

STATE OF VERMONT  
PUBLIC UTILITY COMMISSION

Case No. 22-2954-PET

Petition of Vermont Department of Public )  
Service to open a proceeding to initiate an EEU )  
Demand Resource Plan proceeding for the 2024- )  
2026 and 2027-2029 performance periods )

**AFFIDAVIT OF JAY PILLIOD**

I, Jay Pilliod, being duly sworn, hereby depose and state as follows:

a. **INTRODUCTION**

1. I am employed by Vermont Energy Investment Corporation (“VEIC”) as Director of Scenario Planning for Efficiency Vermont, Vermont’s statewide energy efficiency utility (“EEU”). My business address is 20 Winooski Falls Way, Winooski, Vermont, 05404.

2. I am the same Witness Pilliod that previously provided testimony in this proceeding.

3. I am familiar with Efficiency Vermont’s Demand Resource Plan (“DRP”) Update Proposal for the 2024 to 2026 performance period that was approved by the Vermont Public Utility Commission (the “Commission”) by Orders issued September 26, 2023 and November 13, 2023 in Case No. 22-2954-PET (the “Demand Resource Plan Proceeding” or “DRPP”).

4. I am also familiar with Efficiency Vermont’s Act No. 151 greenhouse gas (“GHG”) emissions reduction programs that were approved by the Commission for delivery during the 2021 to 2023 performance period in Case No. 19-3272-PET, the prior DRPP.

b. **PURPOSE**

5. This Affidavit explains Efficiency Vermont’s proposed Demand Resources Plan

Amendment to provide for the continued implementation of the Energy Efficiency Modernization Act (“EEMA”) programs (also referred to as “Act No. 44 programs” or “emissions reduction programs”)<sup>1</sup> that satisfy the requirements for approval by the Commission, and requests that the Commission approve the amendment. The DRP Amendment would alter Efficiency Vermont’s approved Baseline DRP<sup>2</sup> modeling assumptions and results for the 2024 to 2026 Performance Period by reallocating a portion of the approved Electric Resource Acquisition (“RA”) budget toward the delivery of EEMA programs that produce greenhouse gas (“GHG”) emission reductions in the transportation and thermal energy sectors. The activities called for under Efficiency Vermont’s DRP Amendment were designed to operate in cooperation with the electric distribution utilities (“DUs”) that provide service within the statewide EEU’s service area.

6. I sponsor the following exhibits:

Exhibit No. EVT-JP-2 (clean)<sup>3</sup> - *Amended Resource Acquisition Model Results for Efficiency Vermont’s 2024-2043 Electric Demand Resource Plan and 2024-2033 Thermal Energy and Process Fuels (“TEPF”) Demand Resource Plan*

Exhibit No. EVT-JP-2 (redline)<sup>4</sup> - *Amended Resource Acquisition Model Results for Efficiency Vermont’s 2024-2043 Electric Demand Resource Plan and 2024-2033 Thermal Energy and Process Fuels (“TEPF”) Demand Resource Plan*

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<sup>1</sup> EEMA or the “act” or “Act No. 44” refers to *An act relating to energy efficiency modernization* as enacted by the Vermont General Assembly and signed into law on June 1, 2023. Like Act No. 151 before it, the act allows the Commission to authorize the use of energy efficiency charge (“EEC”) funding to support transportation and heating sector GHG emissions reduction programs during the 2024 to 2026 performance period.

<sup>2</sup> See Case No. 22-2954-PET, Orders of 9/26/23 and 11/13/2023; and Exhibit EVT-JP-1.

<sup>3</sup> Amended Exhibit EVT-JP-2 includes Appendix A. Appendix A is an amendment to the Corrected Attachment # 3 filed by Efficiency Vermont on November 1, 2023 in Case No. 22-2954-PET.

<sup>4</sup> Id.

*Amended Attachment #2 - Amended Efficiency Vermont 2024-2026 Performance  
Compensation Tables<sup>5</sup>*

c. **SUMMARY**

7. Efficiency Vermont’s recommendations concerning its proposed amendments to its approved 2024 to 2026 Electric Resource Acquisition modeling assumptions to accommodate the implementation of EEMA programs are described in Exhibit No. EVT-JP-2 and proposed Amended Attachment #2 - Performance Compensation Tables. The associated budgets are reflected in an Updated Attachment #1 filed in this case on November 16, 2023. This Affidavit provides an overview of the revised program budgets and various aspects of the updated modeling assumptions, methodology, and results.

d. **DISCUSSION**

i. **PROPOSED DRP AMENDMENT**

8. On June 1, 2023 Governor Scott signed Act No. 44 into law authorizing the Commission to extend the EEMA programs, previously approved by Act No. 151 in 2020, for an additional three years (2024-2026). EEMA authorizes the EEUs to use EEC funds for qualifying EEU programs, measures, and services that reduce GHG emissions in the thermal energy or transportation sectors. The act contains various requirements and conditions on the use of EEC funds for qualifying programs, measures, and services which are discussed in Witness Lucci’s

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<sup>5</sup> Proposed Amended Attachment #2 updates the most recent corresponding Compliance Filing Attachment of November 16, 2023 to account for Efficiency Vermont’s proposed EMMA programs.

Affidavit and Exhibit EVT-KL-7.

9. In furtherance of the objectives advanced under EEMA, Efficiency Vermont developed a proposal to reallocate the use of funds budgeted by the Commission earlier in this DRPP to support programs, measures, and services that reduce greenhouse gas emissions in the thermal energy or transportation sectors. These changes are detailed in the EEMA Proposal describing the proposed delivery of EEMA programs.<sup>6</sup> Exhibit EVT-JP-2 describes the impact of the EEMA programs on Efficiency Vermont’s electric program results. The impact of these proposed changes as a result of EEMA are also reflected in amended performance compensation tables as shown in proposed Amended Attachment #2. Together these materials comprise Efficiency Vermont’s proposed DRP Amendment.

10. If the Commission approves the proposal without alteration, the materials and exhibits contained in this proposal are intended to amend but not replace in its entirety the materials approved in the recent Order approving Efficiency Vermont’s DRP update for the 2024 to 2026 performance period (the “Baseline DRP”).<sup>7</sup> There remain elements of that Order that are unaffected by the proposed DRP Amendment, and Efficiency Vermont is not seeking revisions to those elements at this time.

11. The approval of Efficiency Vermont’s proposed DRP Amendment would affect its expected performance as considered by the Commission at the time it approved Efficiency Vermont’s 2024-2025 DRP Update. To some degree, the approval of Efficiency Vermont’s

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<sup>6</sup> See Case No. 22-2954-PET, Exhibit EVT-KL-7, dated 11/17/2023.

<sup>7</sup> See Case No. 22-2954-PET, Orders of 9/26/23 and 11/13/2023.

proposed DRP Amendment would alter the programs, services and savings initially considered by the Commission when it approved Efficiency Vermont’s 2024-2026 DRP Update in this DRPP.

12. The programs that Efficiency Vermont seeks approval for from the Commission to implement pursuant to EEMA are a continuation of the transportation and thermal programs currently being implemented in the 2021-2023 performance period pursuant to Act No. 44’s predecessor, Act No. 151.<sup>8</sup>

13. The EEMA transportation program continues to include two key market transformation activities – an Electric Vehicle (“EV”) Dealership Program and an EV Campaign. The EV Dealer Program, launched in 2021 through the Efficiency Excellence Network, features a growing network of new and used car dealers committed to promoting EVs. Program participants have access to benefits designed to help prepare for growth in the EV market, such as funding for dealer investments needed to sell and service EVs, dealer and salesperson incentives, trainings on EV topics specific to Vermont, as well as advertising and promotional support. Over 50 dealers from around the state have joined the program to date.

14. In conjunction with the EV Dealer Program, Efficiency Vermont proposes to continue a statewide EV campaign in collaboration with Drive Electric Vermont and other partners that aims to advance consumer awareness, familiarity, and interest in EVs. The campaign no longer be focused on a television ad campaign, but will continue to feature blogs,

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<sup>8</sup> “Act No. 151” refers to *An act relating to energy efficiency entities and programs to reduce greenhouse gas emissions in the thermal energy and transportation sectors* as enacted by the Vermont General Assembly and signed into law on September 23, 2020.

tools, and other resources that aim to increase public awareness of the benefits of driving electric, as well as address common questions or concerns that folks have about EVs.

15. On the thermal side, Efficiency Vermont also proposes to continue the current Low Income Fuel Switch Program which covers the full cost of installing a heat pump for low-income customers who have previously received comprehensive weatherization through one of the state’s weatherization agencies (“WAPs”). Combined, these transportation and thermal programs and activities are referred to as the “EEMA programs.”

16. Appended to this Affidavit as Exhibit EVT-JP-2 is Efficiency Vermont’s updated DRP Model Results that include the additional measures and budget shifts associated with the proposed EEMA programs.<sup>9</sup>

17. To include Efficiency Vermont’s proposed EEMA programs in the amended DRP Model two new measures were added to the Efficient Products portfolio – EV Sales Incentives and EV Infrastructure Incentives. Combined these two measures increase the Efficient Products incentive budget by \$510,000 per year and non-incentive budget by \$520,000 per year to cover marketing, labor, and other direct EEMA transportation program costs. For EEMA’s thermal program, a new heat pump fuel switch measure was added to the Low Income Retrofit portfolio. This proposed EEMA thermal program increased the electric low-income program incentive budget by approximately \$840,000 per year and increased the non-incentive budget by \$130,000

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<sup>9</sup> Please note that Exhibit No. EVT-JP-2 is presented in both redline and clean format in order to highlight the changes from Efficiency Vermont’s DRP Update Proposal Exhibit EVT-JP-1 of December 9, 2022. This exhibit also reflects the changes and corrections identified in this DRPP including the changes approved by the Commission on November 13, 2023 in response to Efficiency Vermont’s request for clarification.

per year. Combined the budget proposed for the EEMA transportation and thermal programs is \$2,000,000 per year, or \$6,000,000 over three years (2024-2026) as authorized by passage of Act No. 44. A detailed description of the proposed EEMA transportation and thermal programs are provided in Witness Lucci's Affidavit and Exhibit EVT-KL-7.

ii. **DISCUSSION OF DRP AMENDMENT TRADE-OFFS**

18. Efficiency Vermont's proposed EEMA programs are not incremental to Efficiency Vermont's 2024 to 2026 Electric RA budget as approved by the Commission in its September 26, 2023 and November 13, 2023 Orders establishing Efficiency Vermont's Baseline DRP in this investigation. In effect, to deliver the EEMA Programs in a manner that is consistent with Efficiency Vermont's understanding of Act No. 44, Efficiency Vermont proposes to reduce certain activities that have been characterized in the Baseline DRP model previously considered by the Commission in this matter.<sup>10</sup>

19. Efficiency Vermont identified several proposed shifts in program and major market budgets in order to accommodate its proposed EEMA activities. In each of the three years, 2024-2026, Efficiency Vermont proposes shifting \$400,000 per year in incentives and \$200,000 per year in non-incentives from the Existing Homes (6036) residential portfolio. Efficiency Vermont's proposal also shifts \$875,000 per year in incentives from the Business Existing Facilities Retrofit (6012) portfolio, \$75,000 per year in incentives from the Business Existing Facilities Equipment Replacement (6013) portfolio, and \$450,000 in non-incentives

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<sup>10</sup> See Case No. 22-2954-PET, Exhibit EVT-JP-1.

from the Business Existing Facilities (6012) commercial and industrial (“C&I”) portfolios of the DRP Baseline to fund EEMA program activities. In the Existing Homes residential portfolio, a portion of moderate-income weatherization measures in homes that are electrically heated with heat pumps were reduced based on the assumption that these customers will be eligible to benefit from the additional American Rescue Plan Act (“ARPA”) and other federal weatherization funding available in Vermont in 2024-2026. In the Business Existing Facilities portfolio, a portion of the measures in retrofit lighting, refrigeration, air conditioning, and industrial process programs have been reduced to enable the funding of EEMA programs. The combination of these four budget reductions within the electric portfolio will provide the estimated \$1,030,000 per year budget needed to fund the EEMA transportation program within the Efficient Products (6032) portfolio and the estimated \$970,000 per year additional funding to the Low Income Retrofit (6034) portfolio to fund the EEMA thermal program.

20. At this time Efficiency Vermont is anticipating that the proposed EEMA activities and budgets will not vary significantly from the first year (2024) to the second or third implementation years (2025 and 2026).

21. Efficiency Vermont’s approved TEPF and Development and Support Services (“DSS”) budgets are not affected by Efficiency Vermont’s proposal to reallocate Electric RA funds to implement the proposed EEMA activities. The authorization provided under EEMA appears to be limited to the reallocation of Electric Resource Acquisition activities. As a result, Efficiency Vermont’s proposed EEMA activities affects only the approved Electric RA budgets and QPIs, with one exception. Because TEPF QPI #3 (Housing Units Weatherized) represents



the combined total number of single family and multifamily housing units weatherized by both the electric and TEPF programs, this TEPF QPI is impacted by the shift in budget from the Existing Homes portfolio to EEMA programs.

22. Reductions in non-incentive costs do not necessarily impact the amended DRP model the same way as reductions in incentive costs. For the purpose of remodeling the DRP to accommodate the budget shifts necessary to fund the EEMA Program activities, reductions in incentive budgets were achieved by reducing the quantity of measures in the DRP electric model within targeted reporting categories and programs as described in in this Affidavit. Incentives are linked to individual measures in the DRP model. As the quantity of these particular measures is reduced, the overall incentive budget along with the associated savings and benefits of those measures decrease in proportion. However, non-incentive budgets are tied to specific programs and reporting categories within the model rather than individual measures. The effect is that reducing non-incentive costs for a particular program such as labor, subcontractors, and other direct costs does not directly lead to a lower quantity of measures or resulting savings and benefits within the model. Though in practice, when non-incentive costs are lowered, it does impact the ability of a program to successfully deliver the services needed to achieve the stated savings results.

23. Efficiency Vermont is not proposing new categories of QPIs for its proposed EEMA activities. Metrics associated with the proposed EEMA activities are described and characterized in Exhibit EVT-KL-7. Because these metrics do not reflect benefits associated with traditional Electric Efficiency (“EE”) measures, they have not been incorporated into the

amended DRP modeling results. Efficiency Vermont is proposing revised target values for existing QPIs as a result of the proposed EEMA activities and budget shifts.

24. Efficiency Vermont’s proposal effectively separates the Electric RA budget into two spending categories: modified DRP activities; and proposed EEMA activities. While Efficiency Vermont will be tracking its spending on its EEMA activities separately, it is important that the delivery of these services be fully integrated in a seamless way within the larger portfolio of Efficiency Vermont programs. While primarily focused on the transportation and home heating sectors, the EEMA activities are still consistent with the delivery of many other Efficiency Vermont programs and therefore important to be considered as part of, rather than separated from, the larger Electric RA budget.

25. In the proposed remodeling of Efficiency Vermont’s DRP, \$1.4M has shifted from the C&I sector to the residential sector. The proposed budget shifts within each sector are explained in section 19 on pages 7-8 of this Affidavit and in Exhibit EVT-JP-2. The proposed spending modifies the ratio of spending between the business and residential sectors for the 2024 to 2026 performance period as shown in Table 1 below:

<b>Approved DRP Sector Splits</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Business	57%	57%	57%
Residential	43%	43%	43%
<b>Proposed Remodel Sector Splits</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Business	53%	53%	53%
Residential	47%	47%	47%

**Table 1**

26. Exhibit EVT-JP-2 details the changes proposed to implement EEMA activities by major market for each metric relative to Efficiency Vermont’s approved Baseline DRP electric and TEPF modeling results. Tables 2 and 3 summarize the modeling results and compare Efficiency Vermont’s approved DRP electric and TEPF models<sup>11</sup> to the amended models that include the proposed EEMA activities.

<b>QPI #</b>	<b>Electric Performance Output</b>	<b>Approved DRP Model Results (2024 - 2026)</b>	<b>Updated Model Results due to EEMA (2024 - 2026)</b>	<b>% Change in Results</b>
1	Total Resource Benefits	\$185,804,291	\$172,230,481	-7.3%
2	Annual MWh	194,270	183,974	-5.3%
3	Summer Peak kW	21,045	19,656	-6.6%
4	Winter Peak kW	28,193	27,077	-4.0%
5	Lifetime MWh	2,531,239	2,400,297	-5.2%
6	Greenhouse Gas Reductions (Electric energy + non-energy) - Metric Tons CO <sub>2</sub> e	128,572	124,284	-3.3%
7	Flexible kW	2,156	2,156	0%

**Table 2**

<sup>11</sup> These Baseline DRP model results reflect the adjustments made based on the Commission’s Case No. 22-2954-PET, Orders of 9/26/23 and 11/13/2023 as reflected in Efficiency Vermont’s corrected compliance filing of November 1, 2023, and update filing of November 16, 2023.

<b>QPI #</b>	<b>TEPF Performance Output</b>	<b>Approved DRP Model Results (2024 - 2026)</b>	<b>Updated Model Results due to EEMA (2024 - 2026)</b>	<b>% Change in Results</b>
1	MMBtu	363,100	363,100	0%
2	Residential Comprehensiveness	100%	100%	0%
3	Residential Housing Units Weatherized	4,100	3,700	-9.8%
4	Greenhouse Gas Reduction (metric tons CO <sub>2</sub> e)	21,000	21,000	0%

**Table 3**

27. The results of Efficiency Vermont’s remodeling exercise reflect the outputs of the DRP Model consistent with how results were previously presented to the Commission in Exhibit EVT-JP-1. In the Case No. 19-3272-PET Order of October 22, 2020 and Case No. 22-2954-PET order of September 26, 2023, the Commission ordered that the modeled electric portfolio results and TEPF MMBtu results should be increased by 5% to arrive at Efficiency Vermont’s electric and TEPF QPI targets. To establish the new QPI values to incorporate the proposed EEMA Programs Efficiency Vermont increased the results from the remodeling exercise by 5%.

28. Efficiency Vermont’s DRP amendment contain a revised QPI table that is reflective of the Commission’s Order approving a 5% increase in modeled electric and TEPF MMBtu QPI results. I sponsor Amended Attachment #2. Changes to Efficiency Vermont’s approved QPI results are presented in the electric and TEPF Tables 4 and 5 below. At the portfolio level, the changes are as follows:

<b>QPI #</b>	<b>Electric QPI</b>	<b>Approved DRP 100% QPI Targets (2024 - 2026)</b>	<b>Updated 100% QPI Targets due to EEMA (2024 - 2026)</b>	<b>% Change in Value</b>
1	Total Resource Benefit	\$195,094,500	\$180,842,000	-7.3%
2	Annual MWh	204,000	193,200	-5.3%
3	Summer Peak kW	22,100	20,600	-6.8%
4	Winter Peak kW	29,600	28,400	-4.1%
5	Lifetime MWh	2,657,800	2,520,300	-5.2%
6	Tons CO <sub>2</sub> e	135,000	130,500	-3.3%
7	Flexible kW	2,260	2,260	0%
8	Administrative Efficiency	\$1,078,100	\$1,078,100	0%

**Table 4**

<b>QPI #</b>	<b>TEPF QPI</b>	<b>Approved DRP 100% QPI Targets (2024 - 2026)</b>	<b>Updated 100% QPI Targets due to EEMA (2024 - 2026)</b>	<b>% Change in Value</b>
1	MMBtu	381,300	381,300	0%
2	Residential Comprehensiveness	100%	100%	0%
3	Residential Housing Units Weatherized	4,100	3,700	-9.8%
4	Greenhouse Gas Reduction (metric tons CO <sub>2</sub> e)	21,000	21,000	0%

**Table 5**

29. The budgets and weighting of the amended QPI proposal remain consistent with the values approved earlier in this proceeding as a part of Efficiency Vermont’s Baseline DRP. Accordingly, no changes to the total performance award, nor the weight of award on each QPI is being suggested here. As presented in the electric table above, all but two (Flexible kW and Administrative Efficiency) of the proposed 100% targets were decreased. The reductions

impacted Efficiency Vermont’s minimum QPI targets and the scaling values of the affected QPIs.

30. Efficiency Vermont’s TEPF modeling results and QPI tables are only impacted by the adjustments to the electric Existing Homes Weatherization Program as described previously. The TEPF QPI #3 represents the combined total number of housing units weatherized, both single family and multifamily, from both the TEPF and electric portfolios. Therefore, although no changes were made to the TEPF model for years 2024-2026 as part of this EEMA amendment, because the number of electrically heated homes weatherized is proposed to be reduced to fund EEMA the TEPF modeling results and QPI for number of housing units weatherized is proposed to be reduced from 4,100 to 3,700 housing units.

31. Efficiency Vermont completed an updated rate and bill analysis using its EEMA modeling results. Table 6 summarizes the updated rate and bill results. Since the overall budget remained the same in the updated model, the overall impact on rates for all customers across the 20 year time period remains generally the same at 3.1%. The average bill reductions for participants is similar to Efficiency Vermont’s proposal from December 9, 2022. sectors.<sup>12</sup> The environmental and customer saving benefits of these measures are not captured in the amended DRP model and therefore not reflected in these customer bill impacts.

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<sup>12</sup> Note also that the proposed EEMA Program measures should increase electric sales for Vermont distribution utilities which can also have a rate lowering impact for consumers depending upon whether such sales result in incremental net-revenues for the DUs.

<b>Rate and Bill Results Based on Updated Modeling Results with EEMA Activities</b>			
<b>Customer Class</b>	<b>Rates (2024-2043)</b>	<b>Average Participant Bill Impacts</b>	<b>Average Non-Participant Bill Impacts</b>
Residential	5.1%	-5.6%	4.9%
C&I (No Demand Charge)	2.5%	-8.2%	2.0%
C&I (Demand Charge Customers)	1.0%	-9.6%	0.54%
All Customers	3.1%	-7.6%	2.7%

**Table 6**

32. Consistent with its approach to the implementation of Act No. 151 programs during the 2021 to 2023 performance period, Efficiency Vermont will track and report its EEMA activities expenditures in the major markets where the programs occur. Efficiency Vermont will monitor spending on these activities to ensure it is limited so as not to exceed \$2M per year as specified by EEMA. Following approval of this proposal, Efficiency Vermont will file an updated Triennial Plan, including the various tables that will reflect the amended budgets and resulting benefits.

33. Efficiency Vermont’s proposed EEMA activities and revisions to its 2024-2026 DRP, notably to summer and winter capacity savings, are not expected to impact VEIC’s ability to meet its capacity obligations in the Forward Capacity Market (“FCM”) throughout the 2024-2026 performance periods.

e. CONCLUSION

34. The new EEMA programs and amended modeling and performance metrics for Efficiency Vermont’s proposed DRP Amendment conform to the requirements established for such amendments pursuant to EEMA and should be approved.

I declare that the above statements are true and accurate to the best of my knowledge and belief. I understand that if the above statements are false, I may be subject to sanctions by the Commission pursuant to 30 V.S.A. § 30.

DATED at WINOOSKI, VERMONT, this 17<sup>th</sup> day of November 2023.

By: /s/JAY PILLIOD\_\_\_\_\_

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cc: Parties of Record (vis ePUC)