

RPC - RES Update Engagement Events CVRPC Report

Overview

CVRPC held two in-person community tabling “chat” events (informal listening sessions) at Rabble Rouser in Montpelier and the Aldrich Library in Barre City (spoke with 26+ and 24+ participants respectively see table for details), a virtual discussion (with 4 participants), and conducted an in depth survey based on the workshop co-developed by the Vermont Department of Public Service (PSD) and Regional Planning Commissions (31 respondents). Given the numerous webinars, group discussions, and meetings ongoing regarding the July flooding and recovery across our region (as well as the high administrative burden on municipal staff and volunteer leadership), a varied approach was taken in anticipation that an in-person, hybrid, and virtual discussion would likely have low attendance (See Table 1 below). Please note that quotes provided throughout this report were taken both from surveys and from tabling discussions (see appendices for full results).

Key Takeaways

Process: PC and PSD collaboration was effective and well-received by communities. Events held at community spaces/events worked well to encourage participation and involve a broad range of stakeholder; inclusion of educational resources to support conversations was key.

What Sources of electricity would Vermonters like to see more/less of in the future?

- There is consistent support for a diversity of renewable resources:
 - Solar and wind were strongly supported bounded by scale (small-medium)
 - Hydro was supported with some opposition (support decreased with scale increase; there was significant opposition to large scale hydropower including but not limited to HydroQuebec)
 - Biomass and nuclear had more mixed support, uncertainty, and opposition:
 - Different types of biomass were perceived differently: methane from landfills or farms had more support and slightly less opposition than burning wood
 - Uncertainty was highest around burning wood and nuclear
- Technology type was not generally the key factor (except for strongest opposition), instead scale, location, and community benefits/burdens were the foci:
 - There is was a clear preference for more small to medium scale projects across technology type, especially community solar combined with storage:
 - while *whether electricity we use is produced in state* was not ranked as highly in priorities, throughout short answers in the survey and conversations, the desire for more local, community-scale, distributed energy resources was clear
 - Local generation and storage was viewed as key to community resilience¹ especially in the face of future climate change, this included but was not limited to reliability
- When expressed, limiting the impact of energy infrastructure on natural resources was not limited to local projects but also out of state ones; scale (smaller) and proximity to use (close) were recommended to increase accountability in this regard

¹ Emphasis on developing more local generation generally was paired with other measures including efficiency/weatherization, storage, thermal networks, etc. representing a more holistic view of energy systems and stemmed from a variety of perspectives including advocacy for multi/dual land use, increasing local reliability and resilience of energy infrastructure and communities, efficiency (less loss/waste), and accountability (social and environmental justice; education & lowering consumption)

Program/Policy suggestions to address priorities:

- Expand Tier II and policy that explicitly facilitates community-scale projects, community/municipal ownership, low income access, and community co-benefits (including links to Tier III)
- Integrate storage into policies and programs to increase grid, but also community, resilience and flexibility
- Expand and modify net-metering program (municipal/community specific caps/rates; expanding technology types; flexibility in project expansion/ownership; integrate storage)
- Defining biomass and large-scale hydropower (especially HydroQuebec) as renewable was problematic for many, similarly labeling nuclear as clean was considered a misnomer
- Support low-income and rural populations to better access renewable energy programs via community-embedded partnerships (vs utility-driven) and reducing upfront costs/increasing upfront benefits
- Ensure all distribution utilities have the infrastructure, financial, and personnel resources to support distributed energy generation and electrification without transferring highest costs to those least able to afford it
 - Standardize accessibility and transparency of energy data (visibility by hour, life cycle and social cost accounting, energy infrastructure condition/capacity, etc)

Materials Developed in support of these events included:

- [Developed Landing Page \(see appendix for screenshot of details\)](#)
 - Hosted shared 1 pagers on slide feature (downloadable)
 - Pictures of Central VT Energy sources/sites
 - Registration for virtual discussion
 - Banner of broader initiative
 - Survey link
 - Community events details
 - Links to PSD landing pages as well as the videos and slides from the PSD webinar series on renewable electricity (see snapshots in appendix)
- [Survey](#)
 - based on co-developed workflow questions and shared demographic survey²
 - embedded 1 pagers: Where does Vermont's Electricity come from?, Tradeoffs, and VT Renewable Electricity Policies & Programs directly into survey sections
- Flyer (see appendix) with QR code for survey, landing page website & event details, etc
- Materials for in-person discussions included information on existing municipal energy committees/coordinators, vacancies, and foci, map with towns who have or in progress of developing Enhanced Energy Plans, activity to draw/color "vision" of electricity in VT with crayons & colored pencils, flip chart to share ideas/questions, resources, etc.

² Adjustments included: changing the order of the questions to coincide with 1-pagers (original question 3 first), added an option to the original question 3 based on regional context *I would like to see more of our portfolio from in-state sources*, added answer *other* to part 2 of original question 3, and provided examples of topics for discussion in the "anything else" short answer (part 5 of question 3 in the original, question 3 of CVRPC survey), duplicated the electric system characteristics from general support for selection of single most important factor (9 on CVRPC survey). For the Demographic Survey adjustments included to the question ordering (after town put affiliation and short answer for perspectives, put the answers for race/ethnicity and gender in alphabetical order, added under 18 to age question. Lastly, I added an option to submit a drawing/writing alternative. Additional adjustments I would recommend are included in discussion below.

Outreach included email campaign to town energy committees, regional commissioners, town staff and leadership via energy digest and CVRPC newsletter, landing page website, inclusion in staff report to board, included in 1:1 emails to towns, flyers sent for posting to regional libraries, ask to town contacts to post in public spaces; flyers posted at Aubuchon, Rabble Rouser, CVRPC, FreeRide, Woodbelly Pizza, and Montpelier Senior Activity Center; at Camp Meade/ Red Hen in Middlesex, etc.

Reflections on the Process

Collaboration across the RPCs and with the Public Service Department, including co-development of materials and approach worked well. Community members really appreciated the information and the outreach (as well as the referencing of local projects and places in the materials). The 1 pagers were popular, participants took paper copies after seeing them embedded directly into the survey.

In the future, more time to plan events would be ideal, this would also allow coordination with pre-existing events which would greatly expand the impact of similar efforts (e.g. in Central Vermont Do Good Fest, Cabot Cheese and Arts festival, farmer's markets, community dinners, and the like just to scratch the surface). Hosting events at local community spaces like Rabble Rouser and the Aldrich Library in Montpelier and Barre City respectively, worked really well to encourage participation and involve a broader range of stakeholders in Vermont energy conversations. Having more paper copies of materials including options with large font at tabling events is important; having access to public computers (or bringing an ipad/laptop) encourages conversation follow up with taking the survey.

With more time to flier and coordinate with community partners, a narrower scope, and hopefully not right after a natural disaster (July flooding), I am extremely confident future efforts would see significantly more participation. For example, I did reach out to Fox Market, Woodbelly Pizza, Rainbow Bridges, THRIVE (regional public health backbone organization partners), Free Ride, Vermont Center for Independent Living, and others who expressed interest in co-hosting and/or seeking engagement through their networks for future networks but were dealing with flood recovery issues, many while still supporting their constituents. In the future, I would take a similar approach but would stagger the events over a longer period of time e.g. a series of tabling at community events/places and hosting a survey like the one developed here, followed by a more specific (narrower scope) regional discussion event 1-2 months later building on the shared knowledge base. In the future I would also procure and advertise topic relevant raffle prizes (with choice, homeowner vs renter, etc) and ensure food was provided. Libraries, public spaces like laundry mats or other places people might be waiting or in line, schools, farmers markets, bus stops, and "main streets" were all great places to flier.

While formal feedback was not collected, participants provided feedback in the survey, virtual conversation, and in person chats including for example:

- *"Kudos for a great survey- a praise I've never before expressed."* (survey comment)
- *"I was so skeptical, thank you for the conversation- she actually knows her stuff- this is great, actual information not just an agenda"* (community event)
- *"This seems like an amazing initiative!"* (survey comment)
- *"I don't believe I've ever encountered a better survey than this one -- & I've created some, back in the day. But there is too much overlap in the priorities provided..."*

Table 1. Central Vermont Community Engagement Event Components

Event Type, Date & Location	Attendance; Target Populations/Communities	Incentives/Accommodations
<p>Online Survey (paper copies available at community events)</p> <p>Live month of October</p>	<p>31 participants³</p> <p>Town Energy Committees & Coordinators (most of which could not make the other sessions), general public</p>	<ul style="list-style-type: none"> • Raffle • Local Chocolate bar if take survey after in-person chat (see below) • 1 pagers (where does VT electricity come from, existing policy/programs, trade-offs and equity) where integrated directly into the survey to provide common language and context • Savable, no gmail required, demographics survey incorporated, alternative submissions (pictures, notes, drawings, voice/video recordings, etc) allowed
<p>Community Tabling Chat</p> <p>Rabble Rouser, Montpelier</p> <p>Saturday October 7th approx 1pm-5pm</p>	<p>26+ participants</p> <p>Rabble Rouser is worker-owned and “run mostly by immigrant and BIPOC folks”; they are a critical community space partnering often to meet local needs from providing a welcoming space for a variety of identity-based gatherings to regularly providing free meals to ensure everyone eats. Additionally, it is also a popular meeting/convening space for those across region</p>	<ul style="list-style-type: none"> • Chocolate bar for those who took survey after discussion • Paper copies of materials, survey, etc. • QR code for materials, survey, and campaign • Central Location for region • Weekend & midday time

³ This includes some overlap with those who participated in tabling and virtual sessions, because surveys were anonymous we do not know the extent of overlap, however it should be noted that participant counts provided here were conservative as in some instances main participants had discussions with families/committees/groups who were not counted as separate participants in all cases.

	in town for errands, tourists, families, students, etc.	
Community Tabling Chat Aldrich Public Library, Barre City Tuesday October 10th approximately 12-4pm	<p>Spoke with 24 people at greater length (5-30minutes); 15 additional people only briefly who didn't want to participate (<5minutes)</p> <p>Barre City residents have some of the highest energy burden ratios in the state (Efficiency VT Report 2019 and 2023 Update) and one of the two census tracts of the city has been addressed as a disadvantaged community (Climate and Economic Justice Screening Tool & Justice40 Program)- the only one in the region. The library is a critical community resource and space used by many local residents including but not limited to elderly residents, unhoused or temporarily housed individuals, residents with disabilities, residents who were affected by the flooding, low-income residents, families, etc. providing an opportunity to interface with a wide variety of perspectives and experiences.</p>	<ul style="list-style-type: none"> • Chocolate bar for those who took survey after discussion • In paper copies of materials, survey, etc. • QR code for materials, survey, and campaign • Public computers to engage with materials and take survey • Comfortable and accommodating space with public facilities, welcoming staff, etc. • Midday-after school time
Virtual Discussion (Zoom) Wednesday, October 11th 12-1:30pm	<p>4 participants (many outreached that they could not make it close to event)</p> <p>Town Energy Committees/Coordinators, other town leadership, town staff, other local energy champions/professionals</p>	<ul style="list-style-type: none"> • Many expected participants were unable to attend (notified unable to come, many week of), this was anticipated due to the high burden of flood recovery work on many residents and leadership alike across the region (19/23 of our municipalities are receiving FEMA public assistance)

Summary of Survey Respondent Demographics (see appendix for full results by question)

N.B. These results were aggregated; not all respondents to the survey responded to all questions.

Town	Respondents
Barre City	5
Barre Town	1
Cabot	1
East Montpelier	2
Fayston	1
Middlesex	5
Montpelier	5
Moretown	1
Plainfield	3
Warren	1
Washington County	1

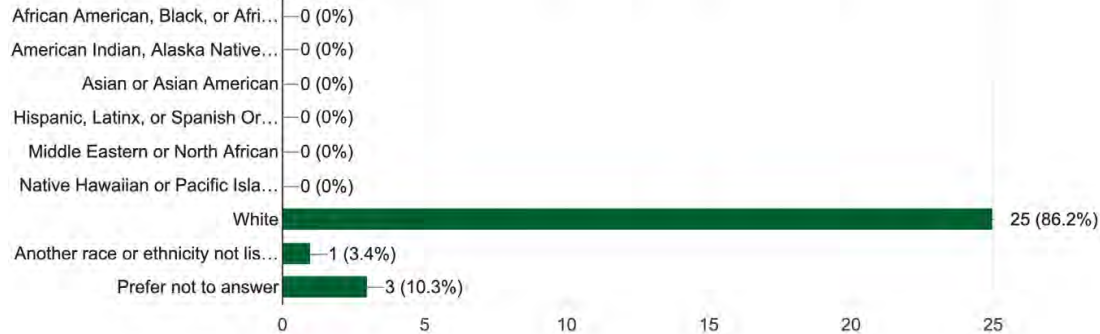
Other Regions	
Burlington	2
Randolph	1
Williston	1

Took the survey as:	
An individual/resident ¹	23
Town Energy Committee*	3
Town Leadership	2
Other (Schools, Church)	1

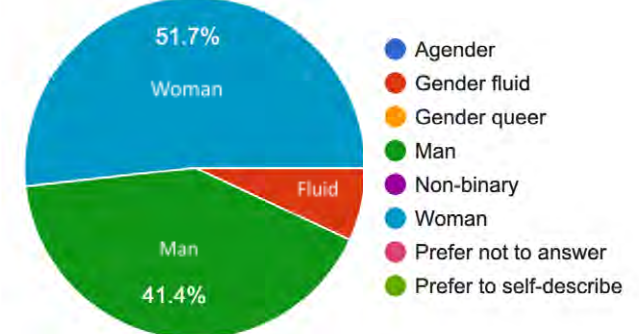
Heard about the survey via:	
Aldrich Library (CVRPC event)	5
CVRPC	4
Rabble Rouser (CVRPC event)	10
Town/Front Porch Forum	5
Other (email unspecified, colleague, etc)	3

¹ some members of town energy committees took the survey as individuals vs. as a representative of the Town

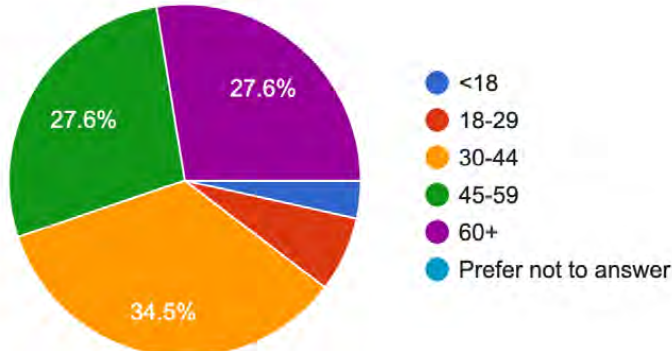
Race/Ethnicity



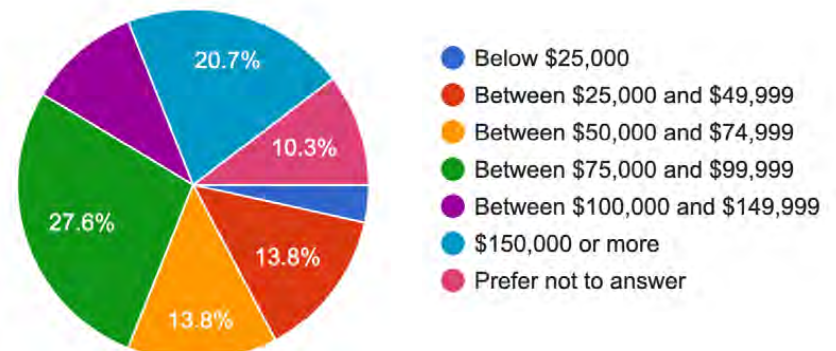
Gender Identity



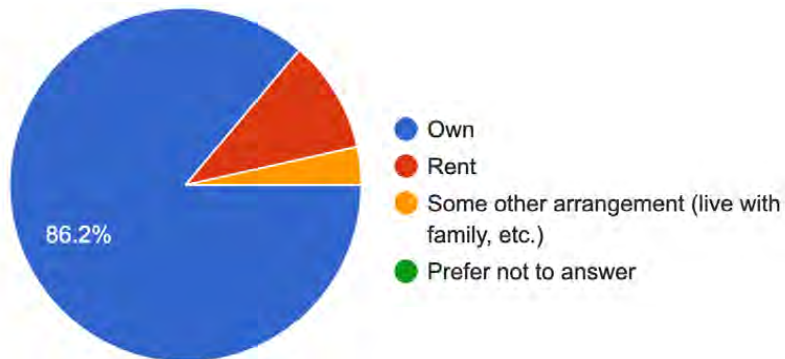
Age



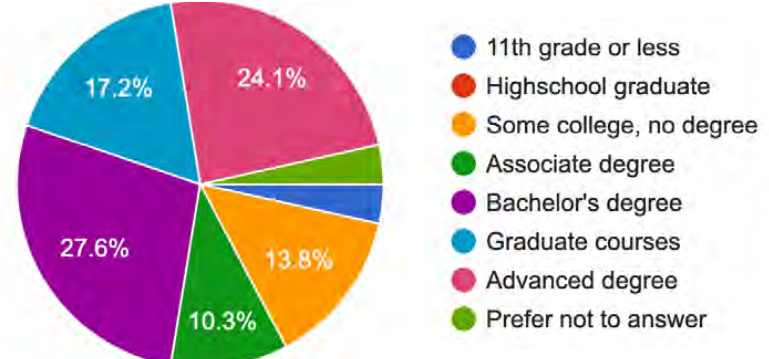
Total Family Income (before Taxes)



Home² Ownership/Renter



Education Level



² N.B. based on broader discussions with some respondents, not all respondents interpreted the "own" option to refer to a permanent residential structure and may have selected this option in reference to cars, tents, etc. as well.

Summary of Results & Core Takeaways

Section 1: What should be prioritized when thinking about where Vermont's electricity comes from?

Figure 2. clearly shows that Vermonters have a lot of overlapping priorities when it comes to where Vermont's electricity comes from, most participants surveyed and spoken with cited impact of electric infrastructure on natural resources (forests, rivers, and wildlife), reliability of electric service, reducing carbon emissions that cause climate change, whether the electricity source is renewable, affordability for consumers, giving all Vermonters opportunity to generate their own electricity on-site and supporting jobs and economic development in state as all very important and at least somewhat important. While the characteristic *whether electricity we use is produced in state* was not ranked as highly, local generation came up in the majority of short answers and conversations in the form of frequently emphasizing the desire and importance for local, community-scale, distributed energy resources and in reference to local generation as a pathway to increase the reliability and resilience of electric service and their physical and social infrastructure (other key priorities ranked highly). Furthermore, in conversation and in short survey answers, the priority of limiting the impact of electric infrastructure on natural resources was frequently mentioned in the support of their preference for more small to medium scale, often local, projects and, with only a few exceptions, was not expressed as an inherent constraint on a given technology type writ large. Instead, many participants emphasized that renewable electricity is one piece of what needs to be a well-integrated comprehensive approach to reducing future climate change and building community resilience (often mentioning opportunities for mixed land-use, and integrating projects better into community planning for both density centers and particularly rural communities who suffer from significant rural infrastructure gaps). Again, many showed concern and the desire to carefully consider long term compounding effects of climate change, development, and energy infrastructure on our environment both locally and wherever infrastructure might be developed.

Figure 3 shows that when asked to single out one priority, almost half of survey participants selected reducing carbon emissions, one fifth to affordability for consumers, 17% impact of electricity infrastructure on natural resources, and 10% the reliability of electric service. The most consistent rationale for emissions reductions as the key priority included urgency of the climate crisis and the Global Warming Solutions Act, most comments touched on resilience and other priorities as well for example from the short answer in the survey regarding reasoning for choosing this priority:

"Ultimately the climate changes we are inducing will impact every aspect of life. All decisions made and paths forward should keep this in mind. I am a strong supporter of distributive solar, allowing and facilitating everyone to have systems to produce power locally. It is one of the easiest ways to ensure electricity is available locally in the event of disruptions, whether climate precipitated or otherwise. Solar development also adds a large amount to the local economy in jobs and well-being. This should help everyone."

In community conversations, it was apparent that when thinking about affordability for consumers, most participants are thinking about affordability of renewable electricity, not of affordability as a constraint in the transition from fossil fuels; this was consistent with short answers in the survey as well. In other words, there was an implicit assumption or agreement that we need to and will be investing in renewable energy infrastructure, affordability was not framed as a reason to slow or limit the transition from fossil fuels; instead the affordability priority was focused on the *HOW* of that transition and a clear priority that cost of renewable infrastructure should not be borne by the consumers first and foremost especially not those with low incomes/high energy burdens.

Affordability, reliability, and impact to natural resources often were tied together; additionally with regular reference to access specifically in regards to DU territory (see below in Section 3 for more on this):

- *“I’m in Graniteville [reference to devastating flooding]- it’s time, we need to figure this out [climate crisis, electricity rates so high, people generally without] and make sure everyday folks have these things [efficient heating & cooling, access to affordable renewable energy, 3-phase power, the lights on!, weatherization, etc], energy it’s important but only if it actually supports everyone, people matter”*
- *“Upfront costs are huge problem for residents and others- electrification but also local generation projects”*
- *“Affordable but renewable is key although really hard to do on your own and so confusing to engage with all the stuff out there- WEC customers and did electrify and now struggling with the bills- not fair doesn’t seem like residents can participate or have the same access based on utility company- not ok; also trying to weatherize now”*
- *“As a vermonter - I am concerned with the cost of heating as we use electric heat (consciously made the decision to move away from propane as it is not a renewable resource) bills get very expensive in the winter. We supplement with wood heat in the winter but I have individual corners as my child has asthma so the wood burning could trigger asthmatic reactions. Also reliability is important because we had 2 storms last winter that knocked power out for multiple days. As someone who works remotely it was difficult to navigate without any source of community hub. We ended up spending a lot to get a hotel in Burlington just to shower and reset after 5+ days of no power.”*

Reliability and resilience came up regularly in discussion and short answers, with many suggesting or asking questions about different types of back-up/storage resources, the interaction of the RES with microgrids, distributed generation, the location of energy resources in floodplains, and a keen awareness that we will be facing increasingly more extreme weather often linked again to a preference for smaller, proximate projects. Some also noted that reliability (as well as affordability) affects people differently, particularly rural communities, those who are electrically dependent medically and/or those who rely on it for work.

Further, analyses of demographic differences, level of engagement/knowledge, and priorities might be useful. Community tabling event observations suggest that those with higher income and often some engagement with issues might prioritize emissions with either an assumption that reliability and affordability will be accounted for or perhaps a lack of awareness of these burdens on other Vermonters; while those with moderate or lower incomes, those from rural communities, and some who are deeply engaged with energy issues focus on reliability and affordability (as well as distributed).

Figure 1. Priorities- Vermont's future electricity portfolio (Survey Results: 31)

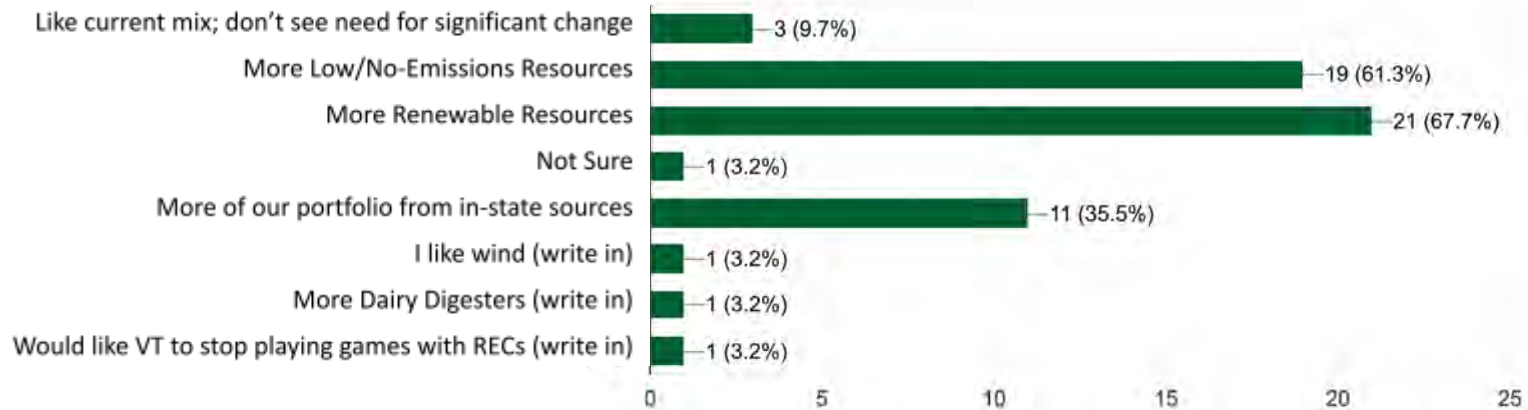


Figure 2. What should be prioritized when thinking about where Vermont's electricity comes from? (Survey Results: 31)

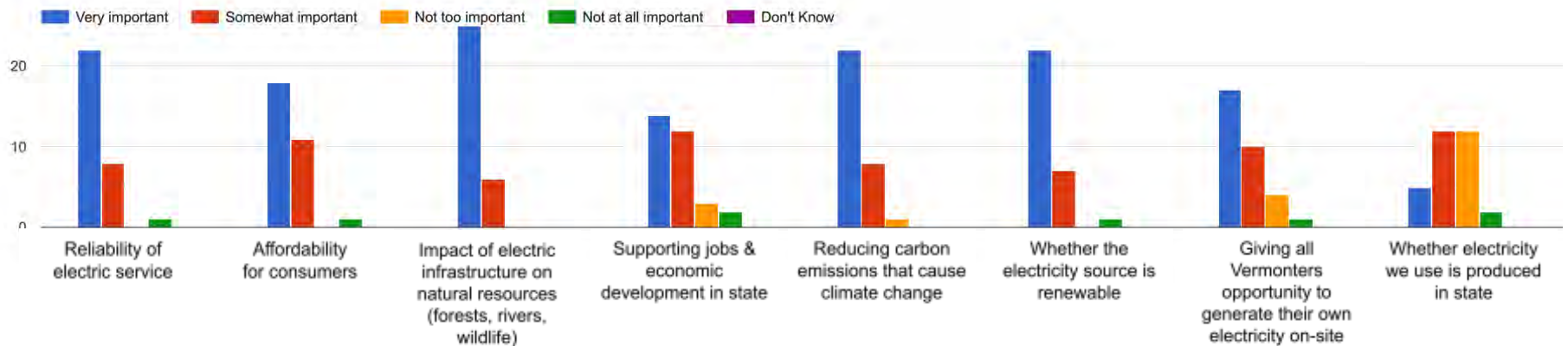
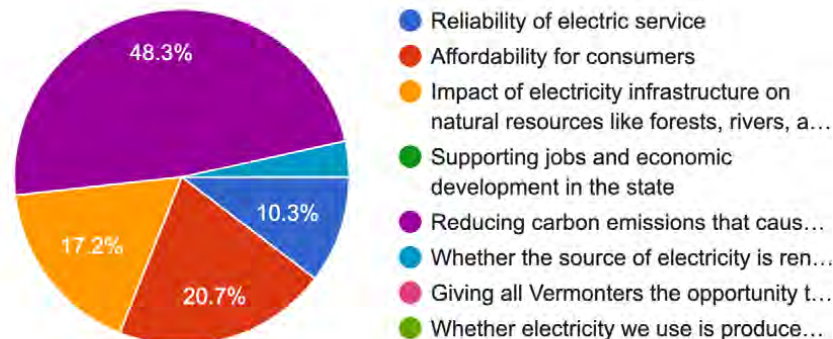


Figure 3. Single most important factor in how/where Vermont gets its electricity? (Survey Results: 29)



Section 2: What sources of electricity would Vermonters like to see more/less of in the future?

Technology Types

Participants across all events consistently supported solar and wind, though generally scale was specified as small-medium scale (residential, small commercial, municipal, and particularly community-scale) (see Figures on Support by Technology Type, Scale of Solar and Hydropower below). There was also general support for hydropower, again generally smaller scale and an interest in seeing more independent local hydroelectric sources; generally there was not support for large scale (e.g. HydroQuebec). Both different types of biomass and nuclear had more mixed support, uncertainty, and opposition. Burning methane from landfills or farms had more support and slightly less opposition than burning wood and other plant materials. Folks seemed most divided on nuclear, although the general sentiment was captured by one participant “guess nuclear seems like a better option than fossil fuel?” [but can’t repeat the legacy of displacement and violence against indigenous communities and environment in previous nuclear development].

Consistently, participants brought up technology type in relation to scale, location, and community benefits (resilience) (see below), emphasizing the importance of minimizing environmental impact, being accountable for our electricity use & infrastructure, ensuring benefits are accessible to all, and improving our resilience via distributed and diverse sources (locally and regionally). Participants also consistently brought up the need to use less electricity, the importance of efficiency measures, pairing sources with storage, and other related but distinct energy topics from the focus of the RES (e.g. Geothermal & thermal networks came up several times as complementary to reduce thermal electrification load and put less pressure on limited headroom capacity).

Figure 4. Support by Technology Type (Survey)

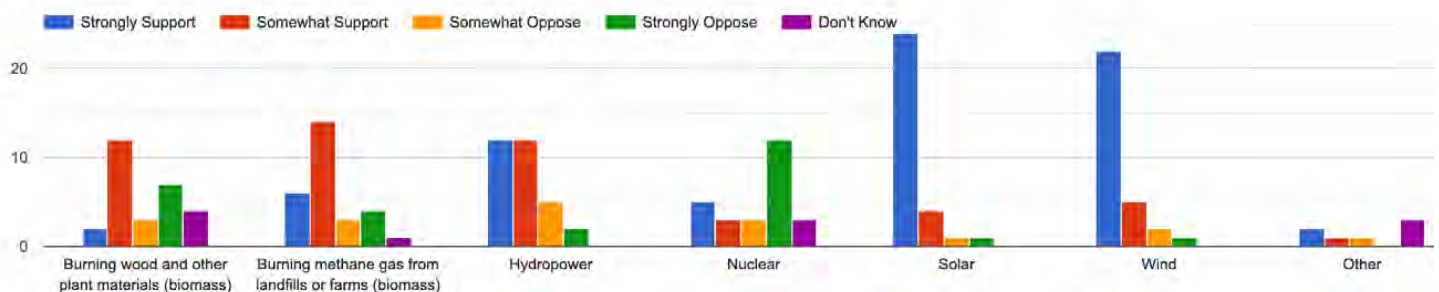
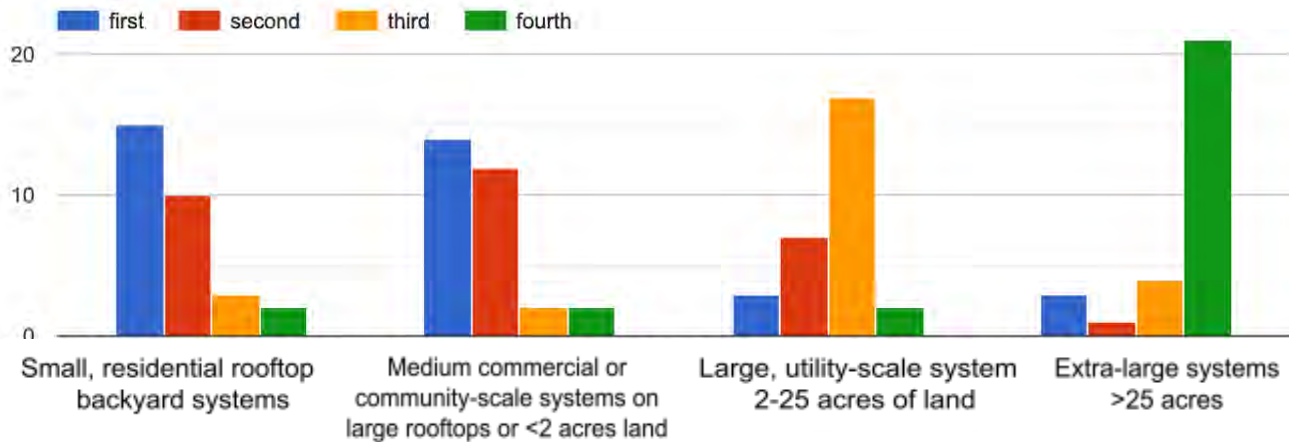


Figure 5. Preferred Scale of Solar

(where **first** is most preferred for Vermont to use, and **fourth** would be the least preferred for Vermont to use)



Rationale for Small/Medium Scale:

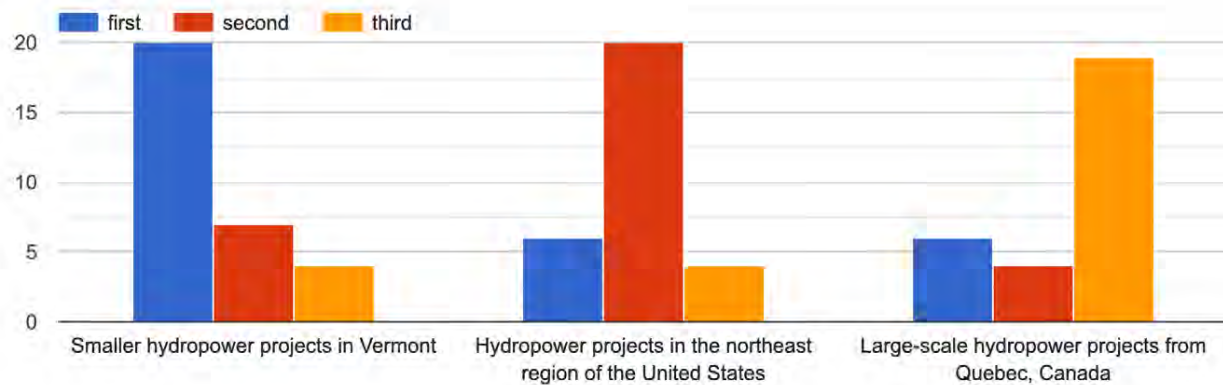
- Diversified and distributed resources protect us during emergencies (improve resilience)
- Support for rooftop solar (all industrial/commercial buildings, storage units, parking lots)
 - Minimize land use
 - Solar farms an eyesore, better to combine with housing/industrial/commercial uses
- Community solar because not everyone can afford or has the best place for solar.
- Medium commercial or community-scale seems more practical and have better economics than small/residential projects but have lower land/environmental impacts and potential community benefits than utility-scale
- Preference for their land to provide their power
- Proximity of generation to use reduces loss (better efficiency) and enables more localized issues/emergency response
- Medium-size systems ideal for dual-use (both rooftop and ground mount)
- Improve economy of scale but minimize environmental impact
- Keep more benefits of solar for consumers and communities including economic, resilience, reliability, etc.

Rationale for large commercial

- Economy of scale
- Biggest impact on reducing emissions fastest

Figure 6. Preferred Scale of Hydropower

(where **first** is most preferred for Vermont to use, and **third** would be the least preferred for Vermont to use)



Support for smaller hydropower projects in Vermont was cited because:

- Supports local employment, local economic co-benefits (lease, ownership, community/environmental co-benefit agreements)
- Proximity reduces loss, provides easier access, oversight & accountability
 - Monitor and mitigate environmental impacts
 - Prevent further displacement of indigenous communities
 - Can push for more accurate GHG emissions accounting
- Because individuals could benefit from it on their own land
- Could be integrated into flood mitigation
- Creates more distributed generation
- Others shouldn't carry the burden for our energy use

Support for US-based (VT and Northeast):

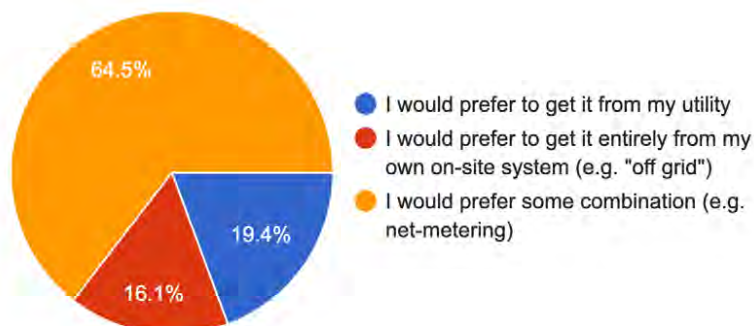
- National Security; given political climate prefers more "local"

Other:

- Preference for existing infrastructure (limit additional environmental impact)
- Support for all
- Support for HydroQuebec was focused on economics, preference for existing infrastructure, and one outlier cited the benefit of not hosting so small Vermont hydro dams could be removed to restore Vermont ecosystems
- Long-terms contracts already in place for HydroQuebec

Section 3: Where could programs and policies do better to address these priorities?

Figure 7. How do Central Vermonters want to get renewable or low carbon electricity? (Survey)



Participants provided context for how their preference in how they get renewable or low carbon electricity including pros/cons considered, ultimate decisive aspects, and/or preferences around the extent to which they could influence from where and what source their electricity comes from (similar quotes have been aggregated):

- *“Diversified power grid is more resilient and the future. Power companies need to get on board more. And make room for “family power farmers”. Decentralization, connectivity, reliability.”*
- *“We bought land to be self sufficient, self reliance is important”*
- *“I am fortunate to be a GMP customer. They have been ahead of the curve in developing and promoting distributive solar as a means of delivering reliable electricity. We signed on to net-metering a number of years ago and took advantage of the programs to install solar. We also were early adopters of the Tesla battery backup system. It has demonstrated itself, most recently during the Dec. 2022 storm/outage. Our neighbors were struggling with gas generators, getting gas sometimes became an issue as well as multiple days of tending a generator. We were barely aware of the outage, the battery went for nearly 2 days and was still at about 50% during a pretty cloudy period of time. We were free to help our neighbors and not worry about our house. I know affordability is an issue. We have benefited from generous tax incentives and incentives from the power company. We would be quite willing to pay more to ensure the same security to everyone.”*

Many respondents shared things that informed their perspectives, recurring comments included also that they

- Have solar and/or power walls, generators, etc., typically paired with concern about resilience to increasingly volatile weather, concerns about reliability, and desire to expand their own personal infrastructure
- Support climate and environmental curriculum in schools (including suggestion that climate change/energy education should be required at all grade levels)

Key themes were consistent throughout the short answer provided in the survey and community discussions, an effort was made below to briefly summarize goals and/or barriers and follow with recommendations:

Scale- participants advocated consistently for small to medium scale including residential, municipal, commercial and especially community-scale projects that have higher community co-benefits and can be integrated into dual/multi-use land use- programs and policies thus could:

- Facilitate municipal role in and scale of renewable energy projects via municipal-specific higher cap for net-metering and/or rate, community benefit agreement templates, facilitate coordination across distribution utilities (see below)
- More residential and expansion of residential generation types (solar but also small wind, etc)

Local Generation/Siting/Reliability/Resilience: unsurprisingly in Vermont, self-reliance was an oft cited priority throughout for participants; there was a lot of emphasis on a more comprehensive approach to developing local generation (paired with other measures including efficiency/weatherization, storage, thermal networks, etc.) from a variety of perspectives including advocacy for multi/dual land use, increasing local reliability and resilience of energy infrastructure and communities, efficiency (less loss/waste), and accountability (social and environmental justice; education & lowering consumption):

- Measures to integrate and further incentivize renewable energy generation projects into standard development & land use planning to ensure preferred sites are use as such; consider expanding

preferred siting to include parking lots/canopies, and expanding preferred siting to explicitly include other technology types

- Expand Tier II and policy that explicitly facilitates community-scale projects, community/municipal ownership, low income access, and community co-benefits (including links to Tier III) (**also costs/affordability and accessibility**)
- Ensure all distribution utilities have the infrastructure, financial, and personnel resources to support distributed energy generation and electrification without transferring highest costs to those least able to afford it
 - Storage should be prioritized and subsidized to increase grid resilience and flexibility
- Expand and modify net-metering (better integrated projects with storage, flexibility in project expansion/ownership, etc)

Costs/Affordability and Accessibility: affordability not just of electricity but of generation projects themselves (particularly distributed projects) is a concern:

- Ensure all distribution utilities have the infrastructure, financial, and personnel resources to support distributed energy generation and electrification without transferring highest costs to those least able to afford it (continued rationale):
 - Support community (vs utility) embedded opportunities for low-income residents to access renewable energy programs (e.g. net-metering)
 - *"The continuing reduction of payment to net metered systems is an obstacle. All investments impact rates -- how evenly is arguable -- and this impact should be evened out statewide, rather than penalizing muni's and coop's customers who do not have solar. Transmission upgrades are needed and costs should also be widely socialized. Legislation should penalize NIMBYism and reward YIMBYism."*
- Ensure financial benefits are realized upfront (aging population may have means to address some barriers but no incentive to do so unless family is local)
- Comprehensive case-by-case funding to reduce cost of fuel switching and electrification where appropriate (at the point of failure, updates/retrofits, etc.)- establish broader and more flexible programs (revolving loan funds, etc)

Other key takeaways include:

- Accessibility and transparency of energy data: visibility by the hour, life cycle and social cost accounting, energy infrastructure condition, etc.
- The need for clearer definitions built on scientific consensus regarding renewability of different types of biomass, large scale hydro (specifically HydroQuebec), etc. many do not feel definition in statute is transparent due to lack of specificity in accounting life cycle, social, and environmental costs (including emissions).
- Generally, while the current net-metering program was perceived as inadequate, the model was seen as a good way to balance distributed generation with grid reliability; an updated program should include on-site storage.
- Many residents and municipalities reflected a sense that they had no control/influence or faced a variety of barriers that programs should consider how to address:

- *"We wanted [solar] panels on the roof of our complex but it got shut down because of aesthetics by the landlord"*
- *"We're over 75 years old, we sat down and did the math and we won't see the financial benefits of solar panels on our house... unless younger family stays in the house- just didn't make sense but we're trying"*
- *"I live in a facility where electricity is all done together with other utilities and rent- I don't have time for this conversation, I don't have any control over it"*
- *"I can't worry about this anymore, I turn off the lights when I'm not in the room, unplug the toaster, we need to use less period"*

Appendices

Materials

CVRPC Say? Watt Landing Page	Page 1-3
Outreach Poster	Page 4
Alternative Submission Option (Draw!)	Page 5
CVRPC Survey	Pages 6-16
Get Involved (Support your town) Outreach Doc	Pages 17-18

Results

CVRPC Survey Raw Results	Pages 19-35
In person feedback raw comments	Page 36

CVRPC Say Watt? Landing Page

Join Central Vermont Virtual Discussion Oct. 11th 12pm-1:30pm EST or in-person Chats (see below)

The Public Service Department and Central Vermont Regional Planning Commission have teamed up to ensure your voice is heard as [critical energy policies](#) > are updated. Come and share your input, experiences, and priorities about surrounding renewable electricity and help shape how this infrastructure can better support resilient and thriving communities in our region and across the state.

SAY WATT?

SHAPE THE FUTURE OF ELECTRICITY FOR VERMONT.
JOIN IN. SHARE INPUT. ASK QUESTIONS.

This September & October, attend an event near you!



How you can Participate:

SURVEY

Open until Oct.31st

[TAKE SURVEY >](#)

Former Williamstown Landfill

Chats

Sat Oct 7th 1-3:30pm at Rabble Rousers, Montpelier

Tues Oct 10th 12-3pm at Aldrich Library, Barre City

Coventry Landfill Methane

Virtual Discussion

Oct. 11th 12-1:30pm EST

[REGISTER >](#)

Marshfield Hydroelectric Dam


Are you interested in weighing in on where Vermont's electricity comes from?

The Public Service Department is currently reviewing the policies and programs related to renewable electricity to determine what changes are necessary to achieve state energy and climate goals. They've teamed up with Vermont's Regional Planning Commissions to ensure your voice is heard as these critical energy policies are updated.

Together, we want to hear from Vermonters about:

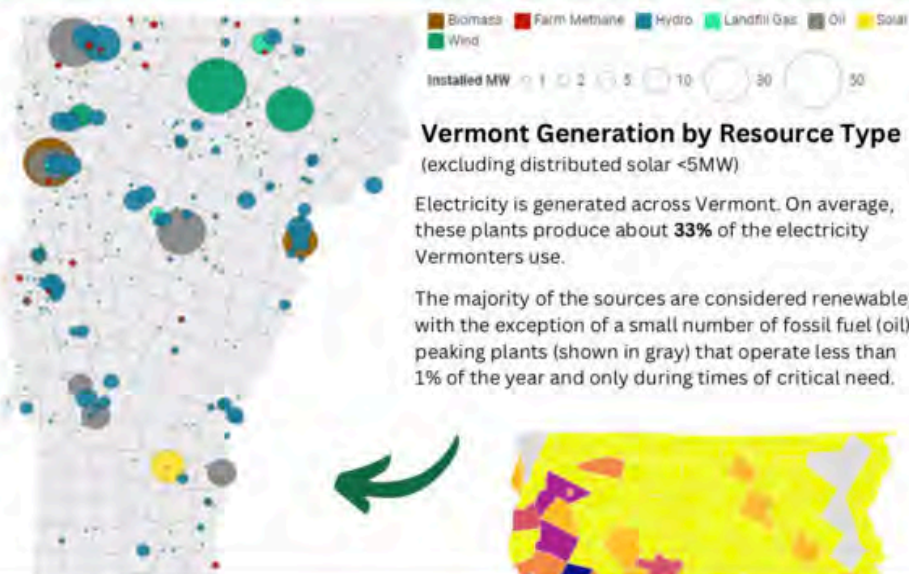
1. **What are your priorities when thinking about where Vermont's communities get their electricity?**
2. **How can our policies and programs better support those priorities?**

Throughout September& October there will be a series of events throughout the state with opportunities to engage in conversations around these topics. Your input will directly inform recommendations the Department will be making to Vermont's policymakers in advance of the next legislative sessions.

 [Statewide Events >](#)

Learn More About Renewable Energy In Vermont (1 pagers):

Electricity is generated across Vermont in many different ways




Department of Public Services Renewables webpage >



Webinar 1: Where Does Vermont Electricity Come From? Topics: How does the electric system get power to our homes and businesses; what electricity is generated in Vermont & does it stay in Vermont; what types of resources do Vermont utilities have to purchase to make sure the lights stay on?

 [Presentation slides > /](#)

 [Video recording >](#)

Webinar 2: Current Renewable Electricity Policies Topics: Renewable Energy Standard (RES) and the programs used to meet them including Net-Metering and Standard Offer Programs (which predate the RES so are mismatched- hence the update!)

 [Presentation slides > /](#)

 [Video recording >](#)

Webinar 3: Parking Lot Session- Renewable Energy Certificates and their Markets with Jason Gifford (Sustainable Energy Advantage)

 [Presentation slides > /](#)

 [Video recording >](#)



Take the Survey!



SAY WATT?

SHAPE THE FUTURE OF ELECTRICITY FOR VERMONT.
JOIN IN. SHARE INPUT. ASK QUESTIONS. GET PRIZES!

Oct 7th 1-3:30pm Rabble Rouser, Montpelier

Oct 10th 12-3pm Aldrich Library, Barre City

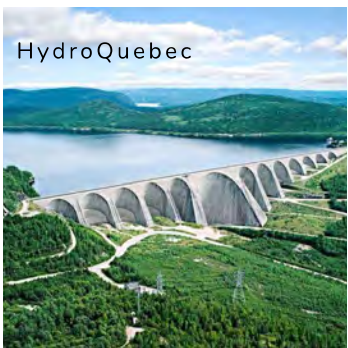
Oct 11th 12-1:30 Virtual Discussion

Check out the website for more info!

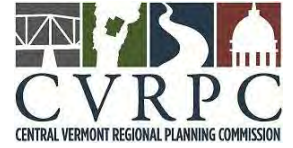
[HTTPS://CENTRALVTPLANNING.ORG/PROGRAMS/ENERGY/WEBINARS-AND-WORKSHOPS/](https://centralvtplanning.org/programs/energy/webinars-and-workshops/)



Coventry Landfill Gas
Photo by Molly Walsh



SAY WATT?



WHAT DOES THE FUTURE OF ELECTRICITY FOR VERMONT LOOK LIKE
TO YOU? DRAW/WRITE YOUR VISION IN THE BOX BELOW!

Safe? Clean? Affordable? Local? Renewable?

A large rectangular area defined by a dashed black border, intended for participants to draw or write their vision for the future of electricity in Vermont.

In/Out of State? Small? Big? Reliable? Resilient?



EMAIL YOUR VISION TO LASH@CVREGION.COM

ATTEND AN EVENT NEAR YOU - PUBLICSERVICE.VERMONT.GOV/RENEWABLES

Where does and should Vermont electricity come from?

Welcome! The Vermont Public Service Department ([PSD](#)) is currently in the process of implementing its Public Engagement Plan for its comprehensive review of Vermont's renewable and clean electricity policies and programs. This fall, PSD and the eleven Regional Planning Commissions ([vapda.org](#)) are organizing geographically distributed events across the state to provide opportunities to hear from Vermonters and ensure they can participate as critical policies and programs are reviewed and possibly updated.

This survey is intended as a complement to those events and to provide a space for Vermonters to participate who couldn't attend an event. This survey is intended to take approximately 15 minutes including a voluntary demographics component, and then you will be entered in a raffle for prizes! If you prefer to draw or provide free form comments there is an option to do so as well.

Please check out resources on Where Vermont Electricity Comes From, Existing Policies & Programs, and Tradeoffs across different types and scales of electricity generation at: [Say Watt? CVRPC](#) and feel free to attend one of the live events including:

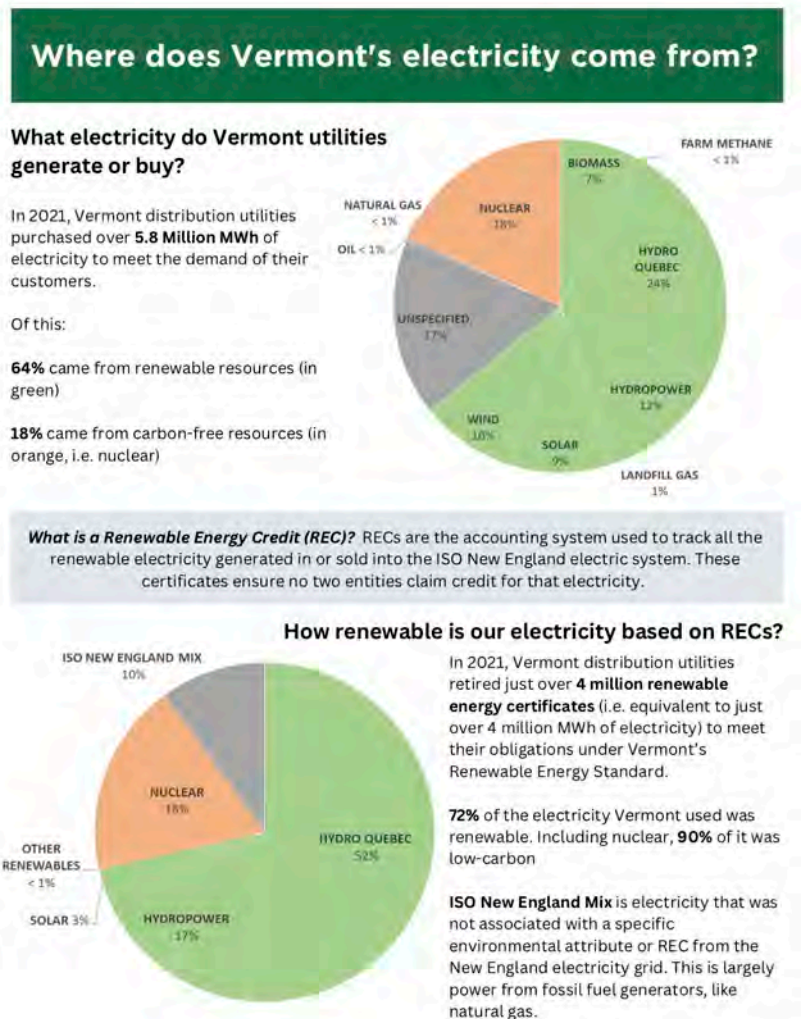
- Virtual Discussion October 11th, 12-1:30pm ([Register](#))
- Chat in person at Rabble Rousers Montpelier October 7th 1-3:30pm
- Chat in person at Aldrich Library, Barre City, October 10th 12-3pm

Below are some basic resources on Vermont Electricity created by the VT Public Service Department in collaboration with energy planners at the Regional Planning Commission.

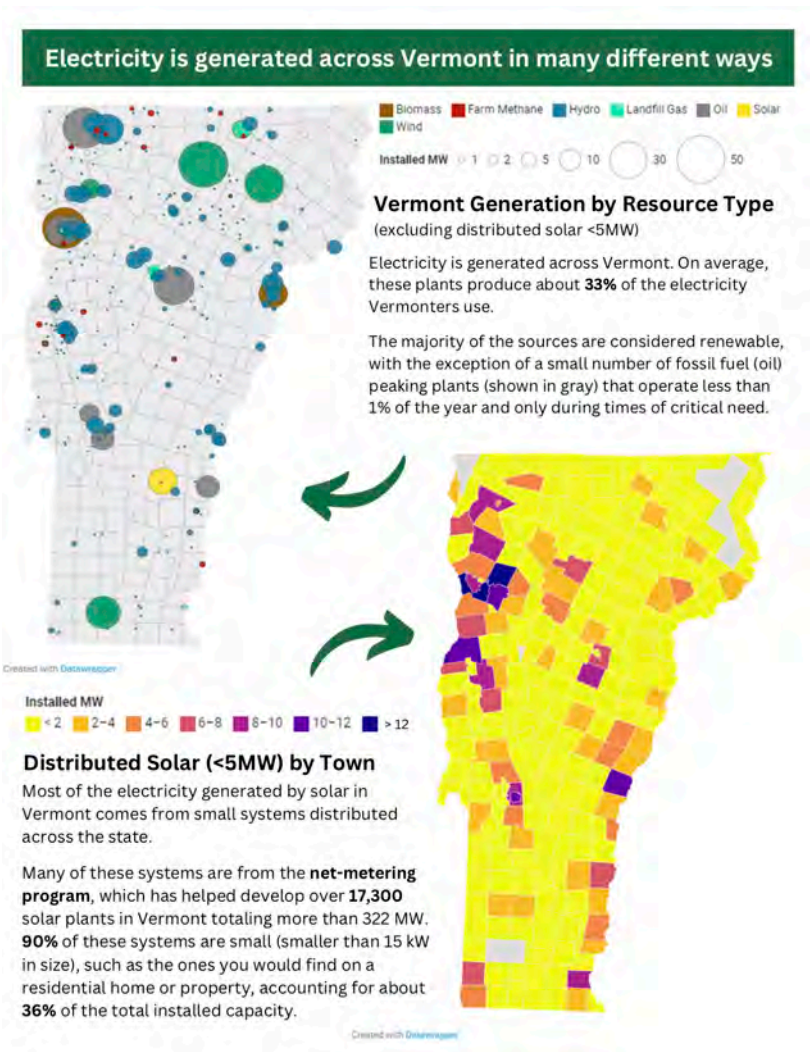
Thanks in advance for your feedback and perspectives!

Vermont Electricity Sources

Learn More:



Vermont Electric Generation



1. In 2021, Vermont's electricity came from several different resources after accounting for the retirement of Renewable Energy Credits, or the attributes associated with the power (which can be purchased and sold separately from the electrons, themselves):
- 52% Hydropower in Quebec
 - 17% Hydropower in New England
 - 18% Nuclear
 - 10% from the "ISO New England Mix", or electricity from the region without specific environmental attributes associated with it
 - 3% Solar
 - Less than 1% from other renewable sources

In total, 72% of this electricity was renewable (resources including hydropower, solar, and others) and 90% was carbon-free (the renewable electricity plus electricity coming from nuclear).

In the future, what would you like this mix to look like? Check all that apply:

Check all that apply.

- ☐ I like the current mix of electricity and don't see the need for any significant changes
- ☐ I would like to see more electricity coming from low or no-emissions resources
- ☐ I would like to see more electricity coming from renewable resources
- ☐ I'm not sure
- ☐ I would like to see more of our portfolio from in-state sources
- ☐ Other: _____

2. Going forward, how much would you support or oppose Vermont getting electricity from the following sources?

Check all that apply.

	Strongly Support	Somewhat Support	Somewhat Oppose	Strongly Oppose	Don't Know
Burning wood and other plant materials (biomass)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Burning methane gas from landfills or farms (biomass)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydropower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nuclear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Solar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Is there anything else you'd like us to know about what kind of electricity you'd like to use in the future (scale: residential, community/municipal, commercial, large/utility; in state vs out of state, etc.) or general outcomes you'd like to see from policies and programs in this sector?

4. Hydropower uses the energy in flowing water to turn a turbine and generate electricity. Please rank the following types of hydropower, where **first** is the one you would most like Vermont to use, and **third** would be the item you would least like Vermont to use.

Check all that apply.

	first	second	third
Smaller hydropower projects in Vermont	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydropower projects in the northeast region of the United States	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large-scale hydropower projects from Quebec, Canada	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Briefly, why did you rank the item you selected first?

6. Solar power uses special panels to convert light from the sun into electricity. Please rank the following types of solar power, where **first** is the one you would most like Vermont to use, and **fourth** would be the item you would least like Vermont to use:

Check all that apply.

	first	second	third	fourth
Small, residential rooftop or backyard systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medium commercial or community-scale systems on large rooftops or less than 2 acres of land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large, utility-scale systems in 2 to 25 acres of land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extra-large systems on 25 acres or more	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Briefly, why did you rank the item first that you selected:

Different sources of electricity have tradeoffs

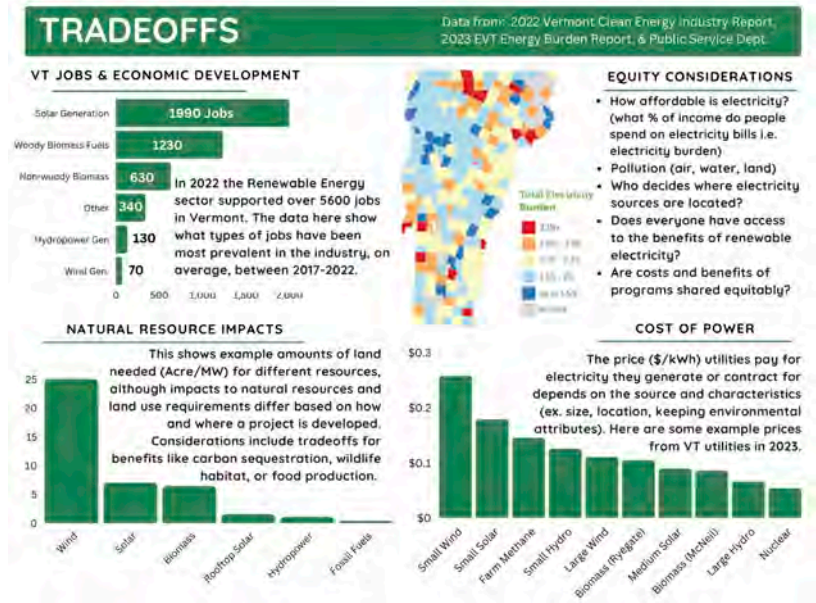
This document compares different resource types across eight factors (four front, four back) that may be important to consider when deciding where our electricity comes from.

RESOURCE TYPE	LOCATION	RENEWABLE <small>(Renewable vs. Fossil Fuel)</small>	AIR EMISSIONS DURING GENERATION	AVAILABILITY** <small>(PERCENTAGE OF THE YEAR)</small>
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 DELIVERED TO VT	YES	NO	14 - 25%
WIND - ONSHORE	IN VT & CAN BE DELIVERED TO VT	YES	NO	23 - 35%
WIND - OFFSHORE	CAN BE DELIVERED TO VERMONT	YES	NO	45%

*There are a small number of fossil fuel peaking plants located in Vermont. These plants run less than 1% of the year

** Data from the Energy Information Administration and Vermont distribution utility Integrated Resource Plans

Note: Load flexibility including storage is an important aspect of integrating variable resources including several of the above



Priorities

We want to know how important various characteristics of the electric system are to Vermonters when thinking about where electricity comes from.

8. How important should each of the following be when considering how Vermont gets its electricity? Please mark "X" to note how important you think each issue is:

Check all that apply.

	Very important	Somewhat important	Not too important	Not at all important	Don't Know
Reliability of electric service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Affordability for consumers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Impact of electricity infrastructure on natural resources like forests, rivers, and wildlife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Supporting jobs and economic development in the state	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reducing carbon emissions that cause climate change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Whether the source of electricity is renewable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Giving all Vermonters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

the
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their own
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electricity on-
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site

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produced in-
state
state

☐☐☐☐☐

9. Of the electric system characteristics you just considered, which do you think should be the single most important factor in how/where Vermont gets its electricity?

Mark only one oval.

- ☐ Reliability of electric service
- ☐ Affordability for consumers
- ☐ Impact of electricity infrastructure on natural resources like forests, rivers, and wildlife
- ☐ Supporting jobs and economic development in the state
- ☐ Reducing carbon emissions that cause climate change
- ☐ Whether the source of electricity is renewable
- ☐ Giving all Vermonters the opportunity to generate their own electricity on-site
- ☐ Whether electricity we use is produced in-state

10. Please provide any context or additional explanation for your previous answer that you think we should know about (could include questions and concerns, ideas, etc.!)

Question 2- Current Policies & Programs

Vermont currently has some policies and programs that specifically address where our electricity comes from and seek to increase the amount of electricity Vermont uses from renewable sources. These include policies like the **Renewable Energy Standard** and the **Net Metering Program (see below to learn more)**

11. In thinking about the issues you just ranked in Question 1, what is important to you about how you (personally) get renewable or low carbon electricity? Please check the option below that most applies:

Mark only one oval.

- ☐ I would prefer to get it from my utility
- ☐ I would prefer to get it entirely from my own on-site system (e.g. "off grid")
- ☐ I would prefer some combination (e.g. net-metering)

12. Please provide any context for your answer that you think we should know about including pros/cons you consider, ultimate decisive aspects, and/or preferences around the extent to which you influence from where and what source your electricity comes from:

Existing Electricity Policies and Programs:

Note the Net Metering and Standard Offer programs were established BEFORE the Renewable Energy Standard itself- this is part of why this update is a great opportunity to reassess priorities and goals (via the standard) and then design policies and programs to help us achieve them!

Renewable Electricity Policies & Programs in Vermont

Over the last 20+ years, Vermont has developed several policies and programs to support renewable energy in the state. Two of these programs are described below.

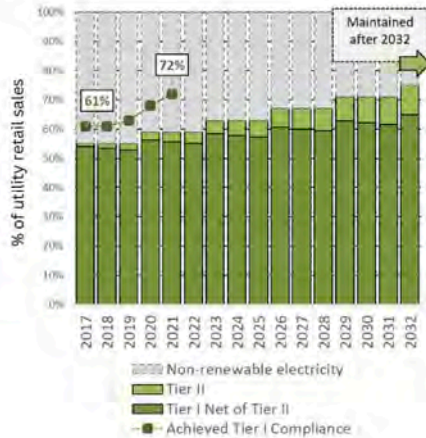
What do we mean by "renewable energy"?

In Vermont, "renewable energy" is defined as

Energy produced using a technology that relies on a resource that is being consumed at a harvest rate at or below its natural regeneration rate. (30 V.S.A. § 8002)

This definition includes resources like solar, hydropower, wind, and biomass (ex. burning wood or methane gas from landfills or farms). It does not include nuclear.

Currently, the **Renewable Energy Standard (RES; 30 V.S.A. § 8002-8005)** sets the overarching requirements for increasing the use of renewable electricity. This requirement is divided into different "Tiers" which require utilities to retire renewable energy certificates from different sources:



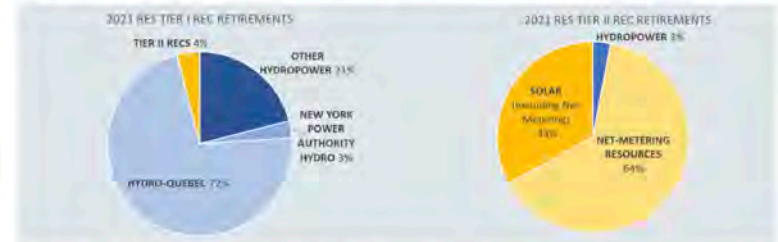
TIER I (Total Renewable)

- Any renewable resource regardless of age that can provide power to New England, including from outside the region (ex. from New York, Quebec).
- Started at **55% of their retail sales in 2017**
- Increases 4% every 3 years until reaching **75% in 2032**.

TIER II (Distributed Generation)

- Resources built after June 2015, located in Vermont, & less than 5 MW in size.
- A carve-out of Tier I.
- Started at **1% of retail sales in 2017**
- Increases 3/5% every year until reaching **10% in 2032**.

Across Vermont, utilities are meeting or exceeding their requirements under this policy to date. In 2021, the most recent year data is available, **Vermont electricity was 72% renewable**, exceeding the requirement of 59%. Utilities also met the requirement for distributed generation. The figures below show how utilities met their requirements in 2021:

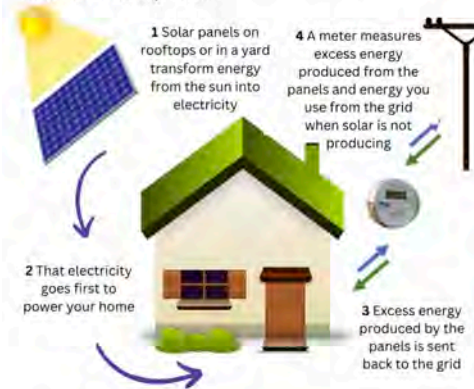


Utilities can meet their requirements under this policy by retiring renewable energy credits from:

- Resources they own or purchase power from through a contract
- Resources developed through other state programs, such as the **net-metering** program.

Net Metering

The **net-metering program (Public Utility Commission Rule 5.100)** provides a way for Vermont homes, businesses, and communities to generate electricity from small-scale resources. The diagram below shows how **residential, on-site** net-metering works:



In the current program, net-metering systems are compensated for the electricity they generate based on three key factors:

- Generation:** How much electricity did the system generate each month and how did that compare to your electric usage? Are the systems offsetting electricity consumption directly?
- Category of system:** What is the installed capacity of the system and where is the system located (i.e. is it on a "preferred site" designated by the program, like an existing structure, parking lot canopy, or town designated site?).
- Renewable Energy Credit:** Did the customer keep the REC or assign it to their utility so the utility could use it to meet their requirements for renewable electricity?

If you generate more than you use in a month, credits for generation can be carried forward to use in another month for up to one year.

13. Vermont's current policies and programs are structured to meet certain the requirements. For example, the Renewable Energy Standard requires utilities to purchase 75% of their electricity from renewable resources by 2032, 10% of which must come from small, new resources located in Vermont. The net-metering program offers Vermont's homes, businesses, and communities to self-generate their own electricity from small-scale resources.

As the Public Service Department reviews them, these policies and programs can be reformed to mitigate impacts being felt in communities and ensure everyone feels the benefits of renewable and clean electricity.

Considering the priorities you ranked and outcomes you've highlighted, what barriers do you see in achieving these outcomes currently?

Tell Us About Yourself!

Thank you for taking the time to complete this survey. This last set of questions will help us learn a little about you, so that we have a sense of the people and communities we've been able to engage with throughout this process and the perspectives you're bringing to these conversations.

One of the goals the PSD has for the process to review our renewable electricity programs and policies is to engage with a broader array of Vermonters than have historically been reached with our events. The information you provide here will be used internally to help us inform our outreach efforts moving forward and in our reports on this process, to be transparent about who we did (and didn't) hear from. This will help offer context for any recommendations we develop.

All responses will be kept anonymous and answering these questions is voluntary! Please answer as many or as few as you feel comfortable.

14. What town in Vermont do you live in (or, if you are representing an organization, what town are you based in)?

15. Do you represent a local government, town energy committee, non-profit, community-based organization, or other related stakeholder?

16. Is there anything else you'd like us to know about yourself and/or the perspective you are bringing to the survey?

17. Which of the following best describes you (listed in alphabetical order; select all that apply)

Check all that apply.

- ☐ African American, Black, or African
- ☐ American Indian, Alaska Native, or Indigenous
- ☐ Asian or Asian American
- ☐ Hispanic, Latinx, or Spanish Origin
- ☐ Middle Eastern or North African
- ☐ Native Hawaiian or Pacific Islander
- ☐ White
- ☐ Another race or ethnicity not listed above or prefer to self-describe
- ☐ Prefer not to answer

18. Which of the following best describes you?

Mark only one oval.

- ☐ Agender
- ☐ Gender fluid
- ☐ Gender queer
- ☐ Man
- ☐ Non-binary
- ☐ Woman
- ☐ Prefer not to answer
- ☐ Prefer to self-describe

19. How old are you?

Mark only one oval.

- ☐ <18
- ☐ 18-29
- ☐ 30-44
- ☐ 45-59
- ☐ 60+
- ☐ Prefer not to answer

20. Last year, what was your total family income from all sources, before taxes?

Mark only one oval.

- ☐ Below \$25,000
- ☐ Between \$25,000 and \$49,999
- ☐ Between \$50,000 and \$74,999
- ☐ Between \$75,000 and \$99,999
- ☐ Between \$100,000 and \$149,999
- ☐ \$150,000 or more
- ☐ Prefer not to answer

21. Do you own or rent your home?

Mark only one oval.

- ☐ Own
- ☐ Rent
- ☐ Some other arrangement (live with family, etc.)
- ☐ Prefer not to answer

22. How would you describe your education level?

Mark only one oval.

- ☐ 11th grade or less
- ☐ Highschool graduate
- ☐ Some college, no degree
- ☐ Associate degree
- ☐ Bachelor's degree
- ☐ Graduate courses
- ☐ Advanced degree
- ☐ Prefer not to answer

23. How did you hear about this survey?

Thank you for taking this survey!

SAY WATT?

VERMONT
DEPARTMENT OF PUBLIC SERVICE

CVRPC
VERMONT COUNCIL ON REGIONAL PLANNING

WHAT DOES THE FUTURE OF ELECTRICITY FOR VERMONT LOOK LIKE TO YOU? DRAW/WRITE YOUR VISION IN THE BOX BELOW!

Safe? Clean? Affordable? Local? Renewable?

In/Out of State? Small? Big? Reliable? Resilient?

EMAIL YOUR VISION TO LASH@CVREGION.COM
ATTEND AN EVENT NEAR YOU - PUBLICSERVICE.VERMONT.GOV/RENEWABLES

24. Would you like to enter the raffle? (please include contact information which will not be used aside from contacting the winner)

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Google Forms

GET INVOLVED

Support your town!

Interested in Energy Planning? Residential Weatherization? EVs & EVSE? In lowering costs, improving reliability & efficiency, and reducing negative impacts of energy in your community?

Towns are seeking residents with diverse backgrounds, perspectives, and interests. Many different skills are needed:

- Analytical skills: critical to help town and residents understand how available incentive or subsidy programs work, compare initiatives, establish energy use baselines and track program impacts, etc.
- Interpersonal skills: critical to engage with neighborhoods, schools, and businesses to understand their acute needs as well as sustainable energy vision and develop project collaborations.
- Creative skills: critical to develop materials to communicate resources and opportunities to residents

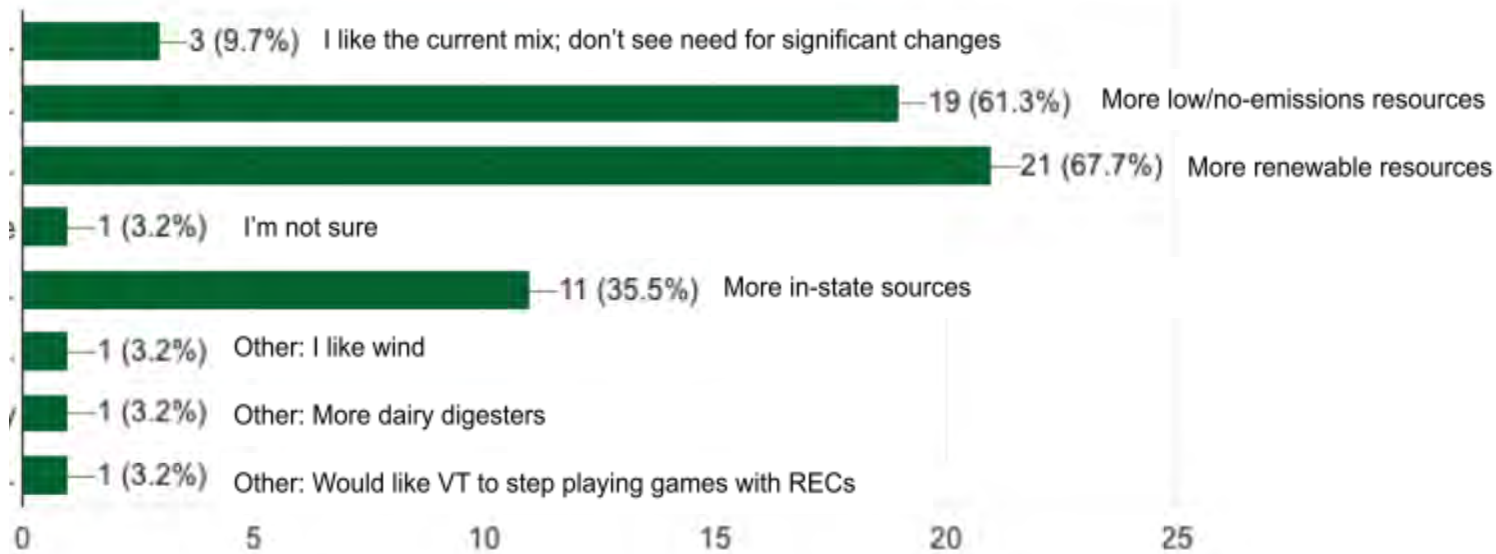
Interested individuals with any level of experience are encouraged to reach out directly or contact lash@cvregion.com with questions or feedback

Town	Role	Contact/Next Meeting
Barre City	Energy Committee- In Active	Janet Shatney 802-477-1465
Barre Town	considering establishing an Energy Committee	Reach out to Planning Commission and/or Selectboard to express support/interest
Cabot	Energy Coordinator	Michael Socks cabotvt.us
Calais	Energy Coordinator- Active considering committee	Bill Powell, calaisvermont.gov/staff
Duxbury	Energy Committee- Vacancies	Jamison Ervin jervin@sover.net Henry Amistadi hamistadi@gmail.com

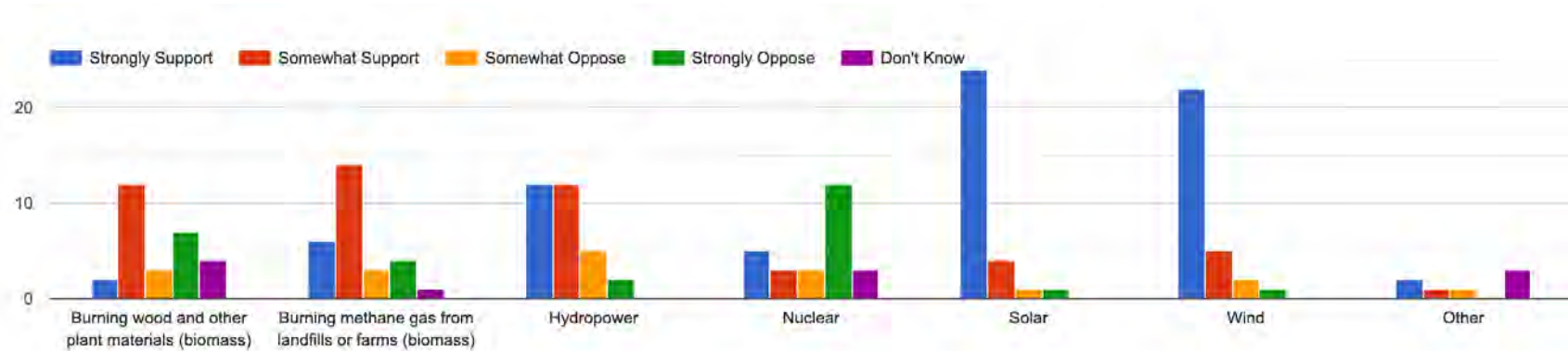
East Montpelier	Energy Committee- Active	eastmontpeliervt.org/boards-commission/energy-committee/
Fayston	Energy Coordinator- Vacant	www.moretownvt.org/town-departments/boards-and-committees/meg/
Marshfield	Energy Committee- Active	marshfieldvt.gov
Middlesex	Energy Committee- Active	https://www.whatsnextmiddlesex.org/energy-committee.html
Montpelier	Energy Committee- Active with vacancies	https://www.montpelier-vt.org/412/Energy-Advisory-Committee netzeromontpelier.org
Moretown	Energy Coordinator- Active	Dara Torre www.moretownvt.org/town-departments/boards-and-committees/meg/
Northfield	Energy Committee- Active	Northfield-vt.gov/energy-committee
Orange	Energy Coordinator- Vacant	Angela Eastman 802-479-2673
Plainfield	Energy Coordinators- Active	Bob Atchinson www.plainfieldvt.gov/energy-management.html
Waterbury	Waterbury LEAP- Active	waterburyleap.org
Woodbury	Energy Coordinator-Vacant	woodburyvt.org town positions to be filled
Warren	Energy Coordinator- Active looking to expand	Lexi Leacock www.warrenvt.org/staff-board/alexis-leacock/
Waitsfield	Energy Coordinator- Active	Chris Badger waitsfieldvt.us/energy/
Williamstown	Planning Commission working on Enhanced Energy Plan	williamstownvt.org/planning-commission
Worcester	Energy Working Group- Active	Chani Waterhouse worcestervt.org

SAY WATT 2023: Central Vermont Regional Planning Commission Survey Results

Question 1: In the future, what would you like Vermont's electricity mix to look like? Check all that apply: (31 responses)



Question 2: Going forward, how much would you support or oppose Vermont getting electricity from the following sources?



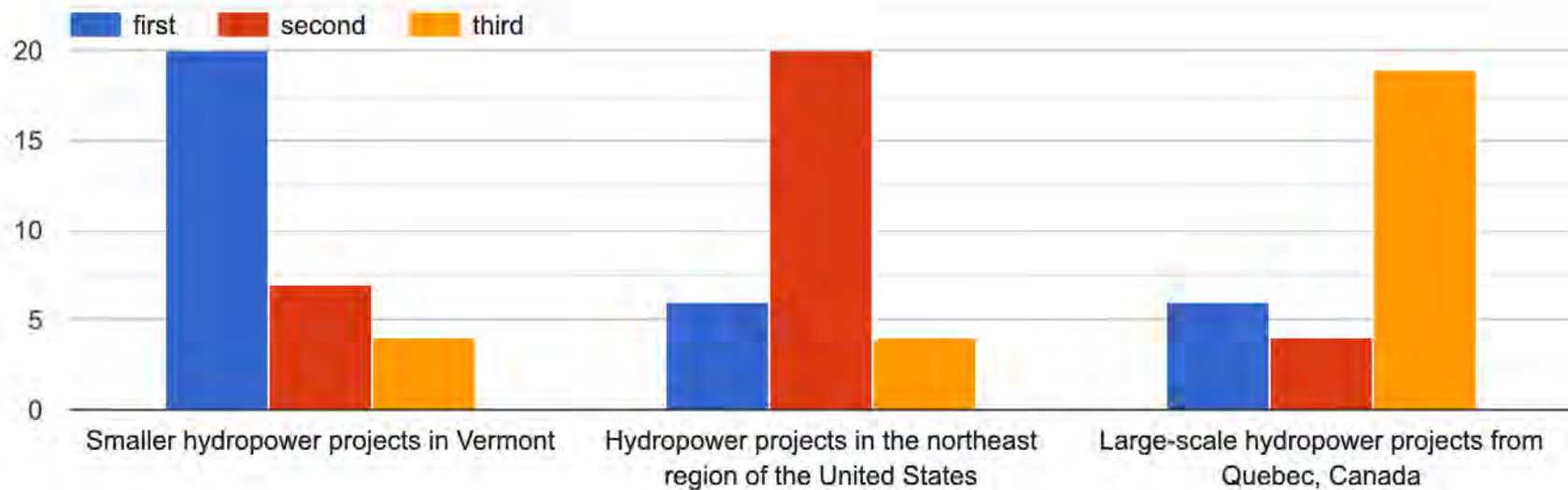
SAY WATT 2023: Central Vermont Regional Planning Commission Survey Results

Question 3: Is there anything else you'd like us to know about what kind of electricity you'd like to use in the future (scale: residential, community/municipal, commercial, large/utility; in state vs out of state, etc.) or general outcomes you'd like to see from policies and programs in this sector? (19 responses) **SORT**

- I sometime feel GMP policies are against growth of renewal sources.
- Overall, it seems like the biggest problem would be how to divert energy resources to be the most efficient! Especially with renewables, it would seem difficult.
- Prioritizing in state generation
- More solar incentives
- I'd be interested in more independent hydroelectric sources
- I would like to see municipalities taking on more of their own responsibility
- Geothermal
- how micro energy sources intersect with macro sources and are integrated or not
- Affordable solar
- I would like us to continue using any existing sources of renewable energy and prioritize our political capital and resources on reducing the % of our energy that comes from fossil fuels, rather than trying to shut down existing energy sources that are not optimal (like McNeil in Burlington).
- Policies to help people invest in heat pumps, especially households with low incomes
- in-state is preferable to out of state if it can be competitive in efficiency and price.
- Farm biomass is leaky & polluting. Landfill is a whole different animal. They shouldn't be combined in the same question.
- More renewables of all scales, more in state.
- I would like these sources to impact the physical landscape of VT as little as possible.
- support residential net metered with additional support for batteries; more community-and municipality-owned large arrays
- We need resilient, local, renewable power, at whatever scale(s) make sense.
- More residential energy, windmills, and more resiliency within the grid.
- general outcomes - more visibility into hourly data, know if sources are 24/7 carbon-free

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Question 4: Hydropower uses the energy in flowing water to turn a turbine and generate electricity. Please rank the following types of hydropower, where **first** is the one you would most like Vermont to use, and **third** would be the item you would least like Vermont to use.



Briefly, why did you rank the item you selected first? (27 responses)

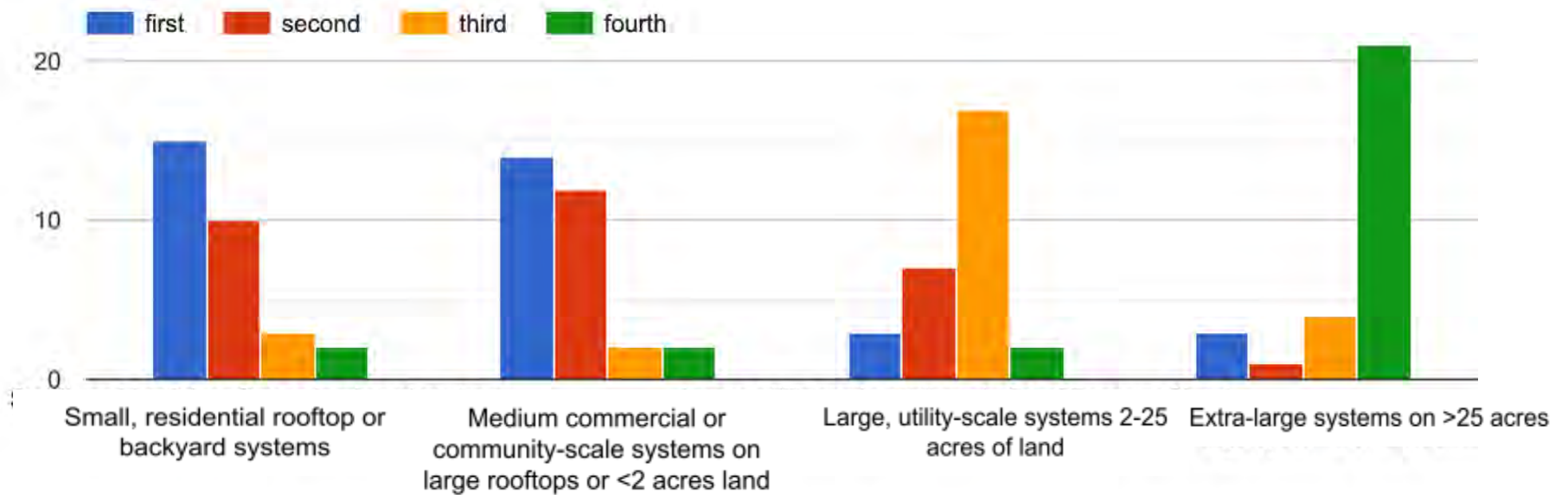
- National security.
- Supports local employment and easier to access
- Maybe it would make it more of a resource that catches on the more states are involved! If only Vermont participates, the idea will stay in Vermont as well.
- Already established.
- More local jobs and power are important
- Because I could benefit from that on my own land
- because
- Hydropower disrupts natural habitats
- HQ is already established, has a concentrated impact that has support systems to mitigate.

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- All good
- local control
- Concern about fish, etc
- Say no to hydro
- Because it already exists and doesn't have to be built / disrupt additional land.
- I'm not sure but if it would provide work for Vermonters, I support it.
- small hydro power projects was longs as they are cist effective and not harm the environment.
- We can control the amount of disruption imposed on native Am. lands.
- Small scale hydro is more sustainable and less harmful to river ecosystems
- Given climate/political reality, local sources will be important.
- to create more distributed generation
- Hydro QC is already built. Let's use it and remove small hydro dams in VT to restore those ecosystems
- The closer to home the better and less transmission lines. Also, disruption in supply lines not as over longer distances are more likely.
- large hydro has mercury and indigenous displacement issues; CO2e emissions need to be better accounted for
- Vermont usually stands alone.
- Local, and presumably smaller environmental impact.
- I believe someone else shouldn't have to carry the burden for our usage.
- long term contracts in place

Question 5: Solar power uses special panels to convert light from the sun into electricity. Please rank the following types of solar power, where **first** is the one you would most like Vermont to use, and **fourth** would be the item you would least like Vermont to use:

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Briefly, why did you rank the item first that you selected (26 responses):

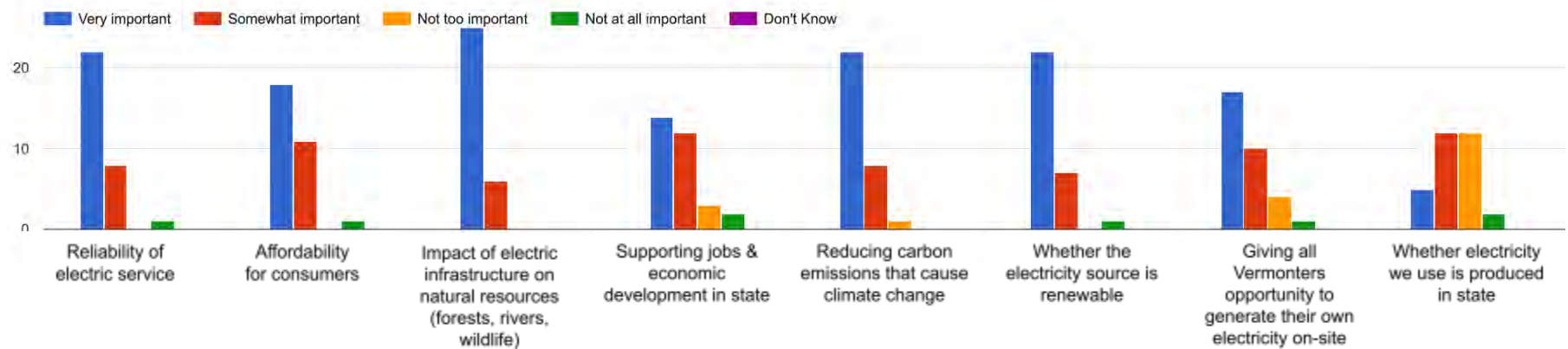
- Diversified power grids protect us during emergencies (like a flood)
- Large solar farm takes down a lot of trees. And ranked community solar 1st because not everybody can afford or has the best place for solar.
- Any industrial buildings seem like a no-brainer to include solar! Then solar farms seem more of an eyesore, but housing are the next best thing.
- Seems more practical than small projects but more resilient than single large projects
- I want my land to supply my power
- Because
- Small scale disruption
- Creating power at the source is ideal?

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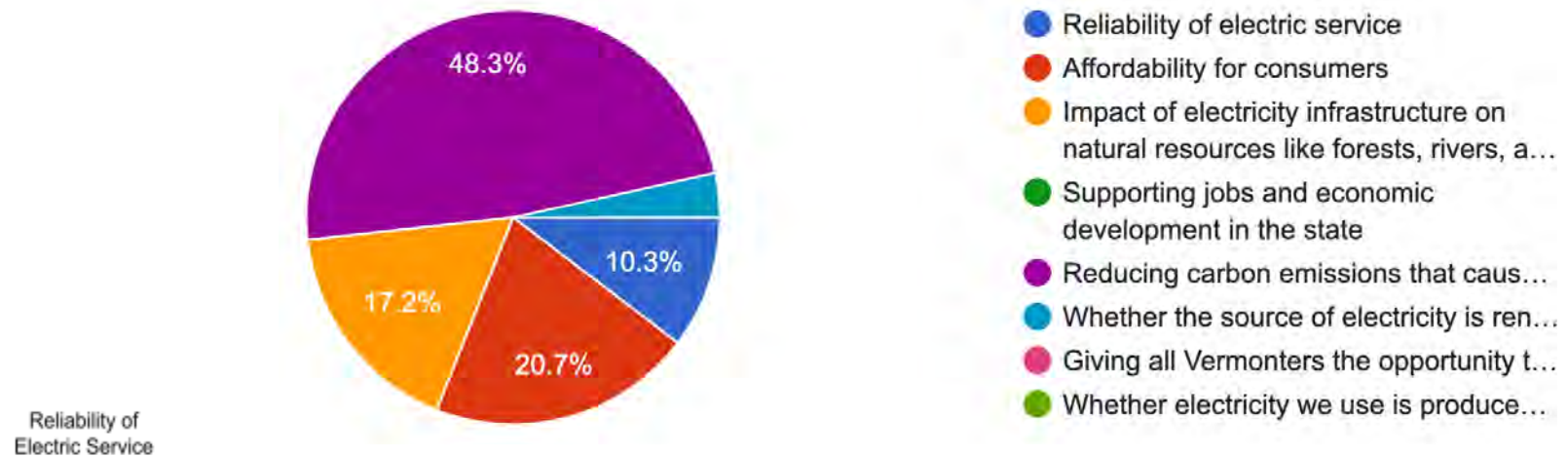
- They are only useful on rooftops or where the land will not otherwise be given an opportunity to regenerate, in VT. There are also toxic chemicals that need to be treated with intention and monitored closely for optimum efficiency.
- economy of scale but minimize environmental impact
- Economic
- Large commercial rooftops are wasted or underused space- use those
- My sense is that they are an untapped source of solar. I think we already have a great deal of small rooftop systems, and mega systems on 25+ acres will generate more controversy. We need to find a way to create more medium sized systems, ideally on land that is already being used (parking lots, commercial buildings, storage units, etc)
- That would have the most positive environmental impact in my opinion.
- generating power on site is preferable and less likely to have interruptions by storms, etc.
- Economy & disruption.
- It keeps more of the benefits of solar in consumers hands
- Believe distributive systems offer the most resilience.
- I believe that the ideal scenario for increasing solar is on roofs, not dedicated open space that could be used for farming, conservation, etc.
- To minimize land use
- Roofs are an otherwise unused, little seen space. Consider installation mounts on sides of buildings.
- Need to 1st take advantage of more homeowner investment and return on investment, and also then need to greatly scale up solar to meet climate needs
- Same as above
- Better economics than residential scale, but lower land-use impacts than utility-scale.
- Ideally our larger rooftops should be used for this before we do ground mounted. Since it is already a disturbed surface.
- added benefits for community resilience

Question 6: How important should each of the following be when considering how Vermont gets its electricity? Please mark "X" to note how important you think each issue is:

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Question 7: Of the electric system characteristics you just considered, which do you think should be the single most important factor in how/where Vermont gets its electricity? (29 responses)



Please provide any context or additional explanation for your previous answer that you think we should know about (could include questions and concerns, ideas, etc.!) (17 responses)

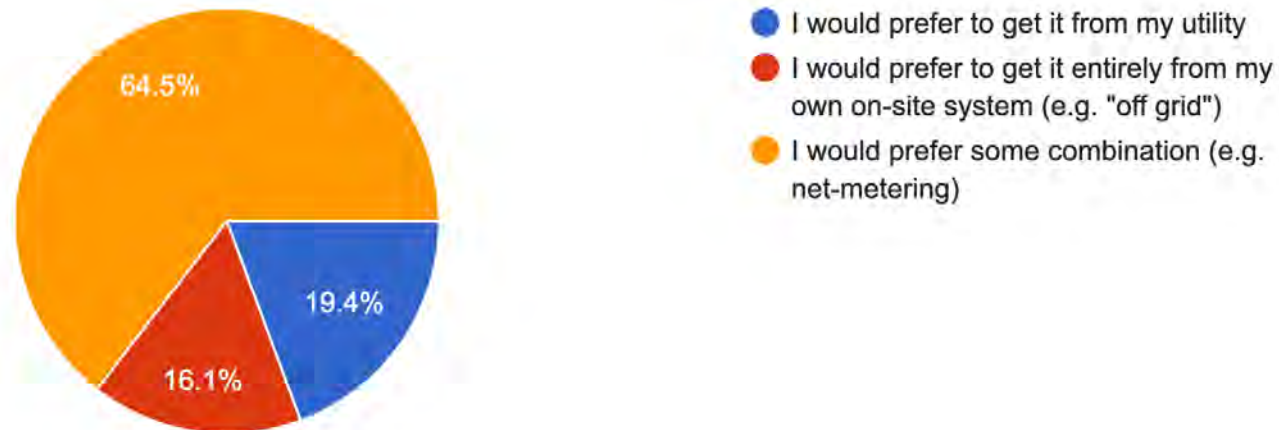
- Times running out. Climate volatility makes almost all options difficult to be sustainable.

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- Cost of living is very high here and most jobs don't support this lifestyle so there needs to be support provided for those that don't make enough.
- Even renewables can have a negative impact on natural environment features! The less intrusive, the better.
- Renewable transition should be prioritized but not at the loss of reliability.
- Our electric bill is insanely high. Need solar incentives that are affordable
- As a vermonter - I am concerned with the cost of heating as we use electric heat (consciously made the decision to move away from propane as it is not a renewable resource) bills get very expensive in the winter. We supplement with wood heat in the winter but I have individual concerns as my child has asthma so the wood burning could trigger asthmatic reactions. Also reliability is important because we had 2 storms last winter that knocked power out for multiple days. As someone who works remotely it was difficult to navigate with out any source of community hub. We ended up spending a lot to get a hotel in Burlington just to shower and re-set after 5+ days of no power.
- 30s. Vermonter. Studied climate change.
- Land use is critical (damaging)
- balance the reality of cost impact on everyday person and environmental impact
- We use a lot of emissions for our commutes in Vermont
- none needed
- I don't believe I've ever encountered a better survey than this one -- & I've created some, back in the day. Anyway, this particular list has A LOT of overlap -- pretty confusing for me.
- Ultimately the climate changes we are inducing will impact every aspect of life. All decisions made and paths forward should keep this in mind. I am a strong supporter of distributive solar, allowing and facilitating everyone to have systems to produce power locally. It is one of the easiest ways to ensure electricity is available locally in the event of disruptions, whether climate precipitated or otherwise. Solar development also adds a large amount to the local economy in jobs and well-being. This should help everyone.
- Climate emergency is here big time. Must address vigorously!
- Climate change is key, and playing REC's games doesn't really help climate. But resilience is also critically important.
- Reliability affects people's jobs and lives for medical compromised individuals. .
- GWSA!

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Question 8: In thinking about the issues you just ranked in Question 1, what is important to you about how you (personally) get renewable or low carbon electricity? Please check the option below that most applies: (31 responses)



Please provide any context for your answer that you think we should know about including pros/cons you consider, ultimate decisive aspects, and/or preferences around the extent to which you influence from where and what source your electricity comes from (15 responses):

- Diversified power grid is more resilient and the future. Power companies need to get on board more. And make room for "family power farmers"
- We bought land to be self sufficient
- Just set up a solar leasing setup. Don't need to own generation capacity. Battery backup should be cheaper as it leads to a more resilient grid.
- To be self reliant is important
- Decentralization, connectivity and reliability
- Not satisfied with current net metering
- Why do we need so much electricity. We would all so well with a lot less
- We may move within the next few years
- none needed

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- Generating ALL of one's own electricity doesn't = "off grid." In 3 stages we've come up to 17kW & donate a lot of th@ to our neighbors. Our EVs & HPs, induction, etc. are all quite satiated.
- I am fortunate to be a GMP customer. They have been ahead of the curve in developing and promoting distributive solar as a means of delivering reliable electricity. We signed on to net-metering a number of years ago and took advantage of the programs to install solar. We also were early adopters of the Tesla battery backup system. It has demonstrated itself, most recently during the Dec. 2022 storm/outage. Our neighbors were struggling with gas generators, getting gas sometimes became an issue as well as multiple days of tending a generator. We were barely aware of the outage, the battery went for nearly 2 days and was still at about 50% during a pretty cloudy period of time. We were free to help our neighbors and not worry about our house. I know affordability is an issue. We have benefited from generous tax incentives and incentives from the power company. We would be quite willing to pay more to ensure the same security to everyone.
- We currently have 2 trackers from AllEarth (since 2008), and it has been great having them.
- Net metering is best balance of distributed gen with grid reliability
- We must leverage solar with batteries -- in e-cars and otherwise -- with utility control to maximize societal benefit of solar. Biomass has huge emissions and re-sequestration and ecosystem impacts are largely not understood well and so should be avoided.
- net-metering 2.0, onsite storage

Question 9: Vermont's current policies and programs are structured to meet certain the requirements. For example, the Renewable Energy Standard requires utilities to purchase 75% of their electricity from renewable resources by 2032, 10% of which must come from small, new resources located in Vermont. The net-metering program offers Vermont's homes, businesses, and communities to self-generate their own electricity from small-scale resources.

As the Public Service Department reviews them, these policies and programs can be reformed to mitigate impacts being felt in communities and ensure everyone feels the benefits of renewable and clean electricity.

Considering the priorities you ranked and outcomes you've highlighted, what barriers do you see in achieving these outcomes currently? (20 responses)

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- There needs to be more more revolutionary thinking from power companies for the interest of the common good. I'm not sure I'm got making them government entities. However power cooperatives seem to have to communities interest and global mandate more than corporations... regardless they f how good GMPs PR is.
- This seems like an amazing initiative! Although local seems to be the most effective to hit home for immediate impact, maybe outreach to other states will allow the US power grid to grow and become more interconnected.
- Additional costs imposed by monitoring, and the creation of misplaced incentives (eg. Solar where it isn't practical)
- Affordability!!
- Cost for consumer
- Low cost and wide use of infrastructure for heating oil. Need to upgrade home electrical systems. Cost of switching fuels.
- Understanding and funding my best options
- Dogma
- It feels the ability for large corporations to have legislative advocacy will always mean their interests will trump the environment and the individual
- Make solar more affordable for individual consumers
- Poor design, appearance or noise that offends people or is intrusive on peace and quiet.
- Ignorance, selfishness, short-sightedness & politics as religion. Of course, a bunch of us Boomers are planning to be out-of-the-way by the time the shit really hits the fan. The media keep talking about "we still have time" w/o mentioning the millions who've already died & been harmed, & the billions who cannot even now avoid the worst.
- Affordability and accessibility
- Certainly political barriers will arise given that the large scale generator industries have a significant lobbist presence. Small local electricity generators/companies lack the infrastructure and financial resources to transition to distributive solar. The cost to transition currently would be highest on those least able to afford it.
- Not sure
- Washington Electric Coop discourages members to install solar
- site approval by owners and communities

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- The continuing reduction of payment to net metered systems is an obstacle. All investments impact rates -- how evenly is arguable -- and this impact should be evened out statewide, rather than penalizing muni's and coop's customers who do not have solar. Transmission upgrades are needed and costs should also be widely socialized. Legislation should penalize NIMBYism and reward NIMBYism.
- We have unreliable service in most of our rural areas.
- our utilities don't have the same capacity to help customers transition, fairness & equity issues

Respondent Demographics

What town in Vermont do you live in (or, if you are representing an organization, what town are you based in)? (30 respondents) *N.B. These results were aggregated*

Town	Respondents
Barre City	5
Barre Town	1
Cabot	1
East Montpelier	2
Fayston	1
Middlesex	5
Montpelier	5
Moretown	1
Plainfield	3
Warren	1
Washington County	1
Other Regions	

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Burlington	2
Randolph	1
Williston	1

Do you represent a local government, town energy committee, non-profit, community-based organization, or other related stakeholder? (19 responses) *N.B. these results were aggregated*

No*	23
Town Energy Committee*	3
Town Leadership	2
Other (Schools, Church)	1

*many members of town energy committees took the survey as individuals vs as a representative of the Town

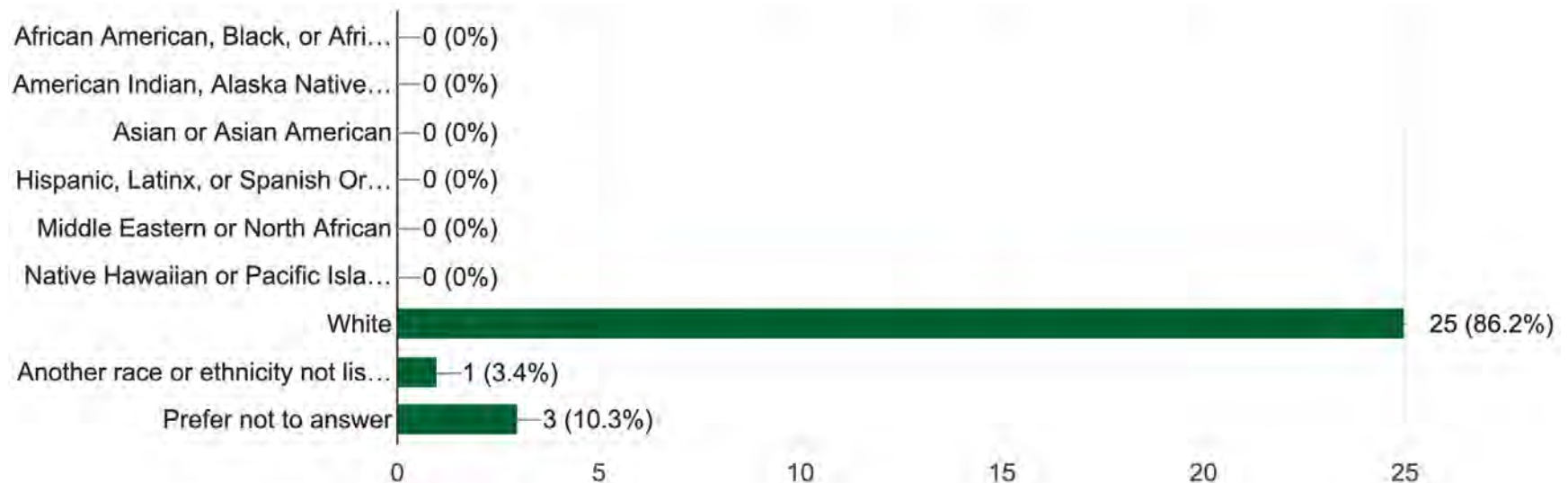
Is there anything else you'd like us to know about yourself and/or the perspective you are bringing to the survey? (22 responses):

- No
- I have solar from sun commons and a power wall rental from GMP at home. Looking to install more as climate volatility is going to become a worse issue.
- Simply interested in environmental sustainability! It's a career I can still see myself getting into, especially in the next few decades as other cities start to catch on.
- Moved to VT to be self sufficient as possible
- Thank you!
- We need more chargers for electric vehicles.
- See above. Also, Gretchen Bakke's The Grid should be required reading for high school students.
- Social justice Animal advocate

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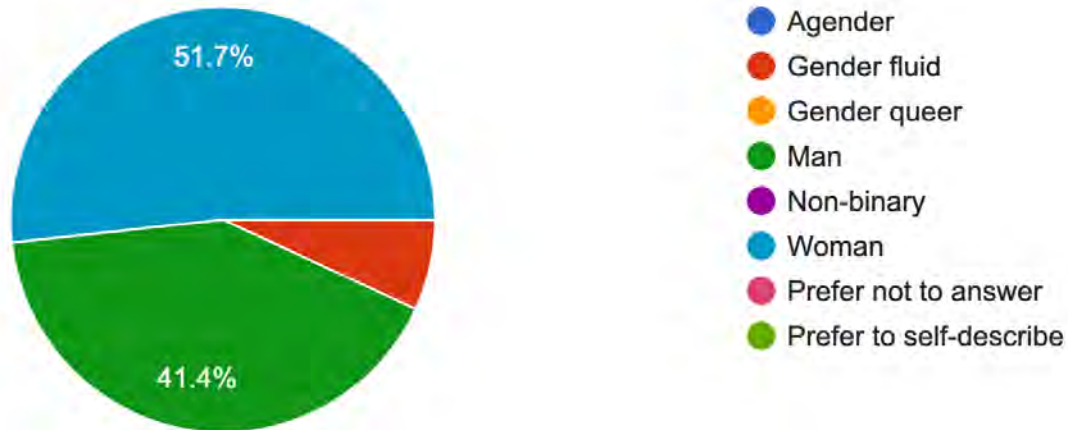
- None
- Single mom
- i haVE A SMALL GAS GENERATOR
- First-time homeowner here go needs to get educated on this important topic.
- I think humans have to harm the planet as little as possible or suffer catastrophic consequences.
- "The Wife" & I write for www.GreenEnergyTimes.org & work in several energy-related orgs.
- The programs that made solar affordable for us made all the difference to our participation.
- Taxpayer and life long resident
- I have worked with the Vermont Energy Education Program for years, and education at all grade levels is just critical to achieving the transition we need. Climate change/energy education should be required at all grade levels, such as in NJ.
- Not at this time
- work in clean energy policy

Which of the following best describes you (listed in alphabetical order; select all that apply) (29 responses):

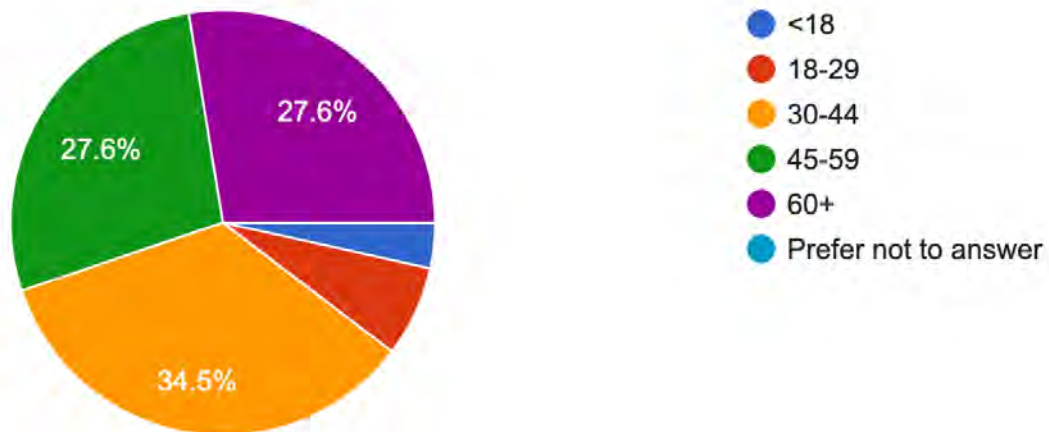


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Which of the following best describes you? (29 responses):

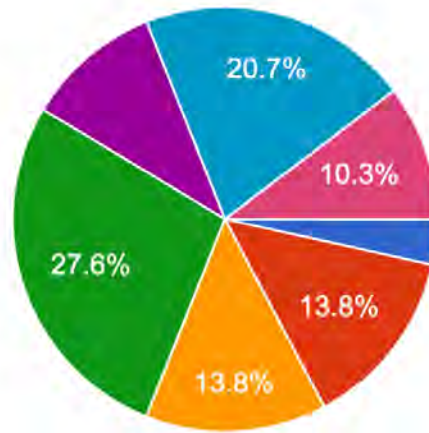


How old are you? (29 responses):



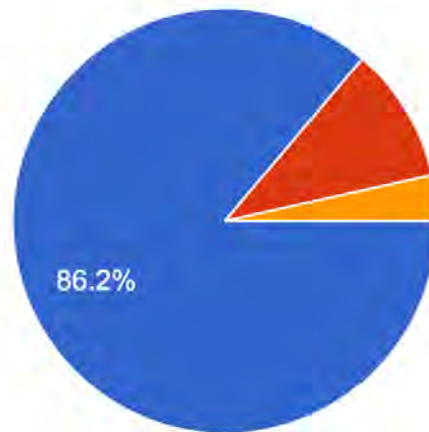
Last year, what was your total family income from all sources, before taxes? (29 responses):

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- Below \$25,000
- Between \$25,000 and \$49,999
- Between \$50,000 and \$74,999
- Between \$75,000 and \$99,999
- Between \$100,000 and \$149,999
- \$150,000 or more
- Prefer not to answer

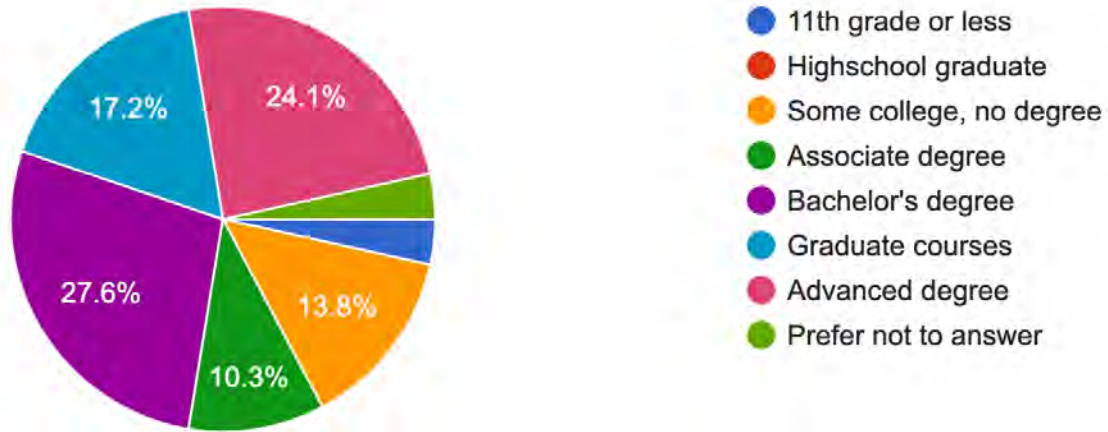
Do you own or rent your home? (29 responses):



- Own
- Rent
- Some other arrangement (live with family, etc.)
- Prefer not to answer

How would you describe your education level? (29 responses):

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How did you hear about this survey? (27 responses) *N.B. these results were aggregated into common categories*

Aldrich Library	5
CVRPC	4
Rabble Rouser	10
Town/Front Porch Forum	5
Other (email unspecified, colleague, etc)	3

Other:

Kudos for a great survey- a praise I've never before expressed.

Feedback (in-person):

- “We keep thinking about our stream out back (Plainfield), could we capture that energy? Can we just do that? How? Why not?”
- “Don’t want to see greenspace just projects but using it [land] for both [energy generation and storage projects and working lands] is yes!”

Similar sentiments came up often: “we can generate energy where we need it if we can be better about multiple uses”, “why don’t all rooftops have solar?” “Why can’t shade be panels?” “Can we use evs as backup?” “I want to see panels in parking lots”

- “small or medium scale projects seem better”
- “Where can I charge my dam car?” (Not a Vermonter, lives here part time though)
- “Local generation seems important- to have a place to go to is really important that will have power in bad situations but some of our hubs [in central Vermont] aren’t safe- like in the floodplain and so is a lot of our other infrastructure [should consider that in siting new projects]” (Marshfield & Plainfield residents)
- “Affordable but renewable is key although really hard to do on your own and so confusing to engage with all the stuff out there- WEC customers and did electrify and now struggling with the bills- not fair doesn’t seem like residents can participate or have the same access based on utility company- not ok; also trying to weatherize now”
- “Upfront costs are huge problem for residents and others- electrification but also local generation projects”
- “Maybe this is sort of insular, sorry, but what about electricity made in Vermont for Vermonters? Local so we can see it, be accountable, but also meet our own needs”
- “those microgrids on the news the other day- so that when we have big storms won’t have so many outages- let’s do more of that” (Calais and Barre Town residents)”
- “I’m in Graniteville- it’s time, we need to figure this out [climate crisis, electricity rates so high, people generally without] and make sure everyday folks have these things [efficient heating & cooling, access to affordable renewable energy, 3-phase power, the lights on!, weatherization, etc] it’s important, energy infrastructure...”
- “I live in a facility where electricity is all done together with other utilities and rent- I don’t have time for this conversation, I don’t have any control over it”
- “We’re over 75yo, we sat down and did the math and we won’t see the financial benefits of solar panels on our house... unless younger family stays in the house- just didn’t make sense but we’re trying”
- “I can’t worry about this anymore, I turn off the lights when I’m not in the room, unplug the toaster, we need to use less period”
- “We wanted [solar] panels on the roof of our complex but it got shut down because of aesthetics by the landlord”
- “I guess nuclear seems like a better option than fossil fuel”
- “I was so skeptical, thank you for the conversation- she actually knows her stuff- this is great, not just information from the utilities or somebody with an agenda”