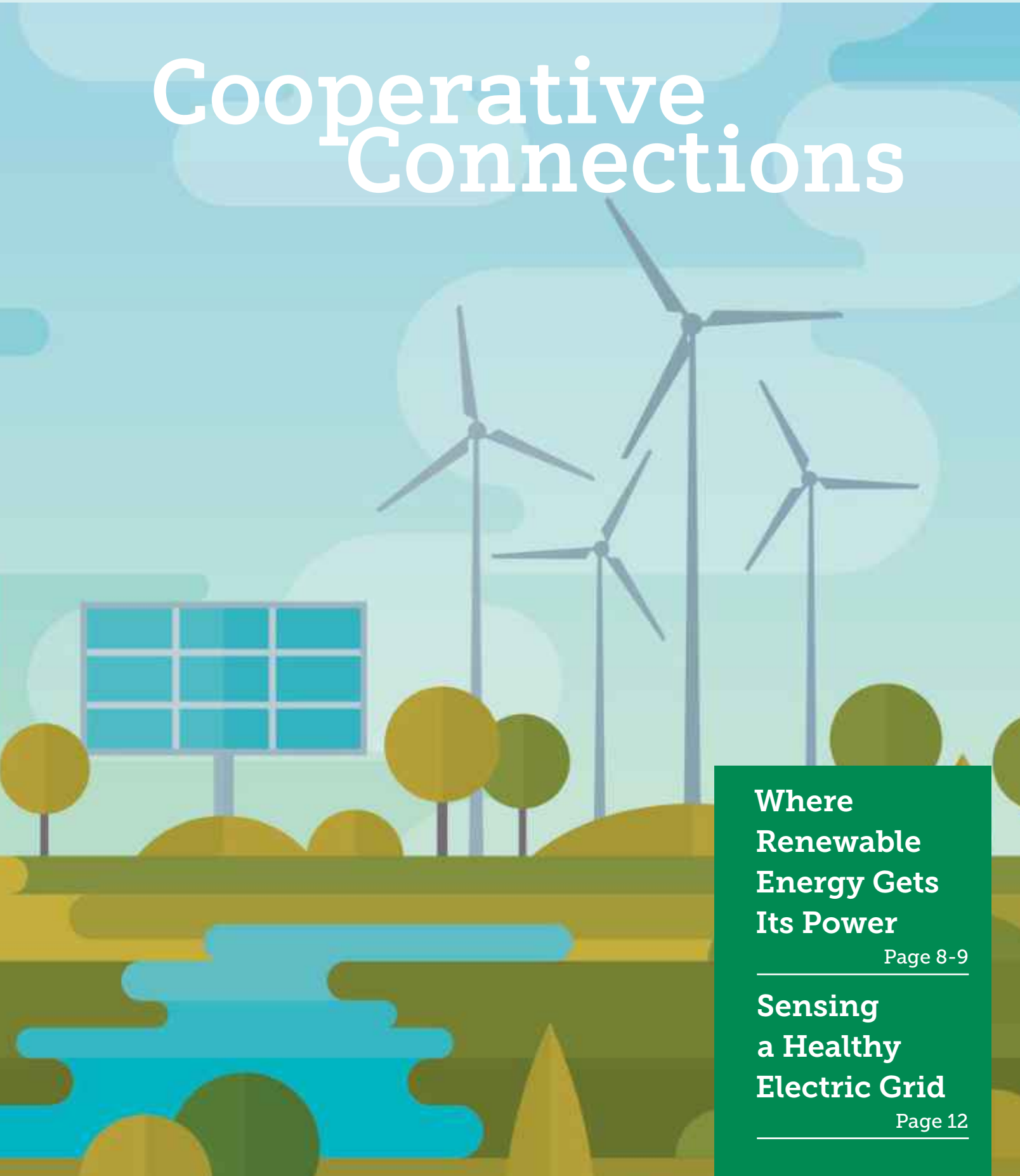
Traverse Electric

Annual Meeting Issue

A Touchstone Energy® Cooperative

March 2018 Vol. 18 No. 11

Cooperative Connections



Where Renewable Energy Gets Its Power

Page 8-9

Sensing a Healthy Electric Grid

Page 12

2017 in Review

Alan Veflin, Board President

ajveflin@yahoo.com

Joel Janorschke, General Manager

jjanorschke@traverseelectric.com

On behalf of the board of directors and the employees of your co-op, Traverse Electric, it is our pleasure to welcome everyone to this year's annual meeting of Traverse Electric. This marks the 78th year of successfully delivering electricity to the members and the 78th time we gather collectively to report on the previous year and also to report on the financial condition of our plant. I hope you find tonight's meeting both informative and enjoyable.

2017 set the high marks in several categories. Your cooperative ended the year with operating revenue of $10,363,494, with sales of kWh at 98,198,173. We also ended the year with an operations margin of $581,430 and total margins of $1,263,800. As a result of the cooperative's sound and stable financial condition, we returned $400,000 in general retirement capital credits to those who received electricity in 2000 and 2001. That adds up to more than $8 million returned over the years – quantifiable proof that you are an owner of a successful, effective organization.

2017 continued to be a year of growth for the cooperative; the line crews continue to install and upgrade services for new grain dryers, drain tile pumps, houses and new shops. We also converted overhead single-phase line with underground cable in areas of the system where the terrain and weather affects the reliably to these members that are served on these lines. We already have several jobs lined up next spring. The crews also installed new three-phase underground lines to serve larger loads on the system along with replacing underground conductor that was failing. DollyMount dairy was completed in June and the construction of the Campbell dairy started in August. We continued to work on our maintenance programs where we had 2,500 utility poles tested with 152 poles being rejected. They also worked on maintaining the right-of-ways for the overhead power lines.

We also took part in the Rural Electric Safety Achievement Program (RESAP), a service provided by the National Rural Electric Cooperative Association (NRECA) that strives to promote the highest standards of safety among electric cooperatives.

While we are proud that planning and hard work has paid off, we still remind ourselves that dependable service and customer satisfaction are just as – or maybe more important – than bottom line numbers.

While we are proud that planning and hard work has paid off, we still remind ourselves that dependable service and customer satisfaction are just as – or maybe more important – than bottom line numbers. As we work our way into 2018, we will keep those thoughts in mind and continue to deliver more than just electricity to our members.

In closing, we would like to thank you for your patronage and support over the past year. We would also like to thank your dedicated employees who continue to provide the best possible service to you, our member-owners. Thank you for coming out this evening. We hope you enjoy the meeting and please remember to drive home safely.

Cooperatively yours,

Alan Veflin, Board President

Joel Janorschke, General Manager

Traverse Electric Mission Statement:

To provide dependable service at the lowest possible rates, consistent with sound business principles.

Traverse Electric Cooperative Connections

(USPS No. 018-903)

In case of a power outage call 1-800-927-5443

Traverse Electric Cooperative Connections is published monthly by Traverse Electric Cooperative, PO Box 66, 1618 Broadway, Wheaton, MN, 56296 for its members. Families subscribe to Traverse Electric Cooperative Connections as part of their electric cooperative membership. Traverse Electric Cooperative Connections' purpose is to provide reliable, helpful information to electric cooperative members on matters pertaining to rural electrification and better rural living.

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Design assistance by SDREA.

TRAVERSE ELECTRIC COOPERATIVE, INC.
A Touchstone Energy® Cooperative

Traverse Electric Cooperative 78th Annual Meeting

Thursday, March 22, 2018 • Wheaton High School

Registration begins at 5 p.m.
Dinner from 5:30 to 6:30 p.m.
Meeting to follow at 6:30 p.m.

Notice is hereby given that the annual membership meeting of Traverse Electric Cooperative, Inc. will be held Thursday, March 22, 2018, at the Wheaton High School, Wheaton, Minn. Registration will begin at 5 p.m. The dinner will be served from 5:30 p.m. until 6:30 p.m. and the meeting will begin promptly at 6:30 p.m.

At the annual meeting you will be presented with pertinent information regarding the activities of the cooperative and elect directors to represent you. The bylaws set up nine districts for the cooperative, with one director from each district, and staggers the terms of the directors, with three directors to be voted on each year. In keeping with the bylaws, meetings were held in these three districts. Members of these districts will select one member from their district to represent them on the board of directors.

No letters will be sent out. This is your official notice.

Director Candidates:

Voting will take place during the business meeting. Ballots will be given out at registration. Others interested individuals can be nominated at the meeting and written-in on the ballots.

District 2:	District 5:	District 8:
Michael Marks	Pat Homan	Alan Veflin

ANNUAL MEETING DOOR PRIZE REGISTRATION FORM

Name: _____

Address: _____

_____

- Please print your name as it appears on the mailing label or your electric bill.
- Clip and bring this ticket with you to the meeting when you register.
- One registration ticket per member.

Please fill out this form and bring it and this newsletter with you to the meeting. This ticket will register you for the door prize drawings. One entry per member.

Generator Safety

Portable or permanently installed standby generators can come in handy during long-term power outages. However, if you do not know how to use them properly, they can be dangerous. Contact a qualified vendor or electrician to help you determine what generator is best suited to your needs. Before using, be sure to read and follow manufacturer's instructions.

If you are installing a permanent generator, it must have a transfer switch. The transfer switch prevents energy from leaving your generator and going back onto the utility electrical equipment when it could be dangerous to a lineman or others near downed power lines, a process known as "back feed." A qualified electrician should install your generator and transfer switch.

Safe Electricity has the following tips to use portable generators safely:

- Operate it outdoors in an area with plenty of ventilation. Never run a generator in a home or garage. Generators give off deadly carbon monoxide.
- Do not plug a generator into the wall to avoid back feed. Use heavy-duty extension cords to connect appliances to the outlets on the generator itself.
- Turn the generator on before plugging appliances to it. Once the generator is running, turn your appliances and lights on one at a time to avoid overloading the unit. Remember, generators are for temporary usage, prioritize your needs.
- Generators pose electrical risks especially when operated in wet conditions. Use a generator only when necessary when the weather creates wet or moist conditions. Protect the generator by operating it under an open, canopy-like structure on a dry surface where water cannot form puddles or drain under it. Always ensure that your hands are dry before touching the generator.
- Be sure the generator is turned off and cool before fueling it.
- Keep children and pets away from portable generators at all times. Many generator components are hot enough to burn you during operation.

Safe Electricity suggests that these safety guidelines as well as basic operating instructions be posted in the home and with the generator.

Source: safeelectricity.org

March 18-24, 2018

National Ag Week

Each American farmer feeds about 144 people! America needs agriculture…and we need our farmers, who provide Food for Life. This is why we're celebrating all things Ag on National Ag Day, March 20. Find out more: https://www.agday.org/

KIDS CORNER SAFETY POSTER

"Don't touch power lines."

Christopher Barranco, 5 years old
Christopher is the son of David and Catherine Barranco, Brandon, S.D. They are members of Sioux Valley Energy, Colman.

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.

Seafood Sensations

Seafood Quiche

1 (6 oz.) can crab, salmon or tuna, drained

1 cup shredded Cheddar cheese

Onions

4 eggs

1 cup milk

1/2 tsp. salt

Pepper to taste

Fresh chives, optional

Paprika

Spray a 10-inch pie plate with vegetable cooking spray. Combine seafood, cheese and onions. Press into bottom and up sides of pie plate. Beat eggs, milk, salt and pepper; pour over all. Sprinkle with paprika, if desired. Bake at 350°F. for about 30 minutes or until eggs are set. Let set a few minutes before cutting.

Elaine Rowett, Sturgis

Broiled Salmon with Lemon

1 T. extra-virgin olive oil

1 tsp. grated lemon rind plus 1 T. fresh juice (from 1 lemon)

1 tsp. Worcestershire sauce

4 (6 oz.) center-cut salmon fillets (about 1-inch thick)

1/4 tsp. kosher salt

1/4 tsp. black pepper

Combine oil, rind, juice and Worcestershire sauce in a shallow dish. Place fillets, skin side up, in dish. Let stand 15 minutes. Preheat broiler with oven rack 6 inches from heat. Place fillets, skin side down, on a foil-lined baking sheet. Sprinkle with salt and pepper. Broil to desired degree of doneness, 8 to 10 minutes. Remove fillets from foil using a metal spatula.

Tina Haug, Pierre

Freeze Ahead Crab Appetizers

1 jar Old English cheese spread

1/2 c. soft butter

1/4 tsp. garlic salt/powder

1/2 tsp. seasoned salt

1 T. mayonnaise

1 (7 oz.) can crab meat

6 English muffins, separated

Mix first 5 ingredients together well; stir in crab. Spread on each half muffin. Cut each half muffin into 6 wedges. Place in ziplock bag and freeze. When ready to serve, don't thaw. Bake at 400°F. for 10 minutes.

Ginny Jensen, Volga

Spaghetti Squash Shrimp Lo Mein

1 spaghetti squash, (about 2-1/2 lbs.)

1/4 cup reduced sodium soy sauce

2 T. honey

2 tsp. McCormick® Garlic Powder, divided

1-1/4 tsp. McCormick® Ginger, Ground, divided

2 tsp. vegetable oil, divided

1-1/2 cups matchstick carrots

1 medium red bell pepper, thinly sliced

1 lb. shrimp, peeled and deveined

1/4 cup thinly sliced green onions

Cut spaghetti squash crosswise into 1-inch thick rings. Remove seeds. Place rings on microwavable plate. Pour 1/4 cup water in the plate. Cover with plastic wrap. Microwave on HIGH 7 minutes or until tender. Let stand in microwave 10 minutes. Carefully remove from microwave. Peel the skin off the squash, then shred the flesh, using fingers or a fork, into long thin strands. Place squash noodles in large bowl. Discard the skin. (Should yield about 5 cups of squash noodles.) Meanwhile, mix soy sauce, honey, 1-1/2 tsp. of the garlic powder and 1 tsp. of the ginger in small bowl until well blended. Set aside. Heat 1 T. of the oil in large skillet on medium-high heat. Add carrots and pepper; stir-fry 3 minutes. Add shrimp and sauce mixture; stir-fry 2 minutes or just until shrimp turn pink. Remove shrimp mixture from skillet. Heat remaining 1 T. oil in skillet on medium-high heat. Add squash noodles, remaining 1/2 tsp. garlic powder and 1/4 tsp. ginger; cook and stir gently 1 minute to heat through. Return shrimp mixture to skillet; toss gently with squash noodles. Remove from heat. Sprinkle with green onions. Makes 7 (1 cup) servings

Nutritional Information Per Serving: Calories 165, Total Fat 5g, Saturated Fat 1g, Sodium 479mg, Cholesterol 96mg, Carbohydrates 18g, Protein 12g, Dietary Fiber 3g,

Pictured, Cooperative Connections

Please send your favorite appetizer, beverage and casserole recipes to your local electric cooperative (address found on Page 3).

Each recipe printed will be entered into a drawing for a prize in June 2018.

All entries must include your name, mailing address, telephone number and cooperative name.

YOUR BOARD OF DIRECTORS

Duane Wilts
District 1

Roger Derby
District 2

Karen Kath
District 3
Treasurer

Doug Diekmann
District 4

Pat Homan
District 5
Vice President

Russ Armstrong
District 6

Mark Pearson
District 7
Secretary

Alan Veflin
District 8
President

Terry Monson
District 9

District Meeting Prize Winners

The following were lucky winners of a $25 bill credit at our recent district meetings.

District 1: Arlyn Lampert
District 2: Robert Richards
District 3: Claude Linder
District 4: Rick Martens
District 5: Lois Schmitz
District 6: Clariece Brecht
District 7: Albert Braun
District 8: Richard Heinecke
District 9: Jerry Borgen

ANNUAL MEETING PROGRAM

Agenda

Thursday, March 22, 2018
Wheaton High School 6:30 p.m.

5 p.m. Registration

5:30 p.m. Dinner/Entertainment

6:30 p.m. Call of Meeting by Alan Veflin, President

Introduction of Directors and Guests

Reading of the Notice of Mailing and Proof of Mailing by Mark Pearson, Secretary

Minutes of 2017 Annual Meeting by Mark Pearson, Secretary

Treasurer's Report by Joel Janorschke, General Manager

General Operating Report by Joel Janorschke, General Manager

Questions

President's Report by Alan Veflin

Opening of Polls

Closing of Polls

2017 Washington, D.C. Youth Tour Report by Paul Hervey

Old Business

New Business

Announcement of Results of Election of Directors

Prizes

Adjournment

77th Annual Meeting March 23, 2017

The seventy-seventh annual meeting of Traverse Electric Cooperative was held in the High School Auditorium at Wheaton, Minnesota on Thursday, March 23, 2017. Registration started at 5:00 p.m. A roast beef dinner was catered by Bobby Jo's Café from Beardsley, MN and approximately 300 dinners were served. The members were then entertained by Terry Nelson until the meeting commenced.

General Manager, Clayton Halverson, welcomed the members to their annual meeting.

President Veflin called the meeting to order and thanked Terry Nelson and Bobby Jo's Café for the great entertainment and food.

A motion was made from the floor to approve the agenda as printed in the annual meeting report. A second was made and upon vote motion carried unanimously.

Veflin introduced the directors and thanked the employees for their service and dedication. Former directors and special guests in attendance were also introduced.

The Chairman asked the secretary, Mark Pearson, to read the Notice of Mailing and Proof of Mailing. These were read. A register of attendance was presented. The chairman declared a quorum present and directed the register to become part of the official minutes. A motion was made from the floor to accept the reading. A second was made and upon vote motion carried unanimously.

The chairman called for the reading of the minutes of the last annual meeting. A motion was made from the floor, seconded, and carried to dispense with the reading of the minutes.

The General Manager, Clayton Halverson, presented the 2016 year end operating report and balance sheet.

1. The balance sheet was reviewed. The cooperative finished strong in 2016 with $9.6 million in revenues and $8.9 million in expenses. With G&T capital credits added onto our operating margin, we have a $1,455,000 margin in 2016.

2. The cooperative paid back $300,000 in general retirement of capital credits in 2016 and the board plans to continue to pay back capital credits each year due to our strong financial position. So far a total of $7,659,329 in capital credits have been paid back to the membership.

3. Approximately $17,000 was paid to members in rebates in 2016.

4. National linemen appreciation is coming up on April 14.

5. Halverson thanked the dedicated employees for their service.

6. Halverson answered a question from the floor on what line loss is and why it can fluctuate from year to year.

7. Halverson reported that our system is in good shape. We concentrate on pole testing and maintenance each year to ensure that our system is reliable.

A motion was made from the floor to approve the financial and operating report. There was a second and upon vote motion carried unanimously.

Member Services, Jerrel Olson, reviewed our rebate program for appliances and heat, and discussed what is eligible for the heat rate. Water heaters are not included in the off peak rate.

Halverson reviewed the December 25, 2016 ice storm that affected our system west of Sisseton. We will receive 90% FEMA reimbursement for costs incurred. This area will be converted to underground later this year.

Halverson answered a few questions from the floor on the new Dollymount Dairy that will be operational this year and the proposed Campbell Dairy that will also be on our system.

Dr. Pat Engebretson from East River addressed the importance of cyber security. He explained the different ways that attacks occur.

President Veflin directed the membership to read his President's Report in the program book at their convenience and thanks the employees for their service to the cooperative.

Manager Halverson opened the polls for the election of three directors. Halverson announced the following candidates who were nominated at the district meetings: District 1 – Duane Wilts; District 4 – Doug Diekmann; and District 7 – Mark Pearson.

Halverson asked for any further nominations from the floor for each of the three districts. There being none, a motion was made from the floor to cease nominations. The motion was seconded and upon vote it carried.

Halverson announced the Appointment of Tellers. The members proceeded to mark their ballots, which the tellers collected and then retired to tabulate.

McKenna Larson spoke about the Washington DC Youth Tour she participated in last June.

Halverson announced the results of the election of directors: the incumbents were reelected in all three districts.

The door prize drawings were held.

The chairman asked for any old business, and there being none, he proceeded to ask for any new business. There being none, it was moved and carried that the meeting be adjourned.

Mark Pearson

Mark Pearson, Secretary

Remember to bring this newsletter to your annual meeting!

Solar energy generates about 1 percent of the nation's electricity.

WHERE RENEWABLE ENERGY GETS ITS POWER

Here are the basics of a small but fast-growing source of your electricity.

Paul Wesslund

NRECA Contributing Writer

Solar energy and wind power may not seem like a big deal. Unless you're talking about the future. Or maybe even the present.

For all today's talk about renewable energy, it still makes up a pretty small portion of the energy sources that generate our electricity. But it's coming on fast, and it's picking up speed.

Here's your crash course in how wind, the sun and water generate electricity.

Solar energy

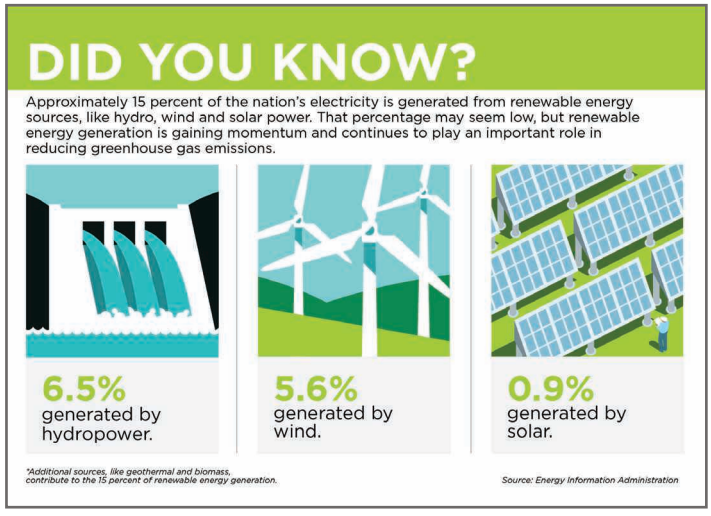
Solar energy generates only about 1 percent of the nation's electricity, but that's a stunning increase from just five years ago, when the number was too small to report for the U.S. Department of Energy. Solar growth will continue as costs fall, technology improves and people figure out better ways to use solar energy.

There are lots of ways to use energy from the sun. You can hang your washed clothes outside to dry, and you can open curtains to warm your home on a sunny day. More ambitious projects use the sun to warm pipes full of water that is pumped around a building for heat.

But what most people mean when they talk about solar energy is photovoltaic electricity. When certain materials get hit by sunlight, their atoms spit out an electron, and electricity is just a stream of electrons. Over the decades, scientists and engineers experimented with solar-sensitive materials to make them into lighter, longer-lasting and more affordable wafers called photovoltaic cells, which are combined and integrated into solar photovoltaic modules. One of their first uses was space travel, and continued improvements are allowing solar to become a more down-to-earth kind of energy.

One of those improvements is cost. Solar panel prices dropped 85 percent in the past seven years with improvements in materials and larger-scale production methods.

Another technological advance is about to give the industry an



extra boost, says Dale Bradshaw, a technical consultant with the National Rural Electric Cooperative Association (NRECA). He says solar panels can now track the sun as it moves across the sky rather than sitting fixed in place, raising their productivity by collecting more sunlight throughout the day. This year, the U.S. Department of Energy's Energy Information Administration reported that half the large solar installations in the country already use some kind of sun-tracking technology.

It's also worth knowing that the solar industry is maturing with different forms of ownership: utility, industrial, commercial and residential scale, and community solar installations.

Utility scale is what you might expect – large banks of solar panels owned and operated by an electric utility or other large organization, producing many megawatts of solar energy. Industrial and commercial solar installations can range from kilowatts up to multi-megawatts and be placed on rooftops, over parking lots or on land near industrial and commercial enterprises. Industrial and commercial installations are beginning to increase as the price for solar continues to drop. Residential solar installations are also being installed primarily on rooftops, especially in the southwestern United States.

NRECA's Bradshaw says community solar can ease the higher expense of self-owned rooftop solar. With community solar, a utility builds a large solar installation and sells shares in the project to customers interested in an investment in renewable energy. That style of ownership and development is especially suited to consumer-owned electric co-ops, and many are offering solar shares to their members.

"Co-ops are doing a great job of building community-scale solar," says Bradshaw. "They're going full blast on that."

Bradshaw also notes that community solar allows a homeowner to avoid both maintenance of their own system, and the hassle of sorting out different offers from rooftop solar vendors.

Wind power

Wind power has increased significantly as costs continue to decrease. Wind power generates nearly 6 percent of the nation's electricity, and it is growing at a pretty good clip, with an increase of about 35 percent during the past four years.

In a way, wind generates electricity the same way as coal, natural gas and nuclear – by spinning a turbine that creates an electricity-producing magnetic field. The huge difference is that the turbine is turned by enormous propeller-like blades designed to catch the wind.

It's the size of those blades, and the height of the turbine towers (as much as 300 feet in the air) that makes the difference, says NRECA's Bradshaw.

"Wind is a really useful renewable, but it has to be utility scale," he says.

A tall utility-scale tower can capture as much as 50 percent of the wind, but there's not a practical, personal alternative to compare with rooftop solar. A rural residential customer or a rural commercial customer with a 50 to 100-foot tower will probably generate electricity only about 25 percent of the time. "It's really not cost-effective for small-scale home use when compared to utility scale wind turbines," says Bradshaw.

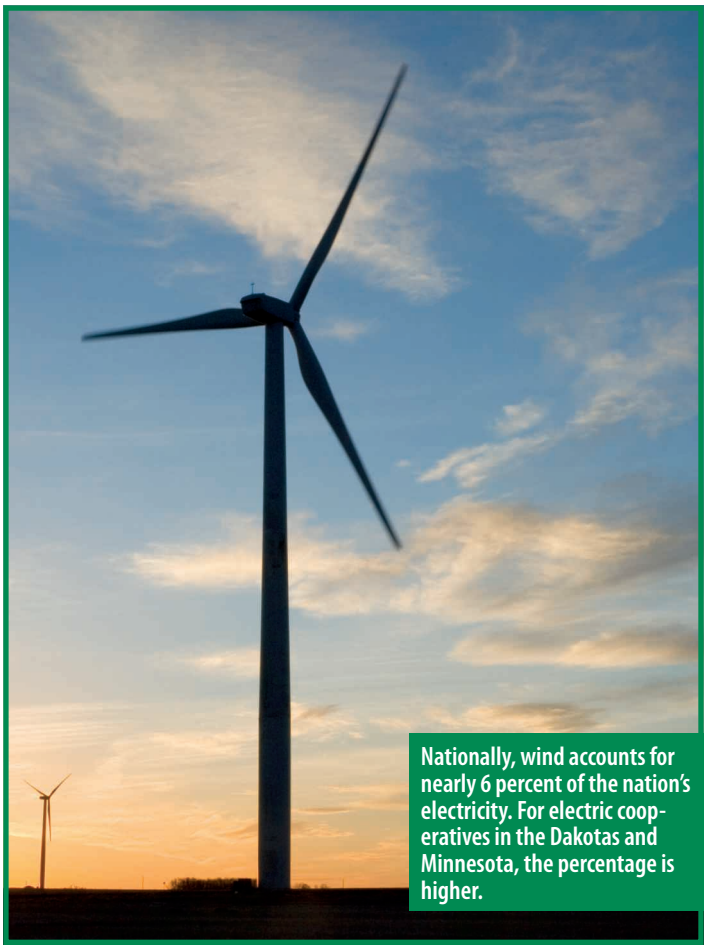
Hydroelectric power

Another way to turn an electricity-generating turbine is to store water behind a dam then harness its power as it flows from the reservoir to the river below.

Specialists disagree on whether to count hydroelectric power as renewable energy. On the one hand, it doesn't create greenhouse gas or other chemical pollutants by burning fossil fuel. On the other hand, large-scale hydro typically calls for building a permanent dam across a river valley and flooding the area behind it. Another option is to put hydroelectric generators directly in rapidly flowing rivers to capture power, but this is a significantly more expensive option than using hydroelectric power from water stored behind a permanent dam. Then there's the question of whether you consider flowing water renewable, or something that can be used up.

Hydroelectric power generates nearly 7 percent of the electricity in the United States. Although that number changes a bit during times of drought or heavy rain, the amount of electricity produced by hydro power has been relatively stable during the past several years.

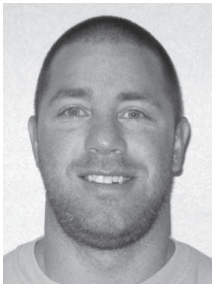
Paul Wesslund writes on cooperative issues for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.



Nationally, wind accounts for nearly 6 percent of the nation's electricity. For electric cooperatives in the Dakotas and Minnesota, the percentage is higher.

Joel Janorschke
3 Months of Service

Karen Lupkes
16 Years of Service



Jerrel Olson
15 Years of Service

Dale Schwagel
18 Years of Service

Melissa Przymus
5 Years of Service

Sue Wilts
39 Years of Service

Calvin Anderson
4 Years of Service

Rick Davis
11 Years of Service

Terry Ehli
30 Years of Service

Chris Falk
10 Years of Service

Joe Gahlon
10 Years of Service

Dennis Koch
22 Years of Service

Mark Koch
14 Years of Service

Lon TeKrony
18 Years of Service

Current Addresses Missing for These Former Consumers

We have capital credit checks for these people, but they were returned to us marked unknown.

Please call the office at 1-800-927-5443 if you know their new address. Thanks.

Name	Address	Years On
Roy & Diane Bartz	Homer, AK	1975-2006
Robert Bartelson	New Town, ND	1999-2007
Vicki Cain	Norcross, MN	2000-2003
Rosalyn Cohen	Clear Lake, MN	1973-2009
Roger Fritz	Nashua, MN	2000-2001
Marianne Garmaker	Beardsley, MN	2001-2008
Lynn Iverson	Wahpeton, ND	1979-2004
Terry Larson	Alexandria, MN	2001-2002
Mark Lucas	Sisseton, SD	1999-2003
Mike Matthews	Elk River, MN	2000-2002
Francis Nebben	Beardsley, MN	1999-2010
Jerome Nelson	Desert Hot Springs, CA	1973-2010
Paul Nelson	Fargo, ND	2001-2004
Tammy Pillatzke/Tom Poppler	Hewitt, MN	2001-2004
Harlan Plagge	Montevideo, MN	2000-2010
Thomas & Jan Schoenrock	Alexandria, MN	2000-2010
Henry Wilberts	Long Prairie, MN	2000-2008
Robert Winger	Stillwater, MN	2000-2002

Member Comments

**Thanks for the capital credit retirement benefits – really appreciated this amount being applied to our bill.
Galen and Connie Roark, Rosholt, SD**

**Let there be light! My yard was lit up. I didn't even know they were here. Thank you, thank you for installing a new light.
Carol Nickolauson, Sisseton, SD**

Balance Sheet

December 31, 2017

What We Have

Assets and Other Debits

Utility Plant		
Utility Plant in Service	$24,272,090	
Construction Work in Progress	$619,460	
Total Utility Plant		$24,891,550
Less: Reserve for Depreciation	9,970,041	
Utility Plant Less Reserve for Depreciation		$14,921,509
Investment and Fund Account		
Capital Credits – East River, Basin & CFC	$4,710,039	
Investments in Associated Enterprises	$400,314	
Temporary Investments	$2,697,937	
Total Investment and Fund Account		$7,808,290
Current Assets and Deferred Charges:		
Special Deposits	$1,000	
Accounts Receivable	$995,482	
Prepayments/Materials and Supplies	$366,055	
Interest Receivable	$2,888	
Deferred Debits	$242,743	
Total Current Assets and Deferred Debits		$1,608,168
Total Assets and Other Debits		$24,337,967

What We Owe

Liabilities and Deferred Credits

Long-Term Obligations to REA	$10,863,432	
Long Term Obligations Other	$692,866	
Current and Accrued Liabilities	$1,085,816	
Deferred Credits	$25,582	
Total Liabilities and Deferred Debits		$12,667,696
Net Assets – Member Equities		$11,670,271
Total Liabilities and Other Credit		$24,337,967

What We Own

Member Equities

Patronage Capital	$10,019,428
Operating Margin – Current Year	$581,430
Non-Operating Margin	$682,433
Other Equities	$386,980
Total Member Equities	$11,670,271

Comparative Operating Statistics

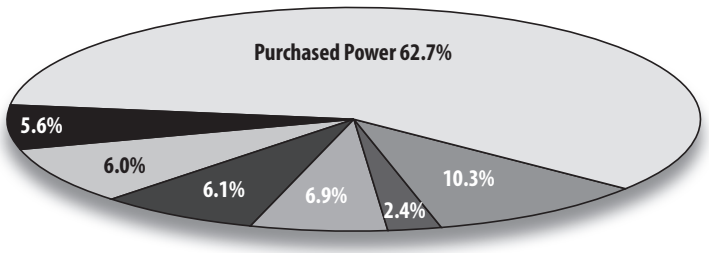
	2016	2017
Number of Miles Energized – Distribution	1,667	1,695
Number of Services in Place	3,154	3,185
Kilowatt Hours Purchased	97,407,528	104,046,774
Kilowatt Hours Sold	92,027,564	98,198,173
Percent Line Loss	6.0%	5.0%

Revenue and Expenses

January 1 to December 31, 2017

Operating Revenue		$10,363,494
Cost of Purchased Power	$6,496,987	
Total System Operations	$1,061,391	
Total Consumer Services	$252,421	
Total Depreciation	$719,104	
Total Interest	$622,923	
Total Administration	$629,238	
Total Cost of Electric Service		$9,782,064
Operating Margins		$581,430
Non-Operating Margins		$238,453
Transmission Capital Credits		$443,978
Total Margins		$1,263,861

What Do Your Dollars Pay For?



2.4% Consumer Services
5.6% Interest
6.1% Administration
6.0% Operating Margins
6.9% Depreciation
10.3% Systems Operations

Summary of Loan Fund

Total Debt Obligation, Dec. 31, 2017	$14,537,658
Balance	$14,537,658
Less: Advance Payments	$2,981,360
Net Obligations to RUS, FFB, CFC CoBank and USDA 12/31/2017	$11,556,298

Capital Credits Paid*

1956 to 2000 ..... $3,718,398.03

2001..... $178,353.13	2006..... $245,719.10	2012..... $220,197.99
2002..... $188,970.34	2007..... $245,782.06	2013..... $199,990.49
2003..... $197,525.99	2008..... $280,627.11	2014..... $299,995.08
2004..... $219,103.90	2009..... $321,723.71	2015..... $288,893.81
2005..... $38,449.06	2010..... $331,007.12	2016..... $300,004.40
	2011..... $384,588.29	2017..... $400,010.49

Total Paid Back: $8,059,340.10

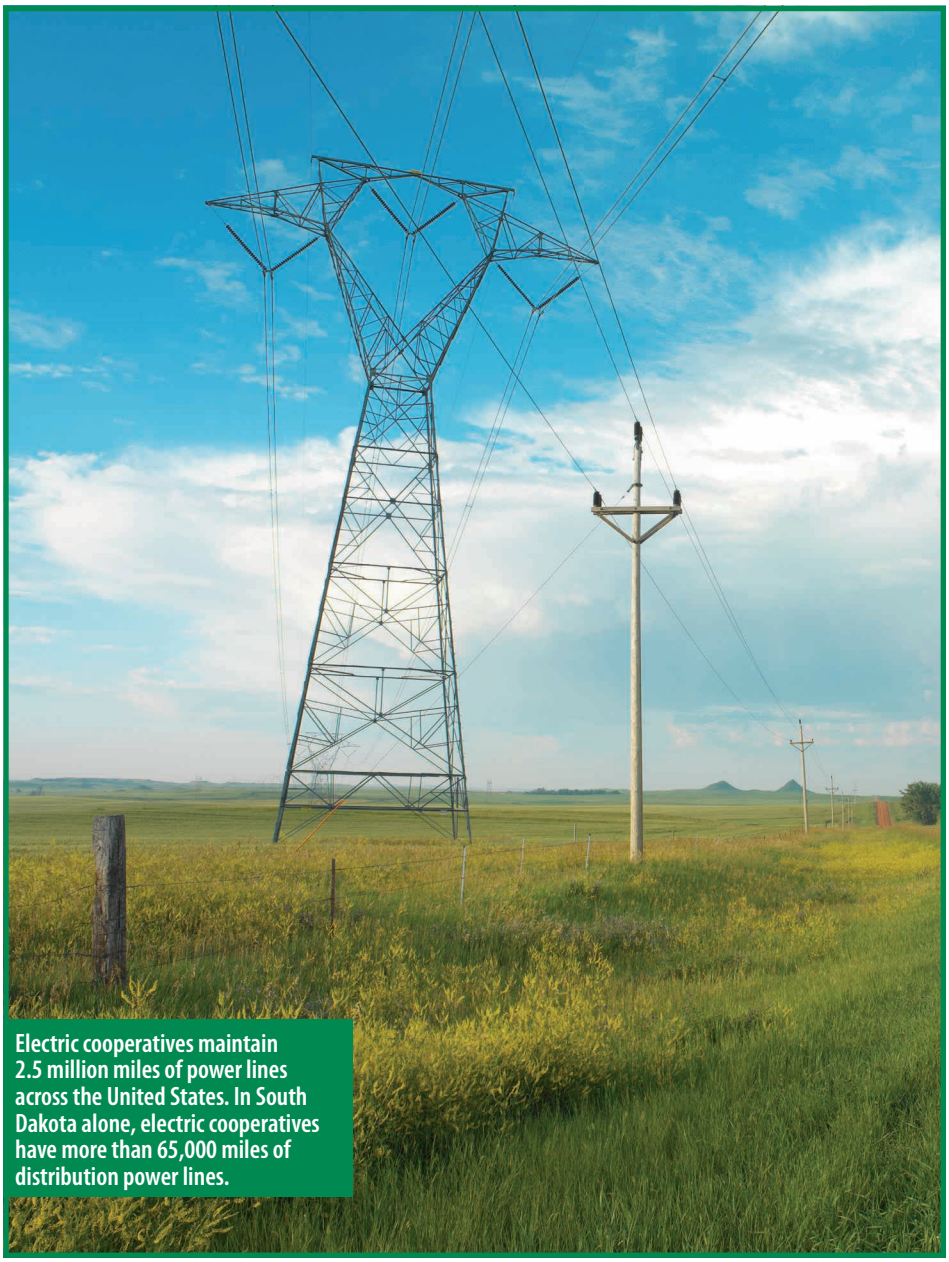
*Capital credits shown above have been paid to estates of deceased members plus payments to members for years 1942 through part of 2000.

Robots and Sensors

Electric co-ops use innovative technologies for real-time feedback on the health of the grid.

Thomas Kirk
NRECA Associate Analyst

Today, electric cooperatives may choose from a wide array of technologies that give them near real-time feedback on the health of the grid.



Electric cooperatives maintain 2.5 million miles of power lines across the United States. In South Dakota alone, electric cooperatives have more than 65,000 miles of distribution power lines.

Electric grids are immense machines that span counties, and often entire states, bringing power to many homes and businesses. So how do the electric companies know what's happening on their lines? How much power is being delivered? What equipment needs to be replaced? These are important questions that electric cooperatives spend a lot of time and money to answer.

For many years, electric co-ops relied entirely on in-person inspections to determine asset conditions and calls from members to discover power outages. During and after storms, this could mean lengthy recovery times as supervisors evaluated the available information and decided where to send line crews, who then searched for damaged lines in order to make repairs and restore electric service. Even normal operations required personnel to be sent into the field constantly to perform manual inspections. Today, electric co-ops may choose from a wide array of technologies that give them near real-time feedback on the health of the grid. Monitoring and automation technologies are becoming more affordable and gaining more functionality leading to greater use in the field.

Two of the most common technologies in this space are Supervisory Control and Data Acquisition (SCADA) and Automated Meter Infrastructure (AMI).

SCADA systems have greatly evolved since their original development in the 1920s. Modern systems take advantage of communication, monitoring and automation technologies to give utilities a

Electric cooperatives are exploring a host of innovative technologies, such as smart meters and special sensors placed on power lines for niche applications, including fault location, power theft detection and asset management.

real-time picture of how substations are performing and make changes as needed. At the end of the line, AMI, also known as smart meters, report back to the utility how much energy consumers use, often on a 15-minute basis. Utilities can "ping" these meters to determine if they're still receiving power during storms or other types of outages.

Beyond AMI and SCADA, utilities are exploring a host of other sensor technologies for niche applications including fault location, power theft detection and asset management. These applications are being enabled by a new wave of inexpensive sensors that cost one-tenth of what they did a decade ago. When a fault occurs on a transmission line (the large power lines that carry power from plants to substations), they create transient waves on the lines. By placing special sensors on transmission lines and measuring the time that a wave reaches two of these sensors, the location of a fault can be accurately and quickly determined. This lets the utility know exactly where to send repair crews.

Across the whole U.S. electric industry, roughly $6 billion worth of electricity is stolen annually, which leads to higher prices for everyone. Traditionally, one of the best tools for identifying power theft is visual inspection of meters for signs of tampering, but with AMI systems, utility personnel aren't visiting meters in-person as often. Load-monitoring sensors – often called current transformers (CTs) or current sensors – can be placed on distribution power lines to help catch significant losses along a line, from theft or for other reasons. Data gathered by CTs can be reconciled with meter readings to investigate discrepancies between the electricity passed through the line and the electricity measured by the meters. CT devices are also valuable for diagnosing excessive line loss due to other problems, such as conductor damage or aging transformers.

For members, these technologies provide three primary benefits: increased reliability, reduced outage times and lower prices.

For members, these technologies provide three primary benefits: increased reliability, reduced outage times and lower prices as the utility manages employee time and resources more efficiently. As sensors continue to improve and drop in price, expect to see more real-time grid monitoring.

Thomas Kirk is an associate analyst of distributed energy resources for the Arlington, Va.-based National Rural Electric Cooperative Association's Business & Technology Strategies (BTS) division.

Dakota Gasifcation Company's Great Plains Synfuels Plant is located near Beulah, N.D., and is adjacent to Basin Electric's Antelope Valley Station.

VALUE OF AN ASSET

Why Basin Electric will continue to operate Dakota Gasification Company

Tracie Bettenhausen

Basin Electric Senior Editor

Here is a high-level look at why the decision to continue to operate Dakota Gas makes sense for Basin Electric's members.

Spend a bit of time thinking about your hardest business decision.

Was it always clear it was the right thing to do? What about the moments you questioned yourself, or outside forces made the decision seem foolish? Did you stick it out? Has it paid off?

The nature of the business surrounding Dakota Gasification Company's Great Plains Synfuels Plant is based on commodity prices. The price of oil and natural gas, the prices that crops are selling for, the price of fertilizer and, though less so, the price of other products like carbon dioxide.

When commodity prices were higher, profits meant Basin Electric was able to return a lot of money to its members. The Great Plains Synfuels Plant has served as a $1.4 billion benefit to its members since 1988, and continues to provide benefits.

However, the most recent 10-year financial forecast shows losses every year.

Basin Electric directors and senior staff have decided the cooperative needs to hang steady with Dakota Gasification Company while maintaining its focus on strategic cost management and continuing to look at other options.

The decision was explained to Basin Electric members during a Members Strategic Direction Meeting in November.

"We wanted to be able to have an open dialogue with our members, where they could ask specific questions we just can't answer in an open meeting," says Paul Sukut, Basin Electric CEO and general manager. "We were pleased with how that meeting turned out. It was very well attended, and we took as much time as everyone needed to get questions answered. There is still work to do on this, but I know by going to our cooperative roots, using the business model's best attributes of transparency and democracy, we are making the best decisions we can."

Here is a high-level look at why this decision makes sense for Basin Electric's members.

History of the purchase

Basin Electric bought the Great Plains Synfuels Plant from the U.S. Department of Energy (DOE) as a way to salvage the synergies that had been built between the Synfuels Plant and Antelope Valley Station. The DOE had acquired the plant after the original owners failed.

"At the time the DOE announced its intent to close the plant, Basin Electric was under a great deal of financial stress," says Mark Foss, Basin Electric senior vice president and general counsel. "The load growth the cooperative had forecasted was not materializing, and Basin Electric had about 2,000 megawatts (MW) of generation. Our peak loads were only at 1,000 MW."

Basin Electric formed two subsidiaries to make the deal: Dakota Coal Company paid $69 million for the coal rights, Dakota Gas paid $16 million for the natural gas pipeline that reaches to the Northern Border Pipeline, and Basin Electric paid $0. As part of the deal, Basin Electric agreed to forgo production tax credits and go through with a profit-sharing agreement for 15 years.

Basin Electric had interest in keeping the plant operating for several reasons, including those related to member rates. The Synfuels Plant used about 90 MW of electricity when operating at full load. If the plant had closed down at that time, Basin Electric would have had to increase rates by 14 percent, Foss says.

From 1988-2014, Dakota Gas invested $845 million into the plant in capital improvements, all funded with self-generated cash, including the proceeds from a legal settlement concerning the gas pipeline, according to Foss.

Bottom line impacts

While the decision to buy the Synfuels Plant paid off initially, the benefits proved themselves year after year when commodity prices were high.

Of the $1.4 billion in benefit Dakota Gas has had to Basin Electric since 1988, $300 million has been through dividends and bill credits paid to members, and $1.1 billion is in synergies in operations between the various facilities, according to Susan Sorensen, Basin Electric vice president and treasurer.

Sorensen explains that the shared coal supply keeps costs down for other Basin Electric facilities. If the Synfuels Plant would be shut down, the cost of mining coal would need to be absorbed by other users. A shutdown of the Synfuels Plant would increase coal prices for Leland Olds Station and Antelope Valley Station, coal-based power plants near Stanton, N.D., and Beulah, N.D., respectively.

Also, because the Synfuels Plant shares water and rail services with Antelope Valley Station, those benefits would be shifted over to the power plant.

"Dakota Gas currently pays about 30 percent of the overhead costs at Basin Electric Headquarters," Sorensen says. "That percentage that is already netted down when considering some costs, like a haul road or computer mainframe, cannot be reduced by selling the asset."

The Synfuels Plant uses a large amount of electricity, which supports Basin Electric's margins. Also, the Freedom Mine, which supplies coal to the North Dakota facilities, is a large electricity consumer of Roughrider Electric Cooperative, a Basin Electric Class C member.

Rates and projects

The urea production facility at the Synfuels Plant has had financial challenges for some of the membership. The budget increased over the course of construction due to increases in quantity of materials and costs of labor required to build the facility. The project was further challenged by the quality and timeliness of engineering, and ultimately, staff released the general contractor for sustained poor performance. Once those issues were resolved, the project has consistently met its targets and is set to go into production by the end of January 2018.

Despite those struggles, recent rate increases can't be attributed to the construction project's budget.

"Basin Electric's average member rate went up through 2016 due to several factors," says Dave Raatz, senior vice president of Resource Planning. "Member growth was increasing across the entire membership, and we were building infrastructure to support that. Especially in the Bakken oil region of western North Dakota and eastern Montana, the growth meant Basin Electric was building generation and transmission to support the reliability of the transmission system."

The plant will produce 360,000 tons of urea each year. According to Ken Rutter, Basin Electric senior vice president of Marketing and Asset Management, there is 2.2 million tons of demand each year within a 200-mile radius of the plant.

Backing up the decision

While these factors may be enough on their own for Basin Electric to keep the Synfuels Plant operating, staff knows more action needs to be taken.

Through September 2017, Dakota Gas employees have been able to find ways to reduce expenses by $24.5 million.

Once the urea production facility is operating, the Synfuels Plant will need 160 MW of electricity, and is expected to run at a 93-percent capacity factor, according to Dave Sauer, Dakota Gas senior vice president and chief operating officer.

A creative tactic would change the way the power contract between Dakota Gas and Basin Electric is written. Currently, the Synfuels Plant pays a higher-than-market rate. Having the plant pay market rates wouldn't impact Basin Electric. Also, a plant write-down is being considered, which wouldn't affect operation of the plant.

Employees of Dakota Gas and Basin Electric continue to search for ways to reduce costs and operate the plant more efficiently. Normal staff attrition has helped reduce the workforce as employees leave due to retirement and other opportunities.

On the Basin Electric side, directors are looking at a revenue deferral plan, which would allow for financial flexibility for future instances like what is happening today. Staff is working to optimize the generation fleet, focus on market exposure, and work on a coal asset strategy.

Urea Plant Starts Up

North Dakota's first urea fertilizer production facility, located at Dakota Gasification Company's Great Plains Synfuels Plant near Beulah, N.D., is successfully making product and was declared commercial Feb. 1.

Urea is a dry, granular fertilizer commonly used in agricultural applications, and has the highest nitrogen content of all solid fertilizers. The facility produced urea for the first time Jan. 19. Employees are currently working toward the goal of producing up to 1,100 tons of product per day.

"I want to thank the employees of Dakota Gasification Company and Basin Electric for working safely and efficiently to achieve this major milestone," said Paul Sukut, Basin Electric CEO and general manager. "Hard work and innovation are hallmarks of America's Heartland, and I'm proud that the completion of this project carries on that tradition.

The plant has the ability to shift a portion of the urea production to produce diesel exhaust fluid, used to reduce emissions of nitrogen oxides from diesel engines. Additionally, the new facility has the capability of producing liquefied carbon dioxide, which is expected to be used in the oil production industry. The products bring the Synfuels Plants total product count to 13.

Construction on the project started in July 2014.

March 3-6
2018 Summit League Basketball Championship, Sioux Falls, SD, 605-367-7288

March 9-10
Holiday Arts Spring Craft Show, Masonic Temple, Mitchell, SD, 605-359-2049

March 10
Farm and Home Show, 10 a.m. to 5 p.m., Auditorium, Gregory, SD, 605-830-9778

March 10-11
2018 Gun Show, American Legion Hall, Saturday 9 a.m. to 5 p.m., Sunday 9 a.m. to 3 p.m. MST, Philip, SD, 605-859-2280 or 605-441-8466

March 15-17
South Dakota High School State B Boys Basketball Tournament, Barnett Center, Aberdeen, SD

March 15-17
South Dakota High School State A Boys Basketball Tournament, Rushmore Plaza Civic Center, Rapid City, SD

March 15-17
South Dakota High School State AA Boys Basketball Tournament, Premier Center, Sioux Falls, SD

March 16-17, 23-24
60th Annual Schmeckfest, Freeman, SD, 605-925-4237

March 17
Annual Ag Day at the Washington Pavilion, Sioux Falls, SD, 605-367-6000

March 24
Spring Craft Fair/Flea Market, American Legion Hall, Wagner, SD, 605-384-3543

February 24: Annual Outhouse Races and Chili Cook-off Contest, Nemo, SD, 605-578-2708

Photo courtesy travelsd.com

March 24
Milltones Spring Show, 7 p.m., High School Theatre, Milbank, SD

April 5
McCrossan's Wildest Banquet Auction in the Midwest featuring A Night Out with the PBR, 5:30 p.m., Arena, Sioux Falls, SD, Tickets: $75 each, 605-339-1203, www.mccrossan.org

April 6
SPURS Spring Dance, Dakota Events Center, Aberdeen, SD, Tickets available at the Hitch 'N Post or by calling 605-226-1099

April 6-7
Forks, Corks and Kegs Food, Wine and Beer Festival, Deadwood, SD, 605-578-1876

April 6-8
Professional Bull Riders Built Ford Tough Series, Sioux Falls, SD, 605-367-7288

April 7-8
Hats Off to the Artists Art Show, Faulkton, SD, 605-598-4160

April 25-29
Black Hills Film Festival, Hill City, SD, 605-574-9454

April 28-29
Bike Show, Ramkota Convention Center, Aberdeen, SD, 605-290-0908

May 10
Chris Young, Don Barnett Arena, Rushmore Plaza Civic Center, Rapid City, SD, 605-394-4115

May 13
1880 Train Mother's Day Express, Hill City, SD, 605-574-2222

May 18
Turkey Races, Huron, SD, 605-352-0000

May 18-19
Sioux Empire Film Festival, Sioux Falls, SD, 605-367-6000

May 18-20
State Parks Open House and Free Fishing Weekend, Pierre, SD, 605-773-3391

May 18-20
Tesla Road Trip Rally, Custer, SD, 605-673-2244

July 7
Hedahls Auto Value Car Show, Hav-A-Rest Campground, Redfield, SD, 605-380-9985

July 10-15
4th Annual 3 Wheeler Rally, Deadwood, SD, 605-717-7174, www.d3wr.com

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.