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Cooperative Connections

AUGUST 2014 VOL. 66 NO. 8




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LIGHTLY.**



South Dakota Electric Cooperative Connections

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Editorial

Please Join Us in Taking Action



Ed Anderson
General Manager, South Dakota
Rural Electric Association

Every day we rely on electricity. We depend on the refrigerator to keep our food fresh, air conditioning and heating to keep us comfortable and, of course, lights on a daily basis. We also depend on electricity to re-charge our electronics. Whether it's a phone to keep in touch with relatives, a tablet for students' homework or the laptop on which we stream movies, these devices all have become integral to our daily routine.

At work, we rely on electricity to power our computers, phones, lights and productivity. Without this consistent, reliable and affordable power source, businesses would relocate, jobs would be lost and prices of

goods and services would increase.

That's why cooperatives in South Dakota are concerned about the latest proposed regulations on existing power plants from the Environmental Protection Agency (EPA). This round of rules impacts the power plants on which we rely every day.

Cooperatives are different from other electric utilities. We are owned by our member-consumers. When we look at our power options, we are not driven to make a profit. We strive to provide the most affordable and reliable electricity possible to our members. That's why we built power plants in the past 30 years to keep costs affordable and supply our own power.

Owning our own, independent plants has allowed cooperatives to keep costs affordable. For co-ops, "energy independence" in part means independence from expensive, profit-driven power.

That's why we are telling the EPA that this regulation simply does not work for us.

of affordable electric power. Electric cooperatives are small businesses. We're not large utilities with several different power plants operating with a variety of fuel sources. We built power plants when it made sense for our members. But the way the new rules are written, we might have to close our plants and lose our independence.

The EPA has drafted a regulation that adversely and disproportionately affects electric cooperatives. That's why we are telling the EPA that this regulation simply does not work for us.

When the EPA drafted regulations limiting greenhouse gases from new power plants, the agency received more than 500,000 emails opposing the regulation. Today we ask you once again, please join us. Visit www.Action.coop again and tell the EPA you cannot afford these new regulations.

Your voice was heard last time. The EPA took note of electric cooperatives and our collective voice showed that co-op consumers were engaged.

That's why we're asking you to take action again. The EPA needs to understand the impact that these regulations have on the people at the end of the power lines. Electric cooperative members are uniquely situated to help the EPA understand that these regulations will cost Americans more money.

These regulations also will cost Americans jobs. These regulations will not work for rural Americans.

However, these new regulations could endanger this independent supply

Summer Weather Survival

Help yourself and others avoid experiencing heat disorders by following these safety rules.

- **Avoid the Heat.** Stay out of the heat and indoors as much as possible. Spend time in an air-conditioned space. Only two hours a day in an air-conditioned space can significantly reduce the risk of heat-related illness. If air conditioning is not available, stay on the lowest floor out of the sunshine. Remember, electric fans do not cool, they just blow hot air around.

- **Dress for the Heat.** Wear loose-fitting clothes that cover as much skin as possible. Lightweight, light-colored clothing that reflects heat and sunlight and helps maintain normal body temperature. Protect your face and head by wearing a wide-brimmed hat. Avoid too much sunshine. Sunburn slows the skin's ability to cool itself. Use a sunscreen lotion with a high SPF rating.

- **Drink FOR the Heat.** Drink plenty of water and natural juices, even if you don't feel thirsty. Even under moderately strenuous outdoor activity, the rate your body can absorb fluids is less than the rate it loses water due to perspiration. However, if you have epilepsy or heart, kidney or liver disease, are on fluid-restrictive diets or have a problem with fluid retention, you should consult a doctor before increasing liquid intake.

- **Do not drink IN the Heat.** Avoid alcoholic beverages and beverages with caffeine, such as coffee, tea and cola. Alcohol and caffeine constrict blood vessels near the skin reducing the amount of heat the body can release. Although beer and alcohol beverages appear to satisfy thirst, they actually cause further body dehydration.

- **Eat for the Heat.** Eat small meals more often. Avoid foods that are high in protein because they increase metabolic heat. Avoid using salt tablets, unless directed to do so by a physician.

- **Living in the Heat.** Slow down. Reduce, eliminate or reschedule strenuous activities such as running, biking and lawn care work when it heats up. The best times for such activities are during early morning and late evening hours. Take cool baths or showers and use cool, wet towels.

- **Learn the symptoms of heat disorders and know how to give first aid.**

- **Do not leave children in a closed vehicle, even for a few minutes.**

Temperatures inside a closed vehicle can reach 140°F to 190°F degrees within 30 minutes on a hot, sunny day. However, despite this common sense rule, deaths from heat occur almost every summer when someone leaves their child in a closed vehicle.

- **When outdoors, protect small children from the sun; their skin is sensitive.**

- **Help your pets keep their cool.** It will "feel" as hot for them as it will for you. As with children, do not leave your pets in a closed vehicle. Be sure your animals have access to shade and a water bowl full of cold, clean water.

- **Protect windows.** Hang shades, draperies, awnings or louvers on windows that receive morning or afternoon sun. Outdoor awnings or louvers can reduce the heat entering the house by as much as 80 percent.

- **Conserve electricity.** During periods of extreme heat, people tend to use a lot more power for air conditioning, which can lead to a power shortage or outage. Vacuum air conditioner filters weekly during periods of high use.

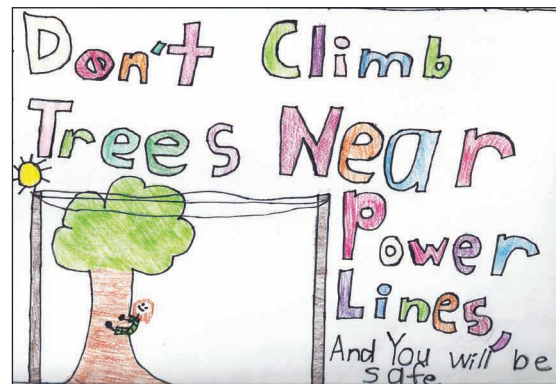
- **Keep lights turned down or turned off.**

- **Avoid using the oven.**

Source: noaa.gov

Kids' Corner Safety Poster

"Don't climb trees near power lines and you will be safe"



Hannah Remacle, 4th grade

Hannah is the daughter of John and Tammy Remacle, Canistota, S.D. They are members of Southeastern Electric Cooperative, Marion, 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.

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Succulent Salads



Kale-Quinoa Salad

- | | |
|---|---|
| 1/2 cup quinoa, uncooked | Few gratings of fresh lemon zest |
| 1-1/2 cups water | |
| 8 oz. kale | Dressing: |
| 1/2 cup slivered almonds, toasted and cooled | 3 T. olive oil |
| 2/3 cup dried cherries, chopped (cranberries also work) | 1-1/2 T. white wine vinegar |
| 1 bunch scallions, thinly sliced | 1 T. Dijon mustard |
| 2 T. Feta cheese, crumbled | 1 tsp. honey |
| | Salt and freshly ground black pepper to taste |

Rinse quinoa well in a small colander; this is essential to remove bitterness. Place quinoa and water in a small saucepan and bring to a simmer with a couple pinches of salt. Simmer at a very low temperature until tender, about 15 minutes. Drain quinoa and rinse in cold water to cool. Drain well after cooling. Rinse kale and dry well, removing any large stalks; chop fine. Add kale to a large salad bowl. Add remaining salad ingredients – except cheese – to kale and toss to mix. Whisk dressing ingredients together in a small dish; pour over salad. Season with salt and pepper to taste. Top with feta cheese.

Lee Ann Swanson, Lake Norden

Colonel's Coleslaw

- | | |
|----------------------|---------------------------|
| 3/4 cup Miracle Whip | 1 T. dill pickle vinegar |
| 1/3 cup sugar | 1 tsp. salt |
| 1/4 cup milk | 1/4 tsp. pepper |
| 1 T. sandwich spread | 4-1/2 cups grated cabbage |

Combine first 7 ingredients. Pour over cabbage. Let chill thoroughly.

Lee Anne Birkeland, Dupree

Summer Macaroni Salad

- | | |
|--|------------------------------|
| 1 package large shell macaroni, cooked, drained and cooled | 1 bunch green onions, sliced |
| 1 cucumber, peeled and sliced | 1 cup real mayonnaise |
| 1 green pepper, sliced | 1/4 cup sugar |
| 1 bunch radishes, sliced | 1/4 tsp. white vinegar |

Mix all together in large bowl. Refrigerate for several hours or overnight.

Jeanne Laurence, Rapid City

Antipasto Bean Salad

- | | |
|--|---|
| 1 (15 oz.) can READ Three- or Four-Bean Salad | 1/4 cup thin strips salami or pepperoni |
| 1/4 cup thin strips roasted red bell peppers | 2 T. chopped fresh basil |
| 1/2 cup fresh mozzarella or provolone cheese pieces, about 1/2-inch pieces | Dressing: |
| 1 cup chopped artichoke hearts, canned or frozen; thaw if frozen | 1/4 cup reserved bean liquid |
| | 2 T. olive oil |
| | 1 clove garlic, minced |
| | 2 T. chopped fresh herbs, optional |

Drain bean salad; reserve 1/4 cup liquid. For dressing, combine reserved bean salad liquid, oil and garlic; whisk until combined. Add fresh herbs, if desired. In large bowl, toss together drained bean salad, roasted bell peppers, cheese, artichoke hearts, salami and fresh basil. Toss with dressing. Serve at room temperature or chilled. Note: Parsley, basil, thyme or other favorite herbs can be used. Makes 4 servings.

Nutritional information per serving: 250 calories; 8 g protein; 16 g carbohydrate; 16g fat; 870 mg sodium; 25 mg cholesterol; 3 g dietary fiber; 1 mg iron; 0 mg thiamin; 1010 IU vitamin A; 21 mg vitamin C

Pictured, Cooperative Connections

John Deere Salad

- | | |
|---------------------------------|-----------------------------------|
| 2 (3 oz.) boxes lime jello | 1 small box instant lemon pudding |
| 2 cups boiling water | 1 cup milk |
| 1 can lime or lemon pie filling | 1 (8 oz.) container Cool Whip |

Dissolve jello in boiling water. Add pie filling; stir to combine. Pour into a 9x13-inch glass pan. Refrigerate until set. Combine lemon pudding mix and milk. Stir in Cool Whip; spread over green layer. Refrigerate several hours or overnight.

Mary Jessen, Holabird

24-hour Fruit Salad

- | | |
|----------------------|-------------------------------------|
| 3 egg yolks | 1 cup whipping cream, optional |
| 1 T. butter | 2 cups fruit cocktail, drained |
| 2 T. sugar | 2 cups pineapple tidbits, drained |
| 1 T. vinegar | 2 oranges cut into bite-size pieces |
| 2 T. pineapple juice | 2 cups marshmallows cut in pieces |
| Pinch of salt | |

Boil first 6 ingredients until thick. You can then use dressing plain or mix with whipping cream. Add remaining ingredients. Refrigerate overnight.

Pat Lewis, Platte

Please send your favorite garden produce, pasta and wild game 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 2014. All entries must include your name, mailing address, telephone number and cooperative name.

Maintain Your Home's Heating System Efficiency



Jim Dulley
www.dulley.com

Dear Jim: I want to keep my utility bills as low as possible. With the heating season soon upon us, what can I do myself to keep my heating system running at its maximum efficiency and heat output? – Bob J.

Dear Bob: Heating and cooling a home contribute to the majority of utility bills for

most families. Water heating usually is the second largest energy consumer, typically accounting for about 20 percent of the utility bill. Doing a simple heating system tune-up yourself improves its efficiency, resulting in significant annual cost savings.

Since central air-conditioning uses the same air handler (blower and ducts) as the heating system, maintaining your heating system for winter often also reduces cooling costs during summer.

Unless your furnace is actually malfunctioning in a significant way or making strange noises, you generally cannot tell if it is operating at peak efficiency. One way to tell is to compare your current utility bills to previous years.

Make sure to compare the actual amount of energy used (KWH, gallons of oil, cubic feet of gas, etc.), not just the dollar amounts of the bills. Adjust the amounts accordingly for the severity of the weather measured in heating degree days for each comparison year (www.degreedays.net).

Don't skip your regular scheduled professional maintenance calls just because you have done your own heating system mini-tune-up. There are many areas within a heating system that only a qualified technician can evaluate and adjust properly. A rule of thumb when doing your own tune-up is, if you are not absolutely sure what a part or adjustment screw does, don't touch it.

The first items to check are for safety. With a gas or propane furnace, put several drops of soapy water on any gas-line fittings you find. If the water bubbles at all, there are leaks. Leave your house immediately and call your gas company to have it repaired. With a heat pump, check to make sure the insulation on all of the external wiring looks correct. You can inspect po-

tential 'bad spots' – damaged or frayed areas – more carefully once you turn the circuit breaker off.

Turn off the electric power to the heating unit at the circuit breaker panel. Remove its side cover to gain access to the blower. Using a vacuum cleaner brush attachment, clean any dust deposits off the blower. You may find bearing oil cups on the blower motor of older systems. Put a drop of oil in each cup.

If you can find the fan control switch, adjust the temperature setting lower. Common settings are on at 135 degrees and off at 100 degrees. You might try using 110 and 90 degrees. This starts the blower sooner and keeps it running longer as the heat exchanger heats up and then cools down. This may cause a slightly chilly draft when it starts and stops, but it will extract more heat from the system. If you have trouble identifying the fan control switch, call a certified technician and wait for assistance.

Replace the cover and make sure all the cabinet screws are tight. While you have the screwdriver or wrench in your hand, check the tightness of any cabinet screws you can find. Having the cabinet well-sealed improves efficiency by maintaining the proper air flow through the coils or over the heat exchanger surfaces. With a heat pump, also check the cabinet screws on the outdoor condenser unit.

Set up the thermostat so the furnace starts. Hold a stick of lighted incense near all the joints in the ductwork, both return and supply air ducts, to check for air leaks. If you find leaks, wipe dust off the surfaces and use mastic around the leaking joints.

This is a good time to change your furnace filter or clean a central air cleaner element. Consider installing a more effective filter element than the low-cost fiberglass ones that many systems use. This may not help indoor air quality much, but it can keep the air-flow paths cleaner for more efficient heat transfer.

Check the accuracy of the wall thermostat. You may actually be keeping your house warmer than you realize. Tape a bulb thermometer on the wall next to your furnace. Check the thermometer reading when the furnace shuts off and note the difference between it and the thermostat setting. Now you will know where to set the thermostat to get the indoor temperature you desire. If it is inaccurate, replace it with a new electronic setback model.

Have a question for Jim? Send inquiries to: James Dulley, *Cooperative Connections*, 6906 Royalgreen Dr., Cincinnati, OH 45244 or visit www.dulley.com.

Teachers Dig In to Learn about Lignite

Thirteen South Dakota educators from eight schools explored the world of lignite energy during the 2014 Lignite Education Seminar: Energy, Economics and Environment coordinated by the North Dakota-based Lignite Energy Council.

The seminar, held June 16-19 at Bismarck State College in Bismarck, N.D., brought together 125 elementary and secondary teachers from Iowa, Minnesota, Montana, South Dakota and North Dakota.



The seminar provided teachers with the information and educational materials they need

to teach their students about how lignite is mined and used to produce electricity for homes, farms and businesses in the Upper Midwest. In addition, the seminar covers lignite's economic impact on the region, as well as important environmental issues affecting the lignite industry.

Since 1986, more than 3,100 teachers have attended the Lignite Energy Council's teacher education seminar.

The seminar was totally revamped in 2009 and made into a two-credit class which lasts for four days. Participating teachers could receive credit from the University of North Dakota (Economics), North Dakota State University (Education) or Minot State University (Science), provided they attended all portions of the seminar and prepared lesson plans demonstrating how they will use the seminar information and materials in their classrooms.

South Dakota registrants and the city their school is located in were Debora Beilke, Miller; Linda Bertelsen, Winner; Malissa Fagerland, Langford; Holly Lunden, Brookings; Karmen Marbry, Philip; Gerelyn and David Moberg, White; Bonnie Percy, Winner; Christian Pirllet, Aberdeen; Kevin Rook, Aberdeen; Mary Simons, Miller; Carrie Wilson, Rapid City; and Lois Zuecher, Nemo.

S.D. Electric Cooperatives Band Together to Support New Exhibit Hall on S.D. State Fairgrounds

The South Dakota State Fair Foundation announced in June that South Dakota's rural electric cooperatives along with Basin Electric, East River Electric, the National Rural Utility Cooperative Finance Corporation (NRUCFC) and CoBank have given a \$116,500 gift to the Capital Campaign for the building of a new exhibit hall on the South Dakota State Fairgrounds.

"South Dakota's electric cooperatives are proud to support the youth of our state and have a long standing tradition of working with the 4-H program. We are pleased to continue that tradition with our gift to the South Dakota State Fair Foundation for construction of a new building on the State Fair Grounds," said Ed Anderson, general manager of the South Dakota Rural Electric Association, Pierre, S.D.

"The support received from the South Dakota's rural electric cooperatives, Basin Electric, East River Electric, NRUCFC and CoBank prove the level of commitment these organizations have to South Dakota 4-H. 4-H members will gain stronger experiences at the State Fair because of gifts like this," said Jerome Hertel, South Dakota State Fair director.

Those interested in supporting the Capital Campaign should contact the State Fair office at 605-353-7340 or visit www.sdstatefairfoundation.com.

The South Dakota rural electric cooperatives are consumer-owned electric cooperatives providing high standards of service to their member-owners. The electric cooperatives are active members of their communities, dedicated to serving commercial, industrial, agricultural and residential customers. They are committed to their core values of serving their members with integrity, accountability, innovation and longstanding commitment to community.

Agriculture is South Dakota's No. 1 industry, generating more than \$21 billion in annual economic activity and employing more than 122,000 South Dakotans.

The South Dakota Department of Agriculture's mission is to promote, protect, preserve and improve this industry for today and tomorrow. Visit us online at <http://sdda.sd.gov> or find us on Facebook and Twitter.



Back row left to right: Wayne Sterkel, Lacreek Electric; John Gors, Clay Union Electric; Dave Eide, Codington-Clark Electric; Greg Hollister, East River Electric; Walker Witt, Black Hills Electric; Dennis Kruse, Kingsbury Electric; Daniel Webster, Dakota Energy; and Gary Clayton, Rosebud Electric. **Middle row left to right:** Vic Simmons, Rushmore Electric; Melissa Maher, Moreau-Grand Electric; Tim McCarthy, Sioux Valley Energy; Tom Boyko, East River Electric; Rodney Haag, Oahe Electric; Scott Moore, FEM Electric; Matt Hotzler, H-D Electric; Tim McIntyre, Lake Region Electric; Brad Schardin, Southeastern Electric; and Mark Mengenhauser, Charles Mix Electric. **Front row left to right:** Danika Gordon, Lawrence County 4-H; Jerome Hertel, South Dakota State Fair director; Matea Gordon, Lawrence County 4-H; and Bridger Gordon, Lawrence County 4-H.

High School Rodeo: State Sport with Co-op Support

By Brenda
Kleinjan

IN SOME PARTS OF SOUTH DAKOTA AND WESTERN Minnesota, summer means rodeo.

From practice rodeos in early May to the regional and state finals in June and ultimately to the national finals in late July, athletes competing in the South Dakota High School Rodeo Association see an intense season in a roughly three-month window.

And for more than a dozen years, South Dakota's Touchstone Energy® Cooperatives have been sponsors of the sport. At the high school level, the state's cooperatives provide the barrel covers for the region-

al and state rodeos, have purchased timing equipment and sponsored the short-go shirts awarded to the athletes who earn them at the state finals.

"From our perspective, the cooperatives are investing in the future themselves by keeping the western heritage alive by keeping the kids in the country," said Digger Rutten, a member of the SDHSRA board of directors and the group's public relations director.

"We appreciate all the cooperatives' support," Rutten said.





Above: Kayla Hemmingson of Bradley, S.D., finished 11th overall in breakaway roping at the SDHSRA finals. **Opposite Page:** Trig Clark of Meadow, S.D., competes in the saddle bronc on his way to capturing the state champion title. **Cover:** Dawson Munger of Pukwana, S.D., rounds a Touchstone Energy® Cooperatives barrel while competing at the SDHSRA finals. All photos ©www.CowboyImages.net. Used with permission.

More than 500 student athletes compete in high school rodeo in South Dakota. Only three states have more high school student rodeo athletes than the Rushmore State, Rutten said.

In fact, South Dakota is a charter member of the National High School Rodeo Association and helped start the organization more than six decades ago.

Through the years, more than 50 athletes have captured NHSRA National Finals titles.

But, the first step on the road to the national finals is honing skills at several practice rodeos held around the state. Then, students compete in regional rodeos with an eye to qualifying for the state finals.

Of the 526 South Dakota High School Rodeo Association members, 324 qualified for the state finals held June 19-22 in Belle Fourche. Of that number, 130 made it to the short go and 46 qualified to compete in the National High School Rodeo Finals July 13-19 in Rock Springs, Wyo.

With the high school rodeo season peaking in June, it lends itself to having its athletes involved in multiple sports,

Rutten said.

“If you look at the athletes in other sports, we have a lot of dual-sports athletes. Last year, several rodeo athletes were involved with state championship volleyball, basketball and wrestling teams, in addition to making it to the state finals in rodeo,” Rutten said.



Above: The team roping duo of Brent Woodward of Dupree, S.D., and Sam Huffman of Belle Fourche, S.D., captured the state champion title at the SDHSRA finals. Photo ©www.CowboyImages.net. Used with permission.

Rutten said rodeo also teaches students a lot of responsibility.

“They have to take care of their animals year-round and also find a way to buy those animals. It’s not like they get a free ride,” he said.

Rutten also noted another benefit of the youth rodeo movement is that it often involves the entire family, including multiple generations.

“There are families there,” Rutten said of the rodeos. “Mom and dad, all the kids and grandmas and grandpas.”

Those connections are ones that the Rutten family knows first-hand.

“When school gets out, for our family, we spend the next three and a half months together in a pickup,” said Rutten. “It’s a good family sport.”

National High School Rodeo Association Qualifiers

Dozens of South Dakota high school rodeo athletes qualified for the National finals to be held in late July.

Among the qualifiers from the South Dakota High School Rodeo Association State Finals Rodeo held in June in Belle Fourche were the following:

QUEEN CONTEST: Shaelynn Heitsch

BOYS CUTTING: Chet Crago, Sawyer Strand, Carson Johnston and Herbie O’Daniel

GIRLS CUTTING: Erin Kenzy, Shelby Strand, Karlee Peterson and Taylor Bothwell

BAREBACK: Trig Clark, Shane O’Connell, JD Anderson and Dylan Riggins

BREAKAWAY: Cedar Jandreau, Rylee Jo Rutten, Chesney Nagel and Katy Miller

POLE BENDING: Bailey Moody, Payton Donnelly, Shelby Vinson and Jana Hunt

TIE-DOWN ROPING: Lathan Laving, James Kirwan, Prestyn Novak, Brock Belkham, Carson Johnston and Jake Fulton

SADDLE BRONC: Taylor Tupper, Tanner Simons, Trig Clark and Jordan Hunt

GOAT TYING: Katy Miller, Brandi Cwach, Kaylee Clark and Chesney Nagel

STEER WRESTLING: Herbie O’Daniel, Wyatt Schaack, Cameron Fanning and Justin Boll

TEAM ROPING: Brent Woodward and Sam Huffman, Reece Wientjes and Nolan Richie, Colby Hetzel and Prestyn Novak, and Jeremiah Johnson & Cole Carlson

BULL RIDING: Shane O’Connell, Jake Frazier, Treye LaPlante and Rance Johnson

BARREL RACING: Rickie Engesser, Shelby Vinson, Chesney Nagel and Alyssa Lockhart

TRAP SHOOTING: John Gropper, Anthony Gourneau, Cameron Fanning and Justina Cvach

LIGHT RIFLE: Josey Aasby, Kaycee Szymanski, Kayla Hemmingson and Tanegai Zilverberg

Inspiring Youth

IT'S NOT EVERY DAY THAT 35 SOUTH DAKOTA TEENS get to fly more than 1,400 miles and experience the trip-of-a-lifetime while learning about the nations capitol and meeting people from every corner of the United States.

June 12 was different though. On June 12, the students and five chaperons left South Dakota for a weeklong excursion to Washington, D.C., as part of the Rural Electric Youth Tour. Representing 25 South Dakota electric cooperatives, these students experienced first hand all the marvels of the capitol city. This year, the Rural Electric Youth Tour celebrated its 50th year of being an opportunity for more than 1,600 teens across the country to visit the nation's capitol, with South Dakota sending their first delegates in 1963.

"It really is a once-in-a-lifetime experience. I have always dreamed of going to D.C., but honestly didn't see it happening anytime soon until I found out about and got expected to the Youth Tour," said Kristina Luczak, one of six students representing Central Electric Cooperative in Mitchell, S.D., on the tour. "It really did have an impact on me and

I think that other students should be granted the same opportunity."

Luczak was selected as the state's representative to the Youth Leadership Council.

The Rural Electric Youth Tour was designed so that students would receive the chance to see the sights that the Capitol has to offer, as well as giving a brief foray into politics and the political process. Along with that, Youth Day, which occurs during the week, is a chance for the teens to learn more about their own local co-op and the role rural electricity plays, as well as recognize their own potential in helping assist with community needs by applying to receive a grant to directly impact a local organization. This grant, given in conjunction

with GenerationOn, will be awarded to one student from each state that has put together an application detailing a specific community project they would like to undertake.

This year's tour consisted of in-depth touring of national treasures such as Arlington National Cemetery, Mount Vernon, the presidential memorials, VIP seating at the USMC Sunset Parade,



By
Elizabeth
Mayrose





Left: South Dakota Youth Tour participants met with Rep. Kristi Noem during the tour. **Opposite Page Inset:** Youth Tour delegate Geena Carlson of Black Hills Electric Cooperative, Custer, S.D., points to a portion of the Franklin D. Roosevelt Memorial that has electric co-op connections. **Opposite Page:** Sen. John Thune, left, and Sen. Tim Johnson, center, met with the South Dakota Youth Tour participants during the tour's Capitol Hill Day. Students also job shadowed in the congressional offices.



the Holocaust Museum, multiple Smithsonian museums and many others.

The participants also had a full day devoted to Capitol Hill, where they were able to shadow Sens. John Thune and Tim Johnson, listen in on committee hearings and tour the United States Capitol building.

“Stay more connected on what our senators are doing and follow what is happening,” said Francine Hoffman, who represented FEM Electric Association of Ipswich, S.D., on the trip.

The participants in the 2014 Youth Tour will now join thousands of alumni who have ascended to various leadership roles on the community, state and national levels. Many alumni often give credit to the Youth Tour for playing an integral role in shaping them at that point in their life. Each community makes this possible through their support of their local co-op's sponsorship for area students.

“It is seriously a trip I won't forget,” said Amber Hopkins, who also represented Central Electric.



Above: South Dakota Youth Tour participants pose for a photo at Arlington House at Arlington National Cemetery with the Washington, D.C., skyline in the background. **Above middle:** The South Dakota group poses for a photo at Mount Vernon, George Washington's estate south of Alexandria, Va. **Above top:** The South Dakota group squeezes in for a group photo near the White House. **Above left:** South Dakota participants cheer during Youth Day. **Left:** South Dakota and Arizona students take a mock oath before engaging in a congressional election simulation game.

Lessons from Abroad?

from an NRECA
Report
on Distributed
Generation
Issues

AS THE UNITED STATES WADES THROUGH POLICIES and regulations regarding the nation's energy resources, one study looks across the Atlantic Ocean to see what lessons could be learned from other nations' forays into energy production.

In Germany, a system of subsidies built into the electricity rates paid by residential, commercial and industrial electricity consumers has encouraged the rapid expansion of renewable energy production. The German subsidies – relatively modest for wind and other renewable energy sources compared with those for distributed solar power – have been touted as a model for encouraging renewable energy deployment in the U.S., and as a standard against which to measure and hence, to criticize, the slower U.S. adoption of renewable energy.

Christensen Associates Energy Consulting of Madison, Wis., undertook a study contracted by the National Rural Electric Cooperative Association

to understand the outcomes of Germany's energy policies.

The study found that the German policies have actually resulted in:

- current residential electricity rates of 39.5¢ (US) per kilowatt hour – more than three times the average residential rate in the U.S.;
- rising electricity and energy costs that threaten both the German economy and international competitiveness of core German industries;
- increasing threats to grid reliability;
- and, in an ironic twist, increases in greenhouse gases precipitated by greater reliance on coal-fired generation.

From the perspective of their implication for U.S. policies and regulations regarding renewable energy, more important lessons learned from an examination of the German renewable energy experience includes, but is not limited to:



- The decision to achieve environmental and jobs objectives by making utilities and their customers pay renewable resource subsidies sufficient to make those resources cost-effective has proved economically unsustainable. These subsidies – amounting to \$31 billion (US) in 2013 alone – currently add an 8.7 cent per KWH surcharge to electric rates for most residential, industrial and commercial consumers in Germany. This subsidy, by itself, is 2 cents higher than the average industrial electric rate in the U.S. – 6.7 cents per KWH.

- The German Legislature greatly underestimated the enormous subsidies needed to reach the very high renewable penetration targets they established in law. For example, in 2010, rooftop solar owners received nearly 52 cent per KWh produced that had a market value of 5.2 cents, and under the feed-in-tariff law, they would receive that 52 cents until 2030. To date, this program has cost German consumers more than \$460 billion in higher electric rates and recent estimates forecast the total cost will reach \$910 billion by 2022.

- Germany's system of guaranteed renewable subsidies has made attaining its social objective of CO₂ mitigation extraordinarily costly. According to a recent Massachusetts Institute of Technology study, in Germany CO₂ mitigation runs as high as \$685 per ton of CO₂ reduction via solar and \$60 per ton of reduction via wind, whereas CO₂ emissions credits in Europe could have been attained for less than \$5 per ton in recent years.

- The enormous size of renewable subsidies and their impact on electric rates have impacted both the German economy and Germany's economic competitiveness abroad. An article in *Der Spiegel* described it this way: "Germany's Energy Poverty: How Electricity Became a Luxury Good in Germany," and cited the impact of those high electric rates on consumers and particularly the poor. Further, recent analyses by the IEA and others sight significant German losses in net exports due to "high energy prices and costly domestic subsidies for renewable energy."

- While the renewable subsidies have led to a significant increase in both solar and wind installed capacity, the production of energy from such capacity has continued to be quite modest, supplying less than 13 percent of Germany's energy requirements – while ironically German use of coal is at its highest level since 1990 and several new coal plants are under construction to keep the lights on.

- The rapid increase in wind and solar production has succeeded in driving down wholesale electric market prices and has created a widening gap between the low wholesale market prices that utilities receive for the renewable energy produced and the high price utilities must pay for that renewable energy. This widening gap has resulted in further yearly increases in

the retail rates.

- The rate impacts and transmission grid operational difficulties experienced in Germany resulting from inefficient and costly promotion of renewable energy teaches that sustainable renewable promotion requires long-range planning and strategic collaboration among stakeholders to enable renewable resources to provide full value to consumers and power system operations. This is described in detail in the Electric Power Research Institute's report "The Integrated Grid: Realizing the Full Value of Central and Distributed Energy Resources."

- The problems caused by the enormous renewable subsidies and their effect on electricity rates have recently led the

German government to drastically revise those policies by capping the enormous subsidies in 2014 and limiting annual increases thereafter to 2.5 percent.

- The German government has also finally realized that all users connected to the electric grid must help pay for it, and have recently approved implementation of a grid usage charge for new renewable owners. Germany thus became the first in Europe to charge consumers for access to the grid for their renewable generators. New renewable generators greater than 10kw are required to pay a 6 cents (US) per KWh grid access tax.

The above two changes to the original German "Energiewende" laws will not reduce German retail rates for a long time, but will reduce the rate of growth of the incredibly high retail rates in Germany.

The study found that the German policies have actually resulted in current residential electricity rates of 39.5¢ (US) per kilowatt hour – more than three times the average residential rate in the U.S.

Growing Demand in China

When looking at the international energy field, an eye must be kept on China's growing economy and energy needs.

China is scheduled to build 21,000 MW of new coal-fired electrical generation units annually for the next 10 years (210,000 MW total). U.S. baseload generation is expected to increase a mere 29,000 MW in total over the same 10-year period (29,000 MW total).

However, if the Environmental Protection Agency's plan for new coal-based generation is enacted, no U.S. new baseload generation will be from new coal-fired units.

As a result, China's new unit coal-fired CO₂ emissions will grow by approximately 6.23 billion tons, while new unit natural gas U.S. emissions will increase by about 559 million tons. Even assuming all U.S. new baseload demand would be met by coal over the next 10 years, total U.S. growth in the electric utility sector would be about 914 million tons.

Assuming the EPA proposal does what NRECA anticipates and eliminates all new coal, the maximum possible CO₂ reductions under this proposal are about 355 million tons or five percent of China's growth over the next 10 years.

A Sensible Solution

Huron-based Company Puts Irrigation Control in Palm of Farmers' Hands

By Elizabeth
Mayrose

PICTURE THIS: THE WEATHER HAS BEEN DRY FOR days. There is no rain in the forecast. A smart phone pings with an alert stating the moisture probes placed around fields indicate the ground is in need of some serious moisture. Without any effort besides a few taps on a smart phone, irrigation pivots have begun moving and supplying water to the growing crops. A few more taps and their direction and speed change. Soon, the soil is soaked to satisfaction, with all of the action taken with just the touch of a button.

South Dakota thrives on agriculture. As the largest industry in the state, caring for the land is the chosen life for many. With that life comes the realization that Mother Nature often has a say in how

the work goes. However, thanks to new advances in technology, farming has become more productive with man-made options that help when the weather might have different plans in mind.

In 2003, brothers Mel and Terry Wieting felt there was a need within their own farming operation located by Hitchcock, S.D., for increased technological works. From that, their brainchild – AgSense – was born. With assistance from the Greater Huron Development Corporation, they soon became a part of the Huron business community, basing their headquarters close to their own home.

Along with the location, company president Terry Wieting said, “Because a number of young





Left: AgSense's Field Commander pivot monitor and control controllers communicate with smart phones via AgSense's wireless ag network, WagNet, putting a powerful tool in farmers' hands. **Opposite Page:** A producer consults his smart phone to get real-time data about irrigation efforts at his operation.

software engineers with local ties were looking for an opportunity to develop as well" they felt Huron was a great fit.

Now over a decade later, it has expanded to be one of the leading companies that deal with irrigation monitoring. While calling Huron home, the company now has offices in Nebraska, Iowa and Idaho. Over the years, the company has acclimated to the changing demands of a constantly changing industry, adding more product options and furthered services when the need arises.

This company does things a little differently. By choosing not to specialize in one area, they've made themselves unique.

"AgSense as an organization is a hybrid between a product-driven company and a service-based company," said Terry Wieting. They are a technology conglomeration, centralizing and combining the running of multiple irrigation pivots and different outlets. Not only does utilizing technology save one time, but also money. For farmers who used to spend hours manually checking each irrigation pivot, tweaking it to the necessary operating status, the option to run and monitor every single one from a smart phone is ground-breaking. Hailed by istockanalysis.com as a "pioneer in remote management solutions," AgSense paved the way towards making this sort of technology standard for all farmers, no matter the size.

With AgSense equipment, all information that is collected is saved within a secure network, meaning it can be viewed and studied from iOS and Android apps or simply any computer with Internet access. With that convenience, producers aren't limited to a single means of analysis. WagNet, was introduced as a means to put all of the information gathered in one single location that not only allows for control of equipment, but also comprehensive reports. Not only does it offer the knowledge that information will be available to view immediately as well as long-term, but it also comes with the freedom knowing that a producer can be miles away and have the peace

of mind that all things are running smoothly and can be alerted directly if something were to go wrong.

Using irrigation as a means to help increase bushel size is a practice used by many farmers. In fact, many South Dakota electric cooperatives in South Dakota and western Minnesota have a portion of their kilowatt-hours dedicated to the operating of irrigation pivots.

"The Ogallala Aquifer, which stretches from western South Dakota to the panhandle of Texas, is where a significant portion of our business resides," Wieting said, noting that AgSense is utilized all over.

AgSense makes a direct impact on the costs farmers pay to operate their pivots as it makes them run more efficiently and effectively. In 2012 and 2013 when a drought affected South Dakota, more irrigation was required thus requiring more electricity. A high cost of running machinery and man-hours is not a welcome expense when the crop is already suffering profit wise.

Along with irrigation, AgSense has been helping farmers maintain grain bin integrity with monitoring that can be compared to their irrigation monitoring. With updates that can be viewed remotely as well, there are ways to inspect temperature, moisture content and weight. Because data can be viewed via smart technology, the benefit of knowing what exact condition a product is in helps to make quick decisions regarding the nature of the product.

Farmers all over the country have grown to love the AgSense technology and in the 11 years that this company has been in business, they've grown to not only be utilized by American agricultural producers but producers on a global scale as well. Now working in more than 10 countries including Saudi Arabia, Chile and South Africa, AgSense was recognized in March 2014 as being one of the contributing businesses responsible for the \$1.6 billion international exports from South Dakota.

"Developing global markets can be costly and a little scary to take on. Obviously, agriculture and more specifically water management presents a global opportunity and is a key component of our strategic plan in the upcoming years. We will invest significant resources in developing foreign markets in the upcoming years," commented Wieting.

For farmers who used to spend hours manually checking each irrigation pivot, tweaking it to the necessary operating status, the option to run and monitor every single one from a smart phone is ground-breaking.

Regional Dateline

July 18-20

Festival in the Park
 Spearfish, SD, 605-642-7973

July 18-20

Hills Alive Festival
 Rapid City, SD, 605-342-6822
www.hillsalive.com

July 18-20, 25-27

Laura Ingalls Wilder Pageant
 DeSmet, SD, 800-776-3594
www.desmetpageant.org

July 25-26

Storybook Land Festival
 Aberdeen, SD, 605-226-1557

July 26-27

South Dakota Peach Festival
 Sioux Falls, SD, 605-366-7022
SouthDakotaPeachFestival.com

July 26-27

Western Dakota Gem &
 Mineral Society Show
 Rapid City, SD, 605-348-8948

July 24-27

Midwest Water Ski Show/
 Championships
 Aberdeen, SD, 605-380-9932

July 25

Sara Evans in Concert
 Deadwood, SD, 605-559-1187
deadwoodmountaingrand.com

July 25

Montgomery Gentry in Concert
 Watertown, SD, 605-881-1781

July 25-27

Elk's Rodeo, Winner, SD
 605-842-1533



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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.

Events of Special Note

August 11-17

Brown County Fair
 Aberdeen, SD, 605-626-7116
www.thebrowncountyfair.com

August 15-24

Central States Fair
 Rapid City, SD, 605-355-3861

July 26

Dakota Irish Fair
 Sioux Falls, SD, 605-373-9154

July 27

Tesla in Concert
 Deadwood, SD, 605-559-1187
deadwoodmountaingrand.com

August 1-3

Sioux River Folk Festival
 Canton, SD, 605-987-2263
www.gfp.sd.gov

August 1-10

Sioux Empire Fair
 Sioux Falls, SD, 605-367-7178
www.siouxempirefair.com

August 3

Car Show
 Madison, SD, 800-693-3644
www.prairievillage.org

August 4-10

Sturgis Motorcycle Rally
 Sturgis, SD, 605-720-0800
www.sturgismotorcyclerrally.com

August 9

Street Masters Car Show and
 Ice Cream Social
 Fort Pierre, SD, 605-223-7722

August 15-17

Riverboat Days & Summer
 Arts Festival, Yankton, SD
 605-665-1657
www.riverboatdays.com

August 16

South Dakota Bat Festival
 Custer, SD, 605-255-4515
www.gfp.sd.gov

August 16-18

Frontier Days Wacipi & Rodeo
 White River, SD, 605-828-2561

August 19-21

Dakotafest, Mitchell, SD
www.FarmShows.com

August 20

Miller Lite Bull Bash
 Mitchell, SD, 605-770-8299

August 20-24

Corn Palace Festival
 Mitchell, SD
 605-995-8430
cornpalace.com

August 22-24

52nd Annual Steam
 Threshing Jamboree
 Madison, SD
 800-693-3644
www.prairievillage.org

August 28-September 1

South Dakota State Fair
 Huron, SD, 605-353-7340
www.sdstatefair.com

August 29-31

LifeLight, Worthing, SD
 605-338-2847
www.lifelight.org

August 30

Rockin' RibFest
 Yankton, SD, 605-665-2263
historicdowntownyankton.com