

Incumbents Re-Elected, Storm Resilience Focus of Annual Meeting

Storms and an equitable energy future discussed at first in-person Annual Meeting since 2019

Three incumbents were re-seated on WEC's Board of Directors at the Co-op's first in-person Annual Meeting in three years. Don Douglas of East Orange, Jean Hamilton of Plainfield, and Mary Just Skinner of Middlesex won re-election. Carl Etnier, of East Montpelier, a first-time candidate for the Co-op's Board, received the fourth-highest number of votes. "Carl, I'm happy and proud you threw your hat in the ring," Board President Stephen Knowlton told him, to which Etnier doffed his cap.

The Annual Meeting took place in WEC's Operations Center, where a few dozen transformers were ready for deployment. Most were ordered in 2020, and only just delivered after three years tied up in the supply chain. Members, staff, and guests mingled and enjoyed farm-to-table dining from Sugarsnap Catering. Lieutenant Governor David Zuckerman, Vermont Community Broadband Board executive director Christine Hallquist, and Energy Action Network executive director Jared Duval were a few of several policy and energy leaders present. Kyle MacDonald from Capstone talked with members about low-cost weatherization opportunities, and Paul Lambert from Efficiency Vermont handed out free energy-saving kits stocked with LED lightbulbs.

Officers' reports

Knowlton reflected on the importance of gathering as the members and co-owners of a community electric utility. Looking toward a changing energy future and WEC's role in distributing electricity, Knowlton said he's proud that even before he joined the Board, WEC worked to provide renewable electric power "to all its members, equitably, and to assign cost of service equitably." He continued, "It's crucial as WEC members we strive to share the risk and reward equitably. That's why we own the thing."

Don Douglas was blunt in his report as Treasurer. "2022 was a difficult financial year for the Co-op," he said, because construction at the Coventry landfill limited gas production, and the Co-op was forced to buy power when market prices were high. The rate increase that took effect in November is still under regulatory review, but Douglas reported it would be lower than the 14.9% requested. Members will be refunded the percentage point difference on bills paid during review. Net positive margins at the end of 2022, and a satisfactory three-year average, satisfied WEC's lenders, just barely, said Douglas. When WEC has net positive margins, he

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WEC President Stephen Knowlton addresses members on May 4 at the first in-person Annual Meeting since 2019. Incumbent Board members Don Douglas, Jean Hamilton, and Mary Just Skinner were re-elected to their seats.

New Incentives Through Federal Inflation Reduction Act

Federal legislation includes \$369 billion in climate and clean energy investments, distributed through grants, loans, and tax incentives.

The 2022 Inflation Reduction Act represents a long-term, massive investment in a clean energy economy. Elements of the bill are intended to support beneficial electrification — the term used by WEC and others to describe replacing devices powered by fossil-fuel combustion with devices powered by electricity in order to reduce greenhouse gas emissions. Overall, the act aims to cut U.S. carbon emissions by more than 40% by 2030.

The funding exists, but the plan is just now coming together. Incentives will be available for decades to come. Those charged with implementation

are only just exploring the details: how to stack or roll back existing state and utility incentives with the new federal funding, and how the act will interweave with Vermont's nascent Clean Heat Standard, which was just passed in May as S.5 through a legislative override of the governor's veto. Nationally, political wrangling over the U.S. debt ceiling is another factor affecting funding deployment. More guidance for residential rebates is expected later this season.

States will manage how incentive funding is disbursed. In Vermont's

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Washington Electric Cooperative
East Montpelier, VT 05651

Inside

WEC leverages HQ contract arrangement: Planning paid off, announce Louis and Steve. As members' electricity use rises, WEC turns to longstanding deal with Hydro-Québec to supply baseload power. President's and General Manager's message, p. 2

Safety Minute: A new feature from safety specialist David Young. P. 8.

Bidirectional charging: Tech advances mean your next EV could provide whole-house battery backup during outages. P.7



Time capsule: What elementary school students learned from the Energy Coach —15 years ago. P. 8.

President's and General Manager's Message

WEC Accesses Contracted Hydro-Québec Power

Longstanding contract provides 2 MW of baseload power as Co-op members' winter needs and WEC's electric peaks rise. Also: member education around EV charging, adding load, and safety

Background to Hydro-Québec contract

Steve: In 2012, WEC negotiated a new 25-year contract with Hydro-Québec [HQ], and the Board at that time approved it. At the time, WEC did not have a crucial need for this power. Our load was declining due to rates that promoted efficiency, and our output capability from our Coventry landfill gas to electricity plant was steadily inching up. Nonetheless, our dependency on Coventry for most of our purchased power has always held some risk, and it was deemed prudent a decade ago to diversify our potential power supply portfolio as insurance. In the meantime, we arranged with Vermont Electric Co-op to share this

contract with us until we needed that power for our members. They've purchased and used four megawatts of power from this contract since it started. Now the wisdom of providing this insurance policy has paid off, in my opinion.

Louis: There's that, and also load in Washington Electric territory is increasing as beneficial electrification is increasing, with members using more electric power. We're seeing higher peak loads in our territory now after years of decline or flat loads. We need the additional power, and it's available to us, so we're taking back two megawatts of Hydro-Québec power.

It's important to clarify that this is

24/7 baseload power. It's available when intermittent renewables are not. It will serve us well during the winter when solar doesn't generate as much.

None of this is unexpected. It was always anticipated the additional power would be needed, and that it would be needed about this time. The power represented in this contract is to come to either WEC or VEC. To date we haven't used it, so VEC has used it, and now we need it. Washington Electric is exercising an element of a contract that's long been in place, and has long been understood would be exercised.

Why use HQ power

Steve: There are three big reasons we're taking advantage of HQ power, and Louis pointed out the most important reason.

First, state and national policy on electric use changed dramatically over the last decade. No longer do policies primarily incentivize conserving clean electricity. Now, state policy calls for increasing electric use as the best environmental option for powering more of our needs. So, WEC members' need for electric power is projected to increase.

Second, through actions at the Coventry plant related to the landfill expansion, the landfill gas output over the last year and a half decreased. To compound that, as we all know, power prices in the winter of 2022 spiked as we were obliged to purchase power at market prices. That drove our need for a rate increase. Being able to purchase renewable power with contracted pricing should alleviate this to a large extent.

So there are at least three reasons for why we need reliable baseload power. We expect our members will have a growing need for power over the next few decades, and we need a plan for reliable all-season power, especially over the winter months. This is a challenge for us and I expect most regional electric utilities face the same challenge.

Louis: It's important to add, Steve, load management systems and battery systems in future years may help greatly. These would be able to match load, or how much power our members require, with when generation systems are producing power. But we're not there yet. Our gap between load and generation is primarily in the wintertime, when solar, at least, is not as helpful.

This is stably priced reliable power with predictable pricing and it's available to us for times when we're now buying power from the New England market. Washington Electric buys RECs [Renewable Energy Credits] to make that power we purchase from the grid renewable. Power from HQ is also designated as renewable. It's not new development, and it's power that has and will continue to come to Vermont.

Steve: If we can't get reliable power from HQ or other relatively clean energy sources, we purchase power from ISO-NE [the New England grid]. Energy on that grid is not considered as clean, although New England's portfolio is considered to be cleaner than most other regions of the country.

The thing is, we need this power now. I appreciate the foresight of the WEC Board and staff when they set up this option in the last decade. If we had to scramble now, we might have delays and higher costs in getting this power.

Board of Directors election

Steve: I want to commend WEC's ballot committee for running a smooth election. I thought it went very well without any hiccups, just like it should.

Louis: I'm very encouraged that we've had a lot of very strong applicants for the Board in the last year and a half, the time I've been here. It's hard to get people to serve, whether it's in government or the fire department or anywhere else, so it's very encouraging seeing people are engaged and wanting to run.

Our turnout at the Annual Meeting was strong, and that's also encouraging. Annual Meetings are how member-led organizations engage their member-owners, provide them a forum to make their opinions

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Co-op Currents

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WEC is part of the alliance working to advance and support the principles of cooperatives in Vermont.

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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.

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known, and engage in the democratic process. For our first Annual Meeting after COVID, such a strong attendance was terrific and I was happy to see it.

Steve: Congratulations to my fellow Board Directors Don, Jean, and Mary, on their re-election. It's not unusual for incumbents to be reelected to the Board, and I want to thank Carl [Etnier] for throwing his hat in the ring as a candidate. The tally showed he had significant backing for serving on the Board. There's value in running, and providing new ideas, and letting the membership know there are members interested in serving. I commend him for running and I think he had a respectable response from voters.



As a longtime electric vehicle driver, I can speak to one topic addressed in this issue. Simply because you buy an EV doesn't mean that you need to get a Level 2 charger installed at your home.

– Stephen Knowlton

Louis: There are a lot of members waiting for transformer upgrades to start adding new electric devices, like Level 2 chargers. We're starting to get some transformers in. We just got some we ordered three years ago, and we have pending orders out there. Soon we'll start working through the backlog of requests we have, but it's a large backlog. The problems with the supply chain took a long time to build up, and it'll take a long time to undo it. In the meantime people can get by with Level 1 EV chargers, and as Steve points out, that's enough for many people overall.

So, we're addressing the backlog. I will say without the careful

rationing of transformers and other components, we would not have been able to recover from the Christmas winter storm. We were only able to do that because we were careful about when and where we used components, because we simply couldn't get them. We're still dealing with prices more than doubling in some cases, but we're seeing signs of some relief in terms of supply.

On the topic of education: this is always an issue, but we're having more of an issue than normal with people not reaching out to us before they add load. Whether it's cannabis companies or people adding devices that increase load, people seem to think, or be told, that they can just add more and more devices that use electricity, and it won't cause an issue. But it does. I encourage members to reach out to us as early as you can, and understand it'll be a process.

For those who don't want to deal with the process, please understand the alternative. The time spent is preferable to putting your neighbor out of power when you overload the transformer, and cheaper than the after-hours deployment of line crew for emergency repairs. So, yes, while there's a process, it's better to know ahead of time what you're getting into, rather than having a surprise that will potentially put you and your neighbors out of power and cost a significant amount of money.

When it comes to paying for the costs caused by overloading a transformer, the Co-op's approach is that those who cause the expense should pay for it. So, if somebody does something like dropping a tree on a line or overloading a transformer, those expenses fall in large part on them. That's a different approach than some utilities take, but the Co-op only has two places to go to pay for those expenses: all membership at large, or the person responsible for the expense. So a large part of the expense goes to the member.

Steve: Before you make any big changes to your electric load, you should call a licensed electrician anyway. An electrician can tell you whether your added load will overload the panel in your house, and that may impact your possible need for a new transformer.

Louis: That's a great and sensible place to start. For anything beyond




We're seeing higher peak loads in our territory now after years of decline or flat loads. We need the additional power, and it's available to us, so we're taking back two megawatts of Hydro-Québec power.

– Louis Porter

simplest things, you really need an electrician to do that.

One last thing: Members at the Annual Meeting may recall our Safety Minute feature with our Safety and Environmental Compliance manager, David Young. I'm glad that in this issue, we're starting a new Safety Minute column to help educate members about safety. That's a core value for us. Here at WEC, we take it as part of our jobs to educate members about education and energy use in general. That's unusual compared to an investor owned utility, but I think it's important as part of a member-owned and

community-owned organization. 

Member education theme

Steve: In addition to Annual Meeting and election results, this issue's theme is member education. As a longtime electric vehicle driver, I can speak to one topic addressed in this issue. Simply because you buy an EV doesn't mean that you need to get a Level 2 charger installed at your home. Maybe you will, maybe you won't. It depends on how far you expect to drive every day. Any major purchasing decision we make should be made based on our personal experience and personal needs. I knew I wasn't likely to be driving 100 miles a day and a regular 120 volt socket suits my needs.

WEC Rate Case Approved

The Public Utility Commission has approved a rate increase for Washington Electric Cooperative of 12.83%. While that is less than the 14.19% originally requested by the Co-op, it will provide sufficient funding for WEC to operate and meet the financial requirements of its lenders.

As is typical for cooperative and municipal electric utilities in Vermont, WEC put its proposed new rates into effect in November after the case was filed. As soon as the PUC has approved WEC's plan to refund the excess amount collected on bills since November, the Co-op will return that amount to members through a bill credit or a check, if they are no longer on WEC's lines.

The rate increase was primarily driven by an increase in power supply costs for the Co-op, and other utilities in Vermont have filed for similar rate increases.

Where's WEC?

Summer is here, and crews are busy working to keep rights-of-way clear. Right-of-way maintenance is necessary to keep your power safe and reliable.

Where are tree crews trimming WEC's roadside rights-of-way?

Woodbury roads:

- Bliss
- East Hill
- Keene Farm
- Sawmill
- Shadow Lane

Cabot roads:

- Jug Brook

Duxbury roads:

- Grout
- Morse

For the most up to date information: wec.coop/wec-operations/right-of-way-notice



Crews are busy keeping rights-of-way clear in order to prevent tree-related outages. All WEC rights-of-way are maintained by hand, and without herbicides. Watch for roadside crews, and drive safely.

Member Education: WEC Offers Presentations

Want a visit from WEC for your school, office, neighborhood association, or community group? As a member-owned cooperative, WEC staff love opportunities to help our community learn about power and electrical safety.

- Safety demonstrations: David Young: 802-224-2340 or david.young@wec.coop
- New technologies and how our grid works: Energy Coach Bill Powell: 802-224-2329 or energycoach@wec.coop



Falling in Love with Strangers

Erica Heilman of Rumble Strip podcast delights membership with big questions

A correction to our last issue: Erica Heilman is not from Calais. She's from East Calais. Electricity—and now broadband—both reached neighboring Maple Corner first, she reminded WEC members; East Calais residents wait a little longer. She was joking, sort of.

Heilman claimed to have a deep need to be “from” somewhere, she said, so perhaps it's not surprising she chose to live in a small town so rugged and with such long family histories that people self-identify by their unincorporated-community-of-residence. But if the identities of East Calais and Maple Corner are so different, then is there a Calais identity? And can there ever be a Vermont identity?

Who cares, as long as we listen to each other? Part of the appeal of *Rumble Strip* is Heilman's anarchic and inclusive approach to identity. Heilman is attached to the notion of belonging, but *Rumble Strip* rejects any imposed sense of what it means to be “from here,” whether here is East Calais or Vermont, and whether the imposed concept is “covered bridgified” or wears mud boots. Instead, the big picture of *Rumble Strip* emerges in compound form, interview by interview, idea by idea, show by show, because individuals shape community as much as the other way around.

Heilman kicked things off with an admission, which is instructive about the East Calais identity, or maybe just



Erica Heilman of the award-winning podcast Rumble Strip speaks at the 2023 Annual Meeting in WEC's Operations Center.

her. “I feel like I have to come clean. I have a hot tub,” she blurted. “You can judge me.”

It was a chilly night, and a sweatered-up member in the audience mumbled, “Or visit you!”

Heilman expanded the question of identity to the notion of community, because, she observed, discourse has grown less and less civil since 2016, and human interactions have shifted so much more online and so much less in person.

But interacting with other people in public spaces is key to our happiness and survival, she suggested. It happens in floor votes at Town Meeting: arguing against the ballot system, she said, “I think the thought is, you'll have more democracy if you get people in booths privately to vote. But you lose the opportunity to disagree civilly in public.”


It happens in the dozens of committees and boards any Vermonter is eligible to join or attend: “When

you go to your cemetery commission meeting, you're with people who are not like you, who you may not even like that much. And that's a skill set.”

And it happens in unremarkable encounters. She described a mock exchange that might happen at a grocery store, two people talking about going to see the school play. These conversations aren't a big deal, but they make you feel good, she explained.

Heilman often describes her hope, with *Rumble Strip*, is for people to fall in love with strangers. Her interviews become a conduit for the kind of low-key familiarity that stitches together a community. If we're not bumping into each other enough anymore, Heilman does it for us, and we can listen, and appreciate the human at the other end of the microphone.

“When the pitchforks come out, it's hard to take them up against the lady in the grocery store. Because she's going to the school play,” she explained. “And that's a pragmatic reason to fall in love with strangers: to prevent civil war.”

Several hundred of her neighbors, some but not all of them strangers, applauded heartily. 

Annual Meeting

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reminded members, the money is returned to the Co-op's membership over time in the form of capital credit refunds. The \$9.4 million WEC has returned over 25 years “almost adds up to all the rate increases we've had since 1998,” he said.

General Manager Louis Porter brought up Winter Storm Elliott, the 2022 major storm that caused regionwide outages and left some

members without power for a week over the December holidays. Leading the Co-op through the storm, he said, taught him two things. “First, WEC needs to—and is—doing everything it can to improve our reliability and our communication with members,” he said. Second, “It's also incumbent on all of us to help educate folks who have moved to our territory that living in a rural part of the world is just different. It just is.”

Dawn Johnson Honored with Manager's Award

Dawn Johnson was surprised with the first-ever Manager's Award. Over 10 years at WEC, Johnson has worked as a Member Services Representative, Administrative Assistant, and Plant Accountant. The award for excellence and service to the Co-op was created by General Manager Louis Porter for the purpose of appreciating Johnson's varied and significant contributions.

Q&A

Though members can ask questions directly of WEC leadership anytime, the Annual Meeting question and answer session allows members to hear and consider each other's questions. It's an important tradition.

Sandal Cate asked for a storm checklist to be published in a fall issue of *Co-op Currents*. The checklist is published annually. In 2022, it arrived in the December issue, in the middle of the outage, a little late for most members to use it.

Goddard Graves also requested a reminder in this newsletter that members contact the Co-op if an individual in their household



Ballot Committee co-chairs Cort Richardson and Nancy Fuller accepted Board of Directors election ballots in-person for the first time since 2019.

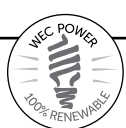
Election Results

Vote totals for the Board of Directors election:

- * Don Douglas 643
- * Jean Hamilton 629
- * Mary Just Skinner . . . 576
- Carl Etnier 473
- Write-ins 10

* elected to the Board of Directors

Total valid ballots cast . . . 837
 Spoiled ballots 23
 Blank votes 180





Carl Etner of East Montpelier, a 2023 candidate for WEC's Board of Directors.



Vermont Community Broadband Board executive director Christine Hallquist speaks with WEC Energy Coach Bill Powell at the 2023 Annual Meeting.

has special medical needs and is endangered by a long-term outage. Porter agreed that it's helpful for the Co-op to have updated information about members' special needs.

Graves also complimented WEC's lineworkers. "I've climbed a few poles myself," he said, and given the difficulty of restoring power in recent winter storms, "there are no English words for my admiration" for the crews and their work. The room broke into applause.

Kathleen Osgood asked what Co-op leaders envisioned for the future of solar power. It's a big topic, answered Porter, so he zeroed in on two points. "What I hope for the future is we get

better at how we manage and build solar resources and integrate them into the grid to be effective and helpful even to those who don't own them."

Porter continued, "I'll also tell you my fear: that we become a two-grid system" where those with means are able to generate and store their own power, and those without means are connected to a grid that is overpriced and suffers frequent outages. The essence of a cooperative, he said, is to try to reach the first vision, and to avoid the second vision.

Knowlton added that his vision of the future of solar involves pairing solar generation with battery storage.

Responding to another question about incentives for battery storage, Porter informed the membership that WEC is one in a cohort of utilities applying for grants for battery storage. But as far as subsidizing individual battery storage systems, he said, Co-op leadership has long held that the full membership should not pay for the cost of an individual member's investment. Changing that policy, he explained, could cause a regressive cost shift, where members with lower-incomes help pay for residential upgrades that only members with higher incomes can access.

Past Leaders at Annual Meeting

Several former Board Directors were present at the 2023 Annual Meeting, including:

- Barry Bernstein
- Rick Cawley
- Michael Duane
- Bud Haas
- Monique Hayden
- Annie Reed
- Dan Wing



Lieutenant Governor David Zuckerman was a special guest at WEC's Annual Meeting.

Former Board President Michael Duane asked about the Co-op's worker safety record. WEC has a stellar safety record, replied Porter, and after many years without an accident, in 2022 a lineworker was injured during Winter

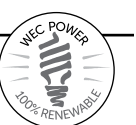
Storm Elliott. He has since recovered completely. "When I heard he was able to walk under his own power, it was the the greatest Christmas present I could have gotten," reflected Porter. 🦋



GM Louis Porter addresses WEC members at the Annual Meeting. Director Steven Farnham is in the background.



Former WEC Board Secretary Annie Reed and Board President Stephen Knowlton at the Annual Meeting at WEC's Operations Center in East Montpelier.



On the Transformer Waitlist? You Can Probably Still Charge an EV

Efficiency improvements in tech sometimes come with unintended consequences. In March, the American Public Power Association filed a comment warning that the Department of Energy's proposed efficiency standards for transformers would worsen an existing shortage, throttled by supply chain woes since early in the pandemic. WEC just saw a delivery of transformers ordered in 2020, and has several orders still outstanding.

The transformers are in high demand as motivated members take advantage of incentives and improving technology to reduce their own carbon footprints. The five-kilovolt transformers installed years ago on WEC lines by regulators' mandate are comparatively small in order to encourage electricity conservation. Now, as WEC members and people throughout the country increase their electric load with devices that require 240 volts, like heat pumps and Level 2 chargers for electric vehicles, the demand for transformers is so great that a mandate to improve the efficiency of the transformers themselves would create an obstacle to system-wide



beneficial electrification.

The paradox shows the complexity of transitioning to a clean energy economy. A measured approach is useful here, plus some old-school values, like thrift and patience. Because while EV drivers may want super-fast Level 2 charging, many drivers don't actually need it.


density may have larger transformers, with each transformer serving a greater number of meters.

And, Powell added, members who don't plan to add a lot of load, or whose electric use was minimal to begin with, are likely to not need an upgrade anytime soon.

A licensed electrician can tell you how large your transformer is, what your service panel (or breaker box) can handle, and whether you need to make changes in order to add devices with a 240-volt load.

Do I really need a Level 2 charger?

Most WEC members don't need a Level 2 charger for an EV, said Powell, because most members charge at home and drive 50 miles or fewer each day. If that's you, you don't need to wait for a transformer or service panel upgrade for your EV. Just get in the habit of charging at night on a 120 volt Level 1 charger.

Remember: before you install any new 240-volt load, like a Level 2 charger, contact WEC. 

How can I tell if I need a transformer upgrade?

About half of WEC's membership has a five-kilovolt transformer, said Bill Powell, WEC's Energy Coach. That's the type installed on most single-residence accounts that are one-to-one, he said, or that have one transformer per one meter. Locations with higher

New Incentives

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case, this responsibility falls to the Department of Public Service, which will partner with energy efficiency utility Efficiency Vermont and existing programs, such as those run by community action agencies, to deliver services and incentives. The vast majority of Vermont's greenhouse gas emissions are from home heating and transportation. Specific incentives in the bill aim to both increase home energy efficiency and to replace combustion engine vehicles with EVs.

Tax credits are not attractive to all members: they're designed as incentives for people who pay income tax. If this describes you, the Residential Energy Efficiency Tax Credit, new in 2023, offers tax credits for electric panels, energy audits, weatherization, and heat pumps and heat pump water heaters.


| Residential Energy Efficiency Tax Credits | |
|--------------------------------------------|-----------|
| Electric panel | \$600 |
| Energy audit | \$150 |
| Weatherization | \$1,200 |
| Heat Pump/Heat Pump Water Heater | < \$2,000 |

The High Efficiency Electric Homes and Rebates Act, or HEERA, provides rebate incentives for making homes more comfortable and efficient.

Households with incomes between 80-150% of AMI (area median income) will have 50% of costs covered through the bill; households earning below 80% of AMI will have 100% of their costs covered. The maximum payment for any household is \$14,000. More details are still to come.

| Costs Covered Through HEERA | |
|------------------------------------------------|---------|
| Heat Pump Water Heater . . | \$1,750 |
| Heat Pump | \$8,000 |
| Electric Stove | \$840 |
| Insulation, Air Sealing, Ventilation | \$1,600 |

A separate program, called HOMES, offers tiered rebates for upgrades that achieve whole-house energy savings up to certain percentages. At the highest end, an efficiency upgrade that achieves energy savings greater than 35% activates a rebate of \$4,000 or 50% of the project cost, whichever is less. For households with income below 80% of AMI, the rebate is the lesser of \$8,000 or 80% of the project cost.

Questions? Contact energycoach@wec.coop or 802-224-2329. 



A Poem in Memory of Rita Edwards

The member-poet known as Old George submitted this in memory of Rita Edwards, who served on WEC's Board of Directors 1983-1991. See the handwriting transcription below.

*"In Memory of Rita Edwards"
(By Old George)*
A heart to old to weak that day.
She hugged each friend good-bye that day.
As the Lord called her away.
Tears fell from heaven.
As angels cried.
While friends filed past.
To say their last good bye.
Then on angel wings, you rose up to Heaven.
To say hello to old friends, that once said good bye.
While on earth friends bowed their heads too cry.
In summer we'll kiss a flower, as we place it upon your grave.
To let you know, that from our hearts.
Our love for you will never go!

A heart to old to weak that day. / She hugged each friend good-bye that day. / As the Lord called her away. / Tears fell from heaven. / As angels cried. / While friends filed past. / To say their last goodbye. / Then on angel wings, you rose up to Heaven. / To say hello to old friends, that once said goodbye. / While on earth friends bowed their heads too cry. / In summer we'll kiss a flower, as we place it upon your grave. / To let you know, that from our hearts. / Our love for you will never go!



When Your EV is Also Your Outage Battery Backup: Looking Ahead to Bidirectional Charging

EVs on the market can already charge other devices. Bidirectional charging EVSE will allow EVs to function as full-house battery backup.

Bill Powell, WEC's Energy Coach, doesn't usually trade in predicting the future. When it comes to making big purchase decisions, though, he knows WEC members like to plan ahead. Members who are still driving combustion engine cars, but are thinking about preparing for an electric vehicle, may be interested in recent innovations in bidirectional charging.

For most EVs and EVSE (charging equipment) on the market, energy flows one way: into the vehicle. Now, some EVs are also able to send stored energy out. This kind of capability, called Vehicle to Load (V2L), means the vehicle has outlets right on it. You can

use the vehicle to power another EV that's out of juice or other devices.


With adapters, a wider range of EVs may be V2L capable. "I believe most Kia EV6, Kia Niro EV, and Hyundai Ioniq 5 EVs can do it, although it may require purchase of a separate adapter. I've seen a Niro EV powering a hotplate through the V2L adapter," said Dave Roberts of Drive Electric Vermont. "Some EV owners that do not have a factory installed V2L system have come up with their own solutions involving an inverter connected to the 12V battery. This can be a low cost way to provide some limited backup power without needing a generator, if people are

comfortable getting under the hood."

Bidirectional charging equipment is still relatively new to market. Ford has released a bidirectional charger for its electric F-150 Lightning pickup, which has V2L technology standard. With a bidirectional charger, the vehicle can plug into a full-house system. Far beyond powering one device at a time, the vehicle can become a comprehensive generator replacement. "When there's an outage, the battery in your car becomes your backup," said Powell. Right now, he explained, "It's limited, and it's expensive. That's going to change."

As more EV makers employ this

technology, the price of a bidirectional charger is expected to come down. Also in the future: a vehicle with bidirectional charging could send power to the grid (V2X capable), which could be harnessed by WEC to reduce load during peak hours, and reduce power costs for all members.

As always, the Energy Coach asks members to plan ahead before investing in anything that will increase electric load. Talk to an electrician to assess what you can add to your service panel, and call the Co-op to get on the list for elective service upgrades. 

Talking Electric Vehicles

Members considering EVs – but not yet buying them – talk about factors in their decision making

WEC members are thinking about electric vehicles. While some members have been driving EVs for years, many other members are giving thoughtful consideration to making the switch as EVs become mainstream. Last year, at the member cookout in September, conversations about EVs reflected individual decision-making, concern for the environment, and WEC's role in supporting both its community and the environment we all share.

Stan Peake, member from Williamstown, had given a lot of thought to electric vehicles. He was concerned about clearcutting and

open pit mining in South America for lithium and rare earth minerals required by EV batteries. And, he pointed out, electricity is not 100% renewable everywhere. "Washington Electric is pretty much self-sufficient in their power. They're pretty much environmentally green. Other states are not. Our concern is, there's a cost." At 80, he said, he has no taxable income to be eligible for federal tax credit incentives, and didn't drive all that much. An electric vehicle, he said, didn't appear to be the perfect fit.

At last year's virtual Annual Meeting, Sandal Cate asked about electric vehicles. "I'm wondering what WEC's

vision is for helping individuals to acquire electric vehicles," she said at the time, and noted the top questions she and Paul Cate were considering: Level II charger installation, increased demand on the grid, how to account for lifestyle factors.

At the member cookout in September 2022, Sandal Cate took an EV for a test drive and Paul Cate told *Co-op Currents* that their son and daughter-in-law had recently bought EVs and were urging them to do the same; the Cates were doing their research. "We're trying to figure out whether we're ready to do that yet," Paul Cate said.

At present, the Cates are waiting for the right fit. "I'm still mulling it over," explained Sandal Cate. She enjoys driving their Subaru Crosstrek, which has high clearance on snowy and muddy roads. They don't drive much, but she's concerned about range on longer drives to southern New England.

What's helpful, she said, are frequent and concrete updates about ever-changing EV options and incentives. Continue looking for those in the pages or digital edition of *Co-op Currents*.



Stan Peake



Paul Cate

Safety Minute: Don't Become the Path for an Electric Current

A new feature from Safety and Environmental Compliance Specialist David Young

Safety Minute is a new, regular feature from Safety and Environmental Compliance Specialist David Young. Young started at WEC in 2022 after 19 years at Vermont Electric Cooperative. He's specialized in safety for nine years. WEC, which has received multiple awards for its safety record, is a great fit for Young, who's enthusiastic not just about preserving the safety of WEC workers and contractors but also educating members. Young lives in Johnson and is the father of four active kids: he's involved in youth sports year-round.

Members can request safety presentations from Young for their school, organization, or community group. Contact him at 802-224-2340 or david.young@wec.coop.

Early this spring, two individuals were working on a Saturday to cut down an enormous pine tree. Part of the tree fell on WEC power lines.

The line tripped off twice – that's a standard safety measure – but it ended up reenergizing. Even if it seems that the power is out, it is possible for a dangerous potential to remain in the wires. The broken wires, arcing on the ground, started a brush fire, and the current turned the sand in the right-of-way to glass.



David Young, Safety and Environmental Compliance Specialist

This happened at a time that our region was at high fire risk. One member went to get a fire extinguisher with the aim of putting out the brush fire. When lineworkers arrived to shut off the line, the individual was operating the fire extinguisher 15 feet away from the energized and arcing wires. That's dangerously close.

This story could have easily had a tragic ending. Fortunately, no one was injured, and no catastrophic damage was caused.

a downed line is energized. That energy is seeking a path, and that path could be you. There's voltage in the ground that can cross from one leg to the other. This is called "step potential."

2. If an object is touching a power line, do not approach it. Call WEC. A tree has enough moisture and mineral content to conduct electricity. If you touch it, the high voltage could pass through you. This is called "touch potential."
3. If a fire starts due to a downed power line, call the fire department, and then the utility as soon as you can.

1. Don't go within 50 feet of a downed power line. Always assume that

Time Capsule

15 years ago, here's what Cabot kids learned about energy

During the 2007-2008 school year, Energy Coach Bill Powell visited Cabot fourth-graders to talk about power. What they learned from his presentation was incorporated into "a display we created to share our year-long, whole school focus on energy and sustainability," said retired teacher and WEC member Mary Ann Tormey.

Recently, Tormey uncovered this time capsule of learning and shared it with WEC. So what did kids learn about power 15 years ago?

What's changed:

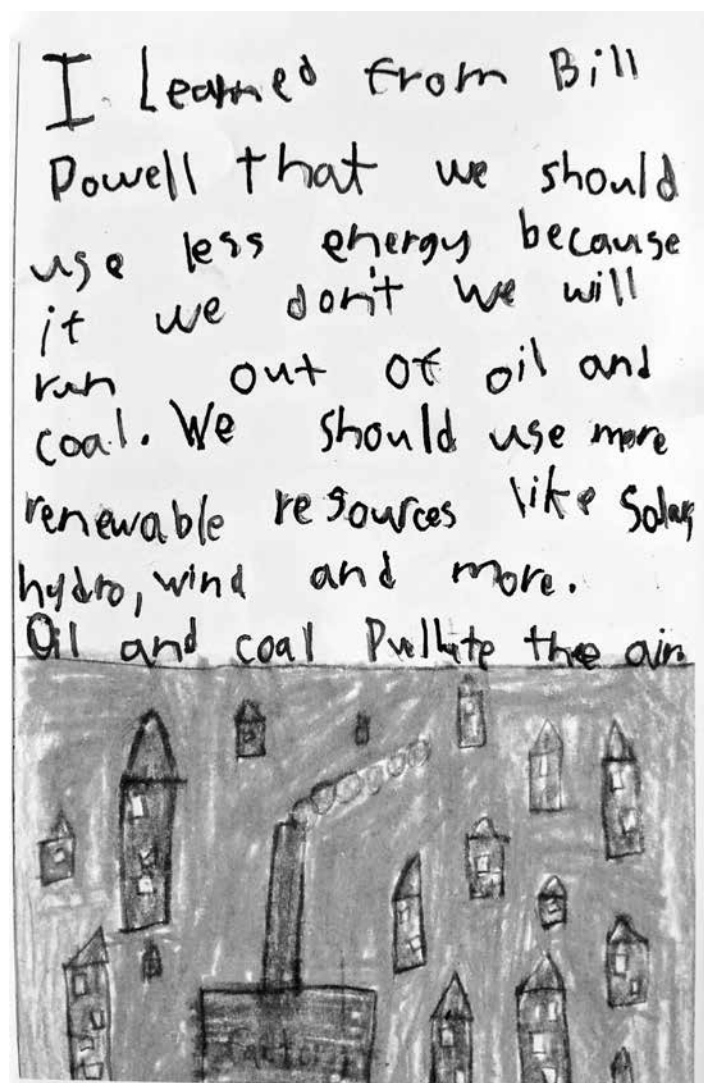
- WEC encouraged replacing incandescent bulbs with fluorescent, because LEDs were not yet widely available
- Vermont Yankee nuclear plant provided more than a third of the state's power – but was no longer part of WEC's power portfolio, since the Co-op had already divested from nuclear and invested in the Coventry

What's stayed the same:

- In WEC territory, energy use for heating and lighting is higher in the winter than in the summer
- Landfill gas provides a significant percentage of WEC's portfolio
- Renewable resources are the way to go

Transcripts of the two display panels reprinted here:

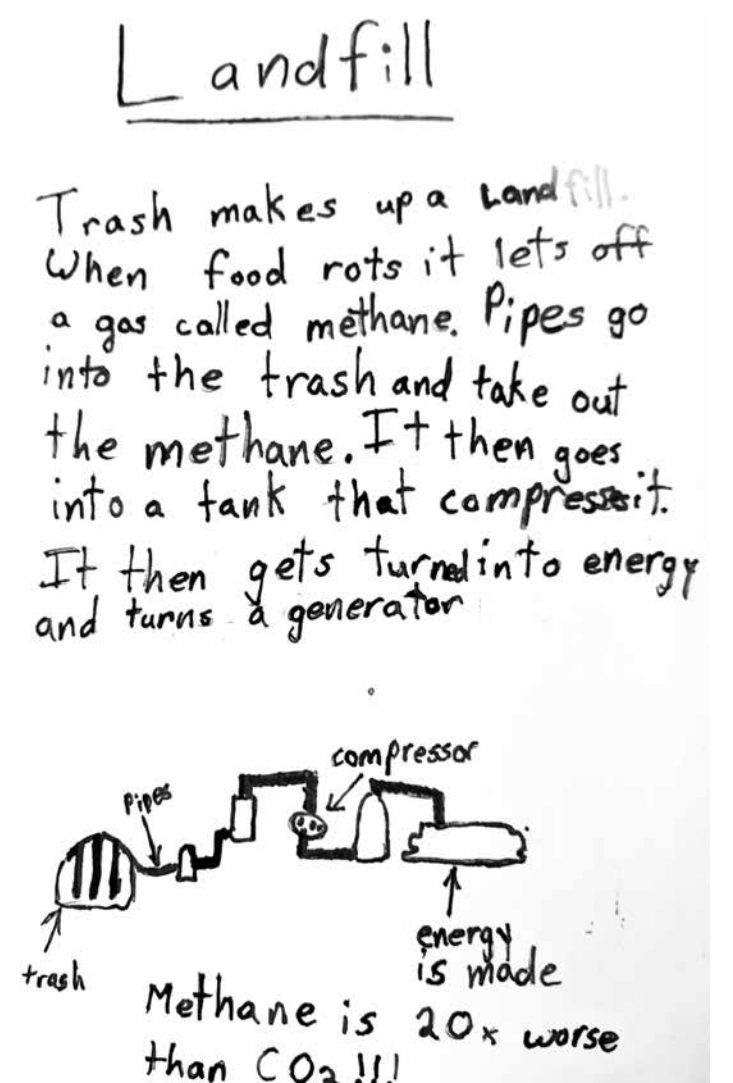
"I learned from Bill Powell that we should use less energy because if we don't we will run out of oil and coal. We should use more renewable resources



These panels are part of the display created by Mary Ann Tormey's 2007-2008 fourth-graders. 15 years later, the emphasis on switching to renewables is stronger than ever, and landfill gas at Coventry continues to provide WEC members power. While methane is indeed a more potent greenhouse gas than carbon dioxide, WEC's landfill-gas-to-energy plant harnesses it for power, instead of flaring it into the atmosphere.

like solar, hydro, wind and more. Oil and coal pollute the air."

"Landfill: Trash makes up a landfill. When food rots it lets off a gas called methane. Pipes go into the trash and



take out the methane. It then goes into a tank that compresses it. It then gets turned into energy and turns a generator. Methane is 20x worse than CO₂!!!"

The Energy Coach has given many presentations since 2007-08. Interested in a WEC energy talk? Contact energycoach@wec.coop or 802-224-2329.

