STATE OF VERMONT
PUBLIC UTILITY COMMISSION

Case No. 19-3272-PET

Petition of Vermont Department of Public Service to initiate an EEU Demand Resources Plan proceeding for the 2021-2023 performance period	

Order entered: 05/27/2021

ORDER APPROVING REVISED DEMAND RESOURCES PLAN FOR EFFICIENCY VERMONT

In this Order, the Vermont Public Utility Commission ("Commission") adopts the findings, conclusions, and recommendations made in the Hearing Officer's proposal for decision.

PROPOSAL FOR DECISION

I. INTRODUCTION

In this proposal for decision, I recommend that the Commission approve revisions to Efficiency Vermont's Demand Resources Plan ("DRP") for the 2021-2023 performance period to allow for the implementation of greenhouse gas emission reduction programs as authorized by Public Act No. 151.[1] These revisions include an approximately $5.4 million reallocation of spending in the previously approved resource-acquisition budgets to implement Act 151 transportation and heating sector programs and include adjustments to the performance goals for the 2021-2023 performance period to reflect the reallocation of spending.

II. PROCEDURAL HISTORY

In an October 22, 2020, Order, the Commission approved Efficiency Vermont's DRP for the 2021-2023 performance period.[2]

On February 12, 2021, Efficiency Vermont filed a motion supported by testimony and exhibits to revise its 2021-2023 DRP to allow Efficiency Vermont to implement greenhouse gas emission reduction programs as authorized by Act 151.

On March 31, 2021, the Vermont Department of Public Service ("Department") filed supplemental rebuttal testimony and exhibits.

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[1] Vermont Public Act No. 151 (2020 Vt. Adj. Sess.).

[2] *Order Approving Efficiency Vermont's 2021-2023 Demand Resource Plan*, Case No. 19-3272-PET, Order of 10/22/21.

On March 31, 2021, the Vermont Public Power Supply Authority ("VPPSA") and the Washington Electric Cooperative, Inc. ("WEC") separately filed comments in support of Efficiency Vermont's proposed DRP revisions and associated Act 151 program initiatives.

On April 14, 2021, the Vermont Vehicle & Automotive Distributor Association ("VADA") filed public comments in support of Efficiency Vermont's proposed Act 151 transportation sector programs. VADA supports Efficiency Vermont's proposed supply-chain initiatives because they will provide valuable support to dealerships, including training programs with more Vermont-specific information on electric vehicle purchase incentives and operating conditions.

On April 16, 2021, Efficiency Vermont filed: (1) a draft proposal for decision, (2) a waiver of the opportunity for a hearing, and (3) a waiver of the opportunity to comment on any Hearing Officer's proposal for decision.

On April 23, 2021, I issued a set of information requests.

On April 30, 2021, the Department filed a response stating that it has reviewed Efficiency Vermont's draft proposal for decision and has no objections or comments. The Department stated that it: (1) waives the opportunity for a hearing, (2) consents to the admission of prefiled testimony and exhibits, and (3) waives the opportunity to comment on any Hearing Officer's proposal for decision. The Department also filed a separate response to the Hearing Officer's information requests.

On May 3, 2021, Efficiency Vermont filed responses to the Hearing Officer's information requests.

No party has requested an evidentiary hearing or objected to the prefiled testimony and exhibits. Accordingly, the following prefiled testimony and exhibits are admitted as if presented at a hearing: prefiled supplemental testimony (2/12/21) of David Westman; prefiled supplemental testimony (2/12/21) of Carol Weston and exhibit EVT-CW-4; joint prefiled supplemental testimony (2/12/21) of Jay Pilliod and James Massie and exhibits EVT-JEM-9, EVT-JEM-10; EVT-JEM-10 (revised 3/17/21), and EVT-JP-4; prefiled sur-rebuttal testimony (3/31/21) of Brian Cotterill; prefiled sur-rebuttal testimony (3/31/21) of Philip Picotte; Efficiency Vermont May 3 Response; Department April 30 Response; VPPSA March 31 Comments; and WEC March 31 Comments.

III. LEGAL STANDARD

Section 1(a) of Act 151 requires that the electric resource-acquisition budgets for an entity appointed to provide electric energy efficiency and conservation programs and measures pursuant to 30 V.S.A. § 209(d)(2)(A) for the calendar years 2021-2023 shall be determined pursuant to 30 V.S.A. § 209(d)(3)(B). In addition, Section 1(a) applies only if an Energy Efficiency Utility's ("EEU's") approved electric resource-acquisition budgets for 2021-2023 do not exceed the EEU's approved electric resource-acquisition budgets for 2018-2020.

Section 1(b) of Act 151 requires the Commission to authorize a qualifying EEU to spend a portion of its electric resource-acquisition budgets, in an amount to be determined by the Commission but not to exceed $2,000,000 per year, on programs, measures, and services that reduce greenhouse gas emissions in the thermal energy or transportation sectors.

Pursuant to Section 1(b) of Act 151, the programs, measures, and services must:

(1) Reduce greenhouse gas emissions in the thermal energy or transportation sectors, or both.
(2) Have a nexus with electricity usage.
(3) Be additive and complementary to and shall not replace or be in competition with electric utility energy transformation projects pursuant to 30 V.S.A. § 8005(a)(3) such that they result in the largest possible greenhouse gas emissions reductions in a cost-effective manner.
(4) Be proposed after the entity consults with any relevant State agency or department and shall not be duplicative or in competition with programs delivered by that agency or department.
(5) Be delivered on a statewide basis. However, if any of these funds are used for services specific to a retail electricity provider, the funds used for services to each retail electricity provider for the calendar years 2021-2023 shall be reasonably proportionate to the energy efficiency charge collected in that territory.

Section 1(c) of Act 151 requires that an EEU approved to provide a program, measure, or service pursuant to the Act do so in cooperation with a retail electricity provider. Section 1(c)(1) provides that the EEU shall not claim any savings and reductions in fossil-fuel consumption and in greenhouse gas emissions by the customers of the retail electricity provider resulting from the program, measure, or service if the provider elects to offer the program, measure, or service pursuant to 30 V.S.A. § 8005(a)(3), unless the EEU and provider agree upon how savings and reductions should be accounted for, apportioned, and claimed. Further, Section 1(c)(2) requires that the Commission develop standards and methods to appropriately measure the effectiveness of the programs, measures, and services in relation to the EEU's DRP proceeding.

Section 1(d) of Act 151 requires that any funds spent on programs, measures, and services pursuant to the Act not be counted towards the calculation of funds used by a retail electricity provider for energy transformation projects pursuant to 30 V.S.A. § 8005(a)(3) and the calculation of project costs pursuant to 30 V.S.A. § 8005(a)(3)(C)(iv).

IV. EFFICIENCY VERMONT'S REVISED DEMAND RESOURCE PLAN

In the following findings and discussion, I address how the proposed revisions to Efficiency Vermont's DRP meet the requirements of Act 151 and support my recommendation that the Commission approve the proposed revisions to Efficiency Vermont's DRP.

Act 151 Section 1(a) - Eligibility

1. Pursuant to 30 V.S.A. § 209(d)(2), Vermont Energy Investment Corporation ("VEIC") has been appointed by the Commission to provide EEU services as Efficiency Vermont throughout the state, except in the service territory of the City of Burlington Electric Department ("BED"). VEIC's Order of Appointment was last issued by the Commission in Case No. 18-2867-INV on November 26, 2019. David Westman, Efficiency Vermont ("Westman") pf. supp. (2/21/21) at 6-7.

2. For the 2021-2023 performance period, pursuant to 30 V.S.A. § 209(d)(3)(B), the Commission approved the following resource-acquisition budgets funded by the electric energy efficiency charge for Efficiency Vermont:

2021	2022	2023	Total
$40,528,590	$40,528,590	$40,528,590	$121,585,770

Westman pf. supp. (2/21/21) at 7; October 22 Order.

3. For the 2018-2020 performance period for Efficiency Vermont, the Commission approved a total electric resource-acquisition budget of $130,938,407. Efficiency Vermont's approved electric resource-acquisition budgets for the 2021-2023 performance period do not exceed its approved electric resource-acquisition budgets for the 2018-2020 performance period. Westman pf. supp. (2/21/21) at 7.

Act 151 Section 1(b) - Budgets and Programs

4. Efficiency Vermont proposes to spend approximately $5,417,000 of its approved electric resource-acquisition budgets for the 2021-2023 performance period (less than $2,000,000 per year) on the delivery of programs, services, and measures that reduce greenhouse

gas emissions in the thermal and transportation sectors. Westman pf. supp. (2/12/21) at 3-4; Jay Pilliod and James Massie, Efficiency Vermont ("Pilliod-Massie") pf. supp. (2/12/21) at 3; Carol Weston, Efficiency Vermont ("Weston") pf. supp. (2/12/21) at 3.

5. Efficiency Vermont's Act 151 proposal will not exceed the spending limit of $2 million per year and reasonably ensures that the electric energy efficiency charge will not increase over the course of the 2021-2023 performance period. Brian Cotterill, Department ("Cotterill") pf. sur. reb. at 4.

6. Efficiency Vermont will track and report its Act 151 program expenditures in the major markets where the activities occur and monitor spending to ensure spending does not exceed $2 million per year. Pilliod-Massie pf. supp. (2/12/21) at 19-20.

7. Efficiency Vermont's Act 151 programs have three main elements. Two programs starting in 2021 are focused on electric vehicle market transformation: (1) electric vehicle supply-chain dealership support, and (2) electric vehicle customer outreach and education. Starting with planning activities in 2021 and implementation in 2022-2023, the third program will support weatherization combined with heating electrification. Weston pf. supp. (2/12/21) at 3-4; exh. EVT-CW-4.

8. Efficiency Vermont's Act 151 transportation sector programs are designed to address barriers and market-level gaps in knowledge that exist in the electric vehicle market. The supply-chain development effort will aim to create a reliable, statewide network of Vermont car dealerships interested in and skilled at selling new and used electric vehicles. Weston pf. supp. (2/12/21) at 4-5; exh. EVT-CW-4.

9. Efficiency Vermont's proposed Act 151 thermal programs support electrification of the home heating sector by bundling weatherization work with the installation of heat pumps, which are an electric-based heating and cooling system. These Act 151 thermal programs will be directed at low- to moderate-income customers. Weston pf. supp. (2/12/21) at 5-7; exh. EVT-CW-4.

10. Efficiency Vermont proposes to alter planned spending on programs and services to accommodate its proposed Act 151 programs. For 2021, the proposed $1.535 million budget shift affects the following Efficiency Vermont planned activities:

- the residential new construction non-incentive budget was reduced by $185,000;
- the residential existing homes non-incentive budget was reduced by $250,000;

- the commercial and industrial business existing facilities incentive budget for lighting measures was reduced by $229,000 and non-incentives reduced by $21,000;
- the commercial and industrial business existing facilities incentive budget for custom measures was reduced by $457,000 and non-incentives reduced by $143,000;
- the commercial and industrial business new construction incentives budget was reduced by $229,000 and non-incentives reduced by $21,000; and
- to fund the new Act 151 programs, the efficient products incentive budget was increased by $460,000 and non-incentives increased by $1,075,000.

Pilliod-Massie pf. supp. (2/12/21) at 4-5; exh. EVT-JEM-9.

11. For 2022, the proposed $1.939 million budget shift affects the following Efficiency Vermont planned activities:

- the residential new construction non-incentive budget was reduced by $339,000;
- the residential existing homes non-incentive budget was reduced by $250,000;
- the commercial and industrial business existing facilities incentive budget for lighting was reduced by $457,000 and non-incentives reduced by $43,000;
- the commercial and industrial business existing facilities incentive budget for custom measures was reduced by $457,000 and non-incentives reduced by $143,000;
- the commercial and industrial business new construction incentive budget was reduced by $229,000 and non-incentives reduced by $21,000;
- to fund the new Act 151 transportation program activities in 2022, the efficient products incentive budget was increased by $725,000 and the non-incentive budget was increased by $914,000; and
- to fund the Act 151 thermal efficiency program activities in 2022, the existing homes incentive budget was increased by $300,000.

Pilliod-Massie pf. supp. (2/12/21) at 5-6; exh. EVT-JEM-9.

12. For 2023, the proposed $1.943 million budget shift affects the following Efficiency Vermont planned activities:

- the residential new construction non-incentive budget was reduced by $343,000;
- the residential existing homes non-incentive budget was reduced by $250,000;
- the commercial and industrial business existing facilities incentive budget for lighting was reduced by $457,000 and non-incentives reduced by $43,000;

- the commercial and industrial business existing facilities incentive budget for custom measures was reduced by $457,000 and non-incentives reduced by $143,000;
- the commercial and industrial business new construction incentive budget was reduced by $229,000 and non-incentives reduced by $21,000;
- to fund the new Act 151 transportation program activities in 2023, the residential efficient products incentive budget was increased by $765,000 and the non-incentive budget was increased by $878,000; and
- to fund the new Act 151 thermal efficiency program activities in 2023, the residential existing homes incentive budget was increased by $300,000.

Pilliod-Massie pf. supp. (2/12/21) at 6; exh. EVT-JEM-9.

13. Efficiency Vermont's Act 151 proposal reflects anticipated levels of program participation during the 2021-2023 performance period. The reductions in planned program spending reflect areas where less customer participation is expected and reflect the ongoing effects of the COVID-19 pandemic on customer participation in some commercial and industrial efficiency programs. Weston pf. supp. (2/12/21) at 18-19.

14. Efficiency Vermont's revised DRP proposal includes a $3.8 million resource-acquisition spending shift from the business to the residential sector. The proposed spending modifies the ratio of spending between the business and residential sectors across the performance period:

Approved DRP Spending	**2021**	**2022**	**2023**
Business	60%	60%	57%
Residential	40%	40%	43%
Proposed Act 151 Spending	**2021**	**2022**	**2023**
Business	57%	57%	54%
Residential	43%	43%	46%

Pilliod-Massie pf. supp. (2/12/21) at 14-15.

Act 151 Section 1(b)(1) - Reductions in Greenhouse Gas Emissions

15. Efficiency Vermont's proposed Act 151 program activities are designed to reduce greenhouse gas emissions in the thermal energy and transportation sectors in a cost-effective manner. Westman pf. supp. (2/12/2021) at 8-9.

16. With respect to Efficiency Vermont's thermal sector programs, the bundling of home weatherization and heat pumps directly reduces carbon emissions associated with home heating

by reducing the amount of fossil fuel used by Vermonters to heat their homes. Weston pf. supp. (2/12/21) at 6-7; exh. EVT-CW-4.

17. With respect to Efficiency Vermont's transportation sector programs, greenhouse gas emissions will be reduced by both increasing the volume of electric vehicles purchased and accelerating the state's shift to electric-based transportation from fossil-fuel-based transportation. Weston pf. supp. (2/12/21) at 6; exh. EVT-CW-4.

18. Approximately 24 metric tons of lifetime CO_2e reductions are associated with a new all-electric vehicle. Efficiency Vermont's Act 151 proposal to develop an upstream market-transformation program to elevate consumer interest in electric vehicles will contribute to emissions reductions associated with the purchase of an electric vehicle. Weston pf. supp. (2/12/21) at 6; Efficiency Vermont May 3 Response at 3-4.

19. Act 151 requires the development of standards and methods to appropriately measure the effectiveness of the Act 151 programs, measures, and services. Because standards and methods will be developed during the performance period, Efficiency Vermont has not modeled the expected savings for its Act 151 programs. Weston pf. supp. (2/12/21) at 11-12; exh. EVT-CW-4; Efficiency Vermont May 3 Response at 3-4.

20. Efficiency Vermont's Act 151 proposal will affect the greenhouse gas emission reductions expected under the approved DRP. The expected lifetime greenhouse gas savings of the electric efficiency DRP programs approved for the 2021-2023 performance period will be reduced by approximately 8,200 metric tons of CO_2e (148,400 metric tons to 140,200 metric tons). The greenhouse gas reductions associated with Efficiency Vermont's proposed Act 151 programs are expected to offset those reductions. Pilliod-Massie pf. supp. (2/12/21) at 11; exh. EVT-JEM-10 (revised 3/17/21); Efficiency Vermont May 3 Response at 3-4.

Act 151 Section 1(b)(2) - Nexus with Electricity Usage

21. Efficiency Vermont's proposed Act 151 programs will have a nexus with electricity usage. Westman pf. supp. (2/12/21) at 8.

22. Efficiency Vermont's proposed Act 151 transportation sector programs have a nexus with electricity usage because they promote the use of electric vehicles over fossil-fuel combustion vehicles. The programs reduce total fuel consumption and energy costs for consumers by switching their fuel source for transportation. Weston pf. supp. (2/12/21) at 7; exh. EVT-CW-4.

23. Efficiency Vermont's proposed Act 151 heating sector programs have a nexus with electricity usage because they bundle weatherization work with the installation of heat pumps, which are an electric-based heating and cooling system. Weston pf. supp. (2/12/21) at 7; exh. EVT-CW-4.

Act 151 Section 1(b)(3) - Relationship with Energy Transformation Projects

24. Efficiency Vermont's proposed Act 151 programs were developed to be additive and complementary to and not replace or be in competition with the Tier 3 energy transformation projects being implemented by the distribution utilities within the statewide EEU service area. Westman pf. supp. (2/12/21) at 9.

25. Efficiency Vermont's Act 151 proposal was developed through a stakeholder process that included Vermont distribution utilities to ensure that programs offered were not duplicative of Tier 3 programs. Weston pf. supp. (2/12/21) at 9; exh. EVT-CW-4.

26. Efficiency Vermont's Act 151 transportation sector programs are designed to increase and accelerate adoption of electric vehicles in Vermont by overcoming market barriers and gaps. For Tier 3 compliance, distribution utilities have been implementing various forms of direct incentives and vehicle-charging rates for customers and claiming the fossil-fuel savings associated with customers switching to electric vehicles. Efficiency Vermont's proposal is intended to be complementary to these Tier 3 programs and not intended to compete with or split credit for the distribution utilities' Tier 3 fossil-fuel savings. Weston pf. supp. (2/12/21) at 6-9; exh. EVT-CW-4.

27. Efficiency Vermont's Act 151 heating sector programs will be additive and complementary to distribution utilities' Tier 3 programs and will combine thermal efficiency with heating electrification for low- to moderate-income customers. Weston pf. supp. (2/12/21) at 3; exh. EVT-CW-4.

Act 151 Section 1(b)(4) - Consultation with Relevant State Agencies

28. Efficiency Vermont consulted with relevant State agencies and departments to ensure that its proposed Act 151 activities will not be duplicative or in competition with programs delivered by such agencies or departments. Westman pf. supp. (2/12/21) at 9; Philip Picotte, Department ("Picotte") pf. sur. reb. (3/31/21) at 3.

29. Efficiency Vermont engaged in a consultative process with seven state agencies (Department of Public Service, Agency of Commerce and Community Development, Agency of

Natural Resources, Office of Economic Opportunity, Department of Buildings and General Services, Department of Health, and Agency of Transportation) to ensure that duplicative or competitive activities are avoided. Westman pf. supp. (2/12/21) at 9; Weston pf. supp. (2/12/21) at 9.

30. Efficiency Vermont consulted with VADA and other affected entities in the development of its Act 151 proposal. Weston pf. supp. (2/12/21) at 10; exh. ECVT- CW-4.

31. Efficiency Vermont will coordinate its Act 151 activities with Drive Electric Vermont, the statewide brand and marketing resource that is operated by VEIC and financially supported by State agencies. Picotte pf. sur. reb. (3/31/21) at 3.

Act 151 Section 1(b)(5) - Delivery on Statewide Basis

32. Efficiency Vermont proposes to deliver its Act 151 programs on a statewide basis. If any of the funds being reallocated to support Efficiency Vermont's proposed Act 151 program activities are used for services specific to a distribution utility, the funds used for services to each distribution utility for the calendar years 2021-2023 will be reasonably proportionate to the energy efficiency charge collected in that territory. Westman pf. supp. (2/12/21) at 9-10; Weston pf. supp. (2/12/21) at 8.

33. Under Efficiency Vermont's electric vehicle programs, all car dealerships in Vermont will be eligible to participate, including dealerships that sell either new or used vehicles. The customer awareness and education campaign will be statewide through broad-based media and advertising, website improvements, and statewide events. Although programs and services will be offered statewide, whenever possible, data and participation will be tracked at a county level to promote access to services in all parts of the state. Weston pf. supp (2/12/21) at 10.

34. Efficiency Vermont's Act 151 heating sector programs will be focused on serving low- to moderate-income customers and on parts of the state with larger populations of these customers and those with higher energy burdens, reflecting the level of a consumer's income that is spent on energy-related costs. Weston pf. supp. (2/12/21) at 10-11.

Section 151 Section 1(c) - Cooperation with Retail Electricity Providers

35. Efficiency Vermont's Act 151 proposal will provide programs, measures, or services in cooperation with the distribution utilities that provide service to customers located within Efficiency Vermont's statewide service area. Westman pf. supp. (2/12/21) at 10-11.

36. Efficiency Vermont will coordinate with BED, which is also seeking authorization for Act 151 programs to engage electric vehicle dealers in its service territory (among other activities). Picotte pf. sur. reb. (3/31/21) at 3.

37. When implementing Act 151 programs, Efficiency Vermont will collaborate with Drive Electric Vermont and the distribution utilities to develop and refine consumer electric vehicle education resources and deliver a statewide campaign focused on the benefits of electric vehicles and the availability of state and distribution utility incentives. Weston pf. supp. (2/12/21) at 5; Picotte pf. sur. reb. (3/31/21) at 3-4

38. Efficiency Vermont developed its Act 151 proposal through a stakeholder process to ensure programs offered by other entities were identified and there is no duplication among programs. The process began with meetings with representatives of all the electric distribution utilities (Green Mountain Power Corporation, Vermont Electric Cooperative, Inc., WEC, VPPSA, the Town of Stowe Electric Department, and BED). Weston pf. supp. (2/12/21) at 9.

39. VPPSA coordinated with Efficiency Vermont in the development of its Act 151 proposal. VPPSA supports the programs that promote electric vehicles by raising customer and dealer awareness of the benefits of electric vehicles and provide statewide upstream support to the electric vehicle market. VPPSA also supports the geographic equity provisions embedded in the Act 151 programs. VPPSA March 31 Comments at 1-2.

40. WEC participated with stakeholders in the development of Efficiency Vermont's Act 151 programs. WEC supports Efficiency Vermont's Act 151 proposal because it complements WEC's and other distribution utilities' electric vehicle incentives and promotions and plays a role in expanding Tier 3 programs. WEC also supports Efficiency Vermont's Act 151 proposal because it creates the opportunity to expand access to electric vehicles by encouraging the inventory and sale of used electric vehicles through the dealer network. WEC March 31 Comments at 1.

Act 151 Section 1(c)(1) - Savings and Reductions Claims

41. For its proposed Act 151 programs and measures, Efficiency Vermont will not claim any savings, reductions in fossil-fuel consumption, or reductions in greenhouse gas emissions by the customers of a distribution utility if the distribution utility elects to offer the program, measure, or service as part of its Tier 3 compliance, unless Efficiency Vermont and the

distribution utility agree on how savings and reductions should be accounted for, apportioned, and claimed. Westman pf. supp. (2/12/21) at 11-12.

Act 151 Section 1(c)(2) - Evaluation and Measurement

42. Efficiency Vermont and the Department agree that the Department is the appropriate entity to evaluate Efficiency Vermont's Act 151 programs. Cotterill pf. sur. reb. (3/31/21) at 9; Westman pf. supp. (2/12/21) at 12.

43. The Department will engage with evaluation contractors and interested stakeholders to develop and propose to the Commission a set of standards and methods to appropriately measure the effectiveness of the Act 151 programs, measures, and services. Cotterill pf. sur. reb. (3/31/21) at 9.

44. For the 2021-2023 performance period, the Department proposes a budget of $115,000 for its Act 151 evaluation activities. The Department recommends $15,000 for BED evaluation activities and $100,000 for Efficiency Vermont evaluation activities. Cotterill pf. sur. reb. (3/31/21) at 9-10.

45. The Department proposes that the $100,000 needed for Efficiency Vermont Act 151 evaluation activities come from the unspent funds associated with the energy efficiency charge collections. The Department expects that approximately $566,000 of unspent evaluation funds (associated with the energy efficiency charge collections for Efficiency Vermont) will be carried forward from the 2018-2020 performance period. Cotterill pf. sur. reb. (3/31/21) at 10-11; Department April 30 Response at 3.

46. To monitor its Act 151 programs, Efficiency Vermont will track and report on its activities on an annual basis. Weston pf. supp. (2/12/21) at 11.

47. To track fossil-fuel savings and greenhouse gas emission reductions for transportation sector programs, Efficiency Vermont proposes metrics to measure and track the growth in electric vehicle supply-chain capabilities and availability, and to measure the growth in consumer awareness, familiarity, and interest in electric vehicles as marketing increases. The metrics are measurable, and the standard and methods to evaluate the program's impact will be based on whether growth of these key market indicators can be correlated to Act 151 program activities. Weston pf. supp. (2/12/21) at 11; exh. EVT-CW-4.

48. The transportation sector metrics that will be reported include: (a) electric vehicle market share, for both new and used vehicles; (b) number of electric vehicle registrations, for

both new and used vehicles, statewide and by county; (c) number of dealers selling electric vehicles, for both new and used vehicles, statewide and by county; (d) percent increase in number of dealers selling electric vehicles, both new and used vehicles, statewide and by county; and (e) percent of consumers with interest in purchasing an electric vehicle, statewide and by county. Weston pf. supp. (2/12/21) at 11-12; exh. EVT-CW-4.

49. Some of the above market metrics will be tracked by Efficiency Vermont, and some are already tracked by other organizations. Drive Electric Vermont tracks quarterly electric vehicle registrations in the state with data provided by the Vermont Department of Motor Vehicles and the Vermont Department of Environmental Conservation. Efficiency Vermont will review this data in light of market interventions made through its Act 151 programs and assess how its Act 151 investments influenced overall electric vehicle market conditions in Vermont. Weston pf. supp. (2/12/21) at 11-12; exh. EVT-CW-4.

50. To track fossil-fuel savings and greenhouse gas emission reductions for thermal sector programs, Efficiency Vermont proposes to use the metrics already used to measure existing weatherization activities. Existing metrics within the thermal-and-process-fuels ("TEPF") portfolio account for weatherization of electrically heated homes as part of the performance reporting. Weston pf. supp. (2/12/21) at 12; exh. EVT-CW-4.

51. Efficiency Vermont's Act 151 program activities will be provided as an addendum to the 2021-2023 Triennial Plan, with annual updates to the triennial plan and regular reporting through quarterly and annual reports. Pilliod-Massie pf. supp. (2/12/21) at 20; Efficiency Vermont May 3 Response at 5.

Act 151 Section 1(d) - Calculation of Tier 3 Funds and Project Costs

52. Any funds spent on Efficiency Vermont's Act 151 programs, measures, and services will not be counted towards the calculation of funds used by a distribution utility for energy transformation projects and the calculation of energy transformation project costs. Weston pf. supp. (2/12/21) at 6-10; exh. EVT-CW-4.

Rate and Bill Impacts

53. Efficiency Vermont's revised DRP proposal is modeled to have average 20-year rate and bill impacts as indicated in the following table.

Customer Class	Rate Impacts	Bill Impacts
Residential	4.1%	-3.3%
Commercial & Industrial (no demand charge)	2.8%	-9.3%
Commercial & Industrial (demand charge)	4.4%	-9.1%
All Customers	4.1%	-6.6%

Pilliod-Massie pf. supp. (2/12/21) at 16; Picotte pf. sur. reb. (3/31/21) at 5-7.

54. When compared to Efficiency Vermont's approved DRP, the rate and bill impact analysis for the revised DRP shows that the overall impact on rates for all customers across the 20-year period remains at approximately 4.1%. The average bill reductions across all customers changed from approximately -6.9% to -6.6%. This change reflects the lower electrical savings the revised portfolio is expected to deliver when shifting the budgets from measures that deliver electrical savings to the proposed Act 151 programs for the transportation and thermal sectors. Pilliod-Massie pf. supp. (2/12/21) at 18-19.

Other Impacts

55. Efficiency Vermont's Act 151 proposal does not change the TEPF budgets approved by the Commission for the 2021-2023 performance period. Pilliod-Massie pf. supp. (2/12/21) at 6-8; exh EVT-JEM-9.

56. Efficiency Vermont's Act 151 proposal does not change the budgets and budget categories for development and support services activities approved by the Commission for the 2021-2023 performance period. Spending in support of Act 151 programs is expected in the following categories: education and training; planning and reporting; evaluation; administration and regulatory affairs; and information systems. The spending is not expected to affect the approved three-year budget totals by category. Pilliod-Massie pf. supp. (2/12/21) at 6-8; exh EVT-JEM-9; Efficiency Vermont May 3 response at 1-2.

57. Efficiency Vermont estimates that its proposed revisions to DRP spending may result in an approximately 2.3 MW shortfall for its capacity obligation in Forward Capacity Auction #14. Efficiency Vermont's capacity obligation is 106.208 MW, and the 2.3 MW represents 2.2% of this obligation. Efficiency Vermont's revenue forecast for the auction is $2,754,272. Pilliod-Massie pf. supp. (2/12/21) at 20-21; Efficiency Vermont May 3 Response.

58. The Forward Capacity Market has mechanisms built in that are designed to alleviate financial risks associated with over- or under-performance. Efficiency Vermont will have the

opportunity to purchase capacity during this period to meet any shortfall in its obligations. Efficiency Vermont estimates it would cost approximately $5,300 to purchase capacity in the marketplace to cover a 2.3 MW shortfall by May 31, 2025. Efficiency Vermont's delivered winter capacity is higher than its summer capacity, so it is likely that some or all of the cost to purchase summer capacity could be offset by the sale of excess capacity in the winter monthly reconfiguration auctions. Pilliod-Massie pf. supp. (2/12/21) at 20-2; Efficiency Vermont May 3 Response at 7-8.

59. The possibility of incurring a financial penalty due to Act 151 implementation is low. If Efficiency Vermont did not meet its obligation by the start of the capacity commitment period (May 31, 2023), then it would have up to two years to deliver that capacity before a penalty would be imposed. The delivery of that capacity could happen through purchase agreements or the installation of new efficiency measures. Pilliod-Massie pf. supp. (2/12/21) at 20-21; Efficiency Vermont May 3 Response at 7-8.

60. If Efficiency Vermont is not able to deliver the committed 2.3 MW by May 31, 2025, and a financial penalty were imposed, the maximum estimated amount is $61,010. Pilliod-Massie pf. supp. (2/12/21) at 20-21; Efficiency Vermont May 3 Response at 7-8.

61. Section II.8.B. and 8.C. of VEIC's Order of Appointment identifies the requirements for Efficiency Vermont's participation in the Forward Capacity Market. If any penalties are incurred for a capacity shortfall, VEIC would be responsible for one-half of any financial penalties and one-half would be considered eligible costs that may receive reimbursement from the EEU fund. (In most instances, the amount of Forward Capacity Market revenues that go into the fund are reduced by one-half of the penalty amount.) Pilliod-Massie pf. supp. (2/12/21) at 20-21; Efficiency Vermont May 3 Response at 7-8.

62. Efficiency Vermont's capacity bid for Forward Capacity Auction #15 was adjusted to account for the expected impacts of Act 151 programs. This adjustment reduces the potential for forfeiture after Forward Capacity Auction #14. Efficiency Vermont May 3 Response at 7-8.

Changes to DRP Performance Goals

63. The shift in spending to Act 151 programs will reduce the savings predicted to be achieved by the electric efficiency programs in the DRP approved in 2020. For the 2021-2023 performance period, Efficiency Vermont proposes that its QPI 100% targets be adjusted as follows.

QPI #	Title	Approved 100% Target	Proposed 100% Target
1	Total resource benefit	$238,550,100	$223,860,700
2	Annual electricity savings	282,000	263,900
3	Summer peak demand savings	30,700	28,400
4	Winter peak demand savings	37,700	35,500
5	Lifetime electricity savings	3,527,900	3,302,400
6	Greenhouse gas reductions	148,400	140,200
7	Flexible load kW	2700	2700
8	Administrative efficiency	$1,008,300	$988,600

Pilliod-Massie pf. supp. (2/12/2021) at 16-18; exh. EVT-JEM-10 (revised 3/17/21).

64. The proposed changes to the QPI targets include an adjustment to the QPI addressing administrative efficiency. The adjustment uses a full year of 2020 administrative costs to serve as the baseline to establish an administrative cost reduction target for the performance period. Pilliod-Massie pf. supp. (2/12/2021) at 16-18; exh. EVT-JEM-10 (revised 3/17/21).

65. The shift in spending to Act 151 programs also affects the minimum QPI targets and the scaling calculations. No other changes are proposed to the QPIs, including performance award amounts and the weight of award on each QPI. Pilliod-Massie pf. supp. (2/12/2021) at 16-18; exh. EVT-JEM-10 (revised 3/17/21).

66. Efficiency Vermont proposes to increase residential spending under its Act 151 programs. Accordingly, Efficiency Vermont proposes that the minimum performance requirement for residential spending increase from $35,303,000 to $37,989,000. Pilliod-Massie pf. supp. (2/12/2021) at 16-18; exh. EVT-JEM-10 (revised 3/17/21).

Discussion

As discussed below, because the requirements of Act 151 have been met, I recommend that the Commission approve revisions to Efficiency Vermont's DRP for the 2021-2023 performance period to allow for the implementation of greenhouse gas emission reduction programs as authorized by Act 151.

As demonstrated in the findings above, and as required by Section 1(a) of Act 151, Efficiency Vermont is an EEU whose electric resource-acquisition budgets for the 2021-2023 performance period have been approved by the Commission pursuant to 30 V.S.A. § 209(d)(3)(B) and do not exceed its 2018-2020 performance period electric resource-acquisition

budgets. Consistent with the requirements of Section 1(a), for the 2021-2023 performance period, Efficiency Vermont proposes to reallocate approximately $5.4 million of its approved electric resource-acquisition budgets (not to exceed $2,000,000 per year) on programs, measures, and services that reduce greenhouse gas emissions in the thermal energy or transportation sectors.

As demonstrated in the findings above, and as required by Section 1(b) of Act 151, Efficiency Vermont proposes revisions to its approved DRP to include programs, measures, and services that: (1) reduce greenhouse gas emissions in the thermal energy or transportation sectors, or both; (2) have a nexus with electricity usage; and (3) are additive and complementary to, and do not replace or compete with, electric distribution utility energy transformation projects implemented pursuant to 30 V.S.A. § 8005(a)(3) such that they result in the largest possible greenhouse gas emission reductions in a cost-effective manner; (4) were proposed after consulting with relevant State agencies or departments and will not be duplicative or in competition with programs delivered by that agency or department; and (5) will be delivered on a statewide basis and will be reasonably proportionate to the energy efficiency charge collected in a distribution utility territory.

The Department agrees that Efficiency Vermont's proposal satisfies the requirements for approval established under Act No. 151. WEC, VPPSA, and VADA support Efficiency Vermont's proposed Act 151 programs, measures, and services.

As demonstrated in the findings above, Efficiency Vermont engaged in an extensive stakeholder engagement effort to develop its Act 151 programs. This engagement included the electric distribution utilities, affected entities like VADA, and the relevant State agencies, including the Department. The Act 151 programs were developed with stakeholders to address the opportunities where customer needs could best be served. These efforts called for a focused effort in Vermont's electric vehicle market that would help to further the state's greenhouse gas reduction and transportation electrification goals including coordination with utility Tier 3 initiatives. Additionally, stakeholders encouraged Efficiency Vermont to continue to work with distribution utilities to develop a thermal energy program for low- to moderate-income customers that combines weatherization efficiency with electrification like heat pumps.

Efficiency Vermont will report on its Act 151 program efforts through the triennial plan proceedings. This practice is consistent with the implementation of EEU programs and services

and will afford the Department and stakeholders continued opportunity to supervise the implementation of Efficiency Vermont's Act 151 thermal and transportation sector programs. The Department supports the Act 151 thermal program by Efficiency Vermont and recommends that when program designs are finalized for implementation in 2022-2023, the plans should be subject to further review and approval by the Commission through the annual triennial plan process. I recommend that the Commission require Efficiency Vermont to file these triennial plan updates. In each triennial plan update, I recommend Efficiency Vermont discuss how its Act 151 programs have evolved based on lessons learned from its experience implementing the Act 151 programs in the previous year.

In addition, Efficiency Vermont remodeled the expected savings from its DRP portfolios to reflect the reallocation of resource-acquisition budgets and the implementation of Act 151 programs. Based on this remodeling, the Department recommends that Efficiency Vermont report on the pace of market transformation for lighting and custom measures. Regular reporting on market and program changes can help make transparent the difference between planned and actual performance. Specifically, the Department recommends that Efficiency Vermont quantify and report on how the actual pace of lighting market transformation and custom measure uptake compares to that assumed in its DRP modeling. Both Efficiency Vermont and Department have agreed to this reporting condition. I recommend that the Commission adopt this reporting condition.

As discussed in the findings above, and as required by Section 1(c)(2) of Act 151, Efficiency Vermont and the Department agree that the Department is the appropriate entity to evaluate Efficiency Vermont's Act 151 programs. The Department will engage with evaluation contractors and interested stakeholders to develop and propose to the Commission a set of standards and methods to appropriately measure the effectiveness of the Act 151 programs, measures, and services. Within 90 days this Order, the Department agrees to file a recommendation with the Commission proposing a set of standards and methods for the evaluation of Efficiency Vermont's Act 151 programs. I recommend that the Commission adopt the proposal for the Department to conduct Act 151 evaluation activities. In addition, I recommend that the Department's proposal should specify how the standards and methods will demonstrate the effectiveness of Efficiency Vermont's Act 151 program. For example, the

standards and metrics would show a causal link between Efficiency Vermont's transportation sector spending and the transportation sector metrics discussed in Findings 47 through 49, above.

For the 2021-2023 performance period, the Department proposes a budget of $115,000 for its Act 151 evaluation activities. The Department proposes that the $100,000 needed for Efficiency Vermont's Act 151 evaluation activities come from the unspent funds associated with the energy efficiency charge collections in the 2018-2020 performance period. The Department plans to make this request in a petition filed in Case No. 21-1616-PET, which concerns the energy efficiency charge carryover for the 2018-2020 performance period. I recommend that the Commission adopt the Department's budget proposal for Act 151 evaluation activities. However, the amount of carryover funds from the 2018-2020 performance period, and a decision determining their disposition, will be made in Case No. 21-1616-PET. Therefore, it is premature and inappropriate to authorize use of those funds at this time in this case. In the event that the final decision in Case No. 21-1616-PET reflects a different amount of carryover funds or a different disposition of those funds, the Department and Efficiency Vermont should make a filing in this case recommending an alternative funding source for the Department's Act 151 evaluation activities.

Finally, I recommend that the Commission approve the changes made to Efficiency Vermont's electric QPI targets and corresponding minimum performance requirements to reflect the implementation of its Act 151 programs. The proposed changes to the QPI targets include an adjustment to the QPI addressing administrative efficiency. As required by the Commission, the QPI target has been updated to reflect a full year of 2020 administrative costs.[3]

The electric QPI targets and minimum performance requirements I recommend the Commission approve for the 2021-2023 performance period are contained in the Attachment to this Order. Although unchanged by the revisions to Efficiency Vermont's DRP, for clarity purposes, the previously approved TEPF QPIs are also included in the Attachment. The tables in the Attachment contain the electric and TEPF QPIs and minimum performance requirements for the 2021-2023 performance period, including corresponding incentive amounts for each target, minimum targets, 100% target levels, scaling calculations, and financial consequences for under-performance.

[3] *Order Approving Compliance Filings for Efficiency Vermont's 2021-2023 Performance Period*, Case No. 19-3272-PET, Order of 1/20/21 at 5.

IV. CONCLUSION

In this proposal for decision, I recommend that the Commission approve revisions to Efficiency Vermont's DRP for the 2021-2023 performance period to allow for the implementation of greenhouse gas emission reduction programs as authorized by Act 151. These revisions include the reallocation of spending in the previously approved resource-acquisition budgets to implement Act 151 transportation and heating sector programs and include adjustments to performance goals for the 2021-2023 performance period to reflect the reallocation of spending.

This proposal for decision has not been circulated to the parties pursuant to 3 V.S.A. § 811 because the Department and Efficiency Vermont have waived their opportunity to comment and because the proposal for decision is not adverse to any party.

Mary Jo Krolewski

Mary Jo Krolewski
Hearing Officer

V. ORDER

IT IS HEREBY ORDERED, ADJUDGED, AND DECREED by the Public Utility Commission ("Commission") of the State of Vermont that:

1. The findings, conclusions, and recommendations of the Hearing Officer are adopted.

2. Efficiency Vermont is authorized to use a portion of the funding received through the energy efficiency charge for the implementation of greenhouse gas emission reduction programs targeted at the thermal energy and transportation sectors as called for under Vermont Public Act No. 151.

3. The electric resource-acquisition budgets for Efficiency Vermont for the 2021-2023 performance period approved in the October 22, 2020, Order shall be amended to reflect the changes approved in this Order.

4. The electric and thermal-energy-and-process-fuels quantifiable performance indicators and minimum performance requirements for Efficiency Vermont for the 2021-2023 performance period, including corresponding incentive amounts for each target, minimum targets, 100% target levels, scaling calculations, and financial consequences for under-performance, shall be those in the Attachment to this Order.

5. Efficiency Vermont shall not claim any savings and reductions in fossil-fuel consumption or in greenhouse gas emissions by the customers of any distribution utility resulting from a program, measure, or service authorized pursuant to this order if said distribution utility elects to offer the program, measure, or service, pursuant to 30 V.S.A. § 8005(a)(3), unless Efficiency Vermont and the distribution utility agree on how savings and reductions should be accounted for, apportioned, and claimed.

6. Within 30 days of the issuance of this Order, Efficiency Vermont shall file an updated triennial plan for the 2021-2023 performance period reflecting the revisions to the Demand Resources Plan approved in this Order.

7. At the time of filing the next triennial plan update, on or before November 1, 2021, Efficiency Vermont shall file complete program details and a description of stakeholder activities for its proposed thermal energy program to be implemented in 2022. Further proceedings to resolve stakeholder concerns regarding the thermal efficiency plus electrification activities may be initiated at that time.

8. Efficiency Vermont shall report on the actual pace of market transformation for lighting and custom measures compared to the assumptions made in the Demand Resources Plan modeling submitted in support of the Act No. 151 programs. This reporting shall be included as a separately identifiable component within existing Efficiency Vermont reports including annual reports, annual budget variance reports, and quarterly reports.

9. Within 90 days of the issuance of this Order, the Vermont Department of Public Service ("Department") shall file a recommendation with the Commission proposing a set of reasonable standards and methods for the evaluation of Efficiency Vermont's Act No. 151 programs. If the recommendation does not reflect a consensus among stakeholders, comments and recommendations regarding the procedures to be employed in the Commission's review of the proposed standards and methods shall be filed within 14 days of the filing.

10. The Department has made a proposal for the funding of its proposed evaluation plan for Efficiency Vermont's Act No. 151 programs within the context of its energy efficiency charge carryover recommendations in Case No. 21-1616-PET. Parties shall be afforded the opportunity to participate in the Commission's review of the recommendation and to seek further proceedings concerning the resolution of the request for incremental funding in Case No. 21-1616-PET. In the event that the final decision in Case No. 21-1616-PET reflects a different amount of carryover funds or a different disposition of those funds, the Department and Efficiency Vermont should make a filing in this case recommending an alternative funding source for the Department's Act 151 evaluation activities.

Dated at Montpelier, Vermont, this 27th day of May, 2021.

Anthony Z. Roisman) PUBLIC UTILITY
)
)
Margaret Cheney) COMMISSION
)
J. Riley Allen) OF VERMONT

OFFICE OF THE CLERK

Filed: May 27, 2021

Attest: _____
Clerk of the Commission

Notice to Readers: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Commission (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: puc.clerk@vermont.gov)

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Commission within 30 days. Appeal will not stay the effect of this Order, absent further order by this Commission or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Commission within 28 days of the date of this decision and Order.

Efficiency Vermont 2021-2023

Table A-1: Electric 100% Performance Targets and Awards

QPI#	Title	Performance Indicator	100% Target	Award Weight	Performance Award
1	Total Resource Benefits	Present worth of lifetime electric, fossil fuel, and water benefits	$223,860,700	25%	$1,238,044
2	Annual Electricity Savings	Annual incremental net MWh savings	263,900	25%	$1,238,044
3	Summer Peak Demand Savings	Cumulative net summer peak kW demand savings	28,400	17%	$841,870
4	Winter Peak Demand Savings	Cumulative net winter peak kW demand savings	35,500	14%	$693,305
5	Lifetime Electricity Savings	Lifetime incremental net MWh savings	3,302,400	9%	$445,696
6	Greenhouse Gas Reduction	Electric energy and non-energy benefits, in metric tons of CO_2e	140,200	5%	$247,609
7	Flexible Load	Annual kW of flexible load (controllable load)	2,700	0%	$0
8	Administrative Efficiency	5% administrative cost reduction	$988,600	5%	$247,609
TOTAL				**100%**	**$4,952,176**

Efficiency Vermont 2021-2023

Table A-2: Electric Threshold and Scaling

QPI #1: TOTAL RESOURCE BENEFITS (TRB)

	Minimum	100% Target Level	Increase Rate
Achievement	$167,895,500	$223,860,700	$0.0055
% of target	75%	100%	Per TRB dollar above $167,895,500
% of award	75%	100%	
Award amount	$928,533	$1,238,044	

QPI #2: ANNUAL ELECTRICITY SAVINGS (MWh)

	Minimum	100% Target Level	Increase Rate
Achievement	197,900	263,900	$4.6896
% of target	75%	100%	Per MWh above 197,900
% of award	75%	100%	
Award amount	$928,533	$1,238,044	

QPI #3: SUMMER PEAK DEMAND SAVINGS (kW)

	Minimum	100% Target Level	Increase Rate
Achievement	21,300	28,400	$29.6433
% of target	75%	100%	Per Summer kW above 21,300
% of award	75%	100%	
Award amount	$631,402	$841,870	

QPI #4: WINTER PEAK DEMAND SAVINGS (kW)

	Minimum	100% Target Level	Increase Rate
Achievement	26,600	35,500	$19.4749
% of target	75%	100%	Per Winter kW above 26,600
% of award	75%	100%	
Award amount	$519,978	$693,305	

QPI #5: LIFETIME ELECTRICITY SAVINGS (MWh)

	Minimum	100% Target Level	Increase Rate
Achievement	2,476,800	3,302,400	$0.1350
% of target	75%	100%	Per Lifetime MWh above 2,476,800
% of award	75%	100%	
Award amount	$334,272	$445,696	

QPI #6: GREENHOUSE GAS REDUCTION (metric tons CO_2e)

	Minimum	100% Target Level	Increase Rate
Achievement	105,200	140,200	$1.7686
% of target	75%	100%	Per metric ton CO2e above 105,200
% of award	75%	100%	
Award amount	$185,707	$247,609	

QPI #7: FLEXIBLE LOAD (kW)

	Minimum	100% Target Level	Increase Rate
Achievement	2,030	2,700	$0.0000
% of target	75%	100%	Per Flexible kW above 2,030
% of award	75%	100%	
Award amount	$0	$0	

QPI #8: ADMINISTRATIVE COST ($)

	Minimum	100% Target Level	Increase Rate
Achievement	$741,450	$988,600	$0.2505
% of target	75%	100%	Per Administrative Dollar above $741,450
% of award	75%	100%	
Award amount	$185,707	$247,609	

Efficiency Vermont

Table A-2a: 2021 and 2022 Annual Electric Threshold and Scaling

QPI #1: TOTAL RESOURCE BENEFITS (TRB)

	Minimum	100% Target Level	Increase Rate
Achievement	$55,965,200	$74,620,200	$0.0041
% of target	75%	100%	Per TRB dollar above $55,965,200
% of award	75%	100%	
Award amount	$232,133	$309,511	

QPI #2: ANNUAL ELECTRICITY SAVINGS (MWh)

	Minimum	100% Target Level	Increase Rate
Achievement	66,000	88,000	$3.5172
% of target	75%	100%	Per MWh above 66,000
% of award	75%	100%	
Award amount	$232,133	$309,511	

QPI #3: SUMMER PEAK DEMAND SAVINGS (kW)

	Minimum	100% Target Level	Increase Rate
Achievement	7,100	9,500	$21.9237
% of target	75%	100%	Per Summer kW above 7,100
% of award	75%	100%	
Award amount	$157,851	$210,467	

QPI #4: WINTER PEAK DEMAND SAVINGS (kW)

	Minimum	100% Target Level	Increase Rate
Achievement	8,900	11,800	$14.9419
% of target	75%	100%	Per Winter kW above 8,900
% of award	75%	100%	
Award amount	$129,995	$173,326	

QPI #5: LIFETIME ELECTRICITY SAVINGS (MWh)

	Minimum	100% Target Level	Increase Rate
Achievement	825,600	1,100,800	$0.1012
% of target	75%	100%	Per Lifetime MWh above 825,600
% of award	75%	100%	
Award amount	$83,568	$111,424	

Maximum Annual Award is equal to 25% of three year total for QPIs 1-5 or $1,114,240 in each year (2021 and 2022).

Efficiency Vermont

Table A-2b: 2022 Cumulative Electric Threshold and Scaling

QPI #1: TOTAL RESOURCE BENEFITS (TRB)

	Minimum	100% Target Level	Increase Rate
Achievement	111,930,400	$149,240,400	$0.0041
% of target	75%	100%	Per TRB dollar above $111,930,400
% of award	75%	100%	
Award amount	$464,267	$619,022	

QPI #2: ANNUAL ELECTRICITY SAVINGS (MWh)

	Minimum	100% Target Level	Increase Rate
Achievement	132,000	176,000	$3.5172
% of target	75%	100%	Per MWh above 132,000
% of award	75%	100%	
Award amount	$464,267	$619,022	

QPI #3: SUMMER PEAK DEMAND SAVINGS (kW)

	Minimum	100% Target Level	Increase Rate
Achievement	14,200	19,000	$21.9237
% of target	75%	100%	Per Summer kW above 14,200
% of award	75%	100%	
Award amount	$315,701	$420,935	

QPI #4: WINTER PEAK DEMAND SAVINGS (kW)

	Minimum	100% Target Level	Increase Rate
Achievement	17,800	23,600	$14.9419
% of target	75%	100%	Per Winter kW above 17,800
% of award	75%	100%	
Award amount	$259,989	$346,652	

QPI #5: LIFETIME ELECTRICITY SAVINGS (MWh)

	Minimum	100% Target Level	Increase Rate
Achievement	1,651,200	2,201,600	$0.1012
% of target	75%	100%	Per Lifetime MWh above 1,651,200
% of award	75%	100%	
Award amount	$167,136	$222,848	

Maximum Cumulative Award is equal to 50% of three year total for QPIs 1-5 or $2,228,480 at the end of 2022.

Efficiency Vermont 2021-2023

Table A-3: Electric Minimum Performance Requirements

QPI#	Title	Minimum Requirement	Policy Goal Advanced	Performance Incentive Award Reduction %	Financial Impact
9	Minimum Electric Benefits	Total electric benefits divided by total costs is greater than 1.2	Equity for all Vermont electric customers as a group by ensuring that the overall electric benefits are greater than the costs incurred to implement and evaluate the *EEU* and the *EEC*	Eliminates 100% of performance incentive award	$4,952,176
10	Threshold (or minimum acceptable) Level of Participation by Residential Customers	Total residential sector spending is greater than $37,989,000	Equity for residential customers by ensuring that a minimum level of overall efficiency efforts, as reflected in spending, will be dedicated to residential customers	Reduces total performance incentive award at *100% Target Level* by 18%	$891,392
11	Threshold (or minimum acceptable) Level of Participation by Low-Income Households	Total low-income services spending is greater than $11,480,000	Equity for low-income customers by ensuring that a minimum level of overall efficiency efforts, as reflected in spending, will be dedicated to low-income households	Reduces total performance incentive award at *100% Target Level* by 18%	$891,392
12	Threshold (or minimum acceptable) Level of Participation by Small Business Customers	Total non-residential premises with annual electric use of 40,000 kWh/yr or less that acquire kWh savings is greater than 2,000	Equity for small business customers by ensuring that a minimum level of overall efficiency efforts, as reflected in participation, will be dedicated to small business accounts	Reduces total performance incentive award at *100% Target Level* by 18%	$891,392
13	Geographic Equity - County	TRB for each geographic area is greater than values shown on Table A-4	Geographic equity for all Vermont electric customers by ensuring that energy efficiency benefits are geographically distributed on an equitable basis	Reduces total performance incentive award at *100% Target Level* by 6%	$297,131
14	Geographic Equity - Utility[1]	Customer Lifetime Savings for each distribution utility is greater than values shown on Table A-5.	Geographic equity for all Vermont electric customers by ensuring that energy efficiency benefits are distributed on an equitable basis across utility territories	Reduces total performance incentive award at *100% Target Level* by 2%	$99,044
15	Service Quality	Achieve 92 or more metric points in the Service Quality and Reliability Plan over the course of the Performance Period	To establish Quality Performance Standards and associated reporting requirements for energy efficiency services provided by Efficiency Vermont	Reduces total performance incentive award by $1,630 per point lost (beyond 16) with a potential total reduction at 100% Target Level by 3.1%	$150,000
16	Resource Acquisition Performance Period Spending	Total spending for a three-year performance period (including applicable operations fees) is less than $124,004,000.	To minimize total spending variances above Commission approved 2021-2023 budgets	Reduces total performance incentive award at 100% Target Level by 2.0% and increases at 0.5%	Penalty begins at $20,000 and increases per Table A-13
17	Development and Support Services Performance Period Spending	Total spending for a three-year performance period (including applicable operations fees) is less than $11,071,000.	To minimize total spending variances above Commission approved 2021-2023 budgets	Reduces total performance incentive award at 100% Target Level by 2.0% and increases at 0.5%	Penalty begins at $2,000 and increases per Table A-15

[1] Vermont Public Power Supply Authority municipal electric utilities will be aggregated for the measurement of performance on this indicator

Efficiency Vermont 2021-2023

Table A-4: Electric Minimum TRB per Geographic Area

Geographic Area	Required TRB per Geographic Area for MPR #13	% by County
Addison	$8,929,033	5.8%
Bennington	$10,499,973	6.8%
Caledonia	$6,053,370	3.9%
Chittenden	$29,862,922	19.4%
Essex/Orleans	$7,766,941	5.0%
Franklin	$15,072,873	9.8%
Grand Isle/Lamoille	$8,136,246	5.3%
Orange	$5,189,836	3.4%
Rutland	$16,858,625	10.9%
Washington	$14,142,821	9.2%
Windham	$15,708,749	10.2%
Windsor	$15,812,773	10.3%
Total	**$154,034,164**	**100.0%**

Note: All geographic names above refer to Vermont Counties.

Efficiency Vermont 2021-2023

Table A-5: Electric Minimum Customer Lifetime Savings by Distribution Utility

Distribution Utility	% EEC by Utility[1]	Minimum Lifetime Customer Savings[2] for MPR #14
VPPSA Aggregate[3]	7.7%	$10,782,391
Barton Village, Inc. Electric Dept.	0.3%	$420,093
Enosburg Falls Water & Light Dept.	0.6%	$840,186
Hardwick Electric Dept., Town of	0.8%	$1,120,248
Jacksonville Electric Company, Village of	0.1%	$140,031
Johnson Water & Light Dept., Village of	0.3%	$420,093
Ludlow Electric Light Dept., Village of	1.1%	$1,540,342
Lyndonville Electric Dept., Village of	1.4%	$1,960,435
Morrisville Water & Light Dept., Village of	1.0%	$1,400,311
Northfield Electric Dept., Village of	0.6%	$840,186
Orleans Electric Dept., Village of	0.3%	$420,093
Swanton Village Inc. Electric Dept.	1.2%	$1,680,373
Green Mountain Power Corporation	79.0%	$110,624,536
Hyde Park Electric Dept., Village of	0.2%	$280,062
Stowe Electric Dept., Town of	1.7%	$2,380,528
Vermont Electric Cooperative,Inc.	9.7%	$13,583,013
Washington Electric Cooperative, Inc.	1.7%	$2,380,528
Total		**$140,031,058**

[1] % EEC by Utility is the average percent contributed by ratepayers in each distribution utility for the period 2016-2018 per the annual December reports issued by the Fiscal Agent

[2] Minimum Lifetime Customer Savings values are the sum of customer electric, water and fuel cost savings at DPS approved retail rate averages over the lifetime of the efficiency measures

[3] Minimum Lifetime Customer Savings for VPPSA is an aggregate target for all VPPSA members.

Efficiency Vermont 2021-2023

Table A-6: TEPF 100% Performance Targets and Awards

QPI #	Title	Performance Indicator	100% Target	Award Weight	Performance Award
1	Thermal & Mechanical Energy Efficiency Savings	Annual incremental net MMBTU savings	340,600	60%	$539,666
2	Residential Single Family Comprehensiveness[4]	Combined performance for metrics 2.a.-2.c.	100%	25%	$224,861
		a. Average air leakage reduction per comprehensive project[1]	34%		
		b. Percent of comprehensive projects with square feet of added insulation at least 50% of the home's finished square feet of floor area[2]	44%		
		c. Percent of households (premises) that implement shell measures, and also have a heating system measure installed within three years of the shell measure[3]	16%		
3	Housing Units Weatherized	Number of Residential Housing Units comprehensively weatherized[5]	4,400	10%	$89,944
4	Greenhouse Gas Reduction	TEPF energy and non-energy benefits, in metric tons of CO_2e	20,400	5%	$44,972
TOTAL				**100%**	**$899,444**

All results are verified by the Vermont Department of Public Service and approved by the Vermont Public Utility Commission annually

[1] All single family (1-4 unit) homes in which Thermal Energy and Process Fuel-funded incentives are provided through a comprehensive program offering will be included in the average, regardless of whether or not air infiltration reduction is achieved.

[2] The total shall include all insulation that is installed in the home as part of a comprehensive project, including attic and ceiling insulation, wall insulation, floor insulation, foundation insulation, etc.

[3] Heating system measures will include system replacements and distribution improvements (such as duct sealing or installing improved or right-sized ductwork, burner replacements, etc.) with a cost of at least $200 per reported project. Neither setback thermostats nor clean-and-tunes shall count as significant heating system measures for this Performance Indicator. Shell measures include any measures that reduce air infiltration or conductive losses through the building shell (typically insulation measures). Within 3 years is considered to be the current year plus 2 years before or 2 years after the current year. An example of qualifying time period for "within three years" is: a household implementing shell measures in 2021 and a heating system measure in 2019, or vice versa.

[4] Measures reducing electrical and / or unregulated fuel energy consumption will qualify for meeting residential single family comprehensiveness and weatherization targets.

[5] Residential housing units include single- and multi-family units and will be considered comprehensively weatherized if they complete a Home Performance with ENERGY STAR project, a Building Performance project, or a comprehensive custom retrofit project (e.g., 3E multifamily retrofit projects). Projects will be considered complete when measures with savings are reported in Efficiency Vermont's database. The performance target is set at the modeled values for both electric and TEPF funded projects.

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Table A-7: TEPF Threshold and Scaling

QPI #1: THERMAL AND MECHANICAL ENERGY EFFICIENCY SAVINGS (MMBtu)

	Minimum	*100% Target Level*	Increase Rate
Achievement	255,500	340,600	$1.585
% of model	75%	100%	Per MMBTU above 255,500
% of award	75%	100%	
Award amount	$404,750	$539,666	

QPI # 2: RESIDENTIAL SINGLE FAMILY COMPREHENSIVENESS - average % of all metrics[1]

	Minimum	*100% Target Level*	Increase Rate
Achievement	75%	100%	$2,249
% of target	75%	100%	Per percentage point above 75%
% of award	75%	100%	
Award amount	$168,646	$224,861	

QPI # 3: NUMBER OF RESIDENTIAL HOUSING UNITS WEATHERIZED

	Minimum	*100% Target Level*	Increase Rate
Achievement	3,300	4,400	$0.2044
% of target	75%	100%	Per housing unit above 75%
% of award	75%	100%	
Award amount	$67,458	$89,944	

QPI #4: GREENHOUSE GAS REDUCTION (metric tons CO_2e)

	Minimum	*100% Target Level*	Increase Rate
Achievement	15,300	20,400	$0.0220
% of target	75%	100%	Per metric ton CO_2e above 75%
% of award	75%	100%	
Award amount	$33,729	$44,972	

[1]The overall performance for TEPF QPI #2 will be calculated as an average percentage of its three components, using a maximum of 120% for any component (a,b,c) even if the actual performance of the component is greater than 120%.

Efficiency Vermont 2021 & 2022

Table A-7a: Annual and Cumulative TEPF Threshold and Scaling

2021 and 2022 Annual Thresholds

QPI #1: THERMAL AND MECHANICAL ENERGY EFFICIENCY SAVINGS (MMBtu)

	Minimum	100% Target Level	Increase Rate
Achievement	85,100	113,500	$1.1876
% of target	75%	100%	Per MMBtu above $85,100
% of award	75%	100%	
Award amount	$101,187	$134,917	

Maximum Annual Award is equal to 25% of three year total for TEPF QPI 1 or $134,917 in each year (2021 and 2022).

2022 Cumulative Thresholds

QPI #1: THERMAL AND MECHANICAL ENERGY EFFICIENCY SAVINGS (MMBtu)

	Minimum	100% Target Level	Increase Rate
Achievement	170,200	$227,000	$1.1876
% of target	75%	100%	Per MMBtu above $170,200
% of award	75%	100%	
Award amount	$202,375	$269,833	

Maximum Cumulative Award is equal to 50% of three year total for TEPF QPI 1 or $269,833 at the end of 2022.

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Table A-8: TEPF Minimum Performance Requirements

QPI#	Title	Minimum Requirement	Policy Goal Advanced	Performance Incentive Award Reduction %	Financial Impact
5	Threshold (or minimum acceptable) Level of Participation by Residential Customers	Total residential sector spending is greater than 62.5% of the total Thermal Energy and Process Fuel Fund expenditures	Equity for residential customers by ensuring that a minimum level of overall efficiency efforts, as reflected in spending, will be dedicated to residential customers	Reduces total performance incentive award at *100% Target Level* by 10%	$89,944
6	Threshold (or minimum acceptable) Level of Participation by Low Income Customers	Total low-income spending is greater than 17% of the total Thermal Energy and Process Fuel Fund expenditures	Equity for low-income customers by ensuring that a minimum level of overall efficiency efforts, as reflected in spending, will be dedicated to low-income customers	Reduces total performance incentive award at *100% Target Level* by 10%	$89,944
7	Resource Acquisition Performance Period Spending	Total spending for a three-year performance period (including applicable operations fees) is less than $21,500,000.	To minimize total spending variances above Commission approved 2021-2023 budgets.	Reduces total performance incentive award at 100% Target Level by 2.0% and increases at 0.5%	Penalty begins at $3,500 and increases per Table A-14

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Table A 9: Performance Period Spending Thresholds and Penalties

The following table establishes spending threshold and financial penalty structure based on approved Electric Efficiency and TEPF budgets for the 2021-2023 performance period.

Spending Category	2023 Budget with applicable Operations Fee	2023 Spending Threshold	2021-2023 Budget with applicable Operations Fee	2021-2023 Spending Threshold	Minimum Penalty for exceeding 2021-2023 Spending Threshold	Spending Increment for Assessing Penalty
Electric Resource Acquisition	$40,817,555	$1,224,527	$122,779,651	$124,004,000	$20,000	$50,000
TEPF Resource Acquisition	$7,076,176	$212,285	$21,288,140	$21,500,000	$3,500	$50,000
Development and Support Services (DSS)	$3,732,015	$111,960	$10,959,442	$11,071,000	$2,000	$26,000
Threshold Rate	3%					
Initial Penalty Rate	2%					
Penalty Increase Rate	0.5%					

	2023			2021-2023		
	EEC Resource Acquisition	TEPF Resource Acquisition	Development & Support Services	EEC Resource Acquisition	TEPF Resource Acquisition	Development & Support Services
Budget	$40,528,590	$7,023,500	$3,704,233	$121,585,771	$21,070,500	$10,847,400
Operations Fee	$288,964	$52,676	$27,782	$1,193,880	$217,640	$112,042
Total	**$40,817,555**	**$7,076,176**	**$3,732,015**	**$122,779,651**	**$21,288,140**	**$10,959,442**

Efficiency Vermont 2021-2023

Table A-10: Spending Penalties For Electric Resource Acquisition Budget

Electric Efficiency Penalties						
Spending Above Threshold	Increments	Penalty Rate	Penalty Low	Penalty High	Cumulative Low	Cumulative High
$1	$50,000	0.0%	$0	$0	$0	$0
$50,001	$100,000	2.0%	$1,000	$2,000	$20,000	$22,000
$100,001	$150,000	2.5%	$2,500	$3,750	$22,500	$25,800
$150,001	$200,000	3.0%	$4,500	$6,000	$27,000	$31,800
$200,001	$250,000	3.5%	$7,000	$8,750	$34,000	$40,600
$250,001	$300,000	4.0%	$10,000	$12,000	$44,000	$52,600
$300,001	$350,000	4.5%	$13,500	$15,750	$57,500	$68,400
$350,001	$400,000	5.0%	$17,500	$20,000	$75,000	$88,400
$400,001	$450,000	5.5%	$22,000	$24,750	$97,000	$113,200
$450,001	$500,000	6.0%	$27,000	$30,000	$124,000	$143,200
$500,001	$550,000	6.5%	$32,500	$35,750	$156,500	$179,000
$550,001	$600,000	7.0%	$38,500	$42,000	$195,000	$221,000
$600,001	$650,000	7.5%	$45,000	$48,750	$240,000	$269,800
$650,001	$700,000	8.0%	$52,000	$56,000	$292,000	$325,800
$700,001	$750,000	8.5%	$59,500	$63,750	$351,500	$389,600
$750,001	$800,000	9.0%	$67,500	$72,000	$419,000	$461,600
$800,001	$850,000	9.5%	$76,000	$80,750	$495,000	$542,400
$850,001	$900,000	10.0%	$85,000	$90,000	$580,000	$632,400
$900,001	$950,000	10.5%	$94,500	$99,750	$674,500	$732,200
$950,001	$1,000,000	11.0%	$104,500	$110,000	$779,000	$842,200
$1,000,001	$1,050,000	11.5%	$115,000	$120,750	$894,000	$963,000
$1,050,001	$1,100,000	12.0%	$126,000	$132,000	$1,020,000	$1,095,000
	rate increase	***0.5%***				

No penalties if spending does not exceed $50,000 over budget.
Minimum penalty for spending above $50,000 is $20,000.

Any spending exceeding $1,100,000 over 2021-2023 threshold would be the sole responsibility of the program administrator. At this point, the penalty equals spending.

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Table A-11: Spending Penalties For TEPF Resource Acquisition Budget

Thermal Energy and Process Fuels Penalties						
Spending Above Threshold	Increments	Penalty Rate	Penalty Low	Penalty High	Cumulative Low	Cumulative High
$1	$50,000	0.0%	$0	$0	$0	$0
$50,001	$100,000	2.0%	$1,000	$2,000	$3,500	$5,500
$100,001	$150,000	2.5%	$2,500	$3,750	$6,000	$9,300
$150,001	$200,000	3.0%	$4,500	$6,000	$10,500	$15,300
$200,001	$250,000	3.5%	$7,000	$8,750	$17,500	$24,100
$250,001	$300,000	4.0%	$10,000	$12,000	$27,500	$36,100
$300,001	$350,000	4.5%	$13,500	$15,750	$41,000	$51,900
$350,001	$400,000	5.0%	$17,500	$20,000	$58,500	$71,900
$400,001	$450,000	5.5%	$22,000	$24,750	$80,500	$96,700
$450,001	$500,000	6.0%	$27,000	$30,000	$107,500	$126,700
$500,001	$550,000	6.5%	$32,500	$35,750	$140,000	$162,500
$550,001	$600,000	7.0%	$38,500	$42,000	$178,500	$204,500
$600,001	$650,000	7.5%	$45,000	$48,750	$223,500	$253,300
$650,001	$700,000	8.0%	$52,000	$56,000	$275,500	$309,300
$700,001	$750,000	8.5%	$59,500	$63,750	$335,000	$373,100
$750,001	$800,000	9.0%	$67,500	$72,000	$402,500	$445,100
$800,001	$850,000	9.5%	$76,000	$80,750	$478,500	$525,900
$850,001	$900,000	10.0%	$85,000	$90,000	$563,500	$615,900
$900,001	$950,000	10.5%	$94,500	$99,750	$658,000	$715,700
$950,001	$1,000,000	11.0%	$104,500	$110,000	$762,500	$825,700
$1,000,001	$1,050,000	11.5%	$115,000	$120,750	$877,500	$946,500
$1,050,001	$1,100,000	12.0%	$126,000	$132,000	$1,003,500	$1,078,500
$1,100,001	$1,150,000	12.5%	$137,500	$143,750	$1,141,000	$1,222,300
	rate increase	***0.5%***				

No penalties if spending does not exceed $50,000 over budget.
Minimum penalty for spending above $50,000 is $3,500.

Any spending exceeding $1,150,000 over 2021-2023 threshold would be the sole responsibility of the program administrator. At this point, the penalty equals spending.

Efficiency Vermont 2021-2023

Table A-12: Spending Penalties For Development and Support Services Budget

Development and Support Services Penalties						
Spending Above Threshold	Increments	Penalty Rate	Penalty Low	Penalty High	Cumulative Low	Cumulative High
$1	$26,000	2.0%	$0	$520	$2,000	$2,520
$26,001	$52,000	2.5%	$650	$1,300	$2,650	$3,820
$52,001	$78,000	3.0%	$1,560	$2,340	$4,210	$6,160
$78,001	$104,000	3.5%	$2,730	$3,640	$6,940	$9,800
$104,001	$130,000	4.0%	$4,160	$5,200	$11,100	$15,000
$130,001	$156,000	4.5%	$5,850	$7,020	$16,950	$22,020
$156,001	$182,000	5.0%	$7,800	$9,100	$24,750	$31,120
$182,001	$208,000	5.5%	$10,010	$11,440	$34,760	$42,560
$208,001	$234,000	6.0%	$12,480	$14,040	$47,240	$56,600
$234,001	$260,000	6.5%	$15,210	$16,900	$62,450	$73,500
$260,001	$286,000	7.0%	$18,200	$20,020	$80,650	$93,520
$286,001	$312,000	7.5%	$21,450	$23,400	$102,101	$116,920
$312,001	$338,000	8.0%	$24,960	$27,040	$127,061	$143,960
$338,001	$364,000	8.5%	$28,730	$30,940	$155,791	$174,900
$364,001	$390,000	9.0%	$32,760	$35,100	$188,551	$210,000
$390,001	$416,000	9.5%	$37,050	$39,520	$225,601	$249,520
$416,001	$442,000	10.0%	$41,600	$44,200	$267,201	$293,720
$442,001	$468,000	10.5%	$46,410	$49,140	$313,611	$342,860
$468,001	$494,000	11.0%	$51,480	$54,340	$365,091	$397,200
$494,001	$520,000	11.5%	$56,810	$59,800	$421,901	$457,000
$520,001	$546,000	12.0%	$62,400	$65,520	$484,301	$522,520
$546,001	$572,000	12.5%	$68,250	$71,500	$552,552	$594,020
	rate increase	***0.5%***				

No penalties if spending does not exceed threshold.
Minimum penalty for spending above threshold is $2,000.

Any spending exceeding $572,000 over 2021-2023 threshold would be the sole responsibility of the program administrator. At this point, the penalty equals spending.

Any penalty would be allocated to the funders (EEC and TEPF) based upon the EEC/TEPF RA budget ratio established at the start of the performance period. For 2021-2023, that ratio is 85% EEC and 15% TEPF

PUC Case No. 19-3272-PET - SERVICE LIST

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