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STATE OF VERMONT  
PUBLIC UTILITY COMMISSION

Case No. 23-3604-PET

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Petition of Vermont Public Power Supply Authority for approval of a proposed EV/EVSE tariff rider program for its member utilities	
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RESPONSE TO SECOND SET OF INFORMATION REQUESTS SERVED UPON VERMONT PUBLIC POWER SUPPLY AUTHORITY BY THE VERMONT DEPARTMENT OF PUBLIC SERVICE

NOW COMES Vermont Public Power Supply Authority (“VPPSA”) and pursuant to Vt. P.U.C. Rule 2.214, hereby responds to the Department of Public Service (“Department” or “DPS”)’s Second Set of Information Requests to VPPSA dated February 7, 2024 (“Requests”) as follows:

GENERAL OBJECTIONS

The following general objections of VPPSA are incorporated by reference in its responses to each interrogatory, request to admit, or request to produce, whether or not an objection is stated in any particular response. Any response provided below is given without waiver of any objection, whether or not an objection is stated.

1. VPPSA objects to each Request on the grounds and to the extent that they seek responses that are subject to any or all of the following privileges: (i) the attorney-client privilege; (ii) trial preparation privilege; (iii) executive privilege, or that are otherwise privileged or protected from disclosure.
2. VPPSA objects to the Requests as overbroad and unduly burdensome on the grounds and to the extent they call for responses that are neither relevant to the subject matter of the pending action, nor reasonably calculated to lead to the discovery of admissible evidence.
3. VPPSA objects to the Requests and the Requests’ Instructions and Definitions on the grounds and to the extent that they are overbroad, unduly burdensome and oppressive, purport to impose obligations on VPPSA that are beyond the scope of the Public Utility Commission (the "Commission") Rules, including without implied limitation Rule 2.000, or other applicable law, cannot be produced without undue burden to VPPSA and/or that require an unreasonable

investigation on the part of VPPSA in order to be produced, or purport to require VPPSA to create documents responsive to any such Requests.

4. VPPSA objects to the Requests to the extent that they seek the production of documents and information already in the possession of, or publicly available to, or readily obtainable by the Department and its counsel, on the ground that with respect to such production, the Department's Requests are thereby rendered unduly burdensome.

5. VPPSA objects to the Requests to the extent that they seek the production of documents and information in the possession, custody or control of entities other than VPPSA, on the ground that such demanded production is beyond the scope of the Commission Rules or other applicable rules and laws.

6. VPPSA expressly reserves the right to supplement, clarify, revise or correct any or all of the responses herein at any time. By making any response to the Requests, VPPSA does not waive, and hereby expressly reserves, the right to assert any and all objections as to the admissibility of such responses into evidence at the time of trial of this action, or in any other proceeding, on any and all grounds, including but not limited to, competency, relevance, materiality and privilege. Further, VPPSA provides the responses herein without in any manner, express or implied, admitting that the items in the Requests, or in any response thereto, are relevant or material to the subject matter of this proceeding.

INTERROGATORIES AND REQUESTS TO PRODUCE

**Q.DPS.VPPSA.2-1. How will VPPSA educate customers on understanding the EV rate opportunity and actions to take to enroll and utilize the rate?**

**Response:**

VPPSA intends to build on existing Transactive Energy Concept Model (TECM) materials to explain and promote VPPSA's EV/EVSE tariff rider program. As part of the initial Scope of Work with our third-party technology partner, VPPSA will receive marketing/presentation materials targeted to customer and public-facing audiences.

Similarly to VPPSA's administration of members' Renewable Energy Standard (RES) Tier III Incentive Programs, VPPSA anticipates establishing a dedicated page on its website that describes, explains, educates, and advises customers about the Program model, enrollment process, and benefits of participation. The expectation is that this page will serve as a common source of information, FAQs, and guidance for prospective enrollees, utility staff, and partners to participate in the Program.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-2. Will VPPSA or its contractor(s) provide a phone number and website to answer questions from prospective enrollees?**

**Response:**

Yes, see response to Q.DPS.VPPSA.2-1 above.

Prepared by: Sarah E. Braese, Assistant General Manager

Administrative unit: Regulatory & Power Services

Date of response: 2/21/24

**Q.DPS.VPPSA.2-3. What tools or analyses will VPPSA or its contractor(s) provide to prospective enrollees that will allow customers to estimate their financial savings?**

**Response:**

VPPSA is currently exploring the most effective mechanism(s) to demonstrate anticipated financial savings and benefits from participation in the EV/EVSE tariff rider program. VPPSA and its partners intend to support an agile program structure that enables iterative improvements and adaptability to market conditions and/or customer feedback, as appropriate.

Similar programs across the country have utilized dedicated web pages and sample bills to illustrate the potential savings from a dynamic, market-based rate structure.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-4. Will there be training opportunities for customers when or before signing up for the rate? If so, please describe.**

**Response:**

VPPSA has not formalized all aspects of the Program's customer outreach and engagement strategies at this time but recognizes the importance of clear and consistent communications to support customer enrollment.

In the regular course of business, VPPSA currently engages with other local, regional, or statewide entities to increase awareness of various programs available to member utilities' customers. VPPSA anticipates leveraging existing partnerships to increase educational opportunities and seeking new partnerships to expand engagement and customer participation.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-5. Will there be a disclosure for all costs and fees to use the rate service?**

**Response:**

VPPSA's implementation of the EV/EVSE Tariff Rider contemplates the application of incremental cost rates to incremental EV/EVSE charging load. Because the tariff will apply only to the enrolled customer's measured, incremental EV charging load, all other customer usage remains subject to the existing embedded cost rate schedule. This approach simplifies initial implementation of the EV Tariff Rider and preserves existing, approved rate design for current embedded load.

VPPSA anticipates working with its member utilities and regulators to develop approved tariff rider language that supports the program.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-6. What additional fees may be incurred beyond contemplated in the tariff (i.e., customer fees for access to a platform, vehicle enrollment or subscriptions for telematics, etc.)?**

**Response:**

At this time, VPPSA is not aware of any specific fees that a customer would incur as part of enrolling in the program. As work continues with the third-party platform provider, additional insights may be discovered.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-7. How has VPPSA reviewed and analyzed the experience in other states regarding what kinds of cost and fee disclosures are provided in those states? Please provide examples.**

**Response:**

VPPSA is engaged with multiple industry trade associations and industry groups which have long been exploring how best to address growing complexity around electrification and load growth or high coincidence of electric vehicle charging and reliable delivery of electric service to customers.

The American Public Power Association (APPA) has offered several professional development, special interest working groups, and educational opportunities through dedicated webinar, conference sessions, and collaborative subject matter expert presentations related to grid modernization, evolution of rate design, interoperability, and grid resilience and affordability. These case studies have been invaluable to inform lessons learned, potential pitfalls and/or recommendations on how to successfully deploy similar programs in other parts of the country.

Although not an exhaustive list, in addition to APPA, several other groups or entities have researched, studied and facilitated deeper exploration of transactive energy rate models and rate design concepts. VPPSA has reviewed and analyzed presentations and/or studies released by/through organizations such as the Northeast Public Power Association (NEPPA), Smart Electric Power Alliance (SEPA), New Hampshire Electric Cooperative (NHEC), New England Conference of Public Utilities Commissioners (NECPUC), ISO-New England (ISO-NE), North American Reliability Corporation (NERC), Federal Energy Regulatory Commission (FERC), Department of Energy (DOE), Pacific Northwest National Laboratory (PNNL), Electric Power Research Institute (EPRI), National Renewable Energy Laboratory (NREL), and more.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-8. Has VPPSA prepared a process for receiving and acting on customer complaints? If so, please describe.**

**Response:**

At this time, outside of standard processes and procedures, VPPSA has not prepared a separate process to receive and/or respond to potential customer complaints.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-9. What is the customer process to end participation in the EV rate? Has VPPSA prepared the process for disenrolling customers, either at their request or for other reasons? If so, please describe.**

**Response:**

At this time, VPPSA has not finalized the processes or procedures for customer enrollment or termination of their enrollment in the proposed EV/EVSE tariff rider program. The specific steps and process will be explored as part of the total customer engagement and enrollment work to be performed with our third-party partner in the analysis, design, and development of VPPSA's PaaS.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-10. Does VPPSA expect that member utilities' staff will receive or address consumer questions or complaints?**

**Response:**

See answer to Q.DPS.VPPSA.2-8 above. At this time, outside of standard processes and procedures, VPPSA has not prepared a separate process to receive and/or respond to potential customer questions or complaints.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-11. Who at VPPSA will serve as the contact for the Department when complaints are raised to the Department or Commission?**

**Response:**

See answer to Q.DPS.VPPSA.2-8 and Q.DPS.VPPSA.2-10 above. At this time, outside of standard processes and procedures, VPPSA has not established a separate process to receive and/or respond to potential questions or complaints. As a Program offered under VPPSA's Regulatory & Power Services Department, it's reasonable to assume there will be a number of staff within VPPSA to address any concerns raised with or by the Department or Commission.

Prepared by: Sarah E. Braese, Assistant General Manager

Administrative unit: Regulatory & Power Services

Date of response: 2/21/24

**Q.DPS.VPPSA.2-12. How will VPPSA analyze and report on participant feedback and ratepayer impacts broadly?**

**Response:**

Please refer to A14 on page 13 of the [Supplemental Testimony of Sarah E. Braese filed February 12, 2024 in Case No 23-3604-PET](#). VPPSA has proposed reporting metrics and an initial schedule to provide updates to the Department and Commission on participation and impacts.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-13. Will VPPSA implement an annual customer satisfaction survey of all participating customers?**

**Response:**

At this time, VPPSA has not formalized the structure or processes to integrate participant feedback, however the foundational approach to the proposed program structure is to ensure agility and process improvements through continuous feedback loops.

As noted in the answer to **Q.DPS.VPPSA.2-3**, VPPSA and its partners intend to support an agile program structure that enables iterative improvements and adaptability to market conditions and/or customer feedback, as appropriate.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-14. What performance metrics will indicate success for the project? What are the performance indicators? Please describe.**

**Response:**

Please refer to the answer to Q.DPS.VPPSA.2-12 above. It is important to note as well, that this Program is designed and intended to meet the legislative mandates prescribed under Act 55; the goal is to promote and advance adoption of electric vehicles in homes and businesses to reduce greenhouse gas emissions from the transportation sector.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-15. What has VPPSA learned from other states on such indicators?**

**Response:**

There are a number of reports and publications that reiterate the benefits of futureproofing and/or transitioning to market- or time-based transactive energy rate models and rate design. In particular, the University of California conducted a study and published their findings on various bodies of research related to EV smart charging vs. vehicle-to-grid interactions for customers and utilities<sup>1</sup>.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

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<sup>1</sup> See: Tarroja, B. et. al. *The value of consumer acceptance of controlled electric vehicle charging in a decarbonizing grid: The case of California*. Energy. Volume 229. (2021). 120691, ISSN 0360-5442. Retrieved from: <https://doi.org/10.1016/j.energy.2021.120691>.

**Q.DPS.VPPSA.2-16. (a) Does VPPSA have enrollment targets? (b) If so, what are they? (c) How will VPPSA sustain or grow enrollment and participation in proportion with the number of EVs in each member territory?**

**Response:**

At this time, (a) VPPSA has not established enrollment targets, however (b) anticipates current PowerShift Pilot Program participants or those who had previously expressed interest in at-home charging could serve as the initial target audience to enroll in the EV/EVSE tariff rider program. (c) VPPSA anticipates that as the presence of electric vehicles grows in member service territories, so too shall the maturity and awareness of the utility's EV/EVSE tariff rider program. VPPSA will likely seek to expand its partnerships and relationships with EV Dealerships and OEMs to provide a more seamless customer experience, where appropriate.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-17. Does VPPSA believe the tariff can be made fully available to all member utility territories by June 30, 2024?**

**Response:**

Yes, assuming any regulatory or technology-based implementation risks can be mitigated during the Analysis, Design, Development and Deployment Scopes of Work, all member utility territories should be able to offer the EV/EVSE tariff rider by June 30, 2024.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-18. What reports or analyses did VPPSA review before or during the preparation of the proposed tariff? Please provide the reports/analyses.**

**Response:**

Although not an exhaustive list of the body of research and literature available, VPPSA has included a number of publications that were researched in advance of developing the overall EV/EVSE Tariff Rider program proposal:

American Public Power Association

- [Rate Design Interest Group \(RDIG\)](#)
  - March 2023 Webinar: Apogee and JEA – Communicating Time-of-Use and Demand Rates Alongside Traditional Volumetric Designs
  - December 2023 Webinar: Transactive Energy Rates - Energy Profit LLC
- Publication: Aligning Utility Rate Design with Grid-Edge Technologies (January 2024)

Argonne National Laboratory. (2023). *Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool*. U.S. Department of Energy: Technology Integration Program. Retrieved from: <https://afleet.es.anl.gov/home/>.

California Energy Commission. (2023 May 31). *California Adopts Goal to Make More Electricity Available Through Smarter Use*. California Public Utility Commission. Retrieved from: <https://www.energy.ca.gov/news/2023-05/california-adopts-goal-make-more-electricity-available-through-smarter-use>.

National Renewable Energy Laboratory (NREL). (2023). *EVI-Pro: Electric Vehicle Infrastructure Projection Tool*. Transportation & Mobility Research. Retrieved from: <https://www.nrel.gov/transportation/evi-pro.html>

Carvallao, Juan Pablo et. al. (2023). *The use of price-based demand response as a resource in electricity system planning*. Lawrence Berkeley National Laboratory: Energy Markets & Policy. Retrieved from: <https://emp.lbl.gov/publications/use-price-based-demand-response>

Energy Systems Integration Group (ESIG). *White Paper Series: Aligning Retail Pricing and Grid Needs*. Retrieved from: <https://www.esig.energy/aligning-retail-pricing-with-grid-needs/>

- [“Aligning Retail Pricing and Grid Needs: Introduction to a White Paper Series”](#) by Debra Lew, Erik Ela and Carl Linvill
- [“Treating Demand Equivalent to Supply in Wholesale Markets: An Opportunity for Customer, Market, and Social Benefits,”](#) by Richard O’Neill, Debra Lew and Erik Ela

- [“Leveraging Locational and Temporal Flexibility in Transportation Electrification to Benefit Power Systems,”](#) by Jennifer Chen
- [“Tapping the Mother Lode: Employing Price-Responsive Demand to Reduce the Investment Challenge,”](#) by Michael Hogan
- [“Why Is the Smart Grid So Dumb?: Missing Incentives in Regulatory Policy for an Active Demand Side in the Electricity Sector,”](#) by Travis Kavulla
- [“Rate Design for the Energy Transition: Getting the Most out of Flexible Loads on a Changing Grid,”](#) by Arne Olson and Lindsay Bertrand
- [“Heat Pump-Friendly Cost-Based Rate Designs,”](#) by Sanem Sergici, Akhilesh Ramakrishnan, Goksin Kavlak, Adam Bigelow, and Megan Diehl

Keller, Punam Anand, et al. (2011). “Enhanced Active Choice: A New Method to Motivate Behavior Change.” *Journal of Consumer Psychology*, vol. 21, no. 4, Oct. 2011, pp. 376–383, <https://doi.org/10.1016/j.jcps.2011.06.003>.

National Association of Regulatory Utility Commissioners (NARUC). (2023 June 21). *Regulators’ Financial Toolbox: Virtual Power Plants*. NARUC Center for Partnership and Innovation (CPI). Retrieved from: [https://pubs.naruc.org/pub/F93C25D1-AD76-1A01-876D-E996D9522545?\\_gl=1\\*1qqqo0c\\*\\_ga\\*MTgwMzI0MTA3OS4xNjk0NzIxMTU0\\*\\_ga\\_QLH1N3Q1NF\\*MTY5NDcyMTE1My4xLjEuMTY5NDcyMTI2MC4wLjAuMA...](https://pubs.naruc.org/pub/F93C25D1-AD76-1A01-876D-E996D9522545?_gl=1*1qqqo0c*_ga*MTgwMzI0MTA3OS4xNjk0NzIxMTU0*_ga_QLH1N3Q1NF*MTY5NDcyMTE1My4xLjEuMTY5NDcyMTI2MC4wLjAuMA...)

Simonson, Itamar. (1992). “The Influence of Anticipating Regret and Responsibility on Purchase Decisions.” *Journal of Consumer Research*, vol. 19, no. 1, June 1992, p. 105, <https://doi.org/10.1086/209290>.

Smith, N. Craig, et al. (2013). “Choice without Awareness: Ethical and Policy Implications of Defaults.” *Journal of Public Policy & Marketing*, vol. 32, no. 2, Sept. 2013, pp. 159–172, <https://doi.org/10.1509/jppm.10.114>.

U.S. Department of Transportation. (2022 February). *Charging Forward: A Toolkit for Planning and Funding Rural Electric Mobility Infrastructure*. Retrieved from: [https://www.transportation.gov/sites/dot.gov/files/2022-01/Charging-Forward\\_A-Toolkit-for-Planning-and-Funding-Rural-Electric-Mobility-Infrastructure\\_Feb2022.pdf](https://www.transportation.gov/sites/dot.gov/files/2022-01/Charging-Forward_A-Toolkit-for-Planning-and-Funding-Rural-Electric-Mobility-Infrastructure_Feb2022.pdf).

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-19. (a) How will billing information be transmitted from the VPPSA-selected platform provider to each member utility's billing system? (b) Will customer bill adjustments be automated?**

**Response:**

At this time, VPPSA has not completed its analysis of PaaS and utility billing system data transmission mechanics. The structure and suggested design elements to successfully implement the proposed EV/EVSE tariff rider are anticipated to be delivered under the Scope of Work currently underway with VPPSA's PaaS partner.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-20. How will VPPSA and its member utilities address cybersecurity requirements and best practices regarding customer usage and billing information? In the response, please include non-technical elements (such as non-disclosure agreements).**

**Response:**

VPPSA and its member utilities intend to incorporate and address cybersecurity requirements, best practices and standards through appropriate enrollment processes, terms and conditions, and communication pathways to preserve and protect customers' privacy and data integrity. Additional programmatic disclosures and/or agreements have not yet been formalized, pending the Scope of Work currently underway with VPPSA's PaaS partner.

Further, the OpenADR communication protocols are designed to "...meet NIST Cyber Security Guidelines; the OpenADR Alliance maintains its own Public Key Infrastructure (PKI). The PKI uses server and client-side digital certificates that act as digital keys to ensure only clients and servers communicate with each other and their communication is secure."<sup>2</sup>

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

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<sup>2</sup> See: "OpenADR and Cyber Security" at [www.openadr.org/cyber-security](http://www.openadr.org/cyber-security).

**Q.DPS.VPPSA.2-21. Informed consent requires appropriate consumer education. (a) Will customers be provided with information about which account details will be provided to the third-party contractor or vendor? (b) How and when will that occur? (c) How will the third-party provider be compensated?**

**Response:**

VPPSA envisions building upon its existing systems and processes to administer members' RES Tier III Incentive Programs to customers to screen and verify potential participants in the EV/EVSE Tariff Rider program. At this time, the terms of the consent have not yet been finalized, though specifying the customer experience is a key deliverable of the Scope of Work with VPPSA's PaaS partner.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-22. How many entities will have possession of the customers' data, and for what purposes? Please individually list the type of provider and purpose.**

**Response:**

Until the PaaS partner has an opportunity to formally propose the design and architecture for VPPSA and its member utilities' PaaS software solution, I cannot fully answer the Department's question. Personally identifiable information (PII) will be limited and protected as the program structure allows, however until VPPSA and its partner have explored the mechanics of the IT/OT convergence and interoperability, any response would be based upon speculation and assumptions.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

**Q.DPS.VPPSA.2-23. How does VPPSA expect to review or vet customer-selected, third-party providers, both in terms of technical suitability as well as financial reliability (e.g., counterparty risk in the start-up technology space).**

**Response:**

By relying on the industry supported OpenADR Communication Protocol, neither VPPSA nor its member utilities are put in a position to approve nor deny a customer's chosen device or manufacturer. As this time, VPPSA envisions that the enrollment process is predicated on successful demonstration of bidirectional communication (through the OpenADR communication protocol and device enrollment). The OpenADR Alliance has a robust product certification process, guide, and resources for product development and testing for devices to become OpenADR Certified<sup>3</sup>.

Prepared by: Sarah E. Braese, Assistant General Manager  
Administrative unit: Regulatory & Power Services  
Date of response: 2/21/24

Pursuant to Vt. P.U.C. Rule 2.230(F)(1):

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cc: ePUC Service List

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<sup>3</sup> See: OpenADR Resources page: <https://www.openadr.org/resources>