Annual Meeting Recap

VEC’s World: Radically New, Traditional Too

By Christine Hallquist, CEO

The member-owners who attend Vermont Electric Cooperative’s Annual Meeting of the Membership know how much the world has changed since VEC was founded in 1938 and began spreading its pole and wires, transformers, fuses, and substations through the rural reaches of northern Vermont. You can hear it in their informed and incisive questions and comments addressed to the Co-op’s leadership when, near the conclusion of the meeting, the discussion is opened to the floor.

This year, at the 79th Annual Meeting of the Membership, on Saturday morning, May 6, at Jay Peak Resort, was no different. Topics raised by members in the large dining hall, where people had enjoyed a hearty breakfast before the business meeting, included questions about the development of energy storage technology suitable for home generating systems; the feasibility of battery recycling for large products like the Tesla Powerwall and others that integrate with solar generation; wind energy and whether there has been progress on the issue of Kingdom Community Wind in Lowell being shut down when generation on the grid is too high relative to demand. Members asked about renewable energy credits (RECs), how Vermont could meet its 2050 goals under the Comprehensive Energy Plan of 90 percent of total energy consumption from renewables, if companies like VEC continued selling RECs out of state; and if there was a future for time of use (TOU) rates to entice members to shift usage to times of lower energy demand.

The person responding to most of these queries was CEO Christine Hallquist. Battery storage was currently being tested and would be at least through 2018, she said, “because we want to be able to stand behind them.” (She added that the VEC Board will then face a decision whether to rent batteries or sell them to interested Co-op members.) Battery recycling is also under study, she said, pointing out that some models use lithium and “we don’t want to trade one environmental problem (the carbon output of fossil fuels) for another (dirty mining practices and environmental waste).” Salt water as a medium for these batteries, she said...

Continued on page 3
Taking On The Challenges

It’s getting no easier for Vermont Electric Cooperative, or their members, to continue the work of protecting their access to affordable electricity at a time when the energy landscape is changing faster and more dramatically than ever before.

• Retail sales for electric power have tended to flatten out (reflecting the increased use of electric appliances, growing adoption of home generation through net metering, etc.),
• renewable and distributed generation costs are rising, particularly related to maintenance and development of an aging and in many ways inadequate regional (New England) transmission system;
• The Grid of Tomorrow requires utilities to develop renewable electric power sources and provide incentives to encourage people’s usage of fossil fuels, and levy financial penalties if they fall short;
• They must contend with the complex and multi-faceted challenges of "distributed generation"—i.e., integrating power that isn’t controlled or managed anywhere in their service territory, a far cry from the earlier days of the "grid," a system that was generated far away and basically cruised over the power lines without much direction—toward the customers.

At VEC’s Annual Membership Meeting, at Jay Peak on May 6, two speakers expressed enthusiasm about these challenges, rather than bemoaning them.

CEO Christine Hallquist concen-trated on VEC’s organizational re-sponse: its attention to “core competencies” in the focus areas of energy transformation, renewable energy, workspace culture, and fundamental business practices, to remain strong in the midst of industry change.

Cyril Brunner, VEC’s Manager of System Engineering, presented a case for a concept called "Changing Electric Grid." Illustrating the magnitude of those changes, Brunner noted that nearly 10 percent of the state’s total energy generation came from Vermont’s renewable energy resources, and over 60 percent of the state’s load is supplied by renewable energy sources, which includes both large-scale and distributed generation. The Grid of Tomorrow, Brunner noted, requires significant changes across the electricity system, from generation to transmission and distribution, to enable the reliability of the grid in the face of increasing variability and uncertainty associated with renewable energy.

"The Grid of Yesterday," a slide in Brunner’s presentation, depicted a grid based on a centralized power generation model, where power is generated at large, central plants and transmitted over long distances to customers. This model is less efficient and less flexible compared to the Grid of Tomorrow, where renewable energy sources are integrated into the grid on a smaller scale and at multiple locations, allowing for more efficient and responsive energy delivery.

"The Grid of Today," on the other hand, represented a grid that incorporates distributed generation and microgrids, enabling local energy production and storage, and promoting greater resilience and reliability of the system.

"We promote an environment where you can question the boss. It’s how we’re attracting some of the greatest employees in the country.”

Christine Hallquist

With SmartHub, you can:
• View and pay your bills with a check, debit card, or credit card.
• Receive outage alerts when the power goes out and when it's been restored.
• Track your usage to monitor how much electricity you're using and when.
• Go paperless!
• Save time, trees, and stamps by choosing electronic billing.

SmartHub: A Smart Tool for VEC Members

Available for your computer, smartphone, or tablet, SmartHub offers convenient access to everything you need to manage your energy account.

Sign up today at www.vermontelectric.coop or use your mobile device to scan one of the QR codes below.
said, posed a possible alternative. As for integrating renewable en-

ergy more fully into the grid and avoiding curtailing wind output,

Hallquist referred to the Vermont Solar Market Pathways report is-

sued last in December by the Vermont Energy Investment Corp,

which indicated a need for $1.2 billion in investments in the state's
electric-distribution system. “Phys-

ics does not care about politics,” she

noted.

She had a similarly practical an-
swer to the question about REC

sales to out-of-state utilities, which

makes those credits not claimable

by the Vermont companies, like

VEC, that sell them.

“If we stopped selling RECs to-

day,” said Hallquist, “rates would go

up by six percent.”

Questions like these would

never have arisen at a VEC Annual

Meeting 15 or 20 years ago. That

brought home something Hal-

quist had said earlier, in her CEO

remarks.

“From 1939 and through the fol-

lowing decades, Hallquist sum-

marized, “it will double every 12

hours.”

That’s a dizzying pace, facili-

tated for us by the adjacent intelli-

gence of the computer. And even

though we aren’t yet at the 12-hour
distance, the discussion made one thing crystal clear: VEC is not your

counters’ Co-op anymore.

Electro was for us, the adjucat

intelligent

of the computer. And even

whether we aren’t yet at the 12-hour
distance, the discussion made one thing crystal clear: VEC is not your

counters’ Co-op anymore.

Electro was for us, the adjucat

intelligent

of the computer. And even

whether we aren’t yet at the 12-hour
distance, the discussion made one thing crystal clear: VEC is not your

counters’ Co-op anymore.

Electro was for us, the adjucat

intelligent

of the computer. And even

whether we aren’t yet at the 12-hour
distance, the discussion made one thing crystal clear: VEC is not your

counters’ Co-op anymore.

Electro was for us, the adjucat

intelligent

of the computer. And even

whether we aren’t yet at the 12-hour
distance, the discussion made one thing crystal clear: VEC is not your

counters’ Co-op anymore.

Electro was for us, the adjucat

intelligent

of the computer. And even

whether we aren’t yet at the 12-hour
distance, the discussion made one thing crystal clear: VEC is not your

counters’ Co-op anymore.

Electro was for us, the adjucat

intelligent

of the computer. And even

whether we aren’t yet at the 12-hour
distance, the discussion made one thing crystal clear: VEC is not your

counters’ Co-op anymore.

Electro was for us, the adjucat

intelligent

of the computer. And even

whether we aren’t yet at the 12-hour
distance, the discussion made one thing crystal clear: VEC is not your

counters’ Co-op anymore.

Electro was for us, the adjucat

intelligent

of the computer. And even

whether we aren’t yet at the 12-hour
distance, the discussion made one thing crystal clear: VEC is not your

counters’ Co-op anymore.
A Quick Call Could Save a Big Headache

Whether it’s a dreamed up deck addition or a landscaping masterpiece, summer is a great time for outdoor projects. But if your plans include digging, like planting a tree or bringing in a backhoe for trench work, you’ll have to wait a few more days so the job can be done safely. Underground utilities, such as buried gas, water, and electric lines, can be a shovel thrust away from turning a summer project into a disaster.

To find out where utility lines run on your property, dial 811 from anywhere in the country a few days prior to digging. Your call will be routed to a local “one call” center. Tell the operator where you’re planning to dig and what type of work you will be doing, and affected local utilities will be notified.

In a few days, a locator will arrive to designate the approximate location of any underground lines, pipes, and cables with flags or marking paint so you’ll know what’s below. Then the safe digging can begin.

Although many homeowners tackling do-it-yourself digging projects are aware of Dig Safe services, the many don’t take advantage of the service. A national survey showed that only 50 percent of homeowners called to have their lines marked before starting digging projects, according to the Common Ground Alliance (CGA), a federally mandated group of underground utility and damage prevention industry professionals. CGA data also shows that an underground utility line is damaged every six minutes in the US because someone decided to dig without first dialing 811.

Although light gardening typically doesn’t call for deep digging, other seemingly simple tasks like planting shrubs or installing a new mailbox post can damage utility lines. A severed line can create a safety hazard, disrupt service to an entire neighborhood, harm diggers, and potentially result in fines and repair costs.

Never assume the location or depth of underground utility lines. There’s no need: the 811 service is free, prevents the inconvenience of having utilities interrupted, and can help you avoid serious injury.

For more information about local services, visit www.call811.com.

Sources: Common Ground Alliance, SafeElectricity.org

Seniors - Lower Your Electric Bill by Boosting Your Energy Savings!

When long-time Glover residents Gloria and Manville Powers started married life 53 years ago, they received a freezer Gloria’s mother had once used. Between that, another second-hand freezer, a previously owned refrigerator and hot-water tank, and ineffective electric wiring, the couple faced months when their electric bill was higher than their mortgage.

All the products were free. So was the review of their electric use that the Powers, who also manages the Budde and Beckwith also completed 10 high-energy use applications. Elders with aging, energy-guzzling - refrigerators, hot-water heaters and freezers, received referrals for more efficient replacements. Residents - also received recommendations for weatherizing window and door sills.

Budde, who also manages the Council’s falls-prevention program, added, “Knowing that money is being saved on the electricity bill allows our elders to keep lights on so they do not fall.” According to Liz Gamache, former Director of Efficiency Vermont, “Energy efficiency is among the least expensive ways to meet Vermont’s electricity needs, costing about half of the cost of generated power.”

Gloria and Manville Powers enjoy better lighting at a lower rate on their electric bill.

Gloria and Manville Powers shows off her new low-flow showerhead.

Gloria and Manville Powers received last year as a result of a home energy visit by NEK Council on Aging volunteers working with a grant from Efficiency Vermont.

Well-known throughout Orleans County for taking in nearly 400 foster children while raising their seven offspring, “we chose to put our money into the children,” said Gloria. To make ends meet “we grew our own produce and butchered our own meat. We still do.”

But while the mortgage on their ranch home remained steady at $243, the monthly utility bill often came in over $300. The family went to various service agencies for financial help to get through some of their leaner times. “One put us on budget of $350 a month,” said Gloria. “We were grateful for their help, but nobody can live on $350 a month.”

Added Manville, “Now we’re seniors living on Social Security. How do you manage your bills living on fixed incomes?”

The Powers’ life changed, however, after the Northeast Kingdom Council on Aging began rolling out its first Efficiency Vermont grant in 2016. With trained volunteers, dedicated Council staff helped older Vermonters install energy-saving products such as light bulbs, power-er strips, and low-flow washers for sinks and water-saving shower heads. All the products were free. So was a review of their electric use which revealed the Powers’ need for new, energy-efficient appliances, which they subsequently received at no cost. Under a separate program from USDA, the Powers' electrical wiring was upgraded, according to Gloria.

One month after the new appliances and other energy-saving products were installed, the couple saw their electric bill drop to $160. The Powers turned out to be two of 112 residents who worked with the Council on Aging for an opportunity to lower their electric bills.

“We replaced 70 lightbulbs in one house alone!” said the Council on Aging’s RSVP Volunteer coordinator Karen Budde. With fellow coordinator Patty Beckwith, Budde guided the installation of hundreds of light bulbs, 40 smart-power strips, 25 packs of pipe wraps (four wraps to a pack), nearly 30 low-flow sink and shower aerators, 20 regular shower heads, and 30 hand-held shower heads. As a result of their efforts, the Council’s falls-prevention program, added, “Knowing that money is being saved on the electricity bill allows our elders to keep lights on so they do not fall.” According to Liz Gamache, former Director of Efficiency Vermont, “Energy efficiency is among the least expensive ways to meet Vermont’s electricity needs, costing about half of the cost of generated power.”

Gloria Powers shows off her new low-flow showerhead.

The Powers turned out to be two of 112 residents who worked with the Council on Aging for an opportunity to lower their electric bills.

“Energy efficiency is among the least expensive ways to meet Vermont’s electricity needs, costing about half of the cost of generated power.”

Council on Aging’s volunteers were so successful at installing energy-efficient products in houses and apartments that the Northeast Kingdom registered the highest number of kilowatt hours saved in all of Vermont! It also earned a second grant from Efficiency Vermont and the challenge to repeat its success in 2017.

If you’re over the age of 60, live in the Northeast Kingdom and would like to participate in this program, please call the NEK Council on Aging: 1-800-642-5119 or send a message to info@NEKCouncil.org and put “energy” in the subject line.
Keeping cool with heat pumps
A heat pump is a sophisticated air conditioner that can also heat your home or business in the winter.

“Heat pump the name alone can cause confusion, because a heat pump is first and foremost an air conditioner (AC). In fact, heat pumps and ACs cool the same way: by using electrical energy to move heat from inside to the outdoors. But a heat pump has a switch that lets you change its function from cooling to heating in winter—all with the press of a remote control button. And it’s far more efficient for cooling, using less than 50% of the energy of a typical window AC unit.

Types of heat pumps
Heat pumps extract heat from (and move it to) different sources: air, water, or ground. Ductless air-source heat pumps (a.k.a. mini-splits or cold-climate heat pumps) are the most common type in homes and small businesses—though if you have existing ductwork, a ducted system is an option.

Why “mini-split”? 
“Mini” refers to the system’s small size—and “split” tells you it’s made up of two distinct parts: an indoor air-handling unit and an outdoor compressor unit. The term “multi-split” or “multi-zone” describes a system with multiple indoor heat pump units connected to one outdoor compressor.

Basic components
Unlike central AC, a heat pump’s outdoor condenser coil can switch roles, acting as an evaporator when in heating mode. The heat pump’s indoor unit holds the electronics that allow it to switch from cooling to heating, while a “line-set” running between the two units houses refrigerant tubing and electrical wiring.

How to compare energy costs
Both ACs and heat pumps use electricity to cool, but heat pumps are much more efficient which means real savings for homes and businesses that choose to cool. They’re also highly efficient for heating: You can generally save up to $600 per year if you switch from fuel oil, kerosene, propane, or electric resistance (based on long-term average fuel prices). If you currently use natural gas, wood, or pellets, a heat pump may not lower your bills because the low cost of those fuels can offset the efficiency gains of a heat pump.

Another benefit to heat pumps is their compatibility with solar and wind power. For Vermonters looking to move away from fossil fuels, heat pumps may be a way to help get there.

How to compare efficiency

EER, SEER, HSPF, COP—each one measures energy efficiency in a different way, so it’s not always easy to compare heat pumps with other systems. The bottom line: It’s safe to assume that heat pumps are more efficient than other systems for both heating and cooling, with the caveat that heating efficiency doesn’t always equate to savings. When comparing among heat pump models, look for a higher HSPF (more efficient heating) and a higher SEER (more efficient cooling). If you choose one that qualifies for an Efficiency Vermont rebate, you can rest assured that it’s been vetted for energy efficiency.

Air conditioning vs. heat pumps

Each has pros and cons, but heat pumps enjoy some notable advantages over central and window air conditioning. The biggest is that you can cool and heat with one system, though a backup heating source is still recommended for the coldest of Vermont winter days. Heat pumps are professionally installed once, so you don’t have to remove or reinstall them seasonally. They need just a three-inch hole in the wall for the line-set, which means better security compared with window units that leave your home vulnerable. And they have no ducting to install and keep clean, as with central AC.

More key benefits:
• Quiet operation
• Zone cooling and heating
• No ducting required
• Flexible placement of indoor unit: ceiling, floor, or wall
• Flexible placement of outdoor unit: easy to keep out of view
• Renewable compatible: heat and cool your home using electricity generated by your solar panels or wind turbines
• Modern, low-profile appearance

Other considerations

Besides needing a backup heating system on the coldest winter days, heat pumps come with other considerations. Consider your layout when weighing a purchase. A more open floor plan will be easier to cool or heat with a heat pump (and provide more savings) than a space with small/tight rooms. And be sure to carefully consider system size. If you size only for summer cooling, you may find the system can’t deliver the heating you need in winter. And, finally, while they typically lower your energy bills, the units themselves are expensive, about $4,000 apiece. Because they save energy, however, heat pumps do qualify for rebates from Efficiency Vermont, as well as energy efficiency financing.

For help determining if a heat pump will lower your energy bills, contact Efficiency Vermont at 888-921-5990 or visit www.efficiencyvermont.com

Efficiency Vermont
Vermont Electric Cooperative Powers and Empowers Members’ Communities

VEC Community Fund Announces 2nd Quarter Grant Awards of $1,650

The VEC Community Fund helped sponsor the annual Barn Pitch, this year in Lowell, where investors traveled by motorcycle to hear pitches from local entrepreneurs. Photo credit: Richard Whitehouse

The VEC Community Fund is a Vermont Electric Cooperative program strengthening member communities by supporting organizations that promote community development and economic security. Funds are allocated on a quarterly basis, and the four areas of focus are: Economic Security, Energy Education, Emergency/Disaster Relief, and Community Development.

The most recent VEC Community Fund recipients are: Vermont Council on Rural Development - $750; Lamoille County Sugar Makers Association - $750; and Lowell Barn Pitch (via Northeast Kingdom Tamarack Inc.) - $150.

“We’re pleased and proud that our members support the VEC Community Fund,” said Christine Hallquist, CEO. “The fund underscores a basic cooperative principle of neighbor helping neighbor, member helping member,” added Hallquist.

Based in Montpelier, the Vermont Council on Rural Development is using its funds to help sponsor the National Climate Economy Summit at the University of Vermont on September 6-8, attracting businesses and investors to create new opportunities in energy, efficiency, transportation, and recycling. For more information, visit http://vtural.org/programs/summits/cce-con17.

The Lamoille County Sugar Makers Association will use their grant to help fund Maplerama 2017 (August 3-5)—an opportunity for area producers of maple syrup and maple added value products, wholesalers, packers, and equipment dealers to showcase their products, methods of production, and sugar houses to the public and those interested in purchasing maple products. For more information, visit http://vermontmaple.org/maplerama-2017/

The final grant is to help sponsor the 4th annual Barn Pitch on August 1 in Lowell, providing Northeast Kingdom entrepreneurs and businesses the opportunity to network with renowned Vermont investors, including Cairn Cross of FreshTracks Capital. For more information, visit https://www.roadpitch.co/schedule/lowell-2/.

---

Space is still available in VEC’s first Co-op Community Solar project in Alburgh.

Co-op Community Solar Turn Six Months Old

VEC’s first Co-op Community Solar project in Alburgh came online at the end of December 2016, and it’s been brightening our power supply ever since. We’ve just entered the best months of solar generation, and the one-megawatt project has already produced over 650,000 kilowatt-hours. That’s about as much as 100 homes use in a year.

Members can sponsor panels in the array for either 10 or 20 years and receive a guaranteed credit back on their monthly electric bills. Almost 100 VEC members have signed up to sponsor 2,343 of the total 3,996 panels in Alburgh. Co-op Community Solar is a great program for members who rent, don’t have a suitable site for solar, or simply prefer an off-site option to support solar.

The Alburgh project is a key part of VEC’s renewable energy strategy along with two other Co-op Community Solar projects in Grand Isle and Hinesburg that are expected to be online later in 2017.

“’The dollar amounts may be small, but their impact is huge,’” said Steve Mason, co-organizer of the Lowell Road / Barn Pitch with his life partner, Patricia (Trish) Sears. “’We’re proud to be members of Vermont Electric Co-op because they are an active partner with small businesses and give back to the communities it serves,’” added Steve.

This year to date, VEC has granted $2,550 to help fund projects that also include support to the Island Pond Jazz Fest and the Newport Elks Club #2155 Fund Drive. Since inception in the fall of 2014, the VEC Community Fund has donated $4,678 to ten organizations throughout the VEC service territory.

The allocation committee reviews applications on a quarterly basis, and organizations interested in being considered for a grant must complete and submit an online application by the close of business on December 31, March 31, June 30, and September 30.

Members can contribute by rounding up their electric bills to the next highest dollar; making a one-time donation; and donating their refunded patronage capital—members’ share of the money that remains at the end of the year after VEC pays its operating expenses.

For more information, and to sign-up to contribute to the community fund, visit http://www.vermontelectric.coop/community-resources/community-fund or call 1-800-832-2667.

---

Governor Phil Scott addressed VEC employees at an all-employee meeting in June.
VEC has for sale the following vehicles and equipment that are accepting sealed bids for until 4:00 pm, September 11, 2017. Please indicate the item number of the vehicle or equipment on the outside of your sealed bid. All bids should be submitted to the attention of Laura Kinney, Purchasing Agent at Vermont Electric Coop, 42 Wescom Road, Johnson Vermont 05656.

All vehicles or equipment for sale have high mileage and may be in need of mechanical/body work.

Vehicles and equipment for sale located at the Johnson Warehouse:

<table>
<thead>
<tr>
<th>Item #</th>
<th>Coop #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item #1</td>
<td>#41</td>
<td>2006 International 4400, Bucket Truck, (VIN #231709), 55’ Posi Plus Material Handling Boom with Allison 3000 series automatic transmission, Mileage is 19462+ (Please note this unit has a reserve price)</td>
</tr>
<tr>
<td>Item #2</td>
<td>#47</td>
<td>2007 Ford Ranger, 4X4, (VIN #A46187), Pickup. Mileage is 206,402</td>
</tr>
<tr>
<td>Item #3</td>
<td>#115</td>
<td>2000 Ford F-350, 4X4, (VIN #C57061), with Astoria Body. Mileage is 91,677</td>
</tr>
<tr>
<td>Item #4</td>
<td>#56</td>
<td>2009 Ford Escape, (VIN #A49773). Mileage is 203,521</td>
</tr>
<tr>
<td>Item #5</td>
<td></td>
<td>1000 gallon skid tank with Fill Right metered 12V electric pump</td>
</tr>
</tbody>
</table>

Equipment for sale located at the Derby Warehouse:

<table>
<thead>
<tr>
<th>Item #</th>
<th>Coop #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item #6</td>
<td>#31</td>
<td>2001 Trailboss Trailer, (VIN #450DP252111000505), 12 Ton with dovetail and ramps, unit does have airbrake</td>
</tr>
<tr>
<td>Item #7</td>
<td>#43</td>
<td>2006 Ford F-250, 4X4, (VIN #C47807) with Reading Body. Mileage is 189585</td>
</tr>
<tr>
<td>Item #8</td>
<td>#44</td>
<td>2006 Ford F-250, 4X4, (VIN #C47870) with Reading Body. Mileage is 180163</td>
</tr>
</tbody>
</table>

Questions pertaining to the above vehicles and equipment located at the Johnson Warehouse may be directed to Mark Bennett at 802-730-1144. For vehicles and equipment located at the Derby Warehouse please contact Larry Hall at 802-730-1220.

The Company reserves the right to reject any or all bids which, in its sole judgment, finds unacceptable. All vehicles/equipment are sold on an “AS IS” basis, with no warranty expressed or implied. Risk of using any of the above vehicles is completely assumed by the purchaser.

CEO Update from pg 1

The Energy Transformation Program is off to a good start. Six months into the first year, we have reached 90 percent of the year’s goal. This was before we announced our partnership with Nissi to take $10K off on the 2017 Leaf. It’s nice to know that with our 95 percent carbon-free electric footprint, selling more electricity is now a good thing.

On the renewable energy front, VEC has also been very successful at meeting our goals. The 1 megawatt (MW) Alburgh solar project has been up and running since the end of 2016. The developers of VEC’s 1.3 MW solar project in Hinesburg, and the 5 MW project in Grand Isle received their Certificates of Public Good to move forward with those projects. With the completion of these projects, VEC will meet our Renewable Portfolio Standard goals through 2025.

We are proud of these accomplishments. We are also proud of the fact that VEC is working closely with the state of Vermont to help prepare the grid for the upgrades needed to meet the long term goals of Vermont’s Comprehensive Energy Plan, namely to have Vermont’s entire energy footprint be 90 percent carbon-free by 2050. That is a huge challenge as it will require extensive electrification of transportation, heating, and cooling. The electric sector is well on its way to meeting the state’s renewable goals, but transportation and heating have a long way to go. We’re excited to be part of Vermont’s total energy transformation.

VEC’s territory has been a popular area for siting renewable generation. Today, 33 of our 37 substations have reached their limits in terms of the ability to add additional generation. The simplest and most costly solution is to build more transmission capacity. That said, there is a lot of existing capacity to absorb renewable generation in many areas of Vermont. We believe a better answer is to smartly locate the generation in places where the need exists. That is the reason VEC targeted the Islands, and Hinesburg, for our solar projects. Generation is best located closest to load, and the load is in Northwestern Vermont. Over the past few months, VEC has worked with other Vermont electric utilities as well as regulators to create alignment in terms this challenge. VEC also worked with the Solar Pathways group to identify what technology, policies, and upgrades are needed to achieve Vermont’s target in terms of carbon reduction goals. Over the last two years, this group engaged stakeholders to conduct in-depth analyses that examined the technical, economic, and regulatory policy issues and requirements for reaching this target. The Solar Pathways group then focused on an interim target—meeting 20 percent of Vermont’s electricity needs with solar alone by 2025.

To meet the target, Vermont must integrate 1 gigawatt (GW) of solar capacity into Vermont’s electric grid (which currently peaks at less than 1 GW). This will require more planning, investment, and upgrades to hardware and operations systems. Technologies and strategies available today can safely and reliably meet these challenges. Many initiatives, collaborations, and new business approaches in Vermont and elsewhere will help the state meet these challenges. To learn more, go to https://www.veic.org/vermont-solar-pathways to read the full report.

VEC is well-positioned for the transformation of the electric grid. As we transform the grid, we also improve the management of the grid. This means improved power quality, a grid that is more resilient to storms, and improved communications with our members. We will continue to work closely and cooperatively with our members, energy providers, and communities to make this transformation happen.

It is an exciting time to be an electric cooperative. Electric cooperatives provide electricity to 75 percent of the land mass in the United States. That means that VEC has access to some of the best minds and technology in the country, and we are aggressively using these resources. We are proud and honored to serve our members!
Inside Summer 2017 Co-op Life

CEO Update ................................................................. pg. 1
Annual Meeting .............................................................. pg. 1
Taking on the Challenges ................................................ pg. 2
Dig Safe ......................................................................... pg. 4
Seniors - Lower Electric Bill .......................................... pg. 4
Keeping Cool With Heat Pumps ........................................ pg. 5
VEC Community Fund Update ........................................ pg. 6
Co-op Community Solar ................................................ pg. 6
VEC Vehicles/Equipment for Sale ...................................... pg. 7

CO-OP LIFE is published quarterly by Vermont Electric Cooperative
42 Wescom Road, Johnson, VT 05656 • 802-635-2331 • Toll Free: 1-800-VEC-COOP
www.vermontelectric.coop
Co-op Life Committee: Carol Maroni, Rich Westman, Mark Woodward