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Vermont Public Utility Commission
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VPPSA Response to PUC Request for Information Case No. 24-3203-INV

The Vermont Public Power Supply Authority (“VPPSA”) and its member utilities¹ appreciate the opportunity to provide comments in response to the Vermont Public Utility Commission’s (“PUC” or “Commission”) request regarding the 2024 Electric Vehicle (EV) and Electric Vehicle Supply Equipment (EVSE) Legislative Report due in January 2025. VPPSA remains committed to supporting Vermont’s transition to clean transportation through the development and implementation of equitable and sustainable EV/EVSE rates and programs in alignment with Act 55 and Act 148.

Since the last Commission report, VPPSA has made significant progress toward developing EV/EVSE rates, as outlined in this filing. Despite facing technological and operational obstacles, including service upgrade requirements and the integration of

¹ VPPSA Member Utilities include Barton Village; Village of Enosburg Falls; Hardwick Electric Department; Village of Jacksonville; Village of Johnson; Ludlow Electric Light Department; Lyndon Electric Department; Morrisville Water & Light; Northfield Electric Department; Village of Orleans; and Swanton Village.

third-party software platforms, VPPSA is diligently working with its members to design and implement EV rates that support Vermont's electrification goals while balancing cost-effectiveness and customer benefits.

Per the Commission's request for information², this filing reports VPPSA's progress toward meeting the goals of Section 33 of Act 55 including rate development, customer participation, and EVSE-related service upgrade practices, typical costs, ratepayer impacts, and continuing barriers. Also included are suggestions for inclusion in the 2025 EV/EVSE Legislative Report assessing progress towards achieving Vermont's electrification and transportation emissions goals.

1. For utilities that received exemptions:

- a. Please provide data about historical and current customer participation levels in the exempt EV rates.**
- b. Please describe the performance of the EV rates in meeting the goals of subsections (c)(1)(A) - (F) of Act 55, Section 33 since receiving your exemption.**
- c. Please describe any outreach efforts or promotion of the EV rates to utility customers since receiving your exemption, including any EV-rate participation incentives or coordination with dealers offering EVs.**
- d. If the Commission required you to implement additional rates, please provide an update on your progress toward filing the additional EV rates for Commission approval.**

Q1. VPPSA's Response RE: Exemptions

² See [PUC Order Opening Investigation and Request for Comments](#), filed September 27, 2024 in [Case No. 24-3023-INV](#) via ePUC.

VPPSA members are not eligible for the exemption provisions as defined under the requirements of Act 55.

2. For utilities that received extensions, please describe your progress toward filing your EV rates with the Commission for approval.

Q2. VPPSA's Response RE: Extensions:

On October 23, 2023, VPPSA filed its petition under Case No. 23-3604-PET seeking approval to develop and implement an innovative and dynamic “prices-to-devices” tariff rider program to meet the statutory requirement of Act 55³. On June 28, 2024, the Commission granted VPPSA an extension to file EV tariffs with a new deadline of September 30, 2024⁴. As development continues to progress, it became apparent that the EV/EVSE tariff and related materials would not be ready for filing on September 30th and on September 27, 2024 an extension request was filed under Case 24-3024-PET⁵ until December 15, 2024. VPPSA awaits the Commission’s decision. On October 22, 2024, as Ordered by the PUC, the Vermont Department of Public Service (“PSD” or the “Department”) filed comments in support of an extension of time for VPPSA to file its EVSE tariff rider programs by December 15, 2024.

In the meantime, VPPSA and its partners have been working diligently on developing the necessary IT/OT systems to implement dynamic EV rates intended to

³ See [VPPSA Petition for Approval filed Oct. 16, 2023](#) via ePUC under [Case No. 23-3604-PET](#)

⁴ See [PUC Order Granting Extension of Time to File Electric Vehicle Rates](#) issued June 28, 2024 under Case No. 23-3604-PET.

⁵ See [Case No. 24-3024-PET: VPPSA Request for Extension of file tariffs for EV/EVSE pursuant to Act 55](#)

address diverse customer needs and ensure compliance with Act 55. In May 2024, VPPSA's EV/EVSE Program consultant, Bellawatt, completed the Phase I design Statement of Work ("SOW") for the Program. Beginning in August, while under negotiations for the second, Phase II SOW, executed September 23, 2024, the project team commenced weekly check-in meetings to ensure a smooth transition and rapid development of the system upon successful agreement execution. The Phase II SOW includes partnering with Enode, an established OEM-Open API integration provider for EV/EVSE equipment, as well as other devices.

The combined VPPSA-Bellawatt-Enode partnership allows VPPSA members to offer a streamlined customer enrollment process that features a web-based portal for customers to enroll, authenticate and authorize sharing the usage data of their EV/EVSE devices, and manage their accounts. Enode presently provides established Application Programming Interfaces ("APIs") with many major EV/EVSE brands and can handle the data connectivity and normalization challenges presented by the VPPSA Program. The need for further time to finalize and complete VPPSA's EV tariffs is largely dependent on the programmatic development of the customer enrollment process, to accurately include comprehensive references to enrollment processes and educational materials that will guide customer use of the new EV rates.

Phase II SOW development is ongoing and since the Commission's initial extension Order issued June 28, 2024. Significant progress has been made toward finalizing the proposed EV tariff rider program and structure including:

- Consideration of existing and anticipated tariff structures to determine the most equitable and effective EV rates for member utility customers/customer classes.
- Collaboration with member utilities to identify the specific system requirements and the needs of their customers, including planning for outreach to understand customer interest and facilitate potential participation.
- Coordination with external stakeholders to leverage resources available to bolster broader state goals for EV adoption and service upgrades.

VPPSA now expects to submit the proposed rates for Commission approval well within the period requested in the September 27 extension request. We believe that these rates will support the state's electrification goals expressed through Act 55 and will lead to beneficial customer behavior using market signals.

3. For utilities that filed new tariffs that were approved by the Commission:

- a. Please provide data about customer participation levels in the EV rate since implementation.***
- b. Please describe the performance of the EV rates in meeting the goals of subsections (c)(1)(A) - (F) of Act 55, Section 33 since implementation.***
- c. Please describe any outreach efforts or promotion of the EV rates to utility customers since approval, including any EV-rate participation incentives or coordination with dealers offering EVs.***
- d. If the Commission required you to implement additional rates, please provide an update on your progress toward filing the additional EV rates for Commission approval.***

Q3. VPPSA's Response RE: New Tariffs

VPPSA members are currently preparing new tariffs to be filed with the Commission.

See response to question 2.

4. For all utilities:

- a. Please identify and discuss any continuing barriers to your progress toward meeting the goals of subsections (a) and (b) of Act 55.**

Q4(a). VPPSA's Response RE: Barriers

Though significant development efforts have been made, VPPSA and its member utilities have not yet filed a final EV/EVSE tariffs for its proposed EV/EVSE tariff rider program. Below, VPPSA identifies and describes some of the barriers that remain.

Program Development and Integration: VPPSA's consultant, Bellawatt, completed Phase I of its Statement of Work (SOW), which investigated various integration options for managing EV/EVSE data and customer interactions. After extensive review, Bellawatt recommended using the third-party integration platform, Enode, due to its extensive API support for major EV/EVSE brands. However, additional software development is required to integrate Enode with VPPSA's systems, and to bring the development of the enrollment system to a point that enables accurate integration of enrollment process and educational materials into the final, tariffs filed. VPPSA anticipates completion of the customer education and enrollment materials in advance of the proposed December 15 filing deadline.⁶

⁶ See [VPPSA Petition for an Extension to File EV/EVSE Tariffs](#) filed Sept. 27, 2024 under Case No. 24-3024-PET.

Technological and Cost Barriers: As VPPSA members deploy more advanced technology and software systems the remaining barriers of interoperability are mitigated for the implementation of dynamic EV/EVSE rates. The development and implementation of necessary infrastructure involves significant resources including assessing each member utility's existing capabilities and desired future functionality before making least-cost planning decisions.

Education and Outreach: Recent Commission guidance emphasizes the need for VPPSA to provide robust educational materials as part of any tariff filing. While efforts are underway, the continued development of educational content must align with the platform's buildout and is therefore dependent on that timeline.

Cost of Service Upgrades: EVSE-related service upgrades vary according to each utility's terms and conditions, however, as noted above VPPSA frequently coordinates with other entities to bridge gaps for any customer-borne costs. Upgrades to electrical service, distribution transformers, and other in-home equipment, such as service panels, can be costly, particularly in the more rural, energy burdened areas of the state served by VPPSA's member utilities; - where customer density is lower, and the majority of housing stock tends to have several upgrade and maintenance requirements due to age.

According to the Vermont Department of Housing and Community Development (DHCD)'s 2025 Housing Needs Assessment⁷ (emphasis added):

*An estimated 191,325 homes, or **58% of Vermont's housing stock was built before 1978... Roughly 95,736 homes were built before 1950**, when lead paint was widely used... **Older homes may face other housing quality issues**, such as the presence of **asbestos, knob and tube wiring, or structural issues**.*

Steps Taken to Address Barriers: VPPSA continues to promote accessibility to grant funding mechanisms and/or individual incentive programs to assist customers in overcoming barriers and achieving strategic electrification goals. VPPSA and its members remain committed to equitably addressing barriers while also promoting customer choice, from device eligibility to sharing values from optimized EV/EVSE charging through tariffs.

b. Please describe your service upgrade practices related to the installation of EVSE across all electric distribution utilities, including a description of the frequency and typical costs of EVSE-related service upgrades and ratepayer impact.

Q4(b). VPPSA's Response RE: Service Upgrades

Upgrade Practices: The process for service upgrades is governed by each utility's terms and conditions. Upgrade processes and procedures related to EVSE

⁷ See [Vermont Agency of Commerce and Community Development's 2025-2029 Statewide Housing Needs Assessment](#) released August 29, 2024.

installations are typically triggered when a customer notifies the utility of the need for an upgrade. Practices vary depending on the utility and the specifications of the EVSE equipment being installed (i.e., Level 1, Level 2, or Level 3). In some cases, utilities may be unaware of EVSE installations unless service upgrades are necessary. For residential installations, utilities are typically involved when customers require an upgrade to their service panels or transformers. Commercial installations are more likely to involve utility collaboration from the outset.

Frequency of Service Upgrades: The frequency of service upgrade requests varies by member utility. Some utilities, such as Swanton, process approximately one commercial EVSE-installation request per year, while others, like Hardwick Electric, report about two service upgrade requests per month for various reasons, including EVSE installation..

Typical Costs of Upgrades: The cost of EVSE-related service upgrades varies significantly based on the location and use case (such as public, private, commercial, workplace), site-specific installation requirements (such as existing capacity of the site's behind-the-meter electric system), equipment type/specifications, and other unique interconnection requirements involved with the increased energy needs of an EV/EVSE installation. Typical residential upgrades typically range from \$300 for uncomplicated installations to \$3,600 for more complex system requirements to safely service the equipment, including, but not limited to, distribution transformers or behind-the-meter

service panel upgrades. Commercial installation costs can differ significantly due to equipment load and capacity requirements.

Ratepayer Impact: The impact of EVSE-related upgrades on ratepayers also varies by utility dependent on the utility's terms and conditions. VPPSA and its member utilities remain committed to minimizing any inequitable cost-shifting across customer rate classes.

5. Any other topics for inclusion in the 2025 EV report or suggestions for workshops or written filings.

Q5. VPPSA's Response RE: Additional Suggestions

VPPSA suggests that the PUC consider inclusion of the following topics to support a comprehensive understanding of the unique differences Vermont's diverse communities may encounter while EV-related programs continue to develop and are implemented across different areas of the state.

Unique Rural Barriers to EVSE Installation and Service Upgrades: VPPSA continues to amplify the voices of its members, highlighting the value and immense benefits of local, community-led solutions to meet Vermont's electrification goals. VPPSA suggests the Commission consider a deeper exploration of the financial and technical challenges related to EVSE installations - specifically for rural, residential sites - where older housing stock drives substantial increases in typical installation and upgrade costs.

Potential solutions that could help accelerate adoption include, expanded grant funding or cost-share models outside of federally designated EV/EVSE corridors, or qualification of an electric utility's RES Tier III compliance credits for distribution system or service requirement upgrades related to electrification measures.

Technology Integration and Third-Party Aggregators: Highlighting the role that third-party aggregators play in the successful implementation of EV/EVSE programs, particularly in empowering customer choice and value-sharing.

Leveraging Existing State Registries: VPPSA recommends that the Commission explore the value of leveraging existing state registries such as the Vermont Department of Motor Vehicles (DMV) to support utility and program administrator efforts in tracking, promoting, and expanding EV/EVSE adoption within their service territories.

In conclusion, VPPSA appreciates the Commission's request for information and feedback on additional topics to consider in their report. If you have any additional questions or seek further clarification, please do not hesitate to contact VPPSA.

Respectfully,

/s/

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