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

June 2012

# The Trailer's Gone! The Building's Here! A Year After The Flood, WEC Employees Move Back In

retty soon, Washington Electric Co-op was going to renovate its office building, anyway. The structure at the junction of Routes 2 and 14 in East Montpelier ("just a drab, flatroofed box," as WEC Board member Richard Rubin describes it) was WEC's first and only home, and it was originally more of an industrial building than an office; it housed the generators that provided the first residential electricity many rural central Vermonters had ever known, back in 1939. There had been rambling add-ons over the years, and the interior was redesigned repeatedly as its uses changed. For example, the large central room where the Member Services Representatives do their work, answer the phones,

and assist people who come in the door, used to be a showroom for ranges, freezers, and refrigerators back when Washington Electric sold appliances.

After more than 70 years, the building – a hodgepodge of additions and alterations – was

showing its age. Heat and energy leaked out the windows, the insulation was substandard by modern terms (in some places there basically wasn't any), and there was little natural lighting inside. For a vation and efficiency, WEC's office building didn't "walk the talk." Plus, there were deferred-maintenance issues, and the building was

ne building was inadequate to support today's operations. So someday that

was going to change. "We had budgeted money over a three-year period to address some of the most obvious problems," says WEC President

Barry Bernstein. "We always knew that once we started addressing the obvious things, other problems were bound to show up."

But "someday" arrived earlier than scheduled – at around midnight on May 26, 2011 – in the form of a hill behind the building, overwhelmed the drainage system, and sent several inches of water and sewage coursing through the building for the There's an entirely new look – open, welcoming, and professional – in the remodeled front office of the Co-op's headquarters. Pictured behind the counter are, from left, Member Services Representative Shawna Foran, General Manager Avram Patt, and Member Services Supervisor Susan Golden.

next few hours. The whole of East Montpelier village was hit hard by that now-famous flood. WEC's staff and Board of Directors realized almost immediately that the building, which permanently houses 18 of the Co-op's 41 employees, was uninhabitable.

The employees quickly scattered to makeshift quarters generously provided by neighbors like Goddard *continued on page 4* 

## The Rollout Begins WEC Takes Smart-Metering To The Field

Annual Membership Meeting on May 24 offered one more opportunity for the Board and management to discuss the coming advanced metering infrastructure (AMI) face to face with Co-op members before the new system is put in place, starting this summer. It was a very timely opportunity,

too, because the Vermont Public Service Board (PSB) had recently approved the Co-op's plan.

"We're getting ready to roll," announced General Manager Avram Patt.

AMI refers to a network of equipment able to transmit information about usage, demand,

"Someday" arrived earlier than scheduled, in the form of a flood that cascaded down a steep hill behind the building and rendered it uninhabitable.

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flood that cascaded down a steep

#### Washington Electric Cooperative

East Montpelier, VT 05651

continued on page 3

### Inside

**Called to Order.** Washington Electric Co-op held its 73rd Annual Membership Meeting at the Montpelier Elks Club on May 24. Report and photos on page 6.

A good old-fashioned Vermont winter is getting to be a thing of the past. At WEC's Annual Meeting, climate scientist Dr. Alan Betts wondered what it will take to get our attention. Page 8.

Thanks all around to the companies and people who worked on WEC's office-rehab project. A list, and the Co-op president's grateful acknowledgment, are on page 2.

What's in it for you? WEC employees explained the benefits of advanced metering at the Annual Meeting, and responded to some members' concerns about privacy. Page 3.



Let there be light. Larger, better-quality windows and modern lighting technology have brightened up WEC's office building and made life pleasanter for the staff.

#### **President's Message**

## **One Project Done, And Another Underway**

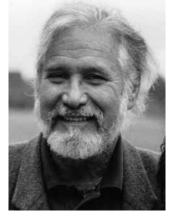
A Pause for Thanks Between the Renovations and AMI

#### By Barry Bernstein

ow that summer is fully upon us, after a very interesting spring that occasionally saw temperatures reaching into the 80s, I want to take this opportunity to wish all of the WEC member households, businesses, farms and schools, and our valued employees, a

very healthy and happy summer. It's a time of the year when we hopefully get some time to vacation with our families, work in the garden, and feel less stress as we enjoy being outside more.

I want to also thank everyone – our Board of Directors, the Co-op's staff, and all the people who worked on the ambitious project of renovating our building, inside and out, over the past year, after we had to vacate our central office following the May 26, 2011, flood. Elsewhere on this page you'll find what I hope is a full list of the people and companies who participated. A "list" is a pretty impersonal thing, but it's perhaps



the fairest way to include everyone. It was an enormous project, and we are very happy with the results and grateful to all who took part.

The list does not include some important people I want to mention: our Building Renovation Committee, which consisted of WEC General Manager Avram

Patt, Finance Director Cheryl Willette, Administrative Assistant Debbie Brown, Engineering & Operations Director Dan Weston, and my fellow WEC Directors, Dave Magida, Annie Reed, and Richard Rubin. These folks put in countless hours of extra work – particularly the WEC employees on the committee, who somehow managed to do their jobs for the Co-op while also attending to important matters in the renovation project. I also want to thank our legal counsel, Josh Diamond, who came through for us once again, as always.

July will bring the rollout installation of smart meters to our members' homes

### **Co-op Currents**



WEC is part of the

alliance working

to advance and

support the

principles of

cooperatives in

Vermont.

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and businesses. As I think many of our members are aware, WEC has chosen to install what is called power line carrier (PLC) smart meters, that will send signals from the meters over WEC's existing distribution lines rather than by radio frequency (RF). While I know there is much discussion, debate, and difference of opinion on RF, there is general support for PLC-based meters. We are hopeful that once the installation of smart meters is complete in WEC territory – before the end of the year and in time for the next heating season – it will enable our line crews and employees to respond more quickly and efficiently to outages when they occur, lessening the length of outages and better serving our Co-op members. Please feel free to call or come in to the WEC office or talk with one of your WEC Board directors if you have any questions as we move forward.

Again, have a safe and enjoyable summer.

Washington Electric Co-op has a newly renovated home, with many state-of-the-art energy-efficiency and conservation features, a more healthy and pleasant office environment for our employees, visitors, and WEC members who come in, and a sophisticated drainage system that should prevent the kind of costly, destructive flooding we experienced in May 2011 from happening again. We want to thank the following companies for their work on this ambitious project.

Adams Painting Bates & Murray, Inc. Black River Design Burrell Roofing Co., Inc. Casella Waste Management Zane Cooke **Paul Davis Restoration** Diamond & Robinson, P.C. Gregory F. Dubois, RLS Energy Balance, Inc. Fairpoint Communications Lajeunesse Interiors, Inc. LK Rossi Corp. Marsh Engineering Services McFarland-Johnson, Inc. Morrison & Clark Flooring PC Construction Company Pella Products. Inc. Sherman Network Solutions, LLC Sorrell's Plumbing & Heating S/R Services, Inc. Village Builders, Inc.

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.

### **PSB Approves Utility Merger**

n Friday, June 15, the Vermont Public Service Board approved Green Mountain Power's proposal to purchase Central Vermont Public Service Corp. (CVPS). The merger of the state's two largest electric utilities means that a single IOU (investor-owned utility) will serve more than 70 percent of Vermont's electric ratepayers.

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Washington Electric Cooperative participated in the Public Service Board review process as an intervener, focusing on the issue of VELCO governance. (VELCO is the Vermont Electric Power Company, which owns the state's high-voltage transmission lines.) Concerned about the potential for an expanded GMP to exert controlling influence over VELCO, WEC advocated a restructuring of VELCO's Board to broaden public participation, as a condition if the proposed merger were approved. There were 94 conditions with the Public Service Board's approval. WEC will have more to say on the June 15 PSB decision in our July issue.

#### **Smart Meters**

continued from page 1

and interruptions of the electric-distribution system digitally back to the utility.

One particular aspect of AMI – the so-called "smart meters" at people's homes – has drawn some attention from the public as Vermont's utilities have moved toward the statewide deployment of an advanced metering infrastructure. (The state's utilities applied in concert for a federal grant from the 2009 stimulus act; the application was approved, and the federal government is covering half the utilities' costs.) The Annual Meeting provided the Co-op another chance to remind members that WEC will

be using a "wired" metering system, rather than the "wireless" meters most other utilities plan to install. With a wired system the information is transmitted over the company's power lines; wireless meters send the information via radio frequency waves, like cell phones, and some Vermonters have expressed health concerns about that technology.

"For people who are worried about radio frequency, the

simple answer is that we're not using that," Patt said at the Annual Meeting. As for deploying the new system, Patt said, "We're going to select one of our substations for the starting point and equip it with the technology, and then begin connecting the people attached to that substation. When that's finished we'll move on to another substation, and so forth until it's done. You'll get a notice in the mail that someone will be coming out to change your meter."

The benefits of AMI include improved system reliability, because the utility will know, with more accuracy and efficiency than now, where power is needed and where outages have occurred. Another benefit is the opportunity for members to know more about their power usage and what they can do to decrease it (and save money). Washington Electric has waited, and watched how wired AMI is working for Vermont Electric Cooperative, which began deploying advanced metering in 2008 and has almost completed the work; VEC is far ahead of the rest of the state's utilities. The results in terms of system reliability and faster outage response have been impressive.

"In the future there could also be optional services and rate structures that people can take advantage of, which are only possible with advanced metering," said Patt. "But I want to

"We're dealing with access to prescription drug data, which we contend is fine as long as there's a warrant; and with cell phone tracking data, which is fine as long as there's a warrant. What we would ask of the Co-op is that our electric-usage information not be provided to anyone without a warrant, and that subpoenas be provided to us so we would know." - WEC member Allen Gilbert, E.D., ACLU of VT

stress that these would be optional – your choice, nothing that will be imposed on you."

Next to speak was Operations & Engineering Director Dan Weston.

"How many of you have ever lost power?" Weston asked, and most people raised their hands.

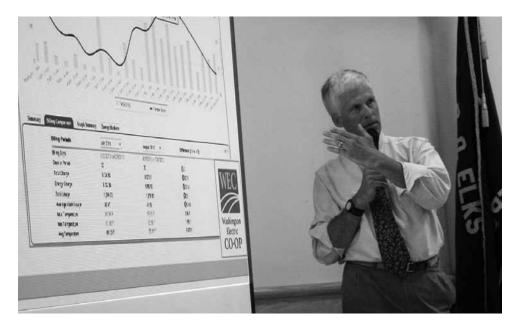
"My passion is to improve reliability," he said, "our ability to determine where something has gone wrong. Right now, you folks are our

advanced diagnostics. You call and tell us when your power is out.

"No offense," he continued, "but we're going to replace you." (This drew lots of laughs.)

The diagnostics will soon be digital and automated. With AMI, Weston explained, one call to the Co-op from someone who has lost power would do the trick. Alerted that there was an outage, the outage-management team will "ping" the system, and by seeing which meters respond and which don't they'll be able to determine with more precision where a WEC distributionline fuse has opened up (to isolate the





Products & Services Director Bill Powell explains to Annual Meeting listeners how advanced metering can play a role in helping people learn to reduce their electric bills.

damage). This will greatly facilitate a faster response and repair.

Smart metering won't solve every problem. "You should still call us if you see a line down, or a limb on the power line, or if you see sparking somewhere," Weston said. "We can't fix that with smart meters."

Bill Powell, director of products and services, continued the explanations. AMI will enable the Co-op to track and chart members' electric usage, and this information will be available to each member through a secure internet connection. People without internet capability will be able to call the Co-op for that information.

"Either way, you'll get better feedback about your power-usage patterns," said Powell, "so we can suggest ways that you can adjust your usage, or perhaps help you figure out which of your devices or appliances aren't running properly and are drawing too much energy."

Information is a good thing.

#### **Privacy and access**

Or is it? Some people expressed a concern about privacy. Who would have access to information about their electricity usage?

The answer, Patt said, is that the Co-op already has a strict policy about privacy, and that policy will continue without change. "We don't sell or provide access to members' usage information. It's between you and the Co-op, and that's how it will stay."

He also said that WEC would provide a limited "opt out" for people who wanted it. Under this system their meters would be programmed to send accumulated usage totals just once each 30 days, for billing purposes. However, by choosing that option, which is called monthly limited choice, people would be excluding themselves from other opportunities provided by smart metering. Patt also mentioned that Washington Electric was participating, with Vermont's other utilities and under the auspices of the Public Service Board, in devising a statewide privacy policy for AMI. That raised a few people's concern. Co-op member Rama Schneider, from Williamstown, said the

history of private information remaining private, once government agencies had access to it, was not encouraging. He was worried that a statewide policy on privacy would be less stringent than the Co-op's.

"I want *you guys* to step up," he said, referring to WEC's Board and management.

Patt replied, "I guess I don't share your view that the people helping to design a policy are not looking out for the best interests of the users." But in any case, he said, "The privacy policy the Co-op adopts will be adopted by your own Board of Directors."

"We definitely are concerned about our members' privacy," Bernstein added, saying that negotiations with other entities won't change that.

WEC member Allen Gilbert, of Worcester, who is the executive director of the Vermont chapter of the American Civil Liberties Union, put the discussion in a broader context.

"In Vermont we're dealing with this issue in a much larger way than just smart meters," he said. "We're dealing with access to prescription drug data, which we contend is fine as long as there's a warrant; and with cell phone tracking data, which is fine as long as there's a warrant. What we would ask of the Co-op is that information not be provided to anyone without a warrant, and that subpoenas be provided to us so we would know."

Finally, there was a question from a member about the relative costs of wired and wireless AMI systems. WEC President Barry Bernstein provided the answer.

"On our system the wireless, radio frequency AMI would be twice as expensive to operate as the wired system we're putting in," he said. "We chose the wired system because it's more appropriate and will work better for our rural territory. But the lower cost is certainly another benefit."

Washington Electric plans to make progress on AMI deployment throughout the summer and complete the changeover of its infrastructure by next April. WEC members are invited to call the Co-op with any questions they might have.

#### WEC Employees Move Back In

continued from page 1

College and the Old Brick Church next door; after all, they had outage repairs to coordinate in the aftermath of the storm. And within a few days WEC had imported a doublewide trailer configured for office space and set it up in the parking lot, once that surface was cleared of mud, boulders, sewage, and debris. What no one foresaw was that the trailer would remain for a full year, providing barely adequate workspace for many of the employees, while others crammed into marginally usable spaces in the building that had been made safe, or made room for themselves at WEC's garage and warehouse a mile away.

Meanwhile, a committee of staff members and Directors tackled the enormous job of figuring out what to do next: Relocate? Rebuild?

And if rebuild, rebuild what? And at what cost?

For those intimately involved, it has been a long year. But it finally ended on May 24, when the renovations that were decided upon and carried out during last summer, fall, winter, and early spring were substantially completed and the staff moved back in.

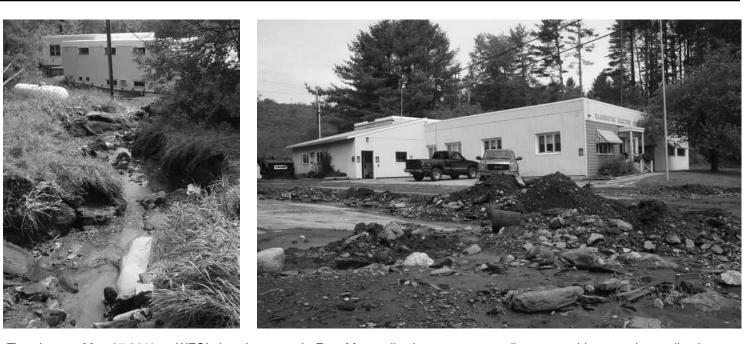
And the trailer – Hallelujah! – was hauled away down Route 2, headed to Massachusetts.

However, the really important news isn't that the trailer is gone, and that staff won't have to flee to the church to use the "facilities" and get a little breathing room – although that's excellent news for them.

Even more important is that Washington Electric Co-op now has a comfortable office building with stateof-the-art energy efficiency and lighting systems; a building so well-insulated that it will retain heat in winter and coolness in summer; that more fully embraces the accessibility standards of the Americans With Disabilities Act (now with an easy entrance at the front, rather than the side); and is protected by an advanced underground drainage system that makes it unlikely that the Co-op will ever sustain such severe flooding damages again.

#### The first big decision

"After the flood we realized how much damage had been done, and the Board, with the help of some knowledgeable



The view on May 27, 2011, at WEC's headquarters in East Montpelier. In severe rains, a torrent of water had cut a gully down the hill behind the building (above left, pictured here hours after it had abated) and sent water and sewage into the offices. The parking lot was covered with rocks and debris until a backhoe cleared the surface (above, right). Below: Gutted. By October 27, pretty much everything had been taken out of the building, and the walls and floors stripped and cleaned, which was no easy task.



employees, grappled with the question of whether it was the smart thing to do to put the building back together again, or perhaps we should replace it," said WEC President Barry Bernstein.

The decision had to be made within a very short time. In as efficient a manner as possible, people looked into the possibilities of constructing a new building on WEC property beside the warehouse (the "operations center" off Route 14), or purchasing a commercial building in the area if one were available. In the end, these alternatives seemed less feasible, partly because of the permitting processes involved with new construction. Also, says General Manager Avram Patt, the Co-op has been at its East Montpelier location for more than 70 years; members know where to find it, and Washington Electric is part of the village and town community.

"We decided to bite the bullet," Bernstein recalls. "We didn't want to tear the whole building down and start from scratch because we felt that by reconstructing it we could get back into it sooner. At that point we had an opportunity, and in fact the responsibility, to redo the office space so it was totally energy efficient."

Board member Dave Magida served on an ad hoc building committee (along with Bernstein, Patt, Rubin, Director Annie Reed, and WEC employees Dan Weston, Cheryl Willette, and Debbie Brown).

"With a renovation project you have to anticipate unknowns – that you'll

discover problems and complications you weren't aware of," says Magida, whose work at Norwich University includes construction and renovations of campus buildings. "This was no exception."

The contractors discovered asbestos that had to be removed. Beams and support structures – remnants of past renovations – showed up in funny places; underground piping turned out to go... nowhere. There were surprises at every turn, which always presents complications in budgeting and submitting insurance claims. Furthermore, the committee felt it was important to undertake energyefficiency measures that do not replace previous features of the building and are therefore unlikely to be covered in WEC's insurance policy.

"Once we got into the project we had to deal with whatever came up," says Bernstein. "There was no way around it. What we are really delighted about, now that it's nearly over, is that this is a building that will last our Co-op for another 70 years. It will provide an excellent workspace for our employees, which is very important. And it's a very welcoming place that our members can be proud of."

Because some work remains, including landscaping and final interior features, the final cost of the reconstruction is not yet known. "We believe the total cost to the Co-op, after insurance, will be around \$900,000," Bernstein says.

As for covering that cost, Patt explains that WEC will amend its Four-Year Construction Work Plan, which is financed at low interest by the federal Rural Utilities Service (RUS). It's how the nation's rural electric co-ops



November 16 was a warm autumn day, which was a good thing because it gave contractors time to frame in the Co-op's new windows before winter set in (above).



By March 21, 2012, the interior of the building was starting to show signs of renewal. Carpenters were beginning to turn this space into the reception/member services area pictured on page 1.



On March 21, 2012, contractors were excavating around the north wall of the building to construct a new drainage system.

maintain and upgrade their systems. WEC's current borrowing interest rate through RUS is in the mid-2-percent range.

"That means that some of our projects will get deferred until the next work plan, although nothing that's urgent" says Patt. "We're not taking on additional borrowing for our building renovation. It's the best way to accomplish this necessary job without substantial economic impact for our members."

## A model of energy efficiency

Once the decision was made to renovate on the existing footprint, WEC's priority was using local resources and local companies.

The site work at the rear of the building, the exterior insulation, and the interior demolition (the building was, effectively, gutted) was performed by PC Construction Company (formerly known as Pizzagalli), which had built WEC's Coventry landfill-gas electricgenerating plant and reconstructed that plant quickly after a fire in 2005. Montpelier-based Black River Design was selected as the architectural firm, and one of the company's principals, WEC member John Rahill, was intimately involved with the project. The interior work and reconstruction of the parking lot were contracted to LK Rossi Corp., of Woodbury (Larry Rossi, the company's owner, is a WEC member). Andy Shapiro, whose firm Energy Balance, Inc., is recognized nationally for its expertise in energy-efficiency, served the Co-op as a consultant and advisor (Shapiro is also a WEC

on over the decades. The inside of the exterior walls was treated with three inches of spray foam insulation. This work was done last fall, and Rahill says it proved itself immediately.

"People were working on the interior renovations during the winter, and it was totally comfortable inside from just eight linear feet of baseboard heat in one area on the western side of the building," says the architect. "That's a result of a now incredibly tight building."

By itself, that super-insulation treatment will lower WEC's heating and cooling costs substantially. And for climate control (both heating and air conditioning) WEC went with a highly efficient, electric-powered heat pump system that captures warmth from the outdoor air even during cold weather. "The only fossil fuels the Co-op will be using will be for the boilers that used to be the primary heating system but will now run on generators if the power goes out," says Rahill.

Natural daylighting is one of the great accomplishments of the redesign. There are more, and larger (and more energy efficient) windows now, and three skylights providing natural light in rooms with little or no window area.

And that's just the beginning. "They'll soon be installing louvers across the tops of windows on the eastand southwest-facing walls, which will bounce the light up to the ceiling where it will reflect down, penetrating farther into the room than it would normally



It will get prettier once the grass grows in, but to members who have difficulty with steps the new walkway that leads directly to WEC's front door is already a welcome sight.

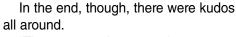
reach," says Patt. "In the meantime, we're getting used to lighting controls that are either motion sensors or lighting sensors. The lights in my office adjust either up or down depending on how much natural light is coming in from the windows. In public spaces they are motion sensitive; if there's no movement for a while the lights go out."

The greatest change the public – which largely means WEC members – will see is the area people enter when they come in the front door. It is spacious, bright, comfortable, and inviting. Says Patt, "I hear people coming in for the first time to pay a bill and going, 'Oh wow!'"

## Looking back, and looking ahead

A lot of people devoted a lot of time to make all this happen. Weston, Willette, Patt, and Brown, particularly, shouldered what was at times an enormous extra load while continuing to do their full-time jobs. There were disagreements at nearly every stage, but that's only because the decisions were so important – to the Co-op's finances, both now and in the long term (often quite different considerations), and to the building as a human workspace.

Bernstein admits it was stressful. "Everyone hung in there," he says, "but that's not to say no one was cursing under their breath for the last twelve months."



"These renovations were long overdue, but with the help of insurance money and creative energy from the Board and staff it got done," says Rubin.

"Cheryl was an important part of the process – in budgeting and keeping track of costs since she's our director of finance and money was part of every decision, but also in researching options for furnishings and interior design for the committee's consideration," says Reed.

"The staff was critical to our progress," says Magida. "They know their jobs better than the building committee possibly could, so the end result was the users – the staff – telling the design professionals what they needed in order for the Co-op to be successful."

"For me, it was a pleasure working with such a forward-looking group," says Rahill. "Not to mention [Operations Director] Dan Weston, who played a central role and did it while continuing to run the operations of the Co-op.

"We owe a lot of people thanks," says General Manager Patt, "and I don't want to leave out Pastor Mark McEathron and the parishioners of the Old Brick Church. They were more than generous with their space for the whole year, and we really needed it."

"Barry [Bernstein] was at his best in this process," says Weston. "He and the Board were extremely budget conscious. In many cases they cut good ideas purely for financial reasons, because that was our duty. Barry gets praise for bringing people together through a difficult, stressful process."

Maill leave the final words to Director



member).

Rahill says the assignment given to his firm was to design the renovations and workspace with a long view of the savings that would be achieved by investments in energy efficiency, while methodically projecting the payback from such investments. He says, "I think that was the absolute proper charge to us, and we worked carefully, along with Andy, the Board, the employees and the contractors, to meet it."

It started with the building envelope, and the gains that could be achieved using two layers of uninterrupted rigid foam building wrap for exterior insulation, covering the patchwork of wall types (concrete and woods of various vintage) that had been thrown

Architect John Rahill, whose firm, Black River Design, headed up the Co-op's renovations. John is also a Washington Electric Cooperative member, from Middlesex. Though not pictured here, Black River Design's James Beasely also played a major role in the year-long WEC renovation project. We'll leave the final words to Director Dave Magida.

"Our employees worked under difficult conditions for an entire year," he said. "And what makes me proudest is that there was very little impact, if any, felt by our Co-op members. That's a credit to the entire staff."

Washington Electric will be holding an open house for members and guests to see WEC's newly renovated house and grounds, probably sometime in the summer after the landscaping has been completed (so people won't be tracking in mud). Keep your eye out for notices, and come share the space we have created to serve our Co-op members.

## Annual Meeting Report Local Food, Local Power, and Local Opinions

EC Treasurer Donald Douglas, of East Orange, put the circumstances of an electric cooperative in a nutshell when he delivered his Treasurer's Report at Washington Electric's 73rd Annual Membership Meeting at the Montpelier Elks Club, Thursday evening, May 24, 2012.

"You *join* a food co-op," he explained, providing one example among the many kinds of cooperatives available in the marketplace. "But you move into our service territory and *become* a member of our co-op. So we feel like we have to educate new members – that they are members of a co-op, and that they own our electric cooperative."

Much of what is done at an electric cooperative's annual meeting is for that very purpose: educating and informing members through reports from the co-op's officers and senior management, and the presentations of guest speakers. People learn about their co-op's financial position, prominent issues in the field of energy and electricity, the policies of the board of directors, and the rights and benefits that come with membership.

At WEC's May 24 meeting, the 170 participants (the majority being members, along with guests and staff) heard that Washington Electric's financial position is secure but will require small, regular rate increases for the foreseeable future; and that WEC will soon begin installing "smart meters" as part of the Co-op's and Vermont's movement toward a statewide advanced metering infrastructure (AMI).

As for the rights of WEC membership, one prominently on display was the right to elect their leadership – the Board of Directors – and in fact to run for the Board, which consists entirely of Co-op members. In the 2012 elections three members chose to do that (the same number as there were available seats on the



General Manager Avram Patt introduces the discussion of AMI (advanced metering infrastructure) at the Co-op's May 24 Annual Membership Meeting.

"You join a food co-op,

but you move into our

service territory and

become a member of

Washington Electric. So

we feel like we have to

educate new members

that they are members

and owners of their

electric cooperative."

Treasurer Don Douglas

nine-member Board), although ballots provide a space for write-in votes. Ballots cast at the meeting were added

to those sent earlier by mail – totaling 856 ballots cast in this election – and Board President Barry Bernstein announced the results toward the end of the evening.

Vice President Roger Fox, of Walden, who is now the Board's senior member, having served since 1991, was re-elected with 794 votes. Richard

Rubin, of Plainfield, running for his fourth term, received 783 votes, and first-time candidate Mary Just Skinner, of Middlesex, received 755 votes.

There was a bylaw amendment on the ballot this year, as well -aproposed change to the "contributions in aid of construction." This refers to the costs of constructing line extensions to connect members' homes, a cost that is borne by the member. The issue was how these contributions are to

> be figured into WEC's equity. The Board drafted the proposal to bring the Co-op's bylaws into conformance with a recent change of policy by the Vermont Public Service Board, which previously treated this matter differently for electric co-ops but had altered that practice. The members agreed to amend WEC's bylaws to reflect that change, with

609 votes in favor (46 against).

Treasurer Douglas had another piece of information for his fellow WEC members. Washington Electric has been returning "capital credits" to members every fall since 1998. These are the members' portions of the nonprofit utility's margins (equivalent to profits) for past years in which WEC's income exceeded its expenses.

"We've been returning capital credits for 13 years," Douglas announced. "That's your money, and to date we've returned \$3,663,255." This news was greeted with a round of applause.

Other news generated applause, too. The 2012 Annual Meeting came within a few days of the anniversary of the floods of May 2011 that rendered the Co-op's office building in East Montpelier almost completely uninhabitable. (In fact, the flood came the day after WEC's 2011 Annual Meeting.)

Board President Bernstein announced the news:

"I'm pleased to be able to tell you about a monumental achievement in our Co-op's history. The trailer that our staff has been using for its offices for a year was just hauled away!" (Applause! Exclamations!) "The renovations to our building are largely done and our staff is moving back in. It took longer than we expected; everyone's been struggling with this sometimes during the last year, members and staff alike. But it's been an example of people really coming together and caring a lot about the Co-op."

And, finally, WEC General Manager Avram Patt managed to elicit applause during his Manager's Report. Recapping several elements of a report Patt provides to the Public Service Board annually, he came to the category of safety.

"We have to report lost work time due to accidents in the workplace, whether they are serious accidents or not," Patt said. "Last year there was not one hour of lost time." (Enthusiastic applause.) "That's thanks to our employees taking safety consideration very seriously."

The electric utility industry carries with it inherent and considerable risks and dangers; in fact, the past year included two tragic accidents involving Vermont utility workers. A perfect safety





Michael Duane, left, a former president of WEC's Board of Directors, breaks bread with fellow Co-op member State Rep. Tony Klein of East Montpelier.

New WEC Board member Mary Just Skinner of Middlesex.



Garfield Barnes, of Plainfield, was among the many WEC members who participated in lively discussions about climate change, privacy in the era of "smart meters," and other subjects that put electric utilities in the middle of political, environmental, and scientific debates.

Co-op member Goddard Graves of Woodbury expressed concern about rightof-way clearing practices in his area that he believed were unsightly and destructive.

record by WEC's employees is an important accomplishment.

Speaking of those employees, the Co-op, as it always does at Annual Meeting, made sure to recognize and provide service awards to staff members who had reached five-year milestones. This year they included:

- Doug DesGroseilliers, Lineman (5 years)
- Sandy Gendron, Information Database Technician (5 years)
- Kyle Sands, Lineman (5 years)
- Susan Golden, Member Services Supervisor (5 years)
- Donnie Singleton, Equipment Operator (5 years)
- Cheryl Willette, Finance Director (5 years)
- Elaine Gonier, Member Services Representative (10 years)
- Shawna Foran, Member Services Representative (10 years)
- Mike Patterson, Utility Field Technician (20 years)
- Brent Lilley, Operations & Construction Service Manager (25 years)

These are your employees, folks. They are loyal, skilled, qualified, and have worked through tough circumstances over the past year – whether through displacement and crowded conditions in temporary quarters, or facing floods, a tropical storm, and associated challenges in the field. They got a round of applause at the meeting, but if you weren't there put down your *Co-op Currents* for a moment and give them a hand.

## Dialogue with WEC members

The evening event had many stages. It started with dinner – two vegetarian choices and another featuring ham and turkey. The majority of the food served was grown or produced locally, consistent with WEC's philosophy of supporting Vermont's economy whether it's through agriculture, energy production (WEC's Coventry and Wrightsville generating plants), energy purchases (wind power from Sheffield), or the contractors and architects who designed and renovated WEC's office building.

Dinner was followed by the officers' reports, and then a presentation from Vermont's leading climate scientist, Dr. Alan Betts of Pittsford (see "Climate Change Challenge," page 8). Of equal importance was an update and discussion of WEC's forthcoming AMI system, which will include replacing Co-op members' electric meters with digital meters, using "wired" as opposed to "wireless" technology (see "The Rollout Begins," page 1).

However, Annual Meeting also presents members one of their best

opportunities during the year to express their opinions and ask questions directly to the Co-op's leadership. At the May meeting, the members were not shy about doing that.

Goddard Graves of Woodbury brought up his concern about rightof-way (ROW) management that he had witnessed; the clearing seemed excessive and careless to him, and he wondered what the Co-op was paying for it and if the contracted company was doing its job properly.

WEC ROW Coordinator Mike Myers replied that the company in question was highly regarded in the business, worked safely and responsibly, and was paid around \$100 an hour.

"We try to maintain it so we don't have to come back for ten or twelve years," Myers explained, "so we have to be aggressive. It does look a little rough," he admitted, "especially in the first year, but then it begins to grow in."

Board President Bernstein said that he, too, was sometimes taken aback by the appearance of newly cleared areas, and thanked Graves for his feedback.

WEC member Cary Halsted of Northfield raised another issue.

"I'm concerned about the political bent, or preference [of the Co-op] for certain kinds of electricity versus the members' interests," said Halsted. It seemed a reference to buying in-state, renewable power, a policy favored by the Board.

Bernstein replied that the Co-op's democratic system provided opportunity for input, dissent, and changes of course if members preferred it.

"We stand for election every three years," he said. "Our Board meetings are open and members can attend. We're forthcoming about our policies in *Co-op Currents*, and we have local meetings in two Co-op communities each year.

"And my opinion," he concluded, "is that we're diligent when it comes to fairness and spending our members' money."

These are challenging times for the electric utility industry. More than ever, energy issues have critically important economic, environmental, and therefore political implications. At a small co-op like Washington Electric, those who are served by the utility have an opportunity to be more than just "customers" (let alone "consumers"). They can be participants in their utility's decisions.

So, even though we just finished an election, think about whether you would like to take a more active part, perhaps by attending Board meetings, attending the two community meetings WEC holds each October, or by running for the Board yourself. Or all of the above.





Longtime WEC member Wilmer Brandt, of Marshfield (left), with Board President Barry Bernstein.

Annual Meeting always starts with a good meal. Whether these folks were enjoying the meat or vegetarian dishes, they could take pleasure in knowing that most of the food on their table was provided by local Vermont growers.

Serving more than 10,500 member/owners in central Vermont. A rural electric cooperative since 1939.

# What's In Store For Vermont

Betts Delivers Climate Challenge at WEC Annual Meeting

he climate, in a sense, is a living machine. The component parts of the machine include energy (heat and light) from the sun, water in its various forms (crystal, liquid, vapor), carbon dioxide, and of course life. Their interplay sets forces in motion. That, in turn, sets the course of the machine.

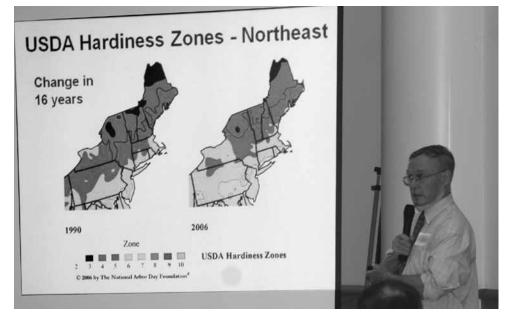
For the past several decades their interplay has increasingly been influenced by humanity's affect upon the environment – a teeming swarm now of seven billion people whose capacity for consuming and emitting has been magnified a thousand-fold by industry and technology. Consequently, the machine has been churning out warmer, shorter winters in Vermont, and measurably longer growing seasons. The latter has its benefits, but they come with a price.

In his address to the Washington Electric Cooperative members who attended WEC's Annual Membership Meeting on May 24, titled "Climate Change-What's in Store for Vermont," Dr. Alan Betts, of Pittsford, Vermont, did not use the analogy of the machine. Yet his more scholarly term, "climate feedback processes," conveyed a similar impression of forces set in motion which fuel themselves and rev the engine of climate change.

Betts contributes to scientific publications as well to publications for a general readership, including the Environment section of The Sunday Times Argus. Many people in his audience of Washington Electric members, staff, and guests might have had difficulty following his scientific observations, but when he described his experiences as an avid gardener in Vermont he was on more familiar ground.

"If someone had told me thirty years ago that I'd be turning my cover crop in January I would have laughed at them," said Betts, relating a recent experience. "Think of this last winter as a model for what's going to become more typical."

The 2011-2012 winter was one of the warmest on record, and was a winter,



This year's guest speaker at the Co-op's Annual Meeting was Dr. Alan Betts, of Atmospheric Research, based in Pittsford, Vermont. He described the causes and manifestations of climate change, particularly in how it affects what Vermonters see around them. Betts also has a cooperative connection: His grandparents were members of the Rochdale Society of Equitable Pioneers, in Rochdale, England – hailed as the first modern co-op, whose Rochdale Principles were adopted as what we now know as The Seven Cooperative Principles.

the Pittsford resident said, "in which we essentially had no permanent snow cover west of the Green Mountains.

"Over the next twenty to thirty years climate change in Vermont is going to accelerate. If we keep it up Vermont is going to have a climate like northern Georgia," said Betts. "If we moderate the burning of fossil fuels we'll be more like Pennsylvania."

Neither scenario included Vermont staying like Vermont. As Betts revealed, in comparisons of winter durations of frozen soil and of ice-out dates at Joe's Pond in West Danville and Stile's Pond in Waterford, it already doesn't.

"This winter we only had 67 days of frozen soil where I live," he said. "First and last frost dates are changing. The frost-free period used to be much shorter than the period when frost was likely, but they have been converging over the last decade."

Betts' essays have made several observations: that Stiles' Pond these days is frozen four weeks less, on average, than it was 40 years ago (by extension, similar changes have taken place for other small lakes); that the growing season for frost-sensitive plants has increased by two weeks during that period; that mean winter temperatures in Vermont have risen by about 4.5° Fahrenheit over the last 50 years. As for Vermont's beautiful Lake Champlain,

Betts' 2011 publication, "Vermont Climate Change Indicators," describes a startling difference between "then" and "now":

"During the nineteenth century," he wrote, "the main lake remained open in winter only three times, but it remained open for almost half of the years between 1970 and 2007."

#### **Revving the machine**

The reason for these climate changes is the accumulation of greenhouse gases (GHG) in the engaged. Greater warmth melts snow and then thaws the earth's surface, leading to more evaporation and increased water vapor.

Betts explains: "As Vermont's climate warms, and the length and chill of the cold season decreases, this is likely to lead to reduced snow cover. The first heavy snow is coming later in the year, sometimes even shifted into January." Indeed, Vermonters commonly remark on this phenomenon - no snow for tracking deer in November, snow machines sitting idle until after Christmas.

Related trends that Betts describes in his speeches and writings show the effect of warming on other seasons. As moisture in the air increases, heavy rains and flooding become more frequent. Our communities then become more vulnerable to the potential destruction of storms like those of May and August of 2011.

#### Long odds

"I don't know what it's going to take to get our attention," Betts said at the WEC Annual Meeting. "Maybe extreme weather. There were 32 weather disasters costing more than \$1 billion in 2011. Texas and New Mexico have experienced the most extreme drought in more than a century."

and India are fueling their manufacturing growth predominantly on coal, the most egregious of the fossil-fuel GHG emitters. And Betts cited perhaps the most powerful force against

climate-change action: "There's more than

Meanwhile, China

\$20 trillion of fossil fuel resources that have yet to be exploited," he said, "and with growing competition for them their value is increasing."

There is no easy remedy - no way to reconstitute the atmosphere as it was prior to the Industrial Revolution. But Betts advocated a course of action, potentially attainable, which might forestall the worst-case scenario of Vermont's climate becoming like Georgia's, weather becoming almost a mortal enemy, and life forms disappearing all over the globe.

The machine has been churning out warmer, shorter winters in Vermont, and measurably longer growing seasons. The latter has its benefits, but they come with a price.



Betts cited perhaps the most powerful force against climate-change action: "There's more than \$20 trillion of fossil fuel resources that have yet to be exploited, and with growing competition for them their value is increasing." atmosphere. Burning fossil fuels for industry, for energy, for heating and cooling, and for transportation, increases atmospheric carbon dioxide (CO2) by about two parts per million per year, according to Betts, and while that impact itself is not enormous it accelerates the accumulation of water vapor, the dominant GHG, in the atmosphere.

This blanket of greenhouse gases reduces the natural radiant cooling of the earth so overall warmth increases, Betts explained. In winter, over much of the north (Vermont included) snow cover cools the earth by reflecting the sun's heat back into space, but the pattern of warming melts some of the snow. The "machine" is now fully

The step we need to take, he said, "is to rather drastically decrease the burning of fossil fuels, by 80 percent by 2050."

Better to know that now than waiting until 2020, when the numbers will only be worse and the clock will be running out.

For further information from Dr. Betts on climate change, see http://alanbetts. com/writings.