

CIRCUITS

NEWS FOR DAKOTA ELECTRIC MEMBERS



Dakota Cares committee (L-R): Bernie Kolnberger, Dave Reinke, Cherry Jordan, Jackie Bauer, Julie Simonsen, Corey Willert, Susan Strong and Tom Riste. Not pictured: Mel Belschner

Dakota Electric employees raise record amount for charities

In 2017, Dakota Electric Association and its employees raised more than \$29,000 for charities — the most ever — through its employee-led program, Dakota Cares.

Each year Dakota Electric employees hold a variety of fundraising events and a pledge drive to bring in donations for three charities: United Way (\$7,726), Community Health Charities (\$12,894) and the Fallen Linemen Organization (\$8,467).

"We could not have done this without the hard work of the committee and the generous and caring people of Dakota Electric," said Julie

Simonsen, Dakota Cares committee chair.

Board members, employees and others have participated in fundraising events such as a sporting-clay fun shoot, silent auctions, special meals and more. In addition, employees have the option of donating through payroll deduction or making a one-time donation.

"The employees really stepped up this year," said President and CEO Greg Miller. "It's so nice we can raise a significant amount of money to support these great causes. My thanks to the committee for all their hard work."

10 Quick Tips to Avoid High Winter Bills



Seal air leaks and insulate well to prevent heat from escaping and cold air from entering your home.



Reduce waste heat by installing a programmable thermostat. Set it and forget it!



Turn off lights when not in use.



Lower your water heater temperature. The Dept. of Energy recommends using the warm setting (120 degrees) during fall and winter months.



Unplug electronics like kitchen appliances and TVs when you're away.



Open blinds and curtains during the day to allow sunlight in to warm your home.



Close blinds and curtains at night to keep cold, drafty air out.



Use power strips for multiple appliances, and turn off the main switch when you're away from home.



Wash clothes in cold water, and use cold-water detergent whenever possible.



Replace incandescent light bulbs with LEDs, which use at least 75 percent less energy.

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Upcoming events

Commercial Member Meeting	Jan. 18
Board Meeting	Jan. 25, 8:30 a.m.

January 2018



Electric vehicles gaining momentum

Stephanie Pederson is passionate about electric vehicles and can help current/prospective EV owners with questions about Dakota Electric's charging programs.

Tell us a little bit about yourself.

I am in my second year at Dakota Electric working as an energy services representative. I have a B.S. in Business Administration and a minor in Natural Resource Management from North Dakota State University. I have been interested in all things electric since high school, and it is exciting to be part of such a rapidly transforming industry!

Describe your role at Dakota Electric.

Our energy services team does a combination of business and residential account management and energy auditing, conservation improvement programs, demand management, education and outreach events. The best part of my job is working with our residential members who are interested in their energy consumption and how they can make it as clean and efficient as possible.

Why are you excited about electric vehicles (EVs)?

Zero local emissions (for battery-only vehicles), lower maintenance and fuel costs, and a quieter, smoother driving experience are all reasons why these cars are a great opportunity!

Electric vehicles are typically charged overnight

when a higher percentage of the energy on the grid is renewable due to wind power being more abundant at night. That is why electric vehicles are beneficial to utilities as well. They are a consistent load that can be configured to come on during off-peak demand hours when our cost to purchase electricity is much lower.

You recently published a short survey on our website regarding electric vehicles. Why did you do it and what did you learn?

We created the survey to gauge interest in EVs and learn more about the concerns and desires members have about electric vehicles and charging technologies. Of the 156 respondents,

62 either own an EV or have a reservation on order for one. The biggest concern among those who have not purchased an EV is range anxiety and lack of charging infrastructure. And the most surprising takeaway from the survey was that 36 percent of the respondents who currently have an electric vehicle are not participating in one of our off-peak charging programs.

What do current/prospective EV owners need to know about Dakota Electric's charging programs?

We offer two ChargeWise EV charging programs — storage and time-of-use. The storage program offers the lowest-cost off-peak electricity for charging an EV but the hours available are the most restrictive (11 p.m. - 7 a.m.). The time-of-use program offers the most flexibility, allowing members to charge

their EV whenever they need to throughout the day. However, a special meter is installed that allows the rate to fluctuate based on the time of day the EV is charged. And for those who want to guarantee they are charging their EV with 100 percent wind energy, we offer the Revolt program.

How has EV interest grown among Dakota Electric members over the past few years?

I've seen the interest really take off, especially in the last year. Since this time last year, our energy services staff has been receiving an EV-related call every day!

What are some common misconceptions about EVs among prospective buyers?

One big misconception is that it's going to take a lot of money to install an EV charger in your home. The cars come with a Level 1 trickle charger, and if you want to install a 240v outlet in your garage for a Level 2 fast charger, installation costs can average between \$500-\$1000. Members should also know that Dakota Electric offers a \$500 incentive for installing an EV charger on our ChargeWise off-peak program. This rebate



Stephanie Pederson is pictured here in the cooperative's all-electric Ford Focus. The energy services staff use the vehicle for daily appointments to member homes and businesses. The vehicle is powered by 100 percent wind energy in the co-op's Revolt program.

can help offset a substantial portion of the installation cost. We are working with area dealerships to educate sales staff about our EV charging programs and the installation costs of a Level 2 charger.

Talk a little bit about the EV owners group you participate in and what you hope to accomplish.

I joined the Minnesota Plug-In Vehicle Owners' Circle, which is a very active group of EV owners that meet every few months to help with educational events across the state. The group is extremely knowledgeable about EVs! If anyone is interested in purchasing an EV, I recommend attending a meeting and talking with the group members who likely own the car you are interested in buying. You can find more information about their meetings and other great EV resources at PlugInConnect.com. The group also attends Dakota Electric's Energy Trends Expo every year. Watch for more information about that event this spring.

What are some things Dakota Electric will be doing in the future to educate the membership about EVs?

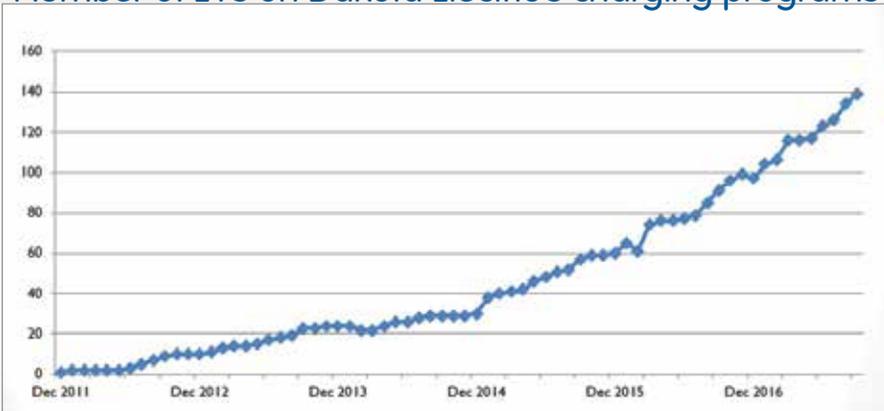
Beyond having EVs on display at the Energy Trends Expo, we are hoping to do a ride-and-drive event this summer or fall in conjunction with Drive Electric MN. We will be present in the Electric Room at the Twin Cities Auto Show again this winter, and we will continue to include EV information and news in our *Circuits* newsletter.

What sorts of trends are you seeing with EVs and what does the future hold?

I truly believe these vehicles are here to stay and ownership will continue to grow. We expect to see longer range in the second generation EVs, as well as more automation technology. The price per kW is dropping rapidly as well. According to estimates, an EV and a comparable make and model internal combustion engine vehicle should be nearly the same price by 2025.

If you own an EV, or are considering buying one, contact the Energy Experts® at 651-463-6243 for more information about Dakota Electric's charging programs.

Number of EVs on Dakota Electric's charging programs



Participation in Dakota Electric's EV charging programs has increased steadily over the last six years. As of September 2017, Dakota Electric had 139 EVs participating in one of its charging programs, and that number is likely higher now. Year-end numbers were not available as of press time.

Applications being accepted for the 2018 NRECA Youth Tour

Dakota Electric will send five local high school juniors or seniors to Washington, D.C. as part of the National Rural Electric Cooperative Association's (NRECA) Youth Tour.

This year's trip will take place June 9-14 and is sure to be an experience of a lifetime.

- Join hundreds of young people from across the country.
- Visit historic monuments and museums.
- Meet with your U.S. representatives and senators.

How to apply

Visit www.dakotaelectric.com/community/education-programs to download an informational brochure and print an application, or ask your high school guidance counselor for an application.

Application deadline is Feb. 22. Students must be available for an in-person interview in mid-March. Applicant's household must be a member of Dakota Electric Association.



2018 Energy-Efficiency Rebates

Members can view complete rebate details and print a rebate application by visiting the Programs & Rebates tab at www.dakotaelectric.com, then choosing For Your Home or For Your Business. Funds are limited and available on a first-come, first-served basis and are subject to change without notice. For more information, call the Energy Experts® at 651-463-6243. Watch for your residential rebate booklet or commercial program guide arriving in the mail soon!

Heating & Cooling		
Heat Pump Systems	Tuneup	\$25
	Ductless air-source heat pump	\$300
	Air-source heat pump SEER 14.5-16+	\$480 - \$630
	Ground-source heat pump	\$400 / ton
Central Air Conditioner	Tuneup	\$25
	Central air conditioner SEER 14.5-16+	\$180 - \$330
Cycled Air Conditioning®	Monthly bill credit for participating heat pump systems and central air conditioners.	\$13 ea. June, July & Aug.
Electric Thermal Storage Heating System	Installed on Energy Wise® storage program.	\$50 / kw
ECM Furnace Motor	Purchase new furnace with ECM motor or add it to existing furnace.	\$50
Appliances		
Dehumidifier	Must be ENERGY STAR® rated.	\$25
Refrigerator	Must be ENERGY STAR rated. Requires recycling of the replaced unit.	\$75
Freezer	Must be ENERGY STAR rated. Requires recycling of the replaced unit.	\$75
Working Refrigerator/Freezer Harvest (recycling only)	Does not require purchase of a new ENERGY STAR appliance; must be in working order.	\$75
Electric Clothes Dryer	Must be ENERGY STAR rated.	\$25
Water Heaters		
Heat Pump Water Heater	Must be ENERGY STAR rated.	\$500
Electric Water Heater	New construction installation: high-efficient, large capacity electric water heater controlled on Energy Wise off-peak program.	\$400
	Replacement of non-controlled electric water heater with high-efficient, large capacity electric water heater controlled on Energy Wise off-peak program.	\$400
Interruptible Electric Water Heating	Installed on Energy Wise interruptible program.	\$100
Lighting		
LEDs	ENERGY STAR rated (encouraged)	Up to \$2 / bulb
LED Yard Light (member-owned)	LED light fixture	\$30
Misc.		
Pool Pump Variable Speed Motor	Must be ENERGY STAR rated.	\$200
Heat Pump Pool Heater	Coefficient of Performance (COP) of 5.0	\$400
Electric Vehicle Charger Installation	Level 1 and 2 chargers qualify if installed on one of our Charge Wise off-peak programs.	Up to \$500
Solar Installation	Monthly payment based on kilowatt-hour (kWh) production as recorded by Dakota Electric's production meter.	\$0.50/watt of installed solar, not to exceed \$4K.

Commercial & Agricultural Rebates			
Custom EnergyGrant® For unique, industry-specific projects not covered by other rebates, such as:	<ul style="list-style-type: none"> • Energy management systems (EMS) • Energy recovery ventilators 	<ul style="list-style-type: none"> • Data center efficiency improvements • Process improvements 	
Lighting	<ul style="list-style-type: none"> • New construction lighting 	<ul style="list-style-type: none"> • Custom lighting 	<ul style="list-style-type: none"> • Retrofit lighting upgrade
Heating, Cooling and Ventilation	<ul style="list-style-type: none"> • Ground-source heat pumps • Cooling equipment, i.e. chillers 	<ul style="list-style-type: none"> • Air-source heat pumps 	<ul style="list-style-type: none"> • Central air conditioners
Agricultural	<ul style="list-style-type: none"> • Energy-efficient lighting • Dairy programs 	<ul style="list-style-type: none"> • Ventilation fans • VFD for irrigation systems 	<ul style="list-style-type: none"> • Agricultural audits
Other	<ul style="list-style-type: none"> • Variable frequency drives for motors • Energy audits and building studies 	<ul style="list-style-type: none"> • Electric forklifts • ENERGY STAR commercial kitchen equipment 	

Energy efficiency for the modern family and its many devices

If you are struck by the amount of screens, remotes, gaming controls, charging stations and cords that have become fixtures in your home, you are not alone. The typical American family is well connected and owns a variety of electronic devices. According to the U.S. Energy Information Administration, appliances and electronics now account for 60 percent of electricity consumption in American homes.

"This is the first time in my over 20-year career in the electric utility business I have seen the consumption shift," said Dave Reinke, Dakota Electric energy services manager. "It used to be that heating and cooling was the largest amount of electricity consumption in homes. It just goes to show how the dependence on these new appliances and technologies has really shifted energy consumption."

Consumer electronics coupled with the growing array of smart home appliances and technology have slowly but steadily changed our homes and lifestyles. The increased reliance on our many devices has new implications for home energy use and efficiency.

Using smart technology to manage energy savings

So how can we save energy when we are using more electronic devices than ever before? The answer may lie with some of those same electronic devices that have become indispensable to modern living. In many cases, energy savings is a touchscreen away as more apps enable you to monitor energy use.

From the convenience of your mobile device, smart technologies can maximize your ability to manage electricity use across several platforms — controlling your thermostat, appliances, water heater, home electronics and other devices. One

of the easiest ways to make an impact on energy efficiency is with a smart thermostat, like Nest models. Using your mobile device, you can view and edit your thermostat schedule and monitor how much energy is used and make adjustments accordingly. For example, program your thermostat for week day and weekend schedules so you are not wasting energy when no one is home.

You can also purchase ENERGY STAR®-certified appliances. Many new appliances include smart-technology features such as refrigerators that tell you when maintenance is required or when a door has been left open. New washers, dryers and dishwashers allow you to program when you want the load

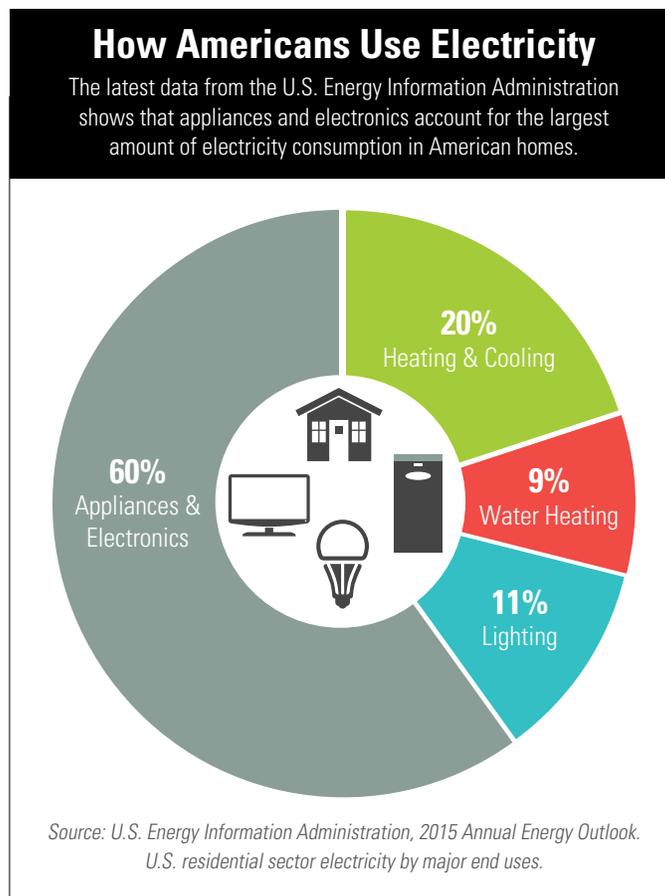
to start, which means you can program your task for off-peak energy hours.

"Old school" energy savings for new devices

Of course there are the time-tested "old school" methods of energy efficiency that can be applied to the myriad of household electronic devices and screens. Computers, printers, phones and gaming consoles are notorious "vampire power" users, meaning they drain energy (and money) when not in use. If items can be turned off without disrupting your lifestyle, consider plugging them into a power strip that can be turned on and off or placed on a timer.

While modern life involves greater use of technology, your best resource for saving energy and money remains with your local electric co-op.

"Regardless of your level of technical expertise with electronic devices, we can provide guidance on energy savings based on your energy use and other factors," said Reinke. "Call us at 651-463-6243. Our Energy Experts® are here to help."



ENERGY WISE  **MN**

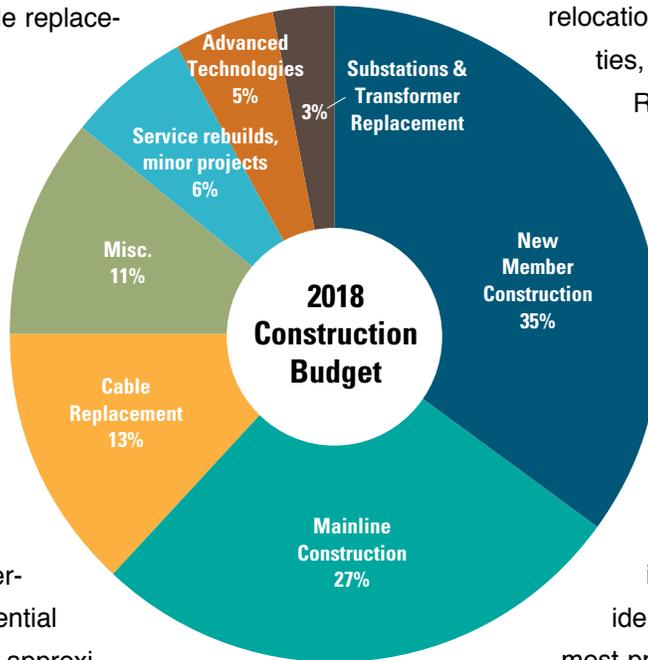
If you are looking to buy energy-saving products for your home, check out EnergyWiseMNStore.com. The site features wi-fi programmable thermostats, advanced power strips, LED light bulbs and more! Many products include an instant rebate for Dakota Electric members.

2018 construction plans

Dakota Electric's board of directors recently approved the 2018 construction budget and work plan. This year's plan is similar to years past with the majority (75 percent) of time and money spent on new member construction, mainline construction and underground cable replacement.

New member construction

While new member construction continues to be well below levels prior to the economic downturn, Dakota Electric has seen a gradual increase since 2011 that is expected to continue over the next few years. In 2018, the cooperative estimates construction of new lines and connection of service to more than 1,300 new residential and commercial accounts, which is approximately 100 more than last year.



Mainline construction

Seventy percent of the mainline construction budget is due to existing distribution facility moves for road construction. Three significant roadway projects, which will require the relocation and/or rebuild of mainline facilities, include County Road 86 near Castle Rock, Kenyon Avenue in Lakeville and Kenwood Trail in Lakeville.

Underground cable replacement

Another major component of the construction budget is the replacement of aging underground cable that is starting to fail. Cable installed in the 1960s and 1970s is reaching the end of its useful life. The goal each year is to identify and replace aging cable in areas most prone to failure in an effort to improve the reliability and integrity of the system.

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

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How much energy are you really using?

Now that the holidays are behind us, are you curious to know how much energy your new appliances and electronics may be using? There's an easy way to find out!

Dakota Electric provides 27 Kill A Watt™ meters through Dakota County's library system. Members may check out a meter to measure power consumption of appliances and electronics to determine the actual cost of power consumed.

Simply follow the instructions and plug the meter into a regular 120-volt outlet and plug an appliance into the meter. The unit will project the cost of continued use of an appliance in time periods of hour, day, week, month and year.

Library locations and hours available at www.co.dakota.mn.us/library



Your Electricity 2017 brochure available

The most recent information on how the electric generation, transmission and distribution systems work, plus the sources, costs and emissions of fuels used in meeting the needs of Dakota Electric's members, is available by visiting dakotaelectric.com/member-services/member-resources/.

Members may also request to have a copy of the brochure mailed to them by calling 651-463-6212.



Beware of utility scams

Any call from someone claiming to be from Dakota Electric and requesting bank account or credit card information to avoid disconnection of service is a scam. These people are not associated with Dakota Electric.

What to do if you think a scammer has contacted you:

- If you are contacted by phone, hang up immediately and call Dakota Electric at 651-463-6212 to verify your account status.
- If someone is at your door requesting payment, ask to see a Dakota Electric photo ID and have the person wait outside while you call us at 651-463-6212 to verify your account status.
- If you believe you were targeted for a scam, report it to your local police department.

If your account is past-due, Dakota Electric will:

- Send a Disconnection Notice by U.S. Mail before taking further action.
- Never instruct you to purchase a pre-paid credit card.

If you have any doubts, "slam" the scam

If you have any doubts about the authenticity of a caller or person at your door, hang up immediately or ask the person to wait outside, and call Dakota Electric at 651-463-6212. DO NOT use a phone number given to you to verify your account status. Dakota Electric provides many options for payment and never requires a pre-paid credit card.



Notice to cogenerators

In compliance with Minnesota Rules Relating to Cogeneration and Small Power Production, Chapter 7835, Dakota Electric Association is required to interconnect with and purchase electricity from cogenerators and small power producers that satisfy the conditions of a qualifying facility.

Dakota Electric will provide free information to all interested members regarding rates and interconnection requirements. An interconnection application is required and subject to approval from the cooperative before a qualifying facility interconnects and operates in parallel with the cooperative's distribution system.

Any disputes over interconnections, sales and purchases are subject to resolution by the Minnesota Public Utilities Commission.

For more details

Visit www.dakotaelectric.com/renewable-energy > Connect Your Own System or call Mike Plutowski at 651-463-6180.



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Happy New Year!

SAVE NOW TO SAVE LATER.

With rebates on everything from LED light bulbs to ground-source heat pumps, it's easy and cost effective to make your home more energy efficient. Being an electric co-op member pays off.

See page 4 for a list of this year's energy-efficiency rebates. Contact Dakota Electric at 651-463-6243 or visit dakotaelectric.com for more information.



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

REBATES SOME
UP TO **\$630**

EnergyWiseMN.com