

Vermont State Update: Implementing 2024's 100% Renewable Energy Standard Law

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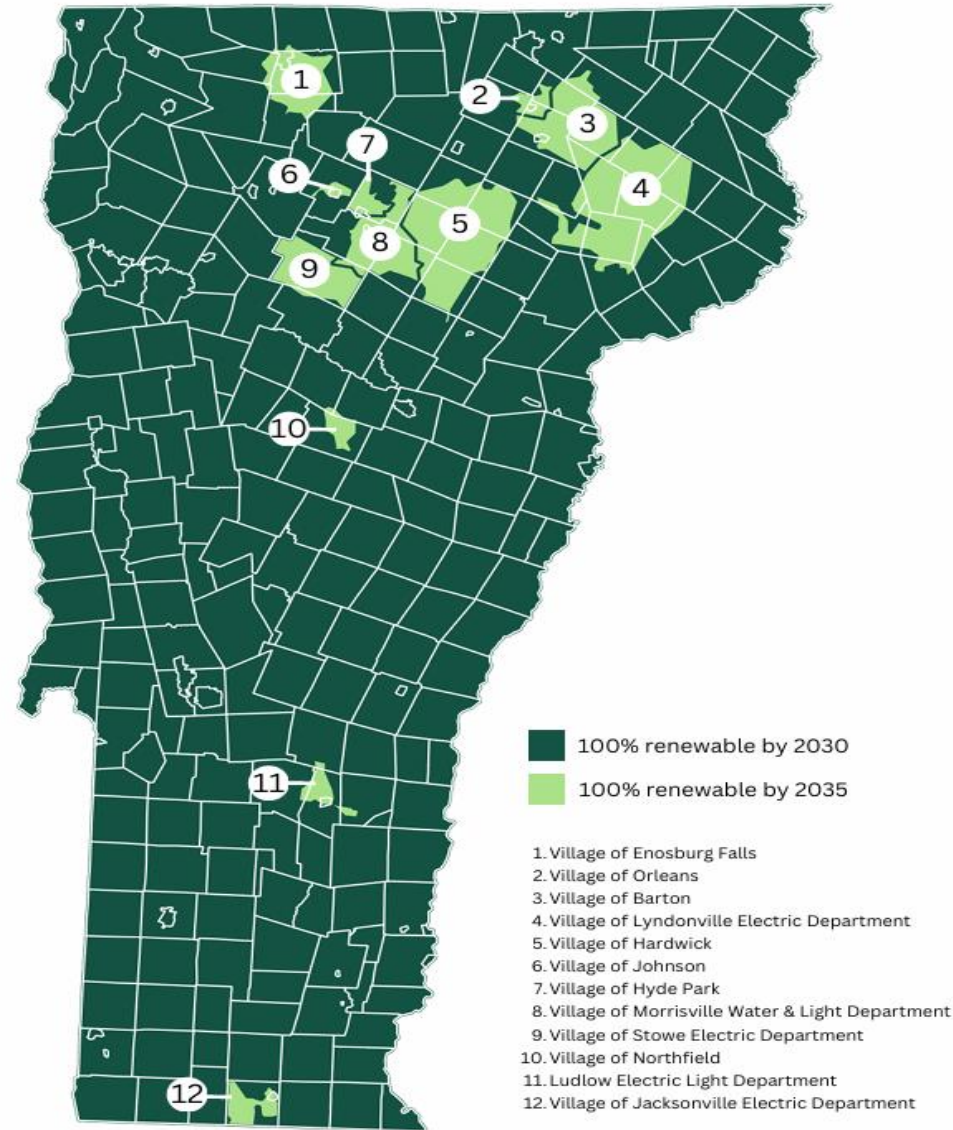


What Does Act 179 Do?

RES REFORM: VERMONT'S PATH TO 100% RENEWABLES

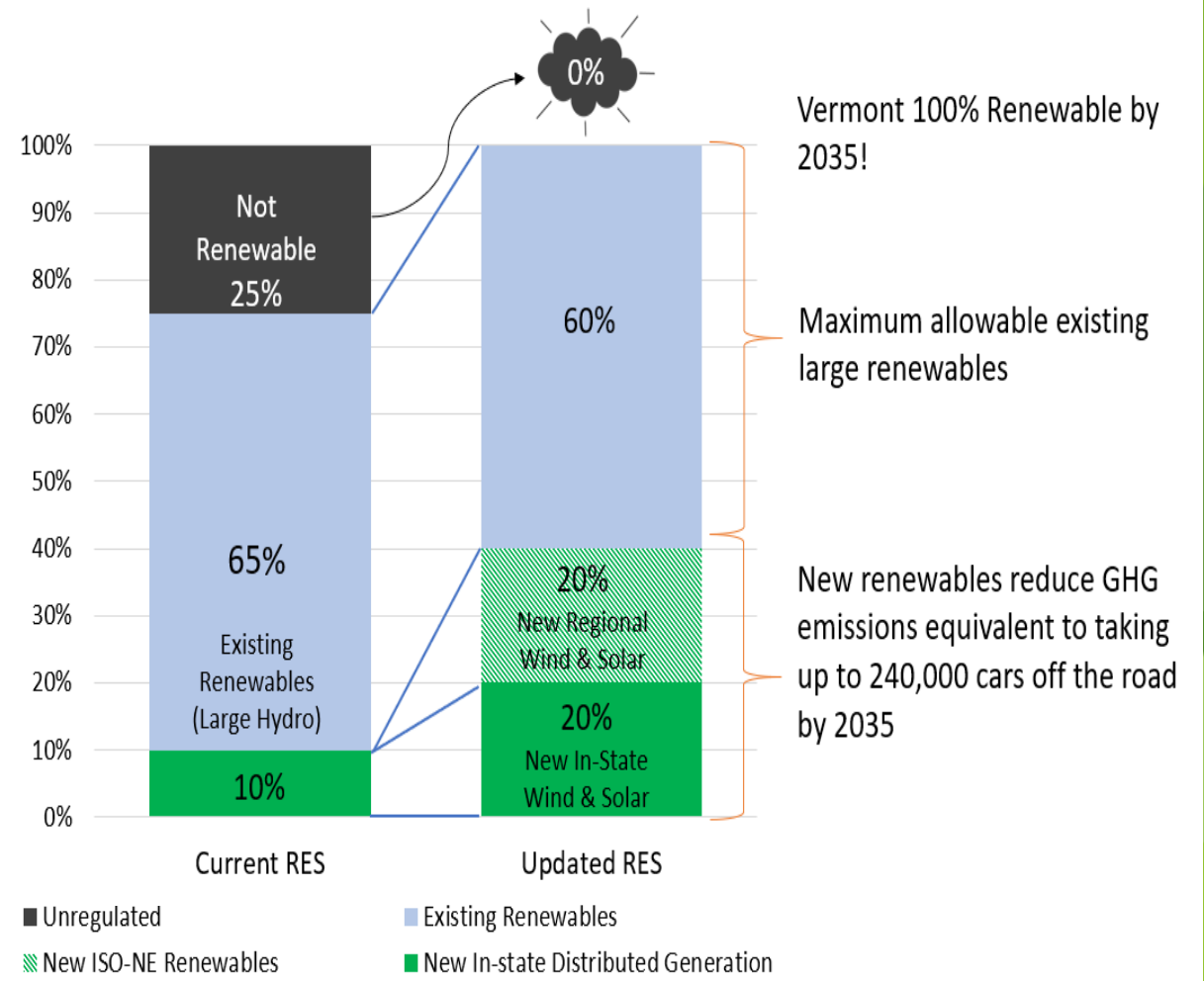
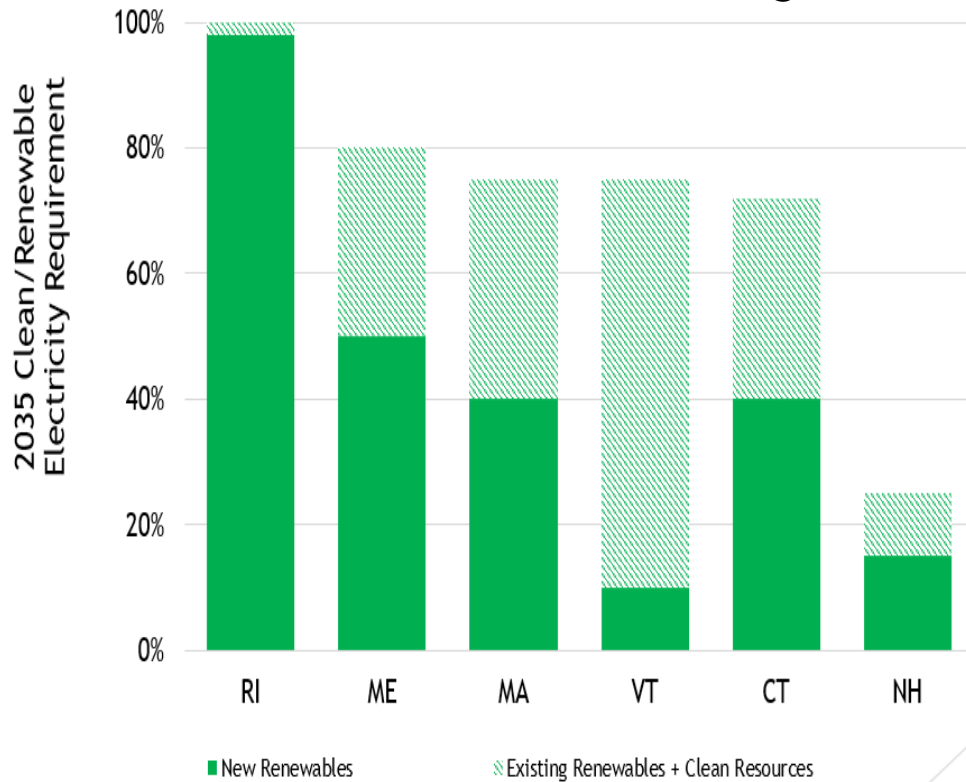
The single most significant legislation ever enacted to reduce Vermont's carbon footprint

Produces GHG reductions equivalent to removing 470,000 cars from the roads by 2035



What Does Act 179 Do?

Vermont's requirements for new renewables were the lowest in New England



Wind and Solar Development Driven By Act 179

Tier 1: Any age renewables of any size capable of delivery to New England

- ▶ Hydro Quebec and other large hydropower resources

Tier 2: In-state distributed generation (<5MW)

- ▶ PPA's, Standard Offer, net metering
- ▶ By 2030 Vermont will require approximately 300-375 MW of new distributed solar

Tier 4: In region renewables built after 2010 of any size capable of delivery to New England

- ▶ Offshore wind, onshore wind, solar >5MW
- ▶ Vermont will need about 242MW of wind by 2032

Tier 5: For the three utilities who are currently 100% renewable

- ▶ Purchase an increasing % of new load from new renewables until reaching 75% in 2035
- ▶ 13MW of wind or 34MW of solar by 2032



Getting to 100% Renewables

Good News:

- ▶ Vermont utilities are largely supportive of getting to 100% renewables
- ▶ Vermont's grid can handle the DG requirements of Act 179



“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.”



Getting to 100% Renewables

Bad News:

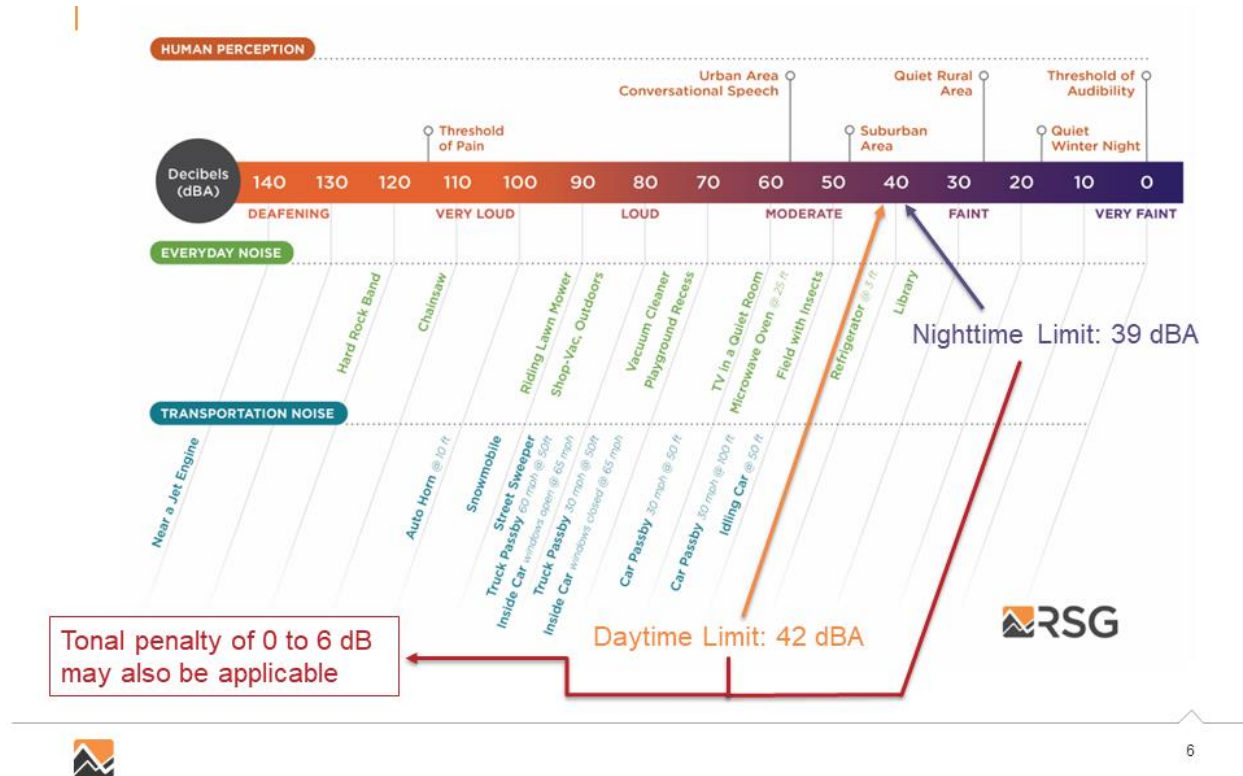
- ▶ Vermont has the strictest wind sound rule in the US at 39dba in the evening measured 100' from a home which is roughly the sound level in a library
- ▶ Regulators decreased the compensation for net metering 7 times in 8 years
- ▶ Vermont is the only state in New England without either a storage goal, requirement, or procurement program
- ▶ Increased regulatory obstacles, like aesthetics criteria slow down and discourage construction
- ▶ Need to reauthorize the Standard Offer program
- ▶ Governor has stated his intent to throttle back new in-state DG required by Act 179



Need to Update Vermont's Wind Sound Rule

Wind development in Vermont has been stalled for more than half a decade in large part because of the wind sound rule.

- ▶ Nighttime limit of 39 decibels - measured 100' from the outside of a home
- ▶ Less noise than a refrigerator and about on par a library.

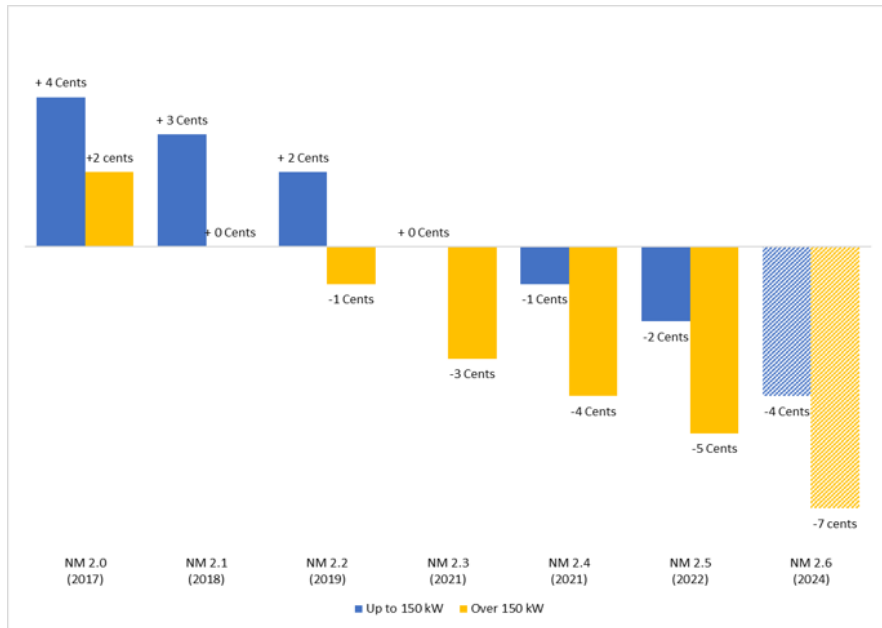


Source: Eddie Duncan RSG

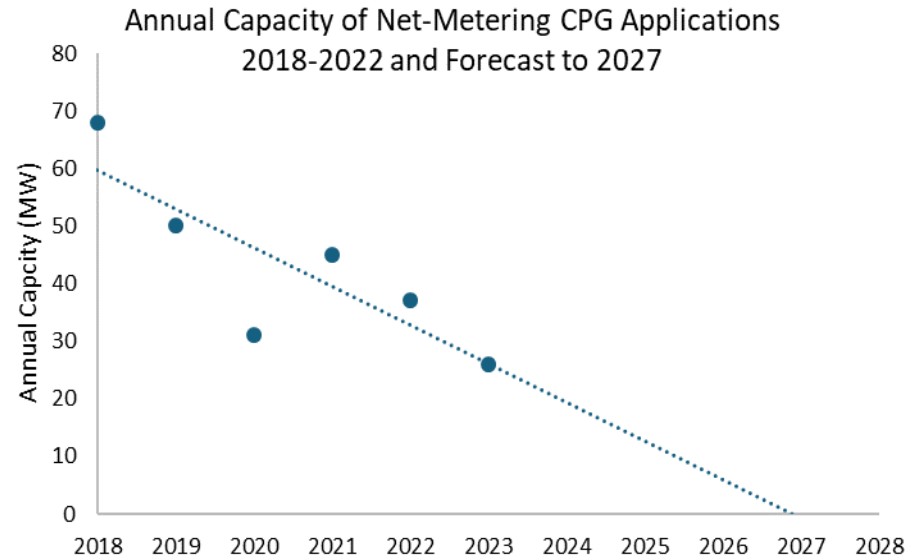


Vermont Public Utility Commission Decisions Mean Net Metering is Decreasing

The PUC has cut the amount Vermonters receive for net metering 7x since 2017



As a result, fewer Vermonters net meter each year



The owner of a 7kW system installed in 2025 under NM 2.6 will receive **\$19,000 less** for their solar generation than they would have under NM 2.0.

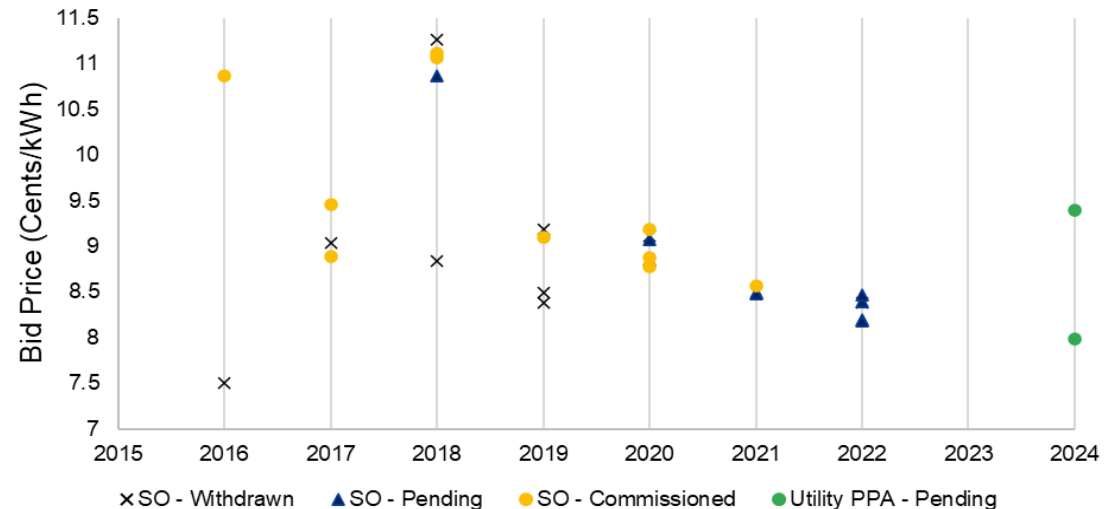


Reauthorizing the Standard Offer Program

- ▶ Standard Offer is a distributed generation (up to 2.2 MW) procurement program capped at 127.5MW. Final solicitation was in 2022
- ▶ Eligible technologies include solar, wind <100kW, wind 100kW to 2.2MW
- ▶ Annual RFPs specify the available capacity with bids awarded by reverse auction
- ▶ Contracts for solar projects are for 25 years, other technologies for 20 years
- ▶ All utilities except WEC, Swanton and BED are required to buy power from Standard Offer projects based on their pro rata share of electric sales

- ▶ **Capacity Connected:** 85MW/51 projects
- ▶ **Capacity in Development:** 24MW/11 projects
- ▶ **Capacity Withdrawn:** 29MW/16 projects

Developer Block Project Status by Bid Price (2016-22) & 2024 Utility PPAs



Benefits of a Reauthorized Standard Offer

A reauthorized Standard Offer:

- ▶ Ensures the consistent and predictable deployment of new renewables and makes sure that early emissions reductions are achieved regardless of volatility in load growth
- ▶ Recreates a space for community-owned renewables
- ▶ Utilizes a mechanism that the Public Utility Commission has determined is consistent with the goal of timely development at the lowest feasible cost



Renewable Energy in Vermont “Shocking and Offensive”



RICHVILLE ROAD SOLAR
Richville Road
Marchand, VT
Project #: 19-297

VISUALIZATION OF PROPOSED MITIGATION PLAN
AT INSTALLATION



RICHVILLE ROAD SOLAR
Richville Road
Marchand, VT
Project #: 19-297

VISUALIZATION OF PROPOSED MITIGATION PLAN
44 YEARS GROWTH



- ▶ Public Utility Commission hearing officer conclusion: “would introduce new components into the landscape that would create a visible change within the context of the immediate surroundings” and be shocking to the average person.



Public Utility Commission “Single Plant” Rulings Limit Development on Good Sites for Solar



- ▶ Vermont’s “single plant” rules can prevent solar projects from being built near one another
- ▶ This prevents us from taking maximum advantage of industrial parks and disturbed locations