

Starksboro Energy Committee

5:30 p.m. Monday December 5, 2022

Virtual Teams Meeting

1. Attendees
 - a. Energy Committee:
 - i. Jeff Dunham, Richard Faesy
 - b. Guests
 - i. Jonathan Dowds, REV
 - ii. Rose Wall, EVT
 - iii. We recorded the guests so that SEC members could view it later.
2. Public Comments
 - a. None
3. Approve Minutes from 9/12/22, 10/3/2022, and 11/7/22 Meetings
 - a. Not a quorum so didn't vote
4. 100% Renewable Energy Standard (RES) (Jonathan Dowds from REV)
 - a. VT's RES does not result in new renewables for VT
 - b. We need more renewables for VT

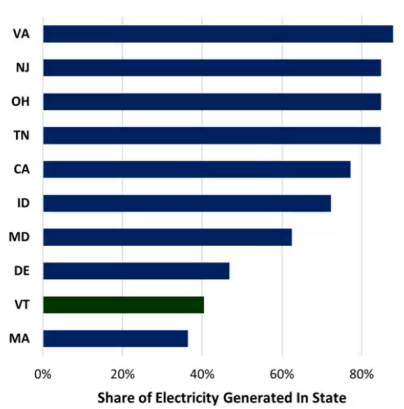
The Vermont Legislature must pass a law re-aligning the RES with the rest of New England

Total Renewable Energy (Tier I)			
Current RES		Proposed Change	
Requirement	Satisfied By	New Requirement	Satisfied By
75% by 2032	Old hydro	100% by 2030	Significant <i>new</i> resources

In-State Renewable Energy (Tier II)			
Current RES		Proposed Change	
Requirement	Satisfied By	New Requirement	Satisfied By
10% by 2032	Mostly net metered solar	20% by 2030 30% by 2035	Net metered solar + MW scale solar + storage

- c.
 - i. PV and storage
 - ii. Off-shore wind for Tier 1

Why increase in-state renewables: Vermont lags in energy production



This matters for:

- ▶ Environmental Justice
- ▶ VT Energy Security
- ▶ Economic Development

d. Source: EIA State Electricity Profiles Data for 2020

Economic impacts of doubling in-state renewables

Leverage federal tax credits

- ▶ 30% - 50% of the cost of new renewables and storage
- ▶ Direct payment available for non-profits, school districts, and municipalities

Increasing in-state renewable deployment generates jobs *throughout* Vermont

- ▶ In 2016, when solar installation peaked, the sector employed 7,000 people
- ▶ As of 2022 it's down to 5,600

e. Sources: SEIA Inflation Reduction Act Factsheet
2022 Vermont Clean Energy Industry Report

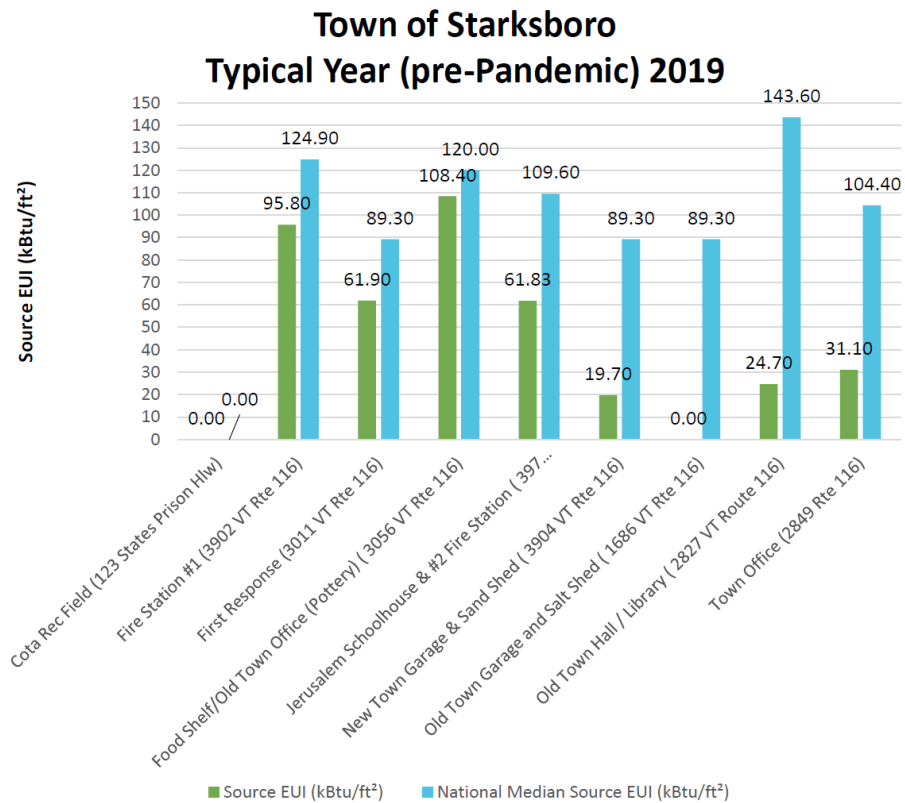
Land use impacts of doubling in-state renewables

2030 Load Forecast Source	DPS 2022 RES Compliance Model
Tier II Requirement	20%
2030 Load Forecast (MWh)	5,984,438
Current Tier II Generation (MWh)	330,028
Other In-State Generation (MWh)	-
Required New Generation (MWh)	866,860

Project Type	Average Project Size (kW)	Average Capacity		Tier II		Annual Output (MWh)	Number of New Projects	Approximate Acres Utilized
		Factor	Generation	Capacity (MW)				
Traditional NM (<50 kW)	10	0.13	38%	251		286,064	25,120	395
New Solar Tarriff (50kW - 1 MW)	750	0.15	22%	145		190,709	194	1,103
Standard Offer 2.0 (1 MW - 5 MW)	4000	0.18	45%	247		390,087	62	1,484
Total			100%	644		Tier II requirements met		2,983

- Current Tier II requirements will take ~700 acres of solar
 - 20% Tier II will require an additional **total of ~2,300 acres of solar**
 - UVM study: residential sprawl consumes 1,500 forested acres/year
- f. Tremendous opportunity for solar PV on flat roof buildings in S. Burlington, Williston, etc.

- h. In France, required PV panels for parking lots of >80 spots
- i. Battery opportunities
 - i. Next Era Energy has 4 hour storage
 - ii. New technologies are coming out
 - iii. EVs as storage
- 5. Energy Audits for Town Buildings (Rose Wall, Efficiency Vermont)
 - a. Site visit
 - b. Free visit, hand holding, referrals to contractors
 - c. Trying to help us select refrigerators
 - d. Air sealing and insulation
 - e. Lighting
 - f. AC, heat
 - g. Refrigeration



- h.
- i. Priorities
 - i. Fire station
 - ii. First response
 - iii. Food shelf/Old Town
 - iv. Jerusalem Schoolhouse
- j. Site visit in January
 - i. Rose can meet anyone from SEC
- k. We will need some costs and savings to bring to the SB
- l. Rose could find programs and incentives to align

- m. Access
 - i. EVT needs a town official to make the request
 - n. Rose will provide some times in January for us to meet
- 6. Mobile Home Parks Next Steps
 - a. We need Pete to be involved before discussing
 - b. Put off until we have Pete A-K at a future meeting
- 7. ARPA Proposals
 - a. Starksboro Public Library Energy and Ventilation Project
 - i. Submitted, presented, and waiting for decision from the ARPA board
 - b. Pavilion Solar PV
 - i. Submitted proposal and attending ARPA meeting on 12/14 6:20
 - ii. Pavilion proposal is at 6:00
 - iii. Proposed 15,000 kW system
 - 1. 7500 to each Town Building and Library
 - 2. Use seems about right after reviewing the benchmarking study
 - c. Three Phase Power Line
 - i. Keegan at GMP has been helping Jeff
 - ii. Chris Zeno approached GMP about 3 phase at his Brown Hill sugarhouse, but needs more service for his new RO and CDL electric evaporator
 - 1. 6000 gallons of oil used now annually
 - 2. May get into GMP Tier 3 program
 - iii. Level 3 car charger may be a good fit in Starksboro
 - iv. These two projects may be impetus for GMP to string three phase line
 - v. Jeff is waiting to hear from GMP
 - vi. Jeff may submit by end of December if it makes sense
 - vii. If it looks like a worthy project, Jeff will prepare a proposal
- 8. Energy Corner
 - a. Article or Posting Idea(s)
 - i. Post on town website and Front Porch Forum
 - ii. Ideas
 - 1. Once we hear about ARPA, could post information
 - 2. Mobile home discussions, but talk with Pete first
- 9. Other business
- 10. Next meetings
 - a. 1/2/23 Energy Committee