



# PSB Begins Formal Review Of Utility Merger

*WEC Presents Written Testimony Concerning Influence on VELCO and Rates*

After months of discussion in boardrooms and in the media, the largest electric-utility merger ever proposed in Vermont's history is now squarely before the Vermont Public Service Board, with non-petitioning parties submitting pre-filed testimony in January. Central Vermont Public Service Corp. (CVPS) and Green Mountain Power (GMP) are seeking the Board's approval for an acquisition by GMP of CVPS. They are, respectively, the second-largest and the largest electric utilities in Vermont.

Washington Electric Cooperative's leadership has publicly expressed serious concerns about the proposed acquisition, ever since the two investor-owned utilities (IOUs) announced the plan in July 2011. In particular, WEC is concerned about a

concentration of power over VELCO, the company that controls Vermont's electric-transmission infrastructure. WEC is also concerned about the impact the merger could have upon WEC's sub-transmission rates.

With the formal process begun, WEC General Manager Avram Patt provided pre-filed testimony to the

PSB in January. Testimony by other expert witnesses and stakeholders made it clear that others share WEC's concerns.

## Dworkin: 'Vermont citizens live with its effects'

The predominant concerns, expressed in pre-filed testimony by numerous parties, center on the effect that combining the state's two largest electric utilities could have on the ownership of Vermont's

electric-transmission system. VELCO (the Vermont Electric Power Company) was created by the state's electric utilities in 1956 to own and operate the high-voltage transmission system upon which all the utilities rely. They continue to own VELCO and the transmission

system, although the existing representational formula for participation on its Board of Directors has come under closer scrutiny in light of the GMP/CVPS proposal.

"The current board structure is poorly defined in VELCO's

*"The single most important factor is that whoever manages the unified, single, statewide transmission system can make decisions that affect the general good of the state."*

— Michael Dworkin

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Armando, a Washington Electric Co-op member who lives at East Hill Farm Riding Center in Plainfield, checks out the weather on a January morning.

## Manager's Report

# Wind Farms: Large, Visible, And Necessary

By Avram Patt

Vermont has been discussing commercial-scale wind development for about 10 years, and Washington Electric Co-op has been an active participant in those discussions. In 2005, WEC announced our support of the Sheffield wind project and committed to purchasing a portion of the electricity if the



developer, First Wind (then called "UPC Wind"), got regulatory approval.

We stuck our neck out on behalf of that project. WEC Board members and I attended meetings and hearings in the Sheffield area and elsewhere, and I wrote articles that were published

in this newsletter and in Vermont newspapers. Wind energy has

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## Washington Electric Cooperative

East Montpelier, VT 05651

## Inside

**Looking for a few good Co-op members.** WEC's Annual Meeting will be held in May, but it's already time to make plans if you'd like to run for the Board of Directors. Your Co-op could use you. Page 8.

**WEC WARMTH donations have been declining.** Our state government bailed out LIHEAP. Can we do the same for WARMTH? Page 8.

**Preparing for winter outages.** Everyone knows we'll have some, so learn what to do to be safe and ready. Page 5.

**There's a ton going on** regarding energy in Vermont. WEC is committed to participating, and keeping you informed. See President's Message, page 2.



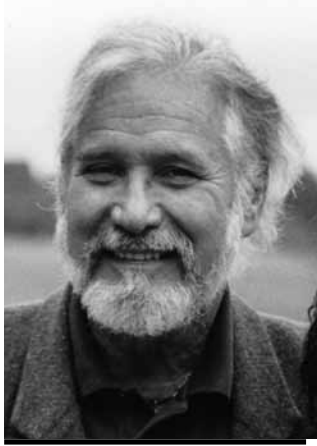
*People turn to electric space heaters for warmth and convenience. But don't believe advertisers who say they're inexpensive to run. For information, and comparisons with other heating alternatives, see Energy Coach, page 6.*

## President's Message

# A Full Plate Of Energy Issues, Here And Now

By Barry Bernstein

The Vermont Legislature commenced its January 2012 session in the midst of significant energy issues. The final draft of Vermont's 2011 Comprehensive Energy Plan, released by the governor on December 15, calls for the state to obtain 90 percent of its total energy needs from renewable resources by 2050. House and Senate committees have both introduced bills calling for establishment of a Renewable Portfolio Standard (RPS) to move electric utilities further toward this goal. The Vermont Public Service Board (PSB) has just received pre-filed testimony from the Vermont Department of Public Service (DPS) and 13 interveners on the proposed GMP/CVPS merger,



*It's an interesting and transitional time for the electric power industry. We hope WEC members will consider running for the Board and being involved in these critical conversations.*

the biggest change in Vermont's electric utility history. A major focus of this merger will be on VELCO (the Vermont Electric Power Company), which owns the state's high-voltage transmission infrastructure, through which all electricity must travel. Currently, between them, GMP and CVPS have majority ownership and control of VELCO. In addition, U.S. District Court Judge John Murtha has released his long-awaited decision, ruling that the Vermont Legislature does not have the authority to close Entergy's Vermont Yankee nuclear power plant in March 2012. WEC also has two cases in front of the PSB: our request for a 2.27-percent rate increase, and approval of our Smart Meter/AMI installations, which use our distribution

power lines to transmit digital information.

Also, work continues on the rebuilding of our East Montpelier offices.

Clearly, 2012 will be a very busy year for WEC and in regard to utility issues. We will continue to provide coverage in *Co-op Currents* as these issues unfold. For now, I want to highlight a few items:

### GMP merger and VELCO

In October, the WEC Board unanimously voted to intervene and support public ownership of VELCO as a condition of approval of the proposed GMP/CVPS merger. To ensure that the best interests of Vermont and its ratepayers are protected, it is critical that Vermont's transmission infrastructure be operated with some form of public ownership to reduce the conflict that could occur if VELCO, owned by a Canadian company, also owns more than 70 percent of the state's electric-distribution system.

The primary fiduciary responsibility of Gaz Metro, the owner of GMP and also of Vermont Gas Systems, Inc., is to its shareholders and not to Vermont ratepayers and the general public. Even in a regulated industry, electricity is too vital to our wellbeing to leave future, now-unknown transmission-infrastructure decisions vulnerable to that conflict.

### Vermont Yankee


WEC's Board voted to support the closing of the Entergy Vermont Yankee nuclear plant on schedule in March 2012. Entergy's management of the plant has left even some supporters of nuclear power not wanting VY to continue operating at the end of its 40-year license. We will have to wait to see the state's response once Judge

Murtha's decision has been fully reviewed.

### Renewable Portfolio Standard

WEC made an early commitment in 2003 to invest in in-state, sustainable, economic, and renewable power generation to meet our members' power-supply needs. Your Co-op has spent more than \$14 million to build and expand the Coventry landfill methane-to-electricity generating plant, as well as investing in the Sheffield Wind project. Along with our Wrightsville hydro dam, these sources will eventually supply more than 80 percent of our members' electricity needs.

At present, WEC benefits from the ability to sell RECs (Renewable Energy Credits) to other New England electric utilities, which helps stabilize our members' electric rates. The House and Senate are weighing the adoption of a Renewable Portfolio Standard (RPS) that has the laudable goal of moving the state toward nearly total (80 percent to 90 percent) use of renewables for Vermont's energy supply by 2050 or sooner. It's conceivable that the plan that emerges could affect WEC's ability to sell the RECs. The financial implications and their impact on our rates will be of concern. You can expect your Co-op to remain involved as details are discussed and decisions are made.

It's an interesting and transitional time for the electric power industry in Vermont. With WEC's 2012 elections approaching, we hope people will consider running for the Board of Directors and being involved in these critical conversations. 

## Co-op Currents

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

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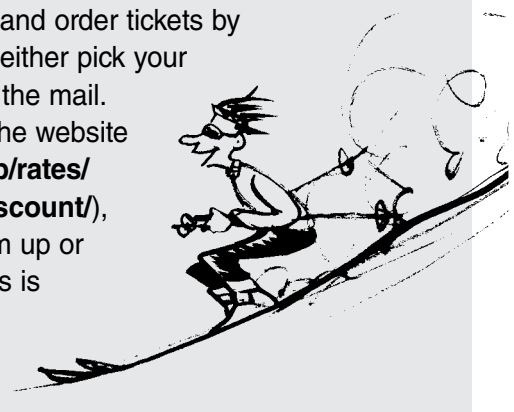
The Board of Directors' regularly scheduled meetings are on the last Wednesday of each month, in the evening. Members are welcome to attend. Members who wish to discuss a matter with the Board should contact the president through WEC's office. Meeting dates and times are subject to change. For information about times and/or agenda, or to receive a copy of the minutes of past meetings, contact Administrative Assistant Deborah Brown, 802-223-5245.

## Now, Call WEC for Mad River Glen Tickets

The geese have flown south, the temperatures have plunged, and ski season is coming! This year the Co-op has an improved deal for WEC members who ski at Mad River Glen – which is also a cooperative. You can now purchase day passes at the Co-op office. The ticket price varies depending on the day; weekday adult tickets are \$40.

WEC is a ticket retailer for Mad River Glen and members are eligible for special prices. You can call and order tickets by phone, paying with a credit card, then either pick your tickets up here or have us put them in the mail. The Co-op will fill orders placed from the website (<http://www.washingtonelectric.coop/rates/member-specials/skiing-member-discount/>), but members must still either pick them up or have them mailed to your address. This is not an electronic ticket offer.

See you on the mountain!



## Manager's Report

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been discussed at all of our annual membership meetings and at most of our fall community meetings since then. The August 2006 issue of *Co-op Currents* published accounts by members of WEC's Board of Directors who on their own had visited wind farms in other states and countries, looked at the towers, talked to community members, and assessed for themselves what these projects looked like and how people felt about them. Although the majority of WEC members have supported our involvement, we've also heard from some who don't.

The Sheffield project began operating in October and it is now a part of Co-op members' power supply. Opposition to the Lowell Mountain project that is being developed by Green Mountain Power continues to make the news.

There has been a lot of misunderstanding and also misinformation about wind projects generally in Vermont. So I am again writing to discuss not just the Sheffield project, but our support of responsible utility-scale wind development in general.

Let's start by agreeing that wind towers are huge. In Vermont they must be located on certain ridgelines because that is where the wind resources are. There is no question that they are very visible and they change the landscape in their vicinity. They can be heard from some locations. Building a project is also a major construction event. It requires the clearing of some land, and the building of narrow roads. As with any major construction, including a renewable-energy project, there is environmental impact.

With that said, here is what we also need to understand:

**By developing commercial-scale wind, we make a real difference for the planet.** Intermittent sources like wind and solar cannot at this point supply all the power we need on the grid, but they can supply a whole lot more than they're doing now. Every kilowatt-hour generated by a wind tower is one that does not need to come from other sources. That is real progress, and wind can be a major part of our future.

**We can't just do the small stuff.** Vermonters are, in fact, generating their own power at their homes and businesses in increasing

numbers, mostly with solar but also some wind. And small-scale commercial projects (2.2 megawatts or less) are being built around the state because of financial incentives created by our Legislature.

But we need to understand some equivalents: One wind turbine on a 400-foot tower at Sheffield has a capacity of 2.5 megawatts. There are 16 such turbines at Sheffield and that project will generate enough power for the equivalent of all 15,000 homes in Caledonia County. (The Lowell Mountain project now under construction is somewhat larger.) To generate as much power as just one of those large turbines, we would need to put up *well over a thousand* home-scale turbines, each on its own 100-foot tower. That's around *twenty thousand* 100-foot towers to generate as much as the whole Sheffield project.

In order to generate the same amount of kilowatt-hours from a

commercial solar energy project it would take at least *400 acres of photovoltaic panels*. That's the reality, although it is very hard to imagine those numbers on Vermont's landscape.

In coming years, we are likely to begin seeing a real move away from liquid fossil fuels, especially for transportation. While that's a good thing for

the environment, it could eventually increase Vermont's demand for electricity by as much as 30 percent. If we truly want to move to cleaner energy sources, we need to do the small stuff, but we have to do some big projects, too.

**Mountains are not being blasted apart.** Yes, there is blasting and land clearing during construction.



*We can call them "industrial" or not, but in my job I am confronted by the urgency of our planet's condition, and by our limited options.*

Construction sites are not pleasant to look at, whether it's a wind farm or new development up the sides of mountains in our ski resort communities.

However, when all is said and done, a wind farm has a relatively small physical footprint. The 16-turbine Sheffield project involved the clearing of approximately 63 acres for all the turbines and the roads combined, of which about 39 acres are now being left to re-vegetate (this was already occurring when I was at the site in the fall). Much of the land has been used for logging and other purposes in generations past, and some of the new 16-foot-wide roads follow old logging roads. Wildlife returns after construction, as it

has at Sheffield.

**There have been planning and siting discussions about wind development for more than 10 years now.** While it is understandable that Vermonters who only recently started considering this issue might think there is no planning involved, there was in fact a Wind Siting Consensus Building Project sponsored by the Department of Public Service in 2002. The final report, as well as detailed descriptions of the sessions that were conducted under the auspices of the Woodbury Dispute Resolution Center, are all still available on the DPS website: [http://publicservice.vermont.gov/energy/ee\\_files/wind/windpacket.htm](http://publicservice.vermont.gov/energy/ee_files/wind/windpacket.htm). Several other wind-siting reports and resources are also available there.

The process included people from regional planning commissions, several hiking clubs, environmental and forest advocacy groups, utilities, developers, and state officials. Vermonters should take a look at the maps the participants reviewed. They show exactly where the best wind resources in the state are, just based on meteorological data. When one eliminates any sites on land where such development is legally prohibited, there are fewer potential sites. After then

**Wildlife returns after construction, as it has at Sheffield.**

eliminating locations that are not reasonably close to existing transmission lines, very few feasible sites are left.


These are the maps developers

start with, and they have been publicly available for all to see for 10 years. Although full consensus on this issue is unlikely, the few locations where wind projects might be feasible are also no secret.

We have been debating wind in Vermont for years. The discussion has involved genuine public processes in addition to the years of public regulatory proceedings for specific projects. Wind projects are large, even the relatively small ones being built or considered in Vermont. We can call them "industrial" or not, but in my job I am confronted by the urgency of our planet's condition and by our limited options. WEC moved away from nuclear power years ago. Although we buy power from Hydro Quebec, I am very aware of the impact of those massive dams and the hundreds and hundreds of miles of giant transmission towers that are needed to bring Vermont's share to the border. As I said, our options and our time are limited.

So I am not afraid to say that, in addition to far-greater efficiency in our energy use, and in addition to a lot more small-scale solar, wind, and other renewable projects becoming highly visible all across our landscape, we are in need of some serious industrial solutions as well, and soon. That's the harsh reality.

We can no longer afford not to look at where our power comes from. We do need to accept wind into a few selected places in our landscape and to understand what it actually does for us. We have accepted ski areas on some of our most prominent mountains and everything that comes with that. We have, in the past, accepted logging roads throughout our hills and forests almost everywhere, including at what are now wind sites. We should insist that any projects be developed to the highest environmental standards and have the least-possible impact. But we have to put the benefit on the scale of impacts as well, otherwise this is not an honest conversation.

We are going to have to change the face of the planet in small ways in order to stop the damage we have done and are continuing to do in our ever-more-desperate attempts to get at the Earth's fossil fuels. The alternatives all have consequences, too, but I would rather live with those consequences. 

**Half of your home's energy consumption goes toward heating and cooling.**

**Replacing the filter for your heating system will help it run more efficiently this winter, saving you save money.**

## PSB Begins Review Of Utility Merger

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governing documents,” WEC General Manager Avram Patt said in his written testimony. “The present representation . . . is a matter of past understanding and agreements, which are neither set forth in bylaws nor, to my knowledge, otherwise definitively documented.”

It’s notable, for example, that Washington Electric Cooperative – Vermont’s fifth-largest electric utility – has no representation on the board, and therefore no voice in its deliberations. Yet the myriad, smaller, municipal utilities (examples are the Hardwick Electric Department and Morrisville Power & Light) do, inasmuch as they are represented by the Vermont Public Power Supply Authority (VPPSA), which has a VELCO Board seat. The Stowe Electric Department also is unrepresented, because it withdrew from VPPSA a few years ago.

Regarding the proposed acquisition: While GMP and CVPS have touted the economies of scale they say would result from joining their companies – providing financial and service benefits for the 70 percent of the state’s ratepayers who would be served by the resulting company – others are worried about the flip side of that amalgamation: supermajority ownership of VELCO by GMP.

Making the situation more worrisome, WEC and others have said, is that GMP has been owned since 2007 by Gaz Metro, a multinational corporation based in Quebec. Gaz Metro also owns Vermont Gas Systems, which provides natural gas through pipelines to parts of northern Vermont, including populous Chittenden County.

“The point isn’t about a foreign company owning all of these assets,” Patt said. “It’s that any parent company not based in Vermont cannot be expected to put Vermonters’ concerns first, and that’s especially true for an IOU, which has a fiduciary obligation to its investors to make profits the primary driver of its decisions.”

Both Patt and Michael Dworkin – a former PSB chairman and currently director of the Institute for Energy and the Environment at Vermont Law School, who testified on behalf of the Vermont Department of Public Service – further alluded to the potential for “upstream” corporate entities, far removed from GMP or even Gaz Metro (which itself is owned by a larger corporation) to make decisions with no reference to the ratepayers, economy, environment, land-use policies, or aesthetics of the Green Mountain State.

The statewide transmission infrastructure is not static; it is subject to alteration and expansion, and used for purposes besides serving Vermont utilities – for example, conducting massive amounts of power through



WEC member Michael Dworkin, shown here addressing the Co-op’s 2009 Annual Meeting, filed 60 pages of testimony with the PSB on behalf of the Vermont Public Service Department regarding the proposed acquisition of CVPS by GMP. Dworkin has an extensive resumé in state, national, and international energy issues, and is director of the Institute for Energy and the Environment at Vermont Law School.



the state, to serve population centers to our south. Accordingly, VELCO exerts significant influence over future transmission-grid planning, and decisions about the delivery of electricity to and within Vermont.

And for Vermonters, it’s the only intra-state high-voltage transmission system they have.

“The single most-important factor here is that whoever manages the unified, single, statewide transmission system can make decisions that affect the general good of the state,” wrote Dworkin (who is a WEC member). “Yet the many Vermont citizens and institutions affected by VELCO’s decisions have few meaningful alternatives to living with those effects.”

Aware of these concerns, and their potential effect upon the deliberations of the Public Service Board, GMP has proposed a restructuring of VELCO’s board that would reduce its post-merger ownership share from 78 percent (currently CVPS owns 48.5 percent of VELCO, and GMP 29.5 percent) to slightly less than 50 percent. The restructuring would create a new public-benefit nonprofit, called the Vermont Low Income Trust for Electricity (VLITE), which would receive those divested GMP/VELCO shares. (VLITE would also receive an estimated \$1 million annually from VELCO revenues to put toward programs for energy-cost assistance for low-income Vermonters.)

However, Dworkin questioned whether the VLITE idea would solve the problem of imbalanced power on the VELCO board. He suggested that VLITE would likely be a “passive” member of the board, without the direct stake in VELCO’s decisions

and infrastructure that the utility board members have. This could actually enhance GMP’s position, because the third-largest ownership share in VELCO lies with Vermont Electric Cooperative, which holds just an 8-percent interest.

The overall thrust of Dworkin’s extensive testimony for the DPS was not that the PSB should scuttle the deal. Instead, Dworkin said the merger proposal provided an opportunity to restructure VELCO ownership in ways that would benefit the public good for the people of Vermont, and for the state’s environment and economy.

One of his suggestions was to establish five board seats for “General Good Directors” — people with utility-related expertise, who would be appointed by elected officials but whose terms would be staggered to insulate the cumulative thrust of these positions from political influence.

“I conclude,” Dworkin wrote in his testimony, “that the general good of the State would be better served if the petitioners [Gaz Metro, GMP, and CVPS] were required to modify their proposal in several ways.”

### A cost impact upon WEC

While issues regarding VELCO and inappropriate influence of GMP and its corporate ownership received attention in the interveners’ testimony, a concern more exclusive to Washington Electric has surfaced as the result of the proposed acquisition: the effect a GMP-CVPS merger could have on the Co-op’s electric rates.

This has to do with “tariffs” that the two larger companies charge for their sub-transmission services. Sub-transmission lines transport lower-voltage power and are often

owned by electric-distribution utilities. Seven of Washington Electric’s eight substations are supplied by sub-transmission lines owned and operated by GMP.

“Part of the companies’ plan is for Green Mountain Power to merge its current sub-transmission tariffs, which WEC pays, with CVPS’ tariffs,” said WEC’s attorney, Joshua Diamond, of Diamond & Robinson, P.C., in Montpelier. “CVPS’ sub-transmission tariffs are higher. Merging a lower rate with a higher one will result in an average that’s higher than the Co-op presently pays.

“As a result,” Diamond said, “we will see a 70-percent increase in the sub-transmission rates if the proposal goes forward as written. That will cost Washington Electric almost \$128,000 more per year.”

That’s the equivalent of 1 percent of the Co-op’s rate base. It may not have an enormous impact by itself, but combined with other factors it would put upward pressure on rates

for Washington Electric members. WEC is addressing this issue both with the Federal Energy Regulatory Commission (FERC) and the Vermont Public Service Board.

### Public ownership of VELCO?

Dworkin, for the DPS, and Washington Electric Co-op both support measures that would bring greater public representation to, and involvement with, VELCO.

However, WEC would like to go a step further. It has asked the PSB to consider a public or quasi-public structure for VELCO. In December, the Co-op’s Board of Directors unanimously voted in support of some form of public ownership.

Dworkin addressed the issue in his pre-filed testimony, but concluded that it would be too large an undertaking – including financially – for the state.

However, in WEC General Manager Patt’s testimony, he expressed the opinion of the Co-op’s directors that public ownership of VELCO “best addresses concerns about . . . serving the public good due to the inherent conflict between the fiduciary duties to equity owners versus the general public. WEC recognizes the many complexities and difficulties in making such a change, but believes that this may be of long-term benefit to Vermont ratepayers and serve the overall public interest most effectively.”

Patt continued: “WEC believes that such options should be given a full analysis at this potentially historic juncture, as the outcome of this [PSB decision] is likely to have a very long-term impact. The concept of public ownership of transmission was first proposed by Governor Ernest Gibson, Jr., in 1949, and it’s time that it got the serious consideration that it deserves.”

**By the end of 2009 there were almost 286 million active wireless devices in the United States, all of them with rechargers. Do your part for conservation by unplugging yours when the recharge is complete.**

## SHORT CIRCUITS

### FERC Licenses Nation's First Commercial Tidal-Energy Project

On January 23, 2012, the U.S. Federal Energy Regulatory Commission (FERC) issued a pilot commercial license to construct, operate, and maintain Verdant Power's Roosevelt Island Tidal Energy (RITE) Project in the East Channel of the East River in New York City. The RITE Project will use the natural tidal currents of the East River to generate up to 1 megawatt (MW) of emission-free electricity in a three-staged development approach, beginning in 2013. The project is estimated to have an annual generation of 2.4 gigawatt-hours (GWh) after the completion of Phase 3.

Verdant Power's license application was submitted under FERC's Hydrokinetic Pilot Project Licensing Process, developed to allow for the advancement of hydrokinetic technologies (tidal, river, wave power). FERC issued the license for the RITE Project based on its analysis of a variety of monitoring measures proposed by Verdant Power that protect and enhance fish, wildlife, recreational, public safety, cultural, and aesthetic resources at the project. It will be the first tidal power plant in the U.S. licensed to transmit energy onto the local and national grid.

According to the Ocean Renewable Energy Coalition, the potential for such projects is up to 3,000 MW of installed capacity by 2025 – enough to power more than 3 million homes. The Ocean Energy Council estimates the *global* potential for tidal power at more than 63,000 MW.

Founded in 2000 and headquartered in New York, Verdant Power, Inc., is a systems innovator, integrator, and project developer that utilizes simple and scalable technologies to generate utility- and village-scale electric power from natural underwater currents found in rivers, tides, ocean streams, and manmade channels. For more information, go to [www.theriteproject.com](http://www.theriteproject.com).

#### PUBLIC SERVICE BOARD NOTICE OF PUBLIC HEARING RE: WASHINGTON ELECTRIC COOPERATIVE, INC.'S PROPOSED RATE INCREASE REQUEST

On November 15, 2011, Washington Electric Cooperative, Inc. ("WEC") filed revisions to its tariffs reflecting a 2.27% increase in its rates, to take effect on a service-rendered basis commencing January 1, 2012 (Tariff filing #8304). On December 29, 2011, the Public Service Board issued an Order opening a formal investigation into WEC's proposed rate increase request (Docket No. 7825). Pursuant to 30 V.S.A. Section 226, the rate increase took effect January 1, 2012, by means of a 2.27% surcharge for each class of ratepayers, subject to refund if the Board determines at the end of its investigation that lower rates are just and reasonable.

A Hearing Officer of the Public Service Board, Ed McNamara, Staff Attorney, will conduct a **PUBLIC HEARING** regarding WEC's proposed rate increase on **Wednesday, February 15, 2012**, commencing at **7:00 P.M.**, at the East Montpelier Fire Station Conference Room, located at 54 Village Acres (at the intersection of Vermont Routes 2 and 14N) in East Montpelier, Vermont.

The above hearing location is handicapped accessible. Anyone needing special accommodation should contact the Public Service Board at (802) 828- 2358 by no later than February 13, 2012, if they will need that accommodation.

If you are unable to attend the public hearing, you may submit written comments, either electronically, or via regular mail. Please include the docket number when submitting written comments.

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## Precautions for the Winter-Outage Season

*Ways to Stay Safe if You Lose Your Power*

It's January, time for Vermont's famous January Thaw, but also time for frigid weather, and we've already seen some this month. When it's cold, it's the worst time to lose your power, but heavy snow and/or winds at this time of year can make that happen.

So WEC members must be prepared to go without electricity for anything from a few hours to a few days on rare occasions. Here are some of the most important things you can do for your safety and warmth.

**Water.** Probably the most important thing you can do to prepare for a winter power outage is to lay in a supply of water – for drinking, washing, and flushing the toilet – because an outage will shut down your pump. Have a half-dozen or so five-gallon water containers, filled and set aside somewhere where they won't freeze. If a major storm is approaching, you might also fill your bathtub, which will provide plenty of water for your most important needs.

**Food.** You may lose your ability to cook if your power goes out. An electric range won't work, and many gas stoves have electric ignition. A camp stove and a few cylinders of propane could get you through – though you should use it outside so the fumes can dissipate. You should also have a supply of foods that need no refrigeration – canned vegetables and meats, canned soup, cereal, pasta – but make sure you also have a manual can opener.

**Lights.** Candles, flashlights, and a supply of batteries.

**Heat.** With the volatile price of fuel oil in recent years, many Vermonters are again using wood as a primary or back-up source of heat. That's good, because having heat that's not dependent on electric power is critical during an outage, even if it means living in one or two rooms for a few days. But keep a fire extinguisher in your home, and know where it is.

**Communications.** Your phone could be a lifeline to the outside world, but for winter preparedness it's best to have a landline and a phone with a hard-wired receiver. A wireless telephone uses electricity to broadcast the signal to the receiver; if you're out of power you're out of luck. Losing your power usually does not mean losing your landline telephone connection. Your phone very likely will work in an outage, and a phone with a cord is your

best bet. If you prefer a cordless phone normally, consider keeping a spare phone with a cord to the receiver, in a closet or drawer somewhere.

As for cell phones: Keep yours charged if you hear of a storm coming. In rural Vermont cellular signals are not strong or even available in some places, but people in isolated spots can often find someplace on or near their property where a signal can be picked up. Being able to call your Co-op, or emergency services, or your town highway department, or neighbors you're concerned about, is important. A cell phone could be a backup plan.

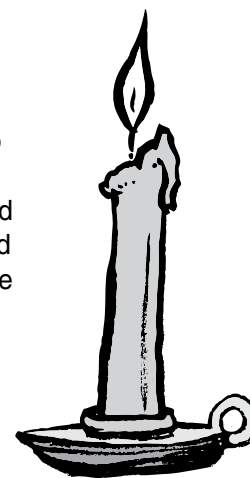
**Backup Power.** The best way to gird against a power outage is to be able to provide your own emergency power. This is a larger investment, but many Vermonters couldn't conceive of living without their generators. Another source of backup power is the UPS – uninterruptible power supply, a battery-operated system that activates automatically when the power goes out and which you can program to provide electricity for your most important needs (including, if you have a home-based business, your computer system). You can call the Co-op for more information about both of these systems, including cost and availability.

Generators must always be operated outside because their combustion engines produce fumes and exhaust. You might wish to protect your generator by putting it in some kind of enclosure, but that enclosure should not be connected to your living space (like an attached garage or storage room).

Keep fuel on hand, but store it away from your house, perhaps in an unconnected garage or outbuilding.

**Other winter precautions.** Besides outages, there are other possible dangers in winter. Accumulated snow can block the vents on people's roofs, or on the sides of their homes if they have wall-mounted heating units. This can prevent gases from escaping and cause potentially deadly carbon monoxide poisoning.

People who use roof rakes to loosen snow on their roof edges should remember that they may be reaching into the area where the power line comes to the house. Contact with the service wire presents the danger of electrocution. Or the tongs of the rake might pull off the covering of the service connection – an immediate danger, but also potentially a longer-term danger if those connections are exposed (adding to the possibility of an outage).





# Beware The Electric Space Heater

*Advertising Claims to the Contrary, Electricity is the Highest-Priced Heating Fuel*

There are certain telephone conversations that Washington Electric's Member Services Representatives know all too well. Shawna Foran, one of the WEC Member Services team, says they often begin with the Co-op member who's calling saying something like, "My electric bill is so high I can't believe it!!"

"They're genuinely upset," says Foran, "and you can't blame them because they weren't expecting to owe so much money."

There can be a number of reasons for a higher-than-usual electric bill. Billing cycles aren't always precisely the same; one month the meter reading (on which your bill is calculated) might have been done at 27 or 28 days, and the next at 35 days or so, so a bill could potentially cover a week's worth of electricity more than a previous bill. Or perhaps people were visiting from far away, staying several days and using lights, taking showers, washing their clothes – and spiking the household's energy consumption.

But if the high-bill complaint comes during the heating season? And especially early in the season?

"There's one question we'll routinely ask," says Foran: "It's 'Do you have an electric space heater that you just started to use?' And they'll say, 'Yes, I bought one of those infrared heaters,' or some other kind of portable electric heater. And I'll say, 'Well, if you continue to use it you can expect these high bills.'

"They're in disbelief," Foran continues. "They've been told it's going to cost them pennies a day. Maybe if you live in Florida it's pennies a day, but when you live in Vermont and it's 10 degrees out, then that heater has to work a lot more. And it's going to cost a lot more."

This is an everyday occurrence for the Member Services Reps at this time of year. Mostly, people reluctantly accept the information; but it can be a hard pill to swallow because advertisers find ways to make the newest and latest electric heating devices sound fabulous. Last fall, a local hardware chain advertised a portable, infrared-type electric unit that purported to "save up to 30-50% off your winter heating bills."

The fact is, you can't expect to save

money. As Efficiency Vermont's "Home Team" explains, infrared heaters – the kind recently advertised – give off radiant heat, and in that way are different from the convection portable heaters that have been around for a long time.

(Some of those are shaped like radiators and contain fluid, some are small ceramic units, or towers, and others just blast air past heated elements.) Radiant heaters have a different quality of heat because they warm objects rather than air, so some people might find them more

comfortable.

But as the Home Team says, "All electric heaters deliver the same amount of heat per dollar spent."

## What the Energy Coach says

As readers know, Washington Electric Cooperative has its own in-house "Energy Coach." He is just a phone call away at WEC's East Montpelier office, and works with Co-op members day in and day out to help them resolve their energy and energy-cost problems. If callers want to know more about why the heater they expected to save them money isn't doing so, Shawna Foran and WEC's other Member Services Representatives refer them to the Coach (a.k.a. Products & Services Director Bill Powell).

Here's what he tells them.

"There are a lot of different space heaters – and a lot of different brand names. Regardless of type, most residential electric heaters are 1,500 watts. A 1,500-watt load, operated for one hour, will use 1.5 kilowatt-hours (kWh). Operated steadily for 24 hours, the heater will use up to 36 kWh – and that's in addition to all the other household electrical usage.

"The Vermont residential average usage is around 20 kWh/day. An electric space heater, operated continuously for a day, can more than double the average usage, which is why people are often shocked when their bill arrives. That 36 additional kWh adds nearly \$7.50 per day to your electricity costs.

"Washington Electric Co-op is in the business of selling electricity to our members," the coach continues, "but electricity is a high-cost form of

energy. We do our best to moderate our members' costs by providing every residential member an initial 200-kWh block of lower-priced power (10 cents/kWh) each month. Certainly any sustained use of an electric heater is not going to fall into that base-use block, so it will be charged at the higher rate of 20.6 cents/kWh.

"To see the impact of electric heating you need to compare the relative costs of a kilowatt-hour of electricity, a gallon of fossil fuel (oil, kerosene, propane), and a cord of firewood or a ton of pellets. That requires converting their costs into a common unit of measurement, which, for heat, is a British thermal unit, or Btu. A Btu is a small unit of measure, so they are commonly calculated in million Btu's, which is written as MMBTU. The cost in dollars is written as \$/MMBTU.

"The Vermont Department of Public Service provides these relative heat-cost calculations on its website (<http://publicservice.vermont.gov/pub/vt-fuel-price-report.html>.) Using WEC's second-tier electricity cost and the Department's statewide-average fuel costs for December 2011, this table shows a cost comparison."

Fuel Type	Cost Per Unit	\$/MMBTU
Electricity	.206 Per Kwh	\$59
Propane	\$4.00/Gallon	\$55
Kerosene	\$4.03/Gallon	\$37
Fuel Oil	\$3.60/Gallon	\$33
Natural Gas	\$1.68/Therm	\$21
Wood Pellets	\$250/Ton	\$20
Coal	\$285/Ton	\$20
Cord Wood	\$200/Cord, Green	\$17

The Energy Coach continues: "You can see that the order of magnitude of difference between electricity and wood pellets, for example, is almost 300 percent – \$59 for electricity, compared to \$20 for wood pellets – and there's an even greater difference between electricity and cordwood. (Even though it's true that there can be an additional electric cost to some of the other fuels, from power used by your boiler and circulation system.)

"Taking all this into consideration, it might make sense to add a wood stove to a room you're heating with an electric space heater. You'll recoup your investment costs over time.


"Even the difference between electricity (\$59/MMBTU) and fuel oil (\$33/MMBTU) is substantial. The prices in the DPS chart are based on statewide retail average, so individual Co-op members' costs could differ. But since, as Efficiency Vermont says, 'All electric heaters deliver the same amount of heat per dollar spent,' you can see how an electric space heater will affect your bill, regardless of advertising claims."

## Reckoning your own situation

Vermont has some of the oldest housing stock in the U.S., and the rambling rural houses built a half-century and more ago – often with rooms that aren't directly heated – may not be amenable to easy heating solutions. The best way to fully explore your options is to sign up for a whole-house energy audit. For less money than it costs to buy one of the high-end infrared heaters, an audit will tell you where your problems are (and winter is a good time to get an audit in Vermont, as air infiltration and heat escape can be readily detected). Then you can begin putting the costs of your "solutions" – investing in cellar and attic insulation work, installing

wood-pellet burners, or using space heaters intermittently in rooms where you feel they're needed – in context.

If you continue to use heaters, remember that for safety's sake, as well as to control costs, you should turn them off when you leave a room, and refrain from using them when it's unnecessary.

"We understand that these devices can be a quick and convenient solution," says the Energy Coach. "Unfortunately, the price of this convenience is the highest, compared to all the other options. As they say, 'Buyer Beware.'" 

**WARMTH and Round-Up**  
*continued from page 8*

a difference of just over \$145. Most months fell in the range of \$940 or so. Anyway, it's the total that counts. And at \$12,543.94 last year, we lagged even behind our 2005 WARMTH contributions of \$13,761.15.

The principle decline seems to be in the contributions made directly to WARMTH. The trend over the last four years has been that members have made those direct donations only in November and December, as winter was setting in. (In 2011, those direct contributions from WEC members were \$185 in November and \$270 in December.) The sentiment is wonderful, but in earlier years, besides those early-winter donations, records show contributions of \$50 or so arriving throughout the winter months, even into May. And they added up.

"It's not hard to understand the trend lines," said WEC General Manager Avram Patt. "These are hard times for a lot our members, and not just those

who need and qualify for fuel assistance. People are feeling that they need to cut back on their contributions to charitable causes.

"But that same situation means that more people are confronting heating emergencies and are in need of assistance. All we can do is urge people to consider local causes first when they feel they can donate. WARMTH helps our neighbors and fellow Co-op members right here in our service territory. We still have four months of cold weather ahead of us."

**Here's another thing you can do.** If you're already participating in Operation Round-Up, or if you decide to begin participating, you can have WEC add \$1, or any amount, to your monthly contribution. That way, when making out your bill, the Co-op will round it up to the next dollar and then add your additional contribution on top of that. The extra \$1, \$2, \$5, or whatever you choose may still be a small contribution

*Here's another thing you can do: Have WEC add \$1, or any amount, to your monthly Round-Up contribution.*


from you, but it will give the program a major boost. Good for you!

**Government's changing role**

Citizens' contributions to the WARMTH program are more essential because of the federal government's reduction of LIHEAP funding for this winter. Looking for savings (many who live in northern climes would say, "in the wrong places"), the U.S. government cut Vermont's allocation for the Low Income Home Energy Assistance Program from \$27.6 million in 2011 to \$19.5 million for this heating season, despite an economy that increases the need. According to Gov. Peter Shumlin's office, the federal cut trimmed the average seasonal household benefit from \$866 a year ago to \$750 now.

Our state government responded by allocating \$6.1 million to LIHEAP – a joint decision in December by the governor's office, the lieutenant


governor (Phil Scott), and legislative leaders. This commitment came despite Vermont's own strained economic conditions and the compounding difficulties posed by recovery costs from Tropical Storm Irene. With other funding sources included, the state projected in its announcement last month that the average household seasonal benefit would be restored to around \$935.

However, fuel costs are higher. So WARMTH and Operation Round-Up are ever-more important. If you can manage a contribution directly to WARMTH please call WEC and speak to a Member Services Representative. And if you aren't signed up for Operation Round-Up, you'll find a box for that purpose on the portion of your monthly electric bill that you return with your payment; all you need to do is initial it, and WEC will begin rounding up your monthly bill (and adding to it, if you authorize us), and sending your contributions to CVCAC. You can also perform these functions on line at the WEC website. One way or another, let us hear from you. 

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# With At Least One Open Seat, It's Time to Think About Running For the Board

*Deadlines Approaching For Candidates, Bylaw Changes*

**W**ashington Electric Cooperative will hold its 73rd Annual Membership Meeting on Thursday, May, 24, 2012. The Annual Meeting will be held at the Montpelier Elks Club, on Country Club Road off Route 2, just east of the city.

Although the Annual Meeting is still four months away, it's time now for members interested in running for a seat on the WEC Board of Directors to begin planning for their candidacy. There is sure to be at least one open seat in this year's elections, as Director Scott Skinner has informed Co-op leadership that he does not plan to seek another term on the Board. The Co-op therefore will need another interested and enthusiastic member to help run the organization and have a voice in its policies and decisions.

Policy at Washington Electric Co-op is set by a nine-member Board of Directors, who also oversee the management of the Co-op. Directors are elected to three-year terms, and each year three board seats expire on the day of the Annual Meeting. The incumbents who hold those seats

can run for re-election if they choose to, but the process is equally open to qualified challengers. "Qualified" basically means being a Co-op member in good standing. Beyond that, the best qualification is an interest in serving on the board of an important community institution – the consumer-owned, not-for-profit utility that provides electric power to some 10,500 rural homes, farms, schools, and businesses in 41 towns in central Vermont and takes an active role in Vermont energy affairs. Like all democratic institutions, Washington Electric Cooperative functions best when more members participate.

If you would like to serve your Co-op and community, you must begin taking action soon because there are deadlines involved. Anyone interested in running for the board should contact Administrative Assistant Deborah Brown at Washington Electric's office in East Montpelier. She will send out a "candidate packet" that includes a petition and other materials needed to run for the Board.

Completed petitions must contain the signatures of at least 25 WEC

members, and will be due on Tuesday, March 6, 2012. You will also be asked to provide basic biographical information for publication in *Co-op Currents*, and a document called an Affirmation of Receipt, Understanding, and Compliance for your candidacy, for which Debbie will provide details when you call. You'll need a photograph, also for *Co-op Currents*. All these materials, when completed, can be delivered to WEC at its East Montpelier office, or e-mailed to [Debbie.Brown@wec.coop](mailto:Debbie.Brown@wec.coop). Part of the election process is providing written answers to a series of five questions that are intended to demonstrate your interests, experience in community affairs, and opinions you might have about the Co-op and energy issues in Vermont.


But all that comes later. Your first decision is whether to offer yourself as a candidate. Be assured that new directors are not expected to have specialized knowledge about electric utilities. Service on the WEC board is a learning experience, and there has never been a more important time to participate in decisions regarding

energy in Vermont.

## Bylaws petitions due sooner

Washington Electric Cooperative is governed by legally binding bylaws, and the annual election process provides members an opportunity to amend those bylaws. You don't need to be a lawyer to draft an amendment proposal. However, you do need to know whether the subject that interests you is addressed in the current bylaws, and what those provisions are. You can obtain a copy of WEC's bylaws, also by contacting Debbie Brown at the Co-op's office.

Along with your bylaw amendment proposal you'll need to submit a petition for its adoption with the signatures of at least 50 Co-op members (the petition form can be obtained from the Co-op's office). These materials will be due on or before February 10, 2012. *Co-op Currents* will publish your amendment proposal and your explanation for it, just as we do when amendments are proposed by the Board of Directors.

It's your Co-op. Think now about participating. 

*While Congress Cuts, and the State Boosts...*

## We Need To Make Our Own Difference With Heating Assistance

### *WARMTH and Round-Up*

**E**nsuring that all Vermonters are able to heat their homes in winter seems to have become an annual trial as the state, the nation, and Vermonters themselves seek to balance competing financial interests. It's clearly not a role we can leave to "the government," although together federal and state programs do provide the bulk of low-income heating assistance. But as we saw (again) in December, Washington's contributions are unreliable. And in any case, the state and federal programs aren't enough to guarantee that people in need will be safe and warm, and won't have to choose between heating fuel and food, or between staying warm and purchasing needed medications.

That's where WARMTH comes in – a statewide program of heating assistance operated in our area by the Central Vermont Community Action Council (CVVAC). It's also where we

*The total funds contributed have fluctuated, and the trend has been downward in recent years. At \$12,543.94 last year, we lagged even behind our 2005 WARMTH contributions of \$13,761.15.*

come in, as members of Washington Electric Cooperative. WARMTH is supported by voluntary contributions by the customers of many electric utilities. At Washington Electric, some contributions come in the form of lump-sum donations from WEC members, and others come in small amounts, one month at a time all year long, through WEC's Operation Round-Up program.

When members sign up for Operation Round-Up they authorize the Co-op to round up their monthly electric bills to the next-higher dollar amount; the change – anywhere from a penny to 99 cents – is forwarded by WEC to the WARMTH program.

These small contributions, which total less than \$12 annually from an individual member, are effective when lumped together. Unfortunately, though, Washington Electric's WARMTH contributions have declined.

It's true that the number of participants has increased steadily over the years, which is great. (It makes sense, because the Co-op itself has been growing.) In 2007, 1,664 WEC members contributed to WARMTH by direct donations or through Operation

Round-Up. That number jumped to 1,905 in 2008, increased to 1,942 in 2009, and increased again, to 1,969 in 2010. By 2011, there were 1,988 WEC members involved.

But the total funds contributed have fluctuated, and the trend has been downward in recent years. We've gone from \$15,702.02 in 2009, to \$14,800.39 in 2010, to \$12,543.94 last year (2011).

The random nature of Operation Round-Up's proceeds has minimal effect because the monthly revenues, Co-op wide, are amazingly consistent. The highest monthly total in 2011 was \$1,061.35 (in May), while the lowest was \$915.90 (in February) –

*continued on page 7*



*The sun reflects off a frigid North Branch, where the river passes through Middlesex, on a January afternoon.*