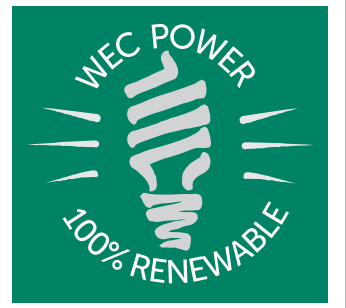




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# CO-OP CURRENTS



Vol. 79, No. 2

The newsletter of Washington Electric Cooperative, Inc., East Montpelier, Vermont.

March 2018

## The Wildlife Philosophers

*Taxidermists, hunter educators, and Co-op members Theresa and Rodney Elmer discuss craft, conservation, and the circle of life*

A visit to Mountain Deer Taxidermy in Northfield is a lot like stopping by your best friend's house. You know, the one who always has something good on

the stove and who'd rather do nothing else than talk over big ideas with you. Walk into Rodney and Theresa Elmer's workshop on a wet day, and you're greeted by a hot woodstove and coffee, and a big red retriever named Annie whose job title is "wellness coordinator."

And of course, the Elmers themselves, the wise and welcoming ninth-generation Vermonters who own the shop. After raising five kids and several foster children, not to mention running a business together for more than 32 years, they are a solid team, listening carefully to each other and occasionally supplying a word of credit. Rodney, goateed and going silver, wears a ball cap; on this day it's a Vermont Fish & Wildlife Volunteer hat. Theresa's trademark is her long red hair. Both are healthy and relaxed, with the light in their eyes of those who love what they do all day.

Their workshop is lined by dozens of examples of their work: mounted deer, plus bears, moose, fish, a bobcat, an albino porcupine, and one distinguished looking rooster. There's

*"I have a relationship with my deer. If I'm not hunting them, I'm out there working for them—and they're working for me. They eat the trees I can't eat, and I eat the deer. But I work for the trees, and they do well, and the deer do well, and the soil does well, and then I fit."*

— Rodney Elmer

also a tiny fawn whose story we'll get to later.

Over three decades, thousands of people have come to Mountain Deer to have game mounted, to take hunter safety and wildlife education classes from the Elmers, and to weigh animals at their state big game reporting station.

Theresa also serves on the Vermont Fish and Wildlife board. "We've never not been busy," said Rodney, who taught himself taxidermy from a

Cabela's kit. Both Elmers learned on their own deer and deer shot by "friends who were willing to take a chance on us," said Theresa.

### The taxidermy process

A preserved game animal is often called a hunting trophy—but the Elmers suggest most of their customers don't think of their mounts

*continued on page 4*



Rodney and Theresa Elmer, owners of Mountain Deer Taxidermy in Northfield.

## Order of Operations

*How WEC's operations team triages major outage events*

After the late October 2017 windstorm, many WEC members wanted to know how their utility decides when each break in the line gets fixed. After all, there's a big difference between going a day and going a week without power.

Mainly, there's a science to it, and then it becomes a bit of a dance. Utility-provided electricity flows downstream, explained Brent Lilley, Operations and Construction Services Manager. That's physics. The downstream pattern, he said, starts with high-voltage transmission lines that feed WEC's substations. Then substations energize three-phase distribution lines known as feeders, that split off to become main-line single phase feeders, then

drop to single-phase radial taps.

A fault (that's a problem on a line, in utility-speak) interrupts the flow of power beyond that location. Faults are caused by trees leaning on or falling through the wires, heavy snow or ice weight that causes one line to come into contact with another, or other factors. There's just no way to turn power on at the end of the line if the lines upstream are not energized. "We don't have a lot of transmission or substation outages, but if we do, those are given top priority. If a three-phase line isn't energized by the transmission line, there's no sense in starting there," he said.

Many of the transmission lines that feed WEC's substations are not,

*continued on page 7*

### Washington Electric Cooperative

East Montpelier, VT 05651

### Inside

**The co-op difference:** WEC members won't see a difference in bills from the federal tax overhaul, because, as a not-for-profit co-op, WEC doesn't pay federal taxes. Instead, all excess revenues go to member-owners—not shareholders. President's message, p. 2.

**BOD elections:** Three incumbents run for re-election to WEC's Board of Directors: p.6.

**Get to know your WEC:** New feature profiles WEC staffers. P. 7.

**RSVP for WEC's 79th Annual Meeting!** Form on p. 8.



*A transformer in a tree? After every storm, crews work to improve reliability—long after your power comes back on. Sometimes, getting your power on might mean using a tree as a temporary pole. After the Event, p. 8.*

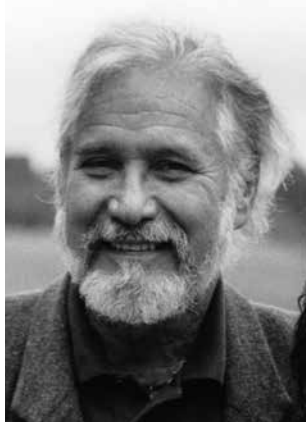
Larry Gilbert

## President's Message

# Taxes and the Difference for Not-for-profit Cooperatives

By Barry Bernstein

I am always somehow surprised, as we close out a year and begin the next, how quickly time can fly. 2018 is no different, marked by the continued ups and downs of the temperature and over a foot of snow in early February. It is also a time of preparation for our 79th



Annual Meeting, this year scheduled to take place on May 2 at WEC's operation center building in East Montpelier. As I prepare for the annual meeting, as staff finish the year end financials and the Board of Directors get ready to review our 2017 audited financial state-

ments with our auditing firm Kittell Branagan & Sargent, I also reflect on how fortunate we are to receive our power from an electric co-op: our Co-op, WEC. At WEC, the bottom line is service to our member-owners, not stockholders.

You may have heard about the federal bill that changed the tax code.

Some privately owned utilities, like our neighbors Énergir/Green Mountain Power, have announced that since they'll pay a lower corporate tax rate, some of those savings will be passed along to their ratepayers. So, you may be wondering if WEC will pass along

any credits from the change in tax law. WEC is a not-for-profit and therefore does not pay federal taxes. As a result, the tax code does not impact us as it does for-profit utilities.

There's distinction to be made between for-profit utilities and not-for-profit co-ops, like WEC. Since WEC

is a not-for-profit exempt from federal taxes, we can not pass on a refund, as we do not collect funds from you in the first place. This is important. As a co-op, we work directly for our member-owners' interests, not stockholders or private owners. We don't include a "rate of return," or a profit margin, in our rates, which is what for-profit utilities do. The Public Utility Commission (PUC) approves Énergir/GMP to include a 9% profit margin, above the cost of service, on their rates. We don't do that, nor, as a co-op, are we allowed.

The co-op difference is we return excess revenues to our member-owners each year in the form of capital credits. In the 20 years we've been issuing credits, we've returned \$5.7 million to our members. The credit you receive is based on how much electricity you use—which is how much revenue you contributed to the Co-op. You receive this credit on your November bill (or if you are no longer living on the Co-op's system, we send you a check).

Many of our members sign up to donate those capital credits to our Community Fund. We distribute small grants to worthwhile non-profits that help those in need in the Central Vermont area and in the communities we serve.


*As a co-op, we work directly for our member-owners' interests, not stockholders or private owners. We don't include a "rate of return," or a profit margin, in our rates, which is what for-profit utilities do.*

For 79 years, Co-op members have contributed to making sure rural neighbors have electricity, where they previously had to do without. In the late 1920s and early 1930s Vermont's for-profit utilities extended service to many towns and villages, but there was no

financial incentive to bring electricity to those on the back roads. Through the Rural Electrification Act, federal dollars became available to help form cooperatives committed to building power lines in rural areas. That act allowed rural Americans, local Vermonters, to join together to set up electric cooperatives to borrow money and bring electricity to their communities for the first time. That is how WEC's 41 towns got their power.

WEC remains on the leading edge of working with and on behalf of our membership to provide you with 100% renewable energy power, to give you a reliable and environmentally based power supply, while also supporting and working with you in making your homes and businesses as energy efficient as possible.

And please remember: we don't factor profits into our rates, and when our revenues exceed our expenses, that money is returned to you in the form of capital credits. That's because our members own WEC, not shareholders.

I hope your winter of 2018 continues to be a safe one and I know all of our WEC employees will be working hard to keep the lights on and delivering our service with a smile. 

## Co-op Currents

*Co-op Currents* (Publication No. USPS 711 -210 and ISSN No. 0746-8784) is published monthly except February, May, August and November by Washington Electric Cooperative, Inc., 40 Church Street, P.O. Box 8, East Montpelier, Vermont 05651. The cost of this publication is \$.51, which is included in the basic monthly charge to each member. Periodical postage rates paid at East Montpelier and at additional offices. Postmaster: Send address changes to *Co-op Currents*, P.O. Box 8, East Montpelier, Vermont 05651.



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

### Board of Directors

<b>President</b>	BARRY BERNSTEIN (May 2019)	1237 Bliss Road, Marshfield, VT 05658 Bbearvt@myfairpoint.net	456-8843
<b>Vice President</b>	ROGER FOX (May 2018)	2067 Bayley-Hazen Rd., East Hardwick, VT 05836-9873 rfox@pivot.net	563-2321
<b>Treasurer</b>	DONALD DOUGLAS (May 2020)	21 Douglas Rd., East Orange, VT 05086 dondougla@gmail.com	439-5364
<b>Secretary</b>	ANNE REED (May 2019)	3941 Hollister Hill Rd., Marshfield, VT 05658 annereed48@gmail.com	454-1324
	ROY FOLSOM (May 2019)	2603 US Rt. 2, Cabot, VT 05647 RoyGrnsy@aol.com	426-3579
	JEAN HAMILTON (May 2020)	3499 East Hill Road, Plainfield 05667 Jean.myung.hamilton@gmail.com	777-6546
	STEPHEN KNOWLTON (May 2018)	160 White Rock Drive, #2, Montpelier, VT 05602 knowlsf@auburn.edu	223-2230
	RICHARD RUBIN (May 2018)	3496 East Hill Rd., Plainfield, VT 05667 rrubin@sover.net	454-8542
	MARY JUST SKINNER (May 2020)	P.O. Box 412, Montpelier, VT 05601 maryjustskinner@gmail.com	223-7123

PATTY RICHARDS  
General Manager  
patty.richards@wec.coop

KATIE TITTERTON  
Editor  
katie@clearspotvt.com

TIM NEWCOMB  
Layout

### Editorial Committee

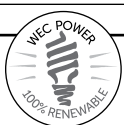
Patty Richards Donald Douglas Jean Hamilton Anne Reed Katie Titterton

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 Dawn Johnson, at 224-2332.

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Rodney Elmer of Mountain Deer Taxidermy examines the nose pad of a mount in progress. This buck, he noted, has a mohawk-like brush of hair on his neck, a seldom seen trait caused by a recessive gene. The Elmers' story began on p. 1 and continues on p. 4.



To call the Co-op, dial 802-223-5245 Mon - Thur 7:30 am - 5 pm and Fri 7:30 am - 4 pm.; toll-free for reporting outages & emergencies, 1-800-WEC-5245.

## Manager's Report

# Power Mix, Policies, and Politics

Plus: save the date for our Annual Meeting on May 2

By Patty Richards

### 79th Annual Meeting May 2

Work is underway in preparation for our upcoming 79th Annual Meeting, which will take place on May 2. We are holding the meeting at our Operations Center building on Fassett Road in East Montpelier. This is a great opportunity to visit with the WEC Board of Directors and employees and an even better chance to let us know what's on your mind. We hope you will join us for a meal and the chance to talk with WEC board, staff, and other members. We also will have equipment WEC

uses for storm restoration displayed for your viewing pleasure (which is always a hit, given the off-road work we do on our lines). So please save the date, send in your dinner RSVP on p. 8, and we hope to see you in early May!

### Where your power came from in 2017

WEC is a longstanding leader and champion of energy efficiency and we are committed to providing our member-owners with reliable and renewable sources of electricity. WEC provides you with 100% renewable energy. Most of our power originates from within the state of Vermont: Coventry Landfill Gas to Energy Facility and Sheffield Wind are the main Vermont sources of power in WEC's power mix, and account for 75% of our portfolio. While WEC sells renewable energy credits (RECs) from the Coventry and Sheffield facilities, we keep our mix green by purchasing RECs from other low cost providers. This allows us to "sell high, buy low," practicing fiscal responsibility while keeping our portfolio 100% renewable. WEC is working to help all of us reach the state's 2050 goal to use 90% renewables for all energy, including heating and transportation, and to use energy more efficiently. Energy efficiency remains one of WEC's top values, as you, our members, have told us it should. We will also continue to explore new ways to supply and deliver energy to our member-owners.

As we tally up year-end numbers, it is a good time to summarize where your power came from throughout the year. WEC's power supply portfolio is made up of generation resources and long-term power contracts. The portfolio was constructed to hedge the financial cost of serving WEC's load from the New England markets.



*WEC provides you with 100% renewable energy. Most of our power originates from within the state of Vermont: 75% of our portfolio.*

All figures that follow are before REC sales. As shown in the chart below, in 2017, WEC's energy came predominantly from the Coventry landfill gas generation facility. In fact, 64% of WEC's energy came from Coventry, while 14% came from New York Power Authority (NYPA), 11% from Sheffield Wind, 4% from Wrightsville hydro, 3% from Ryegate, 2% from market purchases, and 2% from VEPII hydro.

### Record year for net metering

WEC had a record year in 2017 for members not only interested in installing solar at their homes, but actually installing systems.

The state's new net metering plan created a pace of installations that far exceeded projections. In 2017 we had 129 members install net metered solar systems that accounted for 894 kW. This was the largest single year in terms of members participating, and the largest amount of kW installed in a single year. In fact, 2017 was greater than the last four years combined!

WEC now has a grand total of 2,476 kW of generation, mostly solar, installed at members' homes and businesses that use the WEC grid every day. Net metering accounts for 15% of our peak and roughly four percent of our energy sales.

State regulators will look at the net metering program as part of what is called its biennial review. As part of that review, regulators will look at the pace of installations statewide and assess the impacts on Vermont electric



New Right of Way Management Coordinator Larry Gilbert spent nearly 20 years working on WEC's lines. Here he is in the bucket in the aftermath of the October 2017 storm. Get to know Larry on p. 7.

consumers, whether net metered or not. You may recall WEC's current net metering plan is the result of an order issued by regulators in June 2016. In that order, the Vermont Public Utility Commission (PUC) established a revised net-metering program pursuant to Act 99 of 2014. WEC is tasked with implementing the state's plan for our members, and we will comply with the orders issued by the PUC. WEC will continue to support net metering programs, and as Vermont aims for 90% renewable energy in all energy sectors (including heating and transportation), we want to reach that goal in a fair, equitable, and sustainable way.

### Rate design

The WEC board continues to think about how we charge for electric service. They took in feedback from the listening groups held in November, and we will continue to discuss next steps on this issue. Please see articles in the June 2017 and January 2018 issues of *Currents* for information and details about WEC's rate design and potential changes.

### Legislative session

The 2018 legislative session is well underway and we are keeping an eye on bills that could impact WEC and our members. Since early January, the House introduced 618 bills and the Senate introduced 296 bills.

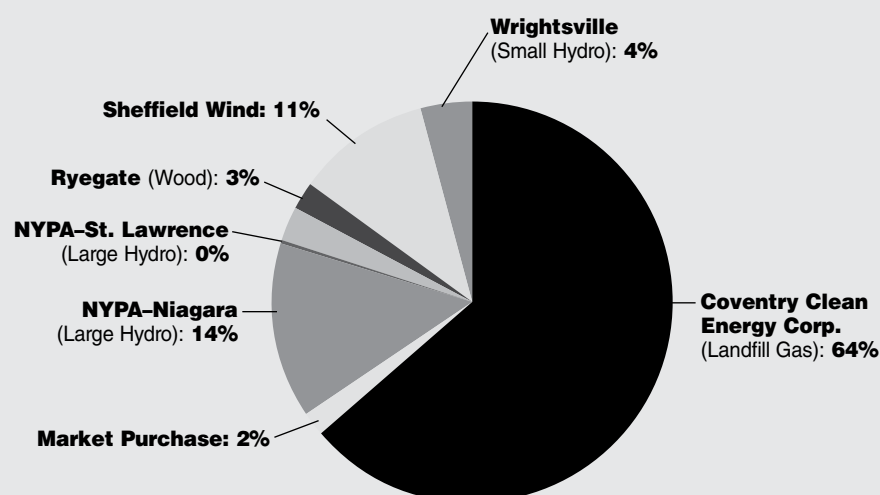
The Governor gave his state-of-the-State address on January 4. He reiterated his commitment to no new taxes or fees and the importance of fiscal discipline, particularly in these times of uncertainty at the federal level. He received a standing ovation when he emphasized the need for respect and civility in political discourse, which is refreshing when we look at the dysfunction going on at the federal level.

A lot of time is being spent trying to understand the impact on Vermont of the new federal tax bill, while also outlining at the leadership level and in committee what the priorities will be for the next 12 weeks. It looks like, at least initially, a good deal of attention and effort will be on the array of clean water bills and, as relates to healthcare, on universal primary care as well as controlling the cost of prescription drugs.

## 2017 Sources of Power

(Before REC sales)

WEC sells Renewable Energy Credits (RECs) associated with energy produced at Coventry and Sheffield Wind. However, WEC purchases sufficient RECs to keep our power mix 100% renewable.



## Wildlife Philosophers

continued from page 1

as trophies, exactly. “Most of our customers don’t want bragging rights. To them, it’s a representation of a memory of when they were in a wild place, doing a wild thing,” explained Rodney. In addition to that, it’s a food source. He said it’s the connection between humans and the world that matters: the mounted animal is “a representation of another intelligence.”

Honoring that animal intelligence through representation, Theresa said, is the best part of their job. The Elmers aren’t the creators here, she’s quick to add. “We get to recreate it. Mother Nature did it the first time.”

The taxidermy process, she said, is to measure the animal and ask the hunter to pick out its position and attitude, and then they’ll order a mannequin from a taxidermy supply catalog.

Then they skin the animal, saw off the antlers (if a deer, moose, elk, or similar), and remove all the meat. They make a leather of the animal’s skin and mount it on the mannequin using a flexible glue. After it’s mounted, they blend its glass eyes and paint the nose pad. It takes a couple of weeks to dry, and then it’s ready for pickup. Often, Rodney said, they’ll have five or six going at the same time. The Elmers do between 250-350 mounts a year. An average deer takes about 15-20 hours of work—body mounts take longer.

### The states of wildlife and people in the wild

As people who spend their lives attuned to wildlife and the woods, the Elmers have a long-term sense of environmental changes. “We’ve seen a high in a wave of bears, a high in a wave of moose,” Rodney said, meaning they’ve seen these population peaks rise and fall. Rabbits, he added, tend to rise and fall in 10-year cycles and are peaking now, as are bobcats and otters. They’ve also seen a rise in parasites. Ticks picked up 15 years ago, Theresa



Mannequins come with a spectrum of “attitudes” to choose from. Here, mannequins with glass eyes and antlers already installed wait next to finished mounts.

said, and Rodney added they’ve been at a level high for about 6-8 years.

The bodies of the animals themselves tell a story about time and the environment—something the Elmers find really interesting. “To see a buck that’s lived 14 years in Vermont—that’s incredible,” said Rodney, saying long-lived deer will show broken and mended bones and other evidence of a tough existence. They’ve found porcupine quills embedded deep inside coyotes.

Deer are resilient, Rodney said, and need to be to survive Vermont’s icy winters. They can live six weeks without food, he said, but it’s harder for bucks, who burn off most of their fat reserves breeding. But though game animals are tough, they’re affected by human decisions. The Elmers observe how wildlife react to subtle shifts, so sudden big decisions make them wary. Animal behavior changes when ecosystems change, Rodney pointed out. “Watch how the timber industry operates, and you can predict what will happen to

the deer and moose.” When humans make sudden changes, unintended consequences result, he explained. For example, he said, in other states, trapping bans have led to booming beaver populations, which led to just as much trapping and other methods of destroying the animals by private landowners—outside the oversight of wildlife authorities.

They are adamant that the people who are attuned to the natural world should have a clear voice in shaping policies that affect it. It’s the reason Theresa joined the Fish and Wildlife board. “If you’re involved in something, you see it. If you’re hunting, you notice things,” she said, and because she is interested in continuing Vermont’s hunting traditions, her gift to the state is the expertise she’s built through decades of hunting and studying wildlife.

Vermont’s hunters are a declining population. Hunting used to be a major food source and way to connect with friends and family, she said, but

that’s changing. “We put 4,000 people through hunter ed every year, but we don’t have the retention,” she noted. “I think everyone should go through hunter ed,” she added, because of the federal excise tax levied to sportspeople through hunter education courses and hunting and fishing gear. That tax is distributed back to fund state Fish and Wildlife departments. “Sportsmen have always paid the wildlife bills for the public trust,” she pointed out.

Mike Wichrowski, Lands and Facilities Administrator for Vermont Fish and Wildlife (and a WEC member in Calais) explained that over the past 50 or 60 years, there have been dramatic shifts in the ways we interact with our wild areas. “Attitudes have changed, people’s interests have changed. More people are into wildlife photography and viewing,” he said—Vermont has one of the highest national participation rates per capita of wildlife viewing. But that’s categorized differently from sport, and while hikers and birdwatchers may enjoy and respect nature, only hunters and anglers pay into the Fish and Wildlife system through that tax. That’s why, he said, there are sometimes misunderstandings about public land use—for example, when people want to backcountry ski or camp on wildlife management land. “We don’t want you doing that during deer season or turkey season, because you’re disrupting the hunters who pay for those properties,” he said, or at other times disrupting other species, like breeding birds.

### The “huge responsibility” of life and death

Not long ago, Rodney said, he got a call from someone who’d grown attached to a doe and fawn roaming around their property and worried that the fawn would, in time, be shot by a hunter. It’s important to remember that we are all here because living things feed other living things, he said. Deer feed on trees. “The mountain lives in worry of the deer. The system is more important. The deer may well turn into a crow, or a coyote, or a little boy. Life feeds on life,” he said.

But the natural world is the source—



Along with deer, the Elmers have practiced their art on many other animals: moose, elk, bears, fish, turkeys and other birds, porcupines, rodents, a snake, and many others. This bobcat is one example.





The Elmers tell this fawn's story to illustrate the responsibility we all share in keeping wild and domestic separate. It's visited the Vermont state legislature and every sportsperson show in New England.

and we shouldn't consider it an endless resource, he added. During their classes, the Elmers often ask students what is the importance of nature. "We can't live without it. The human race depends on it. You don't cut a tree just because you feel like it—it's the other half of your lungs," Rodney said.

He added, putting another log on the fire, "I've always been a tree-hugger. I hug 'em right to the woodstove." That might sound like a brash anti-environmental joke spoken by someone else, but he is completely serious. The Elmers recognize the natural value of living beings from life through death. "I have a relationship with my deer," said Rodney. "If I'm not hunting them, I'm out there working for them—and they're working for me. They eat the trees I can't eat, and I eat the deer. But I work for the trees, and they do well, and the deer do well, and the soil does well, and then I fit."

As hunters, the Elmers work for the meat they eat, and they respect the animal that provides it. "Every time you put it on the table, you appreciate the gift," mused Theresa. "That's the disconnect: we don't care for the animal in the Saran Wrap. That's what I'm sad about. It's a huge responsibility when somebody kills something."

Back to the fawn in their shop: Tiny and adorable, it's visited the Vermont legislature and every sportsperson show in New England, say the Elmers. "He's probably done more good for the deer herd than if he grew to be a big buck," Rodney said, because the Elmers have told its story so many times.

Several years ago, a family kidnapped the fawn from its mother to keep it as a pet. Keeping a wild animal for a pet is both illegal and dangerous. Sweet as the fawn is, deer transmit disease. That was a danger not only to the family and their domestic animals, but had the deer ever returned to the wild, pathogens it picked up in domesticity could have compromised the deer herd.


In the end, the warden removed the fawn and brought it to the Elmers, where they had to euthanize it. Wild must remain wild, and domestic must remain domestic: the Elmers are adamant about this. "If you take responsibility for a life, you have to see it through," said Theresa, which

means care for domestic animals or find a proper way to transfer or dispatch them. Irresponsible release leads to ecosystem nightmares—like abandoned Burmese pythons decimating native fauna in the Everglades, like farmed salmon escaping into wild populations in Washington State.

### Our small home in the universe

None of this is to say that the Elmers are anything but accepting of their place in the world. They believe in paying attention, in treading lightly, and in focusing on what you love and tuning out the noise. "Nature shows will scare the dickens out of you," noted Rodney. "When you're scared, you don't do your best work. When you're in love with something, that's when you do your best work."

They've stopped watching the news. From lives observing changes in nature, from the content of the soil to animal population waves to the growth of their kids and grandkids, they know we are all here for a cosmic instant in a tiny corner of the universe. The system of life on Earth is bigger than they are, and this isn't troubling to them. In fact, it's freeing. "Nature's been revealing her secrets over the years. What is Mother Nature's greatest lesson? The thing I came up with is: you can do it. You can destroy it. You can fix it. You can create it," explained Rodney, pointing out that nature always finds ways to regenerate life, and human imagination is capable of both nuclear war and the Hubble telescope.

"Our ignorance is boundless," he said, serious and cheerful at the same time. "We filter by what we know. We should identify with the unknown." 

Currents seeks out stories about WEC members—both individuals and businesses—whose lives or work reflect one or more of the Seven Cooperative Principles. The Elmers, and Mountain Deer Taxidermy, practice principles five: education, training, and information; and seven: concern for community. See [wec.coop](http://wec.coop) or any October issue of Currents for the full list of seven principles.

## Members Write

# On A Late Night Outage When It's 30 Below

By Eva Gumprecht

When the power went out last Thursday, I did the usual: stumbling around in the dark, grabbing candles and flashlights, loading batteries into the emergency lamp, tripping over the cat, uttering some unprintable words, plugging in the emergency land line, calling neighbors to find out that no, it wasn't just our house.

Then came the panicked thoughts of what would happen to the pipes I'd been nursing through polar conditions if the power stayed out for any amount of time. These were extraordinarily bad conditions for a power outage. It was dark, the temperature was polar, and the winds were howling. Things could get really bad really quickly.

But the evening also offered reminders of community, generosity, and courage. Friends and neighbors offered help to each other. One even drove into town to buy fuel to help me start our generator. I stood outside with him, in my high fashion Vermont outfit of flannel nightgown over long underwear, two pairs of pants, sweatshirt, coat, mittens (does anyone know how to get the smell of gasoline out of mittens?) hat, hood, and scarf, praying for the hum of motor. Finally we were up and running, and at least for some hours, I would have heat and water.

We had no idea how long the outage would be, and it seems to be human nature to feel that "someone should be fixing this right now!" that THEY should be doing something. So I did the habitual mumbling and grumbling.

But then I began to imagine what it must be like to be one of the WEC crew who were out there working to restore power. I don't know enough to know exactly how an outage gets traced to its source, but I imagine it takes a lot of tramping around in the pitch black, through brush, trees, snow, ice.

And I realized that the crew who were doing that work were part of our community too: not a "THEY," but a "WE," and that they were working under conditions that I could stand for maybe 15 minutes, but that they were out there for hour after hour. I imagined how incredibly cold they must be. And as I imagined, my irritation shifted to deep gratitude for whoever was out there, working so hard, to take care of all of us as well as they could. So, WEC crew, I just wanted to offer my deep thanks for your work!

Special thanks to Eva Gumprecht of Calais for sending this in after experiencing an outage during the January deep freeze. To learn more about how WEC traces outages, see 'Order of Operations,' beginning on p. 1.



Winter conditions are no picnic! Crews work in snow, ice, and darkness to get power back on. File photo from December, 2015, in Tunbridge.

### Got something to say?

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



# Three Incumbents Seek Re-Election to WEC's Board of Directors

*Annual Meeting Wednesday, May 2, at WEC's Operations Center in East Montpelier*


**T**hree incumbent members of WEC's Board of Directors seek re-election to another three-year term in 2018. To date, there are no challengers for these board seats.

Every year, three seats expire on WEC's nine-member board, giving the membership an opportunity to elect one third of the board that oversees management and staff and makes policy and leadership decisions for the member-owned electric utility. This year, the incumbent candidates are **Stephen Knowlton** of **East Montpelier**, **Roger Fox** of **Walden**, and **Richard Rubin** of **Plainfield**. Directors' terms expire at the Annual Meeting.

Election occurs either by mail in the weeks before WEC's Annual Meeting, or at the Annual Meeting itself. Your ballot will arrive in the mail: check to make sure when the deadline is to post your votes by mail.

WEC members may write in names of unofficial candidates on ballots if they wish. All board candidates run at-large, since WEC is not divided into districts.

The 2018 Annual Meeting will be Wednesday, May 2 at WEC's Operations Center on Fassett Road in East Montpelier. All members are invited to attend the meeting. Reservations are required for dinner, which is provided at no cost to the membership. Please see the reservation form on p.8. More details will follow in the April issue of *Co-op Currents*.

Please see a brief biographical sketch of each candidate below. The April issue will feature their responses to questions about issues related to board service, providing readers a broader sense of their interests, viewpoints, and experience. 

## Stephen Knowlton

**Residence:** I live in the White Pine Co-housing community off of Dillon Rd. in East Montpelier, where I manage a 9.5 kW group net-metered solar array. I have lived there since 2012, and I have been a member of Washington Electric Cooperative since



Stephen Knowlton

2001. Members may contact me by mail at 160 White Rock Dr. #2, Montpelier, VT 05602, by email at knowlsf@auburn.edu, or by phone at 223-2230.

**Background:** I have lived in a number of different places in the US and abroad as a result of having been raised in a military family. I graduated from Middlebury College, and received my PhD in physics from MIT in 1984. I have spent my working life as a physics professor, and as a researcher in the science of alternative energy experiments both domestically and overseas. I spent most of my career at Auburn University, where I taught full-time at all levels from introductory physics to graduate courses. Furthermore, I led a federally supported experimental fusion energy research laboratory comprised of students, post-docs, technician, and staff scientists. I retired from this position in 2012, although I continue to perform work with my old group to a lesser extent.

**Community Service:** In December 2014, I was appointed to serve on the Board of Directors of Washington Electric Cooperative to replace a deceased board member, and I have served out one full term as a board member since May of 2015. During that time, I have served on the Power and Operations Committee, Policy Committee, and Members and Marketing Committee, which I now chair.

In local education efforts, I have acted as a mentor in U-32 high school's Branching Out program on several projects, and also serve as a science advisor to the Vermont Energy Education Project. I am a member of the Vermont Academy of Science and Engineering, and currently serve on its board as treasurer of the organization.

## Roger Fox

**Residence:** I live at Dows Crossing in Walden, in the northern part of WEC's service territory, and I've been a Co-op member in Walden since 1971. You can contact me by mail at 2067 Bayley-Hazen Road, East Hardwick, VT 05836, by phone at (802) 563-2321, or by email at rfox@pivot.net.



Roger Fox

**Background:** I received a bachelor's engineering degree from M.I.T., and I worked on aerospace engineering projects in Florida and Massachusetts prior to becoming a Vermonter. Since 1974, I've operated a printing and graphic design business, Apocalypse Graphics, in Walden.

**Community Service:** I currently serve as Walden's town moderator, and as a justice of the peace and chair of the Board of Civil Authority. I've previously served as selectman and town energy coordinator. I'm a longtime member of several other Vermont consumer cooperatives, including Buffalo Mountain Food Co-op, VSECU, North Country Federal Credit Union, and Co-operative Insurance Companies.

I was first elected to the WEC board in 1991, and have served as the Co-op's vice president since 1998. My current assignments include membership on the board's Finance, Administration, & Power Planning; Power & Operations; and Policy Committees. I also confer with and provide support for the board president in the execution of his duties. In the past I've served on the Members & Markets and Editorial Committees, and as treasurer of the Northeast Association of Electric Cooperatives (covering the upstate New York and northern New England area).

While a faculty member at Auburn, I served on and chaired numerous committees involving research, hiring, campus life, and faculty governance. I have been active in scientific outreach activities, including annual Science Olympiads, presentations at urban and rural schools, and local science fairs and open houses. In my professional service, I continue to participate actively in scientific program

## Richard Rubin

**Residence:** I have lived on East Hill in Plainfield for more than 40 years. I am 72 years old and am married to Jayne Israel. We have three children (two still in Plainfield) and four grandchildren. I enjoy hiking, skiing, gardening, golf, and hanging out with my grandchildren. My email address is rrubin@sover.net.



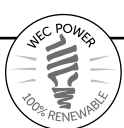
Richard Rubin

**Background:** I was born and raised outside of Boston. I attended Harvard College, and law school at the University of Pennsylvania. I have practiced law in Barre for 38 years. My law firm is Rubin, Kidney, Myer & Vincent. Our firm is also the public defender for Washington County. My practice has involved representing people with all kinds of legal problems. Mainly, I am a trial lawyer.

**Community Service:** I have served as a WEC director for 18 years. I was first elected after being appointed to complete the term of a board member who had resigned. In the community, I was a member of the Twinfield School Board for five years, helped establish the original food co-op in Plainfield, and served on the board of Vermont Legal Aid. I have also been active in various legal organizations and am now a member of the board of the Vermont Association for Justice. Many years ago I was involved with my brother, Mathew Rubin, in creating the Wrightsville hydroelectric facility and the Winooski 8 hydroelectric plant in East Montpelier.

reviews and advisory panels at the request of the US Department of Energy. During my time as a university professor, I frequently visited US Congressional offices, subcommittees, and federal executive branch agencies to inform them of the research needs and scientific priorities of federally supported fusion energy research in my field.

**Remember to RSVP for the Annual Meeting! See the form on page 8.**



## Order of Operations

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in fact, owned by WEC. As a distribution utility, WEC is downstream from Green Mountain Power, VELCO, and ultimately ISO-NE. During the late October windstorm, faults on transmission lines owned by upstream utilities meant WEC substations were without power. A consequence of this was that two of WEC's computer systems—automated meter infrastructure (AMI) and outage management system (OMS)—could not electronically troubleshoot the distribution system outbound of the substation.

Such was the case with WEC's Jackson Corners, East Montpelier, and Maple Corner substations. While WEC waited for GMP to repair the transmission lines that serve those substations, WEC crews patrolled its three-phase main line feeders, so when the substations came back on, the three-phase feeders could be immediately reenergized.

When a problem occurs with a line, it causes the upstream fuse to blow. That de-energizes the line—and that's when your power goes out. The next step is for a member to call in the outage.

Field Technician Brian Wilkin takes a weekly shift as dispatcher and was on duty during the October windstorm. He showed *Currents* how the computer system identifies open fuses, which allows the dispatcher to direct a line crew to a specific location on the line. When a member reports an outage and their location is logged into the OMS, "the OMS arbitrarily checks meters around the fuse that's out. It rolls back closer to the substation until it finds a meter that's on," he explained. When the system identifies the nearest upstream blown fuse, dispatchers double check the location and send the line crew to that point. There, the crew patrols the line until they find the fault and make repairs.

Operations and Engineering Director Dan Weston added, "The accuracy of the OMS is well above 95%. What that allows us to do is instantly know which fuse has opened up and how many people are affected. That gives us location information and identifies how many people are out, and we feed that

into our triage process."

Weston recalled that before they had this computer system, WEC staff would sit at a long table with a map, usually in the early morning hours, calling each member along the distribution line where the outage was reported until they reached a member whose electricity was still on.

Once upstream faults are resolved, WEC's team looks at a number of factors to determine where each crew goes next. First and foremost, said Lilley, they look at the numbers. If two lines are down, he explained, and one is a three-phase line that energizes 500 homes, and the other is a single phase line that serves four members, the three-phase line gets repaired first. Weston added it usually takes the same amount of work to restore power to a single phase line that serves four members. However, he added, the team always approaches restoration knowing that the work is not done until power to every member has been restored.

As the numbers decrease, the team looks at location. "We attack it by numbers until we get it down to the lines that have, give or take, 30 people on them," said Weston. Then, he said, they'll factor in where each crew is already located. "If I've got a crew in Walden and there's a line there that serves 20, it doesn't make sense move them down to Vershire, an hour and a half away, for a line that serves 30," Weston explained.

But if there are scattered outages, each affecting roughly the same number of members, how do they decide? If multiple three-phase lines are out, the team will look to see if

*"If a three-phase line isn't energized by the transmission line, there's no sense in starting there."*

— Brent Lilley,  
Operations and  
Construction Services  
Manager

### Quick guide: How does WEC figure out when my power gets restored?

1. Electricity flows downstream. Transmission lines serve WEC's substations, that serve three-phase feeder lines, that serve two-phase and single-phase distribution lines. Any upstream faults must get fixed before any downstream faults.
2. When a member calls in an outage, the computer checks fuses in the direction of the substation until it finds one that's on. That shows the team the location and range of the outage.
3. Once restoration progresses to distribution lines serving about 30 or fewer members, WEC's teams consider several factors when deciding where to send each crew for their next repair:
  - the number of members affected by each outage
  - where crews are already working
  - the type and extent of the damage (if known)
  - special equipment each crew has (bucket, etc)
4. If your neighbors' power is restored but yours isn't, call WEC. It's possible, especially during major outage events, that a new fault is causing your outage. But until your report is entered into the OMS, the team won't be able to tell.

WEC's only measure of success for power restoration is 100%. Every outage is important, and the crews don't stop until everyone's power is on.

one line energizes a school or clinic or other critical need building. As the numbers drop, Lilley said that if all else is equal, he factors in availability: "How many guys do we have out there?"

What do we need for equipment?" he asked. If one line repair requires a bucket truck, but the closest crew doesn't have one, he said, then it

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## Get to Know Your WEC Sy Daubenspeck and Larry Gilbert

**W**EC welcomed several new staff members in recent months. In this issue, we meet two of them: Sy Daubenspeck, Plant Accountant, and Larry Gilbert, Right of Way Management Coordinator. Look for more new faces in upcoming issues.

Have you ever wondered who that is fixing the line up your road, or who you spoke to when you called in about an outage or a bill? Going forward, *Currents* will regularly profile Co-op staff in this new feature: *Get to Know Your WEC*.

### Sy Daubenspeck

#### What he does

Sy started in August 2017 as WEC's Plant Accountant. "I process work orders and materials for inventory. In processing work orders, I work with Sandy (Gendron, Information Database Technician) in getting the substation books updated, and with Elaine (Gonier, Member Services Representative) on new connects and disconnects."



#### How he met his wife

After attending UVM, Sy wasn't sure at first which direction his career would go. He started at Kmart "because I know how to mix paint," he said. His finance degree caught the attention of a colleague's spouse—a Green Mountain Power worker looking for a plant accountant. He's worked in power ever since.

As a second job, Sy drove for Yellow Cab. One evening, he had a particularly memorable fare. "I saw her eyes in my mirror, and that was it," he said. They were married within six months.

#### Glutton for pun-ishment

Sy loves to hang out with his grandchildren (ages eight, six, and one on the way), and also enjoys reading and bowling. He has an ongoing interest in theater and used to volunteer with the Green Mountain Guild doing ticketing and set design.

His main hobby, however, is building with wood. "I'm not a fine cabinetry guy. I construct things," he explained. Those include an addition on his South Burlington home and a playscape for his grandkids.

Sy proudly admits to enjoying another pastime that's more of an acquired taste. "I love bad puns," he said.

### Larry Gilbert

#### What he does

"I'm in charge of the right of way crews and trim schedules," Larry said. Right of way crews manage vegetation growth in the easements along WEC's power lines.

If Larry looks familiar, that's because he's no stranger to the Co-op. Larry was a First Class Lineman at WEC for about 18 years, and most recently served as Construction Foreman. So, he knows a thing or two about the Co-op's service area. "I'm very familiar with the lines," he laughed. Larry started as Right of Way Management Coordinator in January.



#### Hometown guy

Larry grew up in Woodbury and lives there still. He loves hunting and fishing and spending time with his family and friends. If he's not home, you can probably find him not far away, at his camp on Greenwood Lake. He has two sons, two stepdaughters, and a stepson. And Kona. Kona is Larry's beloved basset hound / bulldog mix. "She's a house dog," he said.

#### Changing times

Moving to an office in WEC headquarters is a big shift for Larry after nearly 20 years working on the lines. He'll miss seeing fellow line crew every day, he said: "We've had a lot of fun times." But, he added, they'll still work together during storms and other restoration work. And he's up for a new adventure. "I'm looking forward to the change," he said.

# After the Event

*Storm cleanup doesn't end when the power returns. What WEC is doing now to improve reliability*

**W**ind, ice, heavy snow, wet soil. If you're a big white pine at the end of your life, one or more of these factors is likely to bring you down.

Members in Fayston, Moretown, Northfield, Williamstown, and nearby areas may understand this a little too well—in 2017, large tree blow downs caused several outages and broken poles along the three-phase lines fed by the Jackson Corners and Moretown substations. “We’re focused on the Northfield feeder out of our Jackson Corners substation and the Fayston feeder served out of our Moretown substation. The windstorms were uncommonly brutal to those two areas. The members served by those feeders had less than acceptable reliability, from my perspective,” acknowledged WEC’s Operations and Engineering Director Dan Weston.

That’s why the right of way clearing crews WEC contracts with focus on preventative maintenance—it’s safer and more cost-effective to cut down hazard trees before they fall through wires, taking transformers and sometimes poles with them. That’s what’s happening on those three-phase feeder lines now. However, as happened several times last year, tall trees sometimes fall from outside WEC’s right of way, going through the lines and breaking poles.

So after a storm event, WEC has three big jobs. The first is to get the power back on quickly and safely. The second is to address any broken poles and unsafe conditions noted during the restoration process. The third is to patrol the main-line feeders and cut leaning or threatening danger trees.

It’s a team effort. After the November storm, Rick Stergas, WEC’s Safety and Environmental Coordinator, and First Class Lineworker Kevin Lanphear worked together to patrol all of WEC’s transmission lines and most of the

three-phase feeders, marking danger trees as they went. They were followed by right of way crews who cut the marked trees.

Larry Gilbert is WEC’s new Right of Way Management Coordinator (read more about him in “Get to Know Your WEC,” p. 7) and worked as a WEC lineworker for nearly 20 years. The priority, after a storm, he said, is to restore members’ power safely. If a pole breaks, that sometimes means a workaround, he said. “Sometimes we do wires up in a tree temporarily to get customers power. When I was a lineman we actually took a tree and put a transformer and the wires in the tree to get those people power back that night.”

In utility-speak, a temporary repair like this is known as “floating the wires.” “We use whatever safe method we have at our disposal so we can reenergize the line,” explained Weston. “Then we make note of these spots and send an engineer out after restoration has occurred and they look at what broke. Do we need a larger pole? Can we relocate it so it won’t break again next time? The cleanup phase requires us to go out and look at physical damage to the infrastructure.”

Sometimes it makes sense to move a section of line out of a heavily forested region and relocate it in a less vulnerable location, like along a road. But changes like this, not to mention addressing hazard trees outside WEC’s easement, require permission from

*“Our members own the Co-op, so we’re looking out for their interests. We’re trying to increase the reliability of our system so we don’t have a lot of lengthy outages.”*

— Larry Gilbert, Right of Way Management Coordinator

landowners.

Right now, Gilbert and tree crews are identifying trees outside WEC’s rights of way that are likely to come down in the next weather event, and contacting landowners about them. “It takes a lot of cooperation with the members,” he said. “They own the Co-op, so we’re looking out for their interests. We’re trying to increase the reliability of our system so we don’t

have a lot of lengthy outages. A lot of people work from home today,” he pointed out, saying that’s a financial incentive to do what it takes to keep power reliable—on top of all the other reasons homeowners want the lights on.


After a major outage with a lot of downed trees, homeowners actually tend to approach WEC crews about taking down trees. “We’ve had a lot of members ask to take down the big pines behind their houses that are heading toward the lines. They’re cooperating with us as we work with them. There are a lot of trees that have been marked, and we’re going to take them one by one,” Gilbert said.

The big pines, especially the oldest, weakest ones that rise above the rest of the canopy, catch the wind like full sails. A lot of smaller, deciduous trees—like birches, poplars, and red maples—are susceptible to leaning. Heavy snow and ice weigh down those smaller trees and bend them toward the line, changing their shape, Weston said. “They permanently fix that way. They lean right over the conductor,” he said.

Leaning trees are more susceptible to high winds and also get marked for removal.

WEC’s plan to tackle danger trees includes a device that puts hearts in the eyes of every seven-year-old who sees it: a huge machine called the Brontosaurus. Basically a large excavator with a mowing head on a boom, it’s able to simultaneously mow and shatter stumps, which appears to help prevent regrowth. “Because we don’t use herbicides, we look at any method we can to slow or stop the stem growth after we cut,” explained Weston. It also creates a path for crews to get into dense areas and trim danger trees—which is quick and cost-effective, added Gilbert. They said the Brontosaurus has been working on the Northfield feeder line, and both the Northfield and Fayston feeders will continue to see tree crews through the winter.


Those include crews from WEC contractors Rich’s Tree Service, Matt Foster Logging, Trees R Us, and New England Tree Experts. “They’re an absolutely critical component of storm cleanup. 90% of the burden of removing trees after the storm falls on them,” said Weston. He pointed out that once the power is back on, these crews are tasked with taking trees down in a way that doesn’t break a line or smash a pole. “They’re just so good at it,” he said appreciatively.

“You’re working by a power line with high voltage on it. It’s not as easy as going out and saying, ‘Yeah, I’ll go cut that tree out in the backyard,’” agreed Gilbert. “They’re very good, and very cautious. We want to make sure they go home at night, too.” 

## Order of Operations

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makes sense for the nearby crew to proceed to a break they can fix quickly, and they’ll wait for a bucket to free up to fix the first fault.

One thing to keep in mind, Weston mentioned, is that WEC’s eight substations are the points of delivery for all power downstream—and in the Co-op’s mountainous terrain, a substation may be located in a microclimate quite different from the members it serves. “It may be sunny where you live, but you’re out of power because 15 miles north there’s heavy wet snow and high winds,” he pointed out. “Electricity works just like dominos. If it is out at the substation, it is out at the end of the line.” 

## DINNER RESERVATION (BUFFET DINNER)

### WEC’S 79th Annual Meeting

**230 Fassett Road, East Montpelier, VT • 4:30pm Registration 5:00pm Buffet Open**

**Dinner (at no charge) is by RESERVATION ONLY** – To make your reservation, **return this form no later than Wednesday, April 18**; walk-ins on May 2 will be charged \$20 each (no guarantee meals will be available for those who do not register in advance.)

**Cost:** Dinner is free for reservations made on or before April 18. Walk-in on 5/2: \$20 – Adult; \$10 – Child (ages 10-6); Children under 10 free.

Buffet will have a variety of dishes including vegetarian and gluten free options. For special food requests please contact Dawn Johnson at (802) 224-2332 by April 2.

**Return by April 18 to: WEC, PO Box 8, E. Montpelier, VT 05651**

	Member	Guest	Child/Age
Name: _____ <small>(Please print clearly)</small>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**(Please do not return in ballot envelope).**

