



New Laws, New Challenges Featured At WEC Community Meeting

Story and photos by
Andrew Nemethy

Washington Electric Cooperative's October 8, 2015, community meeting in East Montpelier offered informative show-and-tell, a free-wheeling Q&A, and a free (and quite tasty) lasagna dinner that may be responsible for one of the largest gatherings since WEC's community-meeting tradition started in 2003.

The fall session, often held in one of the outlying communities in the Co-op's 41-town service area, was hosted at the parish hall of the

Old Brick Church next to WEC's headquarters. That was designed to give members a chance to tour the rebuilt central office that had been badly damaged by a May 2011 flash flood, and learn about the advanced equipment that has greatly improved the Co-op's ability to locate outages, mobilize repair efforts, and direct its fleet of 25 trucks.

Dozens of people were given guided tours of the offices by General Manager Patty Richards, Operations Director Dan Weston, and President Barry Bernstein before settling in for dinner, a fundraiser

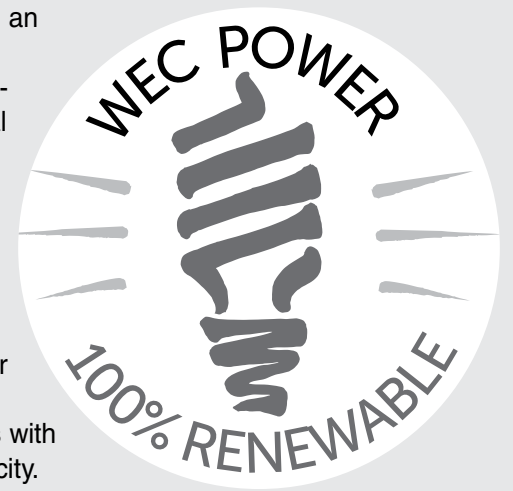
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Lisa Hart of Groton (right) serves lasagna, cooked up by parents and students at the Blue Mountain Union High School in Wells River, to Nadine Brooke of Chelsea. The dinner raised funds for a student trip to Costa Rica.

WEC's '100%' Logo Makes A Statement

Vermont has established an official state goal for all energy sectors (electricity, transportation, and thermal heating and cooling) to be 90-percent renewable by 2050. Washington Electric Cooperative – your member-owned electric utility – is 35 years ahead of that target, and actually more: In its power supply commitments, WEC is already providing its members with 100-percent renewable electricity.



To make that clear to Co-op members and everyone else, Washington Electric has adopted the logo pictured above – the words "WEC POWER – 100% RENEWABLE" surrounding an image of an energy-efficient compact fluorescent bulb emitting its low-cost rays of light. The logo was designed by Montpelier graphic artist (and *Co-op Currents* layout specialist) Tim Newcomb. While it appears in black-and-white on these pages, in other applications, such as our web site, the top lettering is blue, the bottom lettering is green, and the bulb and light rays are golden.

It's an attractive image that's designed to convey a message: Washington Electric Cooperative has embraced and delivered upon the goal of obtaining the power it provides to its 10,800 owner-members from renewable sources.

It's also important to point out that WEC's power comes from sources that are affordable as well as green. It's true that electric rates in Vermont are high compared to most regions of the country, and that WEC, as a very rural utility, has fewer people on its system to defray the costs of operating an electric utility. But the Co-op makes its power-purchase decisions with cost and reliability at least equal to other considerations.

By announcing this accomplishment, and using the new logo to keep the public aware of WEC's commitment to the environment and the goals Vermont has established to combat climate change and pollution, WEC wants to provide an example for other utilities and energy-related industries that it can be done. While Washington Electric Cooperative is a relatively small company, and the 100-percent-renewable target was therefore somewhat more easily within reach, it was nevertheless the result of very purposeful planning and power-portfolio decisions over a period of many years. The logo also signals WEC's intention to maintain this priority as it makes its power-planning decisions in the years ahead. WEC is 100-percent green and intends to stay that way.

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Washington Electric Cooperative

East Montpelier, VT 05651

Inside

Our (nearly) annual Word to the Wise about electric space heaters.

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Co-op's focus begins to shift toward the 2016 legislative session

and the energy issues it will include. See President's Message, page 2.

Your "eBilling" option has been improved,

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A pioneering Vermont cooperative celebrates 80 years! The Adamant Co-op is the nation's oldest, and one of the most interesting. Page 3.

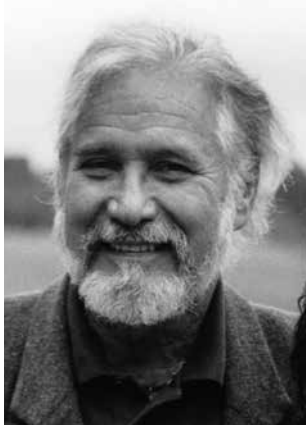
President's Message

October Issues, And The Road Ahead

By Barry Bernstein

As I travel the backroads during this beautiful late autumn I am always awed by the incredible colors as if I'm experiencing them for the very first time. The cooler weather hastens my need to cross off items on that list of the things that must get done before snow arrives. It also reminds me of what a special community I and we are so fortunate to live in and be part of – family, friends, neighbors, WEC, our food co-ops, credit unions, and local businesses, where you can always get a friendly hello from familiar faces.

October is National Cooperative Month, celebrating the efforts of neighbors coming together to build and operate member-owned businesses in many different fields – electricity,



farming, food, banking/ credit unions, wholesale and retail sales, etc. As we do each year, we celebrate one of these organizations – The Adamant Cooperative – on page 3.

October is also National Breast Cancer Awareness Month. One in eight women will have breast cancer during their lives, affecting almost every extended family. Both of my sisters and my niece are cancer survivors, and it is through their community networks that they found the essential support that has helped them grow stronger.

Fall Community Dinner

October is also when we hold our annual WEC Community Meeting dinner, and on October 8, seventy-five folks came to the Old Brick Church

in East Montpelier, next door to the WEC offices. It was one of our biggest turnouts ever. WEC has a special neighbor relationship with the church, which lends us their kitchen/meeting room for events. The church also provided invaluable help when we were flooded out of our building in 2011. Our relationship goes back to 1939 when they donated the land for our original office and generating plant, which housed two 250-horsepower diesel engines to provide electricity to our founding 150 members' homes and farms.

This year the Spanish Club from Blue Mountain Union High School in Wells River prepared the meal to raise money for their trip to Costa Rica, under the direction of chef Steve Hart, a parent and long-term WEC employee. They did a terrific job serving so many people. Our youngest member attending was Cora, 18 months old, who came with her parents Niko Rubin and Jean Hamilton, from Plainfield. Our oldest member was Wilmer Brandt, from Marshfield, who is nearing his 96 birthday, a WEC member since the 1950s.

Many of those attending took tours of our renovated offices before the supper, led by General Manager Patty Richards and Operations Director Dan Weston, with staff member Sandy Gendron, our Information Database Technician, demonstrating how things operate during outages and daily operations. Products & Services Director Bill Powell and Administrative Assistant Debbie Brown were also on hand to talk with members. Several members of your Board of Directors also attended.

Energy

As we head toward the January legislative session our leadership team has begun to focus more of our attention on issues and potential energy legislation that may affect our members. New proposed rules for net metering that will take effect in January, 2017, will be presented to the Legislature by the Vermont Public Service Board. A bill to consider a carbon tax on fossil fuels, returning 90 percent of the taxes collected to taxpayers and 10 percent to a fund to subsidize weatherization and renewable energy, will be introduced. To stay abreast of these issues your directors read considerable information and try also to hear from people knowledgeable in these subjects.

A number of board and staff members attended the annual Renewable Energy Vermont (REV) Conference held this month in

Burlington. (WEC and some other utilities are members of REV.) This year's workshops and speakers were especially good, and provided varied perspectives on both the challenges and opportunities as we work together to address climate change and the

I believe that a critical component to successfully making the transition away from a fossil fuel economy is transparency by all parties who have a stake in this change – and that's all of us.

need to significantly reduce our reliance on fossil fuel. Several panelists shared different approaches to carbon tax legislation in different states.

Three speakers – Darren Springer, who is former Deputy Commissioner of the Department of

Public Service and now serves as Gov. Shumlin's chief of staff; House Speaker and gubernatorial candidate Shap Smith; and Rep Tony Klein, chair of the House Energy and Natural Resources Committee (also a WEC member) – shared a common theme: Much progress has been made in the area of renewable energy, but with success comes challenges, and it's important to learn from our experiences so that as we move forward we can do so more wisely.

Darren Springer pointed out that no energy source would be viable without subsidies. Over the next 10 years more than \$100 billion is scheduled for coal, other fossil fuels, and nuclear subsidies. This compares to \$35 billion for renewables, but only if the tax credits are renewed in 2017. Renewables also received a smaller share of research & development funds than nuclear, coal, and other fossil fuels.

As I read about and listen to the issues concerning climate change, as someone who has spent the last four decades involved in the field of energy, it is clear to me that we must make changes away from a fossil fuel economy, and as hard as that change may be it will come faster than we may be ready for. I truly believe that a critical component to successfully making that transition is transparency by all parties who have a stake in this change – and that's all of us. Each pathway has deeply and strongly held positions by all involved, and we can all fall prey to the temptation of overselling our proposals in an effort to achieve our goals.

The debate and decisions ahead will not be easy ones. They will require that we all become better informed, more open and transparent in our positions, and become better listeners. Please let any of your directors or General Manager Patty Richards know if you have any thoughts or input as we work on these issues over the next several months.

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 Deborah Brown, 802-223-5245.

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Adamant Food Cooperative Leads The Way

You've got to have a heart of stone not to be charmed by the Adamant Cooperative, one of the central institutions in a borderless community that seems to exist only because its residents love it so much. There's not a public school in Adamant (there once was), there's no village government, no Department of Public Works.

There is a post office, housed within the co-op itself and a holdover from the days when there were working stone quarries and a population of Scottish and Quebecois laborers scaling their creviced walls.

Adamant straddles the towns of Calais and East Montpelier, but there are longtime residents of central Vermont who aren't sure where it is or how they would navigate the web of dirt roads through woods and farmlands to actually find it. Yet, small and nearly abstract as this community is, one would never say about Adamant what American novelist and poet Gertrude Stein (1874-1946) famously said about Oakland, California: "There is no there there."

There's plenty of "there" in Adamant – and no better expression of its character and values than the Adamant Cooperative, which – no small matter – is celebrating its 80th anniversary

this year. The modest co-op, with a membership somewhere around 100 families, has been hailed by Purdue University professor and cultural researcher Anne Meis Knupfer as the oldest continually operating food cooperative in the United States.

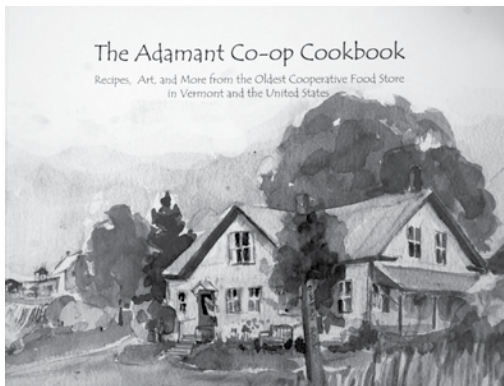
Fittingly, Knupfer dedicates a chapter to the Adamant Cooperative in her 2013 book, *Food Co-ops in America* – which is nowhere near as dry a read as its title suggests. The author's objectivity in the book is belied by a personal

inscription in a copy she gave to Janet MacLeod, who is not just a member of the cooperative's board but a descendant of founding board members Chester and Lucy Anderson

(her grandparents). "Janet," Knupfer wrote, "Adamant Food Co-op is my very favorite!"

Though the co-op experimented with growth at times during its history, and came within a whisker of closing on more than one occasion, it has predominantly been the co-op it remains today: a cozy, very welcoming country store at the hamlet's quiet crossroads, with one part-time employee, Regina Thompson, and a coterie of committed supporters.

"It's really a cooperative in the purest sense of the word," says Janet. "There's no hierarchy. Board members work around the place, fixing things,



Janet MacLeod (left), a local artist and Adamant Cooperative board member, sits before the wood stove on a chilly morning with Regina Thompson, who works at the store three days a week. Neither lives, precisely, in Adamant, but there is no precise Adamant. Says Janet, "We say it's a state of mind."


providing wood for the stove. People notice things and they do them."

In 1941 the Adamant Cooperative installed electricity, becoming a member of another cooperative, Washington Electric. Indeed, one of WEC's formative meetings was held on July 14, 1939, at the nearby Maple Corner Grange Hall.

To celebrate its 80th anniversary the co-op has just published *The Adamant Co-op Cookbook*, a beautiful 136-page paperback with recipes, reflections, and other contributions from community members, and lovely watercolors and sketches by Janet MacLeod, an accomplished artist.

In her book on food co-ops, Knupfer presents this incisive comment about the Adamant Cooperative:

"This smallest and oldest of food co-ops . . . challenges the business model that many other food co-ops have followed. It raises the questions of whether a co-op's sales and product lines need to increase annually, and whether bigger is better. It also teaches us how important a co-op can be in preserving community life."

These are reasons to celebrate October as National Cooperative Month. Happy 80th, Adamant Cooperative! 

A Unique Arrangement with Vermont Electric Co-op

WEC Drops HQ Power For A Year, Then Reclaims It As Needed

Hydro Quebec, the provincially owned Canadian company to our north, has long been an important source of wholesale electric power for Washington Electric Cooperative. Its power is "baseload" (constantly available, barring temporary transmission problems), and accounts for about 20 percent of the electricity WEC provides its members – a greater percentage than any other source except the Co-op's Coventry, Vermont, generating plant, which uses landfill gas to fuel its power production; WEC draws around 53 percent of its power from Coventry.

HQ power – hydroelectricity – is also considered renewable, and in recent years its contracted price for WEC and other Vermont utilities has generally been competitive with the cost of

wholesale electricity from the New England power pool.

That hasn't always been the case.

"There was a time when Hydro Quebec was kind of an Achilles' heel for Vermont's energy policy makers and utilities," says Washington Electric General Manager Patty Richards.

Under the 20-year contract between the provincial company and Vermont's electric utilities that went into effect in 1995, Richards explains, HQ's price increases were triggered by an escalator clause tied to inflation; there were times, especially during the first decade or so of the contract, when the utilities were paying far in excess of New England's market price for wholesale power.

"That led to a lot of criticism of the utilities for committing to long-term

contracts," says Richards, "despite the fact that *good* long-term contracts provide important stability for power companies. The last ten years with Hydro Quebec, however, haven't been so bad. During recent winters, HQ was below market price; in the summer, though, it's typically been above market."

Apparently, the state's utilities and the Vermont Public Service Board (PSB) that regulates them learned from the experience. That 20-year contract will expire for WEC at the end of this month (October 2015), and many of Vermont's utilities, including Washington Electric, will begin purchasing power under a new and more favorable contract from Hydro Quebec.

"It's for a larger amount of power," Richards explains, "but we'll only take

it based on our need. This contract is more flexible, and it provides peak power for the periods when the utilities need it the most. It's also less expensive, and has provisions related to the cost of market power that should enable us to avoid long periods of paying significantly above market rates."

While the terms of the contract prohibit explicit statement of the costs, there are also controls in the HQUS PPA (Hydro Quebec US Purchase Power Agreement) to keep the price paid by Vermont's utilities between an established ceiling and floor, and a formula to provide changes gradually when they must occur.

Negotiations for the new HQ contract began in 2010, and were led by what were then the state's two largest electric utilities – Green Mountain Power Corp. and Central Vermont Public Service (which has since been purchased by the Canadian-owned Gaz Métro/GMP). Washington Electric and other utilities also participated. The Co-op's contract, which has unique provisions, was approved by the Vermont Public Service Board (PSB), and by a vote of

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Community Meeting

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provided by parents and students from Blue Mountain Union High School in Wells River. After dinner came brief comments by Board President Barry Bernstein and a general update by Richards before opening the floor to questions. A wide-ranging discussion followed, covering topics from how the Co-op will be affected by Vermont's aggressive renewable energy standards, to the Co-op's electric rates, the Coventry landfill power plant, and forthcoming initiatives in weatherization, solar power, and EV (electric vehicle) charging stations.

Bernstein introduced Richards to the gathering of members and guests by noting that she was now almost "two years old," prompting a quip by Richards about her surprising youth. But as Richards clarified, Bernstein meant she'd been on the job for two years since replacing longtime manager Avram Patt upon his 2013 retirement. She added that she's "still learning the ropes."

A key message Richards highlighted is that Washington Electric has reached a milestone that is both unusual and worthy of recognition: It now receives 100 percent of its power from renewable sources.

"This is a huge accomplishment and only two utilities in the state are doing this," she said (Burlington's municipal electric utility being the other one). It puts WEC in the enviable position of feeling far less impact than most of Vermont's 18 utilities from recently passed legislation – Act 56 – that was signed by Gov. Peter Shumlin in June. The new law establishes mandatory "renewable portfolio standards" for utilities – something 29 states and the District of Columbia also have – that are among the most ambitious of all the states, according to the U.S. Energy Information Administration.

The law requires that 55 percent of a utility's electricity come from renewable sources, which can include large-scale hydro power, by 2017. It then increases by 4 percentage points every three



WEC General Manager Patty Richards talks about Vermont's new renewable energy standards and how WEC is responding to different aspects of the law passed by the Legislature last spring.

years until reaching 75 percent by 2032.

In addition, the state has set a goal that 90 percent of all energy should come from renewables by 2050. WEC's power sources, however, are already 100-percent renewable. Richards broke down the mix of those sources before RECs are sold: 53 percent from the Coventry (landfill gas) generating facility; 10-15 percent from Sheffield Wind; 20 percent from Hydro Quebec; and small amounts from the Co-op's Wrightsville hydro project, the Ryegate (Vermont) wood-fired biomass plant, and a few other sources.

WEC sells renewable energy credits (RECs) earned by the wind and landfill gas sources – the purchasers thereby (and not the Co-op) owning their "environmental attributes" – and purchases hydro RECs to restore WEC's green profile.

But it all starts with underlying sources for the Cooperative that are renewable.

Enabling EVs

Since WEC is already green, the main impact of the 2015 legislation upon the Co-op will be in other parts of the new law – those requiring utilities to offer incentives and programs to members to reduce their fossil fuel and energy consumption even in applications not directly tied to electricity.

"There are a couple of things on our radar screen," Richards told the gathering.

First, the Co-op will undertake an educational campaign to explain "some of the things we're thinking about" to meet those provisions in the law. These include weatherization and

efficiency programs to reduce energy usage for heat, and constructing EV (electric vehicle) charging stations in the Co-op's service area.

Richards said the Co-op had received a \$140,000 grant from VLITE (the Vermont Low Income Trust for Electricity – a public-benefit nonprofit) to build five charging stations, so that

users will be able to swipe a card and get power to recharge their vehicles in WEC's service territory. This prompted Sheila Herman of West Topsham to ask where the stations were going and what criteria the Co-op was using to site them.

Richards explained that the plan, which is already well underway, was to locate them in public spaces and areas with a large core of possible users. Potential sites include Harwood Union High School, Cabot Cooperative Creamery, and a park 'n' ride in East Montpelier. That led to a question about the rationale behind spending money to build charging stations when so few people drive electric cars, and how the charging stations would be used.

Richards said that EV charging stations are mostly used for relatively brief periods to "top off" a car's electric charge. Member Cort Richardson explained that, in his view, demand is secondary at this point to construction of EV stations – a key step in creating infrastructure that will encourage usage of electric cars. Bernstein noted that while electric car usage and EV charging stations are not yet widely used in Vermont, with WEC's participation that could change.

"The bottom line is we don't know how this is going to work," said WEC's president. "This is the very, very beginning."

Under Act 56, WEC has until 2017 to design and implement its programs to help members save on energy costs and reduce fossil fuel consumption. Said Richards, "We'll have many articles in *Co-op Currents* explaining what we're doing, and how our members will be able to benefit."

Focus on rate stability

Bernstein noted that a key part of the Co-op's renewables success story and stable power supply has been power generation from the Coventry station, adjacent to Vermont's only operating lined landfill.

"We spent about \$14 million on our Coventry project and it's the envy of everybody," he said, producing reliable power at a low cost to Co-op members.

The meeting gave members a chance to tour WEC's rebuilt central office and learn about the advanced equipment that has greatly improved the Co-op's ability to locate outages and mobilize repair efforts.



WEC Operations Director Dan Weston describes the benefits of AMI (advanced metering infrastructure, commonly known as "smart meters") at the Co-op's October 8 Community Meeting. Some of these annual, informal dinners now attract almost as many members as the Co-op's Annual Meeting in the spring.



WEC members Dick Staudt (left) and John Sanders react to a humorous comment by Board President Barry Bernstein during the question-and-answer session after dinner at the October WEC community meeting.

With a steady supply of methane from decomposing material in the landfill powering five WEC generators, Coventry is going to be an important part of the Co-op's mix for many years to come, he said, and that's good for keeping a lid on power costs.

"What we have heavily focused on for a very, very long time is to stabilize our rates," he said. Trading renewable energy credits has also been valuable for WEC, since it "gives us a couple million dollars to stabilize our rates."

Bernstein pointed out that avoiding major rate increases since 2010 has been a major accomplishment considering that the 41 towns the Co-op serves comprise some of the most rural territory in Vermont, giving WEC an average of only eight members per mile of line to underwrite the costs of power and service.

Richards noted that Green Mountain Power, by comparison, averages 23 customers per mile to support its system. She said many WEC members may not realize that for the average power user, WEC's rates are "pretty comparable" to GMP's; larger users do have higher rates, in part to encourage them to modify their use.

Responding to a question from



WEC's October Community meeting had a remarkable spread of ages. Left, Wilmer Brandt of Marshfield, stalwart WEC member of 95 who frequently attends Co-op functions, greets sleepy little Cora (18 months), who is held by her mother, Jean Hamilton, of Plainfield.

Betsy Barstow of East Montpelier, Richards said WEC continues to see enrollment in its revised net-metering program, which allows members to feed excess power they generate (mostly from solar arrays) into the Co-op's electric system; for some people this eliminates most of their monthly electric bill. Richards estimated

that around three members a month sign up to become net meterers.

Under WEC's revised net-metering program – which Washington Electric was permitted to design because it was the only Vermont utility that already met thresholds of high participation in net metering (and met the state's renewable energy goals) — members

who generate their own power are required to pay a minimal amount each month for poles and maintenance costs. Those signed up under previous rules, designed by the state, are "grandfathered in" and do not have to pay that cost.

"It's unfair to pull the rug out from under them," said Bernstein.

Toward the end of the meeting, member James Robbins of Orange told a funny story about how for years the Co-op crews came out to fix a balky road lamp at a local farm by hitting the pole with a sledgehammer. That allowed Richards an opening to point out the dramatic impact that "smart meters" have had on WEC's ability to detect and fix outages and problems.

"That sledgehammer has been replaced by digital technology," she said, noting that today WEC can almost instantly locate and respond to issues via the smart meters that feed information back to the WEC office.

In this case saying goodbye to the "good old days" has been a good thing.



Andrew Nemethy is a freelance journalist and a Washington Electric Cooperative member from Calais.

The Office Tour: Members Get an Inside Look at Modern Utility Abilities

By Andrew Nemethy

Member Services Supervisor Susan Golden was greeting Co-op members who were touring the office building – a special feature of Washington Electric's October 8 community meeting – as they entered the spacious front room where she and her staff work. But it was her assistant who got the most attention. That would be Gordon, Susan's not very pugnacious pug, who had a tail wag and eager look for everyone. Gordon has become one of the better-known members of the Washington Electric "staff."

The other aspect of the tour that attracted attention and interest from WEC members visiting their electric cooperative was the inside peek in provided at the Co-op's digital wizardry. Washington Electric General Manager Patty Richards, Board President Barry Bernstein, and staff responded to questions as members visited WEC's revamped offices. The renovations followed the May 2011 flood in East Montpelier, and took more than a year to complete; they provided an opportunity for WEC to upgrade and improve the building's energy efficiency and design better workspaces for staff. For many members, this was their first chance to see the improvements first-hand.

Besides the airy, attractive welcoming area where members interact with the member services representatives, there's a conference room with a large display screen, used for meetings and trainings, a kitchen, and roomy, well-lit office spaces for WEC's technicians, filled with the computer apparatus needed to run a modern electric utility in 2015.

Sandy Gendron's office off the rear hallway captured a lot of attention. Think of it as a digital operations hub; Sandy and Operations Director Dan Weston showed visitors the computerized mapping capabilities that can call up any segment of WEC's service area and transmission infrastructure in Washington, Orange, Caledonia and Orleans counties. On one of the screens Sandy showed visitors how she is able to access all 1,250 miles of distribution line, with eight substations, to pinpoint where outages are (once a caller has provided the initial information so Sandy and the other technicians can know where to look). She



WEC Member Services Supervisor Susan Golden, with Gordon (one of Susan's small herd of pugs). Susan and the three members of her Member Services staff occupy the spacious front area of the administrative building, which was part of the tour offered to Co-op members at the Community Meeting.

can also switch to satellite imagery to view the roads and terrain.

"Within minutes we can tell where outages are," explained Operations Director Weston. An adjacent screen monitors the locations of the Co-op's fleet. The dispatcher can then direct them to areas needing repairs.

Showing how the systems work, Sandy asked members Michael and Bonnie Raboin of Tunbridge their address; shortly after entering it, the system pulled up their house and location on her mapping software. She then switched to another mode and all the utility information in their neighborhood – poles, fuses, transformers, etc. – popped up on the screen.

Weston, whose enthusiasm for WEC's new capabilities reflects the way he has seen it transformed and improved in his 19 years at the Co-op, said the advanced metering infrastructure (AMI) provides capabilities far beyond making outage repairs easier and line crews more responsive – important as those function are. AMI communicates data to the main office through the power lines, and can

assist members in many ways.

"We figure things out that are happening in the field, miles away, by learning to read the information the system can provide to us!" he said, launching into a story of a frustrated member who called with a problem and a complaint.

"Dan, our bill is \$300, and we aren't using anything!" the caller said. And so the Co-op pulled up the usage figures, and through some sleuthing discovered that a gray-water pumping system, completely out of sight and out of mind, had malfunctioned.

"Turns out that the pumps in their mound system were constantly running and never shut off, which was a huge drain on their power," Weston said.

The real strength, and in fact the purpose, of the AMI system is how it's able to improve system reliability and reduce "down" time for Co-op members. But it's also rewarding for the staff, Weston said, when they're able use diagnostics – as in this case – to help people solve problems in their homes, to gain a little peace of mind and lower their electric bills, too.



Bill Inserts Now Available With eBill

Members Who Pay Electronically Can Stay in the Know

“eBilling” is a payment option available to Washington Electric Cooperative members for receiving and paying their monthly utility bills electronically. It’s convenient, and saves paper and time. Increasingly, it fits into the lifestyle and ways of conducting personal business transactions that have grown common for many WEC families.

What eBill does not provide, however, are the bill inserts – notices, promotions, and small brochures, for example – that members receive who pay their bills by mail. WEC Member Services Supervisor Susan Golden explains that the vender that provides the eBilling service for WEC and hundreds of other electric co-ops nationwide cannot provide an attachment capability specific to each cooperative for its notices and announcements.

WEC wants to make this kind of information available to all its members. Bill inserts sometimes announce programs that could benefit them, such as a solar hot water opportunity with discount installation prices for WEC members. An insert going out with the November bills will describe the WARMTH program, which assists Vermonters facing heating emergencies, and tells members how they can make tax-deductible contributions. Inserts also announce WEC community meetings and other items of interest.

To fill this gap, WEC has added a “bill inserts” link on the Co-op’s web

site. When you’re signed up for eBill, you receive an e-mail telling you when your monthly electric bill is available to view online. You then access your secure personal account (password-protected) to review your bill and make your payment. Sign-up and instructions are provided on WEC’s web site (go to Billing Options on the Home page). When we have a bill insert we will note it in the message box on the bill, and eBill members can then go back to the Home page, click on Member Services on the menu bar, and then scroll down until you see “Bill Inserts.”

There are other helpful options for members on www.washingtonelectric.coop. By signing on to SmartHub, for example, you can review your billing history and payment history; and you can examine your electric usage history, including your most recent usage, which could be a first step toward working (on your own or with advice from the Co-op’s Energy Coach, Bill Powell) toward identifying ways to cut back on your energy consumption and reducing your bills.

No matter what business you conduct with WEC electronically, check out the bill inserts. You may find information that’s interesting and useful to you, and can help you help others.

“We wanted to make sure our eBill members aren’t left out of these communications,” says Susan Golden. “We’d like to remind them, when they’re paying their bills, to just click over to the bill inserts and take a peek!”

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b. Paid Circulation (By Mail and Outside the Mail)	(1) Mailed Outside-County Paid Subscriptions Stated on PS Form 3541 (Include paid distribution above nominal rate, advertiser's proof copies, and exchange copies)	9428	9445
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c. Total Paid Distribution [Sum of 15b (1), (2), (3), and (4)]		9471	9475
d. Free or Nominal Rate Distribution (By Mail and Outside the Mail)	(1) Free or Nominal Rate Outside-County Copies included on PS Form 3541	180	183
	(2) Free or Nominal Rate In-County Copies included on PS Form 3541		
	(3) Free or Nominal Rate Copies Mailed at Other Classes Through the USPS (e.g., First-Class Mail)		
	(4) Free or Nominal Rate Distribution Outside the Mail (Carriers or other means)		
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f. Total Distribution (Sum of 15c and 15e)		9651	9658
g. Copies not Distributed (See Instructions to Publishers #4 (page #3))		34	43
h. Total (Sum of 15f and g)		9684	9701
i. Percent Paid (15c divided by 15f times 100)		98%	98%

* If you are claiming electronic copies, go to line 16 on page 3. If you are not claiming electronic copies, skip to line 17 on page 3.

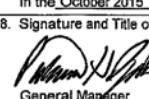
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General Manager

Date
9/30/15

I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).



The screenshot shows the Washington Electric Cooperative website. The navigation bar includes links for Outages, Member Services, Energy, Services, & Safety, About WEC, Community Support, and Coop News. The main content area is titled 'Member Services' and includes sections for Account Management, Bill Inserts, Rates, and Member Specials. The 'Bill Inserts' section is circled in red and lists: Energy Efficiency Charge for 2015 (February, 2015), WEC Solar Flyer (April, 2015), and Community Meeting October 2015 (August, 2015). To the right, there are links for 'Safe & Secure', 'Smarthub Video smart hub Tutorials', and 'GO SOLAR a special discount offered to WEC members Get A Quote'. At the bottom, there is a 'YOUR ACCOUNT' section with buttons for 'Pay Bill', 'Review Account', 'Become A Member', and 'Comments or Suggestions'.

Hydro Quebec Power

continued from page 3

WEC's membership (a benefit uniquely provided to co-ops) in 2011.

The soon-to-expire contract provided 2,589 kilowatts (kW) to WEC, which in 2014 was sufficient to serve around 2,800 member households. The new contract will increase WEC's allowance up to 4,000 kW (4 megawatts). The contract will remain in effect until October 31, 2038.

There are two unique provisions for Washington Electric in this new 23-year deal. For one thing, it allows WEC to pass its HQ power on to the Vermont Electric Cooperative if WEC doesn't need it (with VEC covering the costs), which Washington Electric intends to do through the first few years of the contract.

For another, WEC's contract with Hydro Quebec does not kick in until November 2016. Since the current contract ends on November 1st it means the Co-op is about to embark on a 12-month interval without access to a source that provides 20-percent of its wholesale power.

That seems a little risky, until you look closely into WEC's plans.

"We figured out a strategy, not only for maintaining affordable, renewable energy for our needs now and in the

near future, but for using the Hydro Quebec contract, long-term, to our best advantage," says Richards. "And now we are executing that strategy."

Filling the gaps

The first thing to know about WEC's position is that its power supply – provided by the WEC-owned Coventry and Wrightsville (hydroelectric) generating stations and its contracts with other providers (all of them for renewable energy) – exceeds its "load" (the power requirements of the membership) by around 25 percent. WEC presently has more power than it needs.

It doesn't mean WEC is wasting money on unnecessary wholesale power, because the Co-op sells this excess power the market. That 25-percent overage provides flexibility, however, and means that WEC, at least temporarily, can do without the 20-percent of its load that HQ represents.

That said, the Co-op's load fluctuates, and supplemental power might be needed. Members use more

WEC decided on this strategy to secure HQ at its affordable Vermont rates for the years down the road when growth, the indefinite future of various power sources, climate change could and very likely will require Washington Electric to secure more power.

electricity in the winter than at other times of year (even though, with the demands of air conditioning, most utilities even in New England are now summer-peaking). As general manager, part of Richards' job is to monitor and forecast WEC's power needs and arrange for a supply more than adequate to cover those needs – making whatever purchases will be necessary ahead of the game, when their prices

are low. She sees the winter – January, February, and March – as the time this strategy will come into play.

"It's like pre-buying oil for the oil tank at your house," she explains. "There are about three megawatts we'll need to cover for the winter, so we'll do some purchases to hedge that shortfall. In the fall and spring we're looking good with what we have. In summer we expect to need a couple of megawatts, but the market price in the summer has been really inexpensive, so we won't need to pre-buy as we'll do in the winter. The going, daily rate will be quite affordable."

The reason WEC's board and management decided on this strategy was to secure HQ at its affordable Vermont rates for the years down the road when any number of factors (growth, the indefinite future of various power sources, climate change) could and very likely will require Washington Electric to secure more power. That's the beauty of those 4 MW available to WEC from Hydro Quebec from 2016 to 2038.

For now, Washington Electric can turn them over to Vermont Electric Co-op, answering the needs of both cooperatives. The arrangement with

VEC is carefully constructed so that the northern Vermont cooperative can plan for its members' needs without being subject to the "whims" of Washington Electric. The agreement calls for WEC to monitor its average monthly usage for 12 months – and then to maintain a "running" 12-month average. When that average reveals that Washington Electric's power supplies have provided only 97 percent of its members' needs – in other words, a 3-percent shortfall – WEC will be required, one year later, to tap into its HQ allotment. (The delay gives VEC time to prepare.)

WEC can decide, through its own forecasting, how much of its HQ power to claim, but once that power is taken Washington Electric must continue taking it, permanently. This mechanism will be repeated until such time as Washington Electric is fully using its Hydro Quebec allotment.

(It should be noted that in the case of a major unforeseen power interruption WEC can claim its HQ power until the emergency has passed.)

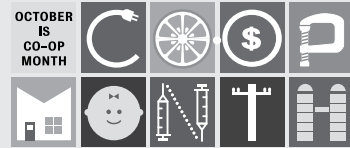
Already looking ahead, Richards is estimating that WEC won't hit the 3-percent-shortfall trigger until sometime in 2017. That will require notification to VEC that WEC will claim some of its HQ energy 12 months later.

"We won't know for sure until the rolling 12-month average gives us precise data," she says, "but it could be somewhere between 2017 and 2019 that we start taking a portion of our Hydro Quebec power. The contract gives us a way to hold onto it even though we're covered for now. It helps ensure that we'll be covered in the future as well, with affordable renewable power.

"That's a pretty good deal."



Co-op Principles



1. Voluntary and Open Membership —

Cooperatives are voluntary organizations, open to all persons able to use their services and willing to accept the responsibilities of membership, without gender, social, racial, political or religious discrimination.

2. Democratic Member Control — Cooperatives are democratic organizations controlled by their members, who actively participate in setting their policies and making decisions. Men and women serving as elected representatives are accountable to the membership. In primary cooperatives, members have equal voting rights (one member, one vote) and cooperatives at other levels are organized in a democratic manner.

3. Member Economic Participation — Members contribute equitably to, and democratically control, the capital of their cooperative. At least part of that capital is usually the common property of the cooperative. They usually receive limited compensation, if any, on capital subscribed as a condition of membership. Members allocate surpluses for any or all of the following purposes: developing the cooperative, possibly by setting up reserves, part of which at least would be indivisible; benefiting members in proportion to their transactions with the cooperative; and supporting other activities approved by the membership.

4. Autonomy and Independence — Cooperatives are autonomous, self-help organizations controlled by their members. If they enter into agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control by their members and maintain their cooperative autonomy.

5. Education, Training and Information — Cooperatives provide education and training for their members, elected representatives, managers and employees so they can contribute effectively to the development of their cooperatives. They inform the general public — particularly young people and opinion leaders — about the nature and benefits of cooperation.

6. Cooperation among Cooperatives — Cooperatives serve their members most effectively and strengthen the cooperative movement by working together through local, national, regional and international structures.

7. Concern for Community — While focusing on member needs, cooperatives work for the sustainable development of their communities through policies accepted by their members.

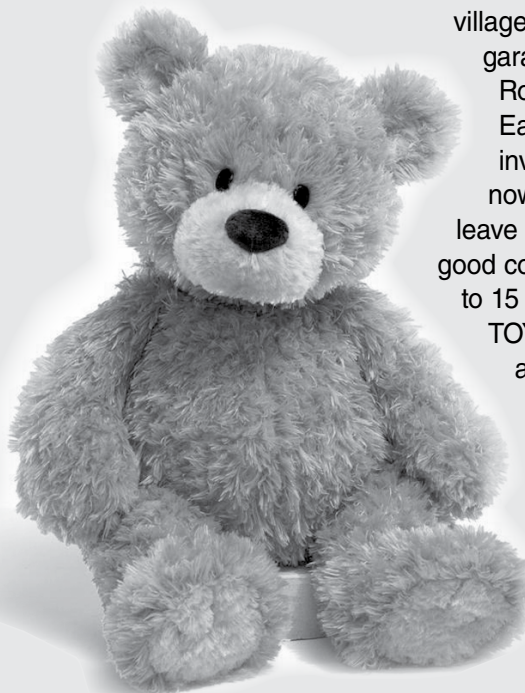
Join WEC Staff In TOY JOY Campaign!

Washington Electric Co-op will be enthusiastically participating in TOY JOY again this year, a coordinated effort by Toys For Tots and The Salvation Army of Washington County to collect new or "lightly loved" toys for local families this holiday season. And the staff would love to have you join them.

For the past two years, WEC employees generously filled two large boxes – one at WEC's office in East Montpelier village and the other at the Co-op's garage/warehouse on Fassett Road, off Route 14 between East Montpelier and Barre. They invite you to stop by between now and mid-December and leave unwrapped toys, new or in good condition, for children from birth to 15 years, at these locations.

TOY JOY will culminate with an event on December 20 at the Bethany Church in Montpelier, from 9 a.m. to 2 p.m., when families can come and select gifts for their children.

Please join your Co-op staff in this fun and charitable effort.



The Annual 'Space Heater' Gambit

What They Don't Tell You About Portable Electric Units

Somehow, when we weren't looking, another summer slipped away. We got a good dose of foliage this year to ease the transition, but we all know what's coming – and we all know that it's time to get real about heating our homes this winter. Advertisers know it, too; beginning right around now they'll be telling you how they think you should heat your home, and their plans for you often include electric space heaters to supplement your central source of heat for rooms or parts of the house that are not well heated by whatever your central source is.

Vermont has some of the oldest housing stock in the nation, and the rambling rural houses built a half-century and more ago – often with rooms that aren't directly heated – may not be amenable to easy heating solutions. Perhaps you have such spaces in your home, and the portable electric space heater, as the ads and brochures are eager to tell you, may seem like an easy and affordable solution.

Easy they are. Affordable is another matter. You can evaluate the affordability of the purchase price according to your own resources (they tend to range from \$64 or so to several hundred dollars; there will likely be "specials" in early fall). But be forewarned: Depending on their usage, it's not uncommon for each of these units to add \$7.50 a day to your electric bill. That may not seem like an exorbitant cost for being comfortable in some particular space – say, an office or a bedroom – but on a monthly basis that's more than \$200. And we're not talking about a \$200 electric bill, but \$200 on top of your other electricity costs.

Washington Electric's General Manager, Patty Richards, had an experience with a member last winter that drove home to her the impacts of these units, when heavily used. The caller – who asked that her name not be used but eagerly agreed to having her story told as a heads-up to others – told the member services representative who answered that she was very upset about her electric bill. Patty ended up taking the call, and as they explored possible reasons for her high usage her new electric space heater came up. Despite the member's insistence that the sales rep had assured her that the unit would be very cheap to operate, she agreed to Patty's proposal that she unplug the unit for one day; meanwhile, with her approval, she and WEC would monitor her usage using the Co-op's SmartHub system (a secure online program that enables members to track their electricity consumption).

She called back afterwards, and they went over her usage records together. SmartHub revealed that she had used 37 kWh (kilowatt-hours) the day before she unplugged, but just 10 kWh the day the space heater was sidelined.



Two of the many shapes and designs of electric space heaters. Units like these can warm an area that's not comfortably warmed by a home's central heating system, but they are often marketed, inaccurately, as cheap to operate. If used more than rarely they can and will have a startling impact on Vermonters' electric bills. WEC can help steer members to more affordable solutions.

"Frankly, I was amazed, too," said Patty. "My conclusion was that these units might seem harmless if you run them a little bit, but that the costs can creep up on you very quickly."

Eyes open

High-bill complaints are an annual ritual for WEC's member service representatives, who experience an influx of such calls starting in late fall and continuing into the winter. They'll usually ask whether the caller has purchased electric space heaters and the answer frequently is yes; they had been assured by company reps that the new, more attractive models – such as those producing radiant heat, which might copy an "Amish" appearance – are different: they not only look better in your home than other models, but they're also inexpensive to operate.

Not in Vermont.

Infrared heaters that give off radiant heat are, in fact, different from the other convection portable heaters that have been around for a long time. (Some of those are shaped like radiators and contain fluid heated by electricity; some are small ceramic units; some are small towers; others simply blast air past heated elements.) Radiant heaters warm objects rather than air, so people – who qualify as objects – might find them more comfortable.

But Efficiency Vermont's Home Team has been reiterating to Vermont customers for some years now that, "All electric heaters deliver the same amount of heat per dollar spent."

As WEC's "Energy Coach" Bill Powell explains, the critical thing to know about space heaters or any product using

electricity is "What is the load in watts?"

Most residential electric heaters are rated at 1,500 watts, although some have lower settings (i.e., 750 watts). A 1,500-watt load operated for one hour will use 1.5 kilowatt hours (kWh). Operated on a steady basis for 24 hours, that 1,500-watt load will consume 36 kWh, on top of your other electric usage. You may not keep the unit on constantly, but even if you're using it 12 hours a day you're increasing your consumption by a

significant 18 kWh. (At eight hours it's 12 kWh.)

The WEC residential average usage is around 17 kWh/day. From these numbers you can see that an electric space heater, operated steadily or for a good part of the day or night, can more than double the average usage.

Says the Energy Coach, "That's why people are often shocked when their bill arrives. That 36 additional kWh adds nearly \$7.50 per day to your electricity costs. Over the month, that adds up."

WEC provides all Co-op members an initial, 200-kWh block of power at a low cost (\$.09790/kWh), to ensure that most members can afford the necessities provided by electricity. But power beyond that first block costs \$.21859/kWh, and the increased usage from a space heater all but guarantees that most of its usage will be charged at the higher rate.

Certainly, people, even if they're aware of the impact of an electric space heater, can have very valid reasons for using them. Thawing frozen pipes, or keeping them from freezing, is one good example, and there can be others. They just need to know the consequences.

It's not uncommon for each of these units to add \$7.50 a day to your electric bill. On a monthly basis that's more than \$200.

There are alternatives when it comes to supplemental heat for your home, office, or other space. None are free, and installation charges vary, but tables calculated and updated regularly by the Vermont Department of Public Service consistently indicate that electricity is more expensive than, for example, wood pellets, propane, and cordwood.

Please feel invited to call Bill Powell, the Energy Coach, for consultation and advice if you're a Washington Electric Cooperative member. There is no charge for Bill's services. There are solutions to home-heating problems if you look hard enough and have well-informed assistance. If in the end you choose to go with the convenient but costly electric space heater, at least you'll be making your decision with eyes open rather than being fooled by the misleading advertising we'll be seeing any day now. 🐛

Logo

continued from page 1

Finally, the Co-op congratulates the Burlington Electric Department (BED), which is the only other Vermont utility so far to achieve the 100-percent-renewable goal.

Washington Electric Cooperative works in an industry – providing energy – that is very much in the center of issues that have become critical for our state, our nation, and our world. Yet there is also a smaller and more personal scale that makes those issues important: the quality of life now and in the near future for WEC members and our neighbors in central Vermont. That's why WEC has pursued and reached the 100-percent-renewable goal, and why the Co-op wants people to know about it. 🐛