offers the following responses for consideration.

PUC Question #1:

In its comments, the Department notes that Commission Rule 5.136 includes a provision allowing distribution utilities to propose tariffs that would implement locational adjustor fees for new net-metering systems, or other new electric generation facilities, that connect within a constrained or limited headroom area of the grid. To date, no such tariff has been filed by utilities. Distribution utilities are requested to address whether they have any plans to propose tariffs. Responses should address what systems or facilities will be covered by the tariff and how the locational adjustor fees would be implemented.

BED Response:

The VELCO transmission system serving BED does not appear to have any constraints that would warrant such a charge at this time. BED’s distribution system is not experiencing significant congestion issues at this time caused by net metering systems, and we do not expect any future distribution congestion in the near future at the current pace of new net metered systems coming online in our service area. Accordingly, BED is not currently planning to propose a new tariff to implement locational adjustor fees, though the changing VELCO transmission topology will bear monitoring.

PUC Question #2:



To understand the barriers to implementing locational adjustor fees, distribution utilities and VELCO are requested to provide an assessment of the drawbacks, barriers, opportunities, and usefulness of locational adjustor fee tariffs. Distribution utilities should address whether the barriers are administrative or technical, or if a determination has been made that such a fee would not help optimize the location of distributed generation. For example, the GMP Solar Map shows significant portions of the distribution system that are served by a substation transformer with less than 10% capacity remaining; GMP should address whether these parts of the grid are candidates for adoption of a locational adjustor fee tariff.

BED Response:

BED believes the Commission's policy regarding local adjustor fees (i.e., Rule 5.136) is reasonable. However, as noted above, BED is not experiencing significant congestion issues at this time due to net metering systems. Accordingly, BED does not have a strong opinion or first-hand experience relative to the barriers such a policy may impose on its operations or other distribution utilities. However, equity between later and earlier deployments of net metering systems is a likely point of concern/tension among customers.

PUC Question #3:

Participants, including distribution utilities and VELCO, are requested to address whether there are other mechanisms to facilitate and enable a rational distribution of generation resources across the state with respect to distribution and transmission capacity.

BED Response:

While BED is not experiencing any significant congestion issues, as noted above, BED remains interested in investigating other potential mechanisms that have the potential to effectively locate additional generation resources such that they would not impose significant costs (or reliability impacts) on load serving entities and their customers. BED would also add that large DER systems should be pointed (or incentivized) to areas of the state where excess capacity is known to exist to maximize use of transmission infrastructure before incurring costs to expand it in constrained areas.

PUC Question #4:

In their comments, BED and VPPSA state that any mechanism relying on active control of distributed energy resource assets needs to occur at the distribution utility level to ensure



that actions taken for statewide benefit do not lead to offsetting localized system or reliability problems or cause cost shifting among stakeholders. Participants are requested to address whether active control of distributed energy resource assets needs to occur at the distribution utility level and address the potential benefits, disadvantages, and costs of active control of these assets.

BED Response:

As noted in our original comments of January 31, 2025, BED believes that active control of distribution connected DER assets needs to occur at the local distribution level. Otherwise, the risk of cost shifting increases between and among VELCO and other DU's. Local reliability may also be undermined should an entity other than the distribution system owner begin to activate control of DER assets without operational visibility of local system constraints that the DU control centers possesses. Dispatching distribution-level connected DERs will impose impacts on the distribution system first, as the distribution system connects the DER to the larger grid, and transmission or market-based dispatch must occur with full awareness of the distribution system capability at any given time (i.e., by the entity that controls that distribution system). DER assets connected at transmission voltage level, however, should be controlled by VELCO for much the same reason.

BED also contends that to fully assess the benefits and costs of DERs, a more holistic, and transparent, engineering evaluation of the nature of current and future transmission challenges needs to be undertaken such that all potential impacts can be identified upfront. Once these impacts are known, the costs and benefits of alternative solutions can be compared to one another. While this analytic process entails a lot coordination between VELCO, EEU's and DU's, such widespread collaboration is, we believe, much more likely to lead to cost effective solutions. However, BED again asserts that if DERs are installed with a point of interconnection on the distribution system, control must reside with the local distribution utility.

PUC Question #5:

In its comments, VPPSA notes that the Plan discusses the desire to make use of non-transmission alternatives ("NTAs") and coordinate them with distributed generation siting and raises concerns about the reliance on active control or management of NTAs, including whether the active management of NTAs have the potential to negatively affect distribution level reliability, as loads are shifted locally or in time, and may result in significant cost shifting across stakeholders. Participants are requested to address the potential benefits, disadvantages,



and costs that accompany active management of distributed energy resources and NTAs, including whether and how the shifting of costs or reliability problems across stakeholders can be avoided.

BED Response:

See response above with regard to when such assets are connected to the distribution systems.

PUC Question #6:

In its comments, GMP states that its 2024 Integrated Resources Plan (“IRP”) identifies that GMP has identified what an optimized deployment of solar and flexible resources would look like and how much generation capacity headroom exists across GMP’s system. GMP is requested to file that information on optimized deployment and capacity headroom into this proceeding and address its efforts to date and plans for future work with stakeholders to ensure optimal deployment.

BED Response:

BED is interested in reviewing and participating in these discussions and learning more about how GMP arrived at their conclusions.

PUC Question #7:

In its comments, GMP states that it will use additional tools to limit the scope of grid upgrades needed to integrate new distributed renewables, including limited curtailment of distributed renewable generation, use of distributed storage and flexible load resources, and solar plant design choices that can enhance plant capacity factors. GMP is requested to provide additional information on how it implements these tools, including how GMP determines the most cost-effective way to integrate additional distributed generation. Responses should address how GMP determines what grid upgrades are the most cost effective option.

BED Response:

BED has no response at this time.

PUC Question #8:

In its comments, BED states that the Plan could benefit from additional analyses and discussion on the following issues: (1) duration, frequency, and load profile of transformer overloads under N-1-1 conditions; (2) rate of increase in the deployment of distributed



generation and other distributed energy resources; (3) rate of increase in the deployment of electric vehicles and advanced heat pumps; (4) rate of increase in the deployment of energy storage in key areas of the state; (5) whether existing rate structures, such as electric vehicle rates, could alleviate forecasted overload conditions; and (6) whether future dynamic rate structures could alleviate forecasted overload conditions. Participants are requested to address how the Plan and state distribution and transmission planning can benefit from analysis of these issues and file any supplemental information, data, or analyses that would aid in the discussion of these issues.

BED Response:

While VELCO has included some of the above-mentioned analyses in the plan (as well as provide additional information to stakeholders in subsequent meetings about the plan), BED believes that updating these analyses to include the above noted items – especially items 2-6, above - could shed additional light on the severity and timing of the VELCO identified transmission congestion issues. BED notes that because of policy changes and other related issues, the number of customers participating in BED’s heat pump and EV programs has been trailing off in 2025. While it remains uncertain whether reduced levels of program participation is a temporary or longer lasting phenomenon, BED believes that the drop off warrants additional attention, especially when considering large scale infrastructure investments designed to accommodate earlier (and higher) forecasts of measure adoption. Some of the Policy changes that may be affecting participation include but are not necessarily limited to a relaxation in the timeline of ANR’s implementation of the State’s clean cars rules, potential elimination of federal tax credits for EVs and heat pumps, price increases in heat pumps and EVSEs, and supply chain issues relative to contractor availability.

During a recent VSPC subcommittee meeting, BED noted to VELCO that it would provide additional analyses within the next few months¹ that are specific to BED regarding recent trends in EV and HP adoption, EV rate participation levels, as well as our future plans for introducing alternative rate designs. BED is particularly interested in pursuing initiatives that introduce load controlled end-use rates for heating and transportation needs. Such end-use rates provide DU’s an opportunity to increase the relative value of electrification measures and offer customers a better view into comparing the operational costs of existing fossil fuel systems and beneficial electrification alternatives (as opposed to embedding such electrical

¹ BED will soon be re-assessing its forecasts of EVs and HPs in preparation for submitting its 2026 Tier III plan on November 1, 2025.



operational costs in whole home electric charges). It is worth noting that BED expects to propose such end-use rates in the not-too-distant future as a part of its federal grant program funded Building GAINTS program.

PUC Question #9:

In its comments, Efficiency Vermont identifies some additional analysis and considerations: (1) What are the parameters and sensitivities to electrification and load growth in the state? What assumptions about growth and load profiles are being utilized in the Plan's forecast that might be instructive to a potential solution? What metrics should be tracked to determine if this forecast is likely to materialize? (2) What attributes of the growth of distributed generation and time of generation throughout the state should be understood? (3) How can the use of flexible load resources serve as a potential mitigating solution to overload conditions and/or absorption of excess renewables? (4) What are the avoided costs that should be used as a basis for deciding whether NTA investments are cost-effective? (5) How should stakeholders identify the time for planning, implementation, and measuring results? Participants are requested to address these issues along with the issues identified by BED.

BED Response:

BED's response to this question is similar in many respects to our response in #8. A better understanding of the assumptions underlying VELCO's Plan and the sensitivity tests that were evaluated would be helpful. This could provide for greater insight into the viability of FLM as a potential solution to transmission congestion issues and expensive upgrades.

PUC Question#10:

As identified in the Department's comments, participants are requested to address the present condition of coordination of statewide distribution and transmission planning work, including strengths and weaknesses, and what steps are needed to ensure that NTAs are given full, fair, and timely consideration as envisioned by Docket 7081. Responses 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 distributed generation siting and utility infrastructure investment decisions moving forward and incorporated in the next iteration of the Plan. Responses should also address: (1) any recommendations for changes to the Docket 7081 process to ensure NTAs are given full consideration; and (2) any recommendations for which entities are responsible for paying for



transmission level upgrades that become necessary because of distributed generation growth, rather than load growth.

BED Response:

BED is not currently able to provide meaningful input to this very wide ranging question which touches on a host of important policies that could have long range planning impacts. But BED believes that additional process in this proceeding may be of value to Vermont's various stakeholders and improve BED's ability to respond.

PUC Question #11:

VELCO announced its enhanced Point of Interconnection Heat Map – a publicly accessible, interactive tool designed to improve transparency regarding available capacity on VELCO's transmission system. This tool is intended to assist in the optimized siting of distributed generation resources across the state. Participants are requested to address how this tool can be used in coordination of statewide distribution and transmission planning work.

BED Response:

Not only can such maps be used to identify needed upgrades, but they can also be helpful in reducing the need for upgrades as described above. The VELCO tool, in combination with BED's similar generation map, provides potential generators a sense of the constraints that may need to be addressed for any given location (in BED in this case) from the distribution to the regional transmission level. Creation of web-based resources where potential developers can be made aware of and see all such available tools would perhaps be a good next step.

Conclusion

Thank you for the opportunity to submit these comments and recommendations. BED looks forward to working through the VSPC to fully evaluate VELCO's Long range transmission plan. Should you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Thomas Lyle