

A Legacy of Working for the Environment and the Community

Outgoing Directors Barry Bernstein and Annie Reed on the importance of upholding the founding values of the Co-op now and into the future

Barry Bernstein and Annie Reed are both stepping off WEC's Board of Directors when their terms conclude in 2022. Bernstein was WEC's President for many years, Reed served as Secretary, and they have a combined 35-plus years of Board service. But the impact of these Directors on the history and future of the Co-op is more significant than even these facts indicate.

As they considered their years of service, Bernstein and Reed talked about caring for their community and caring for the environment. It's clear to them that environmental and community health are the same. This value precedes them at WEC: it started, they agree, with WEC's founders' decision to form an electric cooperative – a not for profit with member-owners active in its democratic governance. The founding members in 1939 were homesteaders and farmers who worked the land and milked cows in the dark. Bernstein, whose involvement in WEC stemmed from concern over the Co-op's

Bernstein said it's important for incoming Board members to have the ability to think about energy in a nuanced way, without setting hard lines around what's good and bad, and to stand with integrity.

governance in the 1970s, pointed to the founders' bravery. "They were called socialists and communists because they were stepping out of the status quo to do something different" and bring electricity to rural Vermont on their own, he said, bypassing the corporate utilities that saw no profit motive in serving the back roads. "Those people

took a big risk. And we're at a time now when we'll have to take risks, think out of the box, get out of our comfort zones."

Bernstein and Reed joined WEC to improve environmental and community health, and they are leaving in a time of profound climate reckoning, just a few years after WEC was the first utility in Vermont to adopt a climate change statement. Environmental and community health is the legacy, and the trajectory, they hope to leave.

Bernstein, of Calais, a member for more than 50 years, became involved with WEC in 1973, as part of a group of members concerned about the direction of the Co-op in



At WEC's last in-person Annual Meeting in 2019, member Dina DuBois talks electric vehicles with Drive Electric Vermont's Dave Roberts. In 2022, for the third year, WEC's Annual Meeting will take place virtually.

the age of nuclear power and the OPEC oil embargo. Faced with leadership he perceived as "a closed shop, contrary from our group's opinion of the whole basis of the Co-op's origin," Bernstein and fellow organized members used the Co-op's democratic process to shift WEC's direction. Between the 1970s and 1990, WEC's emphasis on efficiency and renewable energy waxed and waned as majority interests shifted

Seven candidates run for WEC's Board of Directors
Meet them on p. 4

back and forth. Over many years of organizing and campaigning, WEC elected a majority of directors who wanted their local power to come from less environmentally destructive sources. Bernstein himself joined the Board in 1998 in order to have a more direct role setting policy. Four years later, WEC divested its shares in the Vermont Yankee nuclear plant. Three years after that, in

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Virtual Annual Meeting: May 5, 2022

For the third year, WEC's Annual Meeting will be held virtually. Join WEC's Board of Directors and staff via Zoom at 5 PM on May 5, 2022 for the Cooperative's business meeting.


The results of the Board of Directors election and proposed bylaw amendment vote will be published on wec.coop and go out by email to members subscribed to the digital version of *Co-op Currents*. A full report will run in the June issue of *Co-op Currents*.

Register anytime to attend the virtual meeting: contact Rosie at rosie.casciero@wec.coop or visit wec.coop/annual-meeting.

Washington Electric Cooperative
East Montpelier, VT 05651

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There are seven candidates in the running for three seats on the Board of Directors and a proposed bylaw amendment on WEC ballots in 2022. Look for your ballots in the mail in April!

President's and General Manager's Message

Vermont Sees Influx of Funding For Broadband Rollout

WEC plans a third virtual Annual Meeting; transformer shortage affects PowerShift

Broadband rollout

Steve: Vermont is experiencing an influx of funding related to high-speed internet. There are many more opportunities for federal funding for broadband through various forms: ARPA [the American Rescue Plan Act], NTIA [National Telecommunications and Information Administration], and the USDA ReConnect program, among others.

Louis: To be specific, Governor Scott proposed \$200 million to be newly allocated for broadband.

Steve: Yes. So the good news is there's significant money coming into the state for rural broadband. Any responsible organization willing to partner to benefit its members needs to look at

the financial landscape to see what its posture should be. WEC has the joint role of improving the quality of life for its members if it can while providing them reliable, affordable electric power from a financially secure business operation. I think it's prudent to remain flexible in our partnerships. It would be irresponsible to our members if we didn't.

Louis: I'll pick up on what Steve is saying to say that, in general, this overall project that CUDs [Communication Union Districts] and WEC are working towards – providing broadband fiber internet access – hugely benefits from additional grant money. That's true for all organizations. The more that can be done with grants, and the less that can be done with loans – whatever the source

of those loans – is good because it means no interest payments, and no need to pay back money at all. The news is positive for that reason. The likelihood of reasonably priced and reliable broadband high speed internet increases with every grant dollar put toward this project.

Steve: With broadband, our aim has been to find a way for all or most of our members can access high-speed internet in the near future, if they choose. While we would not be the actual broadband service provider, we would like it to be available at a cost that most people would consider affordable. High speed broadband is rapidly becoming a necessity for economic quality of life, business, education, and increasingly, medicine.

Annual Meeting and bylaws

Louis: We're going to have the Annual Meeting virtually in 2022. I'm particularly sad we can't have a traditional meeting this year. As the new General Manager, it would frankly be a lot of fun, in addition to an opportunity for learning, and I would really like to meet people in person. So, I'm sorry about this, but it's too likely we would plan the Annual Meeting and then need to cancel or go to virtual at the last minute, given the current COVID situation.

Steve: We're all disappointed. The Annual Meeting is an integral part of belonging to the Co-op for those who like to attend. One of the things that makes public power a positive thing is the ability for member-customers to meet directly with their staff and their fellow members who serve on the Board of Directors and voice their opinions and ask questions. It's a disappointment for all of us to lose that social gathering and forum for doing business, because it cuts at the heart of what the values of a cooperative are.

Louis: Hopefully we'll have an event later on in the summer where we can gather our membership in person, maybe outside, and we can meet each other and have these conversations face to face. In fact, I'm counting on it.

Steve: The Board approved a change in bylaws to allow for electronic voting for decisions to be taken by the membership. That adds to the ability to vote by mail as well as in person. This recommended change in the bylaws will have to go before the membership. So: members will need to vote by mail in order to approve a bylaw change that would allow for electronic voting in the future.

Transformer shortage

Louis: Steve and I talked in the last issue about the looming transformer shortage and the difficulty and expense of getting transformers. That's only gotten more severe, to the point where we're looking at several months out before we get some sizes of transformers. We have enough inventory now for the foreseeable future to keep the system operational. But we're going to need to slow down or halt installing new transformers for those things that are not essential

Co-op Currents

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The Board of Directors' regularly scheduled meetings are on the last Wednesday of each month, in the evening. Members are welcome to attend. Members who wish to discuss a matter with the Board should contact the president through WEC's office. Meeting dates and times are subject to change. For information about times and/or agenda, or to receive a copy of the minutes of past meetings, contact Administrative Assistant Rosie Casciero, at 224-2322, or visit wec.coop/board-of-directors.

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Louis: Another thing is, newly allocated funding would reduce the cost of a smart grid system for WEC. We also plan to use additional fiber for improved metering schemes with the potential for consumer-friendly rate structures.

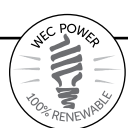
The additional money that goes into our shared project is indirectly beneficial – by reducing our overall cost, it reduces the cost of the smart grid part of the project as well. That's a secondary goal, but the Co-op's goal is to get a smart grid system built out faster and cheaper than we would be able to in the absence of the broadband project. That's one of the reasons WEC got into the project, and it's the arrangement that allows us to use federal electric utility loan money to support the project. So, building out our smart grid stands to benefit from broadband grant money as well. Which is great.

Steve: Once the situation gels and if the Board of Directors approves, we'll still come to our fellow members for a vote of approval of the final plan.

Louis: I agree. I don't think it's responsible for a member-owned organization to contemplate a significant increase in debt without hearing from members. The Board exists to ensure member interests are represented in the Co-op's policy decisions, but a broader question to the membership before we collectively undertake a loan is wise, whether it's technically required by law, or not.

Got something to say?

Letter to the editor, comment, or a story tip? Drop us a line at currents@wec.coop or Washington Electric Cooperative, Inc., P.O. Box 8, East Montpelier, VT 05651, Attn: *Co-op Currents*.



to keep our distribution system going, and that includes transformer upgrades for electric vehicle supply equipment [EVSE] for fast charging and elements of the PowerShift program, and possibly for some small net metering setups as well. The basic story is, we need to keep enough transformers on hand so that if we lose transformers in a storm, we can replace them to keep the lights on.

Many years ago, the Co-op and other utilities, at the urging of regulators, went to smaller transformers. The trend then was to use less electricity, and WEC installed a lot of five kilowatt transformers. In recent years, we've seen widespread recognition that beneficial electrification reduces our dependence on fossil fuels and lowers emissions. Electricity is a far lower greenhouse gas contributor than other sources, and of course WEC's power portfolio is 100 percent renewable. So recently, we've seen lots of those five kilowatt transformers coming out of the field and going back to the warehouse, and 10 kilowatt transformers and other sizes going out. But right now, with our stock so limited, we need to pause. Our first obligation is to make sure we maintain the electric grid we use to serve our members with power, and that may mean slowing down on some of the other uses.

Steve: It's difficult to do this at a time we're offering incentives to our members to exchange their internal combustion engine vehicles for electric vehicles. For those saying "I just bought this EV, why can't WEC be forward-looking and replace my transformer?" The answer



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— Louis Porter

is, running a utility requires constant maintenance and updates of the grid. At this point in the pandemic, it's hard to get the industrial materials that are essential to running a modern electric utility. But, eventually we will.

Louis: A lot of the reason is that once supplies begin to be constrained for some reason, people start buying up the supply — more than they would normally. The transformer shortage is due to all the labor and material shortage factors, but we and other utilities are also trying to buy more than we normally would, because we can't count on getting the supply we need. It's a self fulfilling prophecy. It's interesting.

Steve: We've seen this particular human quirk many times over the years.

I remember lines outside gas stations during the OPEC oil embargo in 1973. You see it in histories of financial panics, runs on the banks when there's a perceived cash shortage.

Board elections and the environment

Steve: I'm pleased to see that we have numerous candidates in this year's Board election. More members are contemplating volunteering their contribution to the Co-op. I have to say that being on WEC's Board has been very educational for me in understanding Vermont's energy landscape. I will value my education and experience here even after I leave the Board. It's something I encourage members to think about, if they have the time and inclination and willingness — whether at WEC or another cooperative or community organization. Serve a couple of terms, do your community a service, become knowledgeable at the same time.

Louis: It's impressive we're seeing the number of people interested that we are. Boards from nonprofits to school boards and zoning boards are struggling to get applicants, and I'm glad to see that serving our electric cooperative is exciting and interesting to people. Board service does not require a huge time investment, but it can be significant. We've seen a number of people interested in

or running for seats on WEC's Board. It's gratifying to see.

Steve: If I am being honest, I should not assume that I am sure why. But I can't help but think that the mind-boggling rate of change in the energy industry and its consequences for the future are engaging people's thoughts, and some are eager to have a role and play a part in a community organization dealing with practical issues. And voila! — here's a 100 percent renewable public power utility run by its members who oversee it, and attempt to keep it financially secure while focused on its future challenges and opportunities. Energy shapes our quality of life; how we get and use power is important for future generations as our climate continues to change. I think people are generally becoming more aware of the impact of our systems on the natural world we live in, and I'd like to think that's a positive recognition that drives an interest to serve one's community.

Louis: It's a positive for sure. We also may very well have experienced in our lifetimes the period of time in which the environment has had the least impact on human beings. The rest of our lives and our kids' lives may see a return to a time when the environment plays a greater role and has more of an impact on our lives, for good and bad. It's entirely possible the 20th century saw the period of time in which humans were most divorced from the environment. Resource scarcity may return to that not being as true in the 21st century as it was in the 20th.



WEC has the joint role of improving the quality of life for its members as it can with a focus on providing them reliable, affordable electric power from a financially secure business operation.

— Steve Knowlton


Steve: It's a sea change. In the past, people didn't vote on behalf of their great-grandkids, on behalf of people who hadn't been born. It's a new aspect of our society, trying making conscious decisions not only for ourselves but especially for people who are not yet born.

Appreciating Annie and Barry

Steve: I'd like to extend thanks and appreciation to my fellow Board members, Annie Reed and Barry Bernstein, who are not running for re-election after many years of serving our Co-op. I've enjoyed serving with them, and learning from them.

Louis: On a personal note, Barry leaving the Board hits me particularly. Growing up, my family was friends with Barry, and still is. Ever since I was fairly young, Barry was always synonymous with WEC. Coming in as General Manager at the same time Barry is leaving feels big. For that reason it's interesting for me to reflect on him leaving the Board.

Steve: That's a powerful sentiment. It speaks a lot for Barry and what he's accomplished.

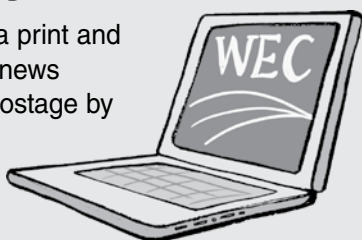
Louis: I think of it every time I look at the chart on my wall that shows WEC sources of power, 71 percent of which is Coventry. There were a lot of people involved in the work to source power from landfill gas, which would otherwise just be flared into the atmosphere, but Barry played a major role. It's a constant reminder of where our members' electricity comes from, and he was and is a substantial part of that. 

WEC Office Temporarily Closed to Public

WEC's East Montpelier headquarters is temporarily closed as a precaution during the COVID Omicron variant surge. We apologize for the inconvenience and appreciate members' understanding. Thank you for doing your part to keep our community safe.

Co-op Currents in your inbox

Starting in 2022, *Co-op Currents* is both a print and online publication. If you prefer to read your news online, you can save the Co-op paper and postage by opting out of the print publication and going digital-only. Subscribe and change your preferences anytime at wec.coop.



Efficiency Vermont rate reduction in 2022

As provided by state law, the Energy Efficiency Charge (EEC) is collected by all Vermont electric utilities and paid directly to the statewide Energy Efficiency Utility (Efficiency Vermont).

This year, Efficiency Vermont will continue to maintain a flat budget, while reducing residential EEC rates by 8 percent, and keeping commercial and industrial rates flat for 2022. Members may be eligible for services from Efficiency Vermont. Contact them at 1-888-921-5990.

The 2022 electric Energy Efficiency Charge (EEC) rates for WEC members are:

Rates for residential members: \$0.01093/Kwh

Rates for commercial members: \$0.01024/Kwh

Rates for members with demand charges (large power tariff):

\$0.00662/Kwh plus \$1.13825/Kw

Rates for unmetered security lights: \$0.01024/Kwh times nominal wattage of light times 360 hours per month

Monthly fixed fees for net metering members without production meter:

Residential: \$6.26 per month

Commercial: \$6.33 per month

Large Power: \$85.53 per month

Seven Candidates for Board of Directors

Vote by mail in 2022

Every year, WEC's membership elects three fellow members to serve on the Co-op's nine-seat Board of Directors. The members who serve in these critical roles oversee management and staff and make policy and leadership decisions for the member-owned electric utility.

In 2022, to date, seven candidates are vying for three seats. Two of these seats are vacant, as Directors Barry Bernstein and Annie Reed will not run for re-election. Steven Farnham of Plainfield is the sole incumbent running for re-election.

In alphabetical order, the remaining seven candidates are Susan Alexander of Cabot, Betsy Allen of Plainfield, Olivia Campbell Andersen of East Montpelier, Pat Barnes of Vershire, Rachel Onuf of Washington, and JJ Vandette of Middlesex.

Candidates may continue to enter the race until the March 7 final deadline.

In March, *Co-op Currents* introduces Board candidates to members. Please

read their introductory statements in this issue. In the April issue, candidates have the opportunity to expand on their introductory statement in answers to policy questions.

How to vote

In 2022, all voting will take place by mail. In April, you'll receive a packet containing ballots for the Board of Directors election and bylaw changes and the Annual Meeting issue of *Co-op Currents*. Check the deadline to post your votes by mail. WEC members may write in names of unofficial candidates. All candidates run at-large.

WEC will hold a virtual Annual Meeting on Thursday, May 5. There will be no opportunity to vote in person this year.

Susan Alexander

Despite reading *Currents* for decades and having seen vacancies on the Board come and go, I only

now find myself at that perfect intersection of time, opportunity, and interest to support WEC as a board member. I welcome the challenge of becoming fluent in the world

of electricity and utility regulation while bringing my own toolbox of skills and knowledge in continuing a solid path forward, maintaining the excellent service members expect, and supporting the organization and its leadership. In the years that I have been a member, I have seen WEC grow, change, succeed, and lead largely due to the cooperative model of customer engagement and support. I consider WECs renewable energy portfolio as a source of community well-being knowing there is stewardship and sustainability



underpinning our energy choices that fuel our daily activities. Working within my community to improve our overall health and well-being is a basic tenet of mine. Clean and affordable energy options are good for us in Vermont and for the planet and that is something I want to be a part of. Given the recent changes in both the staff and on the board makes applying for this vacancy that much more appealing to be able to learn and grow with these new professionals in the next leg of WECs history.

Betsy Allen

As a recently retired elementary public school teacher and math coach for elementary and middle school teachers, I would be honored to be elected to the Board of Directors for the Washington Electric Cooperative team.

During my 30 year teaching career, I had many opportunities to work with teacher and administration teams. I led many professional learning communities of grade level teachers, presented at staff meetings, and was a member of local and national math curriculum development teams, as well as a math coach to elementary and middle school teachers. Numerous workshops, the Snelling Institute, and several advanced degrees taught me leadership and team building skills that apply both to school and business settings and that I will bring to the WEC Board of Directors.

One of the reasons I am running for a position on the WEC board is that I have noticed how this cooperative really works hard to support our community and its members in many ways. They offer incentives for energy efficient heat pumps and water heaters, pellet stoves and furnaces, home electric car chargers with a power shift program, and the Community Fund. They recently revised the electric rate



Final call for candidates

Attention, members interested in running for WEC's Board of Directors: **March 7 is the deadline to submit all materials**, including support from a minimum of 25 WEC members. Contact Rosie Casciero today for a candidate packet: 802-224-2322 or rosie.casciero@wec.coop.

structure to reflect today's energy use. And they continue to evaluate utility resources and be 100 percent renewable. These business decisions are all made by thoughtful and caring Board members who work hard to serve our community members' electric needs.

The newest challenge is deciding about WEC's involvement to help provide fiber optic broadband service to our rural towns. This is a complicated issue that your Board of Directors and Manager have been researching. If elected I would learn more about this issue and how it may affect the financial future of the cooperative and members.

In short, I am excited to run for a Director position to join the WEC team of dedicated community members and employees who play such an important role in supporting our community and lives. I am a hard worker who will bring commitment to listen to and consider member needs as decisions are made. Thank you for your vote.

Olivia Campbell Andersen

As a family farm owner and mother, I deeply understand the need for reliable, affordable, and sustainable energy and connectivity in our rural community. Helping more of our neighbors access and benefit from local renewable electricity, cost effective electric vehicles, renewable heating (geothermal, heat pumps, efficient advanced wood), reliable high-speed internet, and energy efficient technology drives my interest in serving on the Washington Electric Cooperative Board.

Prior to founding Anderbell Acres, an organic flower, fruit, and gourds farm

and venue with her husband, Eric, and young daughter, Eleanor, Olivia served as Executive Director of Renewable Energy Vermont (REV), the state's non-profit

clean energy trades, advocacy, and education organization. Prior to returning to Vermont to lead REV, she advised Maryland's Governor on environmental, sustainability, energy, budget, agriculture, and transportation issues as Assistant Chief of Staff. She led sustainability, legislative and regulatory affairs, and communications for six years at the Maryland Department of Natural Resources. Olivia's career also includes time with Congressman Steny H. Hoyer, the National Wildlife Federation, and the U.S. Department of Energy's National Renewable Energy Laboratory. A Vermont Law School alumnus, Olivia and her husband returned to Vermont as the best place to raise their daughter. Olivia earned her undergraduate degree at Gettysburg College. When not working on the farm or advocating for the environment, Olivia enjoys exploring rivers and forests, cross country skiing, and biking rail trails with her family.



Pat Barnes

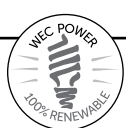
I have been a resident of Vershire for nearly thirty years. My career has been dedicated to science education, and my volunteer work has included community work as an EMT, a firefighter, a justice of the peace, a member of the Board of Civil Authority,

Strengthen democracy. Vote!

In 2022, at least seven candidates will compete for three seats on WEC's Board of Directors. For the first time in ten years, members will have the option to approve an amendment to the Co-op's bylaws.

Members have the power and responsibility to shape the future of the Co-op by voting in this year's election. All members will receive ballots and information by mail, and this year, members will return their ballots by mail.

Participate in democracy. Mail in your votes!



and a school-board member.

I would like to join the WEC board as part of the team that carries our Co-op toward the next era. I believe that Co-op members should



be producing and consuming more electricity. We need policies that enhance resilience by diversifying our renewable generation (such as solar and wind), while encouraging the transition to efficient electrical power for heat and transportation.

The challenges we face are numerous: increasing local use of electricity; maintaining our power lines in the face of powerful storms and forest threats (such as the Emerald Ash Borer), increasing our grid's capacity to accommodate distribution—all the while delivering premium service at an affordable price.

We will need to combine the right incentives and rate structures—wielding the Co-op's clout with the Vermont Public Utility Commission—to craft policies that serve our members in this decade and beyond. I believe I can bring a collaborative and resourceful energy to this mission.

Steven Farnham

Residence: Five generations of my family have been WEC members since power lines were strung across our farm in Plainfield, my home since birth. The farm's WEC membership has been in my name since 1995. You may contact me at Steven4WEC@Gmail.com, or 802-917-2581.



Background: Graduated local school system, secured Associate's in Electronics (with Honours) from VTC; subsequently furthered studies in Business Administration at UVM, and the International College of Cayman Islands. Early engineering career consisted of work at Mitel Semiconductor, GE, and DEC (Digital Equipment Corporation) in Quality Assurance, Manufacturing, Technical Support, and a summer job servicing substation equipment at Green Mountain Power. Recent endeavours include semi "retirement" in heavy equipment operation, selling agricultural products, carpentry, machinery repair & restoration.

Community: WEC Board since 2019, including service on the Power and Operations Committee, as well as present or past service on boards of Hunger Mountain food co-op, Vermont Philharmonic, and Cutler Library. Served with Cutler Friends of the Library, Plainfield planning commission, and Justice of Peace. Fifteen years host of weekly community affairs program - WGDR-FM. Judge at

Vermont State Science and Math Fair (now Vt STEM Fair), Volunteer at Barre Opera House, Lost Nation Theatre, and Montpelier Senior Activity Center (pre-CoViD). Forest Pest First Detector: Trained to recognise signs of various exotic invasive tree-eating insect pests.

I have participated in over 75 conferences and seminars aimed at land and woodland management, community/leadership development, environmental concerns and personal interest. These include: Arbour Day (6), Grazing (>5), Forest Ecology Monitoring Cooperative (5), NOFA-VT, Vermont Coverts Cooperator, Vermont Woodlands Association (>3), Abolitionist Challenge (2), Consumer Cooperative Management Association (4), Neighboring Food Co-op Association, Municipal Day (3), Slow Living Summit (3), VECAN (4), VNRC (3).

Current membership in five co-ops: Credit Union, Co-op Insurance, Energy Co-op of Vermont, Hunger Mountain Food Co-op, Washington Electric, and lapsed/past memberships in six others: Cabot Creamery, City Market (Onion River Co-op), Granite City Grocery, Onion River Exchange, Plainfield Co-op, Vermont Development Credit Union (now Opportunities Credit Union).

My affinity for co-ops stems from their obligation to serve their members. No IOU can make that claim. Washington Electric Co-op serves its members well; I am committed to seeing this continue and improve. It's been an honour to serve my first term; I'd appreciate your support to serve another. Thank you.

Rachel Onuf

The pandemic has gotten me thinking about essential work and essential services. As I sit in my home office on an old side hill farm, peeking out at the sheep in the barnyard, I am grateful for the people who continue to go to their workplaces, ensuring that the grocery store is open and stocked, that the sick are cared for, that the lights stay on. I find myself wishing my day-to-day work was more essential. I love my job as Director of the Vermont Historical Records Program, and enjoy the many opportunities I have to interact with Vermonters, but helping them preserve and provide access to historical records, much as local historians and archivists may value it, is not likely to make anyone's top ten list of essential jobs. I think my desire to run for a seat on the WEC Board is because I am seeking a way to be more essential to my community. Participating as a Board member would be to contribute, in a small way, to an organization that provides an essential service.

Since becoming a WEC member in 2017, I have been proud that our electric utility is a cooperative and that our power is derived from 100 percent renewable sources, and have

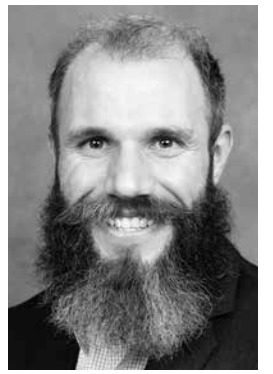


appreciated how well the Board and staff keep members informed through *Co-op Currents*. It seems like WEC is at a crossroads, with big decisions to make about issues like whether and how to participate in the rollout of universal broadband. The stakes are high, and not just because of the millions of dollars floating around. As an information professional, I am deeply invested in equitable access to information, and these days so much of our essential information, including classes, telehealth appointments, and the news, comes to us via the Internet. From my vantage, I see parallels between the Rural Electrification Act and universal broadband, and it seems natural and just for WEC to be involved in securing affordable Internet access for all of its members...but I also realize how little I know about the complexity of the interplay of the various stakeholders involved. I want to know more. Being a WEC Board member would be an opportunity to dive deep into this issue – and many others – and to work with the rest of the Board to make good decisions that have a positive impact for our members.

JJ Vandette

I grew up in New Hampshire, and I studied business and environmental studies at the University of Utah before boomeranging back to New England. I hiked both the Long Trail and the Appalachian Trail end-to-end, and then landed my first job in Vermont in 2010. I have been planting roots here ever since. I can be found outside in all seasons, gardening and biking in the warmer months and snowboarding and cross-country skiing in the winter.

I have more than a decade of experience in the energy industry, and I am looking to bring this experience to bear for the Co-op. I am a certified Project Management Professional, a certified Business Energy Professional, and I have a Power Grid School Certificate from Michigan State's Institute of Public Utilities.



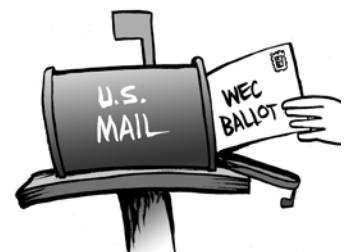
Apply for up to \$30K in grants to cover COVID-related hardship

Vermont is accepting applications for its Homeowner Assistance Program, funded by the American Rescue Plan Act. Eligible applicants facing COVID-related hardship may receive up to \$30,000 for overdue mortgage payments, utility bills, property taxes, and association fees.

Visit vermonthap.vhfa.org or call the hotline at 833-221-4208, 9 AM-4 PM Monday through Friday.

Bylaw amendment on the ballot in 2022

In 2022, the Board of Directors will put forth an amendment to WEC's bylaws under Article II: Meetings of Members. The proposed bylaw amendment will allow for electronic meetings and electronic voting among the membership. Full text and context of the proposed bylaw amendment and a ballot will be mailed to all members along with the Board of Directors election ballot and the April issue of *Co-op Currents*. Find the bylaws on wec.coop or call 802-223-5245 to request a copy.



Supply chain delays disrupt PowerShift program

WEC is facing multi-month transformer shipment delays, which may impact members' ability to add new large electric loads to their homes. If you are considering adding an electric vehicle or other large electric load to your home, call WEC first: 802-223-5245 or toll-free at 1-800-932-5245. We can assess your current transformer load and provide guidance.

Due to supply chain delays, PowerShift enrollment is suspended until late 2022. If you would like to join the program when it reopens, fill out the form at efficiencyvermont.com/powershift. Space is limited and devices are available on a first come first served basis.

What's your internet story?

As WEC works to make high speed internet available to all members, *Co-op Currents* is looking for stories from members about the role broadband – or the lack of it – plays in their lives. Drop us a line at currents@wec.coop.

Outgoing Directors

continued from page 1

2005, WEC opened the landfill-gas-to-energy plant at Coventry landfill, which captures landfill methane to provide, currently, more than two-thirds of the Co-op's power. "What we wanted was stable, long term, in-state, renewable power. It was one of the best economic decisions the Board made, because it's one of our least expensive sources of power," he said. WEC was the first utility in Vermont to provide power from 100 percent renewable sources.

Reed has lived on Hollister Hill in Marshfield since 1978, but she lived off the grid before she finally installed a meter – she needed to power her laptop to complete her Master's degree in environmental science. Reed joined the Board 12 years ago at the suggestion of a friend. "I did it because it was fun," she explained: she liked the crash course in utility and cooperative operations; she liked the problem-solving and visioning that happened in Board meetings. The other reason she joined, she said, was "really about the way Washington Electric participates in the community here." For example, WEC's Community Fund design resonated with her: members can donate the money returned to them in the form of capital credits, and the fund distributes grants to small nonprofits in WEC's service area.

Bernstein described Reed as "a Board member who actually gets her hands in the dirt," whether it's planting pollinator gardens, or continually bringing Board conversation back to focus on how each decision affects the membership. Her voice demonstrates why representation is important in policy making: well-intentioned "solutions" can have unintended consequences if they're implemented top-down.

"When the PUC [Public Utilities Commission] said to the electric industry, 'you have to start offering incentives for people to cut their fossil fuel use,' we had the choice of giving subsidies to people who put up solar panels, heat pumps, solar hot



Annie Reed at home in Marshfield, next to the WEC pole that holds her transformer.

water. All of these things were really only available to people who had the money to pay for them," said Reed. "Our Board said, 'Weatherization has to come first. Give the incentives to people who don't have the money, not incentives for people who already have a lot of money.'" As a result, WEC designed its Button Up program to focus on weatherization, and has built partnerships with Capstone, Efficiency Vermont, and others to further reduce economic barriers for its membership.

Bernstein has witnessed an interesting twist develop in WEC's positions on energy efficiency and beneficial electrification. For years, WEC's rate structure incentivized using as little electricity as possible. That's a counterintuitive stance for an entity whose survival hinges on selling electricity – even a cooperative. But recently, WEC adjusted its rate structure to encourage members to use electricity for more than just lights, but also heating and driving. WEC's 100 percent renewable electricity, almost all locally generated, has far less environmental impact than pumping, refining, shipping, and burning fossil fuel. That increases

the impact when members use it, Bernstein said. "We had all the right ingredients to address climate change by encouraging our members to switch from fossil fuel to renewable electricity to meet their needs."

Bernstein has made it clear it's not that he's in favor of buying new stuff in general. Instead, he's strongly in favor of replacing old, inefficient devices with electric ones. And, he said, we all need to be informed, restrained consumers. Beware of greenwashing. "I'll give an example," he said. "We've supported net metering as a Co-op. But when people put up an intermittent resource such as a solar panel, and that in effect replaces 24/7 renewable energy the Co-op has already invested in, is that a wise decision?"

Part of his reasoning is because the high price the Co-op is required to pay for net metered power contributes to rate increases that affect members who do not net meter, and are, generally speaking, less affluent than members who can afford to install solar.

The other reason is the extractive cost of the panels themselves. "Everything has an environmental cost. Solar panels come from China. Those

workers are not guaranteed fair wages nor good working environments. They produce most of the power they use to build things with coal: China burns seven to eight times more coal than we do in the US," he pointed out. Yes, solar panels are an important tool to offset fossil fuel generated power. But when they're installed in WEC territory, are they really green? Or redundant, and contributing to inequity? Bernstein said it's important for incoming Board members to have the ability to think about energy in a nuanced way, without setting hard lines around what's good and bad, and to stand with integrity.

"People are really conscious that our actions affect the climate, and we see it's deteriorating. What I am seeing is people are more and more interested in how to conserve energy, how to get off of fossil fuels," said Reed. On May 30, 2018, WEC's Board formally adopted the first climate change statement made by a Vermont utility. In it, WEC called on the electric cooperative associations to which it belongs to take meaningful action, including legislative advocacy, to reduce the industry's contributions to global warming.

Reed also sees the statement as a way for WEC to hold itself accountable. While leadership may change, the climate change statement does not. It helps the Board consider "in everything that we do, how our actions impact the earth and the membership. It's felt like an anchor, something we could sink our teeth into and mobilize around," she explained. (WEC's Climate Change Statement is printed in full below).

While Reed and Bernstein will no longer directly shape Co-op policy, the statement is a way to ensure something particular about WEC continues. Bernstein likes to talk about the Cooperative Difference – what co-ops offer their communities that for-profits do not – but he also sees WEC as a cooperative unique among cooperatives.

"There are over 900 rural electric co-ops in the US," he said. "One of the things that sets Washington

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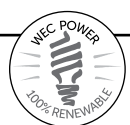


Barry Bernstein joins fellow Directors at Coventry in 2018, greeting WEC members and visitors to an open house at WEC's landfill gas-to-electricity plant. L-R: Barry Bernstein, Don Douglas, Cal Titterton, Roger Fox.

Washington Electric Co-op's Climate Change Statement

Adopted by the Board of Directors May 30, 2018

The WEC Board of Directors acknowledges that rapid global warming and associated climate instability are real, and are significantly attributable to human activities. We are concerned that global warming presents great risk of serious and negative economic, environmental and health ramifications to humans, along with challenges to the continued existence of numerous other forms of life on this planet. WEC urges NRECA [National Rural Electric Cooperative Association] and NEAEC [Northeast Association of Electric Cooperatives] to support meaningful efforts on the part of the electricity sector to address global warming, including legislation at the federal, state, and local levels to mitigate the harmful effects of climate change. An effective response must also address financial impacts incurred by cooperatives burdened with legacy power supply commitments.



2021 Service Reliability Index

In 2020, problems on transmission lines were a major cause of WEC outages. Upstream of the Co-op, faults on the high-voltage lines that bring power to WEC's substations caused more than half of the hours WEC members were without power.

This past year, members spent a lot less time in the dark. WEC power in 2021 was at its most reliable since 2018. Even though the number of

separate outages on WEC lines was up, the number of hours out was down about 10 percent over the average of the previous three years. That's an indicator of improved transmission service, and also shows that protective devices on the lines and ongoing right-of-way clearing do a lot to shorten the time it takes WEC line crews to restore power.

WEC also saw fewer major storms

in 2021, with only two weather events meeting the criteria (one in January, one in May). In both cases, trees from outside WEC's rights-of-way toppled into the lines, causing damage.

For 25 years, WEC has worked to improve reliability by making the construction of its distribution system more resilient to storms and climate change-related damage. Every three years, WEC goes through the process

of developing a Construction Work Plan (CWP) with the approval of the Co-op's primary lender, the Rural Utilities Service (RUS), a division of the USDA. The current Construction Work Plan runs through 2022.

Over the last three years, WEC's Board of Directors approved right-of-way clearing budget increases. These increases are intended to build resilience by proactively clearing ash trees in the path of the destructive emerald ash borer, removing other trees observed to pose a danger to the lines, and clearing the rural ends of the distribution lines. Members at the ends of WEC's lines, farthest from substations and beyond the protective devices that minimize the number of members who lose power when there's a fault on the line, experience the most frequent and severe outages. 75 percent of outages occur at the ends of lines; it's a statistic that hasn't changed in years.

In 2021, the widespread labor shortage was the major issue affecting WEC's system. Proactive tree clearing is only possible when there are tree crews available to do the work. And because WEC does not use herbicides on its rights-of-way, all tree clearing is done with hand tools or by WEC's forestry head skid steer. "During the first half of 2021, WEC was not immune to the shortage of employees and due to tree clearing contractors not having available personnel, WEC only had one tree clearing crew working during that time," wrote Dave Kresock, WEC's Director of Operations & Engineering, in his annual report to state regulators.

The good news is that by late summer, WEC was back up to three tree clearing contracts. The last one was able to provide up to eight crews, Kresock said, and is continuing its contract into the 2022 season.

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2022 extension of 2021 Button Up incentives

Until the full set of 2022 incentives is buttoned down, WEC members may continue to button up with extended 2021 incentives. Incentives will update soon; details to follow in upcoming issues of *Co-op Currents* and on wec.coop.



Button Up 2021 Incentives for WEC Members

Thermal Incentives

Weatherization



WEC

- Weatherization improvements to building shell: \$600 for Home Performance with Energy Star contractor

Efficiency Vermont

- Receive 50% of project costs back, up to \$1,000.
- WEC member households may be eligible for 50% of project costs, up to \$3,000; see eligibility, here: <https://www.encyvermont.com/rebates/list/home-performance-with-energy-star>

Heat Pump Incentives

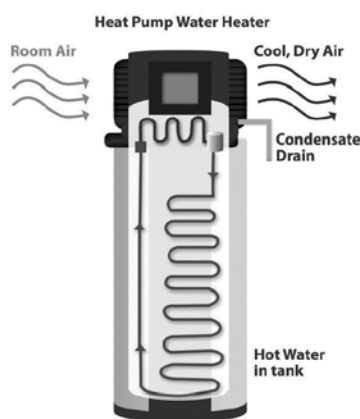
WEC & EVT 2021 Heat Pump (HP) Incentives¹

A qualifying house meets or exceeds minimum thermal standards (VT Residential Energy Code)

	Point of purchase discount ²	WEC bonus incentive ^{3,4}
Ductless - ≤2 tons	\$350	\$250
Ductless - >2 tons	\$450	\$250
Ducted - ≤2 tons	\$1,000	\$250
Ducted - >2-<4 tons	\$1,500	\$250
Ducted - ≥4 tons	\$2,000	\$250

Air to water (A2W) heat pump \$1,000/ton

Ground source heat pump Coming in 2021



- 1 Qualified by Efficiency Vermont
- 2 Point of purchase discount applied; provided by Efficiency Vermont
- 3 HP installed in building meeting/exceeding thermal standards (VT residential energy code)
- 4 Contact WEC for eligibility for bonus incentive

Heat Pump Water Heater (Hybrid) Incentives¹

	Point of purchase discount ²	WEC bonus incentive ⁴
Replacing conventional electric hot water	Up to \$600	-
Replacing fossil-fired hot water system	Up to \$600	\$250

WEC encourages members considering purchase of HPWH to select unit with CTA-2045 communication port, to enable future participation in a Co-op load management program

Pellet Stoves, Furnaces, and Boilers Incentives



WEC

- \$250 for either a qualifying pellet stove or a wood stove. Stoves must be installed by qualified installer.
- Pellet furnace: \$1,000
- Pellet boiler: \$1,000

Efficiency Vermont*

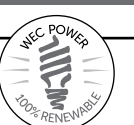
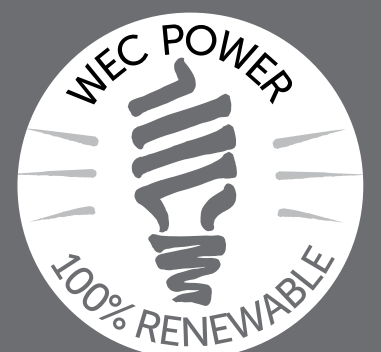
- Pellet stove: \$200 when installed by qualified contractor
- Pellet furnace or boiler: up to \$6,000

Note: Incentives of over \$600 or more require a completed W-9 form. See <https://www.washingtonelectric.coop/energy-coach-home/>

*Offers subject to change. See EfficiencyVermont.com for current details.

802.224.2329 • energycoach@wec.coop

Go Green.
Go Electric.
Go WEC!



What is a Mini-Split Heat Pump?

By Allison A. Bailes, III, Energy Vanguard

Ah, mini-splits. They're all the rage in the world of high-performance HVAC. But what exactly is a mini-split heat pump? Unfortunately, the terminology around this technology is confusing because it's used so inconsistently. Let's start at the beginning. (Well, OK, not all the way at the beginning. I'm not going to explain what a heat pump is, but here's a primer on how they work for heating.)

The basic meaning

The term "mini-split" itself originally referred to a split system heat pump (could also be an air conditioner) with a smaller capacity than conventional systems. In that sense, a mini-split is just what its name says it is: a small split system heat pump. Where it gets confusing is in the different ways manufacturers make these lower-capacity, split-system heat pumps.

A mini-split, for example, can have a conventional fixed-capacity compressor or an inverter-driven variable capacity compressor. So, a mini-split could be a conventional heat pump that's just smaller. Or, it could be a smaller heat pump with variable capacity. The former type is rare, though, so when you hear the term "mini-split," you should think of the type with the inverter-driven compressor with variable capacity.

But it gets worse. This type of heating and cooling system has outgrown its name...at least the "mini" part. Yes, you can still get them down to a half ton of capacity (6,000 BTU per hour), with smaller capacities on the way. But you can also get mini-splits that have a capacity of 4 tons (48,000 BTU per hour), which is far from "mini."

Is it a mini-split...or a multi-split?

Another confusing area is that with this type of heat pump, the outdoor unit can be connected to one indoor unit (referred to as one-to-one), or it could be connected to multiple indoor units. Some people distinguish these two types by using the term "mini-split" only for the one-to-one configuration. When you have more than one indoor unit on a single outdoor unit, that's a multi-split heat pump, they say.

The wall-mounted ductless mini-split heat pump in my sunroom. This is the only indoor unit connected to the outdoor unit, making it a one-to-one setup.

If we go with that dividing line, I have both a mini-split and a multi-split in my house. The main part of the house is heated and cooled with one outdoor unit connected to two indoor ducted air handlers. That would make it a multi-split. I use a one-to-one ductless system for my sunroom.

Are all mini-splits ductless?

And then there's the issue of the type of indoor unit. Some are ductless, and they come in different flavors: wall-mounted, ceiling cassettes, and floor-mounted. Others are ducted, and they come in horizontal ducted or multi-position types. Some people use the term "mini-split" only for ductless indoor units. Others refer to any type of split system with smaller capacity as a mini-split, no matter whether the indoor unit is ducted or ductless.

One of the ducted air handlers for the mini-split heat pump being installed in my house in 2019

I use the term "mini-split" for all of the above. Since mini-splits with fixed-capacity compressors are rare, you

don't really need to worry about that confusion. If you're talking to someone about mini-splits, you should be able to tell from the context how they use the term. If not, ask them to clarify.

Inverter-driven mini-split heat pumps

Inverter-driven mini-split heat pumps are the future for high-performance homes. I've got them in my home, and it's what we specify in a majority of our HVAC design jobs at Energy Vanguard. Their high efficiency and variable capacity that can ramp down to very low values are perfect for superinsulated, airtight homes. And they work well in less efficient homes, too.

They give you a couple of other benefits as well. Their lower capacity means you can zone your heating and cooling with separate pieces of equipment. And using separate pieces of equipment provides resilience. If one heat pump stops working, you can still

heat or cool the parts of the house that have operable equipment.

One final point here concerns the one-to-one configuration. If you want the highest efficiency, the best zone-to-zone control, and the most resilience, use only one indoor unit on each outdoor unit. Multi-split systems can work fine, but they're just not as good as one-to-one setups.

Allison A. Bailes III, PhD is a speaker, writer, building science consultant, and the founder of Energy Vanguard in Decatur, Georgia. He has a doctorate in physics and writes the Energy Vanguard Blog. He is also writing a book on building science. You can follow him on Twitter at @EnergyVanguard.

This appeared on the Energy Vanguard blog on January 24, 2022. Reprinted with permission. energyvanguard.com/blog/what-is-a-mini-split-heat-pump

Outgoing Directors

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Electric apart is that the Board made a commitment in the 1990s to speak out on issues on behalf of both our members and the ratepayers of Vermont. We took as our responsibility to be a voice, to be the yardstick for measurement, on things we thought were critical to the discussion on energy policy and the environment, and also, to show by example." He described helping members practice energy efficiency, investing in renewable power, advocating for more representational interests on the board of VELCO, the statewide transmission utility owned by distribution utilities.

Bernstein and Reed see that work as the direct legacy of WEC's founders. "It's really important that WEC stay grounded in the values that started the Co-op, and which are

reinforced by many of the things Annie and I and others have done," Bernstein said. "We're not going anywhere – we're still getting electricity from the Co-op! We're just getting off the Board, and we expect new leaders to come on and carry on that tradition," he continued. "It's not about us, it's about our grandchildren. Annie, I'm very grateful to have had you on the Board."

"Thank you, Barry," responded Reed. "You're one of the reasons I've loved it so much."

Thank you, Annie Reed

You caught typos with warmth and wit
And kept infinitives unsplit.
We'll miss you!

— The Editorial Committee

Service Reliability

continued from page 7

874: separate outages on WEC's system in 2021

730/589: number of separate outages on WEC's system in 2020 / 2019

84,479: number of WEC consumer hours out in 2021, not including major storms

94,525: The average annual number of consumer hours out over the last three years, not including major storms

2: 2021 weather events that met "major storm" criteria: January 16-17, May 25-26

75%: number of outages that take place at the "end of the line." No change from previous years.

51.6: miles of distribution line that received maintenance clearing in 2021

26: miles of line cleared by WEC's skid-steer forestry head mulcher

1: Number of tree clearing contractors working for WEC during the first half of 2021

3: Number of tree clearing contractors working for WEC during the last half of 2021

For updates about where tree crews are currently working to clear rights-of-way, look for the "Where's WEC" column in most issues of *Co-op Currents*.



In 2021, WEC's forestry head skid steer cleared just over 26 miles of dense brush in the Co-op's Rights-of-Way. That's approximately the same distance as a marathon.

