

CURRENT

Fall 2020

For Our Member Systems, Employees and Friends



Harnessing Mother Nature creates diversified energy generation opportunities. Solar panels sit in a box ready to be installed at the Johnson Corner Solar Project in January 2020 in Stanton County while a semi-tractor delivers a blade to a wind farm under construction nearby.

Sunflower implements Renewable Energy Program

A new renewable energy program available to the retail customers of Sunflower Electric Power Corporation's members gives those customers a path toward achieving their renewable energy goals.

"As the trend toward utilizing more renewable energy resources continues across the country, many of Sunflower's members have retail customers who have expressed interest in increased utilization of renewable energy," said Corey Linville, vice president of power supply and delivery.

The program is a convenient way for our members' retail customers to claim a share of Sunflower's existing renewable energy resources: wind energy from Kansas wind farms; solar energy from the new Johnson Corner Solar Project; and even hydro-electric power.

Since it is Sunflower's members that have direct connection with retail customers, they

have primary responsibility for marketing the program. Sunflower's staff provide the support required to enroll customers in the program, implement the applicable billing changes and establish the process for passing through the Renewable Energy Credits (RECs) that those

"... many of Sunflower's Members have retail customers who have expressed interest in increased utilization of renewable energy,"

businesses claim.

Sunflower's Renewable Energy Program is structured in three tiers based on the size of the participant's energy demand. Customers

large and small can participate in the program and take advantage of the economy of scale associated with Sunflower's ability to participate in larger, utility-scale renewable energy projects. In the end, these cost savings and the renewable energy credits associated with green energy use are passed through to Sunflower's members' customers who participate in the program.

The program not only provides a means for participants to work toward achieving their renewable energy goals, but it also benefits the Sunflower system.

"By socializing participation across a broad group of customers, program participants can enjoy economies of scale they would not be able to achieve if they opted to install their own behind-the-meter renewable energy resource," Linville said. "It also allows our members and Sunflower to retain load that would be lost if those customers installed their own resources. It's a win-win."

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Sunflower continues with Phase 1 during pandemic

When COVID-19 swept across the nation in the second quarter of the year, Sunflower responded quickly and appropriately to keep electricity flowing. Sunflower implemented changes in work procedures and practices to best protect more than 400 Sunflower staff whose daily mission is to provide wholesale generation and transmission services to our members and the thousands of Kansans they serve.

Sunflower's Business Continuity Committee (BCON) has been meeting weekly since March to gather, review, and disseminate the recommendations from COVID-19 pandemic authorities, including the CDC, National Institute of Health, KDHE, and the Kansas Governor's office. Current pandemic statistics, particularly those in 10 counties where Sunflower has facilities, are analyzed to determine whether COVID-19 policies need to be changed.

The BCON also developed and implemented a four-phase Return-to-Work Plan, which outlines protocol and procedures required of staff in each phase. COVID-19 statistics—as well as availability of safety and cleaning supplies and other considerations—will help the BCON determine when Sunflower is ready to move from one phase to the next. The BCON not only evaluates the Plan to make adjustments if necessary but also reserves the right to roll back to a previous Return-to-Work phase if appropriate for the situation.

In a perfect world, it would take eight weeks to move through the four phases. However, Phase 1 was implemented mid-June, and pandemic conditions have not allowed moving to Phase 2.

Approximately 48 percent of Sunflower's staff are able to work remotely, and when Gov. Kelly issued a stay-at-home executive order, employees who could work from home were required to do so. Implementing Phase 1 meant that up to 25 percent of a facility's remote staff could return to working on site as long as pandemic protocols are followed. Social distancing, virtual meetings, required masks, limited travel, daily temperature testing, self-quarantines, and increased sanitization are all part of expectations in Phase 1.

A concerted effort has also gone into keeping Sunflower's system operators healthy. System control centers, facilities where the flow of energy is monitored 24-7, are professionally sanitized, and operators have been isolated and reorganized to ensure healthy crews. They also take their temperature three times per shift.

Sunflower will move to future phases when there is a downward trajectory of documented cases in Sunflower counties and a downward trajectory of positive tests as a percent of total tests in Kansas with a specific time frame. Each phase gradually increases the number of remote workers allowed to work on site and eases restrictions put in place to combat the spread of the pandemic.

"Sunflower is dedicated to keeping our members supplied with reliable energy and our staff as healthy as possible," said Stuart Lowry, Sunflower's president and CEO. "That means we won't move from one phase of the Return-to-Work Plan to the next unless we are confident eased restrictions won't negatively impact our members and staff. It might take awhile to

"... we are committed to doing what is right."

Future of utility-scale energy storage continues to evolve

By Maria Kanevsky

Energy storage technology is extremely versatile—it's small enough to fit in your phone, or large enough to power your entire home.

Many people are familiar with small-scale batteries for handheld devices, but utility-scale batteries take energy storage to a whole new level. The ability to store energy helps to ensure that energy demand meets supply at any given time, making electricity available when you need it.

The most widespread form of energy storage in the U.S. is through pumped hydropower, a form of mechanical energy storage. Pumped hydropower energy storage has been used for several decades now, and currently makes up about 97 percent of the country's utility storage capacity.

Energy is stored by pumping water uphill from a lower elevation reservoir to store in an upper water basin. When energy is needed, the water is allowed to flow through an electric turbine to generate energy, the same way it flows through a hydroelectric dam. This method is the cheapest way to store large amounts of energy, but it is largely dependent on the surrounding geography and any potential resulting ecosystem issues.

Batteries are quickly gaining attention as another form of energy storage. In 2018, the power capacity from battery storage systems in the U.S. more than doubled from 2010. The most common type of battery chemistry is lithium-ion because of a high-cycle efficiency and fast response time. Ninety percent of large-scale battery system capacity in the U.S. uses lithium-ion chemistry. Some less-common battery types for utility storage include lead acid batteries, nickel-based batteries and sodium-based batteries. However,

each chemistry has varying limitations. Beyond pumped hydropower and batteries, there are a few other forms of energy storage used at the utility scale: thermal, hydrogen and compressed air.



Energy storage plays a crucial role in incorporating renewable energy into our electric grid. Solar and wind energy are weather-dependent, so when energy demand is low, storing the excess energy makes it possible to use it later when demand is higher. This 250 kW/735 kWh battery storage facility is owned by North Carolina's Electric Cooperatives, in partnership with South River EMC. Photo Source: North Carolina's Electric Cooperatives.

Energy storage currently plays a crucial role in incorporating renewable energy into our electric grid. Solar and wind energy are weather-dependent, so when energy demand is low but energy supply is high from the sun or wind, storing the excess energy makes it possible to use it later when demand is higher. As renewable energy becomes more prevalent, energy storage will help to create a more resilient grid.

Although battery prices have been decreasing steadily over the last several years, energy storage can be expensive to attain. Currently, there are 25 gigawatts of electrical energy storage capacity in the U.S., and many experts expect capacity to grow.

As technologies improve, equipment costs decrease and more renewable energy is generated, there is a great potential for utility-scale energy storage to continue expanding in the coming decades.

Maria Kanevsky is a program analyst for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56 percent of the nation's landscape.

Our Mission:

To provide reliable, long-term power supply and transmission services to our members and the people they serve at the lowest possible cost consistent with sound business and cooperative principles.

Co-ops epitomize what it means to be local

By Paul Wesslund

We like the word local.

We like it because it's the nearby hardware store where we can get what we need. It's where we meet friends for coffee. It's the shop where they look us in the eye and smile. It's a word of warmth that makes us feel known.

Local also means your electric co-op. It's as local as you and your neighbors because you own it. It's grown and changed with you, possibly starting before you were even born. Because it's made up of you and your neighbors, it's as unique to each part of the country as you are. And it changes to help out with what's going on in your community, whether that means bringing electricity to farmsteads 80 years ago, providing the community with access to high-speed internet or helping to navigate COVID-19 social distancing today.

October was National Co-op Month, and so it makes sense to use this time of to recognize and celebrate the variety that is the essence of being local.

That local heritage for electric co-ops started in the 1930s with neighborly visits, often on horseback from one farm to the next, talking about the lights they could see in the city but didn't have themselves. They weren't likely to get those modern conveniences because no company saw a profit in stringing wires to power a few light bulbs in a remote farmhouse.

No such thing as a typical co-op

So, the local farmers took matters into their own hands. They pooled \$5 startup fees, organized member-owned, not-for-profit electric cooperatives, and convinced local politicians to create a federal loan program to help with the rest of the cost.

Today, 834 electric distribution co-ops provide electricity to more than 20 million businesses, homes, schools and farms, covering more than half the land in the United States. They employ 71,000 people and invest \$12 billion a year in local economies, generating five percent of the nation's Gross Domestic Product. Sunflower's six member-owners, which formed Sunflower to provide them with wholesale generation and transmission services, are six of those 834 co-ops,

Because electric co-ops are so uniquely local, it's hard to describe a typical co-op. They're big and small. The largest electric co-op serves nearly

350,000 members; the smallest, 113. Sunflower's smallest member serves 2,647 members, while our largest serves 21,599.

Another way to look at that variety is by the average number of members served by each mile of its power lines. The co-op with the densest population serves 78 members for each mile of line, and the most remote co-op averages less than one person per mile of line. Sunflower's members, which serve in more than 50 counties across central and western Kansas, average 5.9 members per mile of line.

While those numbers reflect the variety and uniqueness of who co-ops serve, our mission also matters.



Environmental Stewards

Electric co-ops are environmental stewards and do what is required to protect the health and environment of their members. We have reduced power plant emissions while at the same time ensuring reliable energy at the lowest possible cost.

Electric co-ops are also helping power the growth in alternative energy. Across the nation co-op solar capacity has more than quadrupled in the past five years, and seventeen percent of co-op electricity now comes from hydroelectric power, solar, wind and other renewable sources. In 2019, 14.2 percent of the energy that Sunflower provided our members came from our Power Purchase Agreements for renewable energy.

And now that we're all faced with the fallout from the effects of COVID-19, electric co-ops are again on the job as the virus changes everything from the national economy to how we say hello to our neighbors.

The world keeps changing, and electric co-ops will continue to adapt. Yes, each co-op's approach may differ, but each will do whatever it takes to adapt in ways that make the most sense for the people they serve. That's what it means to be a local electric co-op.

Paul Wesslund writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing

SPOTLIGHT ON COOPERATIVE CAREERS



Facilities Supervisor

Facilities supervisors work with employees and contractors to maintain our buildings, building systems and the surroundings at many of Sunflower's facilities. Facilities supervisors also design and coordinate planning and construction of new projects at Sunflower facilities.



"I really like the people here at Sunflower, always willing to answer a question or lend a hand. It is one of the primary reasons I applied to work here. I got to know some of the guys that worked at CRS several years ago, and their integrity, work ethic and willingness to help really stood out to me."

- Darren Metcalf, facilities supervisor








SUNFLOWER ELECTRIC POWER CORPORATION

A Touchstone Energy® Cooperative 

THE HEART OF GIVING

Beyond providing electricity, Sunflower has a long tradition of giving back. Sunflower employees are working to strengthen the communities they serve by investing their time and effort in education, volunteering at animal shelters, leading youth groups, and other programs that improve quality of life. This concern for community also includes volunteering and efforts to support local organizations that help those in need.

This past year, many of our employees volunteered their own time or utilized Sunflower's Community Service Leave (CSL):

-  American Red Cross Blood Drive
-  Preliminary Voting Volunteer
-  Law Enforcement Appreciation
Employees participated and donated to the Kansas Bikers Backing Our Blue Charity pancake feed and motorcycle ride fundraiser.
-  Grocery Deliveries
-  Elementary School Event Coordination
-  Running for elected offices and/or agreeing to fill open appointments in communities
-  Hospice Volunteer
-  Central Kansas Dream Center Volunteer
The Center offers programs feeding the hungry, supplying free clothing, pregnancy care, assistance to overcome life controlling issues, parenting classes, commodity distribution and so much more on a daily basis

Victory Electric

Celebrating National Co-op Month in October with Member Giveaways

Many small businesses, whether retail or restaurants, have had a tough year. Community members may be struggling as well due to shutdowns, reduction in work hours, or loss of jobs due to the pandemic. Giving back to the community is woven into the cooperative spirit and to help boost spirits, support local small businesses, and to bring the power of caring to the communities we serve, Victory celebrated National Co-op Month in October with a new Co-ops Love Local campaign.

Co-ops Love Local benefits 50 locally owned businesses and 50 community members through a giveaway of 50 gift certificates in the amount of \$50 each.

Drawings were held each Monday throughout the month of October.

Anyone who lives in the cooperative service area could enter the giveaway by 1) following Victory's Facebook page and commenting on the giveaway post each week in October OR 2) completing the form on Victory's website each week.



To be eligible to win, prize claimants had to be 18 years of age or older and reside in Victory's service territory.

"From serving our members to giving back to the community, this is what we do," said Jerri Whitley, Victory's vice president of communications. "It fits well with one of our seven core cooperative principles, Concern for Community."

The Dodge City Area Chamber of Commerce had recently rolled out the Love Local campaign to help support and revive local small businesses and the economy. Victory developed Co-ops Love Local in conjunction and in partnership with the Dodge City Area Chamber of Commerce campaign.

Each dollar spent at local, independent businesses returns three times more money to the local economy than shopping at a chain or mega online retailer. Local businesses are the heart and soul of communities.

Anyone interested in learning more about Co-ops Love Local can visit Victory's website at victoryelectric.net.

Being an electric co-op member IT PAYS

Victory retiring \$2.1 million capital credits, issuing payments to members

The Victory Electric Board of Trustees recently approved the retirement of \$2.1 million in capital credits. In December, \$563k will be paid to members who purchased electricity between 1995 and 1998. This capital credit refund reflects the contribution of capital to the cooperative during those years. Over time, those funds helped Victory stabilize rates and reduce the amount borrowed to build, maintain and expand the distribution service providing our members with safe, reliable power. It also helped to build and sustain the cooperative in an industry experiencing massive changes and technological advances. The board voted to retire the remaining \$1,537,000.

The Current is published three times per year for the member systems, friends and employees of Sunflower Electric Power Corporation.

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Our Members

