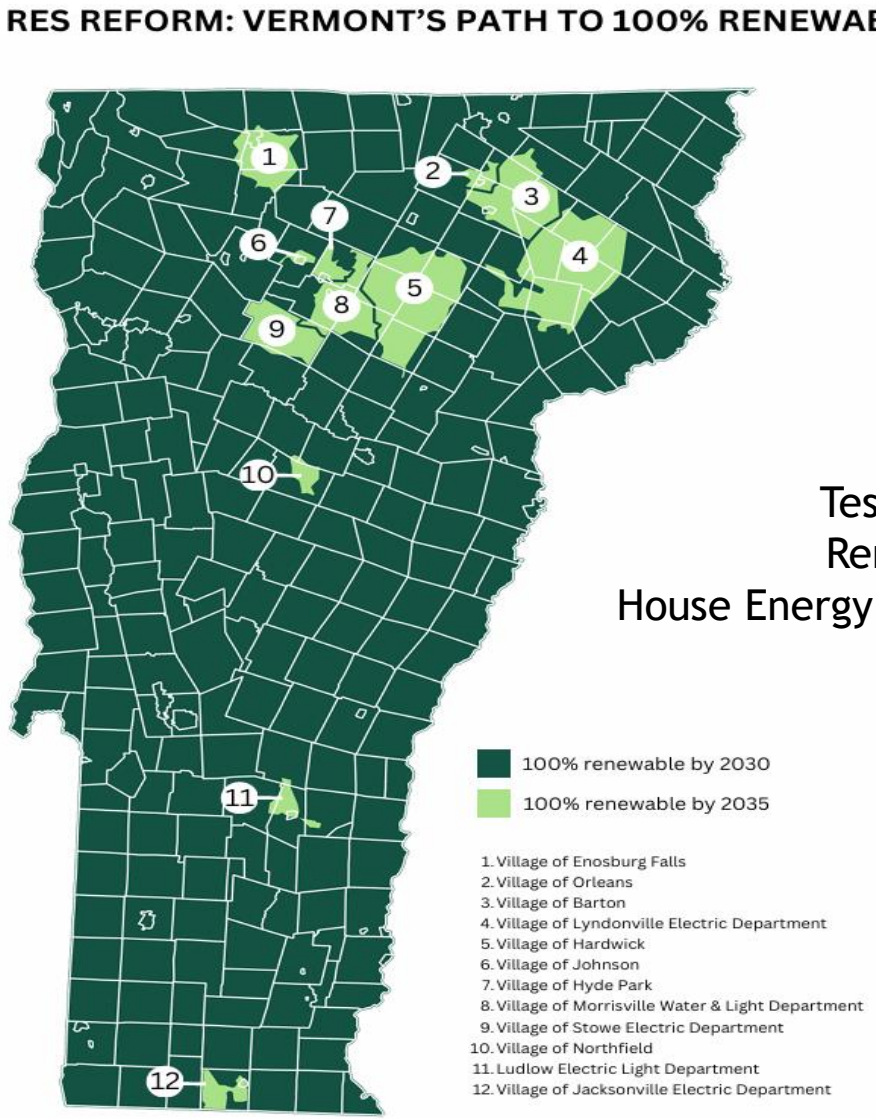
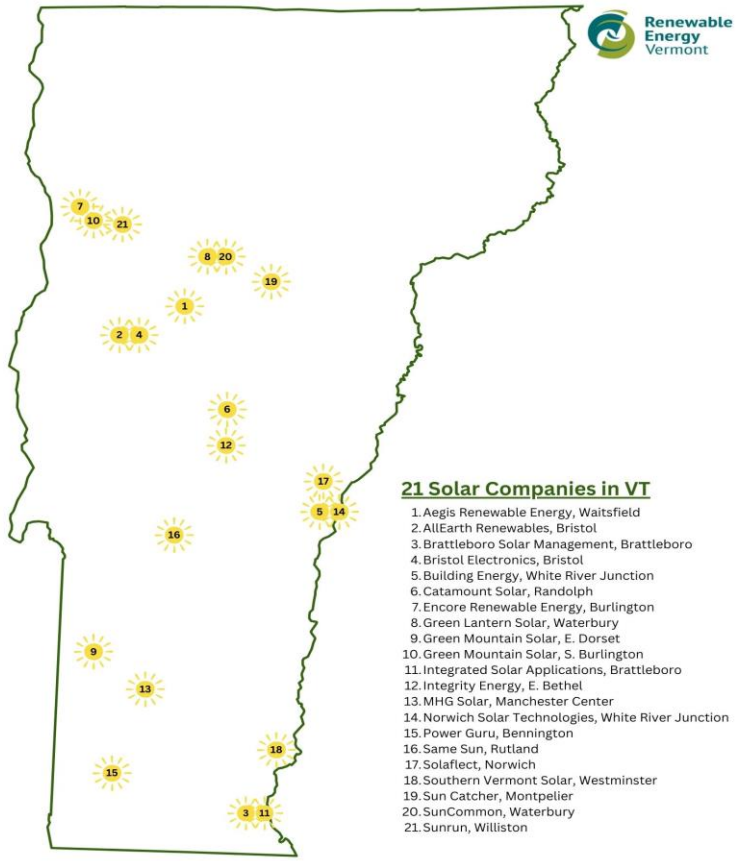
Benefits of Vermont's Renewable Energy Standard



Testimony of Peter Sterling,
Renewable Energy Vermont
House Energy & Digital Infrastructure Committee
February 4th, 2025

About Renewable Energy Vermont

- A non-profit 501c(6) trade association
- 115 member businesses
- Host an annual renewable energy conference since 2001



Renewable Energy Vermont

Costs Are Only One Side of the RES!

shaws

Perfecting the art of fresh

Store 121 Dir Michele
Main: (802) 223-7587
2 Main St.
Montpelier VT 05602

00012100400232501310954

YOUR CASHIER TODAY WAS Avery

	Price	You Pay
	7.45	4.95 S
	3.99	3.99 S
	7.89	7.89 S
	7.99	6.99 S
	16.14	12.10 S
	10.02	9.01 S
	5.49	5.49 S
	17.99	17.99 S
		-1.00
		0.00
		67.41

shaws

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Main: (802) 223-7587
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00012100400232501310954

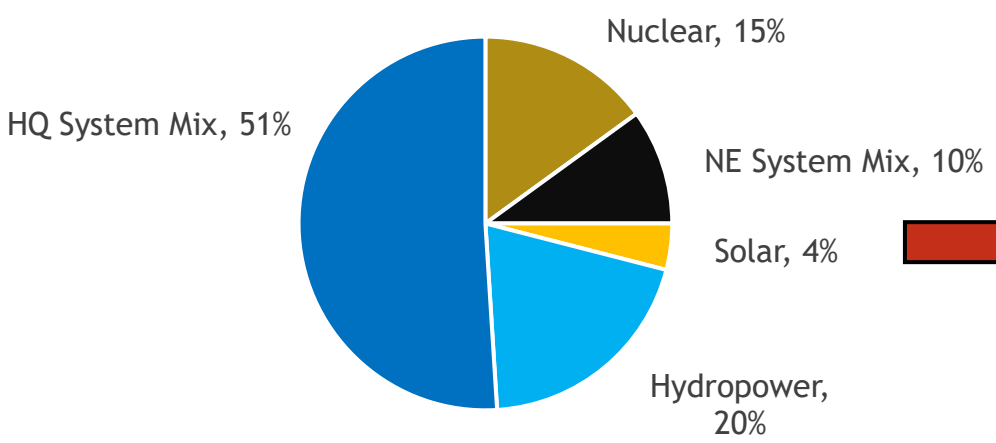
YOUR CASHIER TODAY WAS Avery

GROCERY		Price	You Pay
2113040518	5@ SIG ELBOW MACARONI	7.45	4.95 S
	Sale Savings -2.50		
REFRIG/FROZEN			
2113018706	SIG ORANGE JUICE	3.99	3.99 S
BAKED GOODS			
63515601131	BREAD MULTI GRAIN	7.89	7.89 S
DELI			
21086500000	PRESIDENT SWISS	7.99	6.99 S
	Sale Savings -1.00		
21343500000	D&W PROVOLONE	16.14	12.10 S
	Sale Savings -4.04		
21363800000	D&W MUENSTER CHSE	10.02	9.01 S
	for U Store Coupon -9.01		
7430100015	BATAMPTE SAURKRAUT	5.49	5.49 S
7835470750	CABOT HUNTER CHDR	17.99	17.99 S
ADDITIONAL DISCOUNTS			
	Rewards and CashOff		-1.00
	TAX		0.00
	**** BALANCE		67.41

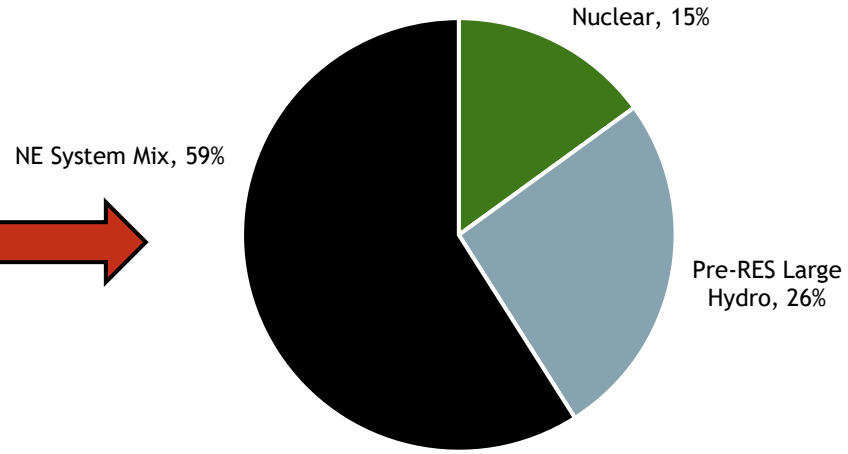
Renewable Energy Vermont

What Do Vermonters Get From Investing in the RES?

Absent the requirement to retire RECs under the RES, 59% of Vermont's electricity would come from the dirtiest elements of the New England grid



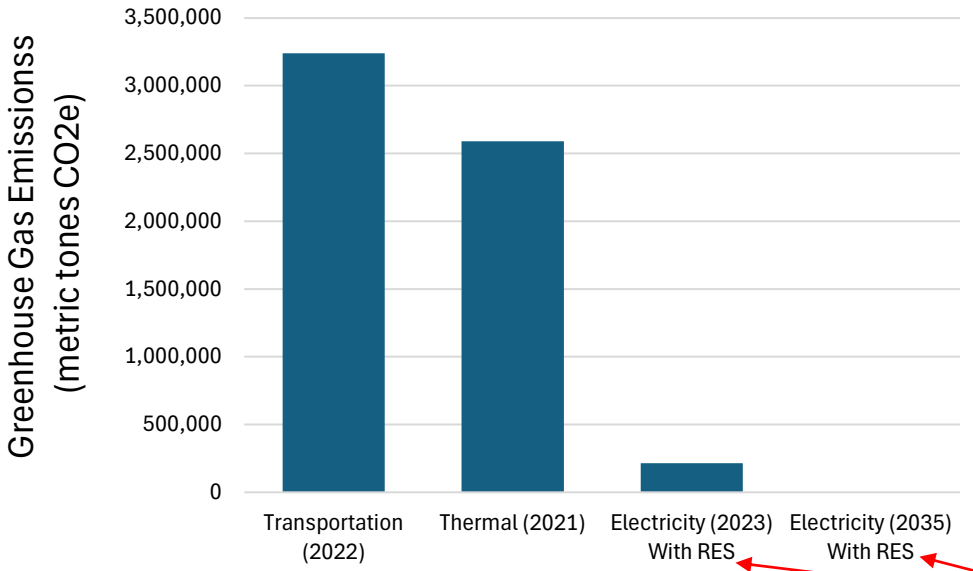
Vermont Energy Mix With the RES



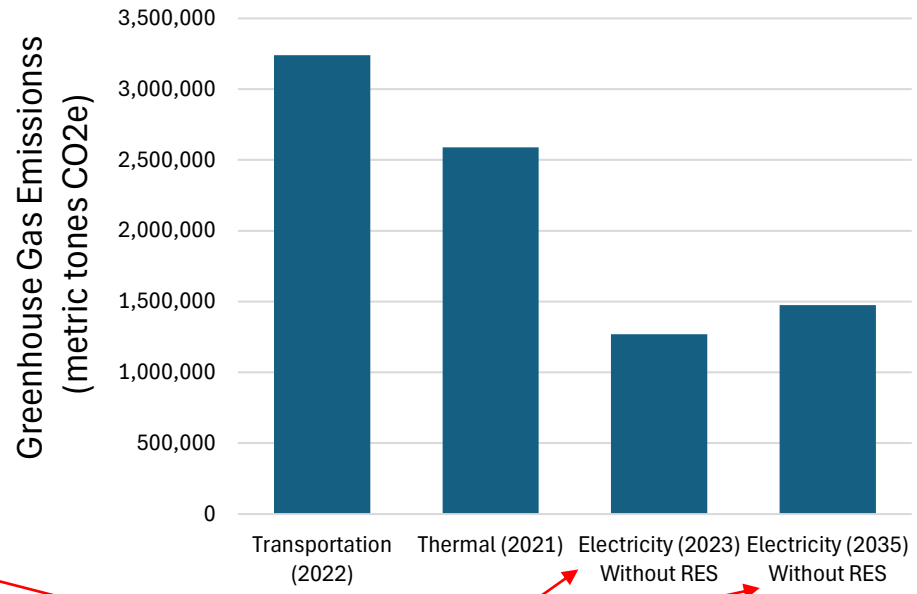
Vermont Energy Mix Without the RES

What Do Vermonters Get From Investing in the RES?

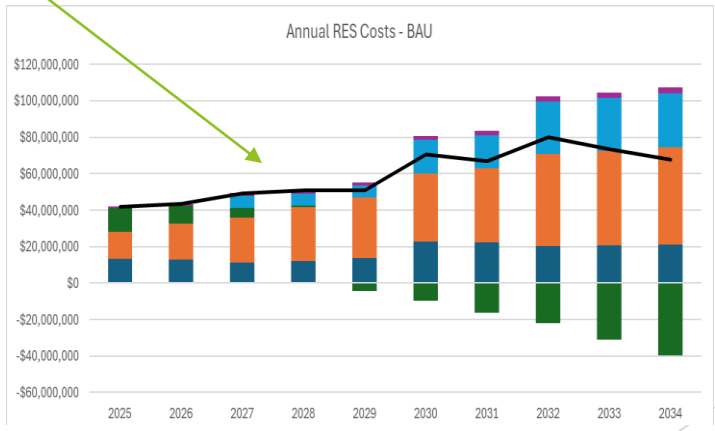
Vermont GHG Emissions with RES



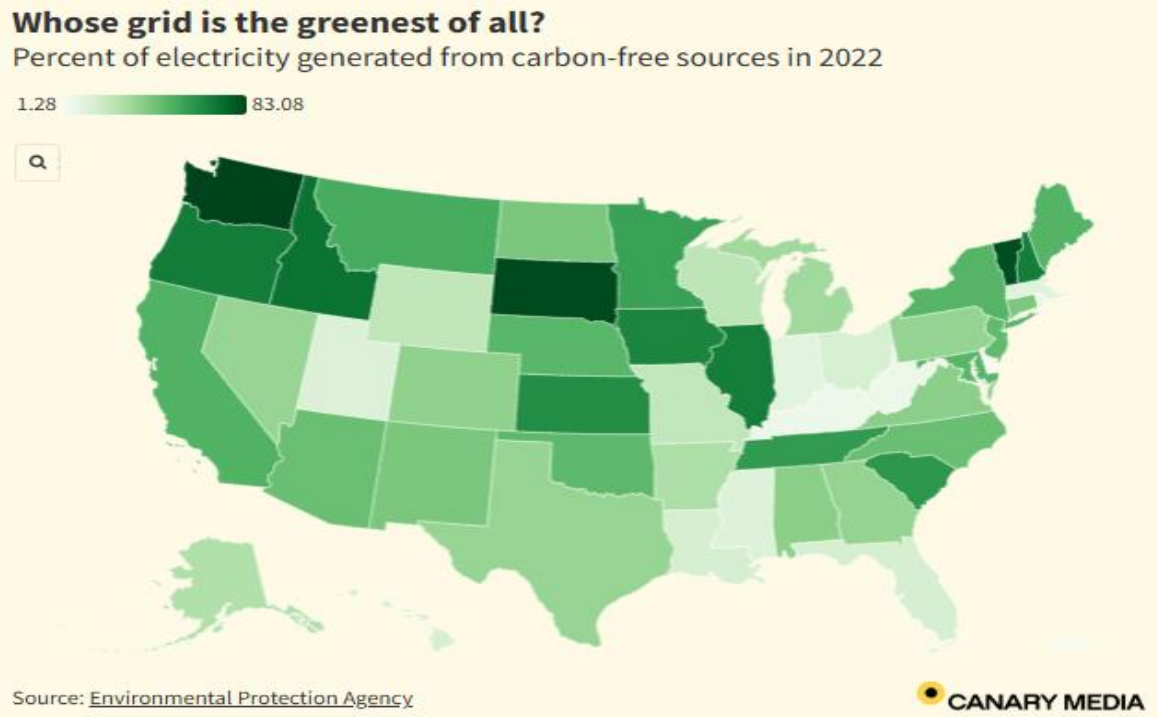
Vermont GHG Emissions without RES



This expense gets you this instead of this



What Do Vermonters Get From Investing in the RES?

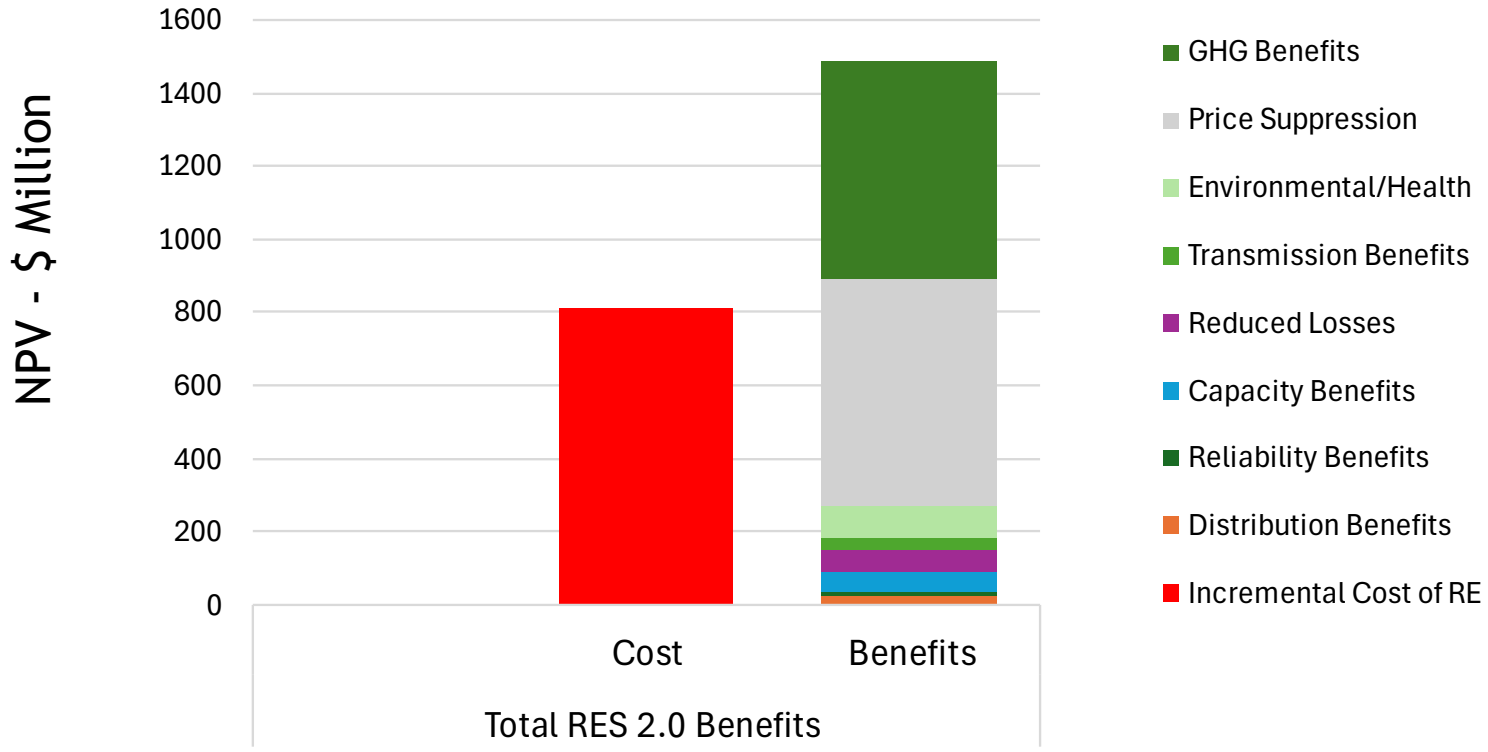


"Vermont, which boasted the third-cleanest grid, according to the data, sourced over half its energy from hydropower and 19% from wind in 2022. Legislators recently passed a law that requires the state's utilities to reach 100% renewable electricity by 2035." Canary Media Aug 9, 2024

REV's calculations are that emissions reductions attributable to the RES equivalent to removing up to 470,000 cars from the road in 2035

What Are the Benefits of the RES?

PSD never modified it's 2024 RES Benefit-Cost Analysis model* to analyze the specific requirements of H.289. When REV did so, it showed societal benefits of renewables far outweigh their costs.

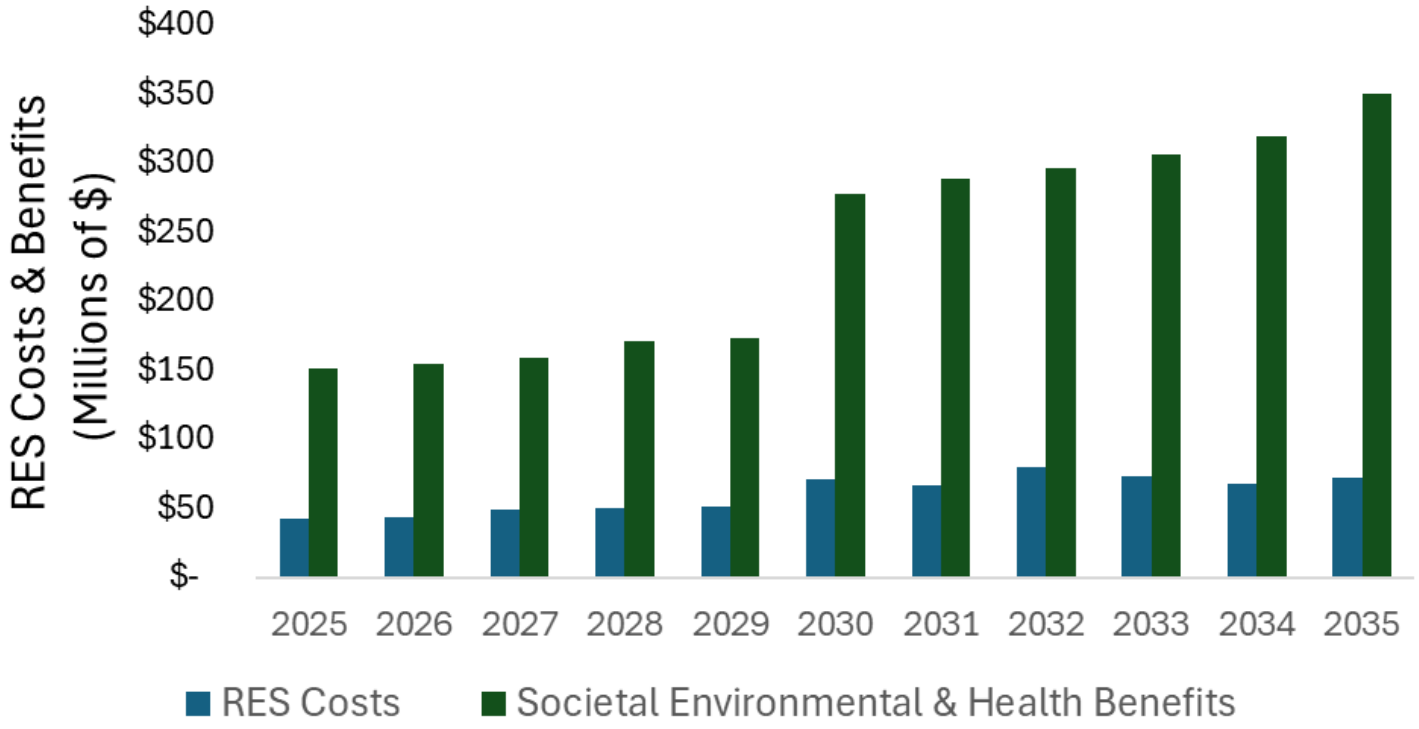


* PSD's model used a social cost of carbon of $128, far less than the $212 recently recommended by the EPA and Vermont Climate Council

What Are the Benefits of the RES?

The PSD 2025 RES Compliance Model projects the compliance costs and emissions savings resulting from the RES.

Valuing these emissions savings at the EPA's 2023 Social Cost of Carbon, as recomended by the Vermont Climate Council, the benefits are 3.2-4.8 times larger than the costs.



RES Reform Has Another $126m More in Benefits to Ratepayers

When modified to reflect the updated RES, PSD's RES Benefit Cost Model found that from 2025-2035 there are $126m in benefits to VT ratepayers including reduced line losses and reduced transmission costs.

94% of these $126m in ratepayer benefits came from in-state RES requirements.

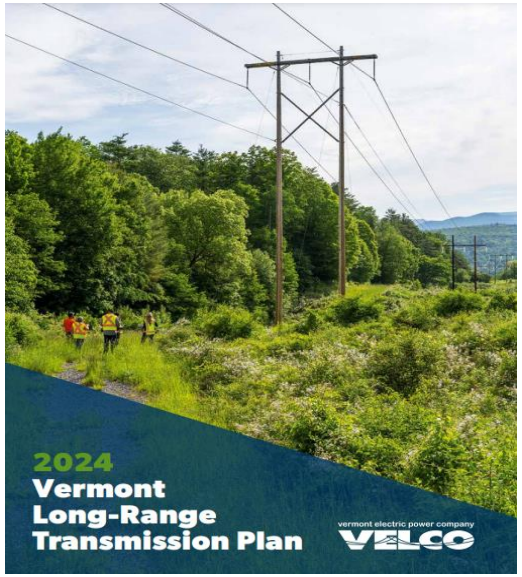
More Savings to Vermonters from Renewables

Savings to VT ratepayers from:

- Peak shaving from net metering
- Investments in grid improvements by net metering and distributed generation projects in Vermont
- Taxpayer savings from municipalities and schools accessing net metering

We have never gotten these numbers though we know these are all savings to Vermonters that offset the cost of the RES

Transmission Costs Increase When Vermonters Electrify

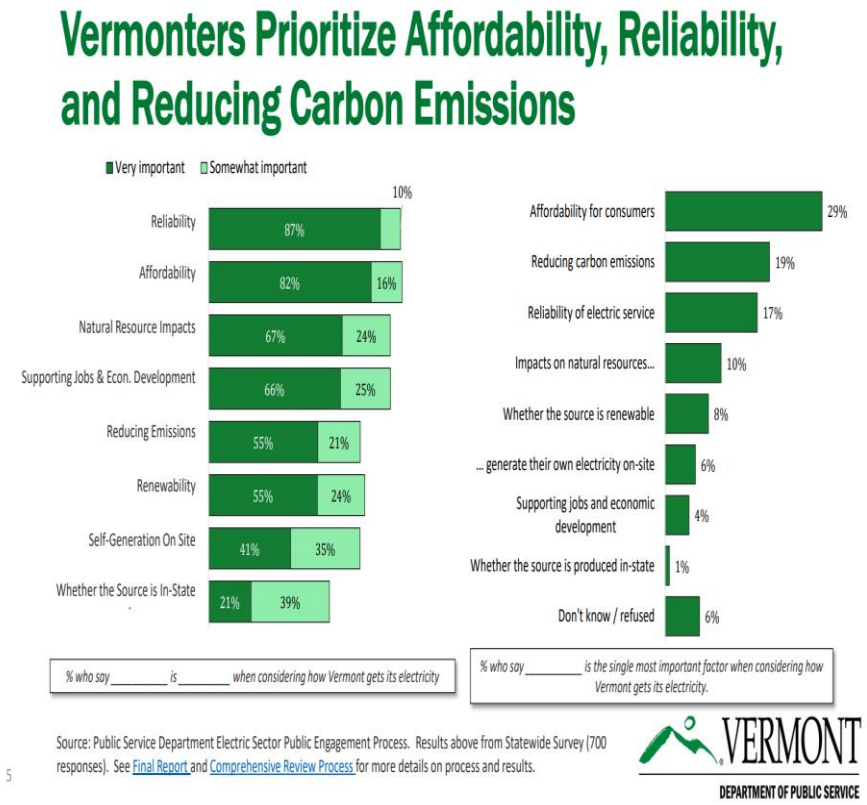


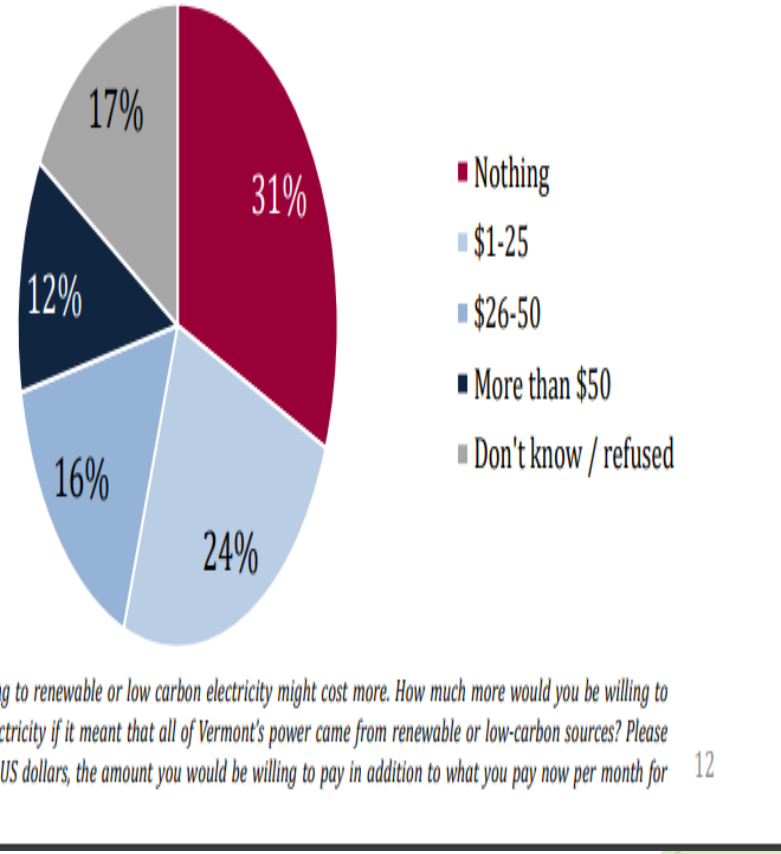
"The 2021 optimized analysis led to a result of 996 MW of solar DG, and the 2024 optimized study led to a total of 1,057 MW solar DG without causing any additional subtransmission or transmission level constraints."

"We can support approximately 950 MW of interconnected solar without requiring transmission or substation power transformer upgrades if care is taken to site solar in optimized locations, while taking T&D constraints into account. Based on our power supply planning, we need a total of about 835 MW to achieve our Tier II requirements. This is roughly an additional 350 MW of DG above where we are as of the end of 2024."

Renewable Energy Vermont

Affordability & Renewables



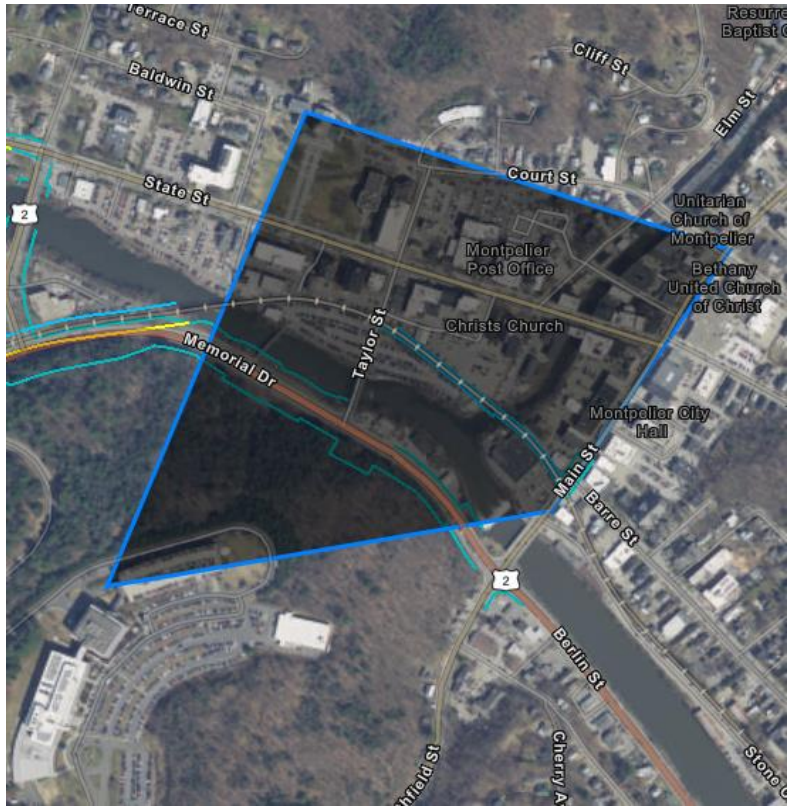


Slide from PSD testimony to HEDI- “affordability” is never defined in the poll

Question from the same PSD polling asking Vermonters specifically what additional amount they would pay each month for 100% renewables or low carbon energy

Only 31% said no more money

What Are the Benefits of the RES?



Footprint of the 60 acre 360MW baseload natural gas facility in Dayville, CT superimposed on downtown Montpelier

- NE has 64 oil & gas fossil fuel plants >50 MW: **None are located in Vermont!**
- 65% are in communities with a higher than average share of people of color
- 60% in communities with a higher than average share of low-income residents

When Vermont invests in new renewables we decrease New England's reliance on fossil fuel burning facilities

Renewable Energy Vermont