

Central Electric

Your Touchstone Energy® Partner 

Cooperative Connections

JULY 2016 VOL. 17 NO. 3



Wagons Ho!
Exploring Western Heritage

P8-9

The Power of Volunteering



Ken Schlimgen
General Manager

Have you ever been asked to volunteer? I think everyone understands that finding time to give back to the community with your time, talent, or resources improves the lives of others. But did you know it also improves your own? It is the secret weapon of successful, happy people. It is also said that a group of volunteers can change the world.

Last year, your cooperative asked you to voluntarily round up your electric bill to the nearest whole dollar amount

for a program called “Operation Round-Up”. The additional money is placed in a fund at Central Electric to be donated to area community projects. We also asked for members to volunteer their time to serve on the Operation Round-Up Board of Trustees. Those volunteers on the Board are Carla Amick, Jill Ekstrum, Connie Hattervig, David Jorgenson, Scott Kolousek, Greg Kotas, Dale Peters, Ellen Speck, and Director-At-Large Jim Headley.



The Board of Trustees will meet for the first time this month to review the guidelines and application forms for the Operation Round-Up funds. After the first meeting, applications for funds will be made available. This fall, the Board of Trustees will determine what projects and communities will benefit from the Operation Round-Up fund.

Individually, participation in Operation Round-Up adds about \$6 annually to a member's electric bill. As a group, there is almost \$1,900 donated to the Operation Round-Up fund each month. Not quite enough to change the world, but it is enough to make a difference to our area communities.

Your cooperative has also had a group of members volunteering the control of their water heaters to help hold the line on the cost of electricity. Some members have been volunteering in this manner since 1984. Today, Central Electric members are allowing 4,100 water heaters to be turned off and on during peak electrical periods. Almost all who participate do not even realize their water heater is being turned off and on.

Individually, a water heater connected to our load management equipment helps the cooperative save almost \$9 each month.

Individually, a water heater connected to our load management equipment helps the cooperative save almost \$9 each month. Individually this is not a lot of money, but as a group, it adds up to an annual savings of over \$430,000. This is \$430,000 that does not have to be added to the electric bills—money that does not have to be collected from you, your neighbor, your friends or those living on a fixed income.

If you have an electric water heater, I encourage you to volunteer and allow your cooperative to control it during peak times. We do recommend the water heater to be at least 50 gallons in size to minimize the chance of any inconvenience to you for participating. Also remember that participation is voluntary, and you can end your participation at any time.

The power of volunteering does make a difference each and every day. Individually, the control of a single water heater won't make a big impact to your cooperative's bottom line, but as a group, our efforts pay big dividends. It can be that resource you are willing to volunteer to help your cooperative avoid paying more than necessary for our electric power.

Central Electric Cooperative Connections

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Co-op News

Office Closed Monday, July 4

Our office will be closed Monday, July 4th in observance of Independence Day.

In case of an outage,
call our after-hours
dispatch at
800-477-2892.

We wish our members
a safe holiday!



Office Hours
Monday through Friday,
8:00 a.m. to 4:30 p.m.

24 - Hour Service
1-605-996-7516 or
1-800-477-2892

www.centralec.coop



Mission Statement
Providing Reliable Energy and
Services at a Good Value

This institution is an equal
opportunity provider and
employer.

Energy Efficiency Tip of the Month



Use small electric pans, toaster ovens or convection ovens for small meals rather than your stove or oven. A toaster or convection oven uses one-third to one-half as much energy as a full-size oven.

Source: energy.gov

Air Conditioner and Fan Safety

Hot weather brings increased use of air conditioners. Contact with electric current from air conditioners accounts for a significant number of electrocutions and electrical injuries each year.

ESFI recommends that you always contact a qualified, licensed electrician to perform any electrical work in your home, including the installation and services of air conditioning and other cooling equipment.

Facts and Statistics

- According to the CPSC, 15 percent of consumer-product related electrocutions are attributed to large appliances. These electrocutions occur most commonly while someone is attempting to service or repair the appliance.

- In 2006, an estimated 33,500 injuries were reported to hospital emergency rooms as involving air conditioners, fans, humidifiers, dehumidifiers, air purifiers, and heat pumps. The leading types of injuries were laceration (14,890), contusion or abrasion (6,110) and strain or sprain (4,430).

- In 2006, air conditioning or related equipment was involved in an estimated 7,400 reported U.S. home structure fires, with associated losses of 270 civilian injuries and \$200 million indirect property damage.

- In 2003 to 2006, the 7,000 reported home structure fires per year involving air conditioning and related equipment included 2,400 per year involving central and room air conditioners specifically and 3,700 per year involving fans.

- In 1995 to 2003 (excluding 1999, which was not reported), there were 11.5 electrocution deaths per year involving air conditioners and 4.3 electrocution deaths per year involving fans.

Cooling Equipment Safety Tips

- Keep safety in mind when selecting cooling equipment for your home.
- Have a qualified, licensed electrician install and service any electrical equipment in your home.
- Have electric-powered equipment inspected and maintained regularly for safety.
- Make sure your equipment has the label showing that it is listed by a recognized testing laboratory.

Source: *esfi.org*

Tell Congress to Extend the Geothermal Tax Credit Today

Across the nation, electric cooperatives and public power districts help our member-owners save energy and money by promoting the use of geothermal heat pumps. These super-efficient heat pumps can cut home heating and cooling bills by up to 70 percent. Many member-owners install geothermal units with assistance from the geothermal tax credit. The tax credit expires at the end of this year, jeopardizing the continued use of this energy efficient technology.

COOPERATIVE ACTION NETWORK

Co-ops and their members are asking Congress to extend the credit. Go to the Cooperative Action Network's action.coop

and ask your Member of Congress to extend this credit by supporting H.R. 5167.

The Cooperative Action Network is the advocacy hub for America's electric cooperatives. It's more important than ever to band together and promote common sense solutions to the problems facing our nation.

Join our growing grassroots army today and become part of our team of more than one million advocates around the nation. By signing up, you'll maximize your voice as you hold elected officials accountable and promote the importance of electric cooperatives across the nation.

The Cooperative Action Network is the grassroots arm of the NRECA – the national service organization for more than 900 not-for-profit rural electric cooperatives that provide electricity to more than 42 million consumers across 47 states. Together, rural electric cooperatives serve 75 percent of the nation's landmass and account for approximately 12 percent of total electricity sales in the United States.

Kids' Corner Safety Poster

"Don't play by wires."



Alandra Kontz, 10 years old
Alandra was 10 years old when she submitted this safety poster. She is the daughter of Kelly and Val Kontz, Pipestone, Minn. They are members of Sioux Valley Energy, Colman, S.D.

Kids, send your drawing with an electrical safety tip to your local electric cooperative (address found on Page 3). If your poster is published, you'll receive a prize. All entries must include your name, age, mailing address and the names of your parents. Colored drawings are encouraged.

Delectable Desserts



Anzac Biscuits

- | | |
|--------------------------|---------------------------------|
| 1 cup quick cooking oats | 1/2 cup butter |
| 3/4 cup flaked coconut | 1 T. golden syrup (honey works) |
| 1 cup all-purpose flour | 1 tsp. baking soda |
| 1 cup sugar | 2 T. boiling water |

In a bowl, mix together oats, coconut, flour and sugar. In a small saucepan over low heat, melt butter and syrup. Dissolve soda in boiling water; add to melted butter and syrup. Add butter mixture to dry ingredients. Drop by teaspoonfuls on greased cookie sheets (or baking paper). Bake at 350°F. for 18 to 20 minutes.

Clarice Roghair, Okaton

Apple Dumplings

- | | |
|--------------------------------------|-------------------------------|
| 1 apple, cored and cut into 8 pieces | 2/3 cup sugar |
| 1 (8 oz.) can crescent rolls | 8 pats butter |
| Cinnamon | 1 cup Mountain Dew soft drink |

Place 1 apple slice on widest end of crescent roll; roll up starting at wide end. Pinch and seal shut. Place in an 8x8-inch pan. Continue until all slices are used. Sprinkle with cinnamon and sugar. Top with a pat of butter on each. Pour Mountain Dew over all. Bake at 350°F. for 45 minutes.

Velma Schmitz, Bonesteel

Earthquake Cake

- | | |
|---------------------------------|---------------------------------------|
| 1 box German chocolate cake mix | 1 (8 oz.) pkg. cream cheese, softened |
| 3 eggs | 1 stick butter, softened |
| 1-1/3 cups water | 2 cups powdered sugar |
| 1/2 cup oil | 1 tsp. vanilla |
| 1 cup coconut | 1 pkg. chocolate chips |
| 1/2 cup chopped walnuts | Whipped topping |

Lightly spray a 9x13-inch pan with cooking spray. Put coconut and nuts in bottom of pan. Mix cake mix according to package directions. Spread batter over nuts and coconut. In a bowl, mix cream cheese, butter, vanilla and powdered sugar until fluffy. Spread over batter. Sprinkle with chocolate chips. Bake at 350°F. for 50 minutes. Cool. Serve with Cool Whip. When this comes out of the oven, it looks like it has exploded (it does not actually explode, so it won't mess up your oven!). That's why it's called an Earthquake Cake. The cream cheese mixture sinks and the nuts and coconut rise.

Rowena Wipf, Doland

Spiced Triple Berry Shortcakes

- | | |
|-----------------------------|--|
| Berry Filling: | Spiced Shortcakes: |
| 2 cups sliced strawberries | 1-1/2 cups reduced fat baking mix |
| 1 cup blueberries | 3 T. sugar |
| 1 cup raspberries | 3/4 tsp. ground cinnamon |
| 2 tsp. pure vanilla extract | 1/2 tsp. ground ginger |
| 1/3 cup sugar | 6 T. fat free milk |
| 1/2 tsp. ground cinnamon | 2 cups thawed fat free whipped topping |
| 1/4 tsp. ground ginger | |

For filling, mix berries and vanilla in large bowl. Mix sugar, cinnamon and ginger in small bowl. Sprinkle over berries; toss to coat well. Let stand 30 minutes to allow berries to release their juices, stirring occasionally. For the spiced shortcakes, mix baking mix, sugar, cinnamon and ginger in large bowl. Add milk; stir to form a soft dough. (If necessary, knead dough in bowl to incorporate dry ingredients.) Drop dough by 6 spoonfuls onto sprayed baking sheet. Bake at 425°F. for 10 to 12 minutes or until golden brown. Cool slightly on wire rack. To serve, split warm shortcakes. Place 1 shortcake bottom on each plate. Top each with 2/3 cup berry filling and 1/3 cup whipped topping. Cover with shortcake tops. Makes 6 servings.

Nutritional Facts Per Serving: Calories 266, Total Fat 2g, Cholesterol 0mg, Sodium 280mg, Carbohydrates 58g, Dietary Fiber 4g, Protein 4g

Pictured, Cooperative Connections

Rhubarb Cobbler

- | | |
|-----------------------------------|---------------------|
| 4 to 5 cups diced rhubarb | 1/2 cup butter |
| 1-3/4 cups sugar, divided | 1/2 cup milk |
| 1/8 tsp. plus pinch salt, divided | 1 T. cornstarch |
| 1 cup flour | Pinch of salt |
| 1 tsp. baking powder | 1 cup boiling water |

Spread rhubarb in a 9x13-inch glass pan. Combine 1/2 cup sugar, 1/8 tsp. salt, flour, baking powder, butter and milk. Place over rhubarb. Mix together remaining sugar, cornstarch and pinch of salt. Sprinkle mixture over batter. Pour boiling water over all. Bake at 375°F. for 1 hour.

Darlene Meyer, Florence

Cookies and Cream Pie

- | | |
|--------------------------------|-------------------------------------|
| 1 pkg. white chocolate pudding | 1 cup chopped regular or Mint Oreos |
| 1-1/2 cups milk | 1 graham cracker crust |
| 8 oz. Cool Whip | |

Beat pudding with milk for 1 minute; let set 5 minutes. Fold in Cool Whip and cookies. Spoon into crust; freeze.

Debbie Hinman, Carter

Please send your favorite dessert, salad and garden produce recipes to your local electric cooperative (address found on Page 3). Each recipe printed will be entered into a drawing for a prize in December 2016. All entries must include your name, mailing address, telephone number and cooperative name.

Central Electric Hires Two Summer Utility Workers

Central Electric welcomes two utility workers to assist the operations department this summer. Dalton Nohr and Alek Gentrup began on May 11 and will work 1,000 hours with the cooperative.

Nohr is originally from Rapid City. He graduated from Mitchell Technical Institute in May 2015 with his diploma in Power Line Construction and Maintenance. Nohr also worked for Central Electric as a summer employee in 2015. Nohr's father, William, has been a lineman for West River Electric Cooperative in Wall, SD, and now works in their Member Services department.

Gentrup is originally from Belle Fourche, SD, and graduated from MTI this past May with his diploma in Power Line Construction and Maintenance. He now lives in Mitchell with his wife, Stephanie, who works at Boyd Financial in Mitchell, and their three children. Gentrup is also familiar with the industry; his father is a retired lineman.

Nohr and Gentrup will be based out of the Mitchell office but will assist all crews as needed. Summer season is a busy time for construction, and their assistance will be very beneficial for the cooperative. This will also be an educational experience for them and allow them to use these hours towards their apprenticeship.



Left-right: Alek Gentrup and Dalton Nohr will assist Central Electric operation crews as 1,000 hour employees.

Thunderstorm Packs a Punch



This pole was struck by lightning during a storm that passed through our service area on Sunday evening, May 22nd. The lightning struck the top of the pole and damaged the top equipment. It then traveled down the ground wire and blew out a hole at the base of the pole. This was located northeast of White Lake in Aurora County. Photo taken by Lineman Jon Reichert.

Manager of Operations Brian Bultje said this storm carried quite a bit of power. He also said, "We've seen storms where a pole was struck by lightning, and it blew rocks ten feet away from the pole."

Load Management: *How will this affect me as a member this summer?*

By Patrick Soukup

Load management has been around since the 1980's, and it has helped area cooperatives keep the cost of electricity at a low rate for our members. But what does it mean for me individually when it's hot outside and my heat pump or air conditioner is turned off?

Heat pumps or air conditioners are cycled off when the "demand" on the grid, or high number of kilowatts being produced to meet the consumer usage, reaches a point that would increase the cost of electricity to the cooperative. (Think how a restaurant pays more to staff their restaurant on a Saturday evening as opposed to a Tuesday afternoon, because the consumer demand is higher. Costs are higher to a restaurant during peak times. In the same way, the cost of electricity is also higher to Central Electric during peak times.)

We use load management equipment to turn loads on and off during these high demand times. Typically, these times include the hottest time of the day in the late afternoon until sun down. Additionally, heat pumps and air conditioners are not the only loads being controlled. Load management control also includes irrigation pivots, water heaters, and industrial loads.

Load control during the summer can be concerning to members when trying to keep their homes cool. Below are a couple typical questions that our members have:

How much am I saving by being controlled?

This varies quite a bit with the type of home and how it's constructed. I have seen some customers save as much as \$13.00 to \$17.00 per month on their electric bill due to load management which allows the member to have a sub meter.

The sub meter allows members to pay a reduced rate on kilowatts used for heating equipment, including a heat pump. Therefore, members cooling their house with a heat pump are paying a reduced rate because they are on load management control.

Now, the question is, is this enough in savings to have my heat pump or air conditioner on load control? The answer to that is up to each individual member who participates in the load control program. Please note we only control these units when they are in the cooling modes, not when they are in heating modes during winter months.

What can I do if I know the day is going to be very hot, and I am going to be at home?

There are several things that you can do to prepare for a hot day. First, most homes have either blinds or shades installed by their windows. Close those at the beginning of the day. Blinds or shades that are left open allow the sun's heat into the home. Second, if you are going to be home, turn a ceiling fan on only in the room that you are occupying. The moving air will make it feel cooler. However, a ceiling should not be left on in a vacant room. Third, limit the use of exhaust fans in bathrooms and kitchens

to reduce the loss of cool air already in our home. Lastly, programmable thermostats are a great tool to adjust set points in the home when we are sleeping and when we are away.

We know that we can save money and reduced electricity bills by participating in load management. This is beneficial not only to cooperatives as a whole, but also to the bottom line we see on our electric bill as well.



Closing your shades or blinds saves energy by preventing the sun's heat from warming your home.

On the Trail, Time Slows Down and History Comes **Alive**

By
Brenda
Kleinjan

FOR A FEW DAYS EACH SUMMER, PARTICIPANTS IN area wagon trains slow it down a notch as they roll across the prairie, often times retracing portions of the state's history.

Large wagon trains have been organized for the past several years, one in 2014 commemorated South Dakota's 125th year of statehood, tracing a route from the former Territorial Capitol of Yankton, S.D., to the State Capitol in Pierre, S.D., during a 17-day ride.

Others have wound through the state connecting communities via horse- and oxen-drawn conveyances.

"It's our heritage; if we don't pass it on down, it will get lost," said Willie Cowan of Pierre who has participated in several wagon trains and is an organizer of the upcoming one-day event planned for the Dakota Western Heritage Festival Sept. 16 in Fort Pierre.

When Cowan and his wife, Loretta, started participating in wagon trains about 10 years ago, it took him a bit to recall all the steps involved in relying on horsepower.

"The skills I had learned as a boy took a while to remember," said Cowan.

But those skills came back as did the realization that when on the ride, one is focused on the task at hand – caring for the horses, looking for obstacles and moving toward one's destination at a speed that allows one to really observe and enjoy the surroundings.

For the Cowans, who are no strangers to rodeo and western life (Willie himself was a state high school saddle bronc champion in the mid-1950s), the wagon trains are a family affair. Their children and grandchildren also participate, either with one of the family's various wagons or as outriders with the train.



Photos by Colleen McCurtin



“The most enjoyable part is the kids and observing what they get out of the experience,” said Willie.

As one rolls along the prairie behind the team of horses, Cowan says one ponders things.

“The first thing you wonder is how they got across the prairies with water. They had to follow creeks and rivers,” noted Cowan.

“It gives you a greater appreciation for what those people went through,” said Loretta.

Willie says he has nothing to prove with his wagons and favors modern improvements over authenticity on his wagons.

“The ride on our big wagon is like a Cadillac, not bone jarring,” said Willie. Nylon ropes rather than leather are less likely to break and cause problems, rubber tires smooth out the ride compared to the jarring of wooden wheels.

For the Cowans’ daughter, Colleen McCurrin, the entire process of the wagon train builds a better understanding of western history.

“It’s part of the heritage; it’s how we got here. The people who settled the area arrived in wagons of many shapes and doctor buggies – everyone hitched up a team to do their jobs,” said McCurrin.

The variety of wagons that show up for a wagon train ride bring that heritage to life, and help participants envision days gone by.

For Loretta, the wagon trains helped realize a

life-long dream.

“It was always a dream of mine to stand in the wagon ruts of the freight trains that ran from Fort Pierre to Deadwood,” said Loretta. In the Fort Pierre to Deadwood ride a few years back, she achieved that dream.

“It’s a tangible thing – you can touch the history.”

Her daughter is quick to expand on the comment.

“It’s a tangible thing – you can touch the history,” said Colleen.

And one connects.

“It takes a bit to getting away from needing to get from point A to point B in three hours; on the rides, you might have 10 days,” said McCurrin. “You have to gear down and change mentality.”

The Cowans note that another feature of wagon trains is the camaraderie amongst the participants.

“Everyone helps everybody. If your outfit breaks down, they’re all there to help,” said Willie.

In 2015, the Dakota Western Heritage Festival took participants through a buffalo farm near Fort Pierre and over to the Scotty Phillips Cemetery, named for the Scottish-born rancher and state politician who is credited as “the man who saved the buffalo.”

The 2016 train will take a different trek exploring history to the southwest of town.

The public is welcomed to attend the Dakota Western Heritage Festival. There are limited opportunities for individuals to ride with a wagon.

Above: The Fort Pierre Livestock cattle yard is visible in the background of this photo taken during the wagon train at the Dakota Western Heritage Festival. **Opposite page:** Willie Cowan of Pierre drives a wagon in a train in western South Dakota. **Cover:** A wagon and outriders make a crossing of a waterway during a wagon train in western South Dakota.

Warning! Only Make Online Payments through Central Electric's Official Website

It's recently come to our attention that unaffiliated websites will take payments for members' electric bills. These sites charge users a fee (typically \$6-9), and the money takes several days to process.

When making a payment on an unaffiliated site, Central Electric is not notified that you've made a payment. If the payment doesn't get to us by the time your bill is due, it may result in late fees or a delinquent notice.

We recommend that you only make online bill payments through our secure website at www.centralelec.coop.

How do I know if I'm using an unaffiliated site?

Certain third party billing sites go as far as using the electric company's name and logo to appear as an affiliated site. While this can be confusing, there are several signs to look for to signal a warning.

If they try to charge you a fee, it isn't us. Our secure payment site does not charge members to make payments.

If they state it will take "X" days to process, it isn't us. Our site makes payments real-time and will appear immediately on your account.

If they ask for your balance, it isn't us. Our site will show your account balance.

Make Payments through SmartHub

Central Electric's online bill pay system is called SmartHub. It can be accessed through our website at www.centralelec.coop. We recommend that you ONLY use this secure system for online payments.

Bill payments made online through SmartHub are completely free to our members. You're also able to view your account information through SmartHub, which provides a number of benefits to you. By using the tool, you'll be able to see your electricity usage by day, week, month or year. You can even see how your energy use changes with the weather!

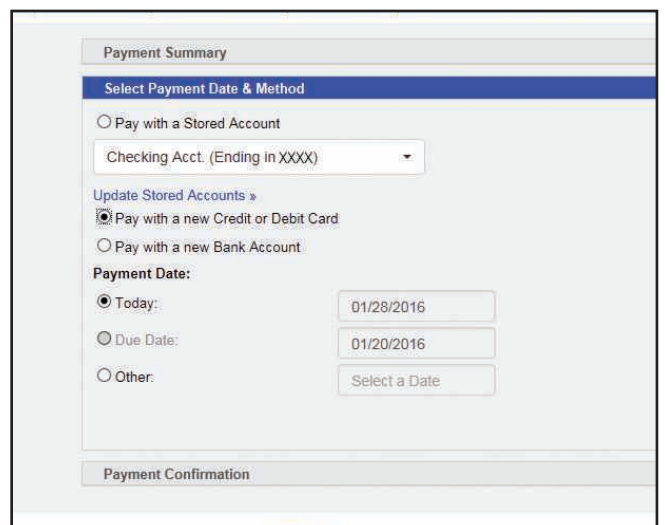
Don't forget about the mobile app

We recognize that many of our members prefer the convenience of making payments through their smartphone or mobile device. That's why we offer a free SmartHub app, which is available for both iOS and Android devices. Through the app, you get all the benefits of SmartHub, right at your fingertips!

Paying your bill online is completely safe and convenient when paid through our secure site. For more information on our payment options, visit www.centralelec.coop.



Above is Central Electric's login page to "Pay Now" on your account. Please be cautious when using any other sites to pay your electric bill.



This is the screen you will see when you begin making a payment online in Central Electric's SmartHub portal.

T&C Fire Department of Woonsocket Receives Loan for **New Fire Truck**

Central Electric formally presented a check for \$212,000 to the Town & Country Fire Department in Woonsocket on May 24.

The fire department received a zero percent interest loan through Central Electric Cooperative and the Rural Electric Economic Development (REED) Fund. Central Electric used the Rural Economic Development Loan and Grant (REDLG) program to secure financing for the project through the U.S. Department of Agriculture.

The REED Fund works with other local lenders to assist in financing economic development projects in eastern South Dakota and western Minnesota.

The total cost of the fire truck was \$265,000. The fire department held an open house on Saturday, May 21 for the community to see the new truck and other equipment. The new truck updated a retired truck that was over 30 years old.

T&C Fire Department serves areas in Sanborn and Jerauld counties totaling approximately 254 square miles. The department includes 27 volunteer fire fighters. The fire department responds to an average of 30 fire calls and 15 ambulance calls per year.

For more information on the REED Fund, visit <http://www.reedfund.coop/reed>



Above: General Manager Ken Schlimgen presents a check for \$212,000 to Fire Department President Alan Linke and Fire Chief Travis Coulthrad
Below: The purchased 2016 International Fire Truck replaced a retired unit that was over 30 years old.



Innovation

Could Put Coal Use in a Whole New Light

By
Paul Wesslund

SINCE COAL GENERATED MORE THAN HALF THE nation's electricity as recently as 10 years ago, that share has fallen to one-third as of last year. The decline of coal generation will continue as new environmental rules are set in place and prices for natural gas remain relatively low.

So it's curtains for coal, right? Not so fast.

The Environmental Protection Agency's Clean Power Plan still calls for more than one-fifth of our electricity to come from coal by its 2030 target date.

Even President Obama's Energy Secretary sees a future for coal.

"We are talking about a progressively lower-carbon future, but we have not abandoned coal as part of that future," Secretary Ernest Moniz told the Lexington (Kentucky) Herald-Leader in April. "Coal can play a major role in a low-carbon economy."

A role for coal is important, says Daniel Walsh, senior program manager for generation, environment and carbon at the National Rural Electric Cooperative Association (NRECA). Citing the huge coal supply in the U.S., Walsh sees coal as a key

to energy security. "We need to use this valuable resource we have in this country."

Achieving that brighter future for coal could depend on huge improvements to a technology called carbon capture.

Carbon capture seeks to solve a top environmental complaint about coal, which is that burning it releases carbon dioxide, a greenhouse gas that has been linked to climate change. Grabbing the carbon dioxide before it leaves the power plant would keep it out of the atmosphere.

Carbon capture is still a developing technology, with 15 test plants in the world and seven more coming online by 2017, according to an international industry group. One of the main holdups to that development is that the technology is expensive to build and operate. Really expensive.

Running carbon capture equipment at a power plant uses about one-third of the electricity produced by that power plant.

As daunting and inefficient as that sounds, Moniz cites \$6 billion spent on carbon capture research by the Department of Energy as proof of his



optimism. NRECA's Walsh believes in the power of researchers to make carbon capture costs competitive.

"We will continue to see innovation," says Walsh. "We're going to be successful."

One reason for that sunny outlook comes from a 35-year trend of finding cleaner and more efficient ways to burn coal. Since 1970, electric utilities in the U.S. have reduced pollution regulated by the federal Clean Air Act by more than 60 percent. Techniques have ranged from washing coal with water, to burning it at lower temperatures to release less harmful chemicals, to large and expensive flue gas desulfurization equipment, also called scrubbers.

Over the decades, those technologies improved, says Kirk Johnson, NRECA senior vice president for government relations. He says those improvements can be a model for carbon capture.

"We didn't start out with scrubbers that achieved a better-than 90 percent reduction in sulfur dioxide removal, but we ultimately got there," says Johnson. "The future has got to be in continued research."

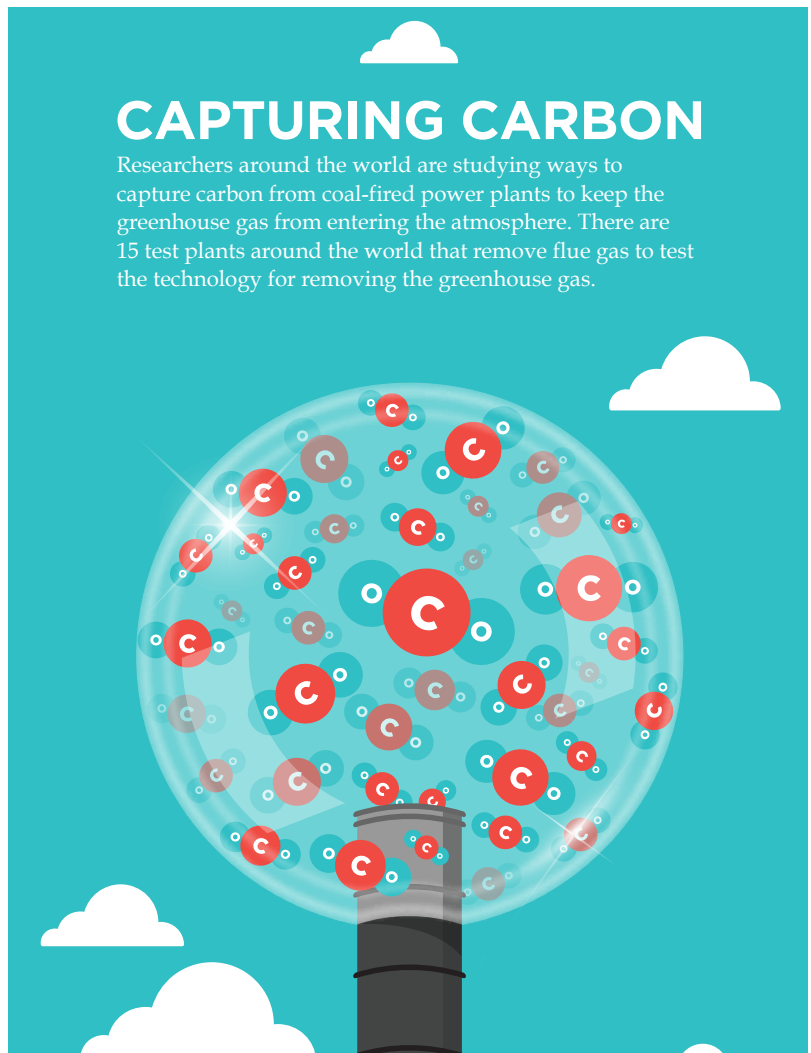
Electric co-ops launched a drive to that success with the April ground breaking for the Integrated Test Center in Wyoming. Operation is scheduled for summer 2017. The state of Wyoming is funding \$15 million of the center, which will be built at the site of the existing Dry Fork Station, a coal plant owned by Basin Electric Cooperative, a regional co-op based in North Dakota. Another \$5 million of support will come from another regional co-op, Denver-based Tri-State Generation and Transmission Association, and \$1 million from NRECA.

The test center aims to advance carbon capture research by focusing on a looming question about the technology – once you capture the carbon dioxide, what do you do with it? The test center focus will be on a new area of carbon capture work that is even changing the name of the technology.

For years the process has been referred to as CCS – for Carbon Capture and Storage (or Sequestration). Geologists looked for underground formations where the carbon dioxide could be stored safely and permanently. An evolving terminology refers to CCU, for Carbon Capture and Utilization, or CCR, for Carbon Capture and Recycling.

The idea is that one way to make carbon capture more cost-effective would be to find commercial or other uses for the carbon dioxide that produces a better return on investment than burying it underground. Researchers at the test center will be able to use carbon dioxide from the Dry Fork Station to run tests. Among the first researchers, the test center will host teams competing for part of \$20 million

in XPRIZES on ways to use carbon dioxide (CO₂) at power plants. The XPRIZE Foundation supports innovation in several areas, and its recent call for entries reads, "Do you have what it takes to turn CO₂ emissions into valuable products?"



CAPTURING CARBON

Researchers around the world are studying ways to capture carbon from coal-fired power plants to keep the greenhouse gas from entering the atmosphere. There are 15 test plants around the world that remove flue gas to test the technology for removing the greenhouse gas.

There's reason to believe that lofty challenge might succeed at the test center, says NRECA Communications Manager John Pulley. He describes the plans as bringing researchers in to develop their ideas in the "real-world" setting of a power plant.

"Once you have a facility like this in place that will allow people to test their great ideas, the sky's the limit," he says. "People might look at coal in an entirely new light."

Paul Weslund writes on cooperative issues for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.

Solar Well Pumping: What We've Learned in One Year



Patrick Soukup
Manager of Members Services &
Marketing

It has been roughly one year since we began installing solar well pumps for our members. In review, there are several conclusions that we've been able to make.

One major component of installation is determining the size needed. Sizing the unit properly is necessary for successful operation as well as meeting the owner's expectations. If size and storage are not considered, it could fail in providing an adequate water supply for livestock.

Over the past year, I've thoroughly discussed the topic of using solar equipment and existing pump jacks with our members and with suppliers of solar equipment. Our final conclusion has been that the old wells will not provide enough water or gallons per minute to be powered by solar. These old wells using pump jacks are only producing 1 to 2 gallons per minute. This isn't enough time for solar power to fill these tanks during the daylight hours. I have not seen any solar well pump jacks working in our area yet, but it is a possibility. I have heard of other companies who provide solar powered services for pump jacks but not in our area. Drilling a new well and going with a submersible pump

with adequate storage is the best answer so far. I do know this is a very expensive process. However, this is a great option for our members who don't have utility power available.

We have installed 5 systems and sold 1 within the Central Electric Cooperative area. Each one of these units are unique to the well that was drilled for our members. The main storage units that are being used are rubber tanks installed at a permanent location on the site. The old water hole or dam that is on site is still there for the collection of water but not the only source. The fresh well water seems to be more appealing to the livestock for consumption.

These units have been installed as an alternative to bringing utility power to the pasture or remote area. Is this the best option for everyone who needs power for a well with seasonal power consumption? Every situation is different. One item that needs to be considered is the demand for additional loads at the site and potential growth that would need utility power.

The experience that we have gained will continually be shared with our members. We are not alone as electric cooperatives and members are learning together about solar across the Midwest. As long as the sun rises in the morning and sets at night, solar will impact our lives.

If you have any questions about these units or the cost, please give us a call at 605-996-7516.



For more information on solar power, stay tuned for upcoming dates for an open house and solar presentation at our Betts Road Office!

Central Electric Your Bryant HVAC Dealer



Heat Pump Systems
Air Conditioners
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Air to Air Heat Exchangers
Indoor Air Quality Solutions



Free Estimates - 24 Hour Service
Financing Available
Workmanship Guaranteed

1-800-477-2892 or www.centralec.coop

Energy Star Rebates

Members earn the following rebates on qualifying ENERGY STAR purchases:

Refrigerator	\$100
Freezer	\$100
Dishwasher*	\$50
Clothes Washer*	\$50

*qualifying appliances require an electric water heater in the home



Appliances do not need to be purchased from Central Electric Cooperative. However, the appliances do need to be on Central Electric's service.

To apply for a rebate, find the form at www.centralec.coop or call 800-477-2892.



Regional Dateline

June 24

"Hemmings Motor News Great Race" Lunch Stop
Chamberlain-Oacoma, SD
www.greatrace.com

June 29

Jerauld/Buffalo County 4-H Horse Show, 9:30 a.m. to 3:30 p.m., 4-H Arena/Rodeo Grounds, Wessington Springs
Contact Julie Barber at 605-539-9471

July 2

8th Annual Blue & Gold Golf Tournament, 10 a.m. tee off two-person scramble
Springs Country Club
Wessington Springs, SD
605-539-1944

July 2

W.S. Fireman's Street Dance 9 p.m., Wessington Springs
Contract Fire Chief Jim Vavra at 605-539-9018

July 2-4

Dakota Running Irons (Cowboy Mounted Shooters) Saturday 5 p.m., Sunday 1 p.m., Monday 3 p.m.
4-H Rodeo Grounds
Wessington Springs, SD
Contact Craig Shryock at 605-730-1979

July 4

Wessington Springs 4th of July Events, 5K Run at 8 a.m. 1.5 mile walk at 9 a.m. Barrel Racing at 10 a.m. Parade at 2 p.m., Ball Games in evening, Fireworks at dusk
For full schedule call Chamber at 605-539-1929 or www.wessingtonsprings.com



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Events of Special Note

June 24-25

South Dakota Senior Games, Mitchell, SD, Barb Pierkowski at 605-995-8048

July 8-9

South Dakota Senior Games Madison, SD, Bernie Schuurmans at 605-270-3327

To have your event listed on this page, send complete information, including date, event, place and contact to your local electric cooperative. Include your name, address and daytime telephone number. Information must be submitted at least eight weeks prior to your event. Please call ahead to confirm date, time and location of event.

July 7-10

Hot Harley Nights
Sioux Falls, SD, 605-334-2721

July 7, 14, 21, 28

Music in the Garden, 6 to 8 p.m.
Wessington Springs, SD
605-539-1169

July 8-10, 15-17, 22-24

Laura Ingalls Wilder Pageant
De Smet, SD, 800-776-3594
or 800-880-3383

July 9

Dare to Dream Conference
Convention Center
Watertown, SD, 605-361-3171

July 9-10

Arts Expo, Hall of Fame
Chamberlain, SD, Contact Dixie Lloyd at 605-234-6149

July 12-17

Deadwood Three Wheeler Rally/Brothers of the Third Wheel National Trike-In
Deadwood, SD, 605-717-7174

July 12-17

Corn Palace Stampede Rodeo
Mitchell, SD, 605-770-4919

July 14-16

JazzFest, Sioux Falls, SD
605-335-6101

July 22-23

Storybook Land Festival
Aberdeen, SD, 605-626-7015

July 29-31

Desperado Days
Friday: bull riding, inflatables
Saturday: Pork Rib cook-off pedal pull, Dustin Evans and the Good Times Band
Sunday: Texas Hold Em' finals, Kimball, SD, Contact Thersa at 605-680-4781 or "Desperado Days" on Facebook

July 30

Jerauld/Sanborn County Relay for Life, 5 to 10 p.m., Spartan Field, Wessington Springs, SD
Contact John Paulson at 605-539-9632 or 605-539-1506

July 30

RSVP Outdoor Vendor and Craft Show, 9 a.m. to 5 p.m. In conjunction with Crazy Days
Mitchell, SD, 605-995-8440

July 30

Black Hills Music & Food Festival, Rapid City, SD
605-645-1880

August 5-6

South Dakota Senior Games
Yankton, SD, Kristi Hauer at 605-665-4685 or Tracy Grotenhuis at 605-668-5238

August 13

South Dakota Senior Games
Huron, SD, LaRon Klock at 605-353-8533

August 20

Forestburg Melon Festival and Classic Car Show, Old Ball Park, Forestburg, SD, Contact Adam Alt at 605-770-8512