Hard-hit by Hurricane Sandy

VEC Lineworkers Lend a Hand in States

It was billed variously as a hurricane, a "hybrid storm," and even as a "superstorm." Whatever you called it, the storm named Sandy that struck the mid-Atlantic and Northeastern regions of the U.S. on Monday, October 29, was an historical event that killed more than 100 Americans and caused damages that could reach $50 billion (according to the New York Times). More than 8.5 million people lost their power, some for weeks. And some will never be able to return home again.

Vermont Electric Co-op was lucky. Much of the hurricane’s wrath was spent by the time its winds reached VEC’s northern Vermont service territory. The Co-op had readied itself for the worst, and those preparations enabled VEC to respond quickly that Monday afternoon. Working through the night, they were able to restore power completely to the 7,549 homes and businesses that had suffered outages by 7 p.m. on Tuesday, October 30. With its own problems taken care of, VEC was ready to help other utilities that had suffered greater damage. On Wednesday morning 14 of VEC’s finest drove off to assist restorations in harder-hit areas of New Hampshire and Connecticut.

It’s not that the Co-op got off lightly. First Operating Officer Jeff Wright calculated that those 7,459 outages on October 29 and 30 accounted for 10 percent of the Co-op’s total power outages to date in 2012. On average, they lasted 4.1 hours (the longest was 22 hours). Most affected, Wright said, were VEC members on the western slopes of the Green Mountains (Hinesburg had suffered 271 outages by 4:30 Monday afternoon) and towns in the Northeast Kingdom, such as Derby, Coventry, Irasburg, Newport City, and Newport Town. Nevertheless, by Tuesday evening VEC had fully recovered and Wright was looking around to see where else the Co-op’s crews could be helpful.

The system of cooperation among electric utilities during outage emergencies is called “mutual aid.” “There are relationships among utility managers,” Wright explained, “and when people are in need of assistance they pick up the phone and call their colleagues that they’ve worked with in the past. As soon as we got our problems cleaned up, I called New Hampshire Electric Co-op to see if they needed help.”

Mutual Aid

They certainly did. In fact, NHEC (the Granite State’s only electric cooperative, with some 78,000 members) had been so alarmed by forecasts about Hurricane Sandy that it arranged ahead of time for help from nine electric cooperatives in Illinois. Said NHEC Communications Administrator Seth Wheeler, “They hit the road a good day and a half before the storm even got here.” Usually, he explained, NHEC looks closer for assistance. But in the East everyone was preparing for the worst. “We couldn’t find help anywhere,” Wheeler said.

When the storm hit, NHEC lost power to about 25,000 meters, and 65 poles were broken by winds and downed trees. Even though the Illinois crews were already on the scene by the time VEC had finished its own repairs and could offer assistance, NHEC gratefully accepted the help.

When they left home, the first destination for VEC’s crews was actually to Green Mountain Power’s territory farther south in Vermont. On discovering that GMP had wrapped up its repairs, they proceeded on to New Hampshire. When they arrived, driving five bucket trucks, they were told that they were most needed for restorations on two tranche continued on page 6

CEO Update: Stable Electric Rates

I am pleased to report to VEC members that we plan to hold electric rates stable for another year, despite rising transmission costs that are expected to increase for our co-op by $2.3 million in 2013. Costs have also risen for VEC in several other areas, yet VEC has not had a rate increase since January of 2011. Over the four-year period from 2010 through 2013, VEC’s average rate increase has been about 1 percent per year.

When the annual budgeting process began in August, our calculations indicated that we would need to ask the Vermont Public Service Board to approve a rate increase of at least 3.5 percent to cover the increased transmission costs. Instead, VEC employees spent many long days identifying areas in which additional savings or supplemental revenues could be found to offset increasing transmission costs, which are the second-most expensive item in our budget. (Power supply, the cost associated with power we purchase from various generation sources, is VEC’s largest budgetary expense.)

Lake most other Vermont and New England utilities, VEC faces challenges with regard to transmission and power supply costs, along with inflationary pressures in many other areas. Electric-power transmission is the bulk transfer of electrical energy from generating power plants to the electrical substations that are situated close to the areas where our members are located, where we need to provide electricity. This is distinct from the local electrical lines between substations that are typically more expensive because they go through urban and suburban areas, where on a per-mile basis the costs for transmission-line upgrades are higher than for comparable projects in rural areas.

Additional transmission costs results in a shared resource in which each state contributes to the costs associated with operating and maintaining the grid. Vermont’s share is about 4.5 percent of the total cost of operating and maintaining ISO-NE. Over the past several years Vermont has benefited from this sharing arrangement, because we have improved our state’s transmission grid with other states contributing to the cost. Today, there is more transmission work being done in southern New England, and Vermont must increase its contributions to help pay for these projects, which are typically more expensive because they go through urban and suburban areas, where on a per-mile basis the costs for transmission-line upgrades are higher than for comparable projects in rural areas.

Adding to the costs of new construction and upgrades of the regional transmission system is the fact that the requirements pertaining to construction and operation of the grid have increased

continued on page 7
Help Your Linemen Help You

Want to make your line worker’s job a little easier? And safer, too? There’s even something in it for you, because when you take their needs into consideration they can provide service to you more quickly and efficiently.

Here are some important favors VEC’s line workers would ask of you, if they had an opportunity.

1. Post your address prominently and visibly. This will enable your line workers, as well as other emergency services like ambulance and fire, to find you more easily. Note: Workers will find your numbers more readily if you put them on your mailbox rather than on the house itself. Use reflective numbers and make sure they are large enough to be seen from the road.

2. Keep away from downed power lines. Even the area around such lines can become energized. Keeping your distance also provides line workers a clearer, safer work area.

3. Don’t try to “help out” by cutting trees near the power lines. Please leave this chore to VEC and its highly trained contractors. Similarly, don’t try to remove trees that have fallen onto the lines, or are in contact with them, by cutting them, pulling them with a tractor, etc. Your intention might be to “save the linemen the trouble” — a reason they hear often — but it’s dangerous, and could cause more harm than good.

4. If you own a generator, or if you are a net-metering member generating a portion of your own power through alternative means, have a professional electrician install your connections to VEC’s distribution lines. Line workers need to be confident that electricity will not approach them from an unexpected source. They routinely take precautions — grounding the power lines on either side of the area they’re working — but you should, too. This is especially important because transformers also work in reverse, meaning that they will increase the voltage from your home energy system if it feeds back into the power lines.

5. Call the Co-op when you’ve lost your power. Yes, the AMI system can quickly track the source of outages, but it helps VEC to hear that an outage has occurred. Don’t assume your neighbors have called.

Follow these tips, and VEC’s line workers and operations crews can work for you more efficiently — which decreases disruptions for you and just might mean your linemen can get a little more sleep, or spend Thanksgiving with their families.

Recovering when the electricity goes out

When an outage occurs, line crews work to pinpoint problems

1. High-Voltage Transmission Lines
   Transmission towers and cables that supply power to transmission substations (and thousands of consumers) rarely fail. But when damage occurs, these facilities must be repaired before other parts of the system can operate.

2. Distribution Substation
   Each substation serves hundreds or thousands of consumers. When a major outage occurs, line crews inspect substations to determine if problems stem from transmission lines feeding into the substation, the substation itself, or if problems exist down the line.

3. Main Distribution Lines
   If the problem cannot be isolated at a distribution substation, distribution lines are checked. These lines carry power to large groups of consumers in communities or housing developments.

4. Tap Lines
   If local outages persist, supply lines, called tap lines, are inspected. These lines deliver power to transformers, either mounted on poles or placed on pads for underground service, outside businesses, schools, and homes.

5. Individual Homes
   If your home remains without power, the service line between a transformer and your residence may need to be repaired. Always call to report an outage to help line crews isolate these local issues.

When electricity goes out, most of us expect power will be restored within a few hours. But when a major storm causes widespread damage, longer outages may result. Co-op line crews work long, hard hours to restore service safely to the greatest number of consumers in the shortest time possible. At VEC we also use automated meters to locate outages. Here’s what’s going on if you find yourself in the dark.
**Making the Grade as a VEC Line Worker**

*It's a Good Life – For the Right Kind of Person*

They are the face of every electric utility: the line workers. In fact, for many they are the public face of the entire electric-utility industry. Every job at a co-op like VEC contributes to the astonishingly complex task of ensuring that when a furnace comes on, a home computer is fired up, a water pump engages, or a light switch is flicked, the electricity will be there to make it work. But the workers thank everyone, see almost everyone appreciates, and many people take the trouble to thank, are the linemen. They’re known by their work clothes, the hardhat, the equipment belt, the rugged hands, the air of competence—and perhaps most important, the lights you see outside your window on a stormy night that tell you there are linemen at work in the foulest of weather and in the depths of the darkness, and they won’t quit until your power is back on.

That’s one of the things that make it rewarding,” says Dave Daggett, of Derby, a lineman with 26 years’ experience who works out of Vermont Electric Co-op’s Newport district station. “We’re the good guys. People say, ‘I can’t believe you guys came out in the middle of the night!'”

“They’ll bring you coffee and soup,” Daggett’s co-worker Yvon Fortin chimes in. Make no mistake about it; the workers appreciate these expressions of gratitude. You feel good when you get people’s power back on,” says Donald Gates, of Franklin, one of four linemen based at VEC’s Richford district station. “You get a lot of comments when you’re out there, a lot of thank-yous,” adds his colleague Brian Farrar. People might assume that a steady income, a mechanical bent, and a sort of rugged individualism are what attract a certain breed of worker to the line worker’s life, but the human element is part of it, too. “It takes years to be prepared to answer that call at 2 a.m.,” says Steve Coulter, a 27-year utility veteran at the Newport station. “You’ve really got to be a person who wants to help people.”

**A challenging profession**

VEC employs some 28 line workers. They work out of four regional stations—in Johnson, Grand Isle, Richford, and Newport. A very rough estimate of their average length of experience is 15 years, so these men are not novices. One can become a First Class Lineman by attending 20-week training courses each year for three years, while working fulltime on the company’s line crew to achieve a minimum of 8,000 hours of on-the-job training as an apprentice. It’s highly technical instruction that acquaints trainees with electrical theory, the physics of power-line construction, industry regulations, use of equipment, the skills of climbing, and pole-top rescue. Safety is key. It’s training that engages both the mind and the body, including everything from mathematics to physical challenges like the use of climbing spurs, ropes, and fall-restraint devices. And when you’re done, you’d still just be a beginner, even if you’re now qualified to climb.

“IT takes 10 years to make a good lineman,” says Newport’s Steve Coulter. Listening, Gary Young (a 26-year utility veteran), agrees. “Besides keeping up with the changing technology, it takes familiarity with the territory, knowing the lay of the land for years and years.”

By and large, the VEC crews bring that familiarity to their jobs, because the co-op has assembled crews at each regional station who have a history in the area. That's an important calculation, because when Vermont Electric Co-op bought out Citizens Utilities (CU) in 2004 it greatly expanded the territory it was responsible for covering. For example, at the Newport station Yvon Fortin, Steve Coulter, Chris Lawson, Dave Daggett, and Gary Young all are former CU employees. Chad Lanou worked 14 years with Central Vermont Public Service. At Grand Isle, the crew also has local connections preceding VEC's arrival. Rick Ryder and Ben Pfiel formerly worked for the Burlington Electric Department, Shawn Juaire was a CU holdover, and Ryan Forkey worked for the Plattsburgh (New York) municipal utility. Steve Rossignol, on the other hand, is a 22-year VEC veteran formerly stationed in Johnson, while Chris Connelly is a relative newcomer with three years’ experience, but one from the CU.

In Richford, brothers Gerald and Donald Gates grew up helping their parents tend the tiny Franklin Electric Light Company. Also in Richford, Fred Jewett got into the industry working for Adelphia Cable, and Brian Farrar as a meter reader for Citizens Utilities.

The line workers at the Johnson station, which is also the co-op's headquarters, are Ricky Langdell, Richard Hughes, Orson Hitchens, Shawn Holbrook, Cody Hopkins, and Codi Bryce. This, of course, is the heart of VEC's original service territory, where generations of the company's crews have worked the back roads, woods, and fields where the poles and wires were set in place long ago.

Yet everywhere in VEC's service territory, which now stretches across the entire northern tier of the state, Gary Young's observation holds true: Becoming a truly good lineman requires intimate knowledge not only of the spider web of roads in your territory, and the hills, woods, and wetlands among them, but of the poles and wires and right-of-way that surround them—knowing where a tree has been leaning, a pole is showing its age, a fuse point has a history of tripping.

That’s a lot of “knowing” for 28 workers covering some 2,056 square miles of co-op territory.

**Division of labor**

“If you get hit with bad weather in the islands, fine. If you get hit in the mountains, fine. But don’t get hit in both places at once!”

That’s the sentiment expressed by the line workers at the Grand Isle district station. Unfortunately, they don’t have a lot of say in the matter; when storms blow across Lake Champlain and sweep over the loosely connected isthmus that is Grand Isle, they’re just as apt to continue to the mainland, where the crew’s territory also embraces Swanton and stretches all the way south to Camel’s Hump. Working in the islands, though, sets them apart: The weather is different, the terrain is different, poison ivy and ticks are a common annoyance.

Their position in the dominant east-west weather pattern, however, provides a service to their fellow linemen elsewhere. “We use Grand Isle as our early warning,” says Chris Lawson in Newport. “If they’re getting lightning at 2:00 in the afternoon we know it’s going to be here by 5:00!”

Newport is the easternmost VEC district, and geographically the largest. Along the Canadian border, the crew covers Jay in the west (where they expect to have installed 100 new miles of the border by the year of the association, associated with Jay Peak’s expansion) and Canaan in the east. It works out to 106 miles of line per lineman. And while their territory includes some of the most rural, sparsely populated towns in Vermont, such as Lenington and Averill, it also includes the city of Newport.

VEC linemen are on call one week a month, working in pairs and answering the bell first when a problem arises at night or on the weekend. In a district so vast, it’s a major commitment. “We average an extremely long workweek when we’re on call,” Chris Lawson explains. “You could have a call in Jay and the next one could be in Guildhall. That’s a long drive. Basically, a quarter of the year you’re married to the company.”

Sandwiched between the Grand Isle and Newport districts are the VEC territories served out of Richford and Johnson. The Richford-based crew serves mountainous areas like the western slopes of Jay in Orleans County, but also some of Vermont’s best northern farmland along the Canadian border and south into such towns as Sheldon and Enosburg.

It’s not as large a territory as some—but they aren’t as large a crew; either, which means there’s plenty for them to do. And with the co-op’s resources sometimes spread thin, they don’t always have access to off-road equipment when the need for it arises. As Gerald Gates relates, “We have to walk in, find the problem and determine what’s needed, then go back in carrying 40 pounds of parts and equipment.”

Actually, that’s an experience many line workers can relate to. However, after Tropical Storm Irene struck in 2011, working without those resources simply wasn’t an option. Brian Farrar recalls, “Montgomery was our worst-hit place, with lots of damage that was hard to get to. We needed a six-wheeler ATV, a track bucket, and an excavator. You always have off-road stuff around here, because what used to be fields have grown into forest.”

Finally, there’s the Johnson-based crew: VEC’s original service territory is still quite rural in towns like Belvidere, Eden, and Fletcher, but elsewhere—for example, continued on page 7
Town Energy Committees Seize The Challenge

By Johanna Miller

The growth in the number of Vermont’s town energy committees — there are now more than 100 — reflects a solidifying consensus that Vermont can and must lead the nation and world in swift, meaningful efforts to cut energy costs, foster renewable energy generation, and lessen the state’s contribution to global warming. Working with local officials, business leaders, friends and neighbors, these primarily volunteer committees are undertaking projects that are saving money and helping move their communities toward clean energy.

What’s inspiring more communities to form energy committees? Reality. The costs of heating fuels are high. Millions of gallons of fuel oil each year are wasted, the heat they produce leaking out of Vermont’s many old homes. Municipal budgets are stretched.

More and more Vermonters are also realizing that the era of cheap fossil fuels is coming to an end and that clean, renewable, energy-saving investments are the only way forward. They are motivated by climate change and alarmed by the daily, damage-record-setting catastrophes happening across the world.

What are these diverse groups doing? Thetford’s energy committee, together with the Sustainable Energy Resource Group (SERG), launched an ambitious door-to-door campaign last year to triple the number of homes that undertake home energy efficiency retrofits. Mobilizing 50 volunteers to visit 650 homes, this “Thetford HEAT” initiative is well on its way to meeting that goal.

Northwest of there, the Waterbury Local Energy Action Partnership, or LEAP, is pursuing an ambitious mission — to make Waterbury the “greenest community in Vermont by 2020.” From helping to get solar panels installed at the elementary and middle schools, to hosting an annual energy fair that draws hundreds of people, and much more, LEAP has become an important force for change in the Irene-ravaged community. In one year — April 2012 to April 2013 — LEAP has a goal of doubling the number of solar photovoltaic and/or solar hot water installations in both the village and the town.

LEAP provides information to residents about the costs and benefits of going solar, and in July the partnership organized Waterbury’s first “LEAP Solar Fest,” which drew about 120 people interested in learning how to harness energy from the sun.

LEAP’s Jamison Ervin said one of the best outcomes of the event was the “matchmaking” that transpired, noting that several solar installers connected with residents seriously interested in going solar. Creating those kinds of connections, which are translating into people taking concrete action, is an example of the important role energy committees are playing in communities.

Droves of committees like those in Thetford and Waterbury have been in the trenches for a while, but new groups continue to form. Royalton just started a new committee in early July, and the St. Albans community is exploring starting one, too.

In early July, the Royalton Energy Committee formed around the shared interests of saving the municipal money, helping residents weatherize their homes, advancing innovative clean energy financing tools like PACE (the Property Assessed Clean Energy program), and more. For one of the committee’s catalysts, Hoyt Bingham, it was about becoming actively involved with her community again. “I am interested in energy efficiency and want to help my community save energy and money,” Ms. Bingham noted.

The work of these committees is key to turning Vermont’s ambitious goal of meeting 90 percent of the state’s energy needs through renewables by 2050 into reality. It’s increasingly clear that policy makers recognize that, too. Officials at all levels of government, key stakeholders, and business leaders have begun turning to town energy committees for ideas, partnership, and support in developing and implementing energy solutions.

“Vermont’s energy committees are the energy conscience of our communities,” said Senate Natural Resources and Energy Committee Chairwoman Ginny Lyons. “They are fundamentally going to change how we think about, use, and generate energy — it’s just a matter of time.”

Considering the magnitude of the energy and climate challenges facing the world, the momentum growing at the local level is a necessary and inspiring example of what’s possible when you harness the collective power of citizens.

Johanna Miller is the Energy Program Director at the Vermont Natural Resources Council. VNR Council is a founding member and co-ordinator of the Vermont Energy and Climate Action Network, the network of Vermont’s 100-plus energy committees and support organizations. For more information about VECAN or starting or joining an energy committee, visit: www.vecan.net.

Town energy committees (TECs) embrace the concept that there is a common good in reducing energy consumption everywhere, and that action taken locally can have the best results.

Several communities in Vermont Electric Cooperative’s northern Vermont service territory have formed energy committees, or committees that include energy initiatives among other, related concerns. An example of the latter is Islanders Caring for the Environment (ICE), of Grand Isle County. ICE pursues a wide range of interests, including habitat protection and efforts to control invasive species, but promoting energy conservation and renewable energy also are primary goals. In September, ICE held its 4th Annual Environmental Fair, which included displays about photovoltaics, wind turbines, geothermal heating, energy efficient building practices, and monitoring electric usage. ICE has helped South Hero and Grand Isle secure grants for energy audits and weatherization projects in their town offices, and is promoting the Vermont Home Weatherization Campaign. ICE meets at 7 p.m. on the first Thursday of each month at South Hero’s town offices.

Another community actively engaged in energy programs is Craftsbury. The Craftsbury Energy Committee (CEC) meets monthly, and although its present membership is small (between four and eight members), its ambitions and accomplishments are large. Among its initiatives are: an effort to bring school buses into compliance with the state’s 2008 directive that limits idling to no more than five minutes when boarding or discharging students; studying the feasibility of solar group-net metering projects; and supporting Craftsbury Academy’s application for a $5,000 grant for environmental education programs. The CEC is also working with various partners in an effort to bring down the costs of solar hot water systems for local residents and encourage their installation, and to evaluate public buildings and properties — including the library, the town garage, and a school field — for suitability for solar electric and hot water systems.

If your community has a TEC or decides to form one, you are welcome to notify Co-op Life so we can help spread the word of your plans to your neighbors.

Forming New Town Energy Committees

There are currently more than 100 Town Energy Committees (TECs) in Vermont. Organizers from the Vermont Energy and Climate Action Network (VECAN) will meet with interested citizens to explain various programs an energy committee can implement to help their town and its residents save energy and money. They will discuss various forms an energy committee can take and resources available to assist TECs with their activities. For more information on TECs or help in forming a new energy committee in your town, contact Johanna Miller at ice-vt@hotmail.com

You can find additional information on TECs and a map of all Vermont TECs at www.vecan.net
Every winter, many Vermonters face the possibility of having cold homes because they cannot pay their fuel or utility bills. The WARMTH Support Program, using funds donated by concerned Vermonters, will be an important resource for them. WARMTH raised record amounts of donations last winter, and the program remained open through late spring. Even with record donations last year, the need was greater than available funding. Given the current economic difficulties, contributions are more important than ever.

**Working Together for a Solution**

Since its 1986 inception, WARMTH has been making a difference. During the first 26 years, nearly $3,240,000 has been raised through customer and utility donations. Almost all of that money has been distributed to about 80,000 families and individuals facing heating emergencies in the middle of Vermont's cold winter. An additional 43,000 households received essential information and counseling that helped them avoid heating crises.

WARMTH's success in helping those in need has been matched by program growth. From its beginning with one Community Action Agency and three utilities in 1986, WARMTH has grown to include eight utilities and one fuel supplier and all five of Vermont's Community Action Agencies for the upcoming heating season.

**How WARMTH Works**

All funds are collected by the utilities and fuel suppliers and are given to the participating Community Action Agencies. The agencies provide counseling and referral services and administer WARMTH funds, making sure that every dollar contributed by customers goes directly to a Vermonter in need.

WARMTH funds are available for emergency situations—that is, they are used when a household has exhausted its supply of fuel or faces disconnection of utility services. Funds are available only when an individual has not been able to find sufficient help through other channels.

Community Action makes a payment directly to the individual's fuel dealer or utility, often as a part of a repayment agreement. The individual receiving the assistance is responsible for the remainder of the payments.

**Here's How You Can Help**

Remember, every dollar you donate helps a Vermonter in need. By making a contribution of $5, $10, $25 or more, you'll be adding to the fund. Please do not send cash. All donations are tax deductible.

To contribute simply:

1. Make checks payable to: WARMTH, c/o CVOEQ, P.O. Box 1603, Burlington, VT 05402
2. Call 802-853-6248 to make a credit card donation.
3. Donate online at CVOEQ.org

We hope you will “share the warmth” with someone this winter.

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**Winter increases the potential for power line accidents**

Winter driving is a challenge, not only negotiating snow and slush, but also trying to avoid skidding off the pavement when you encounter an unseen patch of ice. When cars and trucks leave the pavement because of poor winter driving conditions, tragedy can compound if utility poles are hit and overhead power lines come down.

Such events are not limited to drivers of a particular age, and can happen to anyone, so ensure that all drivers in your family know what to do should the unthinkable happen during the winter driving season. It does not take erratic driving to result in a collision with a power line, even though caution is the winter driving watchword.

Just imagine the situation four teenagers found themselves in after their vehicle collided with a utility pole and wires draped around the overturned car. They were able to escape injury by remaining in the vehicle until utility crews could turn off the power and create a safe opportunity for the driver and passengers to exit.

If you must get out because of fire or other danger, jump clear of the vehicle without touching it and the ground at the same time. Then hop with feet together—don’t run or stride. Electricity spreads out through the ground in ripples, like a stone dropped in water. The voltage is highest in the ring closest to the vehicle and decreases with distance. Hop with feet together so that one foot won’t be in a higher voltage zone than another, which could make you a conductor for electricity!

If the power line is still energized and you step outside, your body becomes the path for that electricity and electrocution is the tragic result. Even if a power line has landed on the ground, there is still the potential for the area near your car to be energized. Stay inside the vehicle unless there’s fire or imminent risk of fire. It’s best to wait until local electric utility crews arrive to make sure power to the line is cut off.

If you encounter an accident involving a vehicle skidding off an ice-covered road and colliding with a utility pole, do not follow your instinct to assist the motorist. Live electric lines may be on the ground or difficult to see if they are hanging low. Anyone responding to such a situation should be cautious of the potential for electrical injury or death, and wait for linemen to de-energize the line, or you will become a victim yourself.

Just because electric wires may be coated with ice or lying in snow or ice, does not reduce their danger. They can still carry electricity, which is not readily detectable, until you feel it; and then it may be too late to escape injury.

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**Q**: Can you settle a bet in my household. What uses less energy: a dishwasher or washing dishes by hand?

A: A dishwasher, typically. An exception might be if you have an aging dishwasher, because older models use more water (and, so, cost more in water heating) than today’s dishwashers. The most efficient dishwashers, however, use less than three gallons per load. I can’t imagine being able to wash the amount of dishes, glasses, etc., in a full dishwasher with less than three gallons of water.

Here are some energy-saving tips for those of us who use dishwashers:

- **When it's time to buy, look for an ENERGY STAR® qualified dishwasher, which uses less water and less electricity.**
- **Run only full loads.**
- **Instead of paying to have the dishwasher dry your dishes, turn off the drying feature and open the washer after it finishes cleaning. Then, let the air dry your dishes for free.**

**Q**: We are 11 years old and nine years old. Our parents are the energy police. They make us unplug the TV after we watch it. They say it wastes energy plugged in. Are they wrong? Lamps don’t do that so why would the TV? They will believe you. Thank you.

A: You’re right about lights not using power when they’re switched off. Your parents, though, are right about the television. You see, many TVs and other kinds of electronics don’t really turn off when you press “off.” They go into standby mode, and they continue to use electricity. Lots of people don’t know that they could be paying $100 or more, over the course of a year, to keep all their electronics in standby mode.

Unplugging the TV solves the problem, but many people find that it’s easier to plug the TV into a power strip, which they switch on and off. If your parents are interested in looking into that, they can find one at the hardware store. In fact, there is an advanced power strip that senses when the TV is turned off and then shuts off power to the TV and to other machines at the same time. For example, your parents could set up an advanced power strip to cut power to the TV, game consoles, and recording devices when the TV is turned off.

It sounds like you two are important members of the team that can save money for your family. Thanks for writing in!

- Li Ling for Ask The Home Team

- Kathleen for Ask The Home Team

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**Visit wattWATCHERS at www.vermontelectric.coop to view your hourly and daily usage data.**
islands in Lake Winnipesaukee, where there are virtually no roads. So they left on those islands, they had to climb."

At night they took the boat back to mainland and stayed in motels.

They were able to finish the work by Friday, and according to Wheeler, they made a big difference. “Because we had your crews with us, and the crews from Illinois, we could finish a day earlier than we had expected. That was a huge help to us.”

The crews - about a third of VEC’s resources, in both workers and utility vehicles, Wright said - got home on Friday night, and the following day (Saturday, November 3), a contingent of the same size (though not all the same personnel) left for Connecticut. Northeast Utilities, which is the largest utility company in New England, serving more than 3.5 million electric and natural gas customers in three states, was coordinating the repair efforts there. This was not a company VEC had traded aid with before.

“GMP had a relationship with them,” Wright explained. “GMP reached out to us and said they were in need, so that’s where we went.”

VEC’s workers drove to Greenwich, in southwestern Connecticut close to the New York border. “There was a gathering place where they met and left their trucks, and they were based about an hour away back and forth to their hotel,” said Costic.

Even though Greenwich is close to Long Island Sound, the areas VEC’s crews worked in were not flooded. The damages were very scattered, Costic said, and caused by broken and uprooted trees. The more devastating damages, in places where hundreds of poles were knocked down by winds and floods, were addressed by larger utilities equipped with augers to plant new poles. VEC’s workers had bucket trucks, which were useful for widespread but less catastrophic repairs. They stayed for five days, returning on Thursday, November 8.

So here’s a question: Do VEC’s line workers enjoy providing mutual aid, or is it just an arduous task, taking them away from home, which they would rather avoid?

According to Dave Costic - a former line worker himself - it’s a no-brainer.

“You want to go as bad as you want Christmas morning. You’re going to go to a different area; the construction is always a little different; you’re going to meet other linemen and people with different ideas about the work. And the money is good.

“Even though it’s the same kind of work,” he continued, “it’s fun. Yes, it’s hard, too; but you’re helping people get their lives back together, and doing something the average person can’t do.”

There’s often some benefit to VEC from providing mutual aid, Costic added. “Our guys bring back ideas about different equipment, different tools and ways of doing things. It can be an eye-opener, and it can help our members here.”

For all the hard work they did, VEC’s line workers left southern Connecticut in pretty bad condition.

“It’s going to take months, if not years, to get that place back on its feet,” said Costic.

But perhaps a new relationship has been formed, and if a disaster storm strikes Vermont, Northeast Utilities might return the favor and provide mutual aid to Vermont Electric Cooperative.

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**Avoid the Dangers of Holiday Decorations**

It’s the happiest season of all, but it is also one of the most dangerous. Combine holiday lighting, space heating, and holiday guests, and you have a lot of electrical safety hazards.

Holiday lighting causes around 500 fires annually and more than 1,000 injuries, according to the Consumer Product Safety Commission. With the following information from Safe Electricity, you can avoid being part of those alarming statistics:

- Your safety precautions should start before you begin holiday decorating. Inspect all the lights you plan on using. Make sure the wires are in good condition—not cracked, brittle, or frayed. The sockets should not be damaged, and no light bulbs should be missing.
- All lights should be certified by Underwriters Laboratory, ETL, or CSA. The Underwriters Laboratory symbol is a capital UL in a circle with the word “LISTED” below. The ETL symbol is a capital ETL in a circle, with a small CM at the end of the “L.” The circle contains the words INTERK and LISTED. The CSA label is a large letter “C” around the letters “S” and “A.” You should be especially observant of proper listings if you buy lights online.
- Never tack or nail through a strand of lights. Do not place cords under rugs or in high traffic areas.
- Never string more than three strands of lights together unless the packaging says it is safe to do so. The lights could overload and start a fire.
- Turn the lights off before going to sleep or leaving the house. A timer can help you do this.
- For outdoor decorations, use only lights and decorations that are rated for outdoor use. Use plastic or insulated books to hang lights.
- Lighted and electric outdoor decorations should be plugged into ground fault circuit interrupter (GFCI) protected outlets. GFCIs detect and prevent dangerous electrical situations where a shock may occur. GFCI protection is very important outdoors, where weather conditions can create dangerous electrical situations.
- Do not overload extension cords or outlets. Electric overloads can cause shocks and start fires.
- All children in your home, including ones that are visiting for the holidays, should know the dangers of electricity, and children and pets should know that your electrical decorations are not toys.

Vermont Electric Co-op hopes your season will be merry, bright, and safe. For more information, visit SafeElectricity.org.
Employee Milestones

Each year in October, VEC employees celebrate co-worker milestones during a meeting and barbecue. This year 18 employees were recognized. Together their combined service with VEC adds up to 349 years!

YEARS OF SERVICE MILESTONES

40 years  
Mary Sylvester, Work Order Accountant

35 years  
Danny McMullen, System Operator

30 years  
Rick Langdell, 1st Class Line Worker and Group Leader

25 years  
Dave Daggett, 1st Class Line Worker and Crew Leader  
Steve Johnson, Purchasing, Inventory and Fleet Manager  
Laurie Wells, System Administrator  
Gary Young, 1st Class Line Worker

20 years  
Dave Lahar, Key Accounts Manager

15 years  
Debra Harlamert, Call Center Representative  
Orson Hitchcock, 1st Class Line Worker  
Avis Marsh, Accounts Payable & Miscellaneous Accounts Receivable Clerk

10 years  
Bill Johnson, 1st Class Line Worker  
Fred Jewett, 1st Class Line Worker  
Jeremy Tinker, Utility Arborist

5 years  
Will Good, Field Technician I  
Chris Greenwood, Call Center Representative  
Nate Perham, Field Technician II

3 years  
Brian Towsley, Field Technician I

2 years  
Jane Tallman, Purchasing Agent

2012 RETIREMENTS

34 years  
Jane Tallman, Purchasing Agent

CEO Update: Electric Rates

as a result of the great blackout of August 14, 2003, when 50 million people on the East Coast lost power. The North American Electric Reliability Corporation (NERC) establishes standards for operating the grid. Following the blackout it adopted more stringent requirements that also impact a much larger portion of the grid than in the past. Things like security cameras, fiber optics, intrusion monitoring, and improved system switches and controls are now prevalent throughout the transmission grid, where they were limited to the larger and more critical infrastructure in the past.

These changes cost money, but they are worth the investment. Electricity is now a critical part of everyday life, and losing the grid has become more than a matter of inconvenience. Today it's also a matter of economic stability, as well as a national security concern.

The good news is that, along with the statewide and regional transmission-system improvements, VEC has also made significant upgrades to our distribution infrastructure over the past four years without significantly impacting our rates. In fact, one of the things that have helped to stabilize rates has been the savings that have resulted from VEC's smart grid investments. Over the past four years, VEC members have seen significantly improved service, in terms of reduced outages, faster response time, and improved communications. Yet rates have remained stable. With the company.

Sometimes in a row), there are immense rewards in the life of the line worker, some technology is infused with all of this work."

I think there will be a trend back to the trades – partly because it's gotten to be that tendency for young people to see college-type careers as the only suitable path, but toward retirement age – a phenomenon that is sometimes call "the silver tsunami." Young people are hard to recruit.

Automated metering and computerized outage management, with GPS mapping, laptops in the service vehicles. And today's VEC lineman has evolved right along with the company.

"The automation represents progress in the industry," says Newport's Steve Coulter. "A big part of our job is finding the outage points," he says, and much of the guess work and process of elimination is taken out of that by the Co-op's ability to do it remotely, from VEC's central computers. "Then," adds Chris Lawson, "when we do re-energize the line, they 'ping' the meters from headquarters." Lawson is referring to an electronic testing procedure by which the Co-op's central computer sends a signal to the meters that had been affected by the outage. If those meters "ping" back, service has been restored. If they don't reply, the problem, at least at that particular location, has not been corrected and more work is needed.

With a territorial landscape that is so varied and challenging, and a 21st-century membership with high expectations of their electricity provider, VEC necessarily turns to modern technology SCADA (supervisory control and data acquisition), AMI (advanced metering infrastructure), computerized outage management, GPS mapping, laptops in the service vehicles. And today's VEC lineman has evolved right along with the company.

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CO-OP LIFE is published quarterly by Vermont Electric Cooperative
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