

# WEC CO-OP CURRENTS

Vol. 71, No. 4

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

June 2010

## A WEC Energy Forum

*Gubernatorial Candidates Speak to Costs, Climate Change, and Vermont's Energy Future*

They came to discuss energy, "One of the most important issues facing our state today and in the coming years," as WEC President Barry Bernstein framed it. Washington Electric Co-op's Board of Directors had extended an invitation to all of the major-party candidates for governor of Vermont in 2010 to participate in an energy forum at the Co-op's May 12 Annual Membership Meeting, and the five Democratic contenders accepted. Republican candidate, Lt. Gov.



*Matt Dunne (center), shown with WEC President Barry Bernstein (right), was one of five Democratic candidates for governor speaking at the Co-op's Annual Meeting.*

the Republican candidate had come, but I think people learned more about these Democratic candidates by being in the room with them and hearing them answer the questions and display their personalities. I think it went really well."

It was nearly 7 p.m. – almost a half-hour after the scheduled 6:30 start – when the five candidates arranged themselves on the dais in the Montpelier Elks Club dining hall. Secretary of State Deb Markowitz,

Brian Dubie, declined to attend – and missed what turned out to be an interesting, enlightening event.

"We didn't know how it would go," Bernstein said afterward. "But I've had lots of people come up to me and say they really enjoyed it. The candidates [who participated] were all from the same party, so there wasn't as much difference of opinion as there probably would have been if

from Montpelier, and Matt Dunne, a former state senator from Hartland currently working in the communications-technology field, had arrived earlier, but the three candidates serving in the Vermont Senate were delayed at the Statehouse in the Legislature's final hours. When Sens. Susan Bartlett (Hyde Park)

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*Line Foreman Tim Pudvah at work in the forest canopy off the County Road in East Montpelier. The veteran WEC lineman is shown replacing transmission-line insulators, part of a project to replace 495 of them this summer.*

## An Open House In Plainfield

*WEC Member's House Was Too 'Open' Before Home Performance Work*

Judy Cyprian opened up her Plainfield home to strangers on a sunny afternoon in May, and some three dozen people dropped by. And though most of them were, indeed, strangers, they had something in common with Judy: an interest in tightening up their homes, cutting their fuel and electricity costs, and relieving at least some of the burden that energy consumption poses upon the earth and the environment.

The difference was that Cyprian had already taken those steps, while her visitors were exploring the

idea. In 2009 she contracted with Montpelier Construction L.L.C., a residential-construction company nationally certified to carry out the analyses and renovations that meet the standards of the program known as Home Performance with ENERGY STAR™. Judy was the hostess that Sunday afternoon, May 23, but the event was sponsored jointly by Efficiency Vermont and Washington Electric Co-op. (Judy is a WEC member.)

There was a table well-stocked with exceptional snacks and cold

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### Washington Electric Cooperative

East Montpelier, VT 05651

### Inside

**71 years and counting.** Washington Electric Co-op held its 71st Annual Membership Meeting in May, and it was a memorable event. For a recap of an interesting, enjoyable evening, see page 2.

**Does a FREE home-energy audit appeal to you?** See how you can try to win this valuable prize on page 8.

**All Hands On Deck!** WEC's operations crew has undertaken a major project on Co-op transmission lines in the central part of the service territory, aimed at preventing outages. Get a taste for what line work is like, with story and photos on page 6.

**Launching the energy debate** – and there may be no topic more important to the state's future. Coverage of the forum among gubernatorial candidates at the Co-op's Annual Meeting continues on page 4.



*Annie Reed of Marshfield has wanted to serve her fellow Co-op members, running twice in as many years for WEC's Board of Directors. This time she won. Further Annual Meeting coverage starts on page 2.*

# Ten Candidates, Two Elections, And Some Straight Talk

## Members Elect Four to the WEC Board at 2010 Annual Meeting

**W**EC members will have to wait another six months to find out which, if any, of the five candidates for governor of Vermont who attended the Co-op's 71st Annual Membership Meeting on May 12 will be elected to lead the state.

But the results of another election were announced that very evening. Annie Reed of Marshfield and Scott Skinner of Middlesex were newly elected to Washington Electric Cooperative's Board of Directors. Re-elected to the Board were Roy Folsom of Cabot and WEC President Barry Bernstein of Calais. It was a five-way race for four available seats on the nine-member Board. Bernstein collected the most votes, with 1,019, followed by Folsom with 919. Reed, running for the second time after an unsuccessful attempt in 2009, came in third with 856 votes, trailed by Skinner (800 votes), a well-known community leader who had not previously run for the Co-op's Board.

The tally means that Bernstein, Folsom, and Reed will serve the usual three-year terms. Skinner will complete the final two years of former Director

*"Ninety-nine percent of your Co-op's power comes from non-fossil-fuel sources. We're one of the few electric utilities in the country that can make that claim."*

— WEC President Barry Bernstein

Andrea Colnes' term, following her recent resignation. Skinner can run for re-election in 2012.

The fifth candidate was Steven Clay of Middlesex, who collected 714 votes.

"Seven-hundred and fourteen votes is a good total for the first time someone runs," noted President Bernstein. "I'd like to thank Steven and encourage him to stay involved, because that's what we need to keep this a strong Co-op."

The focus of the Annual Meeting this year was a forum on energy issues among gubernatorial candidates (story on page one).

A good-sized crowd of 199 people attended the dinner and meeting on a mild spring evening at the Montpelier Elks Club. Special guests included



*It's not all business at a WEC Annual Meeting. Like the folks above, people also come to socialize and enjoy a good meal together.*

colleagues in public power: Eric Werner and Joe Wood of the Hardwick Electric Department; CEO Dave Hallquist of Vermont Electric Co-op, with several current and past board members and VEC employees; and David Mullett of the Vermont Public Power Supply Authority (VPPSA). Josh Bagnato of First Wind, the company seeking to build a 40-MW wind farm in Sheffield

— which will contribute additional renewable power to WEC's electricity portfolio — also was present, as was George Clain, president of IBEW Local 300, the union that represents most of WEC's employees.

Elected officials at the meeting were State Rep. Tony Klein, D-East Montpelier, chair of the House Natural Resources & Energy Committee (and

## 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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### Editorial Committee

Avram Patt Donald Douglas David Magida Will Lindner

*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.*

## Right of Way Reclearing Projects Scheduled

*Affected Members with 'Special Trees' Should Call the Co-op*

**T**he Co-op will continue working to improve service reliability by reclearing power-line rights of way in the areas described below. Right-of-way reclearing normally involves removing trees and pruning vegetation for 15 feet on either side of a single-phase distribution line, and for 25 feet on either side of a three-phase main distribution line. Except where noted, all of these projects involve single-phase lines, those carried by poles without cross-bars. Reclearing projects often involve a tap. That's where a single-phase line takes power from another line.

Throughout the year, post cards are mailed to members notifying them that right-of-way maintenance is to take place. Also, WEC's automated message-delivery system will place a phone call (if a phone number is on file) to all households affected by such maintenance projects, up to two or three weeks before work on the property is to begin. Calls will be placed in the evening, when most members are likely to be home. If no one answers, Co-op staff will attempt to reach that member during the day.

Because the evening calls are automated, they cannot hold the line if, for example, a child answers. If you believe you may have received a call from WEC, please call during office hours to check. If you are notified that a portion of your property is to be recleared and you especially hope to save any particular trees that are within the right-of-way, call the Co-op.

The Co-op's Right-of-way Management Coordinator Mike Myers, also a forester, will be happy to talk with you about any problems.

### Right of Way Reclearing Projects Summer 2010

<b>Berlin</b>	Paine Turnpike, Brookfield Road
<b>Cabot</b>	Houghton Road
<b>Calais</b>	County Road south of Maple Corner
<b>Corinth</b>	Chelsea Road
<b>Groton</b>	Great Road
<b>Middlesex</b>	3 phase line Middlesex Center and Molly Supple Roads
<b>Middlesex</b>	East Hill, South and East Bear Swamp Roads
<b>Newberry</b>	Swamp and Corey Hill Roads
<b>Peacham</b>	Bayley Hazen Road, Ewell Mill, HA Penny, Slack Street
<b>Topsham</b>	Hart and Lime Kiln Roads
<b>Vershire</b>	Goose Green Road
<b>Williamstown</b>	Graham Road
<b>Williamstown</b>	Limehurst Trailer Park



*Getting down to business. Following dinner, WEC's leadership convened the "business meeting" part of the agenda. Pictured from left, are Board President Barry Bernstein, General Manager Avram Patt, and Roy Folsom, Vice President Roger Fox, Secretary Marion Milne, and Richard Rubin, four of WEC's nine directors.*

a Washington Electric Co-op member), and the Dean of the Vermont Senate, Washington County Republican Sen. Bill Doyle.

As usual, the meal was a highlight of the evening, providing time for people to socialize. Cabot Cooperative Creamery contributed cheese hors d'oeuvres. Hunger Mountain Co-op, Cabot Creamery, and Efficiency Vermont provided generous door prizes, as did Washington Electric itself (which handed out cash awards and bill discounts).

WEC tightened the schedule this year to ensure ample time for the energy forum. The President's Message and Avram Patt's Manager's Report were shorter than usual. Treasurer Don Douglas was visiting his son in the Peace Corps (Jonathan Douglas is serving in China), so there was no verbal Treasurer's Report, but all three of these officers provided their official reports in writing in the April *Co-op Currents*.

One tradition that was not truncated was the Employee Recognition Awards. Every year at Annual Meeting the Co-op presents these awards to employees marking their service in five-year increments, providing members a chance to express their appreciation of the people on the other end of the phone lines when they call to report an outage during a howling winter storm, the linemen and engineers who build and maintain the nearly 1,300-mile system, and other staff members who keep the Co-op running.

In 2010 five-year awards went to Apprentice Linemen Jason Smith and Kevin Lanphear; 10-year awards went to fleet mechanic Brad Nutbrown and Class A Lineman Larry Gilbert; and 15-year service awards went to Right-of-Way Coordinator Mike Myers and Senior Accountant Teia Greenslit.

WEC Manager Patt then mentioned another employee who was receiving a service award. Line Construction Foreman Bob Fair was not on hand to receive his award because he was coaching Hazen Union's golf team in a match, but when the audience heard that it was for 40 years of outstanding service to Washington Electric they

gave Bob Fair a vigorous round of applause in absentia.

### **A moment for Co-op business**

Although Bernstein and Patt shortened their reports because of the energy forum, the three candidates serving in the Legislature were late arriving; unexpectedly, the Legislature was still in session, trying to finish its business for the year.

The delay created time for more discussion of WEC matters. Bernstein explained the advantages to the Co-op of installing a fifth engine in 2009 at WEC's generating station in Coventry, which is fueled by landfill methane. Two factors figure into power generation there: WEC's generation capability, which has increased as the Co-op has added new engines after opening the station with three in 2005; and the amount of methane produced by decomposition within the landfill. The NEWS-VT landfill is expanding, which means the Co-op will have access to more fuel as time goes on.

"At some point in the future," said Bernstein, "this will provide us the capacity to generate 80 percent of the electricity our Co-op needs. For now, the fifth engine allows us to run four engines at full output while we're servicing the remaining one. This way, we can keep producing."

Bernstein added, "Between Coventry, our 1-megawatt hydro plant in Wrightsville, and our sources of purchased power, 99 percent of your Co-op's power comes from non-fossil-fuel sources. We're one of the few electric utilities in the country that can make that claim."

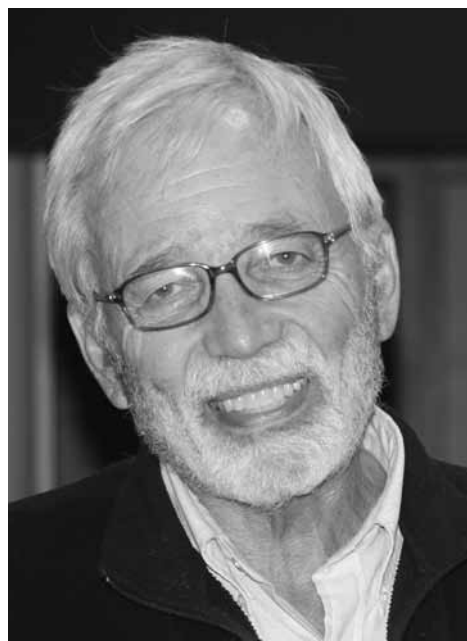
The audience responded with applause.

Bernstein then briefly discussed the Board's formal petition in February that urged the Vermont Senate to vote against relicensing Vermont Yankee past its expiration date in 2012. Bernstein said the move followed a WEC tradition of taking public stands in important energy-related issues.

"It was not an easy decision for us to arrive at," he said. "As George Clain [the IBEW Local's president, who was



*Professional forester Mike Myers, above, is the Co-op's Right-of-Way Management Coordinator. Mike received a 15-year service award at the Annual Meeting. Meanwhile, WEC member Scott Skinner of Middlesex, left, won election to the Board of Directors.*



present] knows, there are a lot of jobs involved." He credited the Directors "for listening to each other and working to come to a consensus."

In his shortened report, General Manager Avram Patt raised the subject of an impending rate increase, for which the Co-op will likely apply to the Vermont Public Service Board before the end of 2010. If approved, it will be WEC's first rate hike in 11 years. For a fuller explanation of the need for an increase – relentless cost increases, an industry-wide trend of declining electricity sales, and lower returns for the Renewable Energy Credits the

Co-ops sells – Patt referred members to the Treasurer's Report in the April *Co-op Currents*.

This led WEC member and former Director Bud Haas of Bradford to ask, from the floor, "What should the Co-op do about the financial impact of selling less power?"

Patt replied, "If we believe, for environmental and climate-change purposes, that we should use less power, it will drive the cost per-kilowatt-hour up. We'll do the best we can to minimize the impact, but using less power means the unit price for the electricity you purchase is bound to go up – and that's your rates."

Patt's realistic assessment provided a fitting segue to the lively policy discussion that followed, among candidates seeking to lead the state to resolution of such dilemmas. 🐉

## A WEC Energy Forum

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and Douglas Racine (Richmond), and Sen. President Pro Tem Peter Shumlin (Putney), arrived, they took a few minutes to shake hands with audience members, then assembled behind a table and water glasses to respond to questions.

Three questions had been devised by the Board and sent to the candidates ahead of time. WEC General Manager Avram Patt read the questions aloud and the candidates took turns answering them, within time limits and without rebuttals. The Co-op also invited audience members to submit written questions, and time permitted a couple of those to be asked. (Note: Patt later posted the remaining questions on Washington Electric's web site, also sending them to the participating candidates and to Dubie. If and when they respond, their answers will be added to the posting.)

Below are the questions that were posed at WEC's energy forum, and synopses of the candidates' answers. (Co-op Currents thanks Amy Darley for contributing her notes from the forum.)

### 1. Please tell us something about your personal perspective on energy issues. Is there an event, or an "Aha!" moment that affected how you think about energy issues?

**Susan Bartlett:** Bartlett said there had not been an "Aha" moment for her, and offered a reason. "Energy is something we absolutely take for granted," she said. "We assume it will be there all the time, at a reasonable cost." She said the failure of the current administration (referring to Gov. James Douglas) to conceive a plan for the state's energy future, now that pivotal points are being reached regarding Vermont Yankee nuclear power plant and the approaching end of the state's contract with Hydro Quebec, revealed that affordable, available energy really cannot be taken for granted.

**Matt Dunne:** Dunne, by contrast, said he'd had several "Aha" moments regarding energy. "The first was when Jim Douglas, out of ideology, blocked the single most-important opportunity the state had to control its energy future." Dunne was referring to the administration's decision not to attempt to purchase a series of hydroelectric dams on the Connecticut River, which eventually were bought by a Canadian company that sells most of the power outside of Vermont. Other "Ahas" for Dunne were the positive impact of efficiency renovations in his Hartland farmhouse, and the potential impact of smart-metering systems that he said would encourage consumers to reduce energy usage and save money.

**Deb Markowitz:** Markowitz said her "Aha" moments derived from her marriage to an energy-efficiency professional (CVCAC's Paul Markowitz), who had made conservation habits ("Kids – turn out those lights!") part of her family's experience. "My first priority is jobs and jump-starting the economy,"

she said, but also emphasized the importance of developing renewable-energy resources in Vermont, including wind. "If you have a governor who's against wind power, you're not going to have wind power," she said.

**Doug Racine:** Racine began by greeting representatives of Vermont Electric Cooperative and pointing out that he had been a board member of that co-op, so was on familiar ground at the WEC meeting. Racine also alluded to several "Aha" moments, most notably a negative one – the lack of planning at the executive level for the scheduled shutdown of Vermont Yankee in 2012. There has been legislative leadership, he contended, but no vision from the governor's office for replacing Yankee power despite years of knowing the end was coming. "With me as governor," Racine said, "you're going to see an aggressive move in this state toward renewable energy sources," a necessity, he noted, in light of peril to the planet through climate change.

**RACINE:** Racine stressed the importance of land-use planning. "If we want to reduce our carbon footprint we need to do more to concentrate development in urban and village centers."



**Peter Shumlin:** Shumlin commenced with a sarcastic call to "Free Brian Dubie," noting the lieutenant governor's absence at this and similar public forums. He then said his "Aha" moment comes every fall when he goes hunting in southern Vermont and encounters the effects of climate change. "The pond is dead; the maple trees are dying." As a state senator, he had resolved to do something about it. "We passed what Al Gore called the toughest climate-change bill in the country, and Governor Douglas vetoed it. [When I'm] governor, we will pass it again."

### 2. All of you have stated that you support the closing of Vermont Yankee when its license expires in 2012. How would you replace that power? Besides a possible new Hydro Quebec contract, where will Vermont get its power from in both the intermediate and the long term?

**Shumlin:** Shumlin began by praising WEC as "the only board to support the effort . . . to shut down Vermont Yankee after 2012." He described the plant's owner, Entergy Nuclear, as "a company that's corrupt, that can't tell the truth, and that's going to leave high-level nuclear waste on that river for all of us to enjoy." For the interim, he said, the New England electric grid can provide abundant, affordable electricity. His long-term plan included "identifying where it's too precious to install wind," and then citing wind farms elsewhere; moving toward 30-percent solar energy over 15 years; and moving aggressively for in-state hydro facilities – "Sustainable energy that will not

**MARKOWITZ:** Markowitz emphasized conservation and energy efficiency. "It creates jobs," she said, "and businesses could save some \$3 billion through off-the-shelf efficiency techniques."



contribute to the biggest disaster facing the human race [climate change]."

**Racine:** Racine cited the Rancho Seco nuclear station in California as a model for closing Vermont Yankee. (Decommissioned in 1989, the site was converted to a public park.) "They moved aggressively toward solar energy and efficiency," Racine said, "even putting up solar panels on the old nuclear plant." For the medium term, Hydro Quebec "has to be part of our energy mix," he said, and Vermont could also purchase power generated

power, which must be dependable, Dunne advocated development of further biomass facilities and the jobs they would create. And he returned to smart-metering: "Give Vermonters the right to know their energy usage in real time and they [will] become a participant in reducing the state's energy load."

**Bartlett:** Bartlett said a key to making smart decisions about energy policy lies in appointing informed people to key government posts. "When I make appointments to important positions those people will be qualified. We've had eight years of appointments to the Department of Public Service that were fatally political, and the consequence is [poor] management day after day." Bartlett said she also supports a greater role for public power (co-ops and municipal utilities). "It's not about making money, but providing the best service for people."

### 3. As governor, what legislation would you propose or what political actions to reduce carbon and other environmental impacts of electricity and fuel production and use, while meeting Vermonters' energy and pocketbook needs?

**Markowitz:** Markowitz lauded efforts already underway in Vermont, such as co-generation (heat and power) projects on the drawing board in Montpelier and Brattleboro. She added, "We have an energy-efficiency utility [Efficiency Vermont] for electricity, but we need to do the same for heat." She promoted pellet technology to reduce fossil-fuel use and spur the Vermont economy by producing the fuel.

**Dunne:** Dunne was the first to cite the catastrophic Gulf of Mexico oil spill, saying it "epitomizes the poor choices we are making." He also imparted this startling information: "Vermont has the highest per-capita carbon footprint of any state in the nation." He blamed it on our dependency on the single-occupant vehicle, and advocated the development of an electric car grid at workplaces to address that problem. Dunne said that state government should "walk the walk" by investing in efficiency improvements in state

**DUNNE:** "Give Vermonters the right to know their energy usage in real time [through statewide smart-metering] and they [will] become a participant in reducing the state's energy load."





The candidates listen to a question on energy policy being read by WEC General Manager Avram Patt (not pictured). From the left, they are State Sen. Susan Bartlett, former State Sen. Matt Dunne, Secretary of State Deb Markowitz, State Sen. Doug Racine, and Senate President Pro Tem Peter Shumlin.

buildings, and cited the demonstration project at the Sharon rest area on I-89 (using closed-system toilets to reduce waste, and other measures) as an example.

**Racine:** “Almost everything we do for energy is going to have an environmental impact,” Racine pointed out. To mitigate that, the state should fully support EVT even in difficult budgetary times, “but we haven’t had a governor who has done that.” He stressed the importance of land-use planning. “If we want to reduce our carbon footprint we need to do more to concentrate development in urban and village centers.”

**Bartlett:** Bartlett cited not only the Gulf oil spill, but the West Virginia coal mine disaster that killed 39 miners just a few weeks earlier. “I don’t think that’s what we want to support when we’re consuming energy,” she said. By contrast, “Vermont innovators have virtually unlimited potential to help us use less energy and create more jobs.”

**Shumlin:** Shumlin described the Gulf spill as “one of the tragedies of our lifetime,” which crystallized the need for a “vision” for change that creates new jobs in Vermont. He said Vermont should move toward community-generated power and end the “crazy path of destruction” wrought by enormous, harmful exploration and generation projects. “We need a governor who gets it,” he said. “The five people on this panel do, and the guy who won’t show up [Dubie] doesn’t.”

**Next, audience members were invited to ask questions they had submitted to the moderator. First to pose a question was WEC member Andrew Leader, who wanted to know if the candidates agreed with President Obama’s support for the development of new nuclear power stations, or whether they opposed Obama, “a member of your party,” and envisioned the U.S. using less power “which will diminish our role as an industrial leader.”**

**Bartlett:** Bartlett disagreed with Leader’s premise, saying “If we reduce our power consumption we can be more of a leader.” She said the new generation of nuclear power stations “still present tremendous safety issues,” and concluded that “I don’t see a place for nuclear power in Vermont.”

**Dunne:** Dunne said Vermonters identify with individuals more than with parties, so disagreeing with Obama did not represent a Democratic schism. Referring to Arnie Gunderson, a Vermont-based nuclear expert involved in the Yankee dispute, Dunne said, “When he sat me down four years ago and told me what was wrong with Vermont Yankee, I hoped he was crazy.” Events have proven otherwise, said Dunne, leading to his opposition to new nuclear plants.

**Markowitz:** Markowitz stood firmly against nuclear power. “My concern is the waste,” she said. “We don’t have a solution. It’s been 35 years since a nuclear plant came on line,” she added. “It requires huge government subsidies.”

**Racine:** Racine said the U.S. had a “moral responsibility” to lead by example, and make a case for India, China, Brazil and other developing nations turning away from nuclear power. “I think it’s wrong for us to leave future generations with problems we create [with nuclear waste and] a potential environmental catastrophe.”

**Shumlin:** “My view about nuclear power comes from being born in the county where promises weren’t kept” regarding Vermont Yankee, Shumlin said. “They said [nuclear power] would be too cheap to meter, and that technology would take care of the waste.” He then switched to a global view. “China is blowing us away in wind, solar, and biomass. If we don’t change that we’ll be left behind economically.”

**The last question was posed by WEC member Steve Farnham. He said his home is at 1,500 feet, and the wind howls. Yet “there’s always someone opposing the development of wind power in Vermont. How can we defuse the opposition?”**

**Shumlin:** “There couldn’t be

a greater case for a change in leadership,” said Shumlin. He characterized the “Brian Dubie-Jim Douglas team” as pitting Vermonters against each other, with the controversy over wind power as an example. Two recent local decisions – for a wind project in Lowell, against one in Ira – showed how dialogue with communities can lead to support for such a project, and the absence of it leads to defeat.

**BARTLETT:** Bartlett cited the Gulf oil spill and the recent West Virginia coal mine disaster that killed 39 miners. “I don’t think that’s what we want to support when we’re consuming energy.”



**Racine:** “It’s really about leadership,” said Racine. “Talk to Vermonters about what the choices and problems are. Talk to Vermonters as adults.” He noted that opponents object to wind projects because of aesthetics, while other energy sources threaten more dire and permanent impacts. “You can take the turbines down in 50 years.”

**Markowitz:** Markowitz also said much of the answer lay in more committed efforts to communicate with local people. She cited the principle of “creative re-localization” – helping people understand the benefits of developing and depending upon local resources. “My second answer is regulatory,” she added. “We should do more to streamline the process, more to [weigh people’s varying opinions] but actually accomplish our goal.”

**Dunne:** It’s about “leadership at the top,” said Dunne. Governors should appoint people “smarter than [they] are” to clearly define the challenges and bring people into the conversation. “Once you’ve laid out what the challenges are . . . communities come together and you can make it happen.”

Leaving energy problems in the abstract allows people to avoid them, Dunne explained.

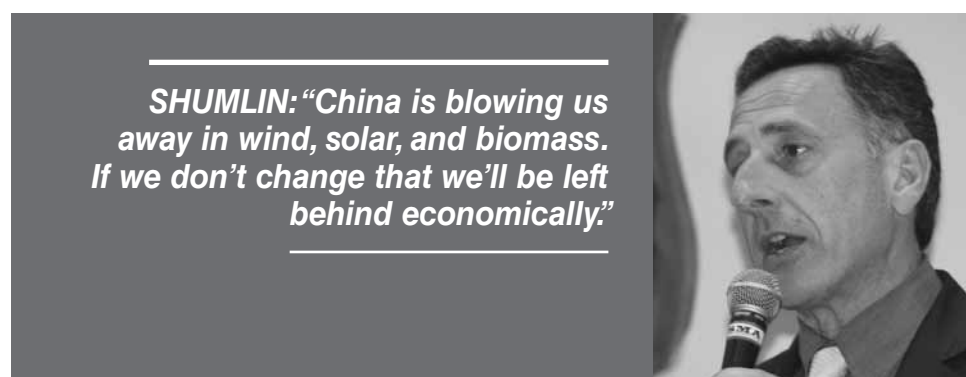
**Bartlett:** While others praised Green Mountain Power for its deft handling of the wind project proposed for Lowell, which town voters approved, Bartlett noted that GMP had a partner in the proposal – the Vermont Electric Co-op, leaders of which were present in the

room. And she repeated that “the state doesn’t have a plan” for renewables. In the absence of a plan, opposition is free to flourish.

#### Additional questions

The following questions were submitted by people attending the Annual Meeting, but there was not sufficient time for the candidates to answer them. For more on these questions, see WEC’s web site.

1. If Entergy were to convince the Legislature to flip-flop and allow the Vermont Yankee plant to operate after 2012, would you veto the bill?
2. My concern is that Vermont and Vermonters are going to get stuck with the cost of decommissioning Vermont Yankee. Please address.
3. Do you feel that train transportation has a place in Vermont’s future? How and where?
4. The permitting process . . . basically means there can be no new small-scale hydro. How would you change the permitting process?
5. Have you read Bill McKibben’s new book, *Earth*? If so, what do you think of it?
6. Doing energy efficiency and weatherization work in privately owned rental housing is a huge problem . . . because landlords won’t participate, and so nothing happens in some of the homes that need it the most. What can Vermont do in terms of incentives, regulation, or mandates to fix this problem?



**SHUMLIN:** “China is blowing us away in wind, solar, and biomass. If we don’t change that we’ll be left behind economically.”

# Hot Work On A Beautiful Day

## *Insulator-Replacement Project a Remedy for Cold Days Ahead*

**A** post insulator on an electric power line doesn't have a complicated job to do. It pretty much just stands there, its lower end bolted to the cross arm of the pole and its top end channeling the conductor (the electric wire) which passes tightly over the insulator on its way to the next pole.

So there's not really very much to an insulator. But it's got an important job to do, separating the energized line from the wooden pole. If they come into contact it can start a fire.

Like everything else, insulators get old, and under the strain of Vermont's weather, with its extremes of hot and cold, old insulators begin to crack and weaken; if a strong wind comes along, or a wet, heavy snow, a weakened insulator can break. The result can be

an outage, or even a pole fire.

There are 495 insulators on the 165 poles that support Washington Electric Co-op's 8.2-mile transmission line that carries power from WEC's East Montpelier substation to its Maple Corner substation. More than 1,400 households, schools, farms, and businesses depend on that transmission line, but over the winter those insulators began to fail.

"Within the last six months we've had two separate instances of insulator failures on that line, and one of them caused an extensive outage that lasted six and a half hours," says WEC

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Operations Director Dan Weston. "We had to find it, redirect crews that were already busy making repairs, and change out the pole, because the failed insulator caused the pole to

burn in half. That took a long time." Another outage followed in April, when a storm blanketed the area with wet snow that caused outages system-wide. During the restoration effort another insulator on the East Montpelier/Maple Corner transmission line failed. WEC was able to limit the inconvenience to members because the Co-op in recent years has focused on creating "redundancy" – the ability to provide power from more than one direction for many members (an ongoing project at Washington Electric).

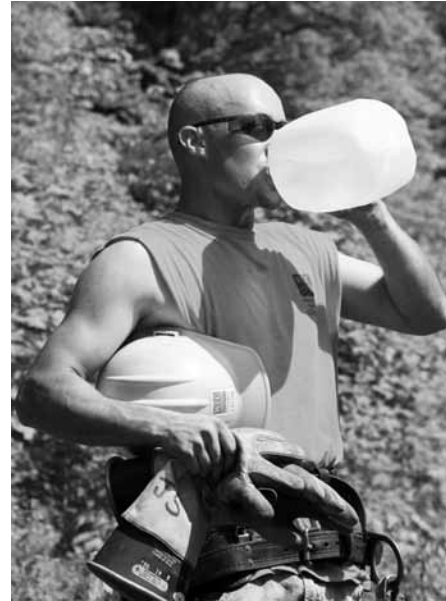
After the second failure it became clear that the best solution was to replace all of the insulators on that transmission line.

"Those were made in the 1960s," Weston explained, "when the manufacturer used vitreous porcelain. There are better

materials now that are designed not to crack with temperature fluctuations."

It's a project that must be done in stages, and it requires planned outages – shutting down the transmission line for a couple hours at a time, isolating the work area so the crews can work safely, slacking the wire, disconnecting the old insulators (three to a cross arm) and sending them down by rope-and-pulley to the "ground man" below, who then passes up the replacement insulator. The new one is attached to the cross arm, and once all three are replaced the team moves on to the next pole. "Redundancy" comes in handy here; after a brief interruption (just enough to make people's digital clocks

go on the blink), the majority of homes are backed from other sources for the duration of the outage. "That has really helped on this project," says Weston. "We've been able to limit the effects of these planned outages; so in one case there were only 57 members who were without power during the time our crews were working. At a minimum, we've kept the power on for 70 percent of the members who were potentially affected,



*Temperatures reached the mid-80s on this sunny May day. Above, Class A Lineman Jason Smith takes a drink from a jug of water that probably wasn't cold, but at least it was wet.*



*The insulators being replaced along an 8.2-mile transmission line are the spirally devices mounted on the poles and cross arms. With age, several of the insulators have cracked, which can cause an outage or even a pole fire if the energized wires contact the wood. Above left, Class A Lineman Hans Pope-Howe mounts a pole in East Montpelier to begin replacing them, while a few poles away on the same line Foreman Tim Pudvah is doing the same job.*



Much of the transmission line between WEC's East Montpelier and Maple Corner substations runs cross-country. Above left, Hardwick Electric Department linemen Jamie Dailey (white shirt) and Rusty Shedd, contracted by the Co-op for this project, head down a hill to their next pole with WEC's Mike Myers (center) who served as their ground man. Above right, it's an uphill climb for WEC linemen Jason Smith, Kevin Lanphear, and System Technician Ed Schunk. In swampy places it took a 4-wheeler to get to the poles. At right, Mike Baril stands on a 4-wheeler preparing to pass equipment by rope to the lineman above. At left are three old insulators, looking worse for wear after some 40 years of service.




and at best we've kept the power on for 96 percent. We're improving this ability all the time – it's part of our 10-year work plan – which means that not just for planned outages but for unplanned, unexpected power outages we're gaining in our ability to provide people their electricity from multiple directions."

On Tuesday, May 25, WEC's linemen and others on the operations team went out on this insulator project for the third time (the first two days had been in April). It was a hot day, and a big job; Weston recruited help from the Hardwick Electric Department and Morrisville Water and Light, which each

sent teams of four linemen to work with the Co-op's crew. They worked along the County Road in East Montpelier, mostly in fields, ravines, woods, and wetlands some distance from the road. They had brought along four-wheelers, but much of the traveling was done on foot in some rough and isolated country.

These are people who enjoy working outside, and there was joking and camaraderie, and no complaints about the weather. Around noon they reconnected the line and Safety Coordinator Steve Anderson showed up at the Templeton Road fire department with Subway sandwiches and cold

drinks. After lunch the power was shut off again, and the crews returned to the job.

By the end of this third day about 75 percent of the insulators had been replaced. One more day ought to do it – tentatively scheduled for June 17th (affected members will be advised ahead of time). The reward – for everyone – will come next winter when there will be fewer outages on that transmission line, so members will be able to remain warm and safe, and the linemen can stay in their beds. 

## Open House

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drinks, acoustic music on her back porch performed by central Vermont's Sky Blue Boys, displays of Efficiency Vermont and Home Performance literature and products, and continuous tours of the various areas of Cyprian's house where the Home Performance renovations had been done, led by Malcolm Gray of Montpelier Construction, who had overseen the work.

Four Efficiency Vermont staff members were present during the four-hour open house, along with WEC Products & Services Director Bill Powell. They greeted visitors and engaged them in discussions of the Home Performance with ENERGY STAR™ program and ways that

Efficiency Vermont makes such projects more affordable. In fact, for attending the open house people received a coupon for \$150 off an energy audit which they can use after they've completed a qualifying Home Performance with ENERGY STAR™ project. Efficiency Vermont offers up to \$2,500 in incentives, including a \$250 energy-audit rebate, per household, to help Vermonters pay for home improvements completed by a certified Home Performance with ENERGY STAR™ contractor.

The Plainfield event was the third open house Efficiency Vermont had

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— Sharon Bay,  
Efficiency Vermont

sponsored in recent months, following earlier ones in Proctor and Dummerston. It was the best-attended of them all, said Sharon Bay, senior marketing project manager at Efficiency Vermont. Washington Electric helped see to that, by mailing invitations to WEC members in Plainfield

and several nearby towns, and working with Efficiency Vermont to place advertisements in local newspapers. Efficiency Vermont's Jon Floyd went on the Mark Johnson Show on WDEV radio the Friday before to further publicize the event.

"I thought this open house went very

well," said Bay. "People were extremely engaged. I think it was great for them to be able to see the work for themselves and to hear directly from the contractor and the homeowner. There were lots of visuals; people could walk around the house, see where the work was done, how and why it was done, and have the opportunity to ask questions – which is a big thing."

"Plus, Judy was a great hostess. She was very welcoming and willing to talk about the improvements that were done in her home. And it was a nice extra to have music. It made the event more festive."

## 'Icebox' no more

Speaking of visuals, Efficiency Vermont Residential Project Manager Bruce Courtot (a Co-op member)

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**Open House**

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set up a blower door for people to see. The “blower door test” is the first step in a home energy audit; the contractor covers an exterior doorway with a canvas-and-plastic sheeting, pressurizes the home with fans, and controls the air escape through the doorway covering; using a meter, the contractor can thereby quantify the air-leakage flow through the walls, foundation, and ceilings of the house. An actual blower door test was not performed at the open house, but Courtot and Gray were able to show how it was done.

It was hard to believe on this sunny May day, when black flies and hummingbirds were buzzing around her porch, but Cyprian undertook the Home Performance renovations in April and May of 2009 in an effort to get warm.

“My home was an icebox,” she said. “It was unbelievable how much money I was pouring down the drain for heat.”

Cyprian’s home is a 19th-century

Photo by Nicole Ballinger, Efficiency Vermont



farmhouse with multiple additions. “We redid the whole house in the early 1980s,” she said, “which was the last time any insulation work or anything like that had been done. It’s a large house – 3,000 square feet – and it was drafty and I was always uncomfortable. I just got to the point where I couldn’t stand it anymore.”

Cyprian heard about Efficiency Vermont, gave the agency a call, and

received a list of certified, local Home Performance with ENERGY STAR™ contractors. She then called Gray at Montpelier Construction.

(NOTE: You can short-circuit this process by going to [www.efficiencyvermont.com/homeperformance](http://www.efficiencyvermont.com/homeperformance) and clicking on Find a Contractor.)

“Part of what happens in an old house like this,” Gray explained, “is that there’s a lot of air leakage *between* the additions. People weren’t concerned about air leakage in those days. They even thought it was a good idea to have fresh air; remember, those were the times of TB [tuberculosis] and stuff like that.”

There were other leak sources, as well, in attics, ceilings, and the foundation. Gray described the “stack effect” on exterior walls: as the walls are warmed by the sun the air within them rises, drawing cold air in from below and causing the house to act like a chimney. Many old Vermont homes were insulated in the ‘70s and ‘80s using fiberglass. “But fiberglass acts more as a filter than as insulation,” said Gray. Its effectiveness is further diminished when critters – the wall fauna dwelling within many a Vermont home – construct their mini-highways.

The crew upgraded the insulation in the basement and elsewhere. One of the real cosmetic changes was insulating around the exposed beams in some upstairs rooms, which was done with one-inch foam board and cellulose, covered by white sheetrock that reduced the beam exposure. They sprayed cellulose in a cavity behind the cathedral ceiling.

Cyprian remembers the experience this way.

“Malcolm came and did his blower door test, and they were shocked! My

Co-op member Charlie Hall of West Topsham, left, speaks with Malcolm Gray of Montpelier Construction L.L.C., who managed the Home Performance with ENERGY STAR™ renovations at Judy Cyprian’s home in Plainfield.

house was really bad! They ran around with their little infrared light, and went into my attic, and could not believe it. They were like, ‘This is like being outside!’ They were really excited!”

To track their progress, the crew conducted periodic blower-door tests.

“It started out at 7,350 CFM [cubic-feet per minute of air escape under pressure at 50 pascals]. We reduced that to 3,300 – about 55 percent reduction in air flow in the house,” said Gray.

**‘Home Performance’ picking up steam**

Home Performance with ENERGY STAR™ is beginning to make a dent in Vermont’s notoriously aged and drafty housing stock. Efficiency Vermont’s Jon Floyd says there were more than 500 completions of Home Performance projects in 2009, compared with 300 in 2008; he projects a continued upward trend, with 600 projects in 2010 and 750 in 2011. The number of Vermont contractors certified for the program also has grown, reaching nearly 90 firms statewide.

With the added impetus provided by Efficiency Vermont’s financial incentives, perhaps some of Judy Cyprian’s guests will take the next steps toward tightening their homes and reducing their cost and consumption of energy.

“My accountant took a look at this program,” said Gray, “and he asked, ‘Is there any reason not to do this?’ My answer was, sloth and indolence.”

Nobody wants to be in that crowd. To get started – Step No. 1 is a home energy audit – contact Efficiency Vermont by logging onto [www.efficiencyvermont.com/homeperformance](http://www.efficiencyvermont.com/homeperformance) or by phone at 1-888-921-5990. Or, if you’re more comfortable beginning with your friends at Washington Electric Co-op, get in touch with Bill Powell at the East Montpelier office and he’ll answer your questions and point you in the right direction.



Above, three of the people who made the Sunday, May 23, Open House a success: from left, Sharon Bay of Efficiency Vermont; hostess extraordinaire (and Co-op member) Judy Cyprian; and WEC’s Bill Powell. Below, Judy’s 19th-century home in Plainfield.



**No-Cost Home Performance Audit Giveaway—Again!**

The winners of the Home Performance with ENERGY STAR™ audit door prize at the Co-op’s Annual Meeting were Hazel and Lloyd Chase of Topsham. However, they have elected NOT use the free audit. Therefore, WEC is opening up to all members this NO COST HOME PERFORMANCE AUDIT offer; any member who attended the Annual Meeting and who entered the original contest is automatically entered into the second drawing. If you did not attend the Annual Meeting and now want a chance to win this \$400 value, you must contact the Co-op by Friday, June 18. To enter the contest or for more information contact the Co-op at 223-5245, or send an e-mail to: [bill.powell@wec.coop](mailto:bill.powell@wec.coop).



Dozens of central Vermonters came by the four-hour Open House to learn about energy-efficiency improvements. Above, contractor Malcolm Gray explains work that was done to reduce air infiltration in the home’s basement. Inset photo shows some of the foam sealant used to fill cracks.