

Advancing Equity in the Policymaking Process

Engaging Vermonters in Renewable Energy Policy

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A tale of two questions:

What should the future of Vermont's renewable electricity policies and programs look like?

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What should the future of Vermont's renewable electricity policies and programs look like?

What does it look like to meaningfully engage the public in the development of those programs and policies?

What is the role of the Department?

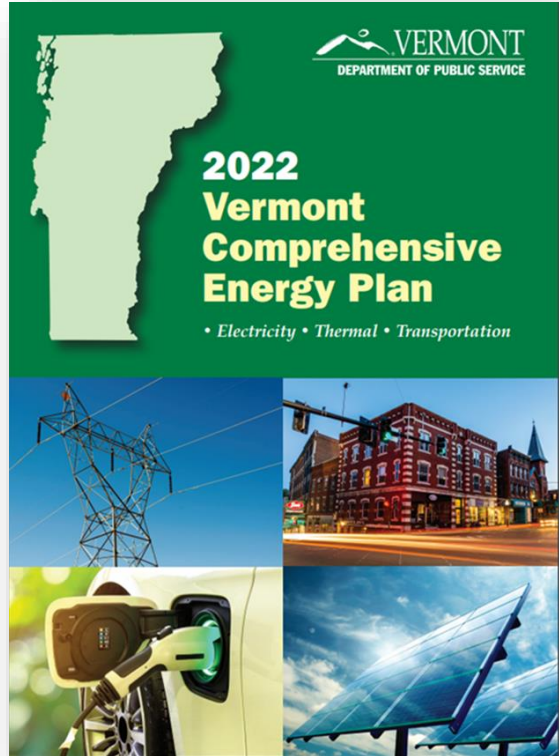
The **Vermont Public Service Department** is an agency within the executive branch of Vermont state government. The Department represents the public interest in matters regarding energy, telecommunications, water and wastewater and helps carry out state energy policy (**Title 30, Section 202a**):

This means, ensuring, to the greatest extent practicable, that Vermont can meet its energy service needs:

- In a manner that is **adequate, reliable, secure, and sustainable**
- Ensuring **affordability** and encouraging the state's **economic vitality**
- Using energy resources **efficiently** and managing demands **cost effectively**
- In a manner that will **achieve greenhouse gas reductions requirements**

Through this role, the Department helps oversee policies and programs in the electric sector and coordinate the **Vermont Comprehensive Energy Plan** and participates in development of the **Vermont Climate Action Plan**.

What motivated this work?



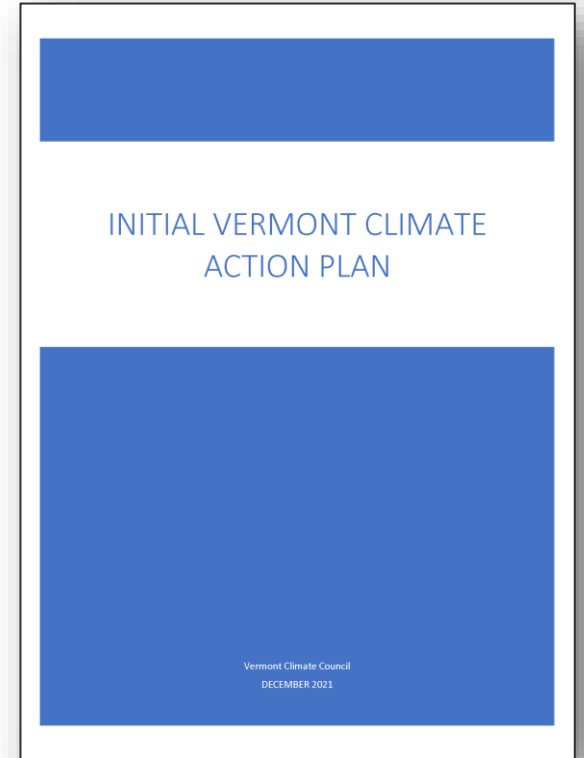
2022 Comprehensive Energy Plan:

“Consider adjustments to the Renewable Energy Standard and complementary renewable energy programs comprehensively, **through a transparent and open process.** . . . The Considerations should include:

- Consideration of a low-carbon or carbon-free standard, in addition to a 100% renewable energy standard
- Consideration of a cohesive set of programs to support the standard” (p.270)

2021 Climate Action Plan:

Electric Sector Strategy 1 Pathway 1: “Vermont should develop 100% carbon free or renewable electric portfolio standard to ensure progress continues into the 2030s and beyond while being mindful of the economic impact on cost-burdened Vermonters and maintaining the cost-effectiveness of fuel-switching to electric measures.” (p.111)



Context: Electricity in Vermont



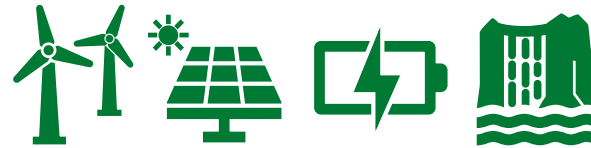
2%

Contribution of electricity to statewide GHG emissions



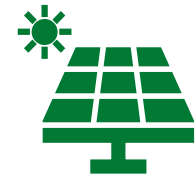
74.7%

Renewable in 2022 based on REC retirements



600+

MW of distributed energy resources



350+

MW of net-metered resources

Vermont is relatively far along in its transition towards renewable electricity.

What motivated this work?

(3) “**Environmental Justice**” means all individuals are afforded...fair and equitable treatment and **meaningful participation in decision-making processes**, including the development, implementation, and enforcement of environmental laws, regulations, and policies.



(6) “**Meaningful participation**” means that **all individuals have the opportunity to participate** in energy, climate change, and environmental decision making...Meaningful participation also integrates **diverse knowledge systems**, histories, traditions, languages, and cultures of Indigenous communities in decision-making processes. **It requires that communities are enabled and administratively assisted to participate** fully through education and training. Meaningful participation requires the State to operate in a **transparent manner** with regard to opportunities for community input

No. 154
2022

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No. 154. An act relating to environmental justice in Vermont.

(S.148)

It is hereby enacted by the General Assembly of the State of Vermont:

Sec. 1. FINDINGS

The General Assembly finds that:

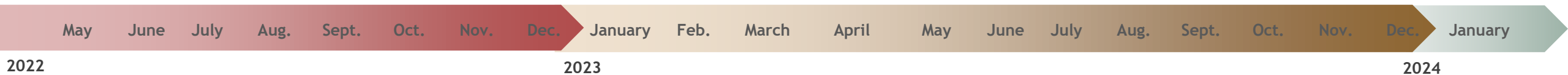
(1) According to American Journal of Public Health studies published in 2014 and 2018 and affirmed by decades of research, Black, Indigenous, and Persons of Color (BIPOC) and individuals with low income are disproportionately exposed to environmental hazards and unsafe housing, facing higher levels of air and water pollution, mold, lead, and pests.

(2) The cumulative impacts of environmental harms disproportionately and adversely impact the health of BIPOC and communities with low income, with climate change functioning as a threat multiplier. These disproportionate

Approach to the work

Scope of the renewable electricity programs and policies we were reviewing:

- **Policy:** Renewable Energy Standard - 75% total renewable by 2032, with a 10% carve-out for new in-state distributed generation
- **Programs:** Standard Offer & Net-Metering - support deployment of small-scale (<2.2 MW & <500kW, respectively) renewables



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Pre-Planning Input

July 2022: Request for Input on *Stakeholder Engagement*, Decision Criteria, Key Issues

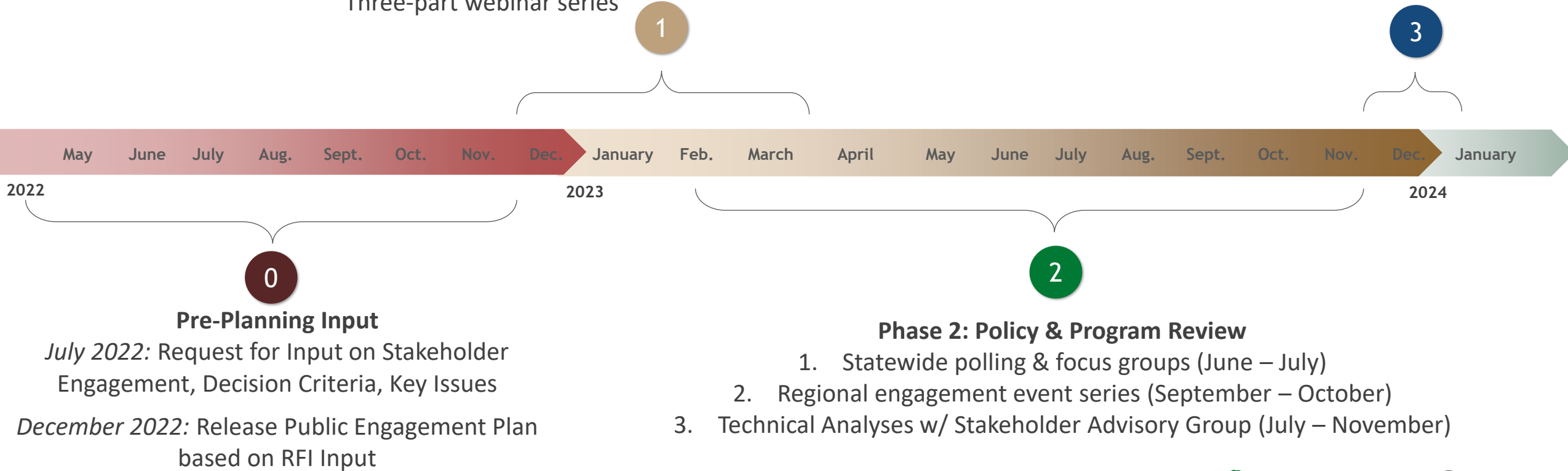
What did we actually do?

Phase 1: Awareness & Capacity Building

Three-part webinar series

Phase 3: Recommendations & Reporting

Coming soon!
Public comment period & workshops



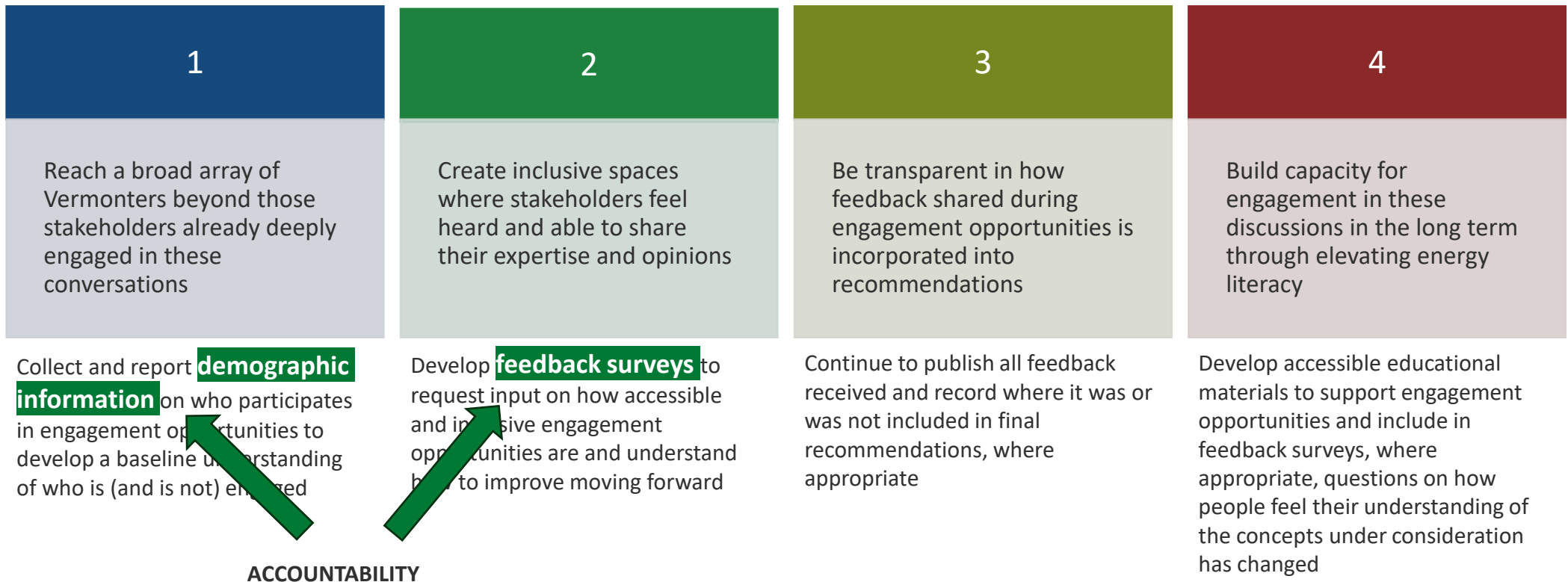
Success: Centering Public Engagement

...and having a budget!



Success: Accountability & Data

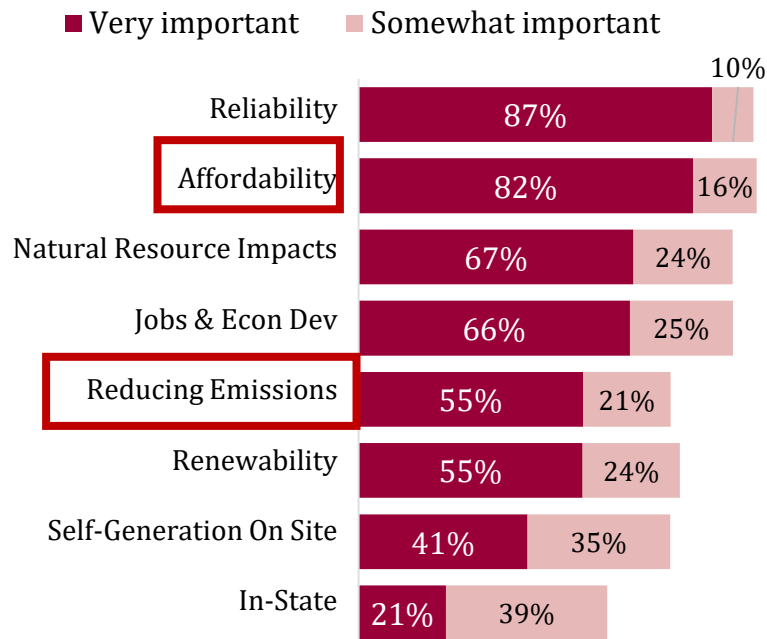
Setting goals required us to think intentionally about how we'd hold ourselves accountable and measure success. This helped create a baseline to compare future efforts against.



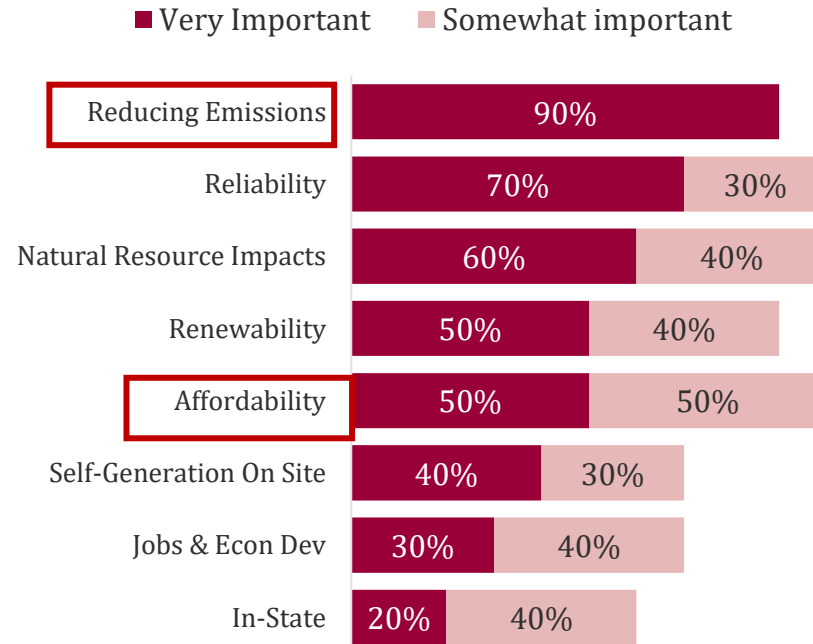
Success: Multiple Engagement Touchpoints

Allowed us to evolve strategies over time and ask similar questions to different audiences

Polling & Focus Groups



Stakeholder Advisory Group



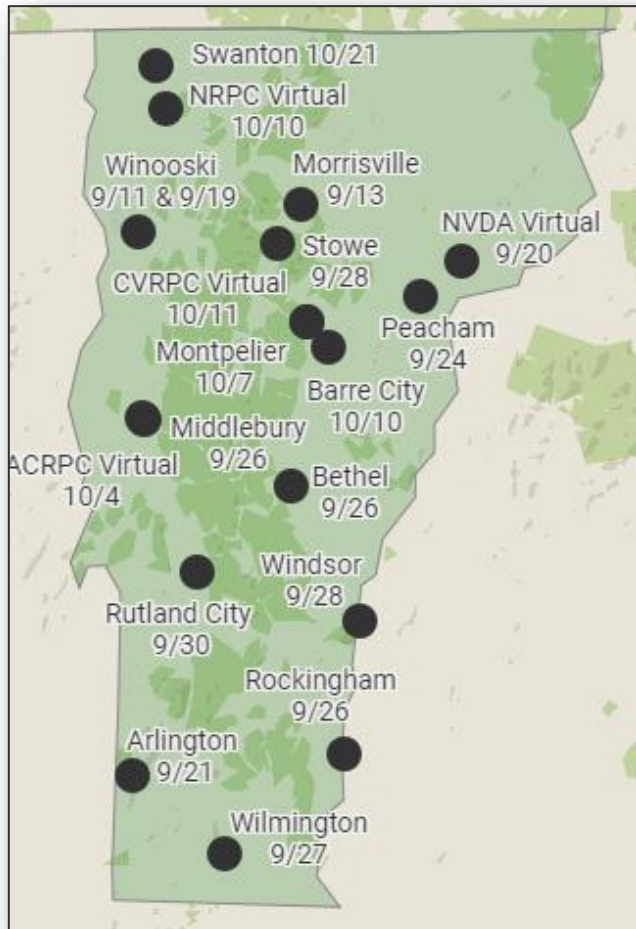
Regional Events

Emissions Reductions, Affordability, Reliability, Renewability, Natural Resources were top priorities

**Observation that more energy-engaged groups seemed more focused on emissions; Less energy engaged more focus on reliability & affordability

% who say _____ is _____ when considering how Vermont gets its electricity

Success: Partnerships



Helped us think outside the box & reach a broader audience



SAY WATT?

LET'S TALK ABOUT WHERE VERMONT'S ELECTRICITY COMES FROM



The Public Service Department and your local Regional Planning Commission have teamed up to ensure your voice is heard as critical energy policies are updated.



Help us determine the future of electricity in Vermont!



We are asking Vermonters:

1. What are your priorities when thinking about where our electricity comes from?
2. How can our policies and programs better support those priorities?



Join an event near you!



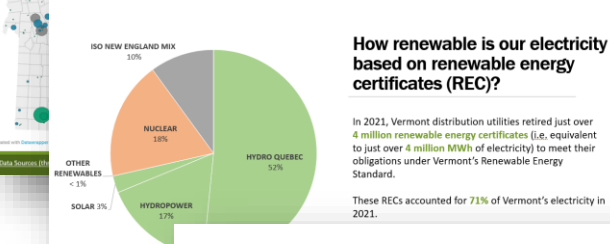
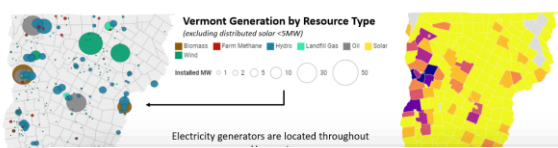

Lessons Learned: Education Throughout

Instead of one phase, educational materials played a role throughout our entire process

Webinar Series

Polling & Focus Groups

Regional Events



Core Policies & Programs

Over the last 20+ years, Vermont has developed several policies and programs to support renewable electricity in the state. These include:

- 1999 - Net-Metering**
Allows Vermont homes, businesses, and communities to generate their own power, such as by putting solar PV on their homes
- 2005 - SPEED**
Sustainably Priced Energy Enterprise (Development) (SPEED) Program - Required utilities to sign long-term, stably priced contracts for renewable resources
- 2009 - Standard Offer**
A program to deploy small-scale renewable energy by having State government manage purchasing of the energy
- 2017 - Renewable Energy Standard**
Replaced the SPEED Program. Requires electric distribution utilities to buy an increasing amount of electricity from renewable energy resources over time

In Vermont law, these programs are described in [Title 30, Chapter 89 "Renewable Energy Programs"](#).

Appendix E: Policy Brief

Vermont Electricity 101

Thank you for signing up for one of our public discussion events! We have prepared the following primer about how Vermont gets its electricity. We have organized it as a series of answers to questions about the state's electricity supply.

Please read this document before your event. It will help everyone have a more informed discussion. Thank you!

How does electricity get to Vermonters' homes and businesses?

Electricity is delivered to homes and businesses through a network called the poles and wires that you likely see outside of your home or any other community. Vermont's electric grid is nested within New England's and connected with a much bigger grid serving communities in the U.S. and Canada. Rocky Mountain to the East Coast.



Regional grid operators are responsible for keeping the entire grid in constant electricity from various sources.

In New England, the regional task of the amount of electricity is transferred between

150 New England works with Power or Vermont Electric Companies which deliver monthly bill for what we use

Electricity Sources Compared

Source	Timing	Renewable?	In-state?	Carbon Emissions?
Fossil Fuels	Baseload	No	Yes*	High
Solar	Intermittent	Yes	Yes	Low
Onshore Wind	Intermittent	Yes	Yes	Low
Offshore Wind	Baseload	Yes	No	Low
Hydro (small)	Intermittent	Yes	Yes	Low
Hydro (large)	Baseload	Yes	No	Low
Biomass	Baseload	Yes	Yes	Low**
Nuclear	Baseload	No	No	Low

Affordability & Equity

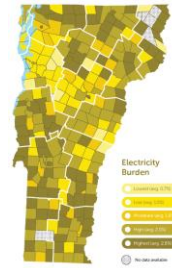
For some Vermonters, the cost of electricity is a bigger share of their budget than others.

Towns most burdened by electricity costs also tend to have higher transportation and home heating costs. Electrifying cars and home heating could reduce the overall energy burden, but only if electric rates are affordable.

Wealthier residents spend less of their budgets on electricity and can afford to invest in energy efficiency or even their own solar panels.

Programs to expand energy efficiency and renewables to lower-income residents can help level the playing field.

It is also important to think about where electricity resources are in communities, both in Vermont and elsewhere, who can benefit from them, who bears the brunt of any pollution, and who has a say in where they are placed.



Source: Efficiency Vermont 2019 Energy Burden Report

Different sources of electricity have tradeoffs

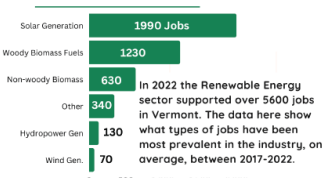
This document compares different resource types across eight factors (four front, four back) that may be important to consider when deciding where our electricity comes from.

RESOURCE TYPE	LOCATION	RENEWABLE BASED ON VT POLICY	AIR EMISSIONS DURING GENERATION	AVAILABILITY** (PERCENTAGE OF THE YEAR)
BIOMASS	IN VT & CAN BE DELIVERED TO VT	YES	YES	55 - 97%
HYDRO	IN VT & CAN BE DELIVERED TO VT	YES	NO	36 - 66%
FOSSIL FUELS	IN VT* & CAN BE DELIVERED TO VT	NO	YES	49 - 57%*
NUCLEAR	CAN BE DELIVERED TO VERMONT	NO	NO	91 - 93%
SOLAR	IN VT & CAN BE	YES	NO	14 - 26%
WIND - ONSHORE				
WIND - OFFSHORE				

TRADEOFFS

Data from: 2022 Vermont Clean Energy Industry Report, 2023 EVT Energy Burden Report, & Public Service Dept.

VT JOBS & ECONOMIC DEVELOPMENT



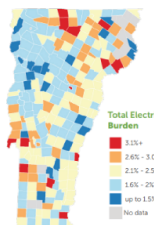
NATURAL RESOURCE IMPACTS

This shows example amounts of land needed (Acre/MWh) for different resources, although impacts to natural resources and land use requirements differ based on how and where a project is developed. Considerations include tradeoffs for benefits like carbon sequestration, wildlife habitat, or food production.



EQUITY CONSIDERATIONS

- How affordable is electricity? (what % of income do people spend on electricity bills i.e. electricity burden)
- Pollution (air, water, land)
- Who decides where electricity sources are located?
- Does everyone have access to the benefits of renewable electricity?
- Are costs and benefits of programs shared equitably?



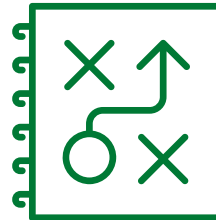
COST OF POWER

The price (\$/kWh) utilities pay for electricity they generate or contract for depends on the source and characteristics (ex. size, location, keeping environmental attributes). Here are some example prices from VT utilities in 2023.



Lessons Learned: Prioritize Targeted Outreach

....and have a few backup plans to reach the most impacted

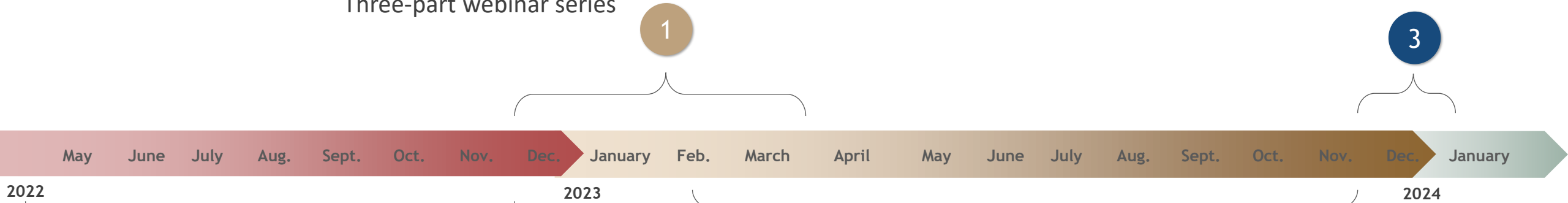


So what's next?



Phase 3: Recommendations & Reporting
Coming soon!
Public comment period & workshops

Phase 1: Awareness & Capacity Building
Three-part webinar series



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Pre-Planning Input

July 2022: Request for Input on Stakeholder Engagement, Decision Criteria, Key Issues

December 2022: Release Public Engagement Plan based on RFI Input

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Phase 2: Policy & Program Review

1. Statewide polling & focus groups (June – July)
2. Regional engagement event series (September – October)
3. Technical Analyses w/ Stakeholder Advisory Group (July – November)

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Thanks!

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More information available at

[Publicservice.vermont.gov/renewables](https://publicservice.vermont.gov/renewables)