

# Climate Action Q and A with NH Electric Cooperative Board Candidates

Compiled/distributed by the Pemi Climate Emergency Coalition and the Sandwich Climate Action Coalition

We have prepared this questionnaire for *New Hampshire Electric Cooperative (NHEC)* members who care about **combatting climate change and expanding the use of renewable energy**, before voting in the upcoming *NHEC* Board of Directors' election.

In March, 2020 residents in over 80 New Hampshire towns considered warrant articles addressing the climate crisis. Nineteen are located in the Cooperative's service territory. Thirteen out of 16 passed and three votes have not been held yet. The content of the warrant articles' varied from town to town. Some set goals for transitioning electricity to 100% renewables. Other articles urged state and federal leaders to place a fee on carbon emissions and return the proceeds to households (Carbon Cash-Back legislation) which would make renewables more cost effective than fossil fuels while protecting the consumer. We believe, our electric cooperative is in a unique position to help their New Hampshire towns and individual members reach their climate action goals.

**If you have an account with the *New Hampshire Electric Cooperative*, you are a member and part owner.** Each member can vote in the board of directors' election and at the *NHEC* annual meeting in June. As a member you can influence decisions made at *NHEC* by choosing a candidate you believe is the best person to serve on their board.

**Voting will start on or about May 21, 2020 and end on June 16, 2020.** Members who already told *NHEC* that they prefer to vote online, will receive an email with voting instructions. All other members will receive a paper ballot in the mail. It will include instructions for submitting the ballot online OR via the mail.

VOTING  
STARTS  
MAY 21<sup>st</sup>

## YOUR VOTE MATTERS!

There are five candidates  
running for three open seats.

Please consider their  
answers before voting.

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**1 What motivates you to seek a position on the NH Electric Cooperative Board of Directors and what do you hope to accomplish as a member of the Board?**

*My primary motivation to be on the NHEC Board of Directors is to help the poor, elderly on fixed incomes, middle-class families living paycheck to paycheck, the unemployed and small businesses struggling to survive, all of whom need electricity bills as low as possible. Especially during this Covid-19 pandemic and its aftermath, these hard-hit groups, which are a large proportion of NHEC members, need low electric utility bills. I have experience as a consumer advocate and electric utility regulator and I want to use that experience to help assure reasonable rates and service reliability to help the most vulnerable of our Cooperative's members as well as all members. Those objectives are consistent with strongly encouraging the procurement of the cleanest type of energy and reducing electrical needs through conservation and load management.*

**2 Knowing that certain sources of electricity that NHEC chooses (coal, oil, natural gas) harm members through air and water pollution and contribute to the climate crisis, do you think NHEC's mission should change to include providing safe clean energy for all members?**

*Statutory energy purchase portfolio standards already make safe, clean energy part of NHEC's mission and duty. NHEC should be able to exceed those standards as technology and innovation make more non-fossil fuel options available at reasonable prices and lower cost battery storage options become available. Provision of safe, clean energy should be a part of NHEC's mission even if its primary mission is to provide the lowest cost electricity consistent with maintaining high levels of service reliability.*

**3 According to NHEC's 2018 Environmental Disclosure Label, NHEC's power mix includes only 6.53% from wind and solar energy. What percentage of NHEC's power mix do you think should be renewable energy and where should this power come from? How and when should this percentage be reached? By 2030? By 2050?**

*I support the highest percentage possible of clean renewable energy, including wind and solar, and the even more valuable contribution of "renewable" conservation and load management, what Amory Lovins of the Rocky Mountain Institute calls "negawatts." The more such renewable power that is locally generated the better for energy security, but New Hampshire is not always the best home to renewable technologies. Locations outside the NHEC service area may have more sun, wind or waves and good locations to site those technologies. For example, probably the best New Hampshire wind turbine sites are in the mountain passes and ridges of the White Mountain National Forest, but their installation there is prohibited. Negawatts, however, can always be locally produced in a cost-effective manner.*

*The percentage of wind, wave, solar and negawatt power that should be invested in by NHEC cannot be determined this far in advance of 2050. Rapidly changing technology and markets will provide increasingly high percentages of non-fossil fuel generated electricity at reasonable prices which NHEC can procure, I hope, in abundance. I know the "right" answer is*

*to state a specific high percentage of renewable technologies is achievable in NHEC's generating mix in 2030 and 2050, but in fact the percentage is unknown and unknowable even with concerted effort, because it depends on too many variables, many of which have not yet come into existence.*

**4 Do you support investing in the building of additional NHEC owned solar energy generation systems, such as NHEC's existing 2MW system in Moultonborough, New Hampshire?**

*The key word in this question is owned. NHEC is a retail distribution utility; its specialty is not generating electricity. NHEC is almost exclusively a contract purchaser of electricity. The 2MW Moultonborough facility is the only NHEC owned and operated generating facility. Specialized solar energy providers have the advantage over NHEC in experience and expertise as well as in building, operating and maintaining larger than 2MW facilities. Larger solar arrays are more cost-effective, as well as the battery storage that should accompany them to make solar power more valuable to members (by providing power during peak usage periods). For that reason, it is likely that more solar power can be economically procured by NHEC via contracting for that power from those more expert at high volume solar installations, operations and maintenance. That would enable NHEC to increase the total percentage of solar power in its generating mix. If we find, however, through its Moultonborough experiment, that NHEC is better than or equal to specialized solar generating companies in operating and maintaining solar facilities, then NHEC should build, own, operate and maintain more solar facilities.*

**5 What new initiatives should NHEC consider that would increase the adoption of wind, wave, solar energies and energy storage?**

*The most important initiatives to increase the adoption of wind, wave and solar electric generation are remedial efforts to address those technologies' weaknesses so more can be purchased in the future. All NHEC members demand that the electricity in their home or business is turned on when they need it. The interruptible nature of wind, wave and solar electric generating facilities means other electric generating or storage facilities must back them up to assure electricity is available immediately when needed. Fossil fuel baseload units are among the generating facilities used for that purpose now, but non-fossil fuel and non-polluting baseload capacity options are increasingly available. Battery storage longevity and cost are also advancing. Those backup and storage options should be encouraged and procured by NHEC. Better coordination of energy supply and demand through a "smart grid" also can make a difference, which is one of the reasons NHEC should be investing in internet broadband technology. An extra benefit of a smart grid may be to facilitate internet broadband for members in the many NH communities with slow and unreliable internet service. More than 100 electric cooperatives around the nation have helped their communities enjoy the many benefits of higher speed and reliable internet communications. That is why I support the petition to have NHEC's mission include "facilitating" internet broadband for its members. See [www.nhbroadband.com](http://www.nhbroadband.com)*



**1 What motivates you to seek a position on the NH Electric Cooperative Board of Directors and what do you hope to accomplish as a member of the Board?**

*I have a lifelong fascination with energy including work with National Renewable Energy Lab, (When it was called the Solar Energy Research Institute in the early 80's) design of innovative energy projects, (one made the cover of popular science in Aug '86) and starting an energy business utilizing a Swedish technology to cleanly burn wood powder in suspension in conventional boilers. Simply stated I enjoy the topic of energy.*

*In terms of what I hope to accomplish at NHEC, I recognize that utilities are notoriously hard to change. To a large extent I think it comes from the fact that they are monopolies. There are no competitive forces acting on them. As a board member of NHEC, I attempt to challenge the status quo.*

*For example, NHEC has 6 years of hourly electric consumption data from our 80,000 members and we have only started to scratch the surface of learning what it can tell us about the usage patterns of our members. The utility of the future will be as much about managing bits and bytes as it is about delivering electrons. I'd like to help bring the NHEC into the 21st century. I see it as the boards role to serve as a substitute for the competitive market forces for change that are missing because of the monopoly nature of an electric cooperative.*

**2 Knowing that certain sources of electricity that NHEC chooses (coal, oil, natural gas) harm members through air and water pollution and contribute to the climate crisis, do you think NHEC's mission should change to include providing safe clean energy for all members?**

*I think this problem is much bigger than NHEC—we can make little changes at the edges, just as an individual homeowner can tune up their furnace or shut off a light or maybe drive an EV but if we want to have real change we must build the full cost of damage to the Common (aka the atmosphere) into the price of fossil fuel.*

*Of course, NHEC's mission should include providing safe clean energy for all members... but that is not going to fix the problem. NHEC could switch to 100% "renewable" tomorrow by going out and buying Renewable Energy Certificates to notionally cover all our needs—it would cost our members a couple of cents a Kwhr—probably \$10 or \$20 a month for the average member (In fact members now have this option if they care to search it out and choose it) but I don't think it would result in any change in where the electricity in New England comes from. It would simply increase the market value of Renewable Energy Certificates and increase what our members pay for electricity. This is a complicated subject which I am happy to discuss with anyone who is interested.*

**3 According to NHEC's 2018 Environmental Disclosure Label, NHEC's power mix includes only 6.53% from wind and solar energy. What percentage of NHEC's power mix do you think should be renewable energy and where should this power come from? How and when should this percentage be reached? By 2030? By 2050?**

*Let's say 50% by 2030 and 100% by 2050—but I wouldn't support NHEC being an outlier. That is where the whole country should be. This is an issue that will take leadership from the top.*

**4 Do you support investing in the building of additional NHEC owned solar energy generation systems, such as NHEC's existing 2MW system in Moultonborough, New Hampshire?**

*I like solar but I do not think NHEC is a particularly good owner/manager of generating assets. I suspect we could have sourced 100% the output of a 2MW facility through a power purchase agreement from a third-party developer at a lower cost to our members than the cost of our ownership for the NHEC Moultonborough Solar facility.*

*If you look back at NHEC history, you'll see that our last big foray into generation ownership, our investment in Seabrook, bankrupted the Coop in 1991, admittedly with a different technology, but it does point out how badly such investments can go.*

*NHEC is also in a tough position when it comes to making long term commitments to purchase electricity (or invest in generation) because by state law our members have the option of switching to competitive (Non NHEC) suppliers for the purchase of electricity anytime they want. Just make up a scenario—NHEC makes a commitment to purchase 100% of their anticipated members requirement for the next ten years from renewables at 10 cents a kw. Then the price of natural gas goes to zero (remember oil went negative recently—who would have thought) and competitive suppliers offer our members electricity generated from natural gas for 2 cents. All our members take advantage of the cheap electricity but NHEC still has an obligation to buy all that 10 cent renewable electricity—NHEC incurs huge losses and our members suffer—hello bankruptcy again.*

*These are complicated issues that require much more than this short answer. Do I believe the world is in trouble from climate change—Yes! Do I have a 10Kw solar array at my house—Yes! Do I think the NHEC, a small distribution utility should build 100MW of solar—No. Others can do that more cost effectively than we can.*

*I am surprised that you did not ask any questions about batteries/storage. In my mind you cannot talk renewables without talking storage. I believe electric energy has three major attributes or dimensions to consider—quantity (how many kw's) location (where the kw's are located) and timing (when are the Kw's available/needed) Folks that talk about renewables tend to think only about quantity.*

*Do you realize that in terms of these three dimensions quantity only accounts for about 1/3 of the coop's cost for acquiring energy—the average wholesale price in ISO-NE last year was 3 cents/Kw—the other dimensions location (Transmission cost to get it to us) and timing (when we need it) account for about 6 cents/Kw in your bill. If we are going to change to renewables we need to solve for timing and location as well as quantity—In California the quantity cost of electricity has been known to go to zero mid-day on a sunny day. These are complex problems and interesting times to be thinking about inventing solutions—again I am happy to discuss with any member interested in the subject.*

**5 What new initiatives should NHEC consider that would increase the adoption of wind, wave, solar energies and energy storage?**

*I think we should make it easier for our members to choose which sources of energy they use. We should do more outreach/education with our members. And finally we should develop rate structures that encourage the adoption of distributed energy resources, electric vehicles, home batteries and heat pump technology (replacing fossil heat sources) without disadvantaging those that are not early adopters. With the right rate structures in place, EV's, heat pumps and batteries are no-brainers.*

## Madeline McElaney

**1 What motivates you to seek a position on the NH Electric Cooperative Board of Directors and what do you hope to accomplish as a member of the Board?**

*I have participated as a member of the NHEC nominating committee for a number of years and gotten to know the NHEC board and senior leadership team. I have a great deal of respect for them all but have noticed that my age and gender demographic is not represented (female, under 40). I feel my voice could lend a different perspective on the board. Also, I have a Master Degree In Environmental Science and Policy and have focused much of my career on energy efficiency and renewable energy. I feel it is essential for NHEC to lead the way in integrating sustainability in both its business practices and its energy portfolio. As a board member I will advocate for sustainability as a strong business decision.*

**2 Knowing that certain sources of electricity that NHEC chooses (coal, oil, natural gas) harm members through air and water pollution and contribute to the climate crisis, do you think NHEC's mission should change to include providing safe clean energy for all members?**

*Safe, clean, energy for all members is a smart business decision. It is important to show that clean energy CAN and IS a cost effective way to provide electricity to members. However, with all due respect, I am not going to start my term on the board with a proposal to amend the mission of NHEC.*

**3 According to NHEC's 2018 Environmental Disclosure Label, NHEC's power mix includes only 6.53% from wind and solar energy. What percentage of NHEC's power mix do you think should be renewable energy and where should this power come from? How and when should this percentage be reached? By 2030? By 2050?**

*NHEC's current goal is that "by 2025 at least 25% of the power purchased for use by its members will be generated by renewable resources." [www.nhec.com/our-plan/](http://www.nhec.com/our-plan/). I would work closely with members of the NH EESE Board <https://puc.nh.gov/EESE.htm> as well as the staff and leadership employed at NHEC for guidance on how to help NHEC meet that goal. The National Association of Electric Cooperatives also has resources and guidance regarding the EPAs 2019 Affordable Clean Energy rule (ACE) and how to implement it. At this point I do not have a specific percentage of renewable energy in the power mix in mind beyond 2025. Do you? I am curious to hear.*

**4 Do you support investing in the building of additional NHEC owned solar energy generation systems, such as NHEC's existing 2MW system in Moultonborough, New Hampshire?**

*Yes*

**5 What new initiatives should NHEC consider that would increase the adoption of wind, wave, solar energies and energy storage?**

*NHEC should consider increased support for Distributed Energy Resources (DER) technology, continued support for community solar initiatives, and expansion of the electric vehicle program.*

## Harry Viens

**Harry Viens chose to make a statement instead of answering the questions directly.**

*I share your vision for a carbon-free, clean energy future, and sincerely appreciate your interest in having members informed on where Directors stand on key environmental issues.*

*I am an environmentalist with a long track record to back up that statement having Chaired the Center Harbor Conservation Commission for 6 years now. Also, I served 8 years on the Lakes Region Conservation Trust Lands Committee and currently in my position as a Director of the New Hampshire Electric Coop and Chair of the Power Resources committee, am working on the challenge of Beneficial Electrification (replacing fossil fuels with clean electricity) and development of renewable energy sources for our electricity. In my work as a House Rep for Belknap District I serve on the Environment & Agriculture Committee as well.*

*I believe green electricity is the fuel of the future. On a personal level I have a large solar ground array in the field next to my home and am researching battery backup systems for my home. My wife and I have already converted our heating system to a high-efficiency boiler coupled with super-efficient mini-split heat pumps. (I joined PAREI when I first moved to Center Harbor, but let my membership lapse*

*when I was elected to the Coop Board out of concern for possible conflicts of interest – although I did suggest to the CEO that the Coop could benefit from helping connect low income families with free or reduced cost electricity which led to the Coop/PAREI solar generation (NH Solar Shares) partnership. So the experience wasn't wasted.)*

*Although I support your clean energy vision I declined to answer the questionnaire. In all honesty, to answer the questions asked in a complete fashion, addressing all the attendant issues, both social and technical, would take many hours and even more pages. As my father used to say, "the devil is in the details," and the details in this case are abundant and complex. One thing I have learned from my experience at the Coop is that there are no simple answers or fast, easy paths to a renewable future. Achieving this vision will take time and hard work, but it is possible! There is a lot of good news in the areas of carbon reduction and renewable energy! I would be happy to sit down with you and discuss any of your questions at length. Thanks for your courtesy and sincerity.*

## Mark Portu

**1 What motivates you to seek a position on the NH Electric Cooperative Board of Directors and what do you hope to accomplish as a member of the Board?**

*I think the convergence of technology (smart grid-internet of things) and renewable energy make the next decade of strategy at the Co-op extremely important. I want to help shape that direction.*

**2 Knowing that certain sources of electricity that NHEC chooses (coal, oil, natural gas) harm members through air and water pollution and contribute to the climate crisis, do you think NHEC's mission should change to include providing safe clean energy for all members?**

*I think clean, safe energy is the core directive of the Co-op.*

*I also understand, and realize and am not immune to the spectrum of good/bad tradeoff. I run a solar array on my barn which provides much (but not all) of my electric need...so I believe in using renewable energy. But I'm also writing this response to an internet question, on my laptop, on a cloudy, sunless rainy day. The direction to clean renewable is clear. the steps the get there are currently being constructed.*

**3 According to NHEC's 2018 Environmental Disclosure Label, NHEC's power mix includes only 6.53% from wind and solar energy. What percentage of NHEC's power mix do you think should be renewable energy and where should this power come from? How and when should this percentage be reached? By 2030? By 2050?**

*I don't have a fixed number in my mind and I think that's the wrong way to approach the problem. I believe technical progress has driven and will continue to drive*

*that ever changing allocation. For instance, can excess solar and wind generation be stored at cost effective rates and without enormous efficiency loss? Will advances in battery tech allow that to occur? In our climate, do battery farms need to be underground for heat/efficiency?*

*We are on the cusp of that change and it is the storage technology which will most greatly impact significant enhancement of renewable allocation.*

**4 Do you support investing in the building of additional NHEC owned solar energy generation systems, such as NHEC's existing 2MW system in Moultonborough, New Hampshire? I do.**

**5 What new initiatives should NHEC consider that would increase the adoption of wind, wave, solar energies and energy storage?**

*Renewable is growing and I am an ardent supporter of its' continued growth. However, as all proponents of renewable realize, energy storage remains the achilles heal of renewable. As stated above I would like to explore/expand storage capability/capacity at the NHEC. The newest combinations of solar microgrids with onsite battery storage should be continuously monitored and testing begun at Moultonborough.*

## Moultonborough Solar Array—2 MW, owned by NHEC

Photo from: [www.nhec.com/moultonborough-solar-array/](http://www.nhec.com/moultonborough-solar-array/)

