

Triennial Plan

2024–2026

Prepared for the
Vermont Public Utility Commission

by

Vermont Energy Investment Corporation
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Winooski, VT 05404

December 1, 2023

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This document is presented to the Vermont Public Utility Commission and to the Vermont Department of Public Service, in fulfillment of the regulatory requirement to submit an overview of Efficiency Vermont's 2024-2026 strategy for providing energy efficiency services.



Support for Vermont Households and Businesses in a Changing Energy Landscape

**A message from Peter Walke
Managing Director, Efficiency Vermont**

As we transition into the next performance period, Efficiency Vermont continues to focus on helping all of our customers save money today, reduce carbon emissions, and prepare for the future in a rapidly changing energy landscape. Volatility in fossil fuel prices over the last several years demonstrates the risks faced by Vermont households and businesses. Climate change exacerbates that volatility and further challenges constrained resources. While building from the success of providing cost-effective energy efficiency to Vermont households and businesses since 2000, we will continue to partner with the State and other stakeholders to help address Vermont's greenhouse gas (GHG) emissions targets and center equity in our work.

Beyond our traditional functions, Efficiency Vermont has been stepping up to partner with the State on workforce development, indoor air quality, electric transportation, and most recently, flood recovery. The powerful storms that led to major flooding across Vermont last summer destroyed homes and businesses. Efficiency Vermont is helping those impacted by repairing or rebuilding as energy-efficiently and safely as possible. No matter how recent floods affected Vermont households and businesses, there's growing interest in making our homes and buildings more resilient. That means preparing buildings to better handle a changing climate, from making them more efficient to upgrading critical heating systems to withstand future floods, ice storms, and other extremes. And it involves ensuring equitable access for all Vermonters to affordable efficiency services and clean technologies. Efficiency Vermont is committed to understanding the energy risks and opportunities of the future, and the steps we can take now to prepare for them.

In the 2024–2026 performance period, Efficiency Vermont will leverage lessons learned from the aforementioned flood recovery to help the state be less carbon-intensive and more equitable in reducing its emissions. The long-term theme of our work continues to be providing the solutions Vermont households and businesses need. Simultaneously, Efficiency Vermont will continue to invest in partnerships and expertise that make its programs effective drivers of greenhouse gas emission reductions and energy and cost savings. To this end, Efficiency Vermont will continue to support longstanding efforts like comprehensive weatherization and our Efficiency Excellence Network (EEN) of independent contractors. It also means supporting initiatives newly introduced in the last performance period, including refrigerant management and flexible load management programs. Efficiency Vermont will further serve those greenhouse gas reduction goals by continuing the two components of the Energy Efficiency Modernization Act (EEMA) programs: by further advancing the Low Income Fuel Switch program, which will help more Vermont households realize the cost savings and emissions reductions from using heat pumps, and continuing to support electrification of Vermont's transportation sector by providing support to increase the adoption of plug-in electric vehicles (EVs) in Vermont.

Improving energy equity and advancing energy justice go hand in hand with reducing emissions. As Efficiency Vermont supports the State in achieving its emissions reductions goals, we know efficiency solutions must be accessible to all Vermonters, regardless of race, income, ethnicity, geographic location, or homeownership status. Efficiency Vermont is committed to reducing energy burdens that disproportionately impact people of color in Vermont and low-income communities; focusing on diversity, equity, and inclusion in all aspects of our work; and leveraging our resources to support and uplift historically disenfranchised communities. In the 2024–2026 performance period, Efficiency Vermont will launch a new Development and Support Services initiative dedicated to equity, building on years of work with community groups, policymakers, and underserved Vermonters. This new effort goes further and will develop and track key metrics around diversity, equity, and inclusion in order to track our performance with these underserved groups. This data will help identify needs, design programs, and pilot projects to address systemic barriers, and quantify the resources needed to fully scale equity efforts. We are here to serve all Vermonters, and we are learning new ways to reach out and engage, while maintaining our tried and true practice of helping customers save money and energy.

2024–2026 Forecasted Impact



\$306,993,962 will be saved by Vermonters*

*Lifetime customer savings from 2024–2026 efficiency investments



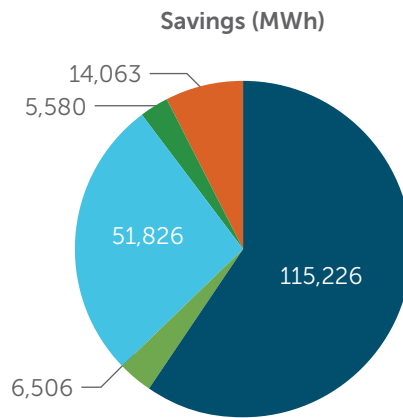
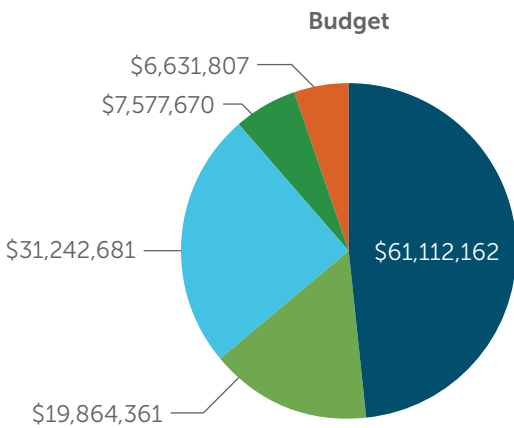
1,291,614 tons of greenhouse gas emissions will be avoided

or the equivalent of 28,766 passenger vehicles taken off the road for 10 years, from investments made in the 2024–2026 period



193,200 MWh will be saved by Vermonters

or the electricity to power over 2,935 homes for 10 years



2024–2026

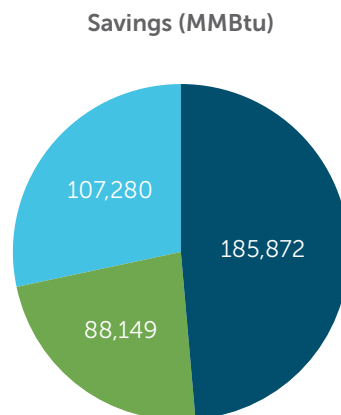
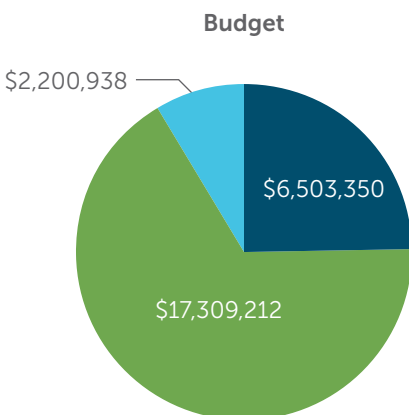
Electric Major Markets

- Business Existing Facilities
- Existing Homes
- Efficient Products
- Residential New Construction
- Business New Construction



381,300 MMBtu will be saved by Vermonters

or the energy to power 415 homes for 10 years



2024–2026 Thermal Efficiency & Process Fuels Major Markets

- Business Existing Facilities
- Existing Homes
- Efficient Products

Supporting Business Energy Resilience

Business Existing Facilities

Efficiency Vermont's work with businesses prioritizes products and services with the greatest economic and environmental impact. In this performance period, Efficiency Vermont will continue to develop partnerships and projects with businesses, organizations, and municipal groups to design efficiency programs tailored to the needs of businesses and communities. This work will help them save energy and money, reduce carbon emissions, and become more resilient.

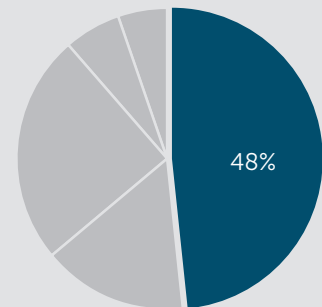
Case Study: Essex Junction wastewater plant



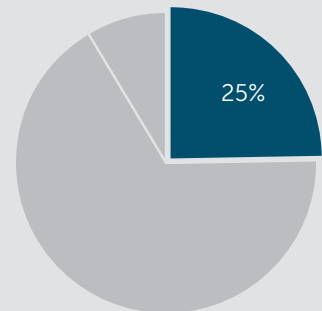
Wastewater treatment plants play an important role in maintaining the health of a community. It's also true that treating all that used grey water, sewage, and storm runoff requires a lot of energy. That's why the Essex Junction wastewater plant

has been partnering with Efficiency Vermont since 2000 on energy-saving upgrades. After Efficiency Vermont led a "kaizen" event—an "energy treasure hunt"—at the plant, several energy-saving initiatives have been undertaken, including the completion of a four-year, \$15.3 million refurbishment project. Through consultations with Efficiency Vermont's energy experts, the plant right-sized its equipment, improved filtration, and reduced energy waste. The upgrades not only saved energy, but also helped the plant reduce its greenhouse gas emissions and improve water quality. Projects with Efficiency Vermont now save the plant 1,600 MWh each year. Their dedication to continuous energy improvement led to their winning our 2021 Energy Leadership Award. And it helped ensure clean water for more than 30,000 residents in Essex, Williston, and Essex Junction.

Budget



Electric Budget



TEPF Budget

Based on that budget, Efficiency Vermont anticipates that between 2024–2026, efficiency investments will help existing business facilities reduce their energy use by 115,226 MWh and 185,872 MMBtu.

Over the lifetime of those investments, business are forecasted to save:



\$143,765,194
in energy savings



730,553 metric tons
in GHG reductions



That's like taking nearly
16,271 cars off the road for the next 10 years

Helping Vermonters Stay Warm and Save Money

Existing Homes

Efficiency Vermont recognizes the importance of equitable access to programs that improve the health, safety, comfort, and affordability of Vermont homes regardless of ownership status or income level. By engaging with Efficiency Vermont and our partners, residents can have confidence in their total energy decisions and take action—resulting in healthier and more comfortable homes, lower total energy consumption, and reduced energy burden.

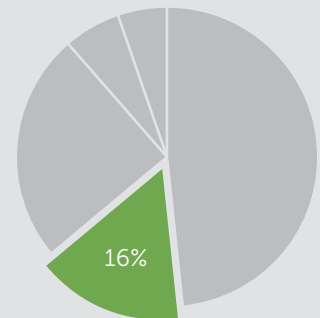
Case Study: Button Up to weatherize your home—and make your home more resilient



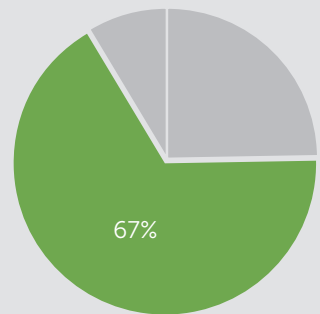
In partnership with Vermont Gas (VGS), the Weatherization Assistance Program agencies, and other partners, Efficiency Vermont’s annual “Button Up” campaign each fall raises awareness around weatherizing homes. The goal is to help Vermonters

stay warm, save money on heating bills, and create a healthier and more comfortable home. The effort connects Vermont households with the tools, rebates, and resources they need to prepare their homes for winter. The campaign engages with Vermonters just beginning to think about weatherization with a \$100 “DIY” (do-it-yourself) rebate offering cash back for successfully completing three projects. The campaign also helps Vermonters take further steps toward “buttoning up” by connecting them with information, professionals, and financial resources for comprehensive whole-home weatherization projects. In the 2024–2026 performance period, the campaign intends to meet the needs of Vermonters interested in “buttoning up” and making their homes more resilient.

Budget



Electric Budget



TEPF Budget

Based on that budget, we anticipate that between 2024–2026, efficiency investments will help existing homes reduce their energy use by 6,506 MWh and 88,149 MMBtu.

Over the lifetime of those investments, Vermonters are forecasted to save:



\$49,268,831
in energy savings



103,846 metric tons
in GHG reductions



That's like taking nearly
2,313 cars off the road for
the next 10 years

Efficiency in Every Room of the Home

Efficient Products

A building's energy efficiency includes its thermal shell as well as the appliances and devices inside it. Through this program, Efficiency Vermont highlights and incentivizes efficient products such as heat pumps, refrigerators, clothes washers, dryers, and other everyday appliances which provide energy savings, improve home comfort and reliability, and meet customer demand. Low- and moderate-income households will continue to have access to increased incentives for efficient products in this performance period.¹

Case Study: Flood recovery and efficiency

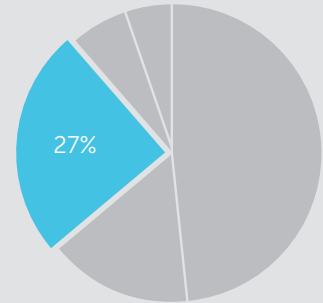


Flooding in Vermont in the summer of 2023 damaged hundreds of homes. Thousands took on the difficult work of rebuilding. Efficiency Vermont recognized the immense need, and how our experience with efficient heating systems and appliances could help.

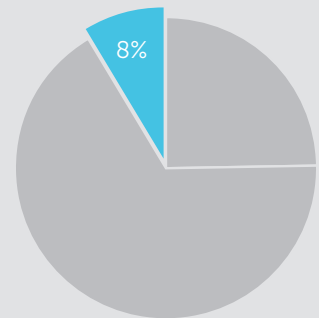
With quick action from the state Emergency Board and rapid approval from the Department of Public Service, Efficiency Vermont leveraged our institutional knowledge to quickly set up new programs. Years of curating a Qualified Products List helped assist households to replace their flood-damaged refrigerators, freezers, and clothes washers and dryers with ENERGY STAR-certified appliances. Efficiency Vermont's existing relationships with all links in the supply chain promoted the replacement of hot water systems with ultra-efficient heat pump water heaters or, if needed, ENERGY STAR-certified fuel-based systems. And Efficiency Vermont utilized years of contractor training and education, and existing utility partnerships, to help Vermonters replace home heating systems with pellet boilers and furnaces, wood or pellet stoves, and ducted or ductless heat pumps. Supporting homeowners, renters, and businesses required all aspects of Efficiency Vermont's expertise. That expertise will further guide efforts in the new performance period to help Vermonters improve their home's efficiency, and shift away from fossil fuels for home heating systems. Efficiency Vermont will also build on new relationships forged in the floods to better serve low-income Vermonters who struggle to access traditional rebate offers.

¹ Low Income is defined as less than 80% of area median income. Moderate income defined as 80–120% of area median income.

Budget



Electric Budget



TEPF Budget

Based on that budget, Efficiency Vermont anticipate that between 2024–2026, efficiency investments will help Vermonters reduce their energy use by 51,826 MWh and 107,280 MMBtu.

Over the lifetime of those investments, Vermonters are forecasted to save:



\$99,900,935
in energy savings



295,159 metric tons
in GHG reductions



That's like taking nearly
6,574 cars off the road for
the next 10 years

Building Efficiency From the Ground Up

Residential New Construction

Efficiency Vermont works with homebuilders and homeowners to help their new homes achieve and exceed state energy goals. This includes educational materials to inform builders and design professionals; incentives to encourage homeowners to go further and aim for Net Zero ready; and support for multifamily new construction projects to help all families feel the benefits of efficiency in their new home.

Case Study: Vermont's first 100% fossil fuel-free microgrid community

In May 2023, Efficiency Vermont partnered with O'Brien Brothers homebuilders and Green Mountain Power to officially break ground on Hillside East. The 155 homes in the South Burlington neighborhood will be all-electric and fossil-fuel free. That's possible in part thanks to Efficiency Vermont's consultation on heating and ventilation design, guidance on building envelopes, and input on how to meet the federal "Zero Energy Ready" and "Energy Star" Homes programs.² The collaboration also ensures all homes in the community meet Efficiency Vermont's high standards for energy-saving appliances, windows, and insulation. It's not only building for efficiency from the ground up; it's leading on a new approach to building that puts the focus on efficiency from the start in 2024-2026.

Business New Construction

Efficiency Vermont partners with architects and businesses who are building new facilities or completing major renovations. By engaging early in the process, Efficiency Vermont provides expertise on choosing the most cost- and energy-efficient systems and equipment to save businesses money and energy.

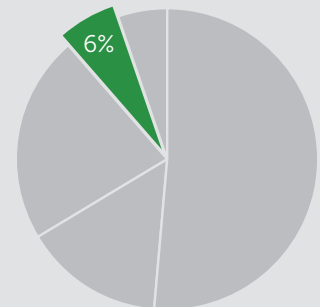
Case study: Upper Valley Community Transit Center

Efficiency Vermont partnered with Tri-Valley Transit and architects at Black River Design for a new, energy-efficient bus storage and office facility in Bradford. The transit center opened in September 2021 to house a fleet of buses serving rural Vermonters and Upper Valley residents of the Connecticut River corridor. The new facility also features cutting-edge efficiency engineering. Efficiency Vermont participation ensured a tight building envelope, efficient lighting, heat pumps for warming and cooling office space, and a wood pellet-heated concrete slab in the bus storage area to keep buses above freezing between routes. Rainwater collected on-site is used to wash buses. And on-site solar panels generate more electricity than the building uses, stabilizing the grid and offering a power source to charge future electric transit buses. The project brought together partners including Otter Creek Engineering, structural engineers from Engineering Ventures, and mechanical and electrical work from Engineering Services of Vermont. Helping design new buildings that do not use fossil fuels demonstrates that partnering with local designers, architects, and customers will help decarbonize our buildings while saving Vermonters energy and money in 2024-2026.

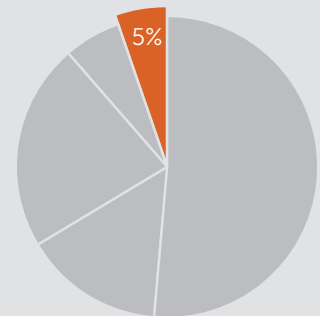
² A DOE Zero Energy Ready Home is a high-performance home that meets rigorous efficiency and performance criteria to ensure a home is so energy efficient that a renewable energy system could offset most or all the home's annual energy use.

www.energy.gov/eere/buildings/zero-energy-ready-home-program

Budget



Residential New Construction



Business New Construction

Based on that budget, new construction projects between 2024–2026 are forecasted to save 5,580 MWh for residential projects and 14,062 MWh for business projects each year.

Over their lifetimes, the new buildings are forecasted to save:



\$24,448,007
in energy savings



162,056 metric tons
in GHG reductions



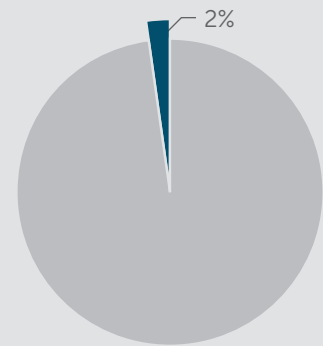
That's like taking nearly
**3,698 cars off the road for
the next 10 years**

Flexible Load Management

Flexible Load Management

- Advancing flexible load management allows Vermont households and businesses to share in the benefits created by intentionally shifting energy usage patterns at home or in businesses. Flexible load management provides utilities the ability to anticipate and plan for peak usage periods with customers. This helps proactively manage usage patterns and drive down costs for everyone.
- This program expands on the existing partnerships between Efficiency Vermont and the distribution utilities (DUs), in which Efficiency Vermont provides incentives and technical assistance to help Vermont households and businesses access and understand technologies that can be used for load management.
- Flexible load management also has the additional benefit of reducing greenhouse gas emissions by shifting electric usage away from peak usage periods when power generation on the grid is supplied from resources with the highest carbon emissions.


Budget



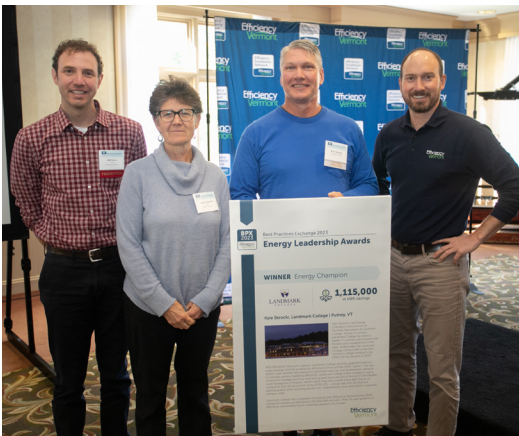
Flexible Load Management Budget

The flexible load management budget is embedded in other Electric major market budgets.

Based on that budget, the flexible load management program, between 2024–2026, is expected to help install:

 **2,260 kW**
of flexible load

Case Study: Landmark College and flexible load management



Landmark College in Putney has been a leader in controls optimization and Flexible Load Management in Vermont. With Efficiency Vermont’s support, the college upgraded campus-wide building controls to allow for effective control of their HVAC system. The new system uses weather forecasting for optimized start-up, and temperature

setbacks to manage campus buildings efficiently. Landmark College uses its controls to manage electrical load during peak hours as part of the Efficiency Vermont/Green Mountain Power Flexible Load Management Program. Further, Landmark set for itself a goal to convert every light fixture on campus to LED over the course of 2023—a huge task that improved lighting quality while reducing electric use, maintenance costs, and electric expenses campus-wide. Overall, the college’s projects with Efficiency Vermont from 2003 save the campus an estimated 1,150,000 kWh annually. Realizing the promise of flexible load management across Vermont is possible with lessons from entire college campuses shifting their energy needs in the Landmark College model.

Refrigeration Management

Refrigerant Management

- Refrigeration is energy intensive and one of the biggest expenses for food and beverage industry businesses in Vermont. It is also one of the most significant global contributors to greenhouse gas emissions. Each pound of leaked refrigerant equates to 2,500 pounds of CO₂e (or 1.1 metric tons).
- Helping businesses manage refrigerant leaks increases the efficiency of their systems, reducing operating costs and their carbon footprint. If all Vermont's commercial refrigeration systems cut leaks in half, Vermont could avoid over 80,000 metric tons of CO₂e.
- This program expands on Efficiency Vermont's work and existing relationships with grocery and convenience stores in Vermont to repair and monitor refrigeration systems, as well as accelerate the transition to efficient equipment that utilizes next-generation refrigerants.

The Refrigerant Management program is expected to reduce energy use by 6,190 MWh each year, and to save:



\$4,109,076

in energy savings



350,913 metric tons

in GHG reductions



That's like taking nearly 5,955 cars off the road for the next 10 years, for just the refrigerant management program.

Case Study: Turner Piping & Refrigeration in Rutland



The Turner Piping and Refrigeration team are experts at refrigeration installation, maintenance, repair, and efficiency. Turner has installed hundreds of high-efficiency evaporators, condensers, and electronically commuted fan motors. When doing installations, they've added more efficient technologies

to refrigeration systems, providing savings to their customers at the time of replacement. Turner has also proven to be a valuable partner for Efficiency Vermont. They have helped test new programs and cutting-edge equipment. They have also worked on refrigeration pilot projects in partnership with Efficiency Vermont and customers. These pilots have led to the development of new energy savings measures for refrigeration efficiency. In all, over the past 7 years, Turner has completed 40 custom projects, saving customers over 4 million kWh annually. In the new performance period, Efficiency Vermont will continue to develop partnerships and collaborations with innovative firms like Turner. They are critical to reducing energy use and emissions from refrigeration, and central to piloting new projects and technologies that benefit all refrigeration customers.

Energy Efficiency Modernization Act Programs

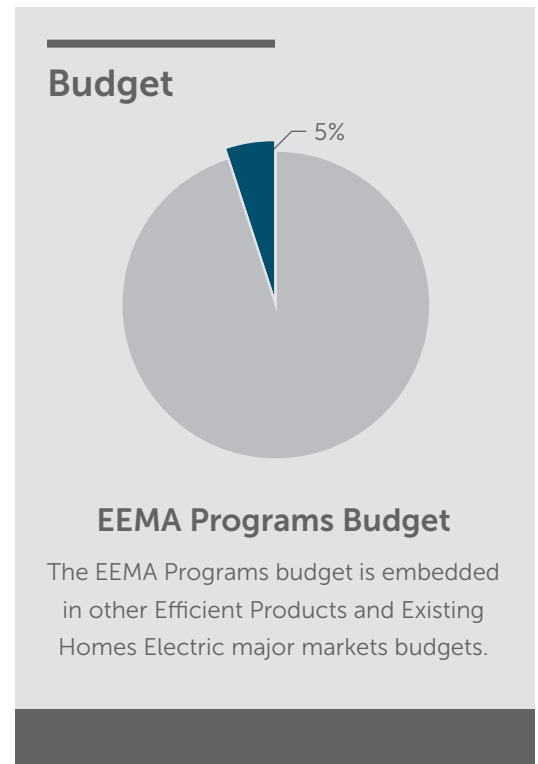
Efficiency Vermont's EEMA activities in the 2024-2026 performance period build on the solid foundation of the EEMA programs approved by the Vermont Legislature in 2020 and first implemented in the 2021-2023 performance period. The EEMA has two implementation components. One component supports efforts to electrify Vermont's transportation sector by increasing the adoption of plug-in EVs. The other component supports the thermal sector through a successful Low-Income Fuel Switch Program, helping income-eligible customers realize the emissions and cost savings that come from reduced fossil fuel consumption. While only 2024 program activities are currently approved, Efficiency Vermont has developed the following plan for the full three-year performance period, pending 2025-2026 budget availability.

Electric Vehicle Market Transformation

EEMA activities will continue to build Vermont's market and dealer capacity for growing sales of electric vehicles. The EV Dealer Program, launched in 2021 and administered through Efficiency Vermont's Efficiency Excellent Network (EEN), will expand the network of new and used car dealerships promoting and selling EVs, offering potential bonus incentives for used EVs and/or used car dealerships, continue dealer financial incentives for selling EVs, and supporting those efforts with training, marketing, and promotions. In 2024, the EEMA will also continue a targeted statewide EV education campaign to increase consumer awareness of EVs, promoting Drive Electric Vermont as a trusted and impartial resource for EV models, charging, and rebate information. Pending program budget availability in 2025-2026, the program will continue financial incentives for EV infrastructure like chargers and project management support.

Low-Income Fuel Switch

In 2022 Efficiency Vermont launched a program in partnership with DUs, Weatherization Agencies, and other stakeholders to support low-income customers by combining weatherization and heating electrification. Through the Low-Income Fuel Switch program, income-eligible households that have already been weatherized can access no-cost home heating electrification with heat pumps. From 2022-2023, the program has helped more than 257 households that previously relied on fossil fuels to electrify their heating needs. The combination of weatherization and heat pumps reduces home heating costs, cuts carbon emissions, and helps improve comfort in summer and winter. Continuing in 2024, this program will further advance this innovative, more equitable model to increasing access to heat pump technology. In doing so, the program will further help DU partners meet their Tier III goals of investing in low-income customers. Lastly, pending program budget for 2025-2026, the program will develop in 2024 a strategy to engage future participants and contractors, aiming to serve between 150-200 customers annually.



Case study: An EEMA-funded heat pump is "like I won the lottery"

Elaine Jacovini never thought she could afford a heat pump. Fuel oil and an old furnace kept her warm for years in her Morrisville home. She had already weatherized her home to boost its efficiency. But when looming furnace repairs left her facing a five-figure estimate, she worried about how she would afford the heat she needed. "I was ready to go and take out a loan to buy a new boiler," she told Efficiency Vermont. Then she learned about income-eligible offers through her local Weatherization Assistance Program—offers made possible through the Energy Efficiency Modernization Act. An assessment from Williston's Vermont Energy helped her choose the right system for her home. Her heat pump was installed in September 2023. Now she's a heat pump advocate. "I love it. I really see the good in it," she said. "I am so thrilled they have done this for me, I just never thought it would happen." While her electric bill has gone up, she has saved hundreds of dollars on her fuel bill. "I feel like I won the lottery" with the heat pump and the EEMA program.

The Efficiency Excellence Network

The Efficiency Excellence Network is a trade partnership with more than 450 independent contractors. Through the EEN, Efficiency Vermont engages members with technical training, professional certifications, and workforce development initiatives. Members also receive additional project and marketing support. Efficiency Vermont annual conferences, like Better Building by Design and Best Practices Exchange, provide opportunities for EEN members to network, build relationships, learn about new technologies, and share expertise. Efficiency Vermont investment in developing this network—and the relationships it fosters among partners, utilities, vendors, and more—means EEN members will continue to play a critical role in helping Vermonters save energy, reduce costs, and cut carbon emissions.

Case Study: EEN overview from a regional distributor

The EEN coordinates work and fosters relationships with all links in the supply chain for efficiency projects, from equipment wholesalers and retailers, to the contractors and workers doing the jobs in customer homes. The value of the EEN is especially appreciated by those who operate in other New England states that don't have the established infrastructure and relationships the network has cultivated. Dean Bekkering, the manager of corporate projects at regional wholesale distributor FW Webb, recently praised the coordination the EEN provides. "I really appreciate Efficiency Vermont's dedication to partner with distributors," Bekkering wrote to the Vermont Public Utility Commission in March 2023 (Case Number 23A-4098). "We participate in many state programs (...) and from my perspective Efficiency Vermont is the best." Coordinating with distributors is just one of the ways the EEN organizes and expands energy efficiency projects across Vermont.

New Program: Equity (A Development and Support Services Initiative)

Efficiency Vermont will embed a new focus on equity into our programs and services in the 2024–2026 DRP with a dedicated Development and Support Services (DSS) Equity initiative. Equity in this work, as defined by the American Council for an Energy Efficient Economy, means achieving programs, policies, and investments that improve and expand clean energy services and technologies for marginalized customers and communities, while also achieving more just processes, outcomes, and systems. Efficiency Vermont will develop and track key metrics around diversity, equity, and inclusion and embed those metrics into all aspects of our work. Building on the 2021 Vermont Climate Action Plan, the DSS Equity initiative will seek to support and uplift historically disenfranchised communities, businesses, and partners. This includes frontline communities most at risk from our changing climate, agricultural workers, union workers, women, Vermonters and their communities identifying as Black, Indigenous, and People of Color, disabled and chronically ill Vermonters, renters, LGBTQ communities, low-income Vermonters, immigrants (regardless of immigration status), individuals impacted by the criminal justice system, and other groups.

The three-year DSS Equity initiative will begin developing a deep understanding of Vermont's frontline communities and engaging them with community outreach and traditional marketing efforts. Efficiency Vermont will develop and implement an Engagement Plan that identifies barriers experienced by underserved communities and advances our understanding of their values, wants, and needs for energy efficiency services. Efficiency Vermont will also leverage its resource allocation budget to address participation barriers identified through the DSS Equity processes to better reach underserved Vermont households and businesses. The initiative will culminate in a report, written in collaboration with stakeholders and regulators, that summarizes our findings and delivers recommendations on regulatory and other structural changes needed to fully advance equity

About This Plan

Plan Development

Efficiency Vermont's 2024-2026 Triennial Plan was developed in alignment with the following Orders issued by the Vermont Public Utilities Commission (Commission) approving Efficiency Vermont's 2024-2026 Demand Resources Plan (DRP) in the Demand Resources Plan Proceeding, Case No. 22-2954-PET:

- Order Approving Efficiency Vermont's 2024-2026 Demand Resource Plan, September 26, 2023
- Order Addressing Clarifications and Revisions to Efficiency Vermont's Demand Resources Plan, November 13, 2023.
- Order Approving Efficiency Vermont's Amended Demand Resources Plan for 2024-2026 and Requiring Further Process for 2025 and 2026, January 10, 2024.

The Triennial Plan was also developed consistent with the goals and policies of the:

- 2008 Vermont Energy Efficiency and Affordability Act
- 2022 Vermont's Comprehensive Energy Plan
- Vermont's Comprehensive Economic Development strategy, as applicable
- Vermont's Health in All Policies aims.

Plan Structure

The services discussed in this Plan are organized by the budget categories specified by the Commission in its regulatory processes:

- Resource Acquisition (RA) Budgets: Associated services are discussed in Sections 2-4.
- Development and Support Services (DSS) Budgets: Associated services are discussed in Section 5.

In this Triennial Plan, Efficiency Vermont presents information about planned RA service activities in five major markets: Business Existing Facilities, Business New Construction, Existing Homes, Residential New Construction, and Efficient Products; as well as Flexible Load Management Programs and EEMA Programs. In addition, Efficiency Vermont discusses its planned DSS activities. The descriptions of services, budgets, and projected results are organized into these groupings throughout the plan.

RA services are those that directly achieve energy savings.³ DSS activities may not directly result in efficiency savings but represent valuable aspects of energy efficiency service delivery and development, and include activities in the following categories: education and training, applied

³ Though EEMA Programs are resource acquisition services, Efficiency Vermont is not claiming energy savings associated with these programs. (The distribution utilities are claiming savings for electric vehicle supply equipment and electric transportation measure as part of their Renewable Energy Standard - Tier III programs.)

research and development, planning and reporting, evaluation, administration and regulatory affairs, and information systems.

About Efficiency Vermont

Efficiency Vermont is helping the state transition to a more affordable and cleaner future. The work of Efficiency Vermont, which is enabled by the support of Vermont electric ratepayers, aims to reduce the cost of energy for all Vermonters, while creating good jobs, improving the economy, and lowering carbon emissions. Efficiency Vermont helps Vermont families, businesses, and institutions understand and make better use of energy, whether lowering the cost of heating and cooling buildings or adopting efficient appliances, lighting, and other technologies that drive down the total cost of energy. By engaging up and down the supply chain, Efficiency Vermont works with partners to lower the cost of energy efficiency solutions through the utilization of market transformation tools including incentives, training, and expert advice. These market transformation tools assist Efficiency Vermont in partnering with DUs, heating fuel suppliers, building trades professionals, manufacturers, distributors, and retailers to save customers energy and money.

Efficiency Vermont operates in three-year periods with specific State-mandated performance goals linked to compensation. Efficiency Vermont was created by the Commission and the Vermont Legislature in 2000 as a statewide, third-party, objective resource to meet the public's need for energy services through the development and implementation of energy efficiency programs in Vermont. Since its inception, Efficiency Vermont has been administered by VEIC, which currently holds an appointment from the Commission to administer Efficiency Vermont through the end of 2033.



2024–2026 Triennial Plan

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2. Services for Business Customers

Efficiency Vermont services for business customers are segmented into two major markets: 1) business existing facilities; and 2) business new construction. Efficiency Vermont’s approach to serving these markets focuses on the following areas: Vermont’s largest energy users, small and medium-sized businesses, focused sub-markets, and key commercial technologies, which cut across both the business existing facilities and business new construction markets.

2.1 Business Existing Facilities

This category includes commercial, industrial, institutional, and municipal facilities. Electric and TEPF prescriptive rebates are available across a range of technologies for lighting; heating, ventilation, and air conditioning (HVAC); and refrigeration equipment. In addition, Efficiency Vermont offers customized efficiency incentives and financing to help business owners purchase and install specialized energy-saving equipment, and technical support for high-performance operations that match their unique needs. Also, see Efficiency Vermont’s Flexible Load Management program in Section 4.8. Business services are tailored for businesses of all sizes and market sectors in Vermont.

Table 1. 2024-2026 Business Existing Facilities Budgets and Savings

Business Existing Facilities	2024	2025	2026	2024-2026
Electric⁴				
Budget	\$19,941,054	\$20,367,875	\$20,803,233	\$61,112,162
Annual MWh	38,412	38,335	38,478	115,226
Total Resource Benefits (TRB)	\$30,157,978	\$30,301,275	\$30,523,322	\$90,982,576
Summer kW	5,132	5,068	5,004	15,204
Winter kW	4,751	4,751	4,752	14,254
Lifetime MWh	459,749	459,720	462,717	1,382,186
Metric Tons CO ₂ e	22,896	23,153	23,021	69,070
Flexible kW ⁵	440	482	546	1,467
Thermal				
Budget	\$2,125,000	\$2,167,500	\$2,210,850	\$6,503,350
MMBtu Savings	61,929	61,929	62,014	185,872
Metric Tons CO ₂ e	3,888	3,888	3,892	11,668

2.2 Business New Construction

Efficiency Vermont’s support for the construction of efficient new buildings or major renovation of existing buildings will continue to focus primarily on the professionals engaged in design and construction.

⁴ Includes budget and savings for FLM and ESA activities. See Section 4.8 for the subset of the electric Business Existing Facilities budget and savings related to FLM activities. See Section 7.5 for the subset of the electric Business Existing Facilities budget related to the ESA.

⁵ Attributable only to FLM activity in this market.

These include architects, engineers, specialty design service providers, contractors and practitioners of construction trades. Efficiency Vermont will also engage with developers, equipment suppliers, installation contractors, commissioning agents, appraisers, lenders, and real estate agents, as well as certain building owners as key members of project teams, particularly regarding construction undertaken by institutions, government agencies, and large businesses with multiple buildings. The Business New Construction budget is entirely funded by electric efficiency funds, not TEPF funds, unless the building is off-grid.

Table 2. 2024-2026 Business New Construction Budgets and Savings

<u>Business New Construction</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2024-2026</u>
Electric				
Budget	\$2,166,974	\$2,210,313	\$2,254,520	\$6,631,807
Annual MWh	4,731	4,731	4,731	14,192
Total Resource Benefits (TRB)	\$9,338,768	\$9,275,479	\$9,216,600	\$27,830,847
Summer kW	608	608	608	1,823
Winter kW	623	623	623	1,870
Lifetime MWh	71,497	71,497	71,497	214,492
Metric Tons CO ₂ e	2,512	2,516	2,442	7,470
Flexible kW	52	52	53	157
Thermal				
Budget	\$0	\$0	\$0	\$0
MMBtu Savings	0	0	0	0
Metric Tons CO ₂ e	0	0	0	0

Efficiency Vermont will maintain its delivery of services that encourage the integration of energy efficiency decisions into the design and construction process and the inclusion of energy goals as part of the overall construction strategy. Efficiency Vermont will also continue to provide custom services from the earliest stages of a project, working with customers and design teams to increase the number of net-zero, net-zero-ready, and grid-integrated efficient buildings in the state.

Key aspects of ongoing efforts:

- Technical assistance throughout the design, construction, and post-construction phases.
- Analysis of efficiency options.
- Comprehensive services aimed at meeting different building performance levels, including net zero.
- Financial incentives for efficient approaches, equipment, and building operation systems.
- Post-occupancy energy performance tracking and engagement with building owners to identify ongoing and future savings opportunities, including energy use management.
- Training and information provision to a range of key parties involved in new construction projects.
- Application of flexible load management strategies to increase building grid optimization. See Section 4.7.1.

- Exploration of new ways to support projects—and the greater marketplace—in achieving the increasingly stringent building code
- Application of learnings from research and development (R&D) efforts in the last performance period to increase the market’s understanding of the embodied carbon of building materials⁶
- Continued partnerships with national, regional, and international organizations, such as the American Council for an Energy-Efficient Economy, the Consortium for Energy Efficiency, the Construction Specifications Institute, and the International Code Council, as well as Vermont trade organizations representing design professionals (architects and engineers), contractors, builders, and code officials, on educational opportunities, trainings, research, and the promotion of high performance building design and construction.

2.3 Crosscutting Services for Existing Buildings and New Construction

2.3.1 Vermont’s Largest Energy Users

In service to the state’s largest energy users,⁷ Efficiency Vermont will continue to take a customized approach, including in the following efforts:

- **Energy Savings Account (“ESA”):** In partnership with the Department of Public Service (“Department” or “DPS”) and the Agency of Commerce and Community Development (ACCD), Efficiency Vermont will continue to administer the ESA initiative for participants that receive an approved extension by the Commission to spend their ESA balances after December 31, 2023.⁸ ⁹
- **Account Management:** Designated Efficiency Vermont staff will continue to establish and maintain long-term, proactive consultative relationships with individual businesses. Account managers will offer help in creating portfolios of energy and greenhouse gas savings opportunities, technical and financial analyses, guidance in developing energy savings plans, financial incentives, assistance in identifying financing options, and guidance in assessing and utilizing energy usage data. These efforts will include a focus on electricity use, fossil fuel-powered industrial process and space heating equipment, and building-shell improvements.
- **Return-on-investment engagement:** Efficiency Vermont will continue to proactively identify and engage those the largest energy users whose returns on energy efficiency investments are low.¹⁰ Efficiency Vermont will then identify and address barriers to greater savings, such as lack of capital and lack of energy savings opportunities. Solutions will be highly individualized in order to

⁶ See R&D report here for additional context: *Greenhouse Gas Impacts of Structural Materials in Commercial New Construction*: https://www.efficiencyvermont.com/Media/Default/docs/white-papers/Greenhouse_Gas_Impacts_of_Structural_Materials_in_Commercial_New_Construction.pdf

⁷ Approximately 300 business customers in Vermont are account managed, and each consumes a minimum of 500 MWh of electricity per year.

⁸ Eligible participants contributed \$5,000 or more annually toward the energy efficiency charge during the 2021-2023 timeframe. Starting January 1, 2024, participants will no longer accrue ESA funds but can request extensions to spend down their remaining balance.

⁹ Efficiency Vermont’s 2024-2043 Demand Resources Plan model includes electric resource acquisition costs and savings for ESA activities through the whole modeling period (2024-2043).

¹⁰ Low returns on investment are defined as less than 50% within a rolling three-year period. Investments consist of customers’ contributions to the Energy Efficiency Charge (EEC) and to their energy efficiency project costs. Returns consist of financial incentives and lifetime energy savings acquired through energy efficiency projects.

optimize energy and operational benefits and to motivate the customer to engage in long-term energy management.

- **Strategic Energy Management (SEM):** SEM is a comprehensive approach to energy management, which goes beyond implementation of discrete energy efficiency improvements. Efficiency Vermont's SEM Direct Program is designed to help its customers integrate SEM as a core business practice to help achieve persistent reductions in energy use and sustained cost reductions.
- **Peak electricity use management:** Through smart meter and submeter data analysis, custom analytics tools, and support for optimal efficiency improvements, Efficiency Vermont will provide specific Vermont businesses with the ability to identify and mitigate the use of high levels of energy in small blocks of time, which accrue costly peak demand charges on electric bills. These efforts will be designed both to aggressively cut electricity costs for businesses and to help all electric ratepayers in Vermont by improving system reliability, reducing the need for system upgrades in Vermont, and lowering Vermont's share of New England regional transmission costs.
- **Focused equipment initiatives:** Efficiency Vermont will identify and provide support for investments in innovative equipment that present significant savings opportunities within high-use industries or that have broad applicability across business markets. Examples of technologies being investigated are industrial variable frequency drives, high-efficiency condensing units, refrigerant swap-outs, compressor leak detection tools, lighting controls, and advanced wood heat systems.
- **System optimization:** Efficiency Vermont will help large energy users acquire increased savings from the performance optimization of facility, data center, and process systems through such approaches as benchmarking, auditing, retro-commissioning, retuning, and submeter data analysis.
- **Peer-to-peer exchange:** Efficiency Vermont will continue to act as a catalyst for connections among large businesses and institutions by hosting gatherings of facility owners, managers, and other key decision makers in a variety of industries that have common challenges and opportunities, to foster information exchange and awareness of best practices for energy management. These exchanges will include:
 - **Best Practices Exchange**—This annual conference fosters peer-to-peer learning and engagement among large business customers and the many stakeholders in the public and private sector who serve them. Customers learn from peer businesses, policy makers, manufacturers' representatives, and contractors through a choice of workshops, product demonstrations, and panel discussions. The conference also recognizes companies that have made a significant contribution to energy management best practices. This unique conference brings together facility managers, decision makers, relevant product manufacturers, and the most experienced contractors from across the region.
 - **Efficiency Connections** - Efficiency Vermont's quarterly e-newsletter informs and engages large commercial and industrial customers. *Efficiency Connections* will continue to be one of several ways Efficiency Vermont works to provide peer-to-peer learning and information exchange. Editions will focus on customer projects, economics, and successes, and will provide updates or news about Efficiency Vermont services or events.
 - **Kaizens** - Also known as "energy treasure hunts," Kaizens are an effective tool in engaging Efficiency Vermont business customers' employees in energy management. Participants walk through facilities to identify efficiency opportunities in buildings and equipment, as well as spot behaviors that can easily be overlooked in day-to-day operations. Kaizens can uncover a host of energy savings opportunities that include low-cost / no-cost solutions such as settings adjustments, employee behavioral changes, equipment optimization, and

added controls. Some Kaizens include multiple businesses at a given site, including those in the same industry as the host, providing a fresh perspective as well as industry-specific solutions applicable for all attendees.

- o Sleeping plant tours - Building off the Kaizen approach, sleeping plant tours adopt a similar approach, but look for energy waste during off-peak times when operations are limited or stopped altogether. Often, a sleeping plant tour is taken after a Kaizen has been performed during normal operating hours. When one evaluates a plant during these shutdown periods, energy waste may appear differently than it does during normal operations.

2.3.2 Small and Medium-Sized Businesses

Efficiency Vermont will design and implement services targeting the needs of Vermont's small and medium-sized businesses (SMBs), including the following:

- **Technical guidance and education:** Efficiency Vermont will offer information about efficiency opportunities, technologies, and financial solutions through direct customer interaction and strategic outreach via numerous avenues, including chambers of commerce, business and trade associations, planning commissions, economic development groups, utility partners, and placements in business media.
- **On-site services:** Identify savings opportunities, make recommendations for energy-saving approaches, and provide guidance as needed to help customers complete projects.
- **Thermal efficiency services:** Help small businesses and residential rental property owners complete weatherization projects with members of Efficiency Vermont's network of local, certified Building Performance contractors.
- **Phone consultations:** Help businesses identify and prioritize savings opportunities and support owners through the project process.
- **Seamless delivery across Efficiency Vermont services:** Ease business owners' ability to access support regarding high-efficiency commercial equipment, retail efficient products, building improvements, new construction, and market-specific services, such as those described in Section 2.3.3.
- **Third-party financing:** Support energy-saving investments through the Business Energy Loan and other financing offerings discussed in Section 4.5.

2.3.3 Focused Markets

To address the needs and challenges of distinct business sectors, Efficiency Vermont will deliver technical guidance, financial incentives for recommended measures, and access to third-party financing for specific commercial and industrial (C&I) markets. These markets include agriculture (including indoor growing and product drying; a.k.a controlled environment agriculture), colleges and universities, hospitals, kindergarten through grade 12 (K-12) schools, leased commercial real estate, lodging facilities, municipalities, commercial kitchens, ski areas, manufacturing, and state buildings. Through an understanding of the characteristics common to each market, Efficiency Vermont will shape effective approaches to acquiring greater market adoption of efficient technologies than would be achievable through services offered only at the individual project level. Such common characteristics may include

similar time and capital constraints; equipment; degrees of interest in energy efficiency; and connections to trusted service providers, suppliers, and information sources. Efficiency Vermont will maintain awareness of evolving technologies, changing economic conditions, consumer demand, and a range of challenges and opportunities particular to specific sectors.

Efficiency Vermont will continue to develop partnerships with community-based organizations to design efficiency programs tailored to the needs of local businesses. Diversity, Equity, and Inclusion-based initiatives are of particular importance. Efficiency Vermont will work with partners to design and implement programs that advance procedural, distributional, structural, and transgenerational equity needs.

2.3.4 Key Commercial Technologies

Efficiency Vermont researches, then promotes and incentivizes new, proven technologies that, if adopted widely in Vermont, would have a significant impact on energy savings. Efficiency Vermont works with the entire supply chain to increase new product availability and expertise, reduce prices, and drive demand among end users.

See Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC-R) in Section 4.8 and Refrigerant Management in Section 4.8.1

Commercial Lighting

Efficiency Vermont will continue to encourage the adoption of efficient lighting technologies. However, federal and state laws eliminate Efficiency Vermont's ability to support market opportunity lighting programs, which have traditionally yielded substantial energy efficiency savings (EEC).¹¹

- Overhead LED fixtures—delivering energy savings and occupant comfort that surpass fluorescents.
- Integrated controls—providing greater savings than full-room lighting controls by facilitating lumen-level adjustment.
- Networked controls—augmenting savings through advanced lighting controls or coordination with other building systems to minimize energy consumption for lighting and other equipment. For instance, a connected HVAC system could adjust output based on signals from lighting occupancy controls indicating an empty room. Typically, such technology will be implemented in collaboration with lighting designers.

Efficiency Vermont is committed to assisting Vermont businesses in leveraging efficient lighting technologies and design. This commitment involves:

- Broadening engagement in the supply chain to reduce purchase prices and enhance specific product availability.

¹¹ The federal Energy Independence and Security Act (EISA) of 2007 effectively ended Efficiency Vermont's support of ENERGY STAR LED downlights and fixtures, starting July 1, 2023. Vermont Act No. 120, banning the sale of 4-foot mercury-containing fluorescent lamps, goes into effect on January 1, 2024.

- Providing training and support to lighting designers, contractors, and suppliers through Efficiency Vermont’s Efficiency Excellence Network (see Section 4.2).
- Continual monitoring and evaluation of emerging lighting technologies for potential inclusion in offerings, including indoor horticultural lighting.
- Advocating for quality lighting products and initiatives in collaboration with the Consortium for Energy Efficiency (CEE), DesignLights Consortium®, ENERGY STAR (U.S. Department of Energy [DOE] and Environmental Protection Agency [EPA]), and the Northeast Energy Efficiency Partnerships (NEEP).

Industrial Process Equipment

Efficiency Vermont will work with manufacturers and other businesses to identify efficiency improvements for pumps, motor controls, variable frequency drives, compressed air systems, and process heating and cooling systems that will lower their energy costs, increase production, and/or reduce carbon footprint. Efforts will include:

- Collaboration with regional and national energy efficiency and decarbonization market transformation partners to affect change in the marketplace including working directly with major manufacturers.
- Supply chain partnerships and feedback that help improve programs and increase the availability, understanding and adoption of efficient technologies. Partner relationships and financial incentives together enable Efficiency Vermont to effectively manage the speed of adoption.
- Coordination with distribution utilities promoting beneficial electrification and flexible power use to deliver fossil fuel savings to the maximum benefit of our mutual customers.
- Coordination with qualified auditors to take a system-wide or facility-wide approach to equipment auditing.
- Deepened engagement with the SMB sector by way of personalized walk-throughs.
- Continued research and service development to deepen market knowledge, to further develop internal processes, and to increase customer engagement and optimized savings.

Combined Heat & Power (CHP)

To promote the use of best practices and best-in-class CHP systems, Efficiency Vermont will continue to engage with customers on lost-opportunity, customer-initiated, or vendor-initiated projects where CHP and distributed renewable generation technologies are being considered. These customers are often operators of wastewater treatment, agricultural, industrial, and institutional facilities that have: 1) on-site electricity generation capability, and 2) substantial heating needs. Customers will be encouraged to pursue any available funding or technical assistance from other sources. Efficiency Vermont resources will focus primarily on the provision of technical assistance, although incentive funds for CHP projects may also be provided to customers when CHP systems meet requirements established by the Commission. Additionally, Efficiency Vermont will team up with other distribution utilities and community partners to promote CHP efforts. For more information on Efficiency Vermont’s coordination with distribution utilities and other EEU’s, see section 4.1.

3. Services for Residential Customers

The Existing Homes and Residential New Construction markets serve customers of all income levels and building types. *Single-family* refers to buildings with up to four units and *multifamily* refers to buildings with five or more units. Efficiency Vermont will continue to offer products and services for residential customers that support homeowners, particularly low- and moderate-income Vermont households.¹² Additionally, and in anticipation of declining TEPF budgets, particularly beginning in 2027, Efficiency Vermont will continue to explore new and innovative ways to serve customers at lower costs; this could include exploring new approaches for partnering with stakeholders and financing options for customers.

3.1 Existing Market-Rate Homes

The existing homes TEPF and electric budgets will include services for homes that are retrofitted with new energy efficiency measures to make the homes more safe, durable, healthy, comfortable, and energy efficient. The budgets and savings include those for all income levels and building types.

Table 3. 2024-2026 Existing Homes Budgets and Savings

Existing Homes	2024	2025	2026	2024-2026
Electric¹³				
Budget	\$6,498,075	\$6,620,637	\$6,745,649	\$19,864,361
Annual MWh	2,201	2,167	2,138	6,506
Total Resource Benefits (TRB)	\$1,772,719	\$1,763,994	\$1,758,903	\$5,295,615
Summer kW	169	167	165	501
Winter kW	435	422	409	1,266
Lifetime MWh	23,528	23,485	23,449	70,462
Metric Tons CO _{2e}	763	751	711	2,225
Flexible kW ¹⁴	0	0	0	0
Thermal				
Budget	\$5,664,179	\$5,761,426	\$5,883,607	\$17,309,212
MMBtu Savings	29,393	29,383	29,373	88,149
Metric Tons CO _{2e}	1,256	1,257	1,274	3,788

Single-Family Homes

Efficiency Vermont will build upon effective approaches, such as offering incentives, financing, and technical assistance, to improve the energy efficiency, durability, safety, and comfort of existing residential buildings statewide. Efficiency Vermont will continue to expand its residential programs to

¹² Low-income is below 80% of area median income. Moderate-income is between 80% and 120% of area median income.

¹³ Includes budget and savings for FLM. See Section 4.8 for the subset of the electric Existing Homes related to FLM activities. Also includes budget for EEMA Programs. See Section 4.10 for the subset of the electric Existing Homes budget related to EEMA Programs.

¹⁴ Attributable only to FLM activity in this market.

enable more Vermont households to participate in and benefit from taking energy efficiency actions. These efforts will be designed to provide customers with greater ability to approach household energy performance improvement as a journey with multiple, often interactive opportunities rather than as a single project. This focus will empower customers to take control of household energy performance and to make informed decisions according to their priorities and budgets. For homeowners unable to afford whole house upgrades, Efficiency Vermont will continue to focus on approaches designed to improve homes over time.

Efficiency Vermont will continue many of its existing and proven strategies:

- Support a network of contractors to identify and implement energy upgrades for homeowners. The Efficiency Excellence Network (see Section 4.2) provides contractors (including those that are Building Performance Institute [BPI] certified) and building professionals with ongoing support and resources as they engage with homeowners.
- Partner with Vermont banks and credit unions offering the Home Energy Loan
- Offer financial incentives for the completion of home improvement projects completed by Efficiency Excellence Network contractors, and encourage partnership among Efficiency Excellence Network contractors and others in the field through joint reporting. Continue to support the workforce by enabling Efficiency Excellence Network contractors to upgrade equipment used in completing projects and access training and certification support.
- Motivate all Vermont households to weatherize their homes with incentives including focused support for moderate-income customers. Incentives for comprehensive household weatherization work will continue to be based on a customer's income level.¹⁵
- Encourage customer engagement with Efficiency Vermont by offering a limited rebate on selected DIY projects.
- Encourage more participation by customers unable to move ahead with whole house upgrades at one time through offering a limited rebate on prescriptive energy-saving thermal shell measures that enable customers to focus on the measures which will most benefit their homes in addition to saving energy.
- Increase householders' access to and awareness of high-quality efficient products and to lower consumer prices for efficient products as described in Section 3.4.
- Integrate principles of healthy buildings into program criteria.
- Offer a high-efficiency wood pellet boiler and furnace initiative providing financial incentives for whole house heating system replacements.

In 2024-2026, Efficiency Vermont will also:

- Work to develop a comprehensive smart connected home strategy that educates and encourages homeowners to increase their home's performance and efficiency through smart technology controls.
- Continue to offer new programs designed specifically for rental property owners. These programs will enable further adoption of efficient appliances - such as laundry equipment and heat pump water heaters - through enhanced product incentive structures and will increase access to efficiency projects. Efficiency Vermont will also continue to offer a non-incentive, technical-assistance based program designed to advise owners of rental properties on how to prioritize

¹⁵ Previously, the amount of the incentive was based on the energy saved from the weatherization work.

efficiency upgrades across their portfolio to maximize both financial investment and tenant benefits. To maximize participation and reach for this traditionally underserved rental property owner market, these programs will be available to owners of single (1-4 units) and multifamily (5+ units) rental properties.

Multifamily Homes

Efficiency Vermont will offer rental property owners financial and technical assistance in support of efficiency improvements in their buildings (also, see services for rental property owners of multifamily [5+ units] in Section 3.1/Single-Family homes; as well as the Rental Property Loan in Section 4.5). As part of its efforts to inform and engage owners regarding this assistance, Efficiency Vermont will leverage relationships with market-rate property developers and operators, construction professionals, and other entities representing property owners and their building managers, so that property owners are aware of and can tap into these efficiency services when they are making design and construction decisions about their buildings. Efficiency Vermont will partner with Vermont Gas Systems on projects in buildings with natural gas service and with Burlington Electric Department on buildings in their service territory. These partnerships determine a joint incentive approach to maximize available funding while leveraging the technical assistance of Efficiency Vermont’s energy consultants (see Section 4.1 for further details). Renters have access to all the Efficiency Vermont retail efficient products rebates and prescriptive incentives available to other residential customers, as well as no-cost LED bulbs, an efficient showerhead, and faucet aerators through dedicated channels. Renters will be able to access financial and technical assistance through Efficiency Vermont for other direct services.

3.2 Existing and New Low-Income Housing

Efficiency Vermont will invest more than \$20 million over the three-year performance period to help low-income households reduce their energy costs through long-standing partnerships with: 1) low-income housing and service providers, including the agencies of Vermont’s Weatherization Program; 2) affordable housing funders, including the Vermont Housing & Conservation Board and the Vermont Housing Finance Agency; and 3) multifamily housing developers, including Evernorth (formerly Housing Vermont). Efficiency Vermont will continue to help the most vulnerable customers save money in the near term with as little out-of-pocket expense as possible.

Table 4. 2024-2026 Low-Income Efficiency Spending and Savings

Low Income Services	2024	2025	2026	2024-2026
Electric RA Budget	\$4,998,651	\$5,098,624	\$5,200,596	\$15,297,870
Electric MWh Savings	2,569	2,537	2,510	7,617
TEPF RA Budget	\$1,785,000	\$1,820,700	\$1,857,135	\$5,462,835
TEPF MMBtu Savings	8,428	8,428	8,428	25,285

Services in 2024-2026 will include:

- Installation of lighting, appliances, and—as applicable—cold climate heat pumps (CCHPs) to replace electric resistance heat, heat pump water heaters for electric resistance domestic hot water, and cost-effective custom measures in low-income households. The depth and range of

service for which a low-income customer will qualify depends on the household's annual electric usage and electric energy burden. Eligibility criteria for comprehensive Targeted High Use (THU) services is greater than 5,000 kWh usage and greater than 6% energy burden.

- Continuation of additional ways to serve low-income customers who do not qualify for Targeted High Use programming. These additional offers right size the depth of service based on both the degree of energy burden and available opportunities in the home, including: a voucher to replace a single qualifying appliance, and a lighter-touch version of targeted high use wherein customers can replace a single qualifying appliance or water heater identified during a home visit performed by a weatherization agency energy coach. Eligibility criteria will be determined based on usage relative to energy burden.
- Continued distribution of LED bulbs, efficient showerheads, and faucet aerators through partner organizations, including the Vermont Foodbank, Habitat for Humanity, and housing authorities, to ensure their low-income customers and clients have access to efficient products.
- Improvement of the energy efficiency of buildings housing low-income customers (homeowners and renters with rental property owner approval) through ongoing partnership with agencies of Vermont's Weatherization Program (this includes same suite of efficiency measures as THU described above) and directly with private rental property owners.
- Support for the application of design and construction approaches that result in housing that exceeds Vermont's Residential Building Energy Standards and ENERGY STAR specifications by partnering with Vermont's network of nonprofit affordable housing providers.
- The continued development of an Advanced Manufactured Home, which is close in alignment to the Vermont Residential Building Energy Standards and compliant with DOE Zero Energy Ready Home (ZERH) standard, for prospective mobile home buyers and renters. This represents a much more affordable housing option in light of significant increases in production costs for construction.
- Continued support for the construction and deployment of high-performance modular housing for low-income customers and farm worker housing where feasible.
- Technical and financial support for new construction and major renovations of multifamily properties developed by Vermont's affordable housing delivery network, which uses state and federal subsidies.
- Identification and implementation of innovative measures in focused high-performance multifamily buildings to support net-zero goals or Passive House standards.
- Continuation of the appliance replacement voucher program, which allows low-income customers who do not qualify for the comprehensive THU, THU Lite, or the Energy Savings Kit programs to replace one appliance in their home at no cost or substantially reduced cost, by redeeming a customized voucher at a participating retailer. Available appliances include refrigerators, freezers, washing machines, air conditioners, and dehumidifiers. Efficiency Vermont may recruit and train retailers as needed to ensure statewide coverage.
- See Section 4.10.2 for Efficiency Vermont's EEMA Low Income Fuel Switch Program supporting low-income customers in combining weatherization with heating electrification.

3.3 Residential New Construction

Efficiency Vermont's support for the creation of efficient new homes will continue to focus on homeowners and the professionals engaged in design and construction (these include architects,

engineers, specialty design service providers, and practitioners of construction trades). Efficiency Vermont will also engage with developers, equipment suppliers, installation contractors, appraisers, lenders and real estate agents, as key members of project teams, particularly regarding construction undertaken by developers/builders managing large portfolios/developments subject to Act 250.

Table 5. 2024-2026 Residential New Construction Budgets and Savings

<u>Residential New Construction</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2024-2026</u>
Electric				
Budget	\$2,476,039	\$2,525,560	\$2,576,071	\$7,577,670
Annual MWh	1,811	1,886	1,936	5,632
Total Resource Benefits (TRB)	\$4,353,789	\$4,563,662	\$4,616,015	\$13,533,466
Summer kW	89	90	86	265
Winter kW	326	339	349	1013
Lifetime MWh	34,156	36,044	37,971	108,170
Metric Tons CO ₂ e	1,081	1,118	1,177	3,376
Flexible kW	0	0	0	0
Thermal				
Budget	\$0	\$0	\$0	\$0
MMBtu Savings	0	0	0	0
Metric Tons CO ₂ e	0	0	0	0

The Residential New Construction budget will include services for homes that are built with new energy efficiency measures, to make the homes more safe, durable, healthy, comfortable, and energy efficient. The budgets and savings reflect all income levels and building types. The Residential New Construction budget is entirely funded by electric efficiency funds, not TEPF funds, unless the home is off-grid.

To assist builders and owner-builders in meeting and exceeding Vermont Residential Building Energy Standards while promoting low-load and net-zero building practices, Efficiency Vermont will deliver a range of technical services appropriate to support the varying efficiency measures that Vermont households seek in their new homes. Efficiency Vermont will continue to focus on measure-level incentives that encourage best building practices and focused technologies. For the market rate program, incentives and technical services will primarily be focused directly toward builders who are members of the EEN's residential new construction trade group. For income qualified projects, this program will remain unchanged. These projects will continue to be primarily in partnership with affordable housing organizations such as Habitat for Humanity. Additionally, Efficiency Vermont will develop services and incentives for homeowner-builders outside of the EEN and increase awareness of its new construction services and incentives through outreach utilizing the new Contractor Registry.

To advance efficiency in the marketplace, Efficiency Vermont will:

- Collaborate with builders, appraisers, lenders, developers, and real estate agents through the Vermont Green Home Alliance, advocating for efficient new construction and promoting the value of efficiency in home sales
- Disseminate information about efficiency through media placements
- Support builders through the Efficiency Excellence Network (see Section 4.2)

- Partner with the Home Builders and Remodelers Associations of Vermont through trainings and events
- Continue outreach efforts with building supply houses and electric utilities, to share information with their customers
- Provide trainings for technical schools and other partners with a focus on workforce development
- Provide training and support to increase market capacity and demand for home energy ratings.
- Develop educational materials including webinars and seminars focused on homeowners to increase awareness, benefits and market demand for energy efficient new construction.

New Construction Information and Education

Efficiency Vermont will provide energy efficiency information and education to professionals and tradespeople involved in new construction and renovation projects through the Energy Code Assistance Center and the annual Better Buildings by Design (BBD) Conference. Discussion of these efforts can be found in Section 5.1. Efficiency Vermont will seek to develop a framework to capture the unique and long-term value achieved from and provided by energy code development and assistance to developers, builders, design professionals, and property owners.

3.4 Efficient Products

Table 6. 2024-2026 Efficient Products Budgets and Savings

Efficient Products	2024	2025	2026	2024-2026
Electric				
Budget ¹⁶	\$10,229,020	\$10,413,000	\$10,600,660	\$31,242,681
Annual MWh	17,058	17,411	17,358	51,826
Total Resource Benefits (TRB)	\$13,617,158	\$14,691,102	\$15,269,867	\$43,578,127
Summer kW	923	968	934	2,826
Winter kW	3,308	3,356	3,359	10,023
Lifetime MWh	244,415	251,338	251,200	746,954
Metric Tons CO ₂ e	5,429	5,580	5,350	16,561
Flexible kW	149	201	286	636
Thermal				
Budget	\$710,821	\$741,074	\$749,043	\$2,200,938
MMBtu Savings	35,288	36,561	35,431	107,280
Metric Tons CO ₂ e	1,784	1,869	1,790	5,444

Efficiency Vermont will provide support for a range of consumer products that meet or exceed efficiency standards set by the U.S. DOE ENERGY STAR program. These products include appliances (including refrigerators with natural refrigerants as part of our refrigerant management initiative; see Sec. 4.9.1), air conditioners, dehumidifiers, heat pump water heaters, combination washer/dryer units with heat pump technology, heat pump clothes dryers, smart thermostats, electronics, and indoor horticultural lighting. Services will be designed to motivate product purchases by increasing consumers’ efficiency knowledge

¹⁶ Includes budget for EEMA Programs. See Section 4.10 for the subset of the electric Efficient Products budget related to EEMA Programs.

and reducing purchase costs for any customer making retail purchases for their homes and businesses. Support will include consumer rebates, price reductions at the manufacturer and retail level, midstream sales incentives that influence stocking practices, distribution of energy savings kits containing an efficient showerhead, faucet aerators, and weatherization materials through in-person events, point-of-purchase information, advertising, an online marketplace that scores the energy efficiency of products to inform customer buying decisions, and promotional and public information activities.¹⁷

Key to the success of these efforts will be Efficiency Vermont's continuing services to retailers and upstream partners in the product supply chain to ensure the availability of high-quality efficient products in Vermont stores. Efficiency Vermont field staff will deliver merchandising support, guidance on efficient product differentiation on the sales floor, and product knowledge training to the staff of efficient product retailers.

In 2024-2026, Efficiency Vermont will continue to place an increased emphasis on beneficial technologies, such as heat pump water heaters, smart thermostats, and heat pump appliance technology, and will explore expanded or new efforts for additional technologies as part of the smart connected home strategy (see Section 3.1 for more information about the connected home strategy). Efficiency Vermont will also continue to incentivize select washers at the point-of-sale to encourage customers to purchase baseline Energy Star models through its Shift program.¹⁸

4 Activities in Service to all Major Markets

While serving specific markets, Efficiency Vermont will also provide services with an impact on multiple sectors and with the priority of serving all customers equitably. A key element of this cross-sector approach will be Efficiency Vermont's ongoing support for the businesses that customers turn to for efficient products and services. These businesses include retailers of appliances, lighting, and electronics; companies that manufacture, distribute, supply, install, and service HVAC-R equipment; firms that design and construct new buildings; and financial institutions. Efficiency Vermont's efforts in coordination with these businesses, although not always evident to the public, have a profound impact on customers' ability to lower energy use in their homes and places of business. Efficiency Vermont's services enable Vermont homes and businesses to have access to a valuable network of knowledgeable providers while driving business to these providers. In implementing both DSS and RA equity initiatives approved for the 2024-2026 performance period, a key focus will be placed on engaging with frontline and impacted communities, in order to better-understand their needs, and make adaptations to programs and services across Efficiency Vermont's portfolio that will support increased accessibility.¹⁹

¹⁷ The online marketplace is on the Efficiency Vermont website at <https://marketplace.encyvermont.com/>.

¹⁸ The Shift program aims to reduce the up-front cost of specific ENERGY STAR certified washers, and a specific refrigerator, to prices comparable to those of cheaper, less efficient appliances. This initiative provides \$75 off at the point of sale for qualified models and aspires to reach more low-income customers. It is offered at 13 appliance dealers.

¹⁹ Frontline and impacted communities is based on the definition in *The Guiding Principles for a Just Transition (May 2021 Draft)* by the Just Transitions Subcommittee of the Vermont Climate Council regarding "those on the

4.1 Coordination with Energy Efficiency Utilities and Distribution Utilities

Efficiency Vermont will continue efforts designed in response to customer interest in objective and consistent guidance on fossil fuel and electric energy consumption, generation, and load management for buildings and equipment, including vehicles. Customer choices made today in these matters will affect use of the electric system and all forms of energy within the state for years to come. Efficiency Vermont will continue to collaborate with distribution utilities and market actors to provide customers with optimally cost-effective approaches to energy use management, including energy efficiency, renewable generation, energy storage, demand response technologies, and other solutions as appropriate. These efforts to respond to customer interest in complete energy solutions will be incorporated into the framework of existing services.²⁰ Efficiency Vermont will provide customers with information about distribution utility programs, and other programs that can help them find comprehensive energy solutions. A key tactic will continue to be our joint support of customers and coordinated communication on programs. Where feasible, Efficiency Vermont and our utility partners engage customers, developers, vendors together to ensure seamless support and ensuring customers receive comprehensive support.

Efficiency Vermont will continue its work with Vermont Gas Systems and Burlington Electric Department to ensure coordination in the implementation of Energy Efficiency Utility (EEU) services. Also, Efficiency Vermont will continue engaging in ongoing communications, coordination, and collaboration with electric distribution utilities across the state in support of efforts to meet the Renewable Energy Standard—Tier III, which requires distribution utilities to implement programs intended to achieve fossil fuel reduction targets. Efficiency Vermont’s collaboration with utilities includes customer engagement, program development, and project partnership. As this collaboration expands, Efficiency Vermont is supporting DUs with Tier III midstream and downstream rebate processing, which aims to improve customer experience and operational efficiency across shared programs. In addition to administering statewide Tier III rebates for all DUs, Efficiency Vermont will administer and process Green Mountain Power’s (GMP) market and income eligible rebates, as well as tailored program offers with Vermont Public Power Supply Authority (VPPSA), which will expand to all of their member DUs. As its collaboration with distribution utilities expands and matures, Efficiency Vermont will incorporate more strategic planning with partners to complement the operational and program implementation aspects of their work together. The teaming effort provides customers a more seamless experience while also maximizing the impact and value to customers. FLM collaboration continues with GMP, Washington Electric Coop (WEC) and VPPSA and has expanded to include Vermont Electric Coop (VEC) and Stowe Electric Department (SED). In addition, to

“frontlines” of the climate crises. Low-income communities, indigenous peoples, and black and other communities of color are among those who are particularly vulnerable to the impacts of climate change.”

https://aoa.vermont.gov/sites/aoa/files/Boards/VCC/FORMATTED_Draft%20Guiding%20Principles%20for%20a%20Just%20Transition%2005.19.2020.pdf. See page 4.

²⁰ Efficiency Vermont will not use EEC or TEPF funds to provide technical assistance or incentives to customers with respect to renewable generation, transportation measures saving fossil fuels (except as approved under EEMA Programs which are described in Section 4.10 of this Plan), or storage measures. Efficiency Vermont’s role will be to provide general information about these technologies and to direct interested customers to the appropriate distribution utilities or market actors for further information regarding incentives and programs administered by such entities.

enable more Vermonters to participate in managed charging programs, Efficiency Vermont is working with all of the DUs in a group forum to explore the potential for a joint EV Telematics program. Efficiency Vermont would contract with a common vendor to bring down total program costs for participating utilities and provide a more consistent managed charging program and customer experience across multiple DU's. DU's would then work directly with the vendor to manage load for individual customers within their service territory. Both joint and individual discussions will help ensure Efficiency Vermont's FLM efforts are in direct support of distribution utilities' objectives and expectations. Efficiency Vermont will coordinate with distribution utilities so they can draw on one another's experiences and goals to design and implement programs that maximize the value delivered to shared customers. At the center of Efficiency Vermont's coordination with DUs, is the monthly Utility Working Group, which provides a forum for information sharing, joint program planning and overall coordination in serving our shared customers.

4.2 Services to Contractors and Equipment Suppliers

The Efficiency Excellence Network

Efficiency Vermont will continue to coordinate and expand its EEN providing workforce development and promotional support for providers of efficient goods and services. EEN services will support the following sectors in identifying and promoting efficient approaches for their customers:

- Contractors: Electrical (lighting and electric vehicle charger installers), HVAC (whole building and mini-split heat pumps, heat pump water heaters, ground source heat pumps, advanced wood heat, oil and propane dealers, ventilation), controls, and refrigeration
- Designers (architects and engineers)
- Homebuilders (see Section 3.3 for a discussion of additional services to new construction trades and professions)
- Building improvement contractors
- Equipment manufacturers, distributors, and suppliers

Efficiency Vermont will provide EEN members with:

- Workforce development:
 - *Training:* Technical, sales, and customer service training
 - *Professional education credits* and training for equipment installers, system designers, and service technicians, such as BPI, American Institute of Architects and Passive House Institute U.S, through Efficiency Vermont's annual Better Building by Design Conference (BBD) (see Section 5.1), monthly training offers, and collaborative trainings with manufacturers and distributors, and partner organizations
 - *Professional certifications*, in affiliation with the Building Performance Institute, to deliver retrofit efficiency services to Vermont homes (comprehensive household weatherization contractors) and small businesses and rental properties (Building Performance contractors)
 - *A designated website*, providing information about available services, training, and business opportunities, at <https://contractors.efficiencyvermont.com/>.
- Support for member businesses:
 - Extensive program promotion and access support

- o Recognition opportunities with innovation and partnership awards at the BBD conference
- o Customer financial incentives, and third-party financing options for projects completed by contractors in the EEN
- o Enhanced listings and an improved search tool for consumers via Find a Pro tool at <https://www.encyvermont.com>
- o Frequent contact regarding program and partner updates
- o Cooperative advertising opportunities.
- **Personal engagement:** in support of the commercial and residential equipment supply chain, with:
 - o Distributors, manufacturers, and suppliers, in order to reduce equipment purchase costs, ensure Vermont product availability to contractors and consumers, and reduce lead times for product ordering.
 - o Manufacturers, regarding emerging and rapidly advancing efficiency technologies, such as heat pump technologies.

4.3 Trade Association Partnerships

In addition to engaging in direct customer interaction, Efficiency Vermont will work with professional and trade member organizations representing a wide range of constituents. By sharing focused information through these trusted channels, Efficiency Vermont will empower businesses with knowledge about best practices and resources that they can use to strengthen their bottom line. Channels will include association newsletters, websites, and technical materials, as well as event sponsorship, speaking engagements, conference and trade show participation, training workshops, and promotional and educational campaigns. See table 7 for partner organizations.

Table 7. Partner organizations include, but are not limited to:

American Institute of Architects—VT Chapter	Vermont Apartment Owners Association
American Society of Heating, Refrigerating, and Air-Conditioning Engineers—VT Chapter	Vermont Association of Hospitals & Health Systems
Building Performance Professionals Association of VT	Vermont Association of School Business Officials
Construction Specifications Institute	Vermont Builders and Remodelers Association
Farm to Plate Network	Vermont Fuel Dealers Association
HVAC and Refrigeration Distributors International	Vermont Green Building Network
Home Builders & Remodelers Associations of VT	Vermont Green Home Alliance
ICC Building Safety Association of VT	Vermont Healthcare Engineers Society
Illuminating Engineering Society of North America	Vermont Hospitality Council
Regional Development Corporations	Vermont Independent Electrical Contractors Association
University of Vermont Extension	Vermont Maple Sugar Makers Association
Vermont Alliance of Independent Country Stores	Vermont Rental Property Owners Association
	Vermont Retail & Grocers Association
	Vermont Ski Areas Association
	Vermont Superintendents Association

4.4 Community-Based Activities

Efficiency Vermont will continue its engagement of focused areas of the state in community-wide efficiency efforts. Building upon prior successful efforts, Efficiency Vermont will partner with ACCD, the distribution utilities, the Vermont Council on Rural Development, the Vermont Energy and Climate Action Network, the Vermont Public Power Supply Authority, and others to select new communities, based in part on energy burden, to assist local businesses, municipalities, nonprofits, renters, and residential property owners, and occupants in saving energy. Efficiency Vermont will continue to offer services tailored to each community, potentially including:

- Enhanced incentives for municipalities and nonprofits
- Commercial and SMB energy walk-throughs (virtual or in-person, safety allowing)
- Customer referral and project completion bonuses for businesses
- Residential rental property energy walk-throughs
- Free efficient products for rental property owners and renters
- Enhanced incentives for renter property owners
- Virtual Home energy visits for both renters and residential customers
- Distribution of energy savings kits containing , an efficient showerhead, faucet aerators, and weatherization materials through in-person events

Additionally, Efficiency Vermont will partner with the Vermont Public Power Supply Authority to offer customers of specific municipal utilities the following services:²¹

- Offerings and outreach tailored to respective municipal utilities specific needs, such as appliance coupons, tabling events, and presentations on efficiency and fuel switching
- A cold climate heat pump, plus weatherization, joint bonus offer
- Joint promotions and communications through utility bill inserts

Efficiency Vermont will also continue to engage with Vermont households and businesses interested in creating or joining efforts to reduce energy use in their towns, institutions, businesses, nonprofits, and homes. Efficiency Vermont will partner with, support, and collaborate with town officials, town energy committees, local organizations, non-profits, businesses, and other entities to increase the impact of existing efforts and statewide campaigns such as Button Up Vermont, or to support interest in creating new groups devoted to increasing the impact of efficiency efforts. Offered services will include educational and promotional materials, training on energy efficiency topics, and the contribution of efficient products for local energy-saving efforts.

4.5 Financial Services

In its ongoing commitment to help Vermont households and businesses overcome financial barriers to investing in cost-effective efficiency for their buildings and equipment, Efficiency Vermont will engage in the following efforts in 2021–2023.

²¹ These offerings represent a joint effort between Efficiency Vermont and VPPSA municipal utility members, including promotional offers for both the state-wide EEU and DU Tier III programs respectively.

Product and Service Price Reductions

To motivate customers to make energy-efficient choices in the marketplace, Efficiency Vermont will target specific products and services for purchase price reductions. Primary mechanisms will be: 1) negotiated cooperative promotions that provide incentives to manufacturers, distributors, and retailers—both independent and chain stores—to lower the purchase price of products, and 2) rebates and financial incentives for:

- Efficient products and equipment purchased at the retail level and through commercial suppliers and installation contractors
- Process equipment for businesses such as farms, manufacturers, and industrial facilities
- The incorporation of advanced cost-effective techniques and approaches that enable the design and construction of high-performance residential and commercial buildings
- Building shell upgrades made by Building Performance contractors in small commercial and multifamily properties
- Efficient home improvement projects conducted by comprehensive household weatherization contractors.

Financing for Energy Efficiency Projects

Efficiency Vermont will work with lenders to ensure the availability of cost-effective financing for energy efficiency projects. By including energy savings in the repayment formula, lenders may be able to provide funding for individuals and businesses not otherwise qualifying for financing. In many instances, such financing creates a positive cash flow for borrowers, because of monthly energy savings that are larger than the loan payments.

Efficiency Vermont will engage with third-party lenders regarding a range of financing vehicles, including:

- Business Energy Loan: Increasing opportunities for businesses, including agricultural operations, to finance efficiency projects by factoring energy savings into loan qualification calculations
- Home Energy Loan / Efficiency Excellence Network Partnership: Financing for efficient appliances and heating system purchases and comprehensive thermal efficiency projects completed by Efficiency Vermont's EEN contractors
- Rental Property Loan: Efficiency Vermont will explore the potential for a rental property loan product for private owners to help them finance efficiency projects on their rental properties.

Financing Education and Analysis

To enable customers to be aware of, understand, and make decisions regarding financing options, Efficiency Vermont will provide easy access to information by phone, through its website, in printed materials, and in media placements. Efficiency Vermont will continue to provide financial analysis for custom business projects to help customers understand the financial aspects of efficiency investments. Efficiency Vermont will:

- Offer contractors tools to calculate and present financing options for their customers
- Provide listings of financing options and lenders through <https://www.encyvermont.com>
- Make the discussion of cost-effective financing a standard part of service to customers lacking capital who can benefit from efficiency upgrades
- Present information on energy efficiency financing at community-based workshops in coordination with local energy committees

- Train customer-facing staff and contractors on financing options, how to effectively educate and explain financing options to customers, and how to use financing to move energy efficiency projects forward
- Conduct research and analysis of barriers faced by customers in using financing mechanisms, and explore non-loan approaches to financing energy efficiency projects, as part of its efforts to bring efficiency within reach to more Vermont households and businesses.

4.6 State, Regional, and National Partnerships

In service to Vermont households and businesses, and in support of the State’s energy goals, Efficiency Vermont will continue to leverage the expertise and resources of entities engaged in a range of energy and efficiency endeavors, both in Vermont and outside the state. Efficiency Vermont will share its own expertise at regional and national gatherings, enabling Vermont to be both recognized for its innovations and informed by best practices in other states. Efficiency Vermont’s regional and national work has influenced the establishment of product specifications that ensure that Vermont consumers have access to the highest-quality, most energy-efficient products. In Vermont, partners will include the Vermont Community Foundation, the Vermont Housing and Conservation Board, the Regulatory Assistance Project, and many others. On a regional and national level, Efficiency Vermont will maintain ongoing partnerships with such organizations as the Northeast Energy Efficiency Partnerships, the New Buildings Institute, the Consortium for Energy Efficiency, DOE ENERGY STAR, Regional Energy Efficiency Partnership, and the American Council for an Energy-Efficient Economy, working to share information on best practices and to establish uniform product eligibility criteria and program designs.

4.7 Data Analytics Services

Efficiency Vermont will continue to host and manage a data platform to uncover, report on, and verify electric energy savings and insights derived from analysis of energy usage in Vermont households and businesses. These savings and insights serve organizational and partner needs in the areas of program and incentive design, customer insights, project-level analysis, focused outreach, and advanced measurement and verification. Data managed in this platform include Advanced Metering Infrastructure (AMI) data, billing and customer data directly related to it, and other data sets used in conjunction with these data to serve said needs, such as time series weather and emissions data.

Under the scope of these services, Efficiency Vermont will maintain the software, database, systems, and integrations necessary to collect, store, analyze, report on, and make available these this data safely and securely to staff and partners so they can deliver their energy services. Efficiency Vermont will additionally conduct analysis and data services to inform and drive energy decisions in the increasingly complex space of efficiency activities, interactions, and relationships between Vermont ratepayers, and the grid. Other initiatives under the scope of resource acquisition activities, such as business and residential services and FLM, also directly benefit from these data services.

Overall, this work will continue activities begun under the 2018–2020 cycle that took a contractor-hosted data solution in-house to reduce costs and fulfill obligations under Docket 8316. This action will continue to provide the alignment of collection and storage of the data with its use in Efficiency Vermont’s portfolio

of energy services and enable it to respond more nimbly to complex and ever-changing factors in the Vermont (and broader New England energy landscape affecting Vermont), as it more accurately and cost-effectively delivers on program, incentive, project, and outreach outcomes. Ongoing focus includes improving the reliability and efficiency of data ingest processes and further enhancements to user facing tools to better facilitate the use of AMI data to support resource acquisition activities.

4.8 Flexible Load Management

FLM programs utilize a combination of data analytics, system communication platforms, and load control measures in order to shift loads that are “flexible”²² in commercial / industrial facilities and homes, from less optimal times of day to more optimal time periods. There is emerging consensus that distributed energy resources and load management will play an increasingly critical and valuable role in power cost reduction and the creation of headroom in the utility grid. Efficiency Vermont is uniquely positioned to encourage ratepayer adoption of interoperable and open-source load management technologies by undertaking the coordination activities and market transformation activities that lead to the installation of these technologies. In 2024–2026, Efficiency Vermont will work to establish flexible load with large commercial and industrial, residential, and SMB customers. Efficiency Vermont and the distribution utilities agree that the responsibility for scheduling, operating, and incentivizing the behavior of any load control systems falls to the distribution utility, and that the full benefit from load control technologies may not materialize without the establishment of complementary distribution utility programs or protocols. Therefore, Efficiency Vermont will coordinate closely with distribution utility partners throughout program planning, design, implementation, and performance evaluation.

In 2024–2026, Efficiency Vermont will continue work to establish flexible load capability with commercial, industrial, and residential customers, while collaborating with distribution utilities to support the state. Strategies will include:

- Incorporate learnings from 2021-2023 performance period into program design for 2024-2026. This includes controls optimization, improved electric vehicle FLM coordination with supply chain partners, and understanding the FLM potential of nascent technologies.
- Working with utilities to understand both device-level and customer-level load shapes to assist in effective program planning that aligns with utility costs, grid reliability, and greenhouse gas emissions reduction efforts.
- Identifying and designing incentives that result in the installation of controllable equipment to enable shifting load
- Continuing partnership with utilities to implement programs that support installation of flexible, grid-enabled technologies that reduce customer and utility cost and greenhouse gas emissions, including a continuation of both the GMP and VEC commercial FLM initiatives, managed electric vehicle charging programs with interested DU’s, and a potential innovation pilot project with SED. Efficiency Vermont will continue to explore additional opportunities through pilot projects with DUs to assess market readiness of FLM technologies.
- Operating as a strategic statewide partner, helping to define standards that ensure interoperability and good long-term investments for customers.

²² This refers to the ability to alter the timing of energy use without sacrificing customer experience.

Table 8. 2024-2026 Flexible Load Management Budgets and Flexible kW

Flexible Load Management	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2024-2026</u>
Budget				
Business Sector				
Existing Facilities	\$413,505	\$375,735	\$384,635	\$1,173,875
<u>New Construction</u>	<u>\$33,250</u>	<u>\$33,250</u>	<u>\$33,250</u>	<u>\$99,750</u>
Total Business Sector	\$446,755	\$408,985	\$417,885	\$1,273,625
Residential Sector				
New Construction	\$0	\$0	\$0	\$0
Efficient Products	\$349,375	\$317,000	\$370,000	\$1,036,375
<u>Existing Homes</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Total Residential Sector	\$349,375	\$317,000	\$370,000	\$1,036,375
Total Budget	\$796,130	\$725,985	\$787,885	\$2,310,000
Flexible kW				
Business Sector				
Existing Facilities	436	478	542	1,456
<u>New Construction</u>	<u>50</u>	<u>50</u>	<u>50</u>	<u>150</u>
Total Business Sector	<u>486</u>	<u>528</u>	<u>592</u>	<u>1,606</u>
Residential Sector				
New Construction	0	0	0	0
Efficient Products	155	199	300	654
<u>Existing Homes</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Residential Sector	<u>155</u>	<u>199</u>	<u>300</u>	<u>654</u>
Total Flexible kW	641	727	892	2,260

4.9 Heating, Ventilation, Air Conditioning and Refrigeration

Efficiency Vermont will continue to place increased emphasis on HVAC-R technologies in order for customers to continue to benefit from deepening efficiency in their facilities. Key strategies will include expansion of the Efficiency Excellence Network (discussed in Section 4.2) to include entities throughout the equipment supply chain, with a focus on:

- Increasing the installation of high-efficiency equipment, such as hydronic circulator pumps, controls, high-efficiency evaporators, advanced wood heating systems, and heat pump water heaters.
- Optimizing entire systems through whole building practices, while ensuring adequate indoor air quality (IAQ), including ongoing system monitoring and management, building management system optimization and upgrades, building retuning, integration of HVAC controls with other

systems (e.g., lighting controls), existing building commissioning, monitoring-based commissioning, benchmarking, and energy system optimization.

- Providing customers with guidance about heat pump technologies—including centrally ducted, air-to-water, and geothermal heat pumps—on-site interactions, or through the Efficiency Vermont Contact Center and website, at events, and via members of the Efficiency Excellence Network (see Section 4.2), in addition to providing incentives, developing related supply chains, and influencing standards for quality and efficiency in heat pump technologies.
- Continuing strong coordination with distribution utilities on program delivery and messaging about heat pumps. Efficiency Vermont will assist customers with information about:
 - How to determine if a heat pump is the right option to pursue, based on an analysis of existing and future fuel costs, building type, and other factors to provide a limited feasibility analysis
 - How heat pump technology works, and what units will look like when installed in a home or business
 - Products and qualified product lists
 - The benefits of building shell efficiency when coupled with the installation of a heat pump
 - The building types and locations in the home or business where heat pump technology solutions are most effective
 - How to find local suppliers of efficient technologies
 - Finding a contractor
 - Available heat pump rebates and incentives
 - All available financing options for heat pumps
 - How best to operate heat pumps.

Toward these ends, Efficiency Vermont will:

- Expand the scope of equipment supply chain engagement, including upstream incentives, to improve the quality of installation, increase efficient product availability, expand the range of technologies—most notably commercial refrigeration, and to leverage relationships in the delivery of efficiency information to customers
- Continue to evaluate emerging technologies for inclusion in services, optimizing program delivery to scale up adoption of these technologies as they mature
- Maintain involvement with industry trade associations and marketing / buying groups.

4.9.1 Refrigerant Management

Due to the high prevalence of leaks in commercial refrigeration systems, and the economic and environmental impacts resulting from these leaks, Efficiency Vermont will work with customers to assist in refrigerant management. Refrigerant leaks cause equipment to operate inefficiently and eventually fail. The refrigerant itself is also a highly concentrated greenhouse gas, having a global warming potential (GWP) up to 14,000 times that of carbon dioxide. Following are the various strategies Efficiency Vermont will employ to address these issues:

- Continue to deploy permanent refrigerant leak detectors at large commercial customer sites to identify refrigerant leaks on a continuous basis
- Partner with contractors to help SMB customers identify and repair refrigerant leaks

- Help businesses install equipment utilizing natural refrigerants, such as CO₂ racks and condensing units and drop-in evaporators for walk-in refrigerators & freezers
- Continue to promote midstream adoption of ENERGY STAR hydrocarbon reach-in refrigerators and freezers
- Assist customers to identify options to swap existing refrigerants for lower GWP refrigerant charge options for their commercial refrigeration needs
- Build the supply chain and partner with Vermont retailers to provide education about and access to residential refrigerators with natural refrigerants.
- Help businesses select and install low charge refrigerant systems as an alternative to systems with substantially more refrigerant (e.g. encouraging chillers over direct exchange equipment)
- Partner with the Agency of Natural Resources (ANR) to provide enhanced support for grocery stores to transition to next generation refrigerants. The focus will be on small to medium sized customers with refrigeration systems but have limited methods for monitoring refrigerants or reducing refrigerant leaks. Efficiency Vermont's enhanced support will assist these customers to upgrade to refrigeration systems that utilize natural refrigerants or install permanent leak monitoring systems.²³

4.10 EEMA Programs

Efficiency Vermont's EEMA program activities are intended to continue and build on the solid foundation of the EEMA programs launched in the 2021-2023 performance period. The transportation sector work will continue to focus on two critical activities related to plug-in electric vehicle (EV) market development and transformation: expanding current EV supply chain development efforts while supporting consumer outreach and education. To support the thermal sector, Efficiency Vermont will continue the successful Low-Income Fuel Switch Program which enables low-income customers across Vermont to access the economic and environmental benefits of reducing fossil fuel consumption by utilizing heat pump technology.

Efficiency Vermont has developed the following plan for continuing EEMA programs that will support market transformation of the electric vehicle and low-income home heating markets in Vermont:

- Leverage the existing network of highly engaged EV dealers and the educational resources available through Drive Electric Vermont to ensure Vermonters have ready access to EVs, and the information they need to inform their purchase decisions.
- Emphasize equity and access within the EV market transformation program, by placing a strong focus on understanding and influencing the market for used EVs.
- Grow the reach and impact of the LI Fuel Switch program, by embedding program improvements recommended by participating contractors and seeking opportunities to leverage additional funding sources to offset program costs

²³ The approved 2024 State of Vermont budget includes a \$700,000 appropriation to ANR for a refrigerant management initiative. It is expected that ANR and Efficiency Vermont will enter an agreement to spend these funds on refrigerant management activities from 2024-2026. These activities will be incremental to EEC-supported refrigerant management activities, and specifically focus on providing enhanced support for small to medium size business customers with refrigeration systems to help them either install refrigerant leak monitoring systems or transition to natural refrigerant systems.

As with all programs and services, Efficiency Vermont will continue to monitor market conditions as a foundation for any potential future program design decisions. As market conditions change and shift, future programs would be designed based on identifying key interventions to continue the work to increase and accelerate market adoption.²⁴

See Appendix No. 1 for Efficiency Vermont’s EEMA electric transportation program metrics and targets that Efficiency Vermont will track for the 2024-2026 performance period. Efficiency Vermont will continue to work with the Department on the tracking and reporting of EV market metrics to understand how this market is evolving in Vermont. Those metrics are also provided in the appendix.

As a separate EEMA program, Efficiency Vermont will continue to work in partnership with electric distribution utilities and low income weatherization agencies (WAPs) to support heating electrification for low-income customers. This program has helped fill a gap not currently being addressed, by focusing on enrolling previously served WAP customers who would not otherwise have access to cold climate heat pumps that can reduce their heating costs and improve their quality of life.

Table 9. EEMA Programs Budget²⁵

<u>EEMA Programs Budget</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2024-2026</u>
<u>Business Sector</u>				
Existing Facilities	\$0	\$0	\$0	\$0
<u>New Construction</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Total Business Sector	\$0	\$0	\$0	\$0
<u>Residential Sector</u>				
Efficient Products	\$1,030,000	\$1,030,000	\$1,030,000	\$3,090,000
Existing Homes	\$970,000	\$970,000	\$970,000	\$2,910,000
<u>New Construction</u>	\$0	\$0	\$0	\$0
Total Residential Sector	\$2,000,000	\$2,000,000	\$2,000,000	\$6,000,000
Total Budget	\$2,000,000	\$2,000,000	\$2,000,000	\$6,000,000

²⁴ Efficiency Vermont’s electric transportation programs are enabled by EEMA. To implement these programs beyond 2026 would require further legislative action to do so.

²⁵ Efficiency Vermont’s total 2024 EEMA Programs budget as represented in Table 9 was approved by the Commission in its 1/10/2024 *Order Approving Efficiency Vermont’s Amended Demand Resources Plan for 2024-2026 and Requiring Further Process for 2025 and 2026*, in Case No. 22-2954-PET. The total EEMA program budgets for 2025 and 2026 in Table 9 represent Efficiency Vermont’s proposed EEMA Programs budgets, consistent with its 12/8/2023 proposal filed in the above aforementioned case.

4.10.1 Electric Transportation

EV Market Transformation: Supply Chain Support

Efficiency Vermont's EEMA activities in the transportation sector place a strong emphasis on building the market and dealer capacity for growing electric vehicle sales within Vermont. The EV Dealer Program, which launched in 2021 and is administered through Efficiency Vermont's Efficiency Excellence Network ("EEN"), established a network of new and used car dealerships across Vermont who are committed to promoting EVs to their customers. Dealers who join the EV Dealer Program become members of the EEN EV Dealer group and have access to financial incentives for selling EVs, support for installing the infrastructure needed to sell and service EVs, and marketing and promotional support. In order to further support development of a robust statewide EV supply chain, Efficiency Vermont's EEMA programs will include the following activities in 2024:

- Increased engagement with used car dealerships, to better understand the unique barriers they may face in stocking and selling EVs
- Continuation of financial incentive offerings for EV sales, with potential bonus or enhanced incentives for used EVs and/or used car dealerships, pending further feedback and insights from used car dealerships
- Additional training opportunities for dealers and sales staff, with trainings topics and content refined based on the latest advancements in the EV industry, new or updated EV incentive program offerings, and dealer feedback
- Pending program budget availability in 2025-2026, continuation of financial incentive offerings for EV infrastructure, and project management support for DC fast charging station installations and make-ready projects.²⁶

EV Market Transformation: Consumer Education and Outreach

As part of an overarching effort to transform the market for EVs in Vermont, the EV Dealer Program is complemented by a statewide EV consumer education campaign, the goal of which is to increase awareness of, familiarity with, and interest in EVs. While the campaign promotes Drive Electric Vermont as a trusted, third-party resource, resources and information can be found on Efficiency Vermont's website as well. Both platforms offer tools and resources to support every step of the customer journey, from learning about EV technology to comparing vehicles prior to making a purchase.. EV consumer education tactics in 2024 will include:

- Continuation of a statewide EV consumer education and awareness campaign focused on the benefits of EVs and available federal, State, and utility incentives, created in partnership with DEV, utilities, and other stakeholders. Tactics will include small scale and targeted advertising, earned media, and outreach.
- Developing and maintaining resources for EV shoppers
- In-dealership materials & collateral and cooperative marketing support with dealers (as noted above).

²⁶ These activities are based on Efficiency Vermont's proposed 2025-2026 budgets.

4.10.2 Low-Income Fuel Switch

Based on Efficiency Vermont's engagement with DU partners, Weatherization Agencies, and other stakeholders: Efficiency Vermont launched in 2022 a program to support low-income customers in combining weatherization with heating electrification. The Low-Income Fuel Switch Program provides low-income customers with access to no-cost home heating electrification, and in so doing, implements new approaches to delivering services that ensure equitable access to technologies that reduce greenhouse gas emissions. In addition, by partnering with distribution utilities to jointly fund installations, the program assists distribution utilities with meeting their Tier III goals for serving and investing in low-income customers.

Eligible customers include those previously served by Weatherization Agencies and whose primary heating source is currently fossil fuel based. Under the program, Efficiency Vermont qualifies eligible customers via phone consultation, a process which includes performing an analysis for the customer of potential energy and cost savings as a result of the anticipated fossil fuel use offset and heat pump installation. After Efficiency Vermont submits the customer's referral to a participating contractor, the contractor works directly with customer to schedule and perform the installation of the cold climate heat pump. Efficiency Vermont will leverage additional sources of funding to continue to support necessary electric panel upgrades. The cost of the heat pump unit and installation will be shared between Efficiency Vermont and the customer's distribution utility.

Enabling access to the impacts and benefits of home heating electrification remains as the key priority of the Low Income Fuel Switch Program for 2024. Work and program activities during this time will include:

- In partnership with participating distribution utilities, continue to offer the program statewide, prioritizing the 168 customers placed on a waitlist during the first iteration of the program from 2022-2023, and continuing to seek customer leads in Stowe Electric Department territory (where 2022-2023 enrollment was relatively low).
- Maintain established network consisting of 16 participating contractors who field customer referrals and perform heat pump installations. This includes extending Participation Agreements that expired at the conclusion of 2023. Additionally, the program will launch efforts to selectively recruit additional contractors to deepen program capacity and geographic redundancy.
- In collaboration with participating distribution utilities, determine a statewide DU Cost Cap that is feasible and consistent across all DUs. This value represents the maximum amount a customer's distribution utility will pay towards the completion of a single heat pump installation, with Efficiency Vermont leveraging the program budget to cover the remaining product and installation costs.
- Pending program budget availability for 2025-2026 and the timing for that determination, develop feasible strategy for program implementation and outreach tactics for future participants and contractors. The program would aim to serve between 150-200 customers annually during this subsequent period, and will identify methods for customer identification and outreach in collaboration with the Weatherization Assistance Program.

4.11 2024–2026 Initiative-Specific Evaluation Activities

Initiative-level evaluation activities will be assessed and adjusted as needed to ensure their alignment with the goals and priorities outlined in this Plan. All efforts will be guided by process feedback and customer input.

Table 10. 2024-2026 initiative specific evaluations activities

Years	Activity	Description/ Intent
2024-2026	Existing Homes: Single Family Weatherization	Assess impact (energy and non-energy benefits, market transformation, public energy literacy); process (cost-effectiveness, operational efficiency, and data collection); contractor capacity/ workforce needs; and customer / partner satisfaction in order to inform future program offerings in pursuit of overarching state weatherization goals.
2024- 2026	Existing Homes: Single- and Multifamily / Low-Income and Market Rate Programs	Assess impact (energy and non-energy benefits, market transformation, public energy literacy), process (cost-effectiveness, operational efficiency, quality assurance, and quality control), and access to and gaps in service for different segments of the low-income market. Results will inform product mix and service design and delivery of future programming.
2024-2026	New Construction: Single-and Multifamily / Low-Income and Market Rate	Assess impact (energy and non-energy benefits, market transformation, public energy literacy) and process (cost-effectiveness, operational efficiency, quality assurance, and quality control) of program approach for single- and multifamily market rate and low-income new construction programs. Results will inform future direction of all Efficiency Vermont residential new construction programs and services.
2024-2026	Rental Property Owner Programs	Assess impact (energy and non-energy benefits, market transformation, public energy literacy) and process (cost-effectiveness, operational efficiency, quality assurance, and quality control). Results will inform product mix and service delivery of future programming. In addition, continue to assess ongoing barriers to participation to identify current gaps, and to inform outreach and engagement tactics and opportunities for future services.
2024-2026	Commercial: Lighting Retrofits	Assess opportunities for lighting retrofits and lighting controls, which for the majority of planned activities due to federal efficiency standards for lighting products that ended Efficiency Vermont’s support of ENERGY STAR downlights and fixtures on July 1, 2023, and state law banning the sale of compact fluorescent bulbs (CFLs) beginning February 17, 2023 for screw-based CFLs and January 1, 2024 for general purpose four-foot long linear fluorescent tubes. ²⁷

²⁸ The final reports for research conducted in 2021-2022 are linked below.

2024-2026	Commercial: HVAC and Refrigeration Programs	Assess impact (energy and non-energy benefits, market transformation, public energy literacy); process (cost-effectiveness, operational efficiency, quality assurance, and quality control); and customer / partner satisfaction regarding Efficiency Vermont services, in order to steer continuous improvement efforts.
2024 - 2026	Efficient Products	Assess impact (energy and non-energy benefits, market transformation, public energy literacy) and process (cost-effectiveness, operational efficiency, quality assurance, and quality control). Results will inform product mix and service delivery of future programming.

5 Development and Support Services

Efficiency Vermont will continue to engage in efforts that build customer awareness and knowledge; help shape energy efficiency policies; and support approaches for optimal service development, delivery, and improvement. DSS activities may not directly result in efficiency savings but represent valuable aspects of energy efficiency service delivery and development, and include activities in the following categories: education and training, applied research and development, planning and reporting, evaluation, administration and regulatory affairs, and information systems. In 2024-2026, the below activities will be essential to Efficiency Vermont’s efforts to deepen energy savings and to have a lasting, positive impact on Vermont households, businesses, and communities. DSS activities are funded through a combination of electric and TEPF budgets. The three-year budgets by category and initiative follow.

Table 11. 2024–2026 Development and Support Services Budgets

Development and Support Services	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2024-2026</u>
<u>Education & Training</u>				
Codes & Standards Support - Residential	\$20,300	\$22,200	\$23,500	\$66,000
Codes & Standards Support - Business	\$13,300	\$12,800	\$13,400	\$39,500
Energy Literacy Project	\$140,000	\$140,000	\$140,000	\$420,000
General Public Education	\$67,800	\$69,200	\$70,600	\$207,600
Better Buildings by Design Conference	\$0	\$0	\$0	\$0
Customer Support	\$218,000	\$226,000	\$235,000	\$679,000
<u>Building Labeling and Benchmarking</u>	<u>\$21,700</u>	<u>\$21,700</u>	<u>\$21,700</u>	<u>\$65,100</u>
Sub-Total Education & Training	<u>\$481,100</u>	<u>\$491,900</u>	<u>\$504,200</u>	<u>\$1,477,200</u>
<u>Applied Research & Development</u>				
Technology Demonstrations	\$177,600	\$181,100	\$184,800	\$543,500
Equity	<u>\$150,900</u>	<u>\$150,900</u>	<u>\$150,900</u>	<u>\$452,700</u>
Sub-Total Applied Research & Development	<u>\$328,500</u>	<u>\$332,000</u>	<u>\$335,700</u>	<u>\$996,200</u>
<u>Planning and Reporting</u>				
Annual Plan	\$21,100	\$30,000	\$33,200	\$84,300
Demand Resources Plan	\$46,900	\$378,600	\$228,900	\$654,400

Vermont System Planning Committee Participation	\$15,000	\$15,000	\$15,000	\$45,000
ISO NE Forward Capacity Market Administration	\$117,900	\$120,200	\$122,700	\$360,800
External Reporting	\$106,200	\$108,300	\$110,500	\$325,000
<u>Non-Regulatory Reporting</u>	<u>\$64,300</u>	<u>\$65,500</u>	<u>\$66,900</u>	<u>\$196,700</u>
Sub-Total Planning and Reporting	\$371,400	\$717,600	\$577,200	\$1,666,200
<u>Evaluation</u>				
Savings Verification	\$34,000	\$34,700	\$35,400	\$104,100
Technical Advisory Group	\$58,800	\$60,000	\$61,200	\$180,000
Technical Reference Manual	\$246,600	\$251,500	\$256,600	\$754,700
ISO-NE Forward Capacity Market Metering/M&E	\$120,000	\$85,000	\$86,700	\$291,700
<u>Quality Management</u>	<u>\$13,800</u>	<u>\$14,500</u>	<u>\$14,800</u>	<u>\$43,100</u>
Sub-Total Evaluation	\$473,200	\$445,700	\$454,700	\$1,373,600
<u>Administration & Regulatory Affairs</u>				
Public Affairs	\$105,200	\$107,300	\$109,400	\$321,900
Regulatory Affairs	\$340,600	\$347,400	\$280,300	\$968,300
<u>General Administration</u>	<u>\$100,400</u>	<u>\$102,400</u>	<u>\$104,400</u>	<u>\$307,200</u>
Sub-Total Administration & Regulatory Affairs	\$546,200	\$557,100	\$494,100	\$1,597,400
<u>Information Systems</u>				
Core Business Software Applications	\$1,101,100	\$1,123,100	\$1,145,600	\$3,369,800
Utility Data Management	\$124,500	\$127,000	\$129,500	\$381,000
<u>Reporting and Business Intelligence</u>	<u>\$152,800</u>	<u>\$155,900</u>	<u>\$159,000</u>	<u>\$467,700</u>
Sub-Total Information Systems	\$1,378,400	\$1,406,000	\$1,434,100	\$4,218,500
Total Development and Support Services	\$3,578,800	\$3,950,300	\$3,800,000	\$11,329,100

5.1 Education and Training

5.1.1 Codes and Standards Support—Residential and Commercial and Industrial

To help Vermont households and businesses comply with, or surpass, State energy codes for new construction and renovation projects, Efficiency Vermont will provide a range of services, including key training and technical assistance for customers involved in the design, construction, renovation, sale, and ownership of new and existing homes and commercial buildings.

- Energy Code Assistance Center
 - o *Technical assistance*—For 2024–2026, Efficiency Vermont expects to provide approximately 500 technical assists, or more, through the Energy Code Assistance call center

- *Distribution of code materials*—In 2024–2026, Efficiency Vermont expects to distribute approximately 1,500 code handbooks and other energy code–related materials.
 - *Connection to State goals* – develop and deliver market-specific training that articulates linkage of energy code to Vermont’s Comprehensive Energy Plan, and Climate Action Plan in support of the Vermont Office of Professional Regulation.
- Energy code training and market partner support
 - *Training for building professionals, real estate professionals, and municipal staff*—For 2024–2026, Efficiency Vermont expects to facilitate 15 building energy code training sessions, and to train more than 500 contractors.
 - *Advisory support for market groups and partners*—For 2024–2026, Efficiency Vermont expects to participate in at least six advisory group meetings.
- For 2024–2026, Efficiency Vermont expects to assist approximately 150 partners including Vermont agencies, town energy committees, and commercial and industrial customers, to discuss best building practices for meeting code requirements.

5.1.2 Energy Literacy Project

In collaboration with education associations, nonprofit organizations, government agencies, and utility providers, Efficiency Vermont will continue to deliver the Energy Literacy Project. The project will provide information about energy, its use, and the impact of energy consumption to students, educators, and relevant staff. The aims of the project are to promote energy literacy and to transform energy-related behaviors both within and beyond the classroom. This project will provide:

- Educator training on incorporating energy literacy into all subject areas in all grades
- Support for the establishment of educator / peer learning groups specific to teaching energy literacy
- Continuing education credits and an Energy Literacy Certification program for educators
- Learning resources for students and educators such as curriculum-based workshops, hands-on learning, and energy management practices.

Efficiency Vermont will collaborate with education providers and intends to deliver workshops that are equitably distributed across the state. These workshop topics may include how the sun and wind provide renewable energy, and home heat transfer, and will be in alignment with the split electric and TEPF funding (discussed in the Section 5 introductory paragraph above). Efficiency Vermont also intends to design deliverables specifically for education providers serving lower-income areas, and those that have not participated in Efficiency Vermont programs in at least five years.

5.1.3 General Public Education

In alignment with the Commission’s directive to provide general information to the public in order to increase customer awareness and understanding of the benefits of reducing energy use, and of the best technologies available to the public, Efficiency Vermont will provide information through:

- Participation in and sponsorship of mission-aligned events throughout the state. Through this work, Efficiency Vermont staff will connect with Vermont households and businesses throughout the state.
- Proactive efforts with the media to develop stories that highlight how Vermont households and businesses can participate in and benefit from Efficiency Vermont services, and how their participation supports other customers through lower energy costs and other benefits. Efficiency Vermont will issue multiple statewide press releases that highlight new customer services and resources, customer success stories, and other information of benefit to Vermont households and businesses. These stories will illustrate the value of energy efficiency and generally encourage customer participation in Efficiency Vermont programs.
- Relationships with strategic partners whose missions align with the overall objectives of Efficiency Vermont.
- Efficiency Vermont Marketplace, an online tool that customers use to research appliances in a variety of categories including electronics, heating & cooling, home and office, and laundry. The Efficiency Vermont Marketplace is a collaboration between Efficiency Vermont and a company that provides a suite of software applications and services designed to drive more energy-smart decisions from consumers.

General public information—via partnerships and outreach designed to create awareness and understanding—is distinct from the information found in Efficiency Vermont program marketing materials, which are intended to promote participation in specific resource acquisition activities.

To ensure that all information efforts have an optimal impact, Efficiency Vermont uses testing and insights to support the creation of focused messaging and materials, and to measure their effectiveness.

5.1.4 Better Buildings by Design Conference

Efficiency Vermont presents its Better Buildings by Design Conference annually. This two-day gathering is the region’s premier design and construction conference, serving as a key resource to approximately 850 construction and design professionals, as well as equipment installation and service contractors. The conference focuses on best practices for building durability, superior performance, energy efficiency, and value for both residential and business new construction and retrofit projects. Attendees prioritize the conference to come spend the day with their peers, learn and stay up-to-date on the latest energy efficiency best practices from concept to application, and earn continuing education credits.

In addition to typically 40 workshops and hands-on demonstrations given by industry leaders, the conference hosts a trade show of typically 60 exhibitors of efficient technologies and presents its *Best of the Best* awards for exceptional achievement in new and renovated high-performance buildings and homes.

5.1.5 Customer Support

Customer Support responds to general questions and requests for information, training, and/or event staffing as required to meet or exceed the quantitative performance indicators for the Service, Quality, and Reliability Plan. Vermont households and businesses will continue to have easy access to expert

energy efficiency information and guidance through Efficiency Vermont’s multichannel Contact Center. Efficiency Vermont anticipates that the Contact Center will respond to more than 30,000 inquiries from existing and new customers about energy use and management each year of the 2024–2026 performance period. Staff respond to inquiries via phone, e-mail, and website live chat, as well as in person at community events and presentations.

When questions are not directly tied to an Efficiency Vermont resource acquisition program, the Contact Center will support customers with information and technical support about topics including electric and thermal energy use and related technologies; energy efficiency; and transportation.

Additionally, the Customer Support team will coordinate and communicate with distribution utilities and other partner organizations on customer-related training and communications.

5.1.6 Building Labeling and Benchmarking

Efficiency Vermont will continue to support activities that increase the visibility and valuation of energy efficiency improvements in the market, including the issuance of certificates, energy labeling, and benchmarking of commercial buildings. Examples of activities:

- Coordination with partners and stakeholders to support statewide labeling and benchmarking activity
- Outreach and education for real estate industry stakeholders including real estate professionals, appraisers, and home inspectors
- Marketing and promotion of home energy labels
- Continue to explore opportunities to integrate building labels with other platforms like MLS.
- Support and training for creating home energy labels
- Coordination with entities supporting IT systems and tools for labeling and benchmarking buildings
- Work with labeling partners to evaluate labeling activities and impacts.

5.2 Applied Research and Development

Efficiency Vermont will engage in a range of technology demonstration projects in its research and development “R&D” effort and will conduct ongoing assessment to ensure alignment with the goals and priorities outlined in this Plan. Additionally, Efficiency Vermont will launch a new initiative “Equity” focused on engagement with marginalized customers, communities, and the partners who serve them.

5.2.1 Equity

The intent of this limited three-year initiative is to advance procedural equity in Efficiency Vermont’s work by ensuring that engagement is conducted transparently and intentionally, and as a high priority of the organization. The most critical output of this engagement effort will be a plan for fully integrating equity into Efficiency Vermont’s 2027-2029 DRP proposal. This plan will incorporate recommendations on new

or altered equity metrics and goals, along with a budget proposal that ensures successfully piloted RA equity programs can be made available on a statewide basis.

In 2024, Efficiency Vermont staff working in partnership with regulators will develop and implement an Engagement Plan to better understand and recognize the barriers experienced by underserved populations, as well as learning their values, wants, and needs for efficiency services. Underserved populations include those with low participation rates, as well as those that have experienced disproportionately less investment or benefits from clean energy programs. This could include renters, rental property owners, low-income customers, persons of color, and other marginalized populations. The findings and partnerships built through this engagement and research will inform the:

- Communities with whom Efficiency Vermont focuses its equity efforts;
- Design and piloting of programs that ameliorate barriers and/or better serve communities' wants and needs;
- Quantification of incentive and non-incentive programmatic resources needed to scale equity efforts; and
- Development of a metric(s) to track Efficiency Vermont's performance.

In 2025, Efficiency Vermont will continue outreach and engagement, with a focus on designing and piloting programs that better meet the needs of underserved communities. By the last quarter of 2025 (when Efficiency Vermont develops its 2027-2029 DRP proposal) Efficiency Vermont plans to utilize initial findings from engagement efforts to quantify the incentive and non-incentive programmatic resources needed to fully scale equity efforts in 2027-2029 RA measures and budgets, and to identify new or altered metric(s) to track equity performance in its 2027-2029 DRP proposal.

In 2026, Efficiency Vermont will continue outreach and engagement to inform program design, and practice tracking its proposed new or altered equity metric(s). Efficiency Vermont staff, in partnership with stakeholders and regulators, will compile a Final Report and Recommendations summarizing the DSS initiative's engagement and research findings, identifying regulatory and other structural changes needed to fully advance equity, and setting-forth Efficiency Vermont's long term, comprehensive approach to equity.

In order to support procedural equity and address barriers that members of marginalized communities may face when engaging with Efficiency Vermont, 40% of this initiative's budget is earmarked for providing direct support and compensation to partners and customers. This will help ensure this initiative's engagement efforts are accessible and just, supporting Efficiency Vermont's objective that resulting equity efforts and metrics are meaningful and embraced by the various communities throughout Vermont.

5.2.2 Technology Demonstrations

Technology demonstrations funding supports research, development, and demonstration for optimizing the creation of cost-effective solutions for meeting Efficiency Vermont's long-term resource acquisition goals. Efficiency Vermont will plan these activities to advance the goals of sound product and program

design over time through field testing, technology demonstrations, and research concerning emerging technologies and implementation strategies.

The work in this initiative allows Efficiency Vermont to:

- Create space for innovation that would not otherwise achieve investment
- Drive evolution of Efficiency Vermont’s services to better help ratepayers
- Focus staff and resources on strategic areas that need investment.

Technology demonstrations work is crucial to long-term resource acquisition savings and as an investment in the organization’s knowledge. Both outcomes benefit customers and trade allies. They are also key to understanding and developing the next generation of energy savings technologies, service delivery approaches, and enhanced customer engagement strategies for integration into the resource acquisition portfolio. Effective technology demonstration–tested approaches proceed into larger pilots with the goal of full integration and deployment through new or existing programs. Working with manufacturers, customers, and trade allies, staff drive these approaches by proposing projects that show promise for positive impacts. Outcomes of these R&D efforts are not pre-determined to have savings or impact; instead, they are designed to assess untested new concepts that ideally will enter the portfolio to procure savings and secure beneficial impacts in the future. These efforts are also proposed for this budget to experiment with and test unproven concepts that are core to innovation and redefine the future value of efficiency to Vermont households and businesses.

This initiative involves managing the annual process for soliciting and approving R&D demonstration projects, selection committee work, and implementing approved projects. Project work involves all project planning, implementation, evaluation, and development of recommendations. Each year, these initiatives will be defined and budgeted on the basis of specific supporting projects. The annual cycle affords a refresh to the approaches and tight annual timelines to complete the selected projects.

The following activities are planned for the 2024-2026 performance period:

Greenhouse Gas Reduction: Efficiency Vermont will continue to assess new and innovative greenhouse gas reduction strategies related to energy efficiency with the potential to influence manufacturing and supply chain processes for efficient products, and Vermont business and building-level greenhouse gas footprint calculations and incentive programs.²⁸ The projects will explore system connections of the

²⁸ The final reports for research conducted in 2021-2022 are linked below.

- <https://www.encyvermont.com/news-blog/whitepapers/greenhouse-gas-impacts-of-structural-materials-in-commercial-new-construction>
- <https://www.encyvermont.com/news-blog/whitepapers/embodied-and-operational-emissions-in-retrofitting-vermont-homes>
- <https://www.encyvermont.com/news-blog/whitepapers/greenhouse-gas-reduction-delivering-value-to-commercial-customers-with-load-shape-segmentation>
- <https://www.encyvermont.com/news-blog/whitepapers/greenhouse-gas-reduction-residential-rate-calculator>
- <https://www.encyvermont.com/news-blog/whitepapers/greenhouse-gas-reduction-simulating-grid-effects-of-evs-batteries-and-solar-in-vermont-pdf>

products and services Efficiency Vermont supports by mapping product lifecycles, application and sourcing footprints, and greater whole system monitoring for GHG impact. Examples include:

- Quantifying the greenhouse gas savings associated with building materials, business supply chains, and energy efficiency measures
- Partnering with distribution utilities to identify potential residential rate plans that incentivize carbon reduction and save customers money through energy efficient technologies and flexible load management of those technologies
- Analysis of customers based on load profile characteristics to identify customer groups most suitable for flexible load management and energy efficiency to drive time of use carbon savings
- Modeling, forecasting, and assessing GHG reduction in Efficiency Vermont's portfolio.

How recent applied R&D focused on GHG Reductions is impacting 2024-2026 resource acquisition plans: Efficiency Vermont will track the non-energy GHG impacts of refrigerants through the new GHG reduction QPIs. Efficiency Vermont may modify incentivized measures based on GHG impact to further reduce the energy and non-energy GHG impact of program portfolios.

Resilience Investigations: The most resilient energy is energy efficiency, because energy that is no longer needed cannot adversely affect loads or hinder critical operations when there is an outage. When energy needs are reduced, all other investments can be reduced. Efficiency reduces the need to serve a load. The measures and tools leveraged to both use energy efficiently and achieve energy resilience are rapidly changing with technology advancements. They include phase change materials, thermal envelope, storage, microgrids, direct-current power supply, artificial intelligence, controller programs, renewables, and cybersecurity for customers. Efficiency Vermont will add new projects supporting resilience such as developing a large-scale vehicle-to-grid modeling plan in partnership with the distribution utilities (*e.g.*, town-wide, commercial fleet, transit hub, or prominent workplace), and researching innovative non-electrochemical (*i.e.*, not lithium ion) storage opportunities. The goal will be to identify energy-related design decisions on resilience, and to optimize building energy use. The outcomes of this project will help guide future summer and winter peak demand savings programs and thermal and electric savings programs.

How recent applied R&D focused on Energy Resilience is impacting 2024-2026 resource acquisition plans: The results of past projects will inform technical assistance to customers who are looking for behind-the-meter energy resilience solutions and want to identify a system configuration that will serve resilience goals and meet economic goals.²⁹

²⁹ The final reports for research conducted in 2020-2022 are linked below.

- <https://www.encyvermont.com/news-blog/whitepapers/energy-resilience-return-on-investment>
- <https://www.encyvermont.com/news-blog/whitepapers/energy-resilience-critical-load-support-in-commercial-and-residential-applications>
- <https://www.encyvermont.com/news-blog/whitepapers/resilience-the-role-of-energy-storage-in-meeting-vermont-s-energy-goals>

Justice: Efficiency Vermont will assess market needs for mobile homes that are not income-eligible for State Weatherization Assistance Program Services. The project will explore market characterization, a decision-making framework for level of retrofit or replacement, and a market-rate contractor business model.

How recent applied R&D focused on Justice is impacting 2024-2026 resource acquisition plans: Efficiency Vermont may update program tracking and evaluation to better account for equity impacts and modify technical support services and incentivized measures based on equity impact to improve equitable distribution of program resources.³⁰

5.3 Planning and Reporting

5.3.1 Annual Plan

This initiative complies with requirements in the *Process and Administration of an Energy Efficiency Utility Order of Appointment* document. Efficiency Vermont will prepare and submit to the Commission an annual plan by November 1 prior to each plan year. The Annual Plan initiative involves the planning and development of filed documents and tasks associated with coordinating plans with the Department, and preparing and presenting plans to the Commission. Annual Plan primary activity includes:

- Gathering data and compiling final narratives, spreadsheets, and other pertinent data to be contained in the final document
- Creating for and delivering a presentation to the Commission
- Coordinating with the Department.

5.3.2 Demand Resources Plan (DRP)

The DRP for the 20-year electric and 10-year TEPF efficiency forecasting periods involves:

- The development and submission of a comprehensive DRP proposal to the Commission
- Preparation and review of yearly budgets and energy savings goals for electric and TEPF activity
- Development of QPIs to measure EEU results for the 2024–2026 performance period
- Preparation and review of plans and budgets for DSS activities
- Preparation of the EEU compensation and performance award structure
- Development and review of EEU compensation.

The Commission’s triennial DRP Proceeding (DRPP) is a public process in which the DRP will be determined by a PUC order. The proceeding involves public workshops to facilitate stakeholder, Department, and EEU input, and public dissemination of information and data used to establish the DRP. The proceeding can involve consideration of new market realities and technologies, subject to discussion among the Commission, Department, the EEU, and stakeholders.

³⁰ The final report for research conducted in 2022 is available at <https://www.encyvermont.com/news-blog/whitepapers/evaluating-equity-and-justice-impacts-of-energy-efficiency-projects>.

Efficiency Vermont will undertake the work of modeling 20-year projections of the electric energy efficiency savings and 10-year projections of the thermal energy efficiency savings expected from system-wide programs. Efficiency Vermont will provide the Commission, the Department, and Vermont’s utilities with these savings projections. During the DRP process, Efficiency Vermont will engage in efforts regarding the following:

- The establishment of annual budgets and energy savings goals for electric and TEPF resource acquisition activities in the 2024–2026 performance period
- QPIs to measure EEU results for the 2024–2026 performance period
- Plans and budgets for DSS activities
- Compensation and performance award structure.

5.3.3 Vermont System Planning Committee Participation

As a participant in the VSPC and pursuant to the Memorandum of Understanding (MOU) in Docket 7081, Efficiency Vermont staff attend meetings and assist in fulfilling subcommittee charters. Efficiency Vermont supports the VSPC in its effort to provide formal input to Vermont’s electric transmission organization, Vermont Electric Power Company, in the development and review of the Vermont Long-Range Transmission Plan. Efficiency Vermont also provides expertise on such topics as non-transmission alternatives and the planning of geographic targeting for energy efficiency initiatives. VSPC activities involve Efficiency Vermont staff participation in VSPC quarterly and subcommittee meetings and Efficiency Vermont staff data analysis, research, collaboration with subcommittee members, and presentations at VSPC meetings.

5.3.4 Independent System Operator–New England (ISO-NE) Forward Capacity Market (FCM) Administration

Efficiency Vermont will continue to represent the interests of Vermont ratepayers by participating in the ISO-NE FCM, in which energy efficiency savings are bid as a resource for the regional grid.

Efficiency Vermont will prepare and submit bids to provide capacity savings as an electricity demand resource in FCM auctions. Activities will include capacity forecasting, resource qualification, bid development, and auction bidding. Efficiency Vermont will track and report resource development, submit claims during capacity delivery periods, deliver reports to ISO-NE and Vermont stakeholders, and undertake all other activities required to support this market participation.

Efficiency Vermont will perform all necessary administrative and fiscal activities associated with these responsibilities, including budgeting and revenue forecasting. Efficiency Vermont will also continue to participate in rule-making processes established by ISO-NE regarding the establishment and operation of the FCM and other responsibilities associated with being a participant in the New England Power Pool. Net revenues generated from FCM auctions are directed into Efficiency Vermont’s TEPF programs and services.

5.3.5 External Reporting

This function captures all required regulatory reporting costs associated with Efficiency Vermont activity. Efficiency Vermont submits these reports (and other relevant material) to the Department and the Commission:

- The Annual Savings Claim—submitted each spring
- The Annual Report—submitted each fall or winter
- Quarterly reports
- Voice of the Customer reports—submitted each quarter
- Annual budget variance reports
- Ad hoc reporting requests
- Annual financial audits
- Financial component of the EEU Overall Performance Assessment.

External reporting activity primarily involves:

- Drafting narratives, spreadsheets, and other data to be contained in reports
- Coordination with the Department on changes or questions
- Final review, production, and distribution of hard and electronic copies.

5.3.6 External Non-Regulatory Reporting

Efficiency Vermont external non-regulatory reporting involves:

- Community energy reporting (for example, Energy Action Network reporting)
- Utility data analysis and reporting, and efficiency savings reporting, to support Vermont’s growing regional and municipal level energy planning needs
- ISO-NE FCM and Regional Greenhouse Gas Initiative (RGGI) reports related to revenue, spending, and benefits
- Additional support of Vermont distribution utility tracking and reporting, including requirements specified under Vermont Act 56’s Renewable Energy Standard Tier III provisions. Relevant Efficiency Vermont Tier III costs include the cost to:
 - Negotiate annual program design and shared savings agreements
 - Negotiate annual MOUs for work scope and outreach sharing agreements
 - Draft and execute MOUs
 - Coordinate performance feedback and program adjustments
 - Attend workshops and procedures related to these activities, sometimes requiring legal assistance and/or representation
 - Design and conduct database modifications and maintenance to enable internal and external reporting for Efficiency Vermont and distribution utilities
 - Increased support for Act 174 municipal and regional energy planning.

5.4 Evaluation

Portfolio-wide evaluation work supports Efficiency Vermont’s compliance with the Ongoing Monitoring, Savings Verification, and Evaluation requirements in the *Process and Administration of an Energy Efficiency Utility Order of Appointment* (P&A) document. Efficiency Vermont engages in several evaluation-related activities to meet these requirements and ensure the accuracy of the program’s reported savings claims, including the following initiatives in section 5.4.1-5.4.5.

5.4.1 Annual Savings Verification

Savings verification involves coordinating and carrying out the annual evaluation of Efficiency Vermont’s reported savings and other performance metrics. The Efficiency Vermont evaluation, measurement, and verification team fulfills this scope, coordinating with the Department and third-party evaluation contractors. Annual savings verification has three tasks:

- **Savings preparation**—involving data collection from the Efficiency Vermont database and creating a savings sample plan
- **Savings review**—involving receipt, review, and feedback on preliminary project reports from the Department
- **Savings finalization**—involving a final conference to resolve any outstanding program or project issues, and issues and developing a “realization” spreadsheet to be applied to Efficiency Vermont’s database.

5.4.2 Technical Advisory Group (TAG)

The TAG consists of representatives from the Department, Vermont’s EEs, and other stakeholders. It reviews and approves the methods and associated assumptions underlying measure savings calculations in the Technical Reference Manual. In addition, TAG has functioned as a general forum for technical issues related to EEU savings claims and methods. TAG also resolves issues that arise from annual savings verification and is a proactive mechanism for developing energy characterization and savings calculations.

Efficiency Vermont anticipates that work in the TAG will fall primarily into the following areas:

- **TAG Coordination:** TAG coordination consists of scheduling monthly meetings, updating the TAG tracker, and coordinating communications around proposals and responses.
- **Review and Approval of TRM Measure Characterizations:** Efficiency Vermont staff members submit proposals for new measure characterizations via TAG. The Department and other relevant stakeholders review these characterization drafts and agree on measure assumptions and savings estimates before incorporating new measure characterizations into the TRM. This coordination and collaboration can involve general scoping meetings, measure research, and surveys that provide information to shape programmatic proposals.
- **Savings Verification Recommendations:** TAG tracks issues that arise from annual savings verification, including recommendations for process improvements and updates to savings characterization and calculations.

- **Program Implementation Procedures:** For measures or programs that require a more comprehensive review of savings delivery methodology, EEU program staff document program implementation details and explain inputs and methods used to calculate savings. External evaluators and other stakeholders use these documents to understand how a program or measure works, so that they can evaluate the savings claim accordingly.
- **Adjustments Due to Outcomes:** Assumptions and measure characterizations in Efficiency Vermont’s savings database and energy analysis tools need to be modified and revised after the Department and Efficiency Vermont reach agreement. This activity is a collaboration among Efficiency Vermont information technology, operations, and technical staff.

The TAG may also explore issues related to EEU savings claims and methods not directly covered by the five TAG categories.

5.4.3 Technical Reference Manual

The TRM provides reliable, standard savings values for prescriptive efficiency measures. The TRM scope of work is based on frequent, rigorous TRM review during the three-year performance period, in the context of new measures designed to support program efforts and updates of existing measures to reflect changes in standards, technology, costs, and other factors. TRM work is broken down into the following categories:

- **TRM Management:** This activity involves managing submission of measure characterizations and updating the TRM road map to track TRM updates related to program changes and reliability. Managing the TRM also involves the re-characterization of measures and savings methods to be applied to Efficiency Vermont’s prescriptive tools for savings upload and calculation.
- **TRM Development and Research:** Revisions to the TRM reflect research in new technologies and changing market conditions. All measure characterizations require considerable research, ensuring that assumptions accurately reflect the most current savings determination methods that incorporate efficiency evaluation findings from other states and those at the national level.
- **TRM Reliability:** This activity involves the annual updating of existing measure characterizations, based on findings during savings verification. It also involves changes to baselines or potential market transformation as a result of new evaluations. All measure characterizations receive a review and reliability update, as necessary, at least once every three years.
- **TRM Review:** Efficiency Vermont internally reviews all updated TRM measure characterizations prior to submitting them to the Department for comment and approval. The review group is composed of technical staff, planning and development managers, and subcontractors.
- **TRM Meetings and Workshops:** These meetings, between Efficiency Vermont and Department staff, are convened as needed for in-depth discussions, separate from the normal TAG review process. Efficiency Vermont assumes the historical frequency of these meetings will persist through the performance period and throughout the respective forecasts.
- **TRM Pilots:** To develop measure characterizations for new technologies where no readily available data on energy performance exist or where there are conditions of variable savings and a high degree of uncertainty, Efficiency Vermont might conduct pilot measurement and verification studies to gather the information necessary to accurately estimate savings.

5.4.4 ISO-NE FCM Metering, Monitoring, and Evaluation

Efficiency Vermont participates in the New England Power Pool market via the ISO-NE FCM. It's performance in this market is measured and verified via a collaborative effort between Efficiency Vermont and a Department- appointed consultant. The majority of the ISO-NE FCM metering, monitoring, and evaluation work involves development and execution of triannual sampling plans for small, medium-sized, and large Efficiency Vermont custom business projects, and consists of the following four activities:

- **Measurement and Verification:** Efficiency Vermont creates and reviews metering plans to ensure that Efficiency Vermont uses the correct approach for the selected large projects identified in the sampling plan. This implementation begins with the development of an initial sampling plan representative of the entire Efficiency Vermont portfolio. Subsequently, metering plans are developed and reviewed to ensure that the correct approach is implemented for the projects in the sampling plan. Activities entail implementing the metering plan, installing meters on customer equipment, verifying installed equipment models and quantities, run hours, documenting non-route adjustments, collecting metered data, and removing the meters.
- **Measurement Review and Analysis:** All project meter data undergo review for reliability and validity. This includes analyzing meter data at intervals varying from 1 to 15-minute intervals across a season, with two weeks to six months of data pre and post meter installation depending on the type of measure. Additionally, a review of engineering assumptions and measure characterizations is undertaken when required.
- **Measurement and Verification Finalization:** As in the annual savings verification process, realization rates are calculated and are applied to power (kW) reductions claimed in Efficiency Vermont's savings database. Efficiency Vermont analysis tools might be amended to reflect updated measure assumptions.
- **Equipment and Calibration:** Efficiency Vermont purchases metering equipment to conduct testing and analysis of projects identified in the sampling plan. All equipment used is purchased and maintained to an accuracy level necessary to ensure adherence to ISO-NE requirements.

5.4.5 Quality Management

Efficiency Vermont will conduct quality management activities that align with Efficiency Vermont's Service Quality and Reliability Plan (SQRP). Quality management will support SQRP-related QPI compliance and continuous improvement activity. Efficiency Vermont's SQRP establishes performance standards and supports associated reporting requirements for its energy efficiency services. Under the SQRP, Efficiency Vermont is committed to meeting or exceeding performance metrics in four service categories: 1) general customer satisfaction (surveys are performed every three years by independent, third-party research professionals); 2) project customer satisfaction (surveys are performed upon completion of projects in various market segments, as a way of monitoring and improving core "transactional" performance); 3) incoming call responsiveness (all calls received each quarter are monitored automatically in terms of answer time and percentage of calls answered or abandoned, and average percentage of email responses); and 4) complaint rate and resolution. Efficiency Vermont tracks SQRP satisfaction and performance data closely to monitor process health, identify performance gaps, and evaluate trends in interest and satisfaction. Gaps and negative trends serve as an effective prompt for cross-functional root cause analysis and corrective actions. All activities directly related to the management, tracking, and reporting of SQRP requirements and performance metrics fall under this initiative.

5.4.6 Recent Evaluation Activities Impacting 2024–2026 Resource Acquisition Plans

2022 Program Year Savings Verification

Description: In order to certify achieved savings toward Efficiency Vermont’s performance goals, the Department is required to verify the energy, coincident peak, and TRB savings claimed by Efficiency Vermont on an annual basis. For the 2022 savings verification, the Department contracted with Cadmus to conduct these verification efforts. Cadmus reviewed the preliminary savings claim put forward by Efficiency Vermont, including the program tracking database and sampled project data, in order to develop realization rates for energy (kWh), winter and summer peak demand reduction (kW), and thermal savings (MMBtu).

Evaluation Activities: The savings verification evaluation is primarily a paper review. Cadmus reviewed sampled project files and an extensive database of claimed measure data to verify that savings values and calculations had been applied correctly, and to calculate evaluated savings that incorporated any necessary corrections. The evaluation did not include conducting surveys or site visits to verify the installation or correct operation of products or to verify baseline conditions. Similarly, no metering was performed, though the evaluation used available AMI data to verify and adjust savings where practical for evaluated custom commercial and industrial projects.

Evaluation Results: Evaluation results showed relatively few errors in Efficiency Vermont’s savings claim, with realization rates of 96.9% for kWh, 96.1 % for winter kW, and 97.8% for summer kW. MMBtu realization rates for TEPF-funded measures were evaluated at 99.2%. In addition to the realization rate results, Cadmus provided several recommendations to further improve savings documentation and the program process moving forward. These recommendations focused on Efficiency Vermont’s custom projects, prescriptive measures, and database:

- *Custom Projects*
 - Regularly evaluate calculation tools for accuracy
 - Conduct in-house reviews of third-party savings estimates
 - Consistently collect invoices for installed equipment
 - Consistently document baseline equipment and operating conditions
 - Document existing equipment and operating conditions
 - Avoid use of TRM assumptions
 - Improve post-installation measurement and verification
 - Consistently provide thorough overview documentation
 - Simplify and clarify appropriate use of load shapes.
 - Continue to improve clarity of analysis files and calculation workbooks for all projects.
 - Use more robust methods to determine compressed air leakage savings
- *Prescriptive Measures*
 - Ensure database values allow as many significant digits as the TRM
 - Increase rigor in applying the TRM methods when practical.
- *Database Review and Generation*
 - Update database documentation.

Following verification of results and the finalization of realization rates for the 2022 savings claim, Efficiency Vermont applied the savings adjustments to its project tracking database to develop a final verified savings claim. Efficiency Vermont has also been focused on reviewing the evaluation recommendations and implementing improvement processes to address these issues. Ongoing continuous improvement efforts include training sessions on the custom project process and documentation best practices for engineering staff, development of custom project analysis guidelines for inclusion in future program documentation, updates to TRM measures where applicable, and a streamlined process for the transfer and documentation of claimed program savings. These efforts are expected to continue into the 2024-2026 performance period.

5.5 Administration and Regulatory Affairs

5.5.1 General Administration

Efficiency Vermont incurs general administration costs in operating the statewide EEU. These costs involve Efficiency Vermont's senior management staff in preparing for and administering general staff meetings; coordinating program implementation; and managing, monitoring, and internally communicating overall performance and spending. General Administration activities include:

- Creating and executing cost allocation contracts with the other two EEUs
- Coordinating the Department's annual EEU financial fund audit on Efficiency Vermont operations
- Directing and carrying out confidential information management systems staff training and stewardship
- Efficiency Vermont management and staff meetings
- Staff and organizational communications
- RA and DSS budget management
- Annually calculating and proposing energy efficiency charge (EEC) rates for the upcoming year using the Commission-approved methodology, pursuant to Commission Rule 5.300, for which Efficiency Vermont may propose alternatives
- Review data and support the EEU fiscal agent and RGGI trustee.

5.5.2 Regulatory Affairs (Non-DRP Proceeding)

Efficiency Vermont's Regulatory Affairs department is responsible for:

- Working with the Department to write, revise, and maintain governing documents necessary for the EEU to operate as a regulated utility
- Participating in Commission proceedings that affect energy efficiency implementation in Vermont, including proceedings determining avoided costs and Vermont screening values, proceedings related to the RGGI and FCM, OPA proceeding, VSPC proceeding, and AMI activity
- Reviewing and advising on regulator-required, coordinated services and initiatives with the other Vermont EEUs and Weatherization Assistance Program agencies to provide seamless, cost-effective, statewide energy efficiency programs

- Overseeing VEIC interactions in the regional energy markets to ensure regulatory compliance and to help secure financial benefits from energy efficiency in New England
- Working closely with RGGI Inc. to help inform its Model Rule, report GHG reductions as a result of Vermont's RGGI-funded programs, and help maximize efficiency benefits from regional cap-and-trade activity
- Developing and supporting policy instruments that can be useful tools for electricity and TEPF savings through voluntary action or government adoption
- Researching regulatory policies to support best practices for efficiency programs, to enable continuous improvement in Efficiency Vermont's services, and to support Vermont's prominence as a national leader in energy efficiency ideas and practices
- Pursuing regulatory approval of flexible and robust strategies to cost-effectively avoid or control capacity and energy supply, in support of electric distribution utility integrated resource planning
- Reviewing and providing guidance on Efficiency Vermont internal policies to ensure regulatory compliance
- Managing regulatory requests for data, analysis, and comments
- Participating as a party in the review of triennial distribution utility integrated resource plans, annual energy transformation plans, updating of avoided costs, and all other Commission-opened proceedings that could affect energy efficiency service delivery.

5.5.3 Public Affairs

Efficiency Vermont's Public Affairs work supports participation in important energy and policy discussions in Vermont. The work in this subcategory also involves public outreach to provide full and timely information regarding Efficiency Vermont's work and customers. This participation occurs across a wide range of activity:

- Working with government officials, regulators, businesses, and community organizations as a resource for information about energy, efficiency, and the EEU
- Responding to requests for briefings from stakeholders including the Vermont General Assembly, other government officials, and other energy efficiency partners and constituencies
- Assisting with the review and development of policy proposals related to the Efficiency Vermont scope of work
- Drafting papers on major Efficiency Vermont initiatives
- Presenting information about Efficiency Vermont at public forums and meetings.

In these ways, Efficiency Vermont can add to an understanding among policymakers and the public about the broad policy, statutory, and regulatory bases for the EEUs' work, and about the services and benefits Efficiency Vermont provides to ratepayers. Work across General Public Education and Public Affairs are coordinated to the maximum extent to leverage multiple activities and objectives whenever possible. Experience has shown that a robust public awareness program is an effective way to inform the public of the services and value of Efficiency Vermont to customers and promote participation in those services by households and businesses. Efficiency Vermont takes great care to ensure that its advocacy work is billed appropriately, as required by regulators.

5.6 Information Systems

5.6.1 Core Business Software Applications

Core business software applications enable Efficiency Vermont program delivery and value through the development, maintenance, and integration of software applications and associated database systems. The chief priority is to design and maintain the mission-critical customer management, project management, and energy savings system of record used daily by nearly all Efficiency Vermont staff. The system involves the primary tracking database application, as well as the software necessary to develop energy savings estimates; to track measure, project, and customer information; and to upload that data into the tracking system. Externally facing applications are also maintained for customers and market partners to ensure efficient ingest and processing of rebates. Other priorities involve a broad range of functionalities enabling Efficiency Vermont to plan, analyze, and manage portfolio, program, customer, measure, and energy data—as well as modernization and integration of Efficiency Vermont’s line of business software applications with the goal of improving process efficiency, data quality and the external customer experience. Essential activities include:

- Development, maintenance, and support of existing and new software applications, in response to changes in program delivery methods, tracking and reporting, and other user, partner, vendor, or regulatory requirements
- Requirements, analysis, and application road-map planning
- User training and documentation
- User support and issue intake, bug fixes, and developer on call on-call developers
- Integration of third-party software solutions
- Participation in data security initiatives.

5.6.2 Utility Data Management

A central repository of distribution utility data allows Efficiency Vermont to fulfill its responsibilities as an EEU. Department-mandated tracking of efficiency measure installations and evaluations could not be achieved without the integration of Vermont distribution utility data into the tracker database and existing business processes. Many of Efficiency Vermont’s performance metrics rely on the availability of accurate and up-to-date electric utility billing data (customer and monthly usage). Construction and maintenance of dashboards and reports that track and report Efficiency Vermont’s QPIs, including performance indicators and minimum performance requirements, rely on this information. Utility billing data allows Efficiency Vermont to both meet reporting objectives and better serve ratepayers. Utility account-level data is required to accurately attribute usage to a specific meter at a specific customer’s premise and better estimate the outcomes and cost savings that a specific customer will achieve.

Billing data has become an essential part of project analyses, review, and savings verification, allowing for better coordination with both electric and gas DUs and EEUUs. Utility data improves outcomes and allows Efficiency Vermont staff to better serve Vermont ratepayers. Improved utility data also enhances customer relationships and provides many administrative efficiencies. Utility data acquisition, transfer, and management includes:

- Development and maintenance of utility data documentation such as EEU data transfer standards, data definitions, and data models
- Technical guidance and support activities related to Docket 8316
- Regular coordination and communication with 16 Vermont distribution utilities and Vermont Gas Systems to ensure iterative transfer of weekly, monthly, and quarterly billing data files
- Implementation of cybersecurity measures, privacy practices, and secure transfer protocols
- Management of billing data transfers (customer and monthly usage consumption) from Vermont distribution utilities
- Development and maintenance of custom integrations designed to standardize, clean, and ingest Vermont distribution utility billing data into Efficiency Vermont’s database and data reporting warehouse.

5.6.3 Reporting and Business Intelligence

Data storage, management, and access are critical functions that support EEU operations and enable the continued success of all programs and services offered by Efficiency Vermont. As the volume of data and number of business software applications have grown, so has the need to provide scaled data systems and architecture to support this growth. Activities relate to management, analysis, and reporting of data that exists in Efficiency Vermont’s various software applications, rather than development and maintenance of the software systems. In the 2024–2026 performance period, Efficiency Vermont’s baseline activities will include:

- Data life-cycle management and database infrastructure and services (server database administration and management; data warehouse specification, design, and support; data acquisition and customer integration support; data governance and security)
- Regulatory and operational reporting (regulatory reporting maintenance and support; financial and budget reporting; portfolio, program, and initiative level reporting; data quality and integrity reporting)
- Business intelligence (working with Efficiency Vermont leadership and staff to analyze business processes, gather reporting requirements, and design and implement the required business intelligence solutions to meet the needs of the business and VEIC order of appointment).

6 Energy Efficiency Utility Funding

The Commission has specified that the funding sources for Efficiency Vermont’s electric efficiency and TEPF services be separate and distinct. Electric services will be funded through the EEC, whereas TEPF services will be funded by a combination of Vermont’s RGGI revenues and revenues generated by Efficiency Vermont’s bidding of electricity capacity savings into the ISO-NE FCM. Efficiency Vermont will strive to ensure that from the customer’s perspective, the provision of services is seamless, regardless of the funding source. Additionally, in close coordination with utility partners Efficiency Vermont looks forward to continuing the EEMA programs enabled by Act No. 44 to utilize up to \$2,000,000 of Efficiency Vermont EEC funds annually to help Vermont households and businesses reduce transportation and thermal costs – the sectors that cost the most for customers and have the highest greenhouse gas emissions, while maintaining core services. (See Section 4.10 for Efficiency Vermont’s EEMA Programs).

Efficiency Vermont will strive to ensure that from the customer’s perspective, the provision of services is seamless, regardless of the funding source.

TEPF services will support Vermont state energy policy goals as outlined in Section 581 of Act 92 (the Vermont Energy Efficiency and Affordability Act, enacted in 2008) and Vermont’s Comprehensive Energy Plan. A key provision of Act 92 is improving the energy fitness of 80,000 homes. Although TEPF funding levels will not be sufficient on their own to achieve this goal, Efficiency Vermont will design its TEPF services to be scalable to levels consistent with these public policy goals.

7 Efficiency Vermont Budgets

Efficiency Vermont has historically been very focused on managing budgets, both RA and DSS, and has been successful in delivering benefits to Vermont households and businesses while doing so. Efficiency Vermont is committed to continue to operate efficiently and effectively, and to provide quality service at least-cost. Its performance-based compensation structure encourages greater savings at lower cost. The 2024-2026 Efficiency Vermont budgets are described in detail below.

7.1 Electric Efficiency Budgets

Table 12. 2024-2026 Electric efficiency budgets (compared to 2021-2023 budgets)

Electric Efficiency Budgets	2021-2023	2024-2026
Resource Acquisition	\$120,479,952	\$126,428,680
Development and Support Services	\$8,883,606	\$9,395,800
<u>Base and Performance Compensation</u>	<u>\$6,255,800</u>	<u>\$6,791,224</u>
Total	\$135,619,358	\$142,615,704
Change		5.16%

The 2023-2024 resource acquisition budgets contain four elements: energy efficiency, ESA, FLM, and EEMA Programs. The ESA budget represents an estimate based on energy EEC collections for participants in the 2021-2023 ESA pilot. While the pilot is scheduled to end as of December 31, 2023, an updated version of the ESA program is expected to be in place beginning January 1, 2024. Starting January 1, 2024, participants will no longer accrue ESA funds but can request extensions from the Commission to spend down their remaining balance. If actual participation varies from these budget estimates, the ESA budget will be updated in future filings with the Commission. The FLM budget is restricted for use on projects that allow for load management and controls enabling lower-cost power purchases. The EEMA Programs budget is also restricted for supporting efforts to electrify Vermont’s transportation sector to increase the adoption of plug-in EVs. Energy efficiency is the core work completed by Efficiency Vermont in reducing energy (kWh), peak kW demand, and other energy and non-energy benefits for ratepayers. The three-year budgets for each element are as follows:

Table 13. 2024-2026 electric resource acquisition budgets

Electric Resource Acquisition	2024-2026 Budget
Energy Efficiency	\$113,834,120
Energy Savings Account	\$4,284,560
Flexible Load Management	\$2,310,000
<u>EEMA Programs</u>	<u>\$6,000,000</u>
Total Electric RA Budget	\$126,428,680

7.2 Thermal Energy and Process Fuels Budgets

Table 14. 2024-2026 Thermal Energy and Process Fuels budgets (compared to 2021-2023 budgets)

Thermal Efficiency Budgets	2021-2023	2024-2026
Resource Acquisition	\$21,070,500	\$26,013,500
Development and Support Services	\$1,539,167	\$1,933,300
<u>Base and Performance Compensation</u>	<u>\$1,093,365</u>	<u>\$1,397,340</u>
Total	\$23,703,032	\$29,344,140
Change		23.8%

Efficiency Vermont’s TEPF funding is composed of revenues from the RGGI and FCM auctions. The 2024-2026 TEPF RA budget approved in the current DRPP (Case No. 22-2954-PET) increased compared to the 2021-2023 budget, due primarily to increased TEPF revenue forecasts associated with RGGI auctions. These increased revenues enable higher budgets for the 2024-2033 forecast period. This is different from what was anticipated for the 2024-2026 budgets in the prior DRPP (Case No 19-3272-PET), which was to have a large decrease in funding beginning in 2024, compared to the 2021-2023 budgets. Due to the increased revenues compared to prior estimates, the 2024-2026 TEPF RA budget represents an increase of approximately \$5 million for the three-year period compared to the 2021-2023 DRP. While there is a decrease in the TEPF RA budget forecast in 2027, compared to the 2026 budget, the budget still remains higher in the 2027-2033 forecast period, compared to the forecast upon which the 2021-2023 TEPF RA budget was established in the prior DRPP.

The 2024-2026 TEPF RA budget is split between residential and commercial sectors based on the proportional share of fuel oil and propane sales in the state to these sectors, which is 75% residential and 25% commercial. Therefore, 75% of the budget is allocated for residential programs and 25% for commercial programs. Efficiency Vermont will also continue to support the organizational and workforce development infrastructure needed to ensure moderate-income customers have consistent access to weatherization.

7.3 Development and Support Services Budgets

There are six categories of DSS that support RA activity for Efficiency Vermont programs and initiatives. Within each DSS category are multiple initiatives and a total of 26 initiatives across all categories. The DSS budget is approximately \$482,000 higher than the DSS budget that was originally approved for the 2021-

2023 performance period, representing an increase of 4.4%.³¹ Even so, the 2024-2026 DSS budget is lower than the original 2024-2026 budget that was approved in the prior DRPP.³² Efficiency Vermont has worked during the last few years to streamline and reduce DSS costs, all the while absorbing inflation. The approved 2024-2026 budget reflects current level of effort, the inclusion of an inflation adjustment of 2%, and the addition of a new Equity initiative.

7.4 Compensation

Efficiency Vermont is regulated as a performance-based utility, under an Order of Appointment issued by the Commission pursuant to 30 V.S.A. § 209(d)(5). VEIC is the entity appointed by the Commission to administer Efficiency Vermont. VEIC's total compensation structure for the administration of Efficiency Vermont and delivery of services contemplated in the Demand Resources Plan is described in VEIC's Order of Appointment (OOA).³³ The compensation requirements in Section III stipulate, in part, that the structure of VEIC's compensation for the provision of services and initiatives under this Appointment shall be composed of, in part:³⁴

- Reimbursement of actual costs incurred (direct labor and expenses and allocation of eligible indirect and fringe costs) for both RA and DSS activities
- Performance compensation to be paid based on the attainment of QPI targets established under the DRP proceeding, from funds collected through EEC or other sources under the jurisdiction of the Commission and withheld from the budget for this purpose
- Operations fees that may be charged as a percentage of all or a portion of reimbursed costs, on both RA and DSS activities.

The performance award is calculated as a percentage of the total approved budget and sets the maximum financial award to which the Efficiency Vermont administrator is entitled for attainment of specific performance indicators. The role of the performance award is to create an incentive for achieving the quantitative and policy goals that are established in the QPIs (performance indicators [PIs] and minimum performance requirements [MPRs]). Efficiency Vermont has the opportunity to earn a portion of the performance award after the Commission's verification of Efficiency Vermont annual and three-year performance.

The operations fee is a fixed percentage of the total approved budget and is applied to all Efficiency Vermont expenditures.³⁵

In effect, the performance award and operations fee make up the operator's total allowable earnings for the administration of Efficiency Vermont in the performance period. The combined maximum compensation for the operator if it achieves the maximum performance award is 5% of the total RA and

³¹ See Case No. 19-3272-PET, Order of 10/22/2020 (concerning the approval of Efficiency Vermont 2021-2023 and 2024-2026 electric and TEPF development and support services budgets) at pages 14-22 and 27-29.

³² Id.

³³ VEIC's most recent Order of Appointment was issued by the Commission on January 27, 2023 in Case No. 22-1647-PET.

³⁴ Id. (Section III.1.A, D and E)

³⁵ The operations fee phases out to 0% in 2025 and 2026.

DSS budgets.³⁶ The operations fee will be reduced from 0.5% in 2024, to 0% in 2025 and 2026. The maximum performance award rate conversely increases from 4.5% in 2024, to 5% in 2025 and 2026.

The remainder of Section 7 presents a budget summary and more detailed budgets.

7.5 2024-2026 Resource Acquisition and Development and Support Services Budget Summary

Table 15. 2024-2026 resource acquisition and development and support services budget summary

Resource Acquisition	2024	2025	2026	2024-2026
Electric EEU Funds				
<i>Energy Efficiency</i>	\$37,115,032	\$37,983,400	\$38,735,688	\$113,834,120
<i>Flexible Load Management</i>	\$796,130	\$725,985	\$787,885	\$2,310,000
<i>EEMA Programs</i>	\$2,000,000	\$2,000,000	\$2,000,000	\$6,000,000
<i>Energy Savings Account</i>	<u>\$1,400,000</u>	<u>\$1,428,000</u>	<u>\$1,456,560</u>	\$4,284,560
Total Electric EEU Funds	<u>\$41,311,162</u>	<u>\$42,137,385</u>	<u>\$42,980,133</u>	<u>\$126,428,680</u>
Total Thermal Energy and Process Fuel Funds	<u>\$8,500,000</u>	<u>\$8,670,000</u>	<u>\$8,843,500</u>	<u>\$26,013,500</u>
Total Resource Acquisition Budget	<u>\$49,811,162</u>	<u>\$50,807,385</u>	<u>\$51,823,633</u>	<u>\$152,442,180</u>
Development and Support Services				
<i>Electric EEU Funds</i>	\$2,968,100	\$3,276,200	\$3,151,500	\$9,395,800
<i>Thermal Energy and Process Fuels Funds</i>	\$610,700	\$674,100	\$648,500	\$1,933,300
Total Development and Support Services Budget	<u>\$3,578,800</u>	<u>\$3,950,300</u>	<u>\$3,800,000</u>	<u>\$11,329,100</u>
<i>Operations Fee</i>	<u>\$266,950</u>	<u>\$0</u>	<u>\$0</u>	<u>\$266,950</u>
Subtotal	<u>\$53,656,912</u>	<u>\$54,757,685</u>	<u>\$55,623,633</u>	<u>\$164,038,230</u>

The operations fee and performance award apply to the resource-acquisition budgets, development and support services budgets, and the ESA program of the electric resource-acquisition budgets. The expected savings of ESA participants' activities will be reflected in Efficiency Vermont's performance goals.³⁷ Includes budget and savings for FLM, and ESA, activities. See Section 4.8 for the subset of the electric Business Existing Facilities related to FLM activities. See Section 7.5 for the subset of the electric Business Existing Facilities budget related to the ESA.

7.6 2024-2026 Budget by Market and Initiative

Table 16. 2024-2026 budget by market and initiative

RESOURCE ACQUISITION ACTIVITIES				
<i>Electric Efficiency</i>				
<i>Business Sector</i>				
	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2024-2026</u>
Business Existing Facilities ³⁷	\$19,941,054	\$20,367,875	\$20,803,233	\$61,112,162
<u>Business New Construction</u>	<u>\$2,166,974</u>	<u>\$2,210,313</u>	<u>\$2,254,520</u>	<u>\$6,631,807</u>
<u>Subtotal Business Sector</u>	<u>\$23,508,028</u>	<u>\$23,978,189</u>	<u>\$24,457,752</u>	<u>\$67,743,969</u>
<i>Residential Sector</i>				
Efficient Products ³⁸	\$10,229,020	\$10,413,000	\$10,600,660	\$31,242,681
Existing Homes	\$6,498,075	\$6,620,637	\$6,745,649	\$19,864,361
<u>Residential New Construction</u>	<u>\$2,476,039</u>	<u>\$2,525,560</u>	<u>\$2,576,071</u>	<u>\$7,577,670</u>
<u>Subtotal Residential Sector</u>	<u>\$17,803,134</u>	<u>\$18,159,197</u>	<u>\$18,522,381</u>	<u>\$58,684,711</u>
<u>Total Electric Efficiency</u>	<u>\$41,311,162</u>	<u>\$42,137,385</u>	<u>\$42,980,133</u>	<u>\$126,428,680</u>
<i>Thermal Energy and Process Fuels Efficiency</i>				
Business Sector	\$2,125,000	\$2,167,500	\$2,210,850	\$6,503,350
<u>Residential Sector</u>	<u>\$6,375,000</u>	<u>\$6,502,500</u>	<u>\$6,632,650</u>	<u>\$19,510,150</u>
<u>Total Thermal Energy and Process Fuels Efficiency</u>	<u>\$8,500,000</u>	<u>\$8,670,000</u>	<u>\$8,843,500</u>	<u>\$26,013,500</u>
<u>TOTAL RESOURCE ACQUISITION ACTIVITIES</u>	<u>\$49,811,162</u>	<u>\$50,807,385</u>	<u>\$51,823,633</u>	<u>\$152,442,180</u>
DEVELOPMENT & SUPPORT SERVICES				
	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2024-2026</u>
Education and Training	\$481,100	\$491,900	\$504,200	\$1,477,200
Applied Research and Development	\$328,500	\$332,000	\$335,700	\$996,200
Planning and Reporting	\$371,400	\$717,600	\$577,200	\$1,666,200
Evaluation, Measurement, and Verification	\$473,200	\$445,700	\$454,700	\$1,373,600
Administration and Regulatory Affairs	\$546,200	\$557,100	\$494,100	\$1,597,400
<u>Information Systems</u>	<u>\$1,378,400</u>	<u>\$1,406,000</u>	<u>\$1,434,100</u>	<u>\$4,218,500</u>
<u>TOTAL DEVELOPMENT & SUPPORT SERVICES</u>	<u>\$3,578,800</u>	<u>\$3,950,300</u>	<u>\$3,800,000</u>	<u>\$11,329,100</u>
Operations Fee	\$266,950	\$0	\$0	\$266,950

³⁷ Includes budget and savings for FLM, and ESA, activities. See Section 4.8 for the subset of the electric Business Existing Facilities related to FLM activities. See Section 7.5 for the subset of the electric Business Existing Facilities budget related to the ESA.

³⁸ Includes budget for EEMA Programs. See Section 4.10 for the subset of the electric Efficient Products budget related to EEMA Programs

<u>Performance Award</u>	<u>\$2,402,548</u>	<u>\$2,737,884</u>	<u>\$2,781,182</u>	<u>\$7,921,614</u>
TOTAL BUDGET	\$56,059,460	\$57,495,569	\$58,404,815	\$171,959,844

7.7 2024-2026 Electric Efficiency Budget

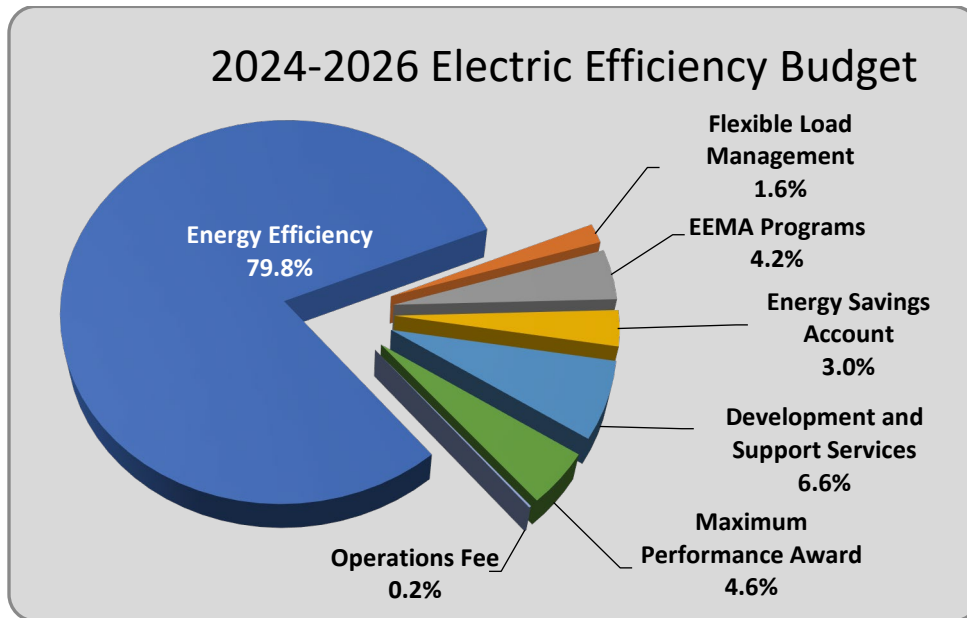


Figure 1. 2024-2026 electric efficiency budget

7.8 2024-2026 Thermal Efficiency Budget

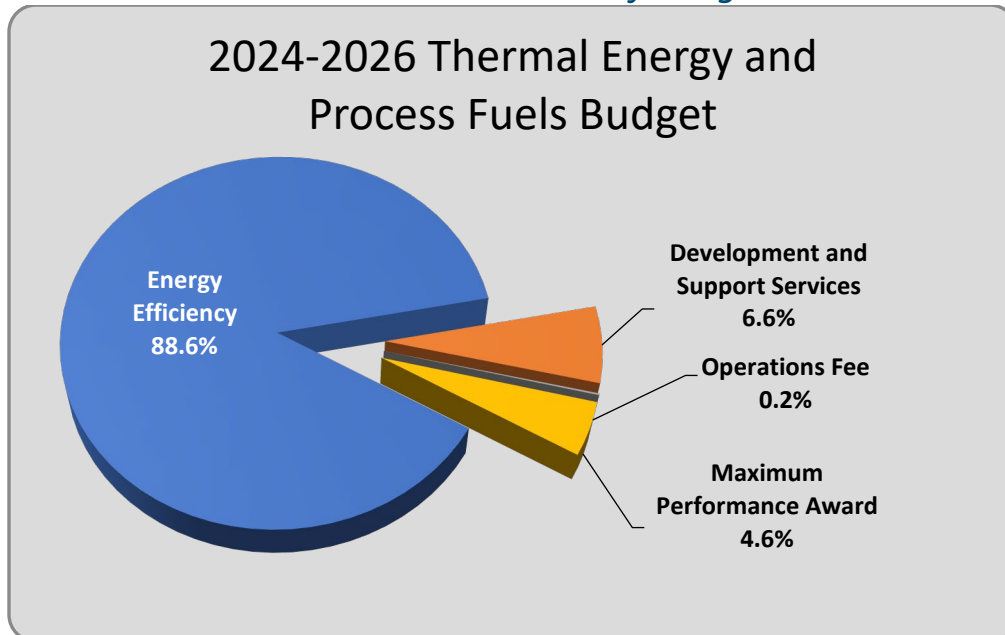


Figure 2. 2024-2026 TEPF efficiency budget

8 Quantifiable Performance Indicators

Efficiency Vermont performance compensation is determined by results in 24 performance indicators. Performance targets are established through a modeling exercise that creates a portfolio of measures and programs within the defined budget. Modelers incorporate past program activity, future opportunities, market factors, new technologies, and Commission-ordered policy assumptions that strive to maximize QPI performance while ensuring the achievement of sector and income equity constraints with MPRs. The remainder of this section provides descriptions and targets for Efficiency Vermont QPIs, including PIs and MPRs.

8.1 2024-2026 Electric Efficiency Performance Goals and Minimum Performance Requirements

Table 17. 2024-2026 electric efficiency performance goals and minimum performance requirements

QPI#	Title	Performance Indicator / Milestone	100% Target
1	Total Resource Benefits	Present worth of lifetime electric, fossil, and water benefits	\$180,842,000
2	Annual Electricity Savings	Annual incremental net MWh savings	193,200
3	Statewide Summer Peak Demand Savings	Cumulative net summer peak demand kW savings	20,600
4	Statewide Winter Peak Demand Savings	Cumulative net winter peak demand kW savings	28,400
5	Lifetime Electricity Savings	Lifetime incremental net MWh savings	2,520,300
6	Greenhouse Gas Reduction	Electric energy and non-energy benefits (metric tons of CO ₂ e)	98,500
7	Flexible Load	Annual kW of flexible load (controllable load)	2,260
8	Administrative Efficiency	5% administrative cost reduction	\$1,078,100
MPR#	Title	Minimum Requirement	Minimum
9	Minimum Electric Benefits	Total electric benefits divided by total costs	1.0
10	Threshold (or Minimum Acceptable) Level of Participation by Residential Customers	Total residential sector spending	\$38,202,000
11	Threshold (or Minimum Acceptable) Level of Participation by Low-Income Households	Total low-income single and multifamily services spending	\$13,024,000

12	Threshold (or Minimum Acceptable) Level of Participation by Small Business Customers	Total number of non-residential premises with annual electric use of 40,000 kWh / year or less that acquire kWh savings	>2,000
13	Geographic Equity – County	Total Resource Benefits amount for each geographic area is greater than values shown on geographic equity-county table	(See Section 8.1.1)
14	Geographic Equity – Utility	Customer Lifetime Savings for each distribution utility is greater than values shown on geographic equity-utility table	(See Section 8.1.2)
15	Service Quality	Achieve 102 or more metric points	102
16	Resource Acquisition Performance Period Spending	Total spending for a three-year performance period (including applicable operations fees)	<\$127,925,000
17	Development and Support Services Performance Period Spending	Total spending for a three-year performance period (including applicable operations fees)	<\$11,461,000

8.1.1 2024-2026 Electric Minimum Total Resource Benefits per Geographic Area - County (Electric QPI #13)

Table 18. 2024-2026 electric minimum Total Resource Benefits (TRB) per Geographic Area - County (QPI #13)

Geographic Area ³⁹	Required TRB per Geographic Area
Addison	\$9,400,772
Bennington	\$10,346,644
Caledonia	\$6,428,841
Chittenden	\$29,919,374
Essex / Orleans	\$7,892,239
Franklin	\$15,417,454
Grand Isle / Lamoille	\$8,314,638
Orange	\$5,650,722
Rutland	\$23,152,316
Washington	\$14,681,316
Windham	\$15,050,934
<u>Windsor</u>	<u>\$14,249,203</u>

³⁹ All geographic names in Table 17 refer to Vermont counties.

Total	\$160,504,455
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8.1.2 2024-2026 Electric Minimum Customer Lifetime Savings per Geographic Area – Utility (Electric QPI #14)

Table 19. 2024-2026 Electric Minimum Customer Lifetime Savings per Geographic Area – Utility (QPI #14)

Distribution Utility	% EEC by Utility⁴⁰	Minimum Lifetime Customer Savings⁴¹ for MPR #13
VPPSA Aggregate ⁴²	8.0%	\$11,737,318
Barton Village, Inc. Electric Dept.	0.3%	\$500,713
Enosburg Falls Water & Light Dept.	0.6%	\$880,156
Hardwick Electric Dept., Town of	0.9%	\$1,250,572
Jacksonville Electric Company, Village of	0.1%	\$186,430
Johnson Water & Light Dept., Village of	0.3%	\$413,442
Ludlow Electric Light Dept., Village of	1.2%	\$1,724,853
Lyndonville Electric Dept., Village of	1.4%	\$2,107,061
Morrisville Water & Light Dept., Village of	1.1%	\$1,544,226
Northfield Electric Dept., Village of	0.6%	\$864,726
Orleans Electric Dept., Village of	0.3%	\$403,695
Swanton Village Inc. Electric Dept.	1.3%	\$1,861,445
Green Mountain Power Corporation	78.1%	\$113,899,971
Hyde Park Electric Dept., Village of	0.3%	\$430,834
Stowe Electric Dept., Town of	1.7%	\$2,413,734
Vermont Electric Cooperative, Inc.	10.1%	\$14,754,764
Washington Electric Cooperative, Inc.	1.8%	\$2,676,520
Total		\$145,913,141

⁴⁰ % 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.

⁴¹ 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.

⁴² Minimum Lifetime Customer Savings for VPPSA is an aggregate target for all VPPSA members.

8.2 2024-2026 Thermal Energy and Process Fuels Performance Goals and Minimum Performance Requirements

Table 20. 2024-2026 Thermal Energy and Process Fuels Performance Goals and Minimum Performance Requirements

QPI#	Title	Performance Indicator / Milestone	100% Target
1	Thermal & Mechanical Energy Efficiency Savings	Annual incremental net MMBtu savings	381,300
2	Residential Single-Family Comprehensiveness	Combined performance for metrics 2.a.-2.c.	100%
		a. Average air leakage reduction per project	34%
		b. Percentage of projects with square feet of insulation added equivalent to at least 50% of the home's finished square feet of floor area	44%
		c. Percentage of households (premises) that implement shell measures, and also have a heating system measure installed within three years of the shell measure	16%
3	Housing Units Weatherized	Number of Residential Housing Units comprehensively weatherized	3,700
4	Greenhouse Gas Reductions	TEPF energy and non-energy benefits, in metric tons of CO _{2e}	20,900
MPR#	Title	Minimum Requirement	Minimum
5	Threshold (or Minimum Acceptable) Level of Participation by Residential Customers	Total residential sector spending as a percentage of total TEPF Fund expenditures	>62.5%
6	Threshold (or Minimum Acceptable) Level of Participation by Low-Income Households	Total low-income spending as a percentage of total TEPF Fund expenditures	>17%
7	RA Performance Period Spending	Total spending for a three-year performance period (including applicable operations fees)	<\$26,321,000

Appendix No. 1: Efficiency Vermont EEMA Electric Transportation Program: Objectives & Metrics

Program Metrics			
#	Metric Description	Target Description	2024-2026 Target ⁴³
EV Dealer Program Metrics			
1	EV Dealer Program Participation	Total number of participating dealerships enrolled in the EV Dealer Program	60
		Number of EV Dealer Program participants that are used car dealerships	12
2	Dealership EV Readiness	Number of participating dealerships that complete an EV Readiness project	20
3	Dealership EV Sales	Number of EVs associated with the Dealership/Salesperson EV Sales Incentive	2000
4	Salesperson EV Sales	Number of sales staff that receive the Dealership/Salesperson EV Sales Incentive	120
5	Dealer Satisfaction with Trainings	Percent of training attendees that select "Very satisfied" or "Somewhat satisfied" with the training overall	80%
6	Dealer Satisfaction with Program	Percent of EEN EV Dealers that report being motivated and supported by the program to increase the number of EVs they stock and sell	50%
EV Campaign Metrics			
7	Consumer Engagement with the EV campaign	Number of web sessions at DriveElectricVermont.com	465,000
8	Consumer EV Inquiries	Number of EV-related contacts to Efficiency Vermont	430
9	Consumer Likelihood of EV Purchase	Average likelihood of Vermonters to purchase an EV, as measured on scale of 1 (not likely) to 5 (very likely)	2.75

⁴³ These targets are based on the approved 2024 EEMA programs budget, and Efficiency Vermont’s proposed 2025-2026 EEMA programs budgets. Targets may be adjusted based on any approval of Efficiency Vermont’s proposed 2025-2026 EEMA programs budget. See section 4.10 for more information on the EEMA programs budget.

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