

## 6 Maintain Financial Strength

### 6.1 Introduction

This section includes an overview of VEC’s 5-year financial forecast, rate strategy, and grant opportunities.

#### 6.1.1 Section Overview

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5 Year Forecast

Smart Rates

Grants

### 6.2 5 Year Financial Forecast

VEC’s five-year financial forecast is below:

## Vermont Electric Cooperative, Inc

ITEM	Future 2025	Future 2026	Future 2027	Future 2028	Future 2029
1. Operating Revenue and Patronage Capital	106,406,261	111,321,714	114,554,661	116,913,690	123,360,540
2. Power Production Expense	0	0	0	0	0
3. Cost of Purchased Power	44,293,347	44,484,795	44,663,669	43,925,606	46,370,481
<b>C. Operating Revenue less Cost of Power</b>	<b>62,112,914</b>	<b>66,836,920</b>	<b>69,890,992</b>	<b>72,988,084</b>	<b>76,990,059</b>
4. Transmission Expense	19,464,249	20,305,858	21,029,260	21,287,907	21,978,029
5. Regional Market Operations Expense	0	0	0	0	0
6. Distribution Expense - Operation	9,181,632	10,155,733	10,639,536	11,112,526	11,848,180
7. Distribution Expense - Maintenance	11,842,808	12,945,190	13,036,405	13,643,360	14,355,064
8. Consumer Accounts Expense	3,529,612	3,730,319	3,955,095	4,178,024	4,432,370
9. Customer Service and Informational Expense	0	0	0	0	0
10. Sales Expense	162,708	170,781	180,121	189,032	199,526
11. Administrative and General Expense	5,514,093	5,821,158	6,132,321	6,436,373	6,785,261
<b>12. Total Operation &amp; Maintenance Expense (2 thru 11)</b>	<b>93,988,449</b>	<b>97,613,834</b>	<b>99,636,408</b>	<b>100,772,829</b>	<b>105,968,912</b>
13. Depreciation & Amortization Expense	6,835,505	7,660,182	8,257,680	8,845,075	9,428,828
14. Tax Expense - Property & Gross Receipts	992,309	1,084,829	1,121,433	1,157,129	1,223,120
15. Tax Expense - Other	0	0	0	0	0
16. Interest on Long-Term Debt	5,567,017	5,915,740	6,419,813	6,732,276	7,088,427
17. Interest Charged to Construction (Credit)	0	0	0	0	0
18. Interest Expense - Other	0	0	0	0	0
19. Other Deductions	7,380	7,380	7,380	403,437	255,744
<b>20. Total Cost of Electric Service (12 thru 19)</b>	<b>107,390,660</b>	<b>112,281,966</b>	<b>115,442,714</b>	<b>117,910,745</b>	<b>123,965,031</b>
<b>21. Patronage Capital &amp; Operating Margins (1 minus 20)</b>	<b>(984,399)</b>	<b>(960,252)</b>	<b>(888,053)</b>	<b>(997,055)</b>	<b>(604,491)</b>
22. Non Operating Margins - Interest	6,178,163	6,490,862	6,895,838	7,300,814	7,310,938
23. Allowance for Funds Used During Construction	0	0	0	0	0
24. Income (Loss) from Equity Investments	0	0	0	0	0
25. Non Operating Margins - Other	31,991	30,185	26,838	24,580	20,469
26. Generation & Transmission Capital Credits	0	0	0	0	0
27. CFC & Other Capital Credits & Patronage Dividends	571,181	591,173	611,864	633,279	655,444
28. Extraordinary Items	0	0	0	0	0
<b>29. Patronage Capital or Margins (21 thru 28)</b>	<b>5,796,936</b>	<b>6,151,968</b>	<b>6,646,487</b>	<b>6,961,618</b>	<b>7,382,360</b>

### Projected Ratios

Equity Ratio	42.33%	42.26%	42.08%	42.40%	41.87%
Equity to Debt Ratio	88.78%	86.65%	84.29%	83.76%	81.25%
Modified Times Interest Earnings Ratio	2.0	2.0	2.0	2.0	2.0
Modified Debt Service Ratio	1.57	1.64	1.60	1.62	1.58
Projected Rate Base	\$ 97,771,443	\$ 101,877,180	\$ 105,606,040	\$ 109,706,030	\$ 116,621,637
Projected Rate Increase		4.20%	3.66%	3.87%	6.30%

## 6.2.1 Capital Investment Increase

In June 2024, the VEC Board approved an increase in annual capital investment compared to prior years. The additional funds will support the AMI upgrade through 2030, with an additional \$1 million allocated for distribution investments.

Capital Spending	2025	2026	2027	2028	2029
Distribution	\$ 7,813,486	\$ 7,406,175	\$ 8,665,391	\$ 8,968,680	\$ 10,282,584
Substation	\$ 223,138	\$ 1,000,000	\$ 900,000	\$ 900,000	\$ 900,000
Transmission	\$ 192,090	\$ 850,000	\$ 879,750	\$ 910,541	\$ 942,410
SCADA	\$ 150,000	\$ -	\$ -	\$ 175,000	\$ 175,000
Make Ready	\$ 930,226	\$ 220,000	\$ 750,000	\$ 750,000	\$ 750,000
Facilities	\$ 330,000	\$ 340,000	\$ 351,900	\$ 364,217	\$ 376,964
Fleet	\$ 2,256,314	\$ 1,030,000	\$ 958,000	\$ 960,000	\$ 965,000
IT	\$ 320,934	\$ 460,000	\$ 476,100	\$ 492,764	\$ 510,010
Metering	\$ 1,354,373	\$ 2,615,247	\$ 3,766,204	\$ 3,870,190	\$ 3,977,296
ET&I	\$ 681,301	\$ 700,000	\$ 241,026	\$ 249,462	\$ 258,193
<b>Total Annual Spend</b>	<b>\$14,251,862</b>	<b>\$14,621,422</b>	<b>\$16,988,371</b>	<b>\$17,640,853</b>	<b>\$19,137,457</b>

## 6.3 Explore Smart Rates

### 6.3.1 Existing Dynamic Rates (SC5, TOU)

#### Time of Use

VEC currently offers two types of Time of Use (TOU) rates designed to encourage members to shift electricity usage away from peak demand periods. The first is a residential TOU rate, which applies to the entire household's electricity consumption. This rate divides the day into three periods: on-peak (5:01 PM–9 PM), mid-peak (7:01 AM–5 PM), and off-peak (9:01 PM–7 AM on weekdays, and all day on weekends and holidays). The off-peak rate is significantly lower compared to the standard residential rate of providing an incentive for members to shift usage to lower-cost hours. These rates are currently only being utilized by a limited number of members—45, including 8 commercial and 37 residential accounts.

The second TOU option is tailored for commercial members participating in energy transformation projects. These are non-demand TOU rates under Service Classifications 2.2 and 2.3, designed for small and large commercial members respectively. Unlike traditional commercial rates that include demand charges, these TOU rates are structured solely around time-based energy usage, making them more predictable and potentially more affordable for businesses that can shift load. Both TOU structures are part of VEC's broader strategy to manage grid demand, reduce transmission costs, and support electrification goals without requiring submetering.

#### SC5

VEC SC5 rate is a peak-driven, dynamic pricing structure designed for large, dispatchable loads—primarily used by snowmaking operations and industrial customers like Jay Peak and Smugglers Notch. SC5 members receive email notifications when VEC predicts regional peak events (e.g., ISO-NE Forward Capacity Market and Regional Network Service peaks) and are charged a variable transmission rate based on their contribution to those peaks. This structure incentivizes members to reduce load during critical times, but it also exposes them to real-time market volatility if they don't actively manage their usage. Additionally, members are also charged a base fee which is meant to capture the cost (maintenance, distribution) of serving power to them.

Both SC5 and TOU rates are part of VEC’s broader strategy to manage grid demand, reduce transmission costs, and support electrification. The 2025 IRP outlines how these rates align with VEC’s goals to keep rates affordable while meeting climate objectives. SC5 is used selectively for members with high, flexible loads, while TOU is being explored for broader residential application. VEC’s approach includes incentives for EVs and batteries, but lacks penalties for non-participation, which may limit behavioral change.

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### 6.3.2 VEC Cost of Service Study

VEC is seeking proposals to conduct a comprehensive Cost of Service Study (COSS) in early 2026. The primary objectives of this study are to:

- **Determine the cost to serve each customer class**, including residential, commercial, industrial, and other relevant segments.
- **Ensure that rates are fair, equitable, and reflective of the actual cost of providing electric service**, thereby avoiding cross-subsidization between customer groups.
- **Analyze electricity usage patterns** across different customer classes to better understand load characteristics and cost drivers.
- **Provide a data-driven foundation to justify existing and future rate structures**, ensuring transparency and regulatory compliance.
- **Support strategic decisions** related to the development of new programs, rate incentives, and innovative rate designs that align with VEC’s goals for affordability, sustainability, and member engagement.

This study will serve as a critical tool in guiding VEC’s rate design and policy decisions, ensuring that our cooperative continues to serve its members efficiently and equitably.

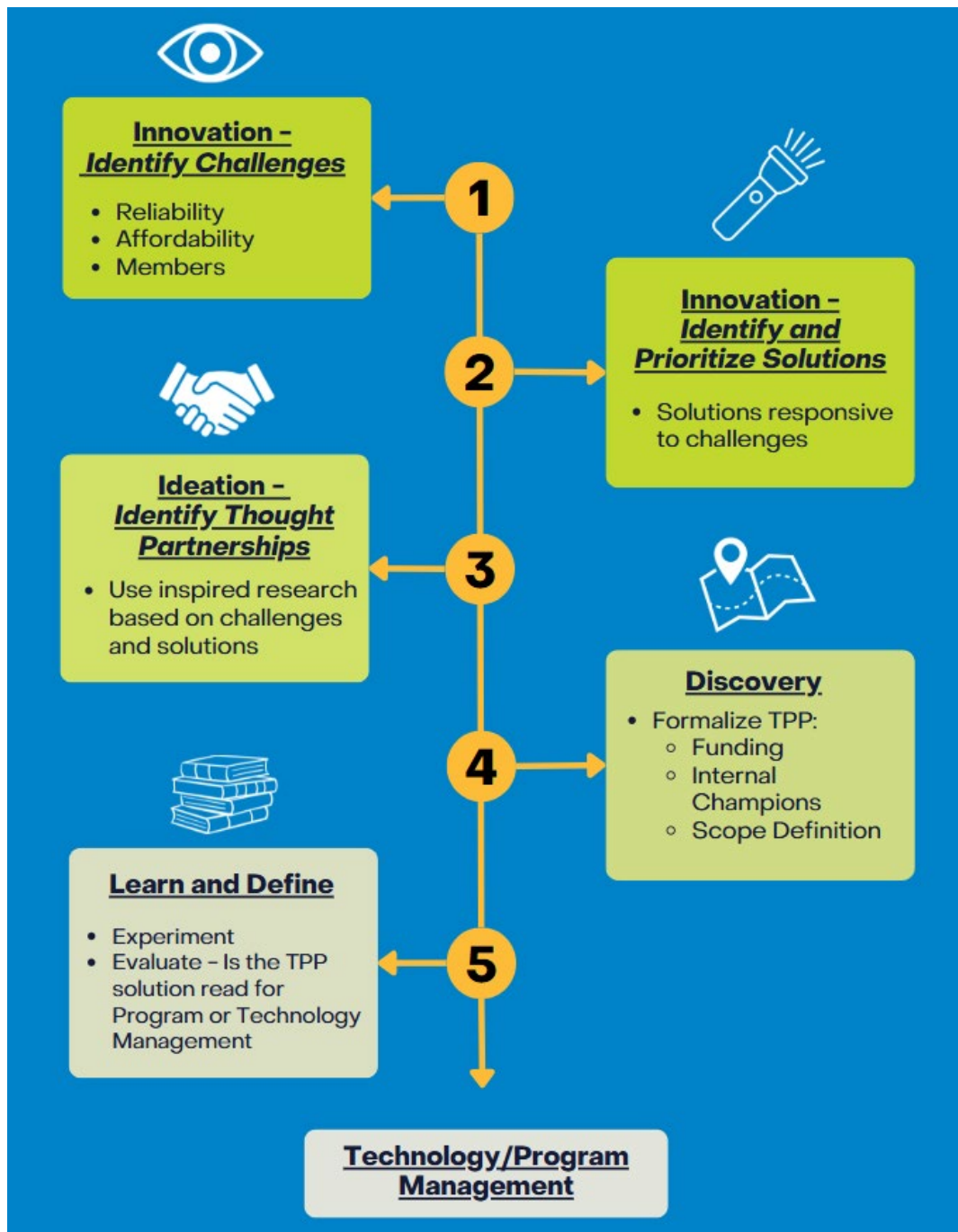
## 6.4 Pursue Grants to Support Investments

As VEC manages the effects of load growth, enhances reliability, and aims to support all members, grants enable us to advance our work without adversely affecting rates.

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### 6.4.1 Grant Strategy

VEC's grant strategy is guided by its innovation framework and focuses on identifying business challenges and partners.



## 6.4.2 State Grants Received or In Progress

### ACRE Community Solar

The ACRE solar program, supported by a grant from the Department of Public Service through ARPA funds, is designed to provide meaningful reductions in electric bills for income-qualified members by sponsoring shares in community solar projects. VEC was awarded ~ \$1.4 million for Phase 1 of the project and is in the final stages of being awarded another \$1.2 million for a second phase.

Participants receive a fixed monthly bill credit of \$45 for five years, totaling \$540 annually and \$2,700 over the sponsorship term. The program is a no-cost sponsorship for Vermont Electric Co-op (VEC) members who income-qualify, meaning there is no up-front payment or additional charge to these members. To be eligible, participants

must be residential members of VEC and have a total gross household income at or below 185 percent of the federal poverty level.

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## ESAP Income Qualified Storage

VEC has been awarded almost \$1.4 million for the Energy Storage Access Program (ESAP), which aims to provide battery storage solutions to income-qualified residential and municipal members. The primary objectives of the program are to enhance resilience, support households with qualified income, and address emergency needs. By supplying backup power during outages, this initiative ensures that essential services such as refrigeration, medical equipment, and heating remain functional. It focuses on making battery storage accessible and affordable for low- and moderate-income households who might otherwise struggle to afford it. Additionally, the program assists households in managing emergencies, mitigating the impact of power outages on vulnerable populations.

VEC anticipates enrolling approximately 55 low- and moderate-income members in the initial phase. The provided batteries will be utilized for both peak reduction and enhancing resilience. Due to the inability to demonstrate a reasonable return on investment for battery investments, our existing battery storage program operates on a "bring your own device" model. This funding bridges that gap, allowing VEC to offer batteries to its members.

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## AMI Funding

VEC received \$750,000 in state funding through the Act 185 AMI Grant Program administered by the Vermont Department of Public Service. This funding will be used to support the first two years of VEC's AMI upgrade implementation.

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## In Progress - DPS Resilience Funding

VEC was awarded over \$700,000 in formula grant funding for investments to improve the resilience of the electric grid by reducing the frequency and duration of electricity outages. VEC seeks approval for two projects:

1. Emerald Ash Borer (EAB) mitigation - VEC has budgeted \$250,000 annually and spent over \$240,000 in 2024 to proactively remove hazardous ash trees near power lines. The funding will help expand this effort and without grant support, VEC would be limited to reactive removals during routine maintenance, increasing long-term risk and costs.
2. Storm Manager Software - This platform is designed to enhance outage response by improving situational awareness, automating reporting, and reducing administrative burden. VEC estimates a 5% reduction in SAIDI from this investment and is working with DPS to align the proposal with federal resilience funding criteria.

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## 6.4.3 Federal Grants Received

### FEMA Hazard Mitigation

#### Section 404 - Hazard Mitigation Grant Program

If a FEMA-level event is declared, Section 404 funds can reimburse up to 75% of eligible resiliency projects and recovery costs, with the remaining 25% provided by the requesting utility. Only projects located in counties declared by FEMA during the event are eligible for hazard mitigation funding, and they must be on lines affected by the event to prevent future outages.

Upon declaration of an event, VEC typically submits three to five projects for consideration, amounting to approximately \$1.5 to \$2 million in capital investment. VEC has so far been awarded over \$7.2 million with another



\$2.8 million awaiting approval. Over time these investments have dramatically decreased outages in the targeted areas as outlined in the following chart.

Substation Name	Substation Number	Circuit	Project Description	Cost	Completion Date	SAIDI			
						Before (Minutes)	After (Minutes)	% Change	Minute Reduction per \$\$
West Charleston	48	1A	Add reclosers, fuse coordination, replace bare #2 to covered 1/0, tie line to 45-1A, relocated and eliminate off-road overhead, vegetation clearing	\$ 388,417	November 2020	13.16	7.93	-40%	\$ 74,230.55
Hinesburg	19	1K6	Underground line, retire off-road overhead line	\$ 64,242	April 2020	179.74	11.52	-94%	\$ 381.90
Hinesburg	19	3E, 3F, 3G, 3H	Install 1-, 2-, and 3-phases, new overhead, move overhead to underground, retire off-road overhead	\$ 752,013	April 2021	227.64	79.64	-65%	\$ 5,081.18
Cambridge	3	1R5	Install tie line from off-road to roadside, install mid-span poles, reconductor 6A copper wire to 1/0 covered wire, retire off-road sections of line.	\$ 605,549	August 2021	410.08	0.00	-100%	\$ 1,476.67
Eden	2	3C	Added two phases of covered 1/0 wire, installed several mid-span poles, changed several poles, vegetation clearing	\$1,038,475	August 2023	48.37	0.11	-100%	\$ 21,520.75

## MAPLE Leaf

VEC partnered with VELCO and PNNL (Pacific Northwest National Labs) with funding from Office of Electricity (OE) Sensors and Data Analytics to:

- Utilize the Common Information Model (CIM) as the standards-based platform to reduce custom or proprietary data sharing/formats.
- Develop T&D co-simulation models to simulate how distribution can affect transmission
- Leverage VEC GIS and ArcGIS FME to decrease model sharing challenges.

VEC is leveraging this data sharing framework and distribution models on several other use inspired research projects.

## MAPLE Branch

VEC partnered with VELCO and PNNL (Pacific Northwest National Labs) with funding from Office of Electricity (OE) Sensors and Data Analytics to:

- Model how Volt/VAR distributed generation inverter-based controls impact voltage and load power factor (LPF) for South Hero 29 and South Alburg 28.
- Identify the reduction in real power output.
- Create an economic analysis tool to evaluate the cost-effectiveness of traditional distribution investments versus inverter-based controls. Explore potential member compensation for grid services.

Volt/VAR inverter controls effectively reduce voltage and load power factor impacts. The economic analysis shows these controls are the most cost-effective solution for the South Hero and South Alburg substations' voltage and load power factor issues.

## Utility and Grid Operator Technical Assistance

VEC was selected as [one of five](#) utilities to receive Technical Assistance from national labs to equip utilities and grid operators with the expertise and resources needed to build the reliable, resilient, and secure grids required to meet the nation's growing energy demand. VEC is anticipating significant growth in distributed generation, EVs and heat pumps which introduces uncertainty in infrastructure planning.

To address these issues, VEC must develop granular load and DER forecast scenarios considering historical and anticipated deployment patterns, policy influences, weather conditions, regional energy plans, and physical limits of infrastructure. This effort will focus on enabling bottom-up forecasting based on long-term DER adoption across VEC’s territory. The results will help prioritize system investments and leverage flexible load programs to mitigate grid impacts, providing valuable insights to VELCO transmission planners for long-range planning.

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## UVM EnergySheds

VEC partnered with the University of Vermont with funding from Office of Energy Efficiency and Renewable Energy on the following work:

- Tool Development: Create tools to evaluate economic, environmental, and social trade-offs of energysheds characteristics.
- Simulation Tools: Develop tools to understand Distributed Energy Resource (DER) development within energysheds.
- Community Engagement: Provide a model for community decision support and broaden stakeholder participation in local energy systems.

Data sharing from VEC and tools from UVM can help better inform town energy committees on the impacts of distributed generation and electrification to their towns. Images of the tool developed for the Town of Glover below, courtesy of Dakota Hamilton and UVM.



Energy Shed Home Energysied Map Energysied Data ► The Model ▼

Instructions

1 Choose a town:

**Glover** Stowe Rochester

2 Choose a scenario ▼

Scenario1

Create New Scenario

Manage Scenarios

3 Run the model:

Run Model

Transportation Inputs

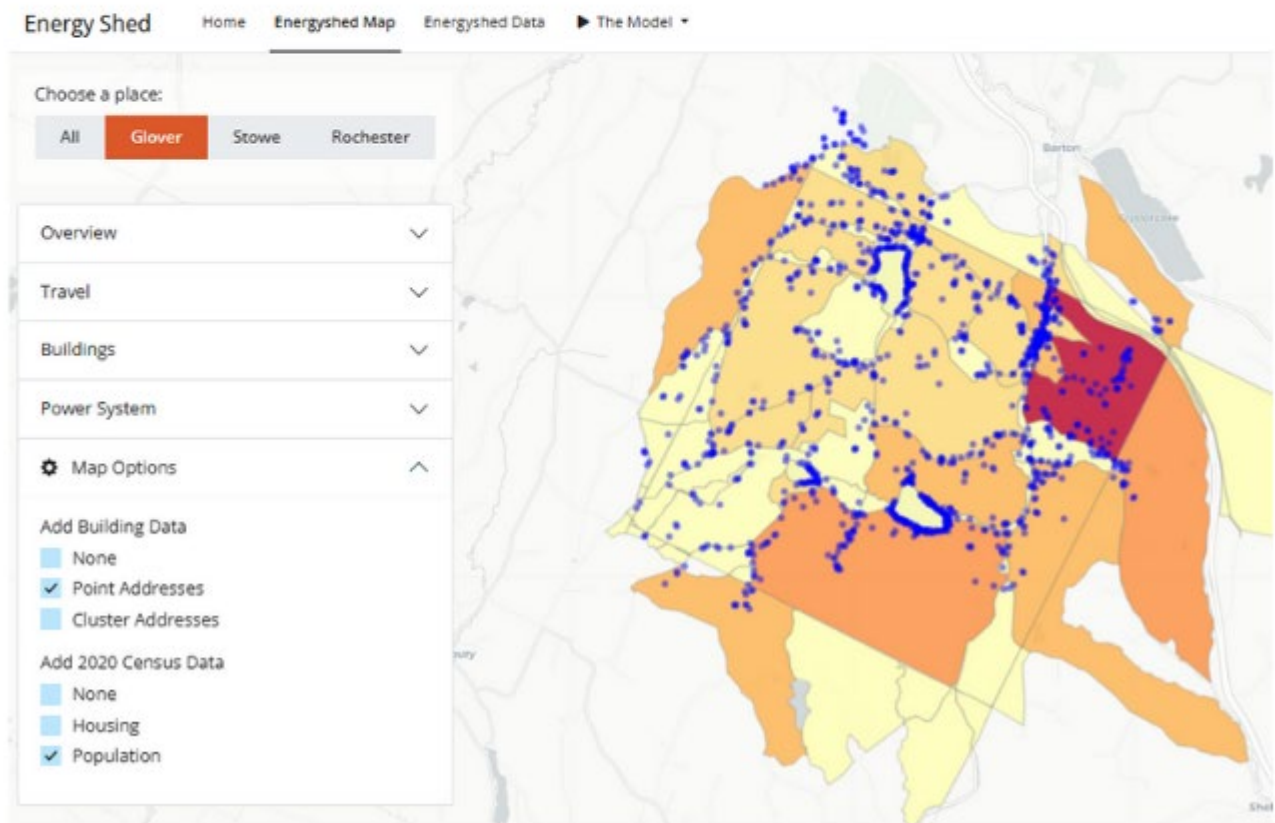
EV Penetration	25	%
Average EV Battery Size	65	kWh
Charging Ratio	85	% at home

Cost Inputs

Fuel Cost	4	\$ per gallon
Electricity Cost	0.5	\$ per gallon

Heating and Cooling Inputs

Percent of Heat Pump Adoption for Heating	25	%
Percent of Heat Pump Adoption for Cooling	25	%
Heating Fuel Mix	Propane	
Set Point Temperature (in Fahrenheit)	25	F



## In Progress – Congressionally Directed Spending AMI

VEC applied for congressionally directed spending for our AMI upgrade project through Senator Bernie Sanders' office for 2023, 2024, and 2025. While we did not receive funding in 2023 or 2024, we remain hopeful for 2025.

### 6.4.4 Other Grant Opportunities

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## **UVM Leahy Rural Partnership – SOLVER**

VEC is involved in the SOLVER (System Optimization and LiDAR for Vermont Energy Resilience) project, supported by the Leahy Institute for Rural Partnerships. The project uses LiDAR data to improve grid models and evaluate infrastructure resilience against climate stressors. Through collaboration with UVM's Spatial Analysis Lab and College of Engineering and Mathematical Sciences, VEC identified vegetation encroachment on lines and pinpointed high-impact locations on the electric system.

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## **UVM Leahy Rural Partnership – FOREST**

VEC is partnered with UVM on the FOREST (Flexible Optimization for Reliable Electrification and Sustainable Transition) project – also funded by the Leahy Institute for Rural Partnerships. The project aims to develop a tool to quickly identify distribution system constraints, aiding utility programs or DER aggregators in deferring or eliminating infrastructure upgrades.