

# Benefits of Vermont's Renewable Energy Standard

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

Testimony of Peter Sterling,  
Renewable Energy Vermont  
Senate Natural Resources & Energy  
February 14th, 2025



# Costs Are Only One Side of Renewables and the RES!



# Renewable Energy's Economic Impact in Vermont

- ▶ In 2024, 30 MW of in-state solar was built in Vermont generating \$75m-\$100m in direct economic activity, over 30% of which comes from federal tax incentives and grants
- ▶ Updated RES requirements will almost double this install rate - between 300 and 375 MW of new in-state solar by 2030
- ▶ When REV modified the PSD's RES Benefit Cost Model to reflect the updated RES, we found that from 2025-2035 there are \$126m in benefits to VT ratepayers such as reduced line losses and reduced transmission costs. 94% of these \$126m in ratepayer benefits came from in-state RES requirements.
- ▶ According to PSD's annual Clean Energy Industry Report, the renewable energy sector employed 5,622 people in 2024

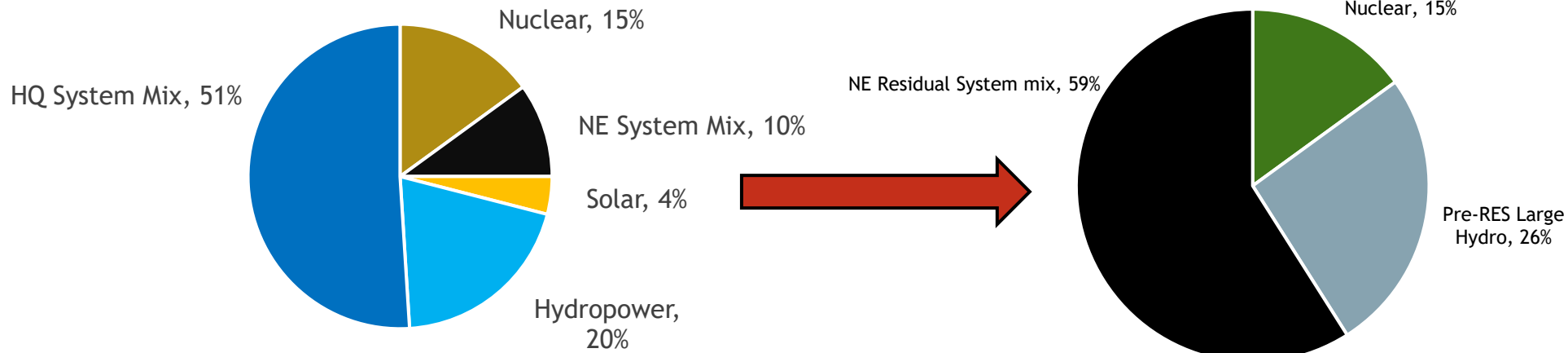
## Savings to Vermonters from investments in renewables:

- ▶ 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

# 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



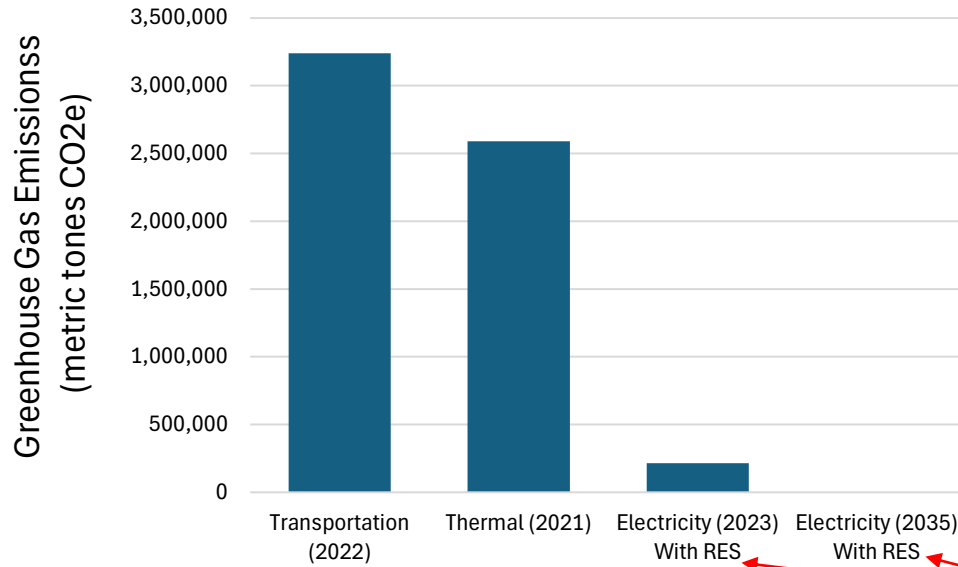
Vermont Energy Mix With the RES

Vermont Energy Mix Without the RES

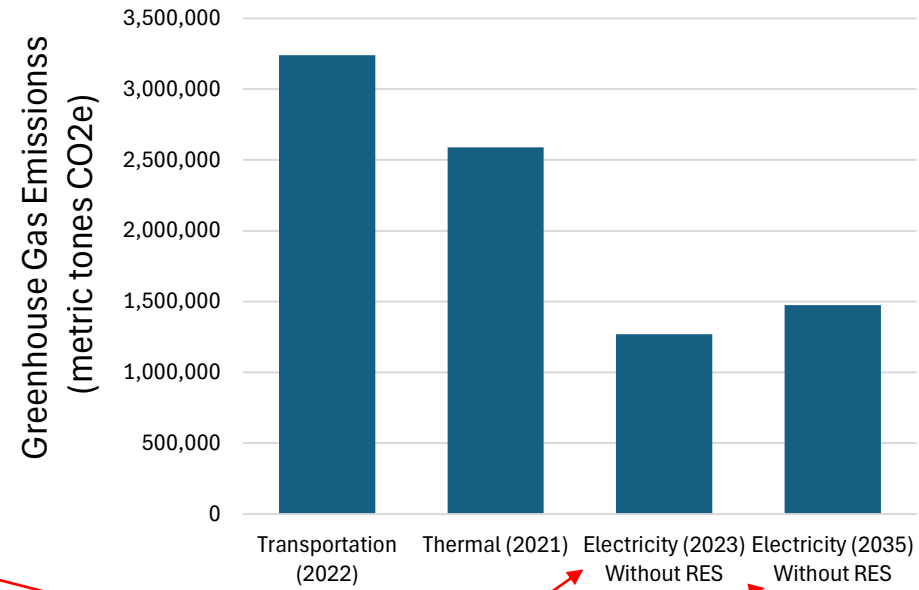


# What Do Vermonters Get From Investing in the RES?

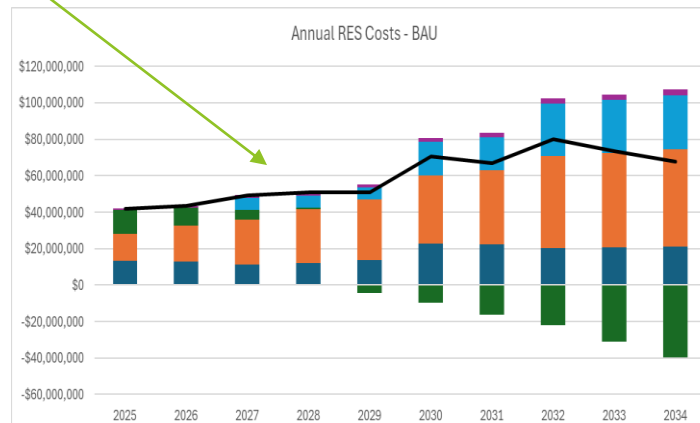
## Vermont GHG Emissions with RES



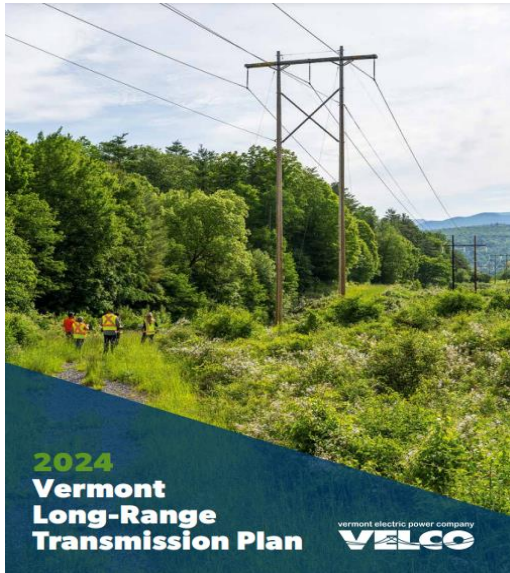
## Vermont GHG Emissions without RES



This expense gets you this instead of this



# 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.”



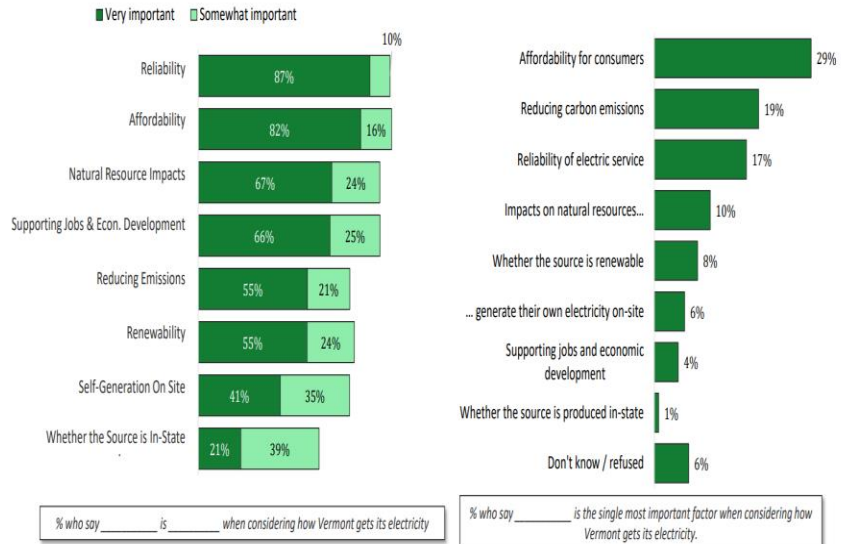
“We can support approximately 950 MW of interconnected solar without requiring transmission or substation power transformer upgrades if care is taken to site solar in optimized locations, while taking T&D constraints into account.

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.”



# Affordability & Renewables

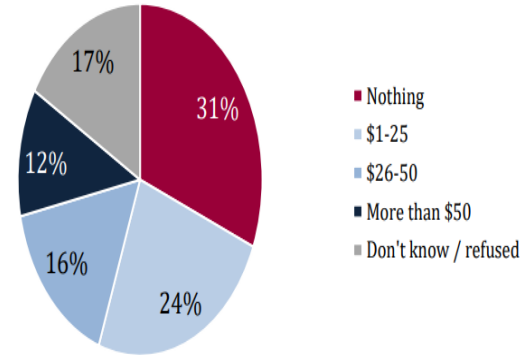
## Vermonters Prioritize Affordability, Reliability, and Reducing Carbon Emissions



Source: Public Service Department Electric Sector Public Engagement Process. Results above from Statewide Survey (700 responses). See [Final Report](#) and [Comprehensive Review Process](#) for more details on process and results.



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



THE **MassINC**  
POLLING GROUP

Q: Switching to renewable or low carbon electricity might cost more. How much more would you be willing to pay for electricity if it meant that all of Vermont's power came from renewable or low-carbon sources? Please answer, in US dollars, the amount you would be willing to pay in addition to what you pay now per month for electricity.

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- A question from the PSD’s poll asked Vermonters what additional amount they would pay each month for 100% renewables or low carbon energy- **only 31% said nothing**
- None of the 180 people in PSD’s public engagement process said they wanted net metering compensation reduced
- PSD held a public comment period in December for its report on Act 179 and received 175 comments. **Not a single individual commented that compensation for net metering should be reduced**



# Understanding the Net Metering “Cost Shift”

Net metering critics argue its cost shift increases electric rates because:

- ▶ It reduces utility sales. Every kWh a customer uses behind the meter is energy not purchased from a utility. This “lost sales” argument should then also be applied to every kWh of electricity a customer *conserves* through efficiency investments or simply by being vigilant about turning off the lights.

## Compensation for net metering resources

- Customers should be able to net meter
  - Reduction in utility’s revenue from lost sales is similar to the loss of sales from efficient appliances
- Legitimate questions as to:
  - What is appropriate compensation for generation exported back to the grid during times of excess production?
    - If a utility can purchase solar for 9 cents why should it pay 14 cents for excess net metered solar?

PUC Chair Ed McNamara  
testimony to HEDI, 2/7/25

- ▶ The net metering credits customers receive are worth more than the power exported to the utility, i.e. the power a utility could have purchased cheaper from the grid (the avoided cost)
  - In 2022 a NH DoE “Value of Distributed Energy” study estimated the avoided cost for residential solar. While these numbers are not directly translatable to VT, the study includes many benefits that the PSD has not quantified all of which decrease the net-metering cost shift

Figure 10. Average Annual Avoided Cost Value for Residential South-Facing Solar PV Array Installed in 2021 (2021\$)\*

