

# BASIN TODAY

BASIN ELECTRIC POWER COOPERATIVE

| SUMMER 2022



**THE COOPERATIVE  
FAMILY**





Tour season officially began June 27, and the Basin Electric board of directors was one of the groups to participate. On August 9, they visited Antelope Valley Station, the Great Plains Synfuels Plant, and The Coteau Properties Company's Freedom Mine (pictured). Each year, Basin Electric hosts visitors at its facilities to show them how electricity is made and Basin Electric's role in providing reliable, affordable energy to member cooperatives.

# CONTENTS

VOLUME 25 | NUMBER 2

## ON THE COVER

Family is a big part of the cooperative way of life. One way that Basin Electric thanks its employees for their hard work is by hosting a Family Night event. Each location's celebration is done differently, from having a picnic with inflatables to attending a sporting event. On the cover is a group of Headquarters employees enjoying dinner before a Larks baseball game.

## IN EVERY ISSUE

- 2 CEO and general manager column: Todd Telesz
- 4 In brief
- 8 Member focus
- 17 Employee highlight feature: A family tradition: Three generations at Dakota Gas
- 18 Employee highlights

## FEATURE STORIES

- 6 Adding major transmission infrastructure in western North Dakota
- 10 How we serve ... with Distributed Generation
- 12 2022 Basin Electric scholarship winners
- 14 Feeling the heat: Reliability remains top priority after summer assessment points to possible shortfalls

## CONTRIBUTORS

- Guest Editor: Kalli Senske ([ksenske@bepc.com](mailto:ksenske@bepc.com))
- Graphic designer: Janene Pudwill
- Photographers: Greg Wheeler, Joy Schnabel, & Michael Hardy
- Writers: Angela Magstadt, Caitlyn Inman, & Tracie Bettenhausen



Use your smartphone barcode scanner to view stories online.



A portrait of Todd Telesz, a middle-aged man with short brown hair, smiling warmly. He is wearing a brown and white plaid button-down shirt over a white t-shirt. The background is a blurred outdoor setting with green trees and a clear sky.

# TODD TELESZ

## COOPERATIVE POWER DRIVING AMERICAN ENERGY SECURITY

Cooperative power made American energy security and independence possible. I feel confident making that statement, and I think you'll agree.

Let's start with recent history and the coal bed methane surge in Wyoming in the early 2000s. Basin Electric's membership built the Dry Fork Station, a \$1.2 billion coal-based power plant near Gillette, Wyoming, in support of that load.

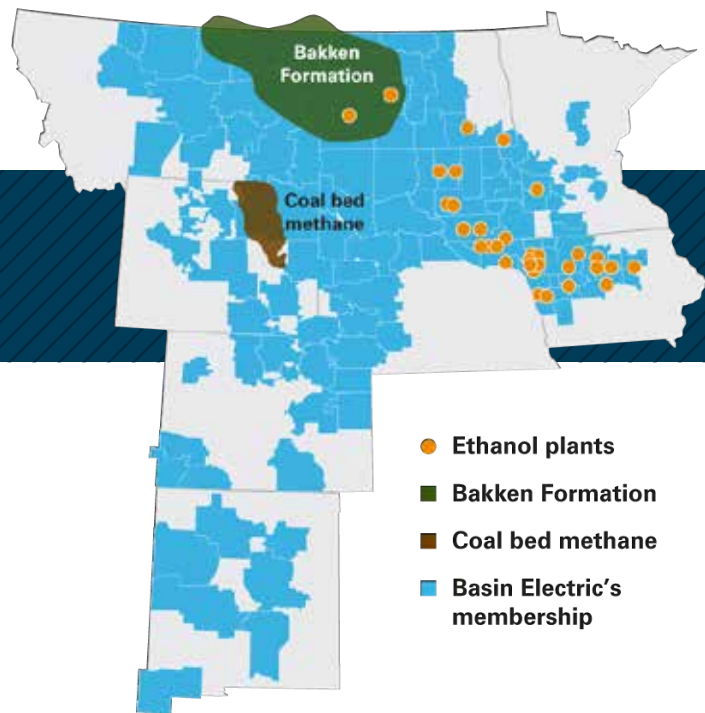
Not long after coal bed methane began to surge, the ethanol industry started building in earnest when the Renewable Fuel Standard was passed in 2005. Today, the cooperative family serves 32 ethanol plants which account for more than 250 megawatts of additional load. That figure does not include the economic growth in the region that flourished with these facilities. Basin Electric and its membership invested hundreds of millions of dollars to add transmission and interconnection points, and generation including natural gas-based and wind generation, to generate the power necessary to transform corn into fuel and serve additional residential and agricultural load, and the ancillary services that go along with that type of growth.

Within the same decade, the Bakken oil region in western North Dakota and eastern Montana began a boom that continues to rumble to this day. To date, the Basin Electric family has invested more than \$1 billion into the region in natural gas-based generation and high-voltage transmission to support the incredible volume of additional load required to develop that shale. We anticipate replicating this level of investment in our generation and transmission portfolios over the course of this decade in servicing the energy and other industrial sectors.

Electric power and the Basin Electric family of cooperatives have supported the energy security and independence of our nation for decades. Electric cooperatives were built by farmers and ranchers who worked together to bring electricity to areas where investor-owned utilities would not go. We are rooted in the mission to serve rural areas as a whole, to build something bigger than any one of us could do alone.

The tenacity of our founders, the drive of the men and women who brought electricity to rural America and then gathered to form this co-op of co-ops called Basin Electric, has all led to substantial growth and economic development opportunities beyond our membership.

# INDUSTRY INVESTMENTS IN SERVICE TERRITORY



Take oil, for example. In 2018, the United States became the largest oil producer in the world at nearly 4 billion barrels per year, according to the U.S. Energy Information Administration, surpassing both Saudi Arabia and Russia for the first time since the late 1990s. In November 2019, the United States became a net exporter of oil.

Data at the North Dakota Petroleum Council shows that from 2005 to 2021 North Dakota's field production of crude oil increased from 35.6 million barrels per year to 393.8 million barrels per year — that's more than a 1,000% increase. Oil domestically produced from the breadbasket of the United States rather than foreign countries is perhaps our greatest stake in the ground for energy independence.

It is not a stretch to say our investment of a billion dollars to support the Bakken shale boom was responsible for boosting our nation to that record-setting level of production. In April 2014, North Dakota began producing 1 million barrels of oil per day. Currently, North Dakota is third in the nation for oil production, behind only Texas and New Mexico.

The Basin Electric family of cooperatives is also supporting the capture of flare gas from new oil wells in North Dakota. There are 30 natural gas processing units operating in North Dakota, and in 2021, 93% of the gas produced by Bakken wells was captured and sold. This natural gas also provides a source for lower-priced gas for our natural gas-based generation facilities due to abundant supply in the area.

Pipeline transportation of oil is supported by Basin Electric's membership as well. The pumping stations along existing pipelines are powered by homegrown cooperative generation.

Our network of wires, poles, and power plants has built what our nation needed to thrive without the influence of foreign countries that are not aligned with America's interests at home and abroad. And our all-of-the-above energy portfolio, a time- and stress-tested strategy utilizing a diverse set of technologies and domestic fuel sources, ensures the engine that feeds and fuels our nation remains reliable, affordable, and responsible.

Since 1961, Basin Electric and its members have built an extensive power grid to energize the Upper Great Plains, the Rocky Mountains, the Midwest, and beyond. We will continue to power the nation through our immediate membership and the energy production our electricity has made possible.

Our generation and transmission, and the people who can influence and imagine the future of our industry, will continue to bolster the reliability of the power we provide for an energy-secure and energy-independent future that provides the foundation for a thriving, world-leading economy.

*Todd E. Telesz, CEO and general manager*



## Brickhouse named Basin Electric's new chief financial officer

Todd Brickhouse joined the cooperative as its senior vice president and chief financial officer (CFO) effective June 10.

Longtime CFO Steve Johnson retired in June after more than 40 years of service to Basin Electric.

"We are very happy Todd has accepted the role of CFO," said Todd Telesz, Basin Electric chief executive officer and general manager. "He is a seasoned professional having worked many years within the cooperative model and financial markets. His experience and leadership will be instrumental to our success as we continue to serve the needs of our membership. I also want to thank Steve for his years of commitment to Basin Electric and our membership. Through his guidance and leadership, he has built a tremendous team that will help lead the cooperative well into the future."

 <https://bit.ly/ToddBrickhouse>

## Directors hold summer strategic planning session

Prior to June's board meeting, the Basin Electric board of directors and senior leadership team met to continue ongoing strategic planning efforts. The strategic planning structure is an ongoing process with several sessions held every year. The sessions are part of a continuous effort to develop and monitor strategic planning initiatives for Basin Electric and its subsidiaries.

Highlights of the summer 2022 planning session included:

- Capital funding plan
- Environmental, social, and governance (ESG) impacts
- Generation planning
- Dakota Gasification Company options

 <https://bit.ly/BasinPlan2022>

## Supreme Court ruling is positive for coal

On June 30, the Supreme Court of the United States ruled that the Environmental Protection Agency's (EPA) Clean Power Plan, a regulatory program finalized in 2015, was unconstitutional. The Clean Power Plan would have required coal-based power plants to reduce greenhouse gas emissions by reducing coal generation and shifting that generation to other types of electric generation that produce less emissions, such as renewables like wind and solar.

The court determined that because the legislative branch had not expressly granted the agency the authority to regulate in this manner, the Clean Power Plan was an unconstitutional expansion of the authority granted to the EPA under the Clean Air Act.

 <https://bit.ly/CoalRuling>

## Basin Electric board approves rate decrease, returns millions to members

On Aug. 10, Basin Electric's board of directors unanimously voted to decrease member rates by an average of one mill. This rate decrease amounts to approximately \$33.5 million in 2023 alone.

The board's action to reduce rates comes just weeks after approving two other financial resolutions to return millions to its members. At its July meeting, directors authorized a \$15 million bill credit on members' July power bills as well as the retirement of \$13.2 million in patronage capital credits. The bill credit was issued due to midyear consolidated financial results being better than budgeted. The patronage capital credits represent margins from 2005. These two actions will bring the amount returned to members since the year 2000 to over \$630 million via retiring patronage capital credits and bill credits.

 <https://bit.ly/BoardApprovesDecrease>

## Storms, high winds cause damage to Basin Electric, member transmission equipment

Storms bringing high winds caused severe damage to Basin Electric and many member systems' equipment in May and June.

Basin Electric had severe damage to 18 transmission structures on one line and 16 on another in South Dakota. Transmission System Maintenance crews repaired two miles of the 230-kilovolt (kV) line, allowing it to go back into service on June 26. The other, a 345-kV line from Leland Olds Station to Groton, South Dakota, is still being repaired.

 <https://bit.ly/MemberStorms>



## McGrew named Basin Electric's new senior vice president of Human Resources

Miles McGrew joined the cooperative as its senior vice president and chief human resources officer effective August 1.

"Miles' experience makes him a great fit for this role and the cooperative," said Todd Telesz, Basin Electric chief executive officer and general manager. "He has extensive Human Resources experience across multiple disciplines and has spent much of his career in the Midwest, so he is familiar with Basin Electric's service territory and rural America's values. We are very happy he has accepted this position and look forward to having Miles join our leadership team."

 <https://bit.ly/MilesMcGrew>

## FIND US ON THE WEB



[BasinElectric.com](http://BasinElectric.com)

[DakotaGas.com](http://DakotaGas.com)



Read Basin Today online @ [basinelectric.com/BasinToday](http://basinelectric.com/BasinToday)

Read Basin Electric news online @ [basinelectric.com/NewsBriefs](http://basinelectric.com/NewsBriefs)

## CONNECT WITH US



[/basinelectric](https://www.facebook.com/basinelectric)



[@basin\\_electric](https://twitter.com/basin_electric)



[/basinelectric](https://www.youtube.com/basinelectric)



[basin\\_electric](https://www.instagram.com/basin_electric)



[/company/basin-electric-power-cooperative](https://www.linkedin.com/company/basin-electric-power-cooperative)



[basinelectric.com/news-center](http://basinelectric.com/news-center)





# ADDING MAJOR TRANSMISSION INFRASTRUCTURE IN WESTERN NORTH DAKOTA

*By Tracie Bettenhausen*

Think of an interstate highway system. Drive through the middle of North Dakota and things are pretty simple. You've got a straight road with on ramps and off ramps every few miles to get traffic to where it needs to go.

Once you get to a city like Minneapolis, however, you have many more on ramps and off ramps and intersecting highways. As population grows and traffic intensifies, the highway system must grow with it.

Now think of the electric transmission grid. Where there is increased people and businesses, and therefore more meters on the system using more electricity, more infrastructure like roads and off ramps are needed.

That is the situation in western North Dakota. The Southwest Power Pool (SPP) conducted an Integrated Transmission Planning study and in 2021 determined the need for extensive new transmission infrastructure in the area.

"The two areas that saw a major need for infrastructure were the Bakken region as well as the Permian Basin down in the New Mexico/Texas area due to the load growth both areas are forecasted to have," Jeremy Severson, Basin Electric manager of Transmission Services, says. "They saw reliability concerns due to voltage and loading. These projects will strengthen the reliability of the system and provide a good base for load growth to come."

Severson says the SPP Integrated Transmission Planning study is done annually. "It looks at the five- and 10-year

reliability, economic, and policy needs of the system. When they identify those needs, they open up a window to allow stakeholders to submit projects that would mitigate those needs in the system. SPP then puts together a portfolio of projects ... which is ultimately approved by the SPP board of directors," Severson says.

In that portfolio of projects, three major transmission projects were identified within Basin Electric's service area. In May, Basin Electric's board approved the projects to address the growing need for reliable power. The cost to construct the projects totals about \$500 million.

"The projects are cost-allocated via what's called the 'highway/byway' within the tariff. That means anything 300-kilovolt (kV) or higher is cost-allocated on a regional basis," Severson says. "These projects were found to be necessary for the SPP system, and therefore the cost is spread out amongst all members of SPP."

## A TEAM EFFORT

Several areas at Basin Electric are involved in the planning and construction of these projects.

The Transmission Services team works on project feasibility and approval through the SPP processes. The engineering team develops the detailed scope of work and leads the design efforts for the projects. The routing and design phase includes critical roles from Basin Electric's Right-of-Way, Environmental and Permitting, and surveying staff. Project information is organized by Basin Electric's GIS (geospatial information systems) team.



## NEXT STEPS

Basin Electric's Right-of-Way team has begun contacting landowners for survey permission and feedback on preferred routes; in parallel, the Environmental team is developing a permit application for the final route to submit to the North Dakota Public Service Commission. After all easements and permits are obtained, the project will begin construction.

## PROJECT SNAPSHOTS

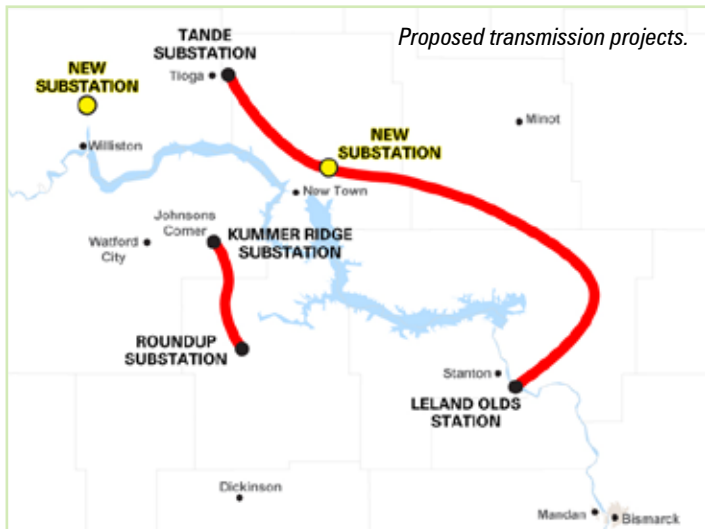
### East Loop 345-kV transmission project

Bobby Nasset, Basin Electric supervisor of Civil Engineering, says the East Loop 345-kV transmission project is the largest of the three projects.

The transmission line will be roughly 175-miles long from Leland Olds Station (near Stanton, North Dakota) to Tande substation (near Tioga, North Dakota) and includes a new intermediate 345/115-kV substation to provide a new 115-kV delivery point for Mountrail-Williams Electric Cooperative, a Basin Electric Class C member headquartered in Williston, North Dakota.

The project also includes the reconstruction of the 345-kV substation at Leland Olds Station, which is part of ongoing aging infrastructure work.

Construction will take about 18 months once all easements and permits have been obtained. The project is planned to be energized in late 2025.



### Roundup-to-Kummer Ridge 345-kV transmission line

The Roundup-to-Kummer Ridge 345-kV transmission line will run between two existing substations north of Killdeer, North Dakota. The 35-mile transmission line will be built through challenging terrain, and several route options are being considered. The line is planned to be energized in late 2025.

### East Fork 345/115-kV substation

The East Fork 345/115-kV substation, which will be located near Wheelock, North Dakota, should be energized in 2024. The official name for the project is yet to be determined.

Nathan Miller, Basin Electric senior electrical engineer, says this substation will intersect the existing 345-kV Judson-to-Tande transmission line and add a new point of delivery for Mountrail Williams Electric's 115-kV system.



## NESET-TO-NORTHSHORE TRANSMISSION PROJECT

Another transmission line, approved in 2020, began construction in the fall of 2021.

The 230-kV Neset-to-Northshore transmission project includes a new 230-kV substation named Northshore and a 27-mile long transmission line from the existing Neset substation to the proposed Northshore substation.

Construction is scheduled to finish in November with energization complete by the end of the year.

The project was previously identified by SPP as required to meet reliability standards and projected electrical demands.

The Garfield Dairy in Bryant, South Dakota is a member of Basin Electric Class C member H-D Electric Cooperative.



# SOUTH DAKOTA CO-OP, DAIRY HAVE AN 'UDDERLY' GOOD PARTNERSHIP

*By Angela Magstadt*

Though it's not a co-op, the community-minded values of the new Garfield Dairy near Bryant, South Dakota, make it an ideal member for an electric cooperative with the same commitment to community.

When Riverview, LLC, Garfield Dairy's parent company (based in Minnesota) began looking for the site of its newest dairy, it logically looked for proximity to a processing facility, but also a place where it would have community support. "Community is one of the most important things we look for in a location," Martha Koehl, who works in communications at Riverview, says. "We don't just want to be a business that just happens to be located there, we want to develop partnerships and relationships with the people and businesses in the community. And that is exactly what happened with the Garfield Dairy," she says.

The dairy, named for the township in which it is located, is served by H-D Electric Cooperative in Clear Lake, South Dakota. The dairy operates 24 hours a day, seven days a week, every day of the year. The first cows were milked

in 2021, and today 10,500 cows are milked twice a day.

The cows at the dairy live in free-stall housing, meaning they can move around freely – eating, drinking, and laying down in their pens whenever they choose. When it's time for them to be milked, employees open the gates to their pens and the cows walk to the milking parlor where they step onto a rotating carousel, are hooked up to milking machines, and in seven-and-a-half minutes are finished and return to their home pens on their own.

Each day, some 60,000 gallons of milk are hauled from the dairy to a nearby cheese processing facility. The cows at Garfield Dairy are predominantly Jersey cows because the milk that breed produces is one of the best for making cheese. Alex Hohertz, who works in crop production at the dairy, says the milk is mainly used for mozzarella cheese.

The herd at the Garfield Dairy is a closed herd, meaning its cows are not bought and sold – the calves that are born there will become part of the herd after they have



their own first calf. The dairy has a maternity area with birthing pens, and after calves are born, they receive their mothers' first milk, called colostrum. They then are cared for by specialized staff before they spend their first year at a facility in Arizona. Calves are raised there because the climate is better for them. Then, when they have their first calf, they return to the northern dairies to begin their careers as dairy cows. Bull calves are sold to various local producers to be raised as dairy steers.

Developing partnerships in the community is part of the dairy's culture. "We rely heavily on area producers," Hohertz says. "We are an outlet for their crops, buying 100% of the feed we use from local farmers. And the manure produced at the dairy is applied to local farmland, providing fertilizer for the fields that produce that feed."

Garfield Dairy also depends on the local co-op for its electricity, something that is essential to its day-to-day operation. "We are a large, round-the-clock operation and a lot of animals depend on us, so reliable electricity is very important," Hohertz says. "It takes a lot of electricity to run a dairy, and some of our most important systems won't run without it – things like the milking carousel, milking machines, and the cross-ventilation systems in

the barns, which are large fans that pull air out and keep cows cool – something that is especially important on hot days like we've had this summer."

The relationship Garfield Dairy has developed with H-D Electric began even before production. Tom Lundberg, member services manager for H-D Electric, says Garfield Dairy is one of the co-op's key accounts and one of four dairies it serves. "We've worked hard to develop a relationship with the people at the dairy, and it's been very positive," Lundberg says. "Not only do we appreciate the dairy as a customer but also what it has brought to the communities we serve. It has brought employees to the area – families who live and work here. These people are our new members as well, and they strengthen our membership and our cooperative as a whole."

Koehl agrees that having shared values is beneficial. "Working with H-D, we've learned that there are a lot of parallels between our business and the co-op," Koehl says. "Like us, H-D exists to serve its members and is dedicated to the communities it serves. We know we're in this together. It's mutually beneficial for our businesses, our communities, and those we serve."



Some of the 10,500 cows that are milked twice a day.



# HOW WE SERVE... WITH DISTRIBUTED GENERATION

*By Kalli Senske*

At Deer Creek Station, the team is always working to determine the most cost-effective way to supply Basin Electric members with power.

Located in Brookings County, South Dakota, Deer Creek Station is a combined-cycle power plant that features two turbine-generator sets: one turbine fired by natural gas; the other is driven by steam. The plant's natural gas, often purchased from Dakota Gasification Company, is delivered via the Northern Border Pipeline and a 14-mile underground pipeline to the plant.

But activities at the plant go beyond power generation. The plant is also the hub for dispatching power from most of the cooperative's distributed generation fleet, an essential component to keeping reliable, affordable power flowing to the cooperative's member systems.

"With remote operations, you get to operate most of the units on the distributed generation side. It's a unique

opportunity to learn about every unit in the fleet and be able to dispatch them so fast," Dan Bather, operation technician at Deer Creek Station, says.

Deer Creek Station produces 297 megawatts of power but operates 1,100 megawatts through remote dispatching. The operations team works 24/7 and is able to schedule for day-ahead dispatch or can dispatch power on demand. In coordination with Basin Electric's Marketing team, Western Area Power Administration (WAPA), and the cooperative's other generation facilities, the team dispatches the safest and lowest-cost units.

"It's two guys at a time who control a lot of that in the control room. It's a lot of waiting, looking at SPP (Southwest Power Pool) maps, verifying units are available and permissives are met, and monitoring the CEMS (Continuous Emissions Monitoring System) to make sure we're in compliance with our air permits,"





**BASICALLY EVERYTHING WE DO AFFECTS THE MEMBERSHIP... WHAT'S GOOD FOR THE MEMBERSHIP IS GOOD FOR US.**

*Dan Bather, operation technician at Deer Creek Station*



Bather says. "All of that can change in an instant to dispatching the whole fleet of gas turbines at once, under the right market conditions and generation demands. A big part of the job is watching and communicating when there is congestion or need for generation and completing an order based on prices and market demands."

As the operators at Deer Creek Station are watching the controls for distributed generation, they are watching for many things.

"We're checking alarms, emissions, and the balance of plant stuff, like gas pressures and temperatures," Bather says.

The decision of which units to run is not taken lightly. The team knows it's important to make the most cost-effective decisions to best manage Basin Electric's members' capital.

"The most important thing on the remote operations side is communication. When it comes to making decisions, we work together with the remote sites and Marketing to make sure we're available and able to generate in a safe way," Bather says. "If we have an issue, we just call that site and they troubleshoot or address it to make sure it's available for generation."

Bather says their busiest times are when temperatures are most extreme, and that wind also plays a factor.

"We do deal with wind, but don't control much except resetting and monitoring the turbines," he says. "But we do see an increased need for simple-cycle facilities, like Culbertson Generation Station, when there's low wind. The peak hours in general seem to be a larger load."

Besides coordinating the distributed generation side, Bather and the other operators also focus on keeping Deer Creek Station running efficiently.

"We cover both sides. We are truly the eyes and ears of Deer Creek. There's a lead operator managing the controls and outside operators who do water chemistry, plant rounds, and safety-related stuff – all of the day-to-day routine stuff that's important for keeping the plant running like it needs to," Bather says.

"We're much smaller than a lot of facilities, but we have the ability to produce here, and that's a big advantage. We can meet demand and dispatch much quicker than baseload generation units, and fill in the gap where generation is needed."

Bather says Deer Creek Station is a critical component for providing reliable and affordable energy for Basin Electric and its members.

"Basically everything we do affects the membership. We look at it as a team, and at the end of the day, what's good for the membership is good for us. We strive for availability and safety, and put that at the top of our priority list."



**The operations team at Deer Creek Station remotely dispatches and monitors power from Culbertson Generation Station, Groton Generation Station, Iowa Lakes Superior and Lakota, Lonesome Creek Station, Pioneer Generation Station Phase 1 and Phase 3, PrairieWinds 1, Crow Lake Wind, and reserve from Arvada, Barber Creek, and Hartzog.**



## 2022 BASIN ELECTRIC SCHOLARSHIP WINNERS

Twenty \$1,000 scholarships were awarded to children of Basin Electric and subsidiary employees to further their education this fall. Recipients were chosen for their participation in school and community activities, academic excellence, work experience, and career goals.



**Isaac Anderson** is the son of Ryan (Headquarters) and Staci Anderson. He will be a sophomore at University of Mary in Bismarck, North Dakota, studying mechanical engineering.



**Martin Davis** is the son of Laura (Deer Creek Station) and Tom Davis. He will be a freshman at Lake Area Technical Institute in Watertown, South Dakota, where he is studying agriculture production.



**Kora Biffert** is the daughter of Doug (Dakota Gasification Company) and Kim Biffert. She will be a junior at North Dakota State University (Fargo) studying nursing.



**Alexis Foss**, daughter of Ryan (Antelope Valley Station) and Brandi Tolosky, will be a junior at University of Mary in Bismarck, North Dakota. She is studying business and mass communication.



**Brooke Burgard**, daughter of Alan (Headquarters) and Lynn Burgard, will be a sophomore at University of Jamestown, North Dakota. Her major is nursing.



**Landen Fuller**, son of Lance (Laramie River Station) and Katrina Fuller, will be a senior at University of Wyoming in Laramie. He is majoring in petroleum engineering.



**Logan Ching**, son of Kristie (Deer Creek Station) and Chris Ching, will be a freshman at Lake Area Technical Institute in Watertown, South Dakota. He is studying energy technology.



**Katrina Hellman**, daughter of Michele (Headquarters) and Delan Hellman, will be a freshman at University of Mary in Bismarck, North Dakota. Her major is communications.





**Briska Johnson**, daughter of Abon (Gillette Transmission System Maintenance) and Heidi Johnson, will be a freshman at George Fox University in Newberg, Oregon. She will be studying biology.



**Sydney Rogness**, daughter of Tim (Dakota Gasification Company) and Corrie Rogness, will be a freshman at North Dakota State University, Fargo. Her major is nursing.



**Adin Jungers**, son of Char (Headquarters) and Mike Jungers, will be a freshman at Dakota State University in Madison, South Dakota. He'll be studying cyber operations.



**Logan Schwab**, is the son of Eric (Antelope Valley Station) and Sandee Schwab. He will be a freshman at Bismarck (North Dakota) State College studying cybersecurity.



**Dawson Kaylor** is the son of Jerard and Heidi Kaylor (Dakota Gasification Company). He will be starting his final year at North Dakota State College of Science, Wahpeton, where he's studying diesel technology.



**Brandon Snyder**, son of Kelly (Leland Olds Station) and Jonella Snyder, will be a senior attending North Dakota State University in Fargo. He is studying computer science.



**Paige Lang**, daughter of Ryan (Headquarters) and Beth Lang, will be a senior at University of Mary in Bismarck, North Dakota. She is majoring in civil engineering.



**Morgan Soine**, daughter of Andy (Dakota Gasification Company) and Martha Gunderson, will be a freshman at Winona (Minnesota State University). Her major is nursing.



**Zachary Mahin** is the son of Les (Dakota Gasification Company) and Carrie Mahin. He will be a sophomore at North Dakota State University in Fargo, studying business administration.



**Erik Solie** son of Kevin (Headquarters) and Tami Solie, will be a junior at University of North Dakota. He is majoring in chemical engineering.



**Curtis Nickle**, son of Amy and Dave Windmeier (Laramie River Station), will be starting his final year at Eastern Wyoming College in Torrington. He is studying welding.



**Mason Wick** is the son of Angie (Antelope Valley Station) and Aaron Wick. He will be a freshman at Bismarck (North Dakota) State College studying cybersecurity.



# FEELING THE HEAT

## RELIABILITY REMAINS TOP PRIORITY AFTER SUMMER ASSESSMENT POINTS TO POSSIBLE SHORTFALLS

*By Angela Magstadt*

This spring and summer, reports of energy shortfalls that could potentially lead to power interruptions were featured on numerous media outlets. These reports left people feeling uneasy and even a little gun shy, remembering the service interruptions that left consumers without power during the energy emergency caused by Winter Storm Uri in February 2021.

The news stories were the result of the publication of a reliability assessment done by the North American Electric Reliability Corporation (NERC). These assessments are done each summer and winter. NERC looks at every power market across the United States to determine available generation resources and load levels so they can ensure there is enough generation to serve the load.

The results of this summer's study showed that of all the markets across the country, Midcontinent Independent System Operator (MISO), a regional transmission organization (RTO) Basin Electric has been involved with since 2005, is expected to experience the most amount of risk. MISO covers parts of Iowa, Minnesota, North Dakota, and South Dakota in Basin Electric's service area as well as 11 other states and into Canada.

Valerie Weigel, Basin Electric vice president of Asset Management and Commodity Strategy, says there are several drivers that led to MISO's increased risk: a major transmission outage in its service area that was experienced in June, a shortfall in capacity in its service area, coal generator retirements, lack of coal inventories, and warmer-than-average expected temperatures.

While MISO is seeing the most risk this summer, Southwest Power Pool (SPP), the other RTO Basin Electric has load in, is also seeing an increased risk of reliability issues. NERC points to drought conditions that have led to decreased hydroelectric generation as well as higher-than-average temperatures as the risks that could contribute to potential shortfalls.

"As part of its reliability assessment, NERC does a good job of evaluating the various market areas and determining possible timeframes and conditions that could lead to resource shortfalls," Weigel says. "In addition to that, we also need to keep an eye on the amounts of resources in an outage and the amount of renewable generation that is being produced to ensure the market has the generation necessary to meet our load requirements."

NERC also evaluates the amount of accredited resources in each market, meaning that even though an area might have 31,000 megawatts (MW) of wind generation available, it takes into consideration that the full amount won't be 100% available all the time. As a result, if low or no wind generation lines up with higher-than-average loads and generation resources in an outage all at the same time, that could lead to instances where there are not enough resources to cover all the load in the market.

In a recent survey commissioned by Basin Electric, members indicated that reliability was their top priority, and Basin Electric is well positioned to provide them with the highest reliability possible.

"One of our greatest benefits is that our members are spread across many different states which allows us to participate in multiple markets, and every market area we participate in is unique," Weigel says. "SPP has a lot of wind generation. In the MISO market, we are more reliant on market purchases. In the western market, we don't have an RTO, but because we have DC ties that help us connect the eastern and western markets, we can sell or move lower-priced power from one market to a higher-priced market in another. So the diversified, widespread area of our membership provides great benefits to our members."

In addition, Basin Electric maintains an all-of-the-above generation strategy, using coal, natural gas, wind, hydropower, oil, recovered energy, and soon solar to ensure reliability and affordability.

Baseload generation facilities which have a reliable source of fuel, such as coal and natural gas, ensure power is available to members when they need it. Two of the cooperative's four coal facilities are "mine mouth" units, meaning the mine is located close to the plant to ensure adequate supply. And Basin Electric manages its natural gas fuel position in a reliable and cost-effective manner, which includes securing sufficient firm natural gas purchases and utilizing natural gas storage.

Both coal and natural gas facilities are dispatchable, meaning they can generate electricity on demand

to ensure reliable power is being generated when intermittent resources, such as wind and solar, are not available.

Basin Electric also owns oil and diesel facilities that only run when they are needed. There are fuel reserves on site to ensure the units can run when necessary. For example, Spirit Mound Station, an oil-based peaking station near Vermillion, South Dakota, currently has 700,000 gallons of fuel oil on site.

In addition to generation, Basin Electric line crews maintain more than 2,500 miles of high-voltage transmission lines and the associated infrastructure necessary to move power to locations where it is most needed.

While reliability is Basin Electric's top priority, some Basin Electric members did experience service interruptions during Winter Storm Uri; however, service interruptions were minimal compared to those in other areas of the country where power was out for days. And when other areas of the country experienced dramatic rate increases due to spiking electric market and natural gas prices, Basin Electric was able to maintain steady, affordable rates.

Following the February 2021 energy emergency, Basin Electric employees participated in a rigorous review with SPP and its other members to assess and provide improvements to system operations, resulting in better coordination of maintenance activities and outages to ensure resource availability.

"One of the big things Basin Electric, WAPA (Western Area Power Administration), and the markets learned from the February 2021 event is that we need to do a better job communicating with members the steps we're all taking when resources and loads are getting tight," Weigel says. "As a result, we developed an improved process to notify members if and when an Energy Emergency Alert Level 1 or above occurs to try to give them as much time as possible to prepare for a potential load-shed event."

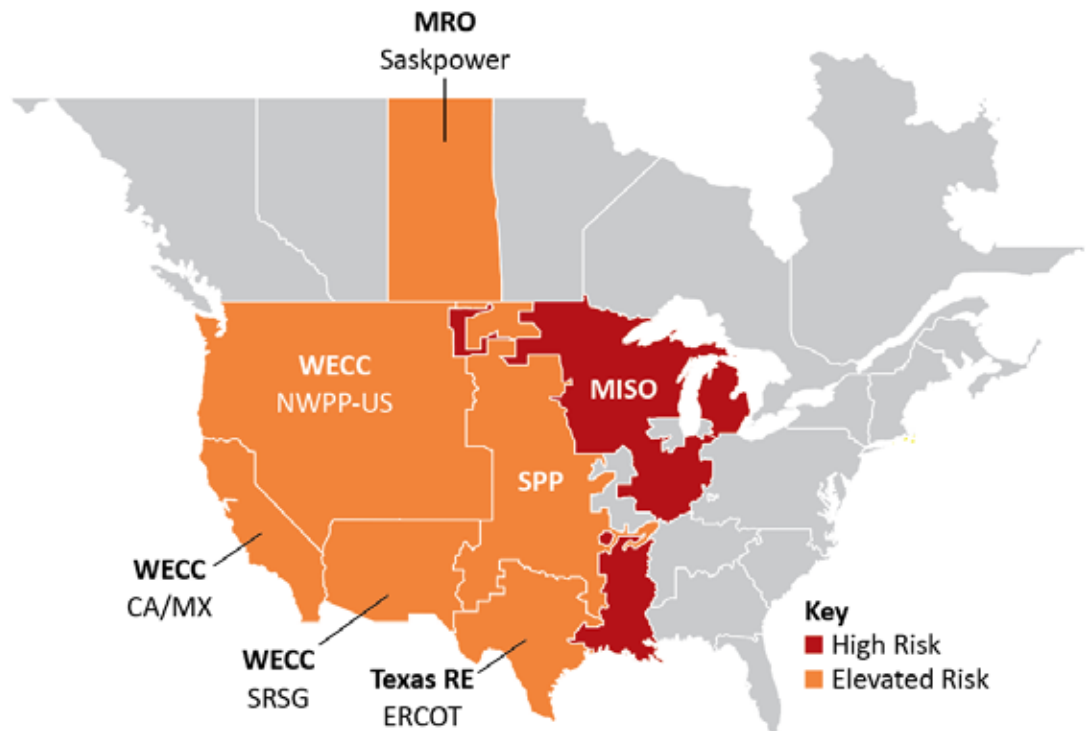


True to NERC’s predictions of higher-than-average loads, the SPP region reached a new all-time peak load of 53,243 MW on July 19, exceeding the previous record for instantaneous demand for electricity. “(This highlights) the important role fuel diversity plays in ensuring electric reliability,” says SPP senior vice president of Operations Bruce Rew. “At the time of the new record, SPP relied on a mix of energy sources including traditional fossil fuels, renewables, nuclear power, and other types of generation.”

Basin Electric is also working on a long-term strategy to diversify its portfolio in the MISO market with more dispatchable and renewable resources as a way to maintain reliable, affordable power. As part of this strategy, the cooperative is partnering with ALLETE (Duluth, Minnesota) and Dairyland Power Cooperative (La Cross, Wisconsin) to develop Nemadji Trail Energy

Center, a 600-megawatt combined cycle natural gas-based generator near Superior, Wisconsin. Becky Kern, vice president of Resource Planning and Rates, says the partnership gives Basin Electric 180 MW (its portion of the energy produced) of economic, dispatchable generation. “Nemadji Trail will help serve our load in MISO and diversify our energy and capacity in that market,” she says. “This generator is a cost-effective, timely option for serving our members with reliable electricity.”

“Plans such as these are a direct result of the extensive planning Basin Electric does to forecast for the long-term power needs of its members,” Weigel says. “While this summer’s reliability assessment has the potential to cause alarm, our members can be assured Basin Electric is doing everything possible to ensure their power remains reliable this summer and every season after.”



**Summer Reliability Risk Area Summary**

Seasonal Risk Assessment Summary	
<b>High</b>	Potential for insufficient operating reserves in normal peak conditions
<b>Elevated</b>	Potential for insufficient operating reserves in above-normal conditions
<b>Low</b>	Sufficient operating reserves expected

*Map courtesy of North American Electric Reliability Corporation.*

# A FAMILY TRADITION

## THREE GENERATIONS AT DAKOTA GAS

By Caitlyn Inman



Baylee Carr in front of a tar oil car at Dakota Gas.

Baylee Carr is proof that “the apple doesn’t fall far from the tree.” A process operations field technician at Dakota Gasification Company (Dakota Gas), he is one of three generations in his family that has worked at the Synfuels Plant over the past 50 years.

Carr’s grandfather, Larry Carr, was the first of the family to find work at Dakota Gas. He worked as a supervisor from 1983 until 2001 when he retired. He was also involved in the research to help build Dakota Gas.

Mike Carr, Larry’s son and Carr’s father, worked at Dakota Gas from 1984 until 2013. He worked in operations as a field technician for the duration of his career, the same position that Carr has today. “My dad was always a hard worker and took his job very seriously,” says Carr.

While Carr always respected and appreciated what his family did, being employed at Dakota Gas and working in the gas and oil industry was not always part of his plan.

Originally from Hazen, North Dakota, Carr went to school at University of North Dakota in Grand Forks where he played college football. He went on to coach collegiate football at both University of North Dakota and University of Mary in Bismarck, North Dakota, but he realized he wanted to be doing something else with his career.

After studying process plant technology online through Bismarck State College, his love for the Hazen/Bismarck

area made him decide to settle down. As fate would have it, the first job offer he received out of college was at the very place his father and grandfather worked. “I thought that was really cool considering the family history,” he says.

Carr started working at Dakota Gas in 2018 and now works as an operator in the fertilizer section. His daily tasks include taking readings on pumps and vessels, loading urea trucks, shipping products by railcar, and tackling any other issues there may be in the unit.

“It definitely means a lot to me to be working at the same place my father and grandfather worked. I would say the one word that comes to mind is thankful. They definitely had an influence on the decision to choose this career path,” he says.

Carr believes the influence was happening subconsciously at the time, but his mother argues that she always knew he would follow his father’s career path one day.

Happy memories of Dakota Gas as a kid may have also been an influence. Carr recalls going to Family Night at the All Seasons Arena in Hazen. “I remember as a child, I enjoyed these evenings with my family as well as seeing all of my friends that had family members that also worked for DGC (Dakota Gas),” he says.

Now an adult, Carr is thankful for the opportunity to make a good living at the same place that provided for his family as a child.

“With my father working here for 30 years, I was well aware of the opportunity to make a good living while working for Basin,” Carr says. “Sometimes a job can be looked at as just that, but in reality, a job at Dakota Gas has provided for generations for the Carr family, and working for a good employer truly means everything.”

# RETIREES



**William (Bill) Stafford** retired from Missouri Basin Power Project April 1. The Chugwater, Wyoming native worked as the director of government relations for 22 years.

“Bill is the definition of a statesman,” Tyler Hamman, vice president of Government Relations, says. “His relationships and experience in Wyoming politics and the cooperative family made him a vital asset to Basin Electric and the Missouri Basin Power Project. Simply put, he is a guy who can get things done.”

“Bill’s candor, sense of humor, and overall good nature will be greatly missed at the company,” Hamman says.



**Paul Schable**, contract administrator at Headquarters, retired May 2. The Grand Forks, North Dakota, native worked for the cooperative for eight years.

“Paul is a genuinely honest, caring, and hardworking person. You will not meet a nicer person than Paul Schable,” Shannon Julson, contracts manager, says. “I have heard many comments about Paul from contractors, suppliers, people at the plants, people in

other departments, even people on the street that have worked with Paul, and all I ever heard was great things about him and how he helped them out or how great he was to work with. The respect that Paul has for others and the respect he earned from everyone he worked with was truly an accomplishment and highly admirable.”

Paul plans to spend his retirement playing golf, fishing, and spending time with his family – specifically his grandson.



**Della Mastel**, senior account analyst at Headquarters, retired June 27 after 43 years with Basin Electric.

“When a problem came up, Della would dig into it until she could find a solution,” Kate Schlag, financial services supervisor, says. “Della could always be counted on to help when needed and to lead the team through projects and upgrades. Her guidance made everyone in AP (Accounts Payable) better at what we do. She was the first person I would ask when I needed to know why we did a process a certain way and the reasoning behind it.”

“I feel very fortunate to have been a part of Basin Electric over the past 43 years,” says Mastel.



## New employees



**Trista Guttormson** began working at the Great Plains Synfuels Plant on March 21 as an administrative assistant. Native to Hazen, North Dakota, Guttormson previously worked at Capital Credit Union as well as Brace Integrated Services.



**Nick Demetres** began working as an enterprise application architect at Headquarters on March 28. Originally from Glendale, Arizona, he was previously employed by Sanford Health in Bismarck as an application support analyst.



**Debby Boehm**, registered nurse, began working at Headquarters on April 4. Native to Mandan, North Dakota, Boehm previously worked at Bismarck Surgical Associates as a pre- and post-operative nurse for 13 years. She earned a bachelor's degree in nursing from MedCenter One College of Nursing in Bismarck, North Dakota, as well as her master's degree in nurse management from the University of Mary in Bismarck.



**Hunter Obrigewitch** started working at Headquarters on April 4 as a civil engineer. Originally from Beulah, North Dakota, he was previously employed by North Dakota Department of Water Resources as a water resource engineer in Bismarck, North Dakota. He received a bachelor's degree in civil engineering from University of North Dakota in Grand Forks.



**Patrick Becker**, from Beulah, North Dakota, began working at the Great Plains Synfuels Plant on April 11 as a field maintenance technician. He was previously employed at NextEra Energy in Center, North Dakota, as a wind turbine technician.



**Brenden Kaminsky**, process operations field technician, began working at the Great Plains Synfuels Plant on April 11. He was previously employed at Red Trail Energy as a cook operator in Richardton, North Dakota.



**Cameron Koenig**, process operator, started working at the Great Plains Synfuels Plant on April 11. Koenig was previously employed at Johnson Controls as a steam plant operator in Grand Forks, North Dakota. Originally from Bismarck, North Dakota, he received an associate's degree in process plant technology at Bismarck State College.



**Jacob McGrady**, a New Town, North Dakota, native, started working at the Great Plains Synfuels Plant on April 11. Now a process operations field technician, he was previously employed by Tharaldson Ethanol near Casselton, North Dakota.



**Ethen Roemmich** began working as a process operations field technician at the Great Plains Synfuels Plant on April 11.



**Caleb Southerland** began working as a support center representative at Headquarters on April 11. The Florence, South Carolina, native was previously employed by MDU Resources as an EIT help desk technician in Bismarck, North Dakota.



**Alex Volk** began working at Headquarters as an electrical engineer on April 11. Previously employed by HDR Engineering in Bismarck, North Dakota, Volk received a bachelor's degree in electrical engineering from North Dakota State University in Fargo.



**Tyler Church** began working as a lineman at the Logan (North Dakota) Transmission System Maintenance outpost on April 18. His hometown is Boise, Idaho, and he was previously employed as a lineman with Anderson & Wood Construction in Williston, North Dakota.

## New employees



**Madeline Easton**, legislative representative, began working at Headquarters on April 19. She previously worked as a public affairs specialist at Odney in her hometown of Bismarck, North Dakota. She received a bachelor's degree in communications with a focus in public relations from University of Mary in Bismarck.



**Stetson Bergstad** started working as a service dispatcher at Headquarters on April 25. He was previously employed by Target in Bismarck, North Dakota, as a service advocate.



**Alexis Betz** started working at Headquarters on April 25 as an accounting analyst. A North Dakota State University (Fargo) graduate, Betz earned a bachelor's degree in science with a minor in business administration. She is originally from Garrison, North Dakota.



**Nicolas Carter**, laborer, started working at Leland Old Station on April 25. Carter previously worked for Montana-Dakota Utilities as a fuel/grounds laborer at Heskett Station in his hometown of Mandan, North Dakota. He received an associate's degree in power plant technology at Bismarck (North Dakota) State College.



**Justin Greff** started working as a laborer at Leland Olds Station on April 25. Native to Mott, North Dakota, he previously worked as a journeyman at Boilermakers Local 647 based out of Ramsey, Minnesota.



**Jordan Ritz**, enterprise application architect, began working at Headquarters on May 5. A native to Mandan, North Dakota, he was previously employed by Support Systems Inc. as an information technology specialist in Bismarck, North Dakota.



**Michael Hardy** began working at Headquarters as an audio and video multimedia specialist on May 9. Originally from Beach, North Dakota, Hardy was previously employed at Bismarck (North Dakota) State College as a digital media developer, as well as Image Printing in Bismarck. He has three associate degrees in arts, criminal justice, and graphic design and communications from Bismarck State College, and a bachelor's degree in criminal justice from Minot (North Dakota) State University.



**Steven Schmit** started working as a desktop application analyst at Headquarters on May 9. The Mandan, North Dakota, native was previously employed as a service desk worker at North River IT in Bismarck, North Dakota.



**Shannan Woovis**, executive administrative assistant, began working at Headquarters on May 9. Originally from Lexington, South Carolina, Woovis was previously employed as an executive assistant at Wil Lou Gray Opportunity School in West Columbia, South Carolina. She has a bachelor's degree in chemistry from the University of South Carolina - Aiken.



**Aaron Lynne**, laborer, began working at Leland Olds Station on May 23. He previously worked for the Bureau of Reclamation at Grand Coulee Dam in Washington. Lynne has an associate's degree in bio-medical electronics from Northwest Technical College in Detroit Lakes, Minnesota, and is currently enrolled at Bismarck State College working toward an associate's degree in power generation technology.



**Travis Menning**, maintenance field technician, began working at the Great Plains Synfuels Plant on May 23. He is originally from Pierre, South Dakota.



**Kaitlyn Rants**, accounting analyst, started working at Headquarters on May 23. Rants previously worked as an audit associate at Eide Bailly in her hometown of Bismarck, North Dakota. She received a bachelor's degree in accounting from Dickinson (North Dakota) State University.



**Justin Story** began working at the Great Plains Synfuels Plant on June 6. Before becoming a process operations field technician, the Bismarck, North Dakota, native, was previously employed by Sanford Health.



**Andrew Milas**, enterprise applications architect, began working at Headquarters on June 3. He was previously employed as an implementation project manager by NISC in Mandan, North Dakota. The Bismarck, North Dakota, native has an associate's of science degree and an associate's of applied science degree in computer information systems from Bismarck State College. Milas also has bachelor's degree in information technology from University of Mary and a master's degree in information technology from Minot (North Dakota) State University.



**Hunter Wood** started working as a process operations field technician at the Great Plains Synfuels Plant on June 6. He is originally from Hazen, North Dakota.



**Todd Brickhouse**, senior vice president and chief financial officer, began working at Headquarters on June 10. Originally from Richmond, Virginia, Brickhouse was previously employed as treasurer at Old Dominion Electric Cooperative in Glen Allen, Virginia. He has a bachelor's degree in economics and business from the Virginia Military Institute in Lexington.



**McCoy Bauer**, process operations field technician, began working at the Great Plains Synfuels Plant on June 6. Bauer was previously employed as a yard operator at MDU Resources in his hometown of Bismarck, North Dakota.

## Service awards



**James Aipperspach**  
35 years  
Shift superintendent  
*Dakota Gasification Company*



**Phillip Vigil**  
35 years  
Water treatment operator  
*Laramie River Station*



**Tim Walker**  
35 years  
Control room operator  
*Laramie River Station*



**Danny Delger**  
25 years  
Process operations field technician  
*Dakota Gasification Company*



**Michael Kraft**  
25 years  
Manager of transmission rates  
*Headquarters*



**James Decker**  
20 years  
Enterprise application architect  
*Headquarters*



**Erin Laverdure**  
20 years  
Project coordinations representative  
*Headquarters*





**BASIN ELECTRIC  
POWER COOPERATIVE**

A Touchstone Energy® Cooperative



1717 EAST INTERSTATE AVENUE  
BISMARCK, NORTH DAKOTA 58503-0564  
701-223-0441

PRESORTED  
STANDARD  
U.S. POSTAGE PAID  
BISMARCK, ND  
PERMIT 224

**ADDRESS SERVICE REQUESTED**

PRINTED ON RECYCLED PAPER



BASIN ELECTRIC



RENEWABLES

# POWERING YOUR TODAY, EMPOWERING YOUR TOMORROW

At Basin Electric, we believe in a balanced approach to electricity for your community.  
We are committed to delivering reliable, affordable energy today and investing  
in renewable resources for a sustainable tomorrow.



**BASIN ELECTRIC  
POWER COOPERATIVE**

A Touchstone Energy® Cooperative



Reliable Energy for **Our Way of Life.**