During the 2014 financial year, VEC experienced many ups and downs. However, when taken as a whole, things turned quite the ride. We began nearly $1.1M behind our expected first quarter results. While most of these costs were going to be significant. The fact that storm impacted all eight of our counties particularly hard. To address the situation, we contacted the Federal Emergency Management Agency, resulting in heavy, wet snow that fell in much of our territory, and by nightfall the rain had changed over to snow. The next day saw the snow as some of the highest in Vermont’s history, resulting in heavy, wet snow that stuck to trees and lines like concrete. We started experiencing our first outages late on December 9, 2014 a steady rain fell in much of our territory, and by nightfall the rain had changed over to snow. The next day saw the snow as some of the highest in Vermont’s history, resulting in heavy, wet snow that stuck to trees and lines like concrete. We started experiencing our first outages late on December 9, 2014.”

The 2013 & 2014 storms financial plan
Without an action plan for the storm’s costs, VEC’s financial standing would have been severely tested and could have resulted in several steps backward, plus significantly higher rates for our members. Fortunately, our financial planning already included a high-level framework for extraordinary events like this, and we began in earnest to mitigate the financial challenges posed by the storm. Working through Vermont Emergency Management, we contacted the Federal Emergency Management Agency (FEMA) early on, and FEMA began reviewing damage to VEC’s service territory before the storm work was even completed, beginning their assessment on December 17, 2014. Based on its initial assessment, FEMA drafted a federal disaster declaration for six of the eight counties where VEC had experienced damage from the winter storm. President Obama approved the declaration on February 3, 2015 making VEC’s storm costs eligible for a 75 percent reimbursement from FEMA. As an electric cooperative, our goal is to ensure that we are prepared for such events and that our members are not burdened with unexpected costs. We are committed to working closely with our members and partners to ensure that we provide the best possible service and support during such challenging times. 

Financial Highlights
By Michael Bursell, Chief Financial Officer

Michael Bursell, CFO
Franklin, Orleans, Lamoille, and Essex counties particularly hard. To address the expansive damage, we called on outside crews to help restore service and received mutual aid assistance from both in-state and out-of-state crews.

CEO Update
New Policies Bring Changes to VT’s Energy Landscape
By David Hallquist, CEO

The energy industry is changing quickly as customers seek renewable energy sources and as new products enter the marketplace to help customers adopt more environmentally friendly and efficient ways of meeting their energy needs. Utilities must adapt or face the consequences of mounting costs and shrinking demand, since customers may soon seek renewable energy sources such as wind, solar, and biomass

The Vermont General Assembly established the SPEED Program to encourage the development of renewable energy resources in Vermont. The program allowed for utilities to sell the Renewable Energy Certificates (RECs) to the rest of New England. RECs are tradable, non-tangible energy commodities that represent proof that electricity was generated from an eligible renewable energy source. Over the past year, Vermont developed a perception problem with regulators in other states because these credits appeared to be counted towards Vermont’s renewable energy goals while also being sold to other states (ie the renewable energy attributes were being double-counted). Other New England states threatened to ban RECs, which would make them worthless. If that occurred, VEC would need a 5 percent rate increase to cover the lost revenue. Faced with this possibility, Darren Springer, the Deputy Commissioner for the Vermont Public Service Department, pulled together the electric utilities and other renewable energy stakeholders last summer to work on a legislative fix. In February 2015 making VEC’s storm costs eligible for a 75 percent reimbursement from FEMA. As an electric cooperative, our goal is to ensure that we are prepared for such events and that our members are not burdened with unexpected costs. We are committed to working closely with our members and partners to ensure that we provide the best possible service and support during such challenging times. 

The Vermont Energy Transformation Projects. These are utility-led or utility-partner projects that reduce fossil fuel use through efficiency and by shifting from fossil fuels to electricity. Examples include electric vehicles, weatherization, biomass heat, and small-scale hydro projects. The bill requires these projects to be 2 percent of sales (BTU equivalency) in 2017, gradually rising to 12 percent by 2032. Tiers 1 and 2 are necessary to promote Vermont’s REC sales and avoid a sudden rate increase. Tier 3 challenges utilities to offset the cost of purchasing additional renewable energy by electrifying transportation and home heating, thereby growing electricity sales and displacing fossil fuels. Tier 3 is consistent with the message VEC began delivering at our 2012 annual meeting. If Vermont wants to clean up its carbon footprint, the legislature needs to look at transportation, heating, and cooling, which represent over 75 percent of the carbon contribution in Vermont. Electricity, on the other hand, is only about 5 percent of the carbon footprint. The key assumption is that by implementing Tier 3 correctly, VEC can keep rates stable by better utilizing infrastructure and increasing electricity sales.

That said, Tier 3 represents a challenge for utilities. Typically, a district utility’s minimum interruptible load (MIL) is 10 percent of annual peak load. A utility’s smallest load is often the most expensive to serve. If a utility must maintain infrastructure to serve these loads, it is not cost-effective to do so. However, if the utility is allowed to charge customers for those loads, it can reduce its overall cost. Therefore, the goal of Tier 3 is to encourage utilities to charge customers for their minimum load and use the revenue to help fund renewable energy projects. This will allow Vermont’s electric utilities to make a significant contribution to our state’s greenhouse gas reduction goals while also reducing costs for customers. The Vermont Electric Co-op’s (VEC) storm costs eligible for a 75 percent reimbursement from FEMA. As an electric cooperative, our goal is to ensure that we are prepared for such events and that our members are not burdened with unexpected costs. We are committed to working closely with our members and partners to ensure that we provide the best possible service and support during such challenging times.

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**BYLAW CHANGES REQUIRING MEMBER VOTE**

**Ballot Item 1:** Shall Article IV, Section (i) be amended to include a statement that the Cooperative encourages all eligible members to seek election to the VEC Board of Directors, particularly members with the experience, skills, education, critical judgment, and integrity critical to shaping the success and future direction of the Cooperative, as described in the Notice of Annual Meeting?

**Explanation of Ballot Item 1**

This ballot item was proposed by the VEC Board of Directors to encourage members to consider participating in the VEC cooperative democracy by running in elections for open director positions. VEC has experienced increased member interest in open positions over the past several years and would like to encourage that trend through this bylaw amendment.

The bylaw changed proposed are set forth below (added language is underlined; deleted language is in strike through):

Article IV: Directors
Section 1. General Powers; Districts

(a) (added at the end) The Cooperative encourages all eligible members to seek election to the VEC Board of Directors, particularly members with the experience, skills, education, critical judgment, and integrity critical to shaping the success and future direction of the Cooperative.

**Ballot Item 2:** Shall Article IV be amended to state that no director shall be eligible for re-election to the VEC Board of Directors that has served three (3) full terms of not less than twelve (12) consecutive years? After a period of three (3) years absence from the Board, a director may be reelected to the Board for an additional term cycle within these limits.

**Explanation of Ballot Item 2**

This ballot item is submitted verbatim via a member petition as allowed for in Article XIII, Section 3 of the VEC bylaws. The VEC Board of Directors has carefully considered the need for term limits for Board members and does not support a bylaw restriction that limits who may run for the Board based solely on years of service.

In recent years, VEC has been effective in attracting new candidates for open Board positions. On average there are four challengers for each open seat. As a result, the Board has experienced a healthy level of turnover. The average tenure of the existing directors is 6.7 years, and the Board currently has a mix of both seasoned and newer directors. Seasoned directors have valuable institutional history and newer directors bring fresh perspectives. Imposing an arbitrary limit on the number of years a director may serve risks losing a productive, seasoned director.

To the extent a director is not meeting the needs of the members who elected him or her, the members have the option to elect someone else at the end of the director’s term. But term limits deprive members of the ability to reelect an effective director simply because of the director’s longevity in office. The VEC Board supports leaving it to members to choose their elected directors.

**Ballot Item 3:** Shall Article V, Section 6 be amended to allow VEC’s directors who are not able to physically attend a Board meeting to participate in the meeting by video or teleconference with permission from the Board President, provided that they are not entitled to vote at the meeting and will not receive a meeting stipend.

**Explanation of Ballot Item 3**

This ballot item was proposed by the VEC Board of Directors as a way to allow directors who are not able to physically attend a Board meeting to participate by video or teleconference. To ensure that this practice is the exception rather than the rule, the President must approve the absence. In addition, the director participating by video or teleconference will not receive a stipend for the meeting and will not be entitled to vote. This change strikes a good balance between assuring director attendance at Board meetings and accommodating unavoidable absences by allowing directors to stay in touch with Board discussions.

The bylaw changed proposed are set forth below (added language is underlined; deleted language is in strike through):

Article IV: Meetings of Directors
Section 6. Meeting by Conference Telephone: … A Director may not participate in a regular meeting of the Board of Directors by conference telephone or teleconference with permission from the Board President, provided that they are not entitled to vote at the meeting and will not receive a meeting stipend.

**Ballot Item 4:** Shall VEC’s participation in a proposed 2.5 megawatt community solar project be approved, as described in the Notice of Annual Meeting?

**Explanation of Ballot Item 4**

In legislation passed in 2014, VEC received special authorization to participate in a solar facility of up to 5 megawatts to be used as part of its net metering program. State law requires member approval for larger-scale generation projects. For Phase I of the project, VEC has secured two sites, one in Albright and one in South Hero, which together would represent 2.5 megawatts of solar energy capacity. VEC has secured support from the towns, is in the process of obtaining required state permits, and aims to complete construction by late summer 2015.

VEC is developing a member net metering program for this project. The VEC program will provide a community solar option that does not require a cross subsidy from other members. Currently VEC members who do not participate in net metering pay for net metering to receive the premium rate required under state law. VEC is pleased to offer a solar net metering program that will provide participating members with an economic benefit without causing non-participating members to pay more. VEC asks members to approve this ballot item.

**Ballot Item 5:** Shall the Capacity Purchase and Sale Agreement with NextEra Energy Seabrook, LLC be approved, as described in the Notice of Annual Meeting?

**Explanation of Ballot Item 5**

State law requires that electric cooperatives must obtain member approval for the purchase of electric capacity or energy from outside the state for a period exceeding five years and that represents more than three percent of the cooperative’s historic peak demand.

In accordance with the statute, VEC seeks approval from its members, pursuant to 30 V.S.A. § 248(c), for an agreement with NextEra Energy Seabrook, LLC to purchase up to 10 MW of capacity from the Seabrook Nuclear power facility in New Hampshire. If the Agreement is approved, it will be effective on June 1, 2018 and continue through December 31, 2034. VEC members approved the purchase of energy from NextEra Energy Seabrook, LLC in 2012.

This contract offers a favorable price for capacity, would help with budgeting for capacity costs, and would provide stability in the capacity market, which has been very volatile in recent years. Without approval of this Agreement, VEC still must purchase this capacity; however, it would be at a higher cost. The VEC Board and management support approval of this contract.

**Current Bylaws are available online at www.vermontelectric.coop/about-us or upon request at 1-800-832-2667 ext. 1172.**
I am a 9-year member of the Vermont Businesses for Social Responsibility Board and I have a diverse background in energy, power generation, renewables and financial management. In Vermont, I have started, operated and managed renewable businesses. During this time, the business has grown so that our products are now available throughout the United States. My interest, in my own business, has been reflected in my efforts to promote recycling, both in composting and water conservation. In that light, while serving on the VEC Board, I was active in seeking green energy alternatives to keep the cost down for customers. I would appreciate your vote for me to fill this Board vacancy. If you have any questions, please do not hesitate to contact me either at Millertime0828@aol.com or on my cell 802/955-2396.

— West Zone At-Large Candidates — 4 year term —

Alburgh
  Bakersfield
  Belvidere
  Berkshire

Bolton
  Cambridge
  Eden
  Enosburg

Essex
  Fairfax
  Fairfield
  Fletcher

Franklin
  Georgia
  Grand Isle
  Highgate

Hinesburg
  Huntington
  Hyde Park
  Isle LaMotte

Jericho
  Johnson
  Milton
  Montgomery

Morristown
  North Hero
  Richmond

Shelburne
  South Hero
  Starkboro

Stowe
  St. Albans Town
  St. George
  Swanton

Underhill
  Waterville
  Westford
  Williston

Don Worth, Island Pond

I seek your vote for my reelection as Director for District 1. I’ve served on the VEC Board of Directors for 5 years and have completed courses which led to certificates as a Credit-Related Cooperative Director (CCD) and Board Leadership (BL). If reelected, I promise to continue my efforts to keep rates down while maintaining outstanding service to Co-op members. My goals are very simple... we need to keep the lights on by reducing outages and continue to ensure that you pay the lowest rates possible through astute purchases and selective investment in renewable energy, including community solar.

Until last December, I was the Volunteer Coordinator for the RSVP office in Newport for 10 years, recruiting older volunteers for nonprofit businesses and organizations in Orleans & Essex Counties. Born in Derby and raised in Island Pond, I graduated from the University of Maine, served 4 years in the U.S. Marine Corps and spent 26 years as a member of the U.S. Border Patrol on both borders. I also presently serve as the Essex County representative to the U.S. Selective Service System and was recently promoted to the State Review Committee for this agency.

My wife, Miriam, and I have five children, ten grandchildren and live in Island Pond on land that was part of my grandfather’s farm.

— District 1 Director — 4 year term —

Averill
  Averys Gore
  Barton
  Bloomingfield
  Brighton

Brownningtown
  Brunswick
  Canada
  Charleston
  Ferdinand

Guilford
  Holland
  Lenoxington
  Lewis
  Lyndon

Madistone
  Morgan
  Newport
  Norton
  Sheffield

Sutton
  Warmens Grater
  Warren Gore
  Westmore
  Waxwell

Bob Pearl, Grand Isle

I’m Bob Pearl, candidate for director. I’m only allowed 200 words to write who I am and what I stand for. If our Coop wants our membership to be well informed about the directors that will be elected, they should allow the candidates at least 4 or 5 hundred words. Our members should be as informed as possible.

Concerns/interests expressed to me by fellow members: 1) Electric rates are too high. 2) Some winter power outages could be avoided if trees, limbs, and debris were removed, from interfering with power lines, during non-winter months, plus it’s much cheaper and easier during the warm months. 3) The Coop must have the best negotiators to ensure purchasing electricity at the lowest price. 4) Electricity generated from nuclear power should not be purchased.

I’m a retired Merchant Marine unlimited Chief Engineer and U.S. Naval Engineer. I have a bachelor’s degree and have done graduate work at the Naval War College. Graduated and certified in High Voltage Electricity. I’ve managed and worked within multi-million dollar budget.

Want to know more about me or have suggestions: write BobP@4@aol.com or call 802-372-5882. Because I want to know the real concerns and needs of the membership.

— District 7 Director — 4 year term —

Alburgh
  Grand Isle
  Isle LaMotte
  North Hero
  South Hero

Bob Pearl,

Charlie Van Winkle, Underbill

I’m seeking your support for the director at large position. I’ve been a member of the Coop for over 20 years and have seen the membership organization weather some true adversities. Even though some of the stormy waters are behind the Coop, I believe that the traditional business model of the utility is being challenged in many ways from multiple energy technologies. Policy WONks are advocating that Vermont utilities obtain a 20% renewable energy contribution by 2020, while I do support this goal we must recognize that it does not come without costs. Sometimes these costs are born by those who can least afford it. So I believe that those who enjoy the benefits of the coop electric grid should also share in the responsibility to operate and maintain it. As a director I will strive to maintain an energy policy that benefits all members.

I have a diverse background in energy, power generation, renewables and financial management, and feel I can bring a unique combination of skills to the position. For more information about me, I would invite you to review my LinkedIn profile (http://www.linkedin.com/in/charlesvanwinkle/en/).

Please reach out to me with questions via e-mail at vanwinklechar@burl.com.

— Statements are published as written and presented by candidates.
It’s A New World Out There
Weather Patterns Changing; Technology Keeping Up

A decade ago, says VEC System Operations Manager Mike Allard, a typical winter would come and go in northern Vermont leaving just one major storm in its wake. Allard would tell you since he’s worked for Vermont utilities for 39 years, first for Citizens Utilities then VEC.

“With the kind of weather we had, you could have had a major storm in Vermont every year. All good years, bad years,” Allard says. “With the kind of weather we had, you could have had a major storm in Vermont every year. All good years, bad years,” Allard says. “But as soon as you left the state, you couldn’t have had a major storm. That’s what’s different now.”

Bernier’s point is well-taken. Imagine the disruption for VEC members if the “new normal” isn’t a reality, Allard says. “I would consider it a privilege to be elected to this position.

Molly Lambert, Swanton
The affordable, dependable and sustainable access to energy is critical to our economy and the livability of our region. I am interested in serving on the VEC Board of Directors to ensure that its energy policies and projects promote the quality of life that make our communities special. VEC’s structure as a not for profit cooperative with 32,000 members provides a unique opportunity to advocate for the best possible energy distribution system because its members are its customers, not a separate group of shareholders. My work experiences as the Secretary of Commerce and Community Development, the Executive Director of the Church Street Marketplace, State Director USDA Rural Development and President of the Vermont Captive Insurance Association have given me a keen insight into both the public and private sectors and the tools that are necessary to build vibrant communities and thriving businesses. Strong energy policy is the foundation for much of this success. My volunteer work throughout 40 years in Vermont includes several board leadership positions that have prepared me well to be a thoughtful and contributing member of the VEC Board.

John Youland, Montgomery Center
I am interested in becoming the director of District #6 because I have the background, experience and interests which will help VEC keep up with change, improve reliability, increase efficiency, and lower costs, while maintaining a high degree of customer service to members. After completing my graduate degree, I was a general contractor in LA and among other things, was involved in solar water heating systems, more than 30 years ago. In WA State I built a home “off the grid” before relocating to VT 17 years ago as a financial advisor in Morrisville. As a Coop member, I have experienced power outages too often, some as long as 3 days, and believe we can do better. The electric rates we pay are some of the highest, and triple what I paid in WA. We can do better. We are reliant on producers and their prices, which make the customer’s power too volatile. We can do better.

With my business and customer service capabilities I can offer a voice to the members in the district, work well with the leadership team and help to influence the organization for the good of the members, now and in the future.

Don’t be in the dark
Bernier’s point is well-taken. Imagine the disruption for VEC members if the “new normal” of severe, destructive weather incidents were not matched by the “new normal” of 21st-century communications technologies. These capacities, variously provided by VEC’s advanced metering infrastructure (AMI), satellite imagery for global positioning, and wireless signal transmission have enhanced outage response in many ways. First, they enable VEC dispatchers to identify the source of most power line problems not from the cab of a truck — on a stormy night with poor visibility — but from the monitors at their desks at the outage management center. These technologies also assist line crews in locating and repairing the causes of outages considerably more efficiently than even in the recent past. Their trucks are equipped with laptops detailing VEC’s service territory and GIS to guide them to every fuse, transformer, voltage regulator, etc., on the Co-op’s lines. Lastly, technological improvements connect members to their co-op and allow access to more information than utility customers ever enjoyed in the past.

There’s no way to make an electric outage convenient. But VEC members who take advantage of the opportunities provided them through the use of their laptops, smartphones, or other devices, can find outages easier to live with. Just having a sense of its duration can make an outage more palatable.

And that information is available on the VEC website. This is a resource every Co-op member should know about, even if they ask others to search for that information for them.

It’s a quick way to learn whether other members are experiencing the same outage they are, and what the duration is likely to be. In an outage your cable system might not work. But a smartphone, tablet, or other wireless device can often catch a signal. Plus, this system enables you to monitor your outage from work, the road, or any other WIFI location.

“Your phone lets you know whether your power is back on,” says Bernier. “If it’s not, and you won’t be able to cook, you can pick up something for dinner.”

Finding this information is easy. Go to the VEC homepage (www.vermontelectric.coop) and click on the “outage center” icon (marked with an image of an electric storm) on the right-hand side of the page. When the link opens it reveals a list of VEC towns where outages are occurring, the number of members affected, the time the power went off, and the cause. Above that list is the place where you can enter your account number (this box is available only when there are active outages). It will then provide those details for your specific location, including an estimate of when the power will be restored.

Many utilities are hesitant to predict when a customer’s electricity will come back on. But Bernier says, “We don’t shy away from it. We try to give as much information as possible, with the caveat that it’s an estimate, and things can change.”

SmartHub
Back on the homepage, just above the “outage center” icon, VEC provides an even more comprehensive communications tool, called SmartHub. To take advantage of SmartHub you must sign up, providing an e-mail address and a password, and completing information about your account number, etc. You can use SmartHub on your computer, but it’s also an “app” for your cell phone. You can notify the Co-op of an outage, ask to be notified by text or e-mail when an outage has occurred at your home or business, and be informed automatically when power has been restored.

That last capability shows how automated VEC’s interrelated system has become. When an outage has been corrected there is an electronic communication – called a “ping” – between your meter and VEC’s outage-management system, or OMS; if your meter pings back, the system knows that the restoration has been successful, and OMS then notifies SmartHub, which conveys the “all clear” signal to your smart phone.

This merely scratches the surface of SmartHub’s applications. With SmartHub members can monitor their electric usage, keep track of their accounts, and make bill payments. Adding the phone app feature, however, makes SmartHub your best, and easiest, way to stay in contact with VEC when outages rear their heads.

AMI
It doesn’t require a long memory to appreciate how much things have changed in outage restoration at VEC.

“Our little as ten years ago we were taking outages on pen and paper,” recalls Allard. “It took a lot of calls to create a ‘picture’ of the storm or outage incident – where it was occurring, how widespread it was – and even then, line crews and their helpers often had to patrol, by truck or on foot, flashlights in hand, to find the cause. Then they might conclude that they had fixed the problem and head off to another outage not knowing whether everyone’s power had actually been restored.

The AMI system takes nearly all the guesswork out of it. An initial phone call from
Efficiency in the Sugar House
By Jf Vandette, Planning Manager—Agriculture at Efficiency Vermont

As we all know, spring in Vermont means it’s sugaring season. Each year more than 1,500 sugaring operations across the state boil incredible volumes of maple sap to produce over one million gallons of delicious syrup.

According to the most recent USDA Census of Agriculture from 2012, our small state is responsible for more than 44% of the nation’s syrup production. The Boston Globe reported that in 2014, Vermont’s sugarers produced just over 1.3 million of the total 3.17 million gallons of U.S. syrup. Therefore, it’s with good reason that syrup has become a symbol of Vermont.

Vermont maple sugaring operations vary in scale, from the small hobbyist with a few backyard buckets, to the dairy farmer looking to diversify his/her/its income stream, to the large scale operation that produces tens of thousands of gallons a year. While different in many ways, they all have at least one thing in common—energy.

The sugaring process: how reverse osmosis works

Sugaring is an energy intensive process. It takes approximately 43 gallons of sap to make one gallon of maple syrup and getting from 43 to one requires a lot of fuel. The majority of Vermont maple sugarers use oil or cord wood-fired evaporators to concentrate their sap, and even with an efficient evaporator, this process still requires a lot of energy.

For decades maple sugaring equipment has been evolving to adopt more advanced technologies to optimize the efficiency of sugaring operations. One example of these advancements is a Reverse Osmosis (RO) system. ROs can remove more than 75% of the water from sap prior to boiling, leading to as much as a 75% reduction in energy used by the evaporator to fully transform the sap to syrup. The sap is first pressurized and passed through the RO system, which uses a filter membrane designed to let water molecules (permeate) through, which increases the sugar content of the remaining liquid (concentrate). The concentrate is then moved on to the evaporator to be boiled into maple syrup.

Sugarers began incorporating ROs into their operations in the 1970s to save on fuel costs and time. ROs are now commonplace for the largest maple sugar makers in Vermont. However, for the majority of small and medium-sized operations in the state, installing an RO just isn’t in the budget.

At Efficiency Vermont, we understand the many benefits of RO systems and the energy saving opportunities that still exist for Vermont’s smaller maple sugar makers. In order to expand the use of this efficient technology and reduce the energy intensity of maple sugar operations in Vermont, we will soon be offering technical assistance and a rebate for maple sugar makers who are looking to install an RO for the first time. We’re excited to roll out this new offering to support a fundamental part of Vermont’s economy, culture, and heritage.

Contact Efficiency Vermont’s Customer Support team at 1-888-921-5990 to be placed on a callback list when rebates become available, or visit us at the Vermont Maple Festival in St. Albans on April 24, 25, and 26 to learn more!

Reversis Osmosis in Action in the Northeast Kingdom

The sap is flowing at Lahars’ Maple Ridge in Albany as the fifth generation of Lahars practices the art of sugaring. Theirs is a family operation. Paul and Betty Lahar, along with sons Dave and Tim and their families, have tapped more than 4,000 trees this year. While many things remain the same, today’s process has changed quite a bit from years past. Gone are the buckets and dozens of cords of wood that were once the mainstays of their sugaring operation. Today a vacuum pump pulls sap through miles of tubing to the sugar house. What happens next has made an even bigger difference.

In 2007, the Lahars applied for a USDA grant to install a reverse osmosis (RO) system to help concentrate thousands of gallons of sap each spring. RO is essential a means of “filtering,” or separating water from raw sap without having to boil it all off. Prior to the 1970s, the Lahars’ sugaring operation burned through 30-40 cords of wood each season. In the 1970s, they switched to oil and burned 3-4 gallons of oil per gallon of syrup. With the RO system, that number has decreased to half a gallon of oil per gallon of syrup. And fuel is not the only resource saved. Boiling that used to take 12-14 hours now takes closer to four.

“If you ask a sugarmaker where they’d like to be spending their time, for the most part they will likely say in the sugarbush: building, repairing, improving lines, managing vacuum sap collection and tree health,” says Dave Lahar, member and employee of Vermont Electric Co-op. “The RO system has given us much more time to be out in the orchard where long-term the efforts pay-off and are most enjoyable.”

Shifting to an RO system meant more than simply purchasing and installing it in the sugar house. Because the RO system uses about 6,000 kWh in a season, far higher than what was used previously, the increased electrical usage required an electric service upgrade. A heated room needed to be built in the sugar house for the RO system, since freezing would damage it. The evaporator also had to be replaced because it was now larger than needed to process the more concentrated sap. Lastly, the Lahars invested in a filter press for the syrup that is now coming more quickly out of the evaporator; the old-style, cone-shaped ‘bouques’ were no longer up to the task. While the collective improvements were extensive, the savings from reduced fuel resulted in a three-year payback.

“Although there was a high cost up front, the savings in fuel and time have been incredible,” Dave Lahar reports. “Especially when oil prices are high, this technology can make a difference for the bottom line.”

RO equipment is much more broadly available and at lower cost today even than what was used previously. The increased electrical usage required an electric service upgrade. A heated room needed to be built in the sugar house for the RO system, since freezing would damage it. The evaporator also had to be replaced because it was now larger than needed to process the more concentrated sap. Lastly, the Lahars invested in a filter press for the syrup that is now coming more quickly out of the evaporator; the old-style, cone-shaped ‘bouques’ were no longer up to the task. While the collective improvements were extensive, the savings from reduced fuel resulted in a three-year payback.

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RO equipment is much more broadly available and at lower cost today even than when the Lahars installed it several years ago. It is easily scalable from a growing backyard operation to a system serving tens of thousands of taps. The incentive that Efficiency Vermont is planning to offer may provide the extra push needed for more small- and medium-scale operations to follow in the footsteps of Lahars’ Maple Ridge.

VEC Annual Election
April 14 to May 9

Please vote by mail, online, or in-person! Check your mailbox for ballot materials

Questions about the election?
Call 1-800-832-2667 or visit www.vermontelectric.coop

VEC Community Fund
Members Helping Members

Smart Hub
Manage Your VEC Account with
Financial Highlights

VEC has access to federal assistance that is not available to investor-owned utilities. FEMA’s disaster declaration ensured that we would not need to seek higher rates for the FEMA-reimbursable portion of our storm costs.

The FEMA declaration was critical, but it did not address the full impact of the storm costs on VEC’s financial profile. Because these costs were so extensive, the 75 percent federal reimbursement still left more than $835k of unrecoverable costs, which could have adversely impacted VEC’s financial standing. VEC is a capital-intensive business and relies heavily on relationships with banking partners. In turn, they require VEC to maintain minimum financial performance standards (financial covenants) that provide the banks with reassurances that they will be paid back for financing VEC’s capital plan. Without banks willing to contribute 60 percent of our capital funding, all capital improvement costs would have to come from our members up front, which would drive up rates. Additionally, our power suppliers require minimum financial performance levels to ensure that we will honor our power-supply contracts. Lastly, our positive financial rating is critical for VEC to access services we need to run the business on credit. Without service partners willing to extend credit, we would need to pay for our operations up front, which is financially impractical.

In accordance with Vermont Electric Cooperative’s Board Policy B.2 (Duties and Responsibilities of the Board of Directors), director attendance at regular meetings is to be reported annually. Additional information regarding director fees and expenses is available upon request and on VEC’s website at www.vermontelectric.coop

Vermont Electric Co-op

To address the issue of unrecoverable costs, VEC turned to the PSD, which reviewed and examined the rates that Vermont utilities charge their customers. The PSD functions as the customer advocate, which utilities must work with before going to the Public Service Board for a formal decision. Through the PSD, utilities can seek an accounting order to allow for deferral of costs related to unusual, abnormal, unplanned events that are beyond management control. Because the storm’s extraordinary costs, this was the only way for VEC to handle the costs associated with the storm in time to address the financial impacts. Working with the PSD, VEC created an accounting order that allows for the deferral of operating and maintenance expenses incurred during the storm response until the next time VEC seeks a rate adjustment. The deferral allows VEC to attempt to mitigate the storm costs in the interim.

VECs Board of Directors will be monitoring VEC’s storm accounts closely and will determine if, when, and over what period of time, VEC will need to seek recovery of the remaining storm costs through a rate adjustment. The costs for the two storms totaled over $9M, nearly $7M of which have already been mitigated. This leaves $2.4M in deferred storm costs. We do expect to begin seeking recovery of the remaining balance of major storm costs in 2016.

Controlling electric rates

Despite the two storms, VEC did not seek a rate increase in 2015; VEC has worked hard to control costs over the past six years. We have averaged annual increases of less than 1.2 percent per year (1.88 percent in 2010; 2.13 percent in 2011; 0 percent in 2012; 0 percent in 2013; 2.9 percent in 2014; and 0 percent in 2015). While many of our core business costs and the costs of transmission have increased at a much higher pace, we focused a great deal of attention on our largest cost driver, which is power supply. By securing favorably priced, mid-term and long-term power supply contracts from electricity generators like Hydro-Quebec and NextEra, we have reduced our power supply costs by over $1.2M in 2014, which is more than 8 percent of total operating expenses.

VEC is one of the most efficient utilities in the state, with one of the lowest ratios of employees per customers served and one of the highest ratios of miles of electric line per employee. On top of that, our focus on reliability has improved service. We reduced the frequency of outages that the typical VEC member experiences each year during this same six years of rate stability.

Patronage capital, a co-op advantage

For the second straight year VEC returned patronage capital to members. One of the great things about the cooperative model is that our customers are also our owners. Patronage capital is a member’s share of the money remaining after VEC pays its operating expenses. It is allocated to customer accounts based on how much they were billed for electric service that year. When the financial condition of the cooperative is strong enough, the Board of Directors may decide to return a diversified portion of patronage capital to the membership. Alternatively, the Board may decide it’s more prudent to invest these funds or to upgrade the system by investing in improvements of assets like substations, utility poles, wires, and transformers.

VEC bylaws, along with Internal Revenue Service regulations, govern how patronage capital may be distributed. The

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**VERMONT ELECTRIC COOPERATIVE, INC.**

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Financial Highlights

Co-op's bylaws require that VEC's balance of savings show a minimum equity level of 40 percent before patronage capital can be re-refunded. Because VEC exceeded this important milestone, the Board of Directors determined that VEC's financial condition is strong enough and specifies which years will be refunded. Where this happens, VEC members will receive a portion of their patronage capital balances, as a bill credit for active members and, by check for inactive members.

Every year, VEC updates members’ bills with their new patronage capital balances, which are based on VECs earnings for the year and how much the member was billed. Very soon we will be reporting an update to members’ patronage capital balances with contractors and organizations that

available to members for community net metering. We will make a portion of this project available to our members through energy savings.

While the challenges and opportunities of Tier 3 remain to be seen, VEC is in good shape with Tier 2. VEC’s Co-op Community Solar project, which is now in the permitting phase, will help VEC meet Tier 2 requirements by providing the lowest-cost solar to members. For Phase I, VEC has acquired leases on two parcels of land, one in South Smithfield and the other in Albburg, to build 2.5 megawatts of solar in 2015. VEC is planning an additional 2.5 megawatts in 2016. We are working closely with state government officials available to members for community net metering, which will allow members to enjoy the benefits of net metering withouthaving to put capital on their own properties. As part of the permitting process, VEC is asking members to vote in support of the project. VEC supports increasing generation of renewable energy sources throughout the state and VEC’s service territory. However, we know that in order to develop renewable energy sources, especially when solar can be built for half the cost of what is currently required by utilities, VEC should not be forced to

New World Out There

空调、地热、水加热系统，以及支援、租赁这些产品的发展。目前还不清楚农村太阳能发电的潜力。尽管如此，VEC正在努力推动这些产品进入市场。VEC正在与国会和联邦机构密切合作，以期为这些产品提供展示机会。

New World Out There

a member whose power has gone out will “create” an outage – meaning that by entering the call’s information into OMS, it initiates a process by which the system will “ping” other meters close to the reported outage, to see if they ping back. By working their way “upstream” – that is, closer to the substation, which is the source of the neighborhood’s electric power – the system operators can find a responsive meter or utility device, and thereby determine where, back “downstream,” a fuse has blown or other device failed. Now they know exactly where to send the crew.

Once the crew arrives, Allard explains, “our philosophy is to patrol the whole line section before closing or repairing the fuse.” In a major storm, with broken poles or power lines on the ground, the causes will be obvious. But for smaller incidents the technicians provide a thorough way to check that everyone is back on the crew heads off somewhere else. And meanwhile, back at the control center, the system operators are checking for those all-important in-flight pings.

As for the order of restorations, which is particularly important in large, widespread outages, Allard says VEC’s practice is “to start from the backbone of the system and build out.” That means checking transmission lines first: if they’re not delivering the power to a substation, no one dependent on that sub will have electricity. (Complicating this is that VEC’s substations are in many cases fed by other companies’ transmission lines.) If the substation is functioning, restoration efforts concentrate on the feeder lines that head out from the sub in different directions, carrying power to large areas where VEC members live. If you solve a problem on a feeder line, hundreds of members may benefit. From there, the operators send the crews farther out along the “tap” lines that branch off from the feeders, providing power to smaller groups of Co-op members, and even to individuals.

It’s all about ‘communicating’

Technology, then, has provided VEC with the means to rectify outages with an efficiency that workers couldn’t have dreamed of in the 20th century. In Response Center, and Sue Bernier have another technological tip for frightened members calling to report a downed power line: take a picture of it with your cell phone and send it to the Co-op; it’s not at all uncommon for these to be telephone or cable lines and identifying them properly can save everyone time and resources. VEC also employs a three-tiered system of telephone resources to respond to members’ calls, starting with VEC’s automated Integrated Voice Response system, then moving to personnel at its headquarters (which is staffed as needed during storms), and when the call volume exceeds those resources, to representatives at the Cooperative Operations Center, a company based in Minnesota that works exclusively with the nation’s electric cooperatives.

“Our dropped calls (calls that go unanswered) are pretty much zero,” says Allard, an achievement that can best be appreciated by realizing the VEC’s membership has grown to 32,000. One might observe that these breakthroughs in technology and communications have arrived in the nick of time. If the weather patterns continue to evolve as they are expected to, VEC will need to employ every resource available to get the lights back on when storms occur.
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www.vermontelectric.coop

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Tom Bailey, Don Worth, John Ward

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Grand Isle Lineworker Shawn Juaire rescued a cat from the top of a pole in Highgate Center in Richford. The two lineworkers, along with a Vermont Electric Cooperative co-op membership services technician, were able to bring the cat safely down. Thanks to them, the cat’s fur is in no danger of life loss.