

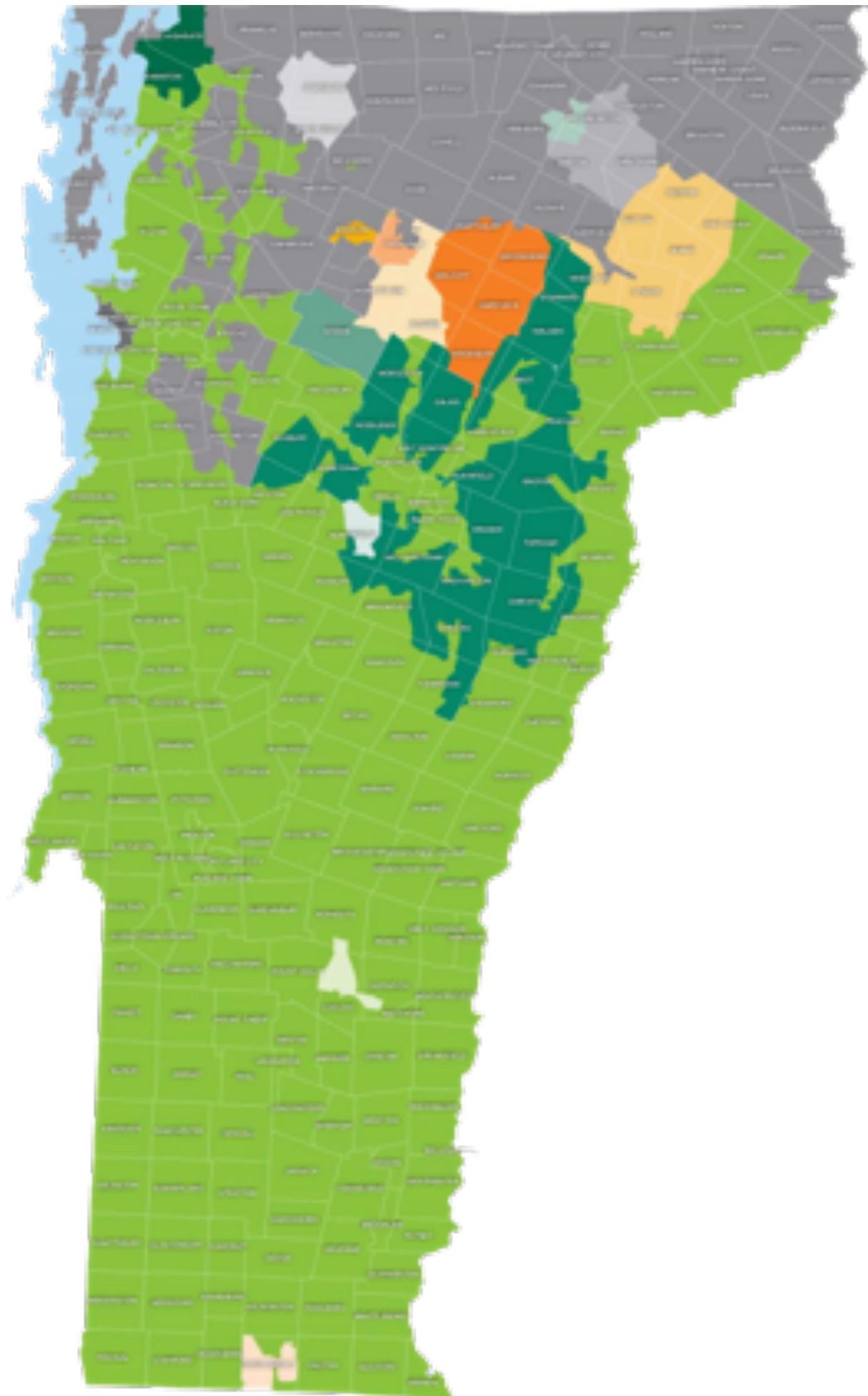


Renewable Energy Standard: Tier 3 Funding

Renewable Energy Standard: Tier 3 Funding

- 1 Vermont Electric Utilities 101
- 2 Renewable Energy Standard Overview
- 3 Tier 3 Deep Dive

Vermont Electric Utilities 101



- There are 17 total electric utilities in the state.
- In Vermont, your electric utility is determined by your address.
- Your electric utility does much more than maintain the grid and provide you with electricity!

Vermont Electric Utilities 101

Investor Owned

- Green Mountain Power

Co-op

- Vermont Electric Co-Op
- Washington Electric Co-Op

Public Power “Munis”

- Burlington Electric Department
- Stowe Electric Department
- Village of Hyde Park
- 11 VPPSA Members

Vermont Electric Utilities 101: About VPPSA



- Barton Village: 1,800
- The Village of Enosburg Falls: 1,700
- Hardwick Electric Department: 4,500
- Village of Jacksonville: 700
- Village of Johnson: 1,000
- Ludlow Electric Light Department: 3,700
- Lyndonville Electric Department: 5,700
- Morrisville Water & Light: 4,100
- Northfield Electric Department: 1,800
- Village of Orleans: 700
- Swanton Village: 3,800

Renewable Energy Standard: Tier 3 Funding

- 1 Vermont Electric Utilities 101
- 2 Renewable Energy Standard Overview
- 3 Tier 3 Deep Dive

Renewable Energy Standard Overview

Legislation enacted in 2015 through Act 56

1. Establishes a renewable electric generation portfolio for utilities that increases over time (Tier 1 & Tier 2)
2. Requires electric utilities to participate in Energy Transformation Projects (Tier 3)



Renewable Energy Standard Overview: Tiers 1 & 2

Tier 1:

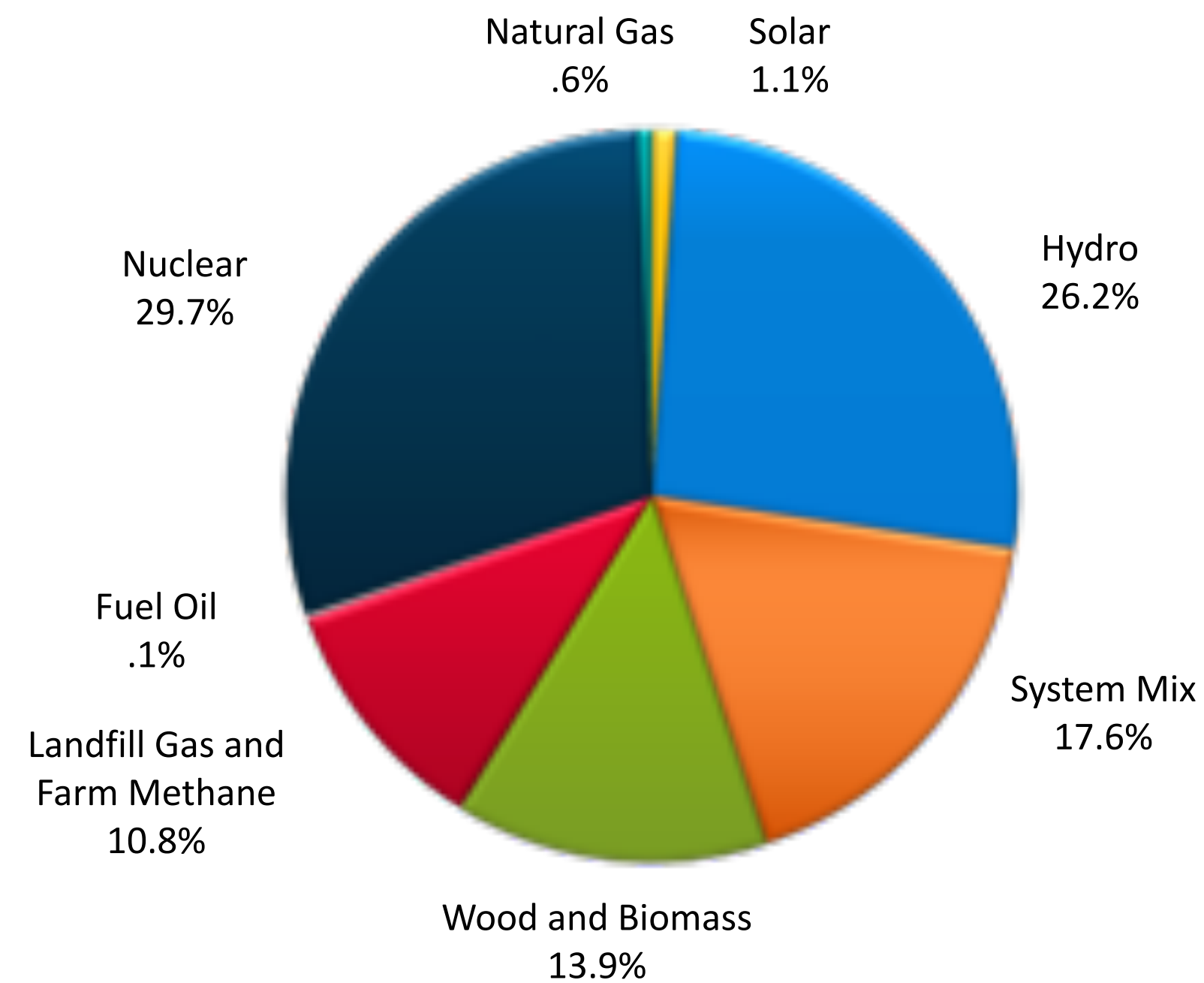
- Comes from any renewable energy generators across the Northeast and Canada, including large hydro
- Started at 55% of portfolio in 2017
- Increases to 75% of portfolio by 2032
- **2020 Requirement: 59%**
- **Alternative Compliance Payment: \$10/MWh**

Tier 2:

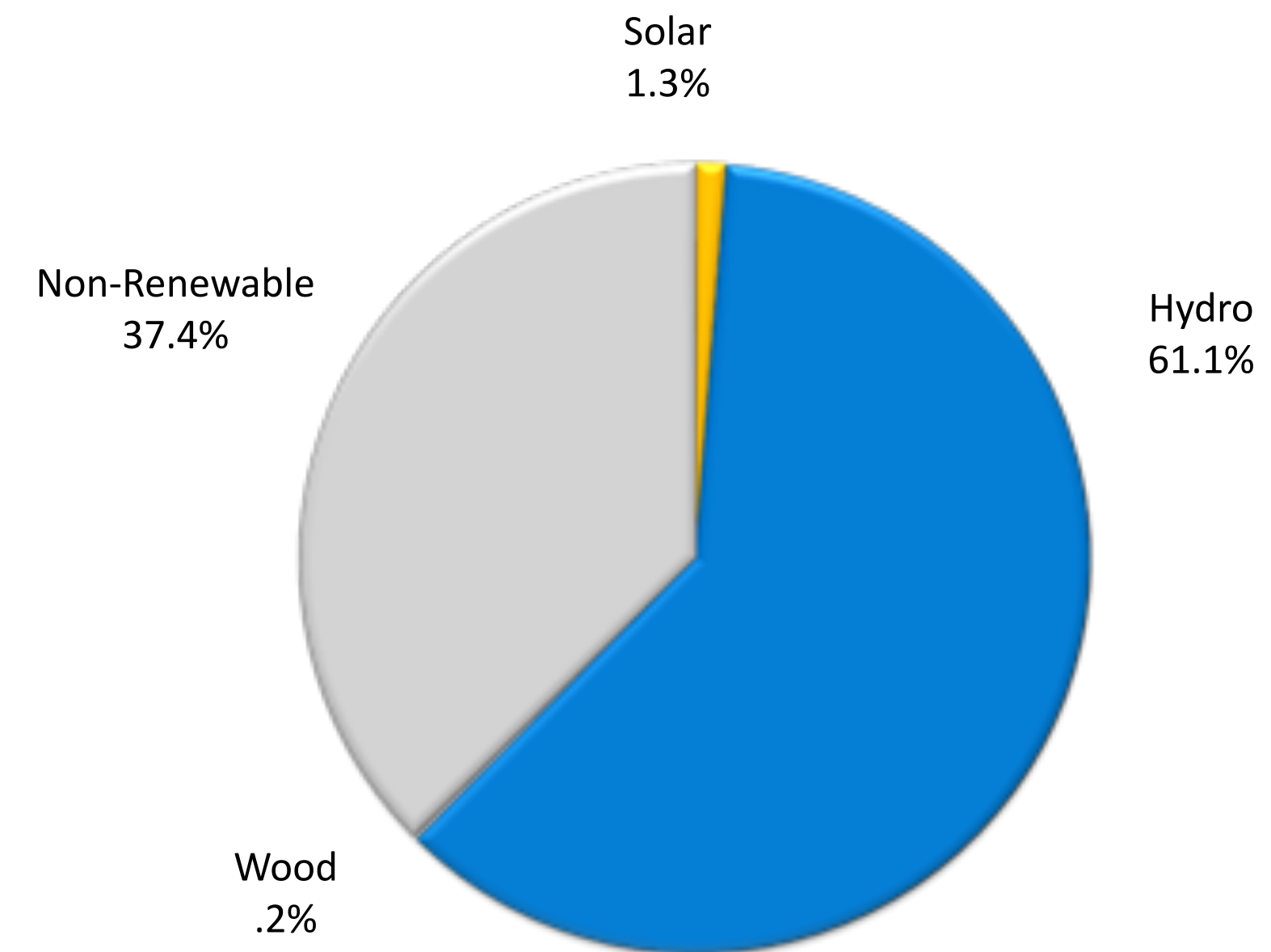
- Comes from new, in-state distributed renewable energy generators, typically solar
- Started at 1% of portfolio in 2017
- Increases to 10% of portfolio by 2032
- **2020 Requirement: 2.8%**
- **Alternative Compliance Payment: \$62/MWh**

Renewable Energy Standard Overview: Tiers 1 & 2

2018 Electricity Sources
Before Buying and Selling
Renewable Energy Credits



2018 Electricity Sources
After Buying and Selling
Renewable Energy Credits



Renewable Energy Standard: Tier 3 Funding

- 1 Vermont Electric Utilities 101
- 2 Renewable Energy Standard Overview
- 3 Tier 3 Deep Dive

Tier 3 Deep Dive

Tier 3:

- Met through two paths:
 - Utility participation in Energy Transformation Projects
 - Excess Tier 2 Renewable Energy Credits
- Started at 2% of retail sales equivalent in 2017 (2019 for small munis)
- Increases to 12% of retail sales equivalent by 2032
- **2020 Requirement: 5% most utilities, 2.67% for small munis**
- **Alternative Compliance Payment: \$62/MWhe**

...What are Energy Transformation Projects?

“reduce fossil fuel consumed by a utility’s customers and the emission of greenhouse gases attributable to that consumption.”

Examples: electrification measures, weatherization, industrial energy efficiency, etc.

...How do electric utilities participate in Energy Transformation Projects?

Examples: rebates, instant discounts, up-front incentives, electric rates, etc.

Tier 3 Deep Dive

What is the purpose of Tier 3?

- Reduces fossil fuel use from transportation and thermal sectors, which account for most of Vermont's greenhouse gas emissions.
 - Transportation = 56%
 - Thermal = 34%
 - Electricity = 10%
- Encourages the switch to electricity as the electric sector becomes powered by more renewables.
- Intends to mitigate the costs of compliance with Tiers 1 and 2 by increasing a utility's electric sales.



Tier 3 Deep Dive: Utility Strategy

- Prioritize Electrification Measures
 - Benefits all customers by minimizing cost-shifting
 - Revenue-neutral for the utility due to increased sales
- Combination of “Prescriptive” and “Custom” Programs
 - Requirement to offer programs to *all rate classes* each year
- Proactively Monitoring REC Prices to Use Tier 2 Cost-Effectively

Tier 3 Deep Dive: Pathways

1. “Prescriptive” Energy Transformation Projects:

- Rebates and instant discounts, primarily for residential customers and small businesses
 - Customer buys or installs a qualifying measure (electric vehicle, ebike, etc.), submits a rebate application, and VPPSA sends back a check.
 - Customer purchases a qualifying measure (heat pump water heater) and receives an instant discount.
- MWhe savings is pre-determined (“prescribed”) by the Technical Advisory Group (TAG)
- Incentives range from \$25 to \$3,000
- **Utility Cost: \$20-\$50/MWhe**

2. “Custom” Energy Transformation Projects Incentives:

- Upfront financial incentives, primarily for commercial and industrial customers
 - Customer, utility, and sometimes Efficiency Vermont determine the project
 - Utility determines the incentive, pays it to the customer at onset of project
- MWhe savings determined by utility, approved by the Department of Public Service
- Incentives range from \$1,000 to hundreds of thousands
- **Utility Cost: \$5-\$20/MWhe**

Tier 3 Deep Dive: Pathways

3. Excess Tier 2:

- Utility rolls excess Tier 2 credits into Tier 3 bucket
- **Utility Cost: \$35/MWh**

4. Alternative Compliance Payment (ACP):

- Utility does nothing
- **Utility Cost: \$62/MWh**

Tier 3 Deep Dive: 2020 VPPSA Available Rebates



Tier 3 Deep Dive: 2020 VPPSA Available Rebates

Measure	Money Back	Additional Incentive
Electric Vehicle	\$1,000	\$400 (Low Income)
Plug-In Hybrid	\$500	\$400 (Low Income)
Electric Vehicle (Pre-Owned)	\$500	
Plug-In Hybrid (Pre-Owned)	\$250	
Level 2 Charger (Public/Workplace)	\$500	
Cold Climate Heat Pump	\$400	\$100 (Wx), \$400 (Wx TC)
Heat Pump Water Heater	\$600	
Forklift	\$3,000	
Golf Cart	\$50	
Lawn Mower (Residential)	\$25	
Lawn Mower (Commercial)	\$1,000	
E-Bike	\$100	



Putting the Public in Power.

[Rebate Forms](#) [Events](#) [Member Login](#) [Contact Us](#) [Search](#)

[ABOUT](#) ▾

[MEMBERS](#) ▾

[SERVICES](#) ▾

[ENERGY](#) ▾

[RESOURCES](#) ▾

VPPSA provides wholesale power supply to municipals and cooperatives in and outside of Vermont.

[Learn More](#)

Value of Public Power

Over a century ago, a consortium of Vermont municipalities individually decided to create electric departments in their communities to improve the quality of life for their residents.

[LEARN MORE](#)

Our Energy

VPPSA Members enter into a Central Dispatch Agreement (CDA) with VPPSA for the economic dispatch of its generating sources.

[LEARN MORE](#)

News & Updates

[Community Heroes Poster Contest](#)

[Read More...](#)

www.vppsa.com

Contact Info

Julia Leopold
Communications Specialist

Phone: (802) 884-4488

P.O. Box 126
5195 Waterbury-Stowe Road
Waterbury Center, VT 05677



www.vppsa.com