State of Vermont General Assembly Renewable Energy Standard Reform Legislative Working Group

RESRWG Member Opinion Survey, October 13 – 18, 2023. COLLATED RESPONSES

Legislative Working Group Members requested input on the following questions relating to potential policy changes.

1. Please enter your name and organization. Open Text

Noted in order of appearance in survey results Darren Springer, Burlington Electric Peter Sterling, Renewable Energy Vermont Brian Shupe, VNRC Anne Watson, VT Senate Mia Watson, Vermont Housing Finance Agency Chase Whiting, Conservation Law Foundation Ken Nolan, VPPSA Candace Morgan, Green Mountain Power Shana Louiselle, VELCO Jeffrey Cram - GlobalFoundries Rebecca Towne, Vermont Electric Cooperative Louis Porter, Washington Electric Cooperative William Driscoll, Associated Industries of Vermont Christopher Pearson, Sierra Club Ben Edgerly Walsh, VPIRG Brian Evans-Mongeon, Hyde Park Electric Department

Tier 1: Questions 2 - 11 [Title Slide]

2. Should the RES move to 100% total renewable on an annual basis? Multiple Choice, Single Answer: Yes, No, Other. "Skip this Question" was added shortly after survey opened; the first few participants did not have this option.



3. If yes, in what year should Vermont move to 100% renewable? Multiple Choice, Single Answer: 2030, 2032, 2035, Later, Never. "Skip this Question" was added shortly after survey opened; the first few participants did not have this option.



4. (Optional) What informed your answers to whether / when VT should move to 100% renewable? Open Text. Responses aggregated by multiple choice answer in previous question. Comments a-q.

Comments from those who answered "Yes - 2030"

- a) 100% is achievable with flexibility on resource type, size, and location. 100% may not be achievable in a cost-effective way if too many restrictions are placed on resource procurement. Darren Springer, Burlington Electric
- b) three vt utilities are already at 100% renewable. two others, GMP and VEC, have already pledged to do so. this requirement seems entirely realistic. Peter Sterling, Renewable Energy Vermont
- c) Urgent need to address climate change; opportunity to take advantage of IRA funds; need to build greater resilience. Brian Shupe, VNRC
- d) The climate crisis requires clean, renewable energy sources that are abundant and capable of displacing all carbon-based combustion fuels now used for transportation, heat, and electricity generation Chase Whiting, Conservation Law Foundation
- e) 100% renewable annually aligns with GMP's own goals as set forth in our IRP. Candace Morgan, Green Mountain Power
- f) VT has the ability to move to a 100% renewable standard by 2030. This will entail additional costs for ratepayers, it will also reduce VT's current, very small electric sector carbon contribution. Louis Porter Washington Electric Cooperative
- g) We are so late to address the climate. State policy is to push electrification and that only works if the electricity we depend on is renewable. Christopher Pearson, Sierra Club
- h) [non comment] Ben Edgerly Walsh, VPIRG

Comments from those who answered "Yes - 2032"

i) Most Vermont's utilities are on a path to 100% renewable and seem to believe it can be done affordably (absent the RES becoming too restrictive). Timing is more a function of transitioning portfolios Ken Nolan, VPPSA

Comments from those who answered "Yes - 2035"

- j) My hope is to reduce greenhouse gasses as much as possible. To that end, I'd like to see us move toward 100% renewable, while allowing time to build new renewable resources. Anne Watson, VT Senate
- k) Vermont is largely committed to 100% clean energy, and taking those last steps on an annual basis seem relatively straightforward particularly if we continue to include nuclear which is carbon-free Rebecca Towne Vermont Electric Cooperative

Comments from those who answered "Later [than 2035]"

 Concern about rate impacts on low income households, as well as the feasibility of accessing new renewables in a short time frame Mia Watson, Vermont Housing Finance Agency

Comments from those who answered "Never"

m) VT should move to a 100% Clean Standard. VT should not take 0 or low-carbon generation sources out of play as new renewables would replace a 0 to low carbon source rather than fossil fuel source. Jeffrey Cram - GlobalFoundries

Comments from those who answered "Skip This Question"

- n) Balancing need to respond to climate crisis with potential impact on LMI customers, feasibility of finding new renewables Mia Watson, Vermont Housing Finance Agency
- o) Vermont should move to 100% renewable in the year it strikes the balance of clean energy needs, affordability needs, and reliability requirements. Shana Louiselle, VELCO
- p) Renewable is too limiting. A 100% clean/minimal GHG portfolio could/should be supportable if negative rate impacts can be avoided. Clean has more flexibility to achieve that than strictly renewable. William Driscoll, Associated Industries of Vermont
- q) A simple threshold in the complexity of the electric industry is not possible. For example, 100% for financial application is possible, but 100% on an actual operational basis is not. Brian Evans-Mongeon, Hyde Park Electric Department

5. Should the current list of Tier 1 eligible resources change? Multiple Choice, Single Answer: Yes, No. "Skip this Question" was added shortly after survey opened; the first few participants did not have this option.



6. If yes, what types of resources should be added or removed? Open Text. *Responses aggregated by multiple choice answer in previous question. Comments a-m.*

Comments from those who answered "Yes"

- a) a new tier with a new requirement for new (post 2010) in-region wind, solar and hydro Peter Sterling, Renewable Energy Vermont
- b) The previous question could not be skipped, otherwise I would have. I answered yes because I think that there is consensus that the list should be revisited, but I am not certain about which resources Mia Watson, Vermont Housing Finance Agency
- c) I'd like to see us create a "Tier 1a" requirement of 30% new regional renewables like offshore wind. Anne Watson, VT Senate
- d) New woody biomass electricity generation should not be Tier 1 credit eligible Chase Whiting, Conservation Law Foundation
- e) The RES should focus on carbon reduction while honoring past investments. Tier 1 should move to a Clean Energy Standard and allow nuclear Ken Nolan, VPPSA
- f) Allow existing and new nuclear technologies. Jeffrey Cram GlobalFoundries
- g) Nuclear should be included as a clean-energy option. This respects current nuclear contracts that go beyond 2030 and provides the possibility for new nuclear technology to serve winter needs. Rebecca Towne Vermont Electric Cooperative
- h) Qualifying resources should be expanded to include clean/minimal GHG emitting rather than just renewable. William Driscoll, Associated Industries of Vermont

- i) It is time to remove biomass from tier 1, the science is clear and VT's RES should be updated accordingly. Christopher Pearson, Sierra Club
- j) New biomass should not qualify unless it meets a high efficiency standard. If new renewables requirements are not high enough, unbundled RECs from large hydro should also not qualify. Ben Edgerly Walsh, VPIRG

Comments from those who answered "No"

- k) N/A, we need all the resources available to meet our ambitious goals Darren Springer, Burlington Electric
- 1) No is contingent on current tier 1 resources being capped at 40%, with no new large scale hydro and no new electricity-led biomass. Brian Shupe, VNRC
- m) If climate change is truly an existential threat, as WEC believes it is, we need to make sure that our electrical supply is low carbon and rates are low to encourage beneficial electrification. Louis Porter, Washington Electric Cooperative
- What percentage of Tier 1 resources should be new renewable energy resources (as defined as post-2010) by 2035? Multiple Choice, Single Answer: 60%, 50%, 40%, 30%, 20%, 15%, 10%. "Skip this Question" was added shortly after survey opened; the first few participants did not have this option.



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8. Of that percentage, how much should be local distributed Renewable Energy under 5MW + all Low Impact Hydro Power any size including utility-owned defined by "new distributed" (i.e., current Tier 2 plus hydro)? Current law is 10% by 2032. Any changes to new, local RE include changes to procurement, including eliminating group net metering. Multiple Choice, Single Answer: 30%, 25%, 20%, 15%, 10%. "Skip this Question" was added shortly after survey opened; the first few participants did not have this option.



9. (Optional) Notes, regarding any of your answers about new renewable energy resources. You may submit more than one answer. *Comments (a-l)*

- a) Darren Springer, Burlington Electric: Not sure agree with premise of how much Tier 1 should be from new post-2010 renewables. Support Tier 1 remaining fully flexible, and achieving other aims through other Tiers.
- b) Peter Sterling, Renewable Energy Vermont: new renewables are the key to removing greenhouse gases from our regional energy mix and therefore fighting climate change
- c) Brian Shupe, VNRC: In state renewable energy should be subject to strong siting and natural resource protection standards (e.g., incentivize solar on built environment).
- d) Anne Watson, VT Senate: I chose high percentages to maximize the reduction of greenhouse gas emissions.
- e) Chase Whiting, Conservation Law Foundation: The percentages used in several questions contained ceilings. Responses may not represent participants' true answers, but rather their selection of the best option made available in the survey. REC accounting should be based on annual energy purchases, not annual retail sales, so that we don't lose track of the ~6% in line losses

- f) Ken Nolan, VPPSA: These questions seem to have already made some decisions about the future mix, by limiting possible answers. Counting LIHI as New Renewable is a positive step. There are multiple challenges with significant new solar deployment. Utilities with small territories will have economic/siting challenges, for example.
- g) Shana Louiselle, VELCO: Our view is informed by the impact of resource selection on system reliability. In all our work, we seek to meet state clean energy mandates, ... con't to the degree they apply directly to VELCO, that strike the appropriate balance between that meet federal reliability requirements consistent with affordability needs.
- h) Jeffrey Cram Global Foundries: Lowest cost, reliable energy combined with a portfolio that is zero/low carbon is more critical than the specific breakdown between the two tiers.
- Rebecca Towne, Vermont Electric Cooperative: Creating limits on size or type of Tier 1 creates challenges for achieving a renewable portfolio as we figure out how to cost-effectively add new renewables (which benefit from size & scale) New renewables requirements unnecessary as with forecasted growth and 100% renewable it will be an automatic outcome. The timing of growth & renewable development is uncertain so best to keep flexible
- j) Louis Porter Washington Electric Cooperative: The much more important question is what portion of our power portfolio is low carbon and within that, what resources will keep rates low to encourage use of electricity rather than fossil power. Local distributed renewable power tends to be more expensive and less reliable from a baseload perspective. There are other reasons why such power is valuable but reliability and price matter for CC.
- k) William Driscoll, Associated Industries of Vermont: DUs should be able to contract with new or distributed generation as best meets affordability and reliability goals, rather than a fixed percentage.
- Ben Edgerly Walsh, VPIRG: Making ALL LIHI hydro eligible for T2 (1500 MW in NE + NY) would massively distort T2 - not OK. Muni DU owned hydro is a much smaller universe. Changes like eliminating offsite NM only work w/in a package w/new procurement programs. LMI VTers & renters in particular have little opportunity - ending group NM w/o other avenues makes that worse.

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10. "Unbundled RECs" - Should the use of RECs not committed to as part of energy/capacity contracts be eliminated? Multiple Choice, Single Answer: No, Yes – by 2025, Yes – by 2030, Yes – later than 2030, It depends – see my notes on the next slide... "Skip this Question" was added shortly after survey opened; the first few participants did not have this option.



11. (Optional) Considerations / Notes regarding using RECS that are not committed as part of energy / capacity contracts? Open Text Responses aggregated by multiple choice answer in previous question. Comments a-m.

Comments from those who answered "No"

- a) There are economic and physical reasons for RECs. Any such restrictions would bring cost implications and undermine affordability. They should be fully analyzed before consideration. Ken Nolan, VPPSA
- b) There is no concern with RECs and Energy being discrete values. What is important is that the energy is delivered to or produced and consumed within NE thereby offsetting elect produced by fossil fuel. Candace Morgan, Green Mountain Power
- c) The REC market is a mature, well-constructed market to ensure renewable energy integrity. Some contracts like HQ distribution service and nuclear don't come with REC's. Key affordability lever. Rebecca Towne, Vermont Electric Cooperative

Comments from those who answered "It depends"

- d) unbundled RECs should continue to be allowed if we want to meet our goals. Mandating only bundled RECs limits flexibility and adds potential cost. Darren Springer, Burlington Electric
- e) Unbundled RECs from new, in region renewables incentivize the deployment of new renewables. Unbundled RECs from old, out of region large hydro should not be eligible for meeting Tier 1 requirements. Peter Sterling, Renewable Energy Vermont
- f) Unbundled RECs from large out-of-state hydro should be phased out ; unbundled RECs from other resources are okay. Brian Shupe, VNRC
- g) Unbundled RECs are fine as long as Tier 1a and Tier 2 don't include older resources and their respective percentages are high: Tier 1a (30%) and Tier 2 (30%). Anne Watson, VT Senate
- h) When region reaches 100% renewable, unbundled RECs become less of an issue. But that is long ways off. Until then, unbundled RECs are OK if from new in-region renewables but not if from large hydro. Chase Whiting, Conservation Law Foundation
- i) There seems to be a misunderstanding about why the REC system was created. It was created to efficiently spur the development of renewables. Is it doing that is the question, not bundled or unbundled. Louis Porter, Washington Electric Cooperative
- j) We would not support changes that undermine the ability to mitigate rate impacts through RECs. William Driscoll, Associated Industries of Vermont
- k) It depends how the RES changes, but unbundled RECs from large, out-of-region hydro slows deployment of new renewables so if we aren't capping Tier 1 then these RECs should be eliminated. Christopher Pearson, Sierra Club
- Unbundled RECs are not the problem per se, though the effect of unbundled RECs from large hydro is concerning w/o significant new requirements for new renewables. Ben Edgerly Walsh, VPIRG

Comments from those who answered "Skip This Question"

m) Again, from a financial perspective, REC/ACP is one consideration that works.
However, from an operational perspective, REC confuse the realization of the policy.
Brian Evans-Mongeon, Hyde Park Electric Department

Tier 2: Questions 12 - 14 [Title Slide]

12. Should the percentage of distributed renewable energy change? To what? Multiple Choice, Single Answer: 40%, 30%, 20%, 15%, 10%, % Should not change. "Skip this Question" was added shortly after survey opened; the first few participants did not have this option.



13. Should the current list of Tier 2 eligible resources change? Multiple Choice, Single Answer: Yes, No. "Skip this Question" was added shortly after survey opened; the first few participants did not have this option.



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14. If yes, what types of resources should be added or removed? Open text. Comments (a - j)

- a) No changes to tier 2 eligibility are necessary. Peter Sterling, Renewable Energy Vermont
- b) No new wood biomass. Chase Whiting, Conservation Law Foundation
- c) How does this differ from question 8? That seemed to apply to Tier 2 resources. Regardless LIHI hydro should qualify for Tier 2. Ken Nolan, VPPSA
- d) Expanded to include LIHI-certified hydro facilities of 5MW or less and within Vermont. New sub-tier of "new regional" = any size/type/location of RE built after 2010 - within or delivered to ISO-NE. Candace Morgan, Green Mountain Power
- e) This is outside our responsibilities and mission. We will of course continue to provide analyses from a transmission grid reliability perspective of the impacts of whatever percentage is decided upon. Shana Louiselle, VELCO
- f) Increase the size of Tier II renewables to include projects greater than 5MW. Jeffrey Cram - GlobalFoundries
- g) Add >5MW & 2010 dates. Revise net metering rules to reduce cost and eliminate group NM. With these changes we can get to 20%. Rebecca Towne, Vermont Electric Cooperative
- h) It should change if that would decrease Vermonters' contribution to carbon load, and not if it will not. Louis Porter, Washington Electric Cooperative
- i) Eliminate Tier 2 or otherwise change to allow DUs to contract with resources as best meets affordability/reliability goals rather than a fixed percentage, expand to clean/minimal GHG as available. William Driscoll, Associated Industries of Vermont
- j) As we have said in the past, open to older muni-DU-owned hydro counting as it would have a limited impact & could contribute to keeping important renewables online. LIHI hydro broadly - no. Ben Edgerly Walsh, VPIRG

Tier 3: Questions 15 - 16 [Title Slide]

15. Would you suggest any changes to Tier 3? Multiple Choice, Single Answer: Yes, No. *"Skip this Question" was added shortly after survey opened; the first few participants did not have this option.*



16. If yes, what changes? **Open text** (Comments a-h)

Comments from those who answered "Yes"

- a) Only that we should add some limited language to ensure utilities can go above and beyond Tier 3 goals when they are able to. Tier 3 works well, is a major climate policy, and should not change. Darren Springer, Burlington Electric
- b) Increasing Tier III commitments to encourage more energy transformation projects. Creating a Tier III carve-out for energy transformation projects that benefit LMI households. Consider revising Tier III so that its RECs cannot be double counted against Clean Heat Credits - unclear whether this should be done now or wait for final AHA implementation. Mia Watson, Vermont Housing Finance Agency
- c) Tier 3 could be impacted by the outcome of the Clean Heat Standard it is unclear whether projects done for Clean Heat will make them ineligible for Tier 3. The requirements need to work together. Ken Nolan, VPPSA
- d) Increase the flexibility for utilities to meet overall Green House Gas reductions. Different utilities have different methods for reducing GHGs. Jeffrey Cram -GlobalFoundries

e) Tier 3 credits should be allowed to count towards a utilities Tier 2 obligation, rather than just allowing Tier 2 credits to count towards Tier 3. This will allow a more flexible and effective system. Louis Porter, Washington Electric Cooperative

Comments from those who answered "No"

 f) T3 works well as-is, with significant incentive programs and carbon reduction and it increases annually. Rebecca Towne Vermont Electric Cooperative

Comments - not showing up as Yes or No in results

g) In general, an expansion of Tier 3 would be beneficial from a climate perspective, but may be more than we can bite off during this task group's time together. Chase Whiting, Conservation Law Foundation

Comments from those who answered "Skip This Question"

h) I feel I need more information on options and impacts. William Driscoll, Associated Industries of Vermont. Christopher Pearson, Sierra Club

Renewable Energy Standard, Overall: Questions 18 - 19 [Title Slide]

17. Are there any other changes you think should be made to the RES program? Open text Comments (a - n)

- a) Focus new requirements on load growth. Don't limit resources, we need hydro, biomass, solar, wind and other technologies to cost-effectively and reliably meet our goals. Darren Springer, Burlington Electric
- b) No new wood biomass facilities should be considered REC eligible. Current RES requirements are based on annual retail sales. This should be changed to annual purchases to account for ≈6% line loss. Peter Sterling, Renewable Energy Vermont
- c) Base REC requirements on annual energy purchases, not sales. Brian Shupe, VNRC
- d) I'd like to see us lift the cap on the capacity of net metered systems for municipalities. Anne Watson, VT Senate
- e) Please see H.320. Chase Whiting, Conservation Law Foundation
- f) I continue to believe we are spending resources in the wrong place. Tier 1 should go to 100% with the utilities charges with doing so affordably. Most effort should be on electrification. Offshore Wind seems to be in trouble with contract withdrawals and major price increases. We should NOT build the RES around assumptions of what will be built or what loads will be in the future. Simpler is better - and more affordable. Focus

on defining what needs to be accomplished and setting broad requirements then the utilities and PUC can find the most flexible/affordable path forward. Ken Nolan, VPPSA

- g) Consider a provision that if a customer decides to accelerate or has their own specific RE goals moving to more qualifying renewables sooner, we are able to remove that load from RES compliance #s. Candace Morgan, Green Mountain Power
- h) We would support taking into greater account the location of renewable generation projects, more specifically along the lines of grid reliability, affordability, and community equity impacts. Regarding reliability, diversity of resources in terms of location, size and fuel is a critical element for maintaining overall system reliability. Shana Louiselle, VELCO
- i) Increase size of projects for Tier II to greater than 5MW. Allow greater flexibility in meeting Tier III reductions targets. Jeffrey Cram GlobalFoundries
- j) Net metering costs must be addressed. California has a great model to respect grid constraints, costs and encourage storage. At a minimum net metering incentives must be reduced and group net metering eliminated. Rebecca Towne Vermont Electric Cooperative
- k) The high cost of net metering and the fact that the power produced frequently does not coincide with when and where it is needed must be adresses. From a carbon load standpoint, net metering is actually often counter productive in that is increases costs unnecessarily without decreasing Vermonters' carbon loads. Louis Porter Washington Electric Cooperative
- As noted previously, the RES should move toward a CES with more broad/global requirements allowing more flexibility in meeting them with greater affordability and reliability. William Driscoll, Associated Industries of Vermont
- m) The way we measure RES compliance is based on annual retail sales, it should shift to power purchases. Christopher Pearson, Sierra Club
- n) Switching the universe covered from retail sales to annual energy purchases minus any sales to the market/other DUs. It makes no sense to ignore line losses and DU use that should be from RE as well. Ben Edgerly Walsh, VPIRG

- 18. To what extent do you agree with the following statements? Likert Scale 1 (Strongly Disagree) 5 (Strongly Agree)
 - Vermont should have one uniform RES for all utilities
 - Vermont should have a RES with several different sets of requirements for different "categories" of utility
 - Vermont should continue to utilize procurement programs to help meet RES purchasing requirements



19. (Optional) If you believe the RES should be addressing any other policy areas, please note that here. You may submit more than one answer. Open text. Comments (a – g)

- a) Explore opportunities for different renewable energy ownership and access models (e.g., community ownership). Brian Shupe, VNRC
- b) Net-metering policies. Solar siting policies. Mia Watson, Vermont Housing Finance Agency
- c) Please see H.320. Chase Whiting, Conservation Law Foundation
- d) The RES should be addressing fewer policy areas. Although described as a climate change program it encompasses much more, on the backs of ratepayers. Simplify. Ken Nolan, VPPSA
- e) The RES can set the targets for renewable percentages by type/category but that procurement can be done most cost-effectively and efficiently, taking different utility needs into account through utility led programs overseen and authorized as needed by the PUC. Also, making changes to procurement to promote more renewables at a more affordable price for VTers should go hand in hand with any increase to Tier 2; for ex., supporting broader and more cost-effective solar programs than the program of limited size, higher priced group "net metering" currently allows. Removing this type of program would also permit net metering to remain a key program for offsetting onsite load. Candace Morgan, Green Mountain Power
- f) The process of looking at the RES needs to be honest and comprehensive about the costs and benefits of net metering from a ratepayer, infrastructure and carbon reduction standpoint. Ultimately, the RES needs to be about reducing Vermonters' overall contribution to carbon load, including by encouraging beneficial electrification. Louis Porter, Washington Electric Cooperative
- g) Ensuring procurement programs can effectively serve LMI VTers, renters, BIPOC VTers, and other underserved populations is important. They have largely been left out of this transition to date. Ben Edgerly Walsh, VPIRG

Closing Page [Thank You]