CIRCUITS

NEWS FOR DAKOTA ELECTRIC MEMBERS



The little girl didn't really want the sunglasses. After all, she wasn't even 2 years old. But Mom thought she looked adorable. "Oh my gosh," Mom laughed. "Look how cute she is!"



Lineman cutouts were a popular photo stop.

Dakota Electric Association's Member Appreciation Event drew 6,511 enthusiastic folks to the cooperative's 19th annual event at the Minnesota Zoo on July 28. Zoo admission was free to all Dakota Electric members and their families. Animal-themed sunglasses for the kids prompted many smiles and giggles.

Members explored robotic dinosaurs and animal exhibits, children splashed in the splash pad and families listened to music from the Blue Ox Jazz Babies – who weren't actual babies at all, come to find out. LED Lucy, Dakota Electric's mascot, was on hand for added fun. Many people enjoyed discounted tickets to the IMAX and watching birds soar through the sky at the popular Wings Financial World of Birds show.

As part of the event, Dakota Electric members donated 2,395 pounds of food and \$910 in cash. Since 1999, members have donated more than 15 tons of food and over \$10,000 to local food shelves.

"Our members are always very generous with their donations and that helps a lot of people living in this area," President and CEO Greg Miller said.

Dakota Electric is a not-for-profit electric cooperative and this event is the cooperative's way of showing appreciation to its members.

"It's fun to see so many people enjoying a free night at the zoo," said Miller.

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Upcoming events

Wind farm tours	Sept. 1 & 2
Labor Day - office closed	Sept. 5
Board Meeting	Sept. 29, 8:30 a.m.

September 2016





Greg Miller President & CEO

"smarter" grid technology will continue to provide more options for members and enable greater reliability and security.

Using technology to serve you even better

As president and CEO of your electric cooperative, I have the privilege of serving as co-chair of the Future Grid Committee at Great River Energy, Dakota Electric's wholesale power supplier. Our committee has been actively monitoring changes in utility models, best practices, new opportunities and the technology systems that make everything possible.

Technological advances are a key driver in the evolution of the electric utility industry. For years, Dakota Electric and Great River Energy have been laying the technological groundwork that will enable us to offer members more options and allow you to further customize your service in the future.

There are four key technology areas to consider:

Upgrading infrastructure

It begins with maintaining, updating and replacing critical telecommunications infrastructure to build a foundation for smarter energy and deliver much desired solutions and services to members. Advances in this "smarter" grid technology will continue to provide more options for members and enable greater reliability and security.

Automating meters

Dakota Electric is considering replacement options for our existing electric meters. New meters would fulfill an integral role in providing valuable data to Dakota Electric and our members. Automated metering functions using telecommunication networks allow cooperatives to accurately and efficiently monitor the electric system, improving our ability to prevent power outages or improve response time should an outage occur.

Managing data

Technologies also exist that use the automated metering data and can help monitor line losses, transformer overloads and power theft.

Responding to data

All of these technological improvements are

High electric bill? Find out why

The dog days of summer might be over, but you may still be feeling the effects this month on your electric bill.

Although this summer was not the warmest on record, we did see high daytime and overnight temperatures and high humidity. According to Dave Reinke, energy services manager at Dakota Electric, residential members are billed for their electricity a few weeks after the month ends. That

means members might not be billed for all of July's electric use until August or September.

"Electric bills tend to be higher in the summer because cooling and ventilation can use 20 to 50 percent of the energy in homes and businesses," said Reinke. "By the time you pay your bill, it can be hard to remember just how warm it was."

According to Reinke, central air conditioners can add \$50 to \$150 to an electric bill during a hot month. Members who ran a standard dehumidifier can see an increase of \$30 to \$50 per month. Sump pumps also add to your bill.

Dakota Electric wants you to use electricity as efficiently as possible. "Members should contact us if they're thinking about upgrading to more efficient heating and cooling equipment," said Reinke. "We can help them determine the best system for their needs and make sure they get the right rebates."

Contact the Energy Experts® at 651-463-6243.



aimed at one thing: making your service reliable and economical. For instance, a new demand response system will allow Dakota Electric to better adapt to changes in technology, consumer expectations and market forces. Electric utilities use these systems to manage the increase or decrease of energy use like those of you who may have your air conditioners controlled. These technologies help us to better understand the impact of demand response, strategically control offpeak electric loads and interconnect with other load control technologies, such as smart thermostats and Wi-Fi enabled devices.

Although Dakota Electric, along with the rest of the industry, has work to do and investments to make, years of planning and forward thinking have put us in an excellent position to serve our members well into the future. As change in the industry accelerates, and we evaluate which technologies to pursue to economically serve our members better, it is a great time to be a cooperative.



Members who qualify for Cold Weather Rule protection can sign up beginning Oct. 15

Are you struggling to pay your utility bills? Members can avoid disconnection or be eligible for reconnection between Oct. 15 and April 15 by following steps outlined by Minnesota's Cold Weather Rule.

Watch for your September bill statement mailed between Sept. 14 and Oct. 6. The bill will include a Cold Weather Rule brochure with more information on program details and contact information for agencies that provide utility payment assistance. You can also visit our website at www.dakotaelectric.com and click on Residential > Payment Options > Financial Assistance for more information.

The Minnesota Public Utilities

Commission also has details available at www.puc.state.mn.us.

Clean Power Plan's day in court delayed

Legal challenges to a new regulation affecting electric utilities will have to wait until fall to be heard in federal court.

The rule, known as the Clean Power Plan, would limit carbon dioxide (CO2) emissions from existing power plants. Each state was given a specific emission target that will contribute to a 32 percent drop in nationwide CO2 emissions, from 2005 levels, by the year 2030.

Dakota Electric's wholesale power provider, Great River Energy, operates electric generation resources to serve cooperative members. Great River Energy's Minnesota generation resources are primarily renewables and natural gas, and are not subject to the Clean Power Plan. In North Dakota, however, Great River Energy owns and operates three coal-based power plants that are covered by the new regulation. In July, Great River Energy announced plans to close one of the power plants, Stanton Station, by May 2017 due to economic reasons. This closure would result in a reduction of the organization's CO2 emission of approximately 10 percent.

The Court of Appeals for the District of Columbia Circuit on May 16 said oral arguments will be held Sept. 27 before a full panel of nine of the court's judges. Oral arguments had previously been scheduled to be heard by a three-judge panel on June 2.

The change in review from a three-judge panel to the full panel would eliminate a potential interim step before the litigation could reach the U.S. Supreme Court (since there would no longer be the option of appealing the three-judge decision to the full court).



Family saves on electric bill with roof-top solar panels

Dakota Electric's rebate program and federal tax credit make project financially feasible

It wasn't very sunny the day Mike Plutowski, Dakota Electric energy services representative, dropped by to chat with Ryan and Alissa Brixius about the solar panels installed on their Farmington home in April 2016.

The idea to put solar panels on their home came from Ryan's job with USDA Rural Development. "One of my duties is to analyze renewable energy projects," said Ryan. "I determine which projects are financially feasible. After seeing how solar systems work. I realized I have a lot of roof space that faces south and started looking at the numbers. I saw that Dakota Electric offers a solar rebate and then it all just made sense."

Citing cost as the most important consideration, Ryan said, "It had to make sense financially and we had to make sure we got a good deal on the loan. And it was important the system was sized correctly."

Residential solar systems must be sized properly to qualify for Dakota Electric's production-based rebate and meet interconnection requirements. The electricity the system produces above what the family consumes is fed back to the electric grid, for which the Brixius' receive the residential retail rate. So far the system has produced about 13 percent more electricity than the family consumes.

"I had to keep an open mind," said Alissa. "When Ryan first talked to me about solar panels, I thought it was a crazy idea. But once we started seeing the figures, it financially made sense. Also, we were a little intimated by what it was going to look like and what our neighbors would think. I imagined my entire roof filled with solar panels, but once it was done, there was tons of roof left up there. The panels really blend in."

"I was surprised by how rare it is to find a house that is suitable for solar," said Ryan. "It has to have a newer roof, has to be clear of shading and facing south, and you can't have a lot of vents and structures on the roof."

Alissa added, "What's really cool is that we can watch what's happening online, how much power we're making and using."

"We're very happy with our investment," Ryan continued. "Dakota Electric's rebate was what really put it over the edge, where the investment obviously made sense."

Doing the math

Total project cost \$24,400 30% federal tax credit - \$7,320 Dakota Electric rebate - \$3,250* Net cost \$13,830

*Dakota Electric's residential solar rebate

Rebate of \$0.50 per watt for installed capacity, not to exceed \$4,000. Payment is based on kilowatt-hour (kWh) production, as recorded by Dakota Electric's production meter. The rebate is credited on bills monthly at \$0.08 per kWh produced up to the rebate amount or 10 years, whichever occurs first.

Federal tax credit

A 30 percent federal tax credit for qualified systems placed in service by 12/31/2019. Check with your tax advisor.

Resources

U.S. Department of Energy: www.energy.gov National Renewable Energy Laboratory: www.nrel.gov Minnesota Solar Energy Industries Association: www.mnseia.org Center for Energy and Environment: www.mncee.org



Mike Plutowski, Dakota Electric energy services representative, speaks to Ryan and Alissa Brixius about the output from the solar panels on their Farmington home.

Energy & safety education for kids

It's back-to-school time, and if you're a teacher looking to bring energy education into the classroom, check out the resources Dakota Electric has available!

Safety Programs

To help keep children safe around electricity, Dakota Electric offers two safety programs. Play It Safe Around Electricity is designed for children in preschool to third grade. Dakota Electric's power line safety demonstration programs are available for children ages 10 and older and presented by a former power line specialist. Call Ann at 651-463-6192 for more information.

Speakers Bureau

Dakota Electric has a speakers bureau that presents to schools, Rotary clubs, chambers of commerce and other community organizations on a variety of energy-related issues, including power line safety, renewable energy and energy efficiency. LED Lucy is also available for community events. Call Brenda at 651-463-6234 for more information.

Touchstone Energy® Kids Zone

The Touchstone Energy Kids Zone is a great place for children to learn more about electricity. The site includes games, videos and more to teach children about energy safety, renewable energy and helping their family create a more energy-efficient home. Visit www.kidsenergyzone.com.



Assistance for military service personnel

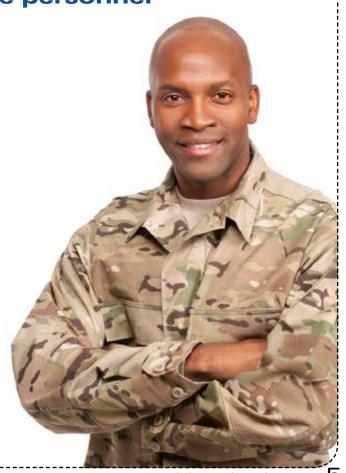
If a member is ordered into active duty, for deployment or for a change of duty station, Minnesota law may protect these military personnel and their families from shutoff if they cannot pay their utility bills in full.

How to apply

Call 651-463-6212 to get an application and set up a payment plan. You must keep your payment plan to qualify for protection.

Payment plans

- If your household income is below the state median household income, pay 10 percent of your household's gross monthly income toward your gas/electric bill; or
- If you receive energy assistance, pay 10 percent of your household's gross monthly income toward your gas/electric bill; or
- If your household income is above the state median household income, make and keep a payment plan.







Paid Advertisements: For more information about advertising in Circuits call 651-463-6270.







Circuits Quick Clips

Visit Electropolis for history, science behind city's electrification

Dakota Electric's wholesale power supplier, Great River Energy, is a sponsor of a new exhibit at The Bakken Museum in Minneapolis titled "Electropolis."

As part of this sponsorship, our members can take advantage of a buy-one, get-one-free admission deal by clipping out the coupon below and presenting it at the museum's visitor services desk.

Electropolis is an exhibit on electricity in Minneapolis that combines science and history to engage children ages 4-8 and their families in educational play. It features a variety of fully-interactive stations where children can light up and power the Foshay Tower and also learn about circuits by connecting and lighting up a small city.

Electropolis presents young museum visitors with a combination of "how things were" and "how things work," framing basic principles of electricity within the history of electrification in Minneapolis.

The Bakken Museum, located at 3537 Zenith Ave. S., Minneapolis, is open from 10 a.m. to 5 p.m. Tuesday through Saturday. Visit thebakken.org or call 612-926-3878 for more information.

BUY ONE GET ONE FREE ADMISSION TO ELECTROPOLIS

At The Bakken Museum

Dakota Electric Association

Name of cooperative Valid through October 2016

Redeem at The Bakken Museum visitor services desk. Buy one admission and get one free admission of equal or lesser value.

Limit 1 coupon per household. Not valid with any other offers or discounts. Not for cash redemption.





The Bakken Museum - 3537 Zenith Avenue South - Minneapolis, MN 55416 - thebakken.org



From LED lighting to programmable thermostats to off-peak water heaters and more, Energy Wise MN homes feature efficient home solutions that help maximize the value of electricity without sacrificing a single degree of comfort.

Visit these Energy Wise MN homes on the Fall Parade of HomesSM Sept. 10 - Oct. 2

McWilliams & Associates 18230 Justice Way, Lakeville

- Electric thermal storage water heating
- Cycled Air Conditioning®
- Programmable thermostat
- **LED** lighting

Country Joe Homes 19738 Holdingford Way, Lakeville 12886 Frost Point Court, Apple Valley

- Electric thermal storage water heating
- Cycled Air Conditioning®
- Programmable thermostat
- LED lighting

ENERGY WISE 🚻 MN

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Look up for hazards during harvest

Safety is of the utmost concern to Dakota Electric. We urge farmers to take the following steps to prevent accidents and injury.

- Do not operate equipment under a power line in a manner that would cause contact or near-contact with the wires.
- · Do not lift, elevate, build or pass under a power line any object,



implement or vehicle that may make contact or near-contact with the wires.

- Equipment that can be extended, such as a stack mower or grain elevator, requires the utmost care when in the vicinity of a power line.
- · Slow down when working near power poles; do the edge of the field by the poles in the daylight and leave some extra safety space.
- To prevent contact with overhead power lines, all equipment, antennas and people should stay at least 15 feet away from any power line wire.
- If you hit a power line or pole with your equipment, stay in the cab and call 911.
- If you see a broken power line, do not touch it. Stay away from it and call 911.

Contact Us

Member service & drive-up window 7 a.m. – 7 p.m. Monday - Friday 651-463-6212 or 1-800-874-3409 Minnesota Relay Service 711

Lobby 7 a.m. – 4:30 p.m., Monday - Friday 4300 220th Street West, Farmington, MN 55024

24-hour outage & emergency service 651-463-6201 or 1-800-430-9722

Underground cable locations Gopher State One Call 811 or 651-454-0002 or 1-800-252-1166

Tree trimming & street lights 651-463-6287

Dakota Electric is an equal opportunity/ affirmative action employer

www.dakotaelectric.com customerservice@dakotaelectric.com



Program information and offers in this newsletter are subject to change without notice.