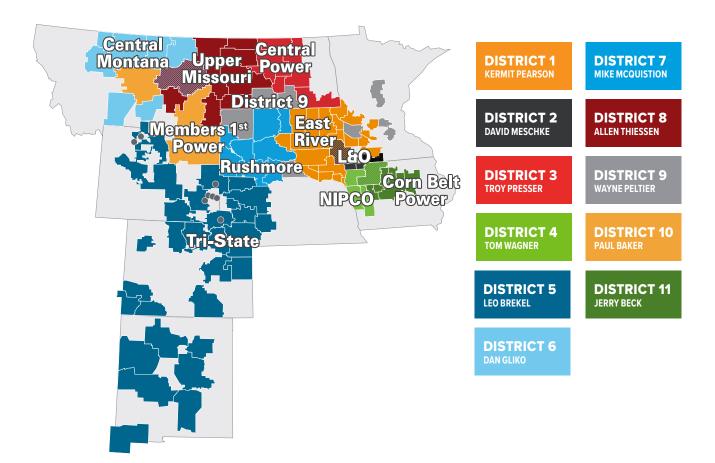
### BASIN ELECTRIC POWER COOPERATIVE

# SUSTAINABILITY REPORT

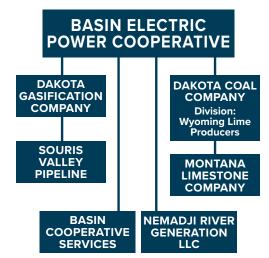
PUBLISHED APRIL 2023



# ABOUT BASIN ELECTRIC POWER COOPERATIVE



### **COOPERATIVE STRUCTURE**



Basin Electric is an Equal Employment Opportunity Employer regarding race, color, religion, sex, sexual orientation, gender identity, national origin, disability, and veterans status. Basin Electric diversity initiatives create opportunities for cultural inclusion, respect for differences, acceptance, and respect for all workers.

### **MISSION**

We provide wholesale energy and services to our member-owners.







#### **ELI KLEIN**

I appreciate working at Dry Fork Station because it's a power plant that is so environmentally advanced. The fact that it is also involved in Wyoming Integrated Test Center and the Wyoming CarbonSAFE project shows that we're ahead of the game in carbon capture, too.



### **ERIN LAVERDURE**

To me, working for an electric cooperative means working for the greater good, and it's our governance model that makes it so. When our cooperatives are strong, our communities are strong, and I'm proud to be a part of that.



### **CLAUDE O'BERRY**

I am proud of Dakota Gas' Protection Services Department, which includes trained firefighters and EMTs. Many of them volunteer as first responders in our local communities; if called to an emergency, they are given an eight-hour rest period to ensure they come back to work rested to do their jobs safely.



Basin Electric Power Cooperative has a long-standing commitment to the environment, the communities we serve, and the cooperative business model. Our membership deserves the reliable, affordable, and responsible electricity we provide that supports community resiliency and economic opportunity across rural America.

This report highlights how our cooperative family has adhered to environmental stewardship, the people in our communities, and sound cooperative governance over more than 60 years, and how we intend to build on that legacy into the next generation.

President

TODD E. TELESZ (

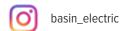
CEO and general manager

### **CONNECT WITH US**









/company/basin-electricpower-cooperative



basinelectric.com/news-center

### TABLE OF CONTENTS

- **RELIABLE & SUSTAINABLE**
- LEADERS IN ENVIRONMENTAL STEWARDSHIP
- PUTTING PEOPLE FIRST
- **OWNED BY THOSE WE SERVE**

# RELIABLE & SUSTAINABLE

The service Basin Electric and our member electric cooperatives provide rural America is essential — reliable, affordable, and responsible electricity delivered to 3 million consumer-owners at homes, schools, businesses, and more across a nine-state region that stretches from the Canadian border to the Mexican border and across the Great Plains. The Basin Electric family of electric cooperatives and our employees work hard every day delivering on our commitment to maintain a safe and reliable flow of electricity to enrich lives.

Especially in the Upper Great Plains, reliable electricity is more than just a convenience — it's a necessity for survival in many instances. Our members endure harsh weather conditions for more than half the year while continuing their routines of commuting to and from work, keeping livestock fed and watered, drying grain, sending children to school, operating machinery, running businesses, and more.

Basin Electric was founded to provide power to rural America, and our culture of stewardship, innovation, and adaptability has proven successful as we have kept the lights (and heat) on. For more than 60 years, our generation and transmission assets have been the engines of commerce for a service territory that feeds and fuels the nation and the world.

We will always honor our commitment of providing our membership with energy that is safely produced, reliable, economic, and environmentally responsible.

# RELIABILITY: NECESSARY FOR RESILIENCY

### WHAT HAPPENS WHEN THE POWER GOES OUT?





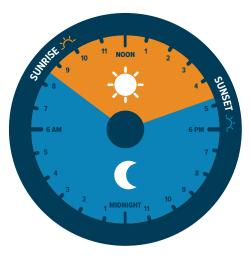
### DAYS BELOW FREEZING

Basin Electric's Headquarters is in Bismarck, North Dakota, where it averages 182 days per year of below-freezing temperatures.

That's approximately half the year.

Data from National Weather Service

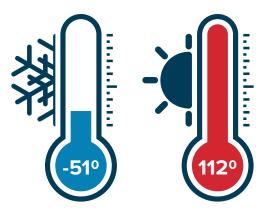
### LIVING IN THE DARK



Sunrise 8:33 a.m., sunset 4:53 p.m. 8 hours 20 minutes of daylight

Data from Minot, North Dakota, on Dec. 21, 2022, the shortest day of the year.

## FROM ONE EXTREME TO THE OTHER



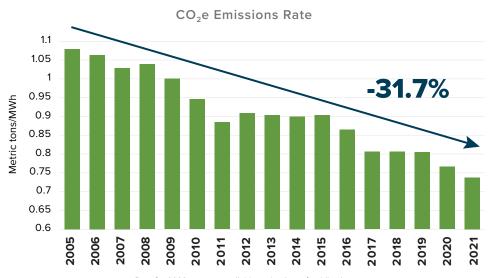
Basin Electric serves areas with extreme temperatures. In the past 20 years across North Dakota, the coldest temperature was -51° F and the highest was 112° F.

Data from National Weather Service

### **DECLINING CARBON INTENSITY**

Today coal represents less than 40% of Basin Electric's energy portfolio.

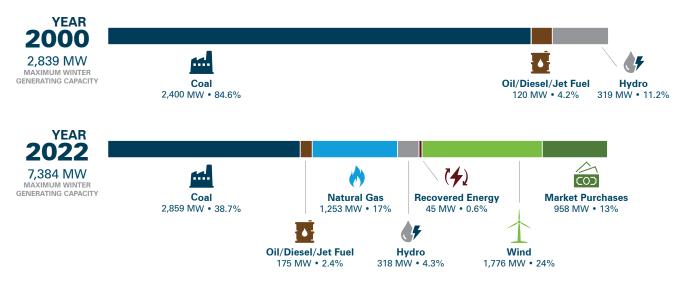
The chart below shows how the cooperative's carbon intensity declines over time as new generation is added.



Data for 2022 was not available at the time of publication.

# LEADERS IN ENVIRONMENTAL STEWARDSHIP

### **GENERATING CAPACITY**



Note: Megawatts based on winter season net generating capacity as of Dec. 31, 2022, across the entire service territory.

Basin Electric's stewardship of the environment has been a guiding principle since its incorporation more than six decades ago. In the Statement of Ideals and Objectives adopted in 1967, Basin Electric's members held "That a clean and healthy environment, which we all need and enjoy, must be maintained and that the energy industry should minimize impacts to the environment."

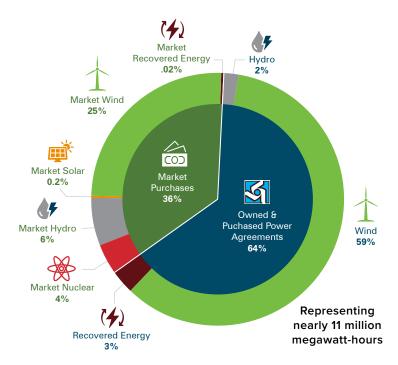
The cooperative's leadership in environmental stewardship and the innovation necessary to serve electricity in a reliable, affordable, and responsible manner is evident in many ways. We have grown almost 50% in the last 20 years, and 80% of that load growth was met with wind, natural gas, and market purchases. The cooperative has more than 20 years of experience and knowledge gained in carbon capture, utilization, and storage through our subsidiary, Dakota Gasification Company, and its facility, the Great Plains Synfuels Plant. In renewables, we built and operate the largest wind project owned solely by a cooperative in the nation and have supported the largest wind portfolio of any generation and transmission cooperative in the nation with nearly 1,800 megawatts (MW) of wind generation in both owned wind projects and purchased power agreements. Looking ahead, Basin Electric has committed to 200 MW of additional wind and more than 150 MW of utility-scale solar projects across the Upper Midwest.



BASIN ELECTRIC WIND TECHNICIANS ARE TRAINED TO SPOT WHOOPING CRANES, WHICH ARE ENDANGERED, AND SHUT DOWN WIND TURBINES IN THE AREA UNTIL THEY MOVE ON IN THEIR MIGRATION.

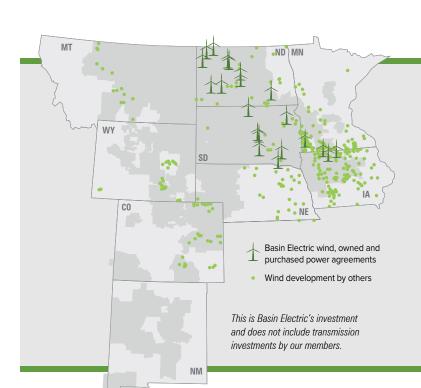
### CLEAN ENERGY GENERATION AND PURCHASES

This chart shows Basin Electric's renewable resources, both owned and purchased. In addition to renewable resources, the chart includes non-emitting resources such as hydroelectricity and nuclear. Energy produced from the cooperative's owned resources as well as from long-term purchased power agreements makes up 64% of the total non-emitting resources, while 36% comes from short-term energy purchases from the market.



Data is from 2021 and is based on energy, not generating capacity. Chart includes data received from the two regional transmission organizations we participate in, Southwest Power Pool and Midcontinent Independent System Operator.

Data for 2022 was not available at the time of publication.



### INVESTMENT TO MAINTAIN RELIABILITY

For renewable energy in our service area to grow, transmission must be available to move the electricity to the people and businesses who will use it. Basin Electric has invested \$1.3 billion in high-voltage transmission and will invest another \$620 million in the next five years.

### \$1.9 BILLION

committed to high-voltage transmission



### **POWERED BY WATER**

IN TOTAL, BASIN ELECTRIC AND ITS MEMBERS RECEIVE
APPROXIMATELY **2.9 MILLION MWh** of energy,
ALMOST 10% OF OUR MEMBERS' DEMAND AND ENERGY NEEDS,
THROUGHOUT ANY GIVEN YEAR FROM THE WESTERN AREA
POWER ADMINISTRATION'S HYDROELECTRIC FACILITIES.

Data for 2022 was not available at the time of publication.

### LEADERS IN RENEWABLE GENERATION

Basin Electric has invested in and committed to more than \$6 billion in renewable resources through direct investments and annual payments under purchased power agreements.

As of year-end 2022, Basin Electric has more than 2,100 megawatts (MW) of green and renewable generating capacity including nearly 1,800 MW of wind generation, 45 MW of recovered energy generation, and more than 300 MW of hydroelectricity through winter peaking power purchased from the Western Area Power Administration.

Crow Lake Wind, near White Lake, South Dakota, was commissioned by Basin Electric in 2011. It is the largest wind project owned solely by a cooperative in the United States. Crow Lake Wind also featured a unique community wind investment partnership, and its turbines are used to educate future wind technicians at the Mitchell Technical College in Mitchell, South Dakota.

Basin Electric purchases the output from eight recovered energy generation sites along the Northern Border Pipeline: Culbertson, Montana; Manning, St. Anthony, and Zeeland, North Dakota; Wetonka, Clark, and Estelline, South Dakota; and Garvin, Minnesota. Each site generates 5.5 MW of renewable energy from exhaust heat produced by the pipeline's compressor stations. There is another smaller site in lowa generating 1.1 MW. The sites produce power with virtually no incremental emissions and are considered carbon-free generation.

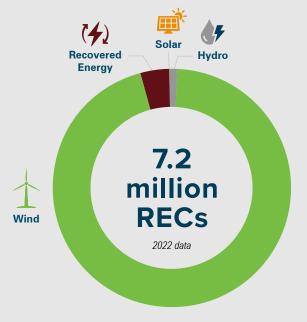
# HELPING MEMBERS AND OTHERS MEET THEIR CLEAN ENERGY GOALS

Renewable energy credits (REC) are another avenue for Basin Electric's membership to glean value from the renewable energy that the cooperative both generates and purchases.

One REC is equal to 1 megawatt-hour (MWh) of renewable generation, and it represents the non-power environmental attributes of that generation and is separate and distinct from the energy that is produced to serve load.

Basin Electric has more than 1,900 MW of nameplate renewable generation capacity that generates RECs as of April 2023. This represents 26% of the net generating capacity of our resource portfolio.

1 REC = 1 MWh
OF RENEWABLE ENERGY

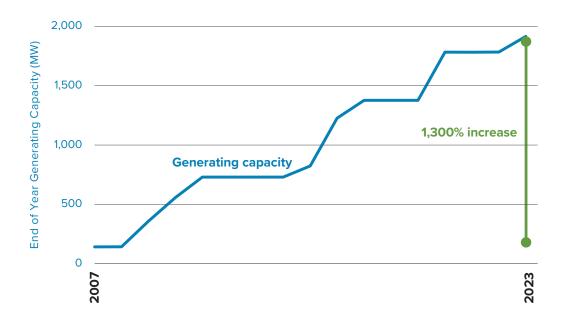


Basin Electric annually allocates 7.2 million RECs to our members as a result of renewable energy generation.

SINCE 2008, BASIN ELECTRIC HAS PLANTED MORE THAN 43,000 TREES AND SHRUBS IN WESTERN NORTH DAKOTA, WHICH WILL CAPTURE THOUSANDS OF TONS OF  ${\rm CO_2}$  OVER THEIR LIFETIMES.

### **GROWTH OF WIND IN BASIN ELECTRIC'S PORTFOLIO**

Basin Electric's commitment to adding renewable generation dates back more than 20 years with the construction and commissioning of its first wind project. Since then, the cooperative has constructed a number of wind projects of its own, including the largest wind project in the nation that is solely owned and operated by a cooperative. We have also secured purchased power agreements for a large amount of wind-generated power. In fact, we more than doubled our wind generating capacity in just five years, from 2015-2020, and expect it to continue growing into the future.



### **RESTORING THE LAND**

Basin Electric was the first utility in the nation to require that the land mined for coal be returned to its natural state. That requirement was written into Basin Electric's first coal contract long before laws and regulations required this. We simply did it because it was the right thing to do.

In the mid-1960s, Basin Electric proposed model laws to the North Dakota Legislature to protect the air, water, and land. We advocated for legislation requiring reclamation for mined land and prohibiting the dumping of fly ash and other industrial wastes into rivers.

Our commitment to the environment remains unwavering. The reclamation process includes resurfacing spoil piles, seeding the land, and maintaining wetlands for wildlife. Local farmers and ranchers utilize over 16,000 acres of reclaimed land for grazing cattle on grasslands and raising crops. In addition, over 4,000 acres of land has been returned to individual ownership — a testament to our environmental stewardship.





BASIN ELECTRIC AND THE MISSOURI BASIN POWER PROJECT ESTABLISHED A MULTI-MILLION-DOLLAR FUND TO HELP PROTECT AND PRESERVE WHOOPING CRANE AND OTHER MIGRATORY WATERFOWL HABITAT ALONG THE PLATTE RIVER IN NEBRASKA.



### LEADERS IN DECARBONIZATION

Basin Electric has been leading the way in carbon capture, utilization, and storage, and carbon dioxide  $(CO_2)$  capture and storage, for more than two decades. Our experience and leadership is explained further on pg. 10. In looking to the future, we are at the forefront of research and development for new technologies that will allow for continued decarbonization of our nation's electric generation portfolio.

Basin Electric hosts the Wyoming Integrated Test Center (Wyoming ITC) at our Dry Fork Station near Gillette, Wyoming.

The Wyoming ITC is a research facility for testing carbon capture technologies on the flue gas from an operating power plant (Dry Fork Station). The Wyoming ITC has received more than \$100 million in research and development funding including funds from the U.S. Department of Energy. It was the site of the NRG COSIA Carbon XPRIZE, as well as being the current site of a pilot project for novel membrane technology developed by Membrane Technology and Research to remove the carbon dioxide from an operating power plant.

Basin Electric is part of the CarbonSAFE project (Carbon Storage Assurance Facility Enterprise) being facilitated by the University of Wyoming. The project is assessing the feasibility of large-scale carbon storage. Wyoming CarbonSAFE was launched in 2016, and the U.S. Department of Energy determined the project had the merit and support to move to Phase II in 2018 and Phase III in 2020.

In addition to our electric generation facilities, Basin Electric is doing more to capture and sequester carbon dioxide at our subsidiary, Dakota Gasification Company's facility, the Great Plains Synfuels Plant. Through the Great Plains  $CO_2$  Sequestration Project, the plant has plans to capture additional tons of carbon dioxide via a permanent geologic storage reservoir adjacent to the plant.

THROUGH 2022. BASIN ELECTRIC AND ITS SUBSIDIARIES HAVE INVESTED

\$170 MILLION IN CAPITAL EXPENDITURES AND IN-KIND

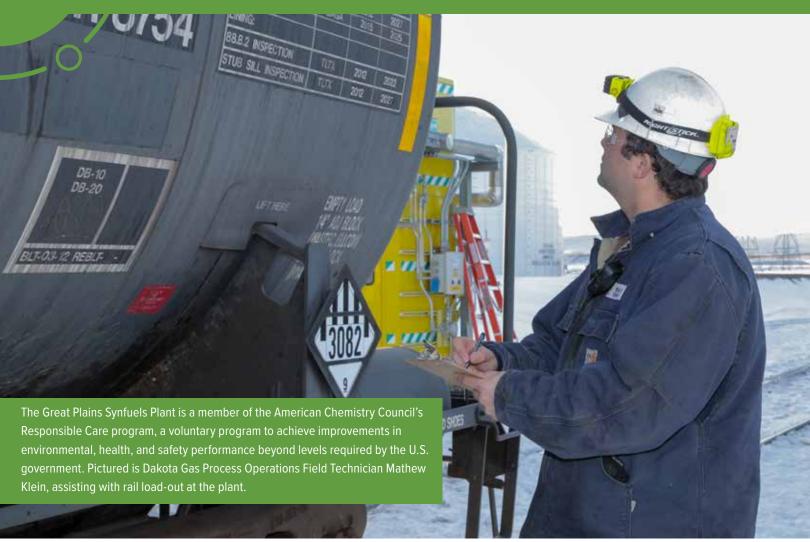
SERVICES ON CARBON CAPTURE EQUIPMENT AND RESEARCH AND DEVELOPMENT,

AND MORE THAN \$416 MILLION HAS BEEN SPENT

TO OPERATE AND MAINTAIN THOSE SYSTEMS SINCE THE INCEPTION

OF DAKOTA GAS' CARBON CAPTURE PROJECT.





# RESPONSIBLE CARE AND AWARD-WINNING STEWARDSHIP

The Great Plains Synfuels Plant is a member of the American Chemistry Council's Responsible Care® program, a voluntary program to achieve improvements in environmental, health, and safety performance beyond levels required by the U.S. government. The program has resulted in industry-wide environmental improvements, major improvements in workplace and community safety, and expanded programs to research and test chemicals for potential health and environmental impacts.

Locally, Dakota Gas plays an active role in its Local Emergency Planning Committee (LEPC), and a Dakota Gas employee serves as a member of the LEPC board.

Dakota Gas has received awards for safe product shipments: the BNSF Railway Stewardship Award and the Canadian National Railway Safe Handling Award. These awards are given to companies who ship products by railcar with a record of zero non-accident releases.



### RAMPING DOWN EMISSIONS

Through 2022, Basin Electric and its subsidiaries have invested more than \$2 billion of our members' capital in emissions control technology, and more than \$180 million was spent in 2022 alone to operate and maintain those controls.

Basin Electric has more than 20 years of experience and knowledge gained in carbon dioxide capture at the Great Plains Synfuels Plant. The carbon dioxide from that facility is captured and sent via pipeline to Canada for sequestration. Since 2000, the Synfuels Plant has captured 44 million metric tons of carbon dioxide, or about 2 million metric tons per year. In 2010, we became the first utility in the nation to issue a request for proposal from providers of carbon dioxide removal technology.

Today, the cooperative is partnering with federal and state governments, research centers, scientists, private companies, and universities to tackle the challenge of decarbonization in the electric sector.

As seen on pg. 11, emissions intensity has been reduced significantly. From 2005-2021, our emissions intensity has been reduced by 31.7% for carbon dioxide equivilent ( $CO_2$ e), 74% for nitrogen oxides ( $NO_x$ ), 82.6% for sulfur dioxide ( $SO_2$ ), and for mercury (Hg), a 57.8% reduction since 2015 when monitoring began.

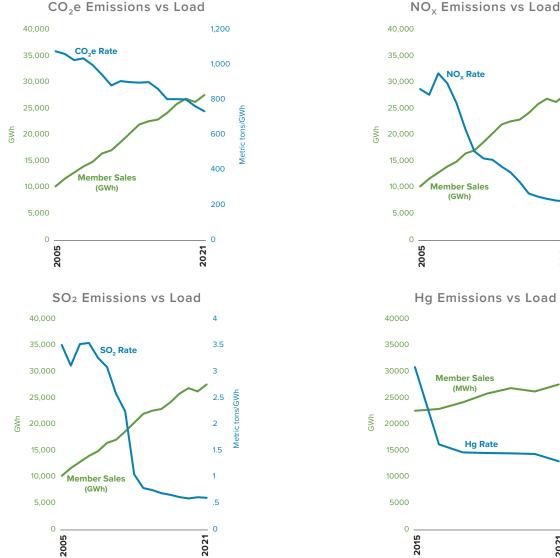


2.5

0

2021

### **GROWING LOAD WHILE LOWERING EMISSIONS INTENSITY**





Mercury (Hg) emissions were not recorded prior to 2015.

Data for 2022 was not available at the time of publication.

THROUGH 2022, BASIN ELECTRIC AND ITS SUBSIDIARIES HAVE INVESTED **MORE THAN** IN EMISSIONS CONTROL TECHNOLOGY,

AND MORE THAN

WAS SPENT IN 2022 ALONE TO OPERATE AND MAINTAIN THOSE CONTROLS.

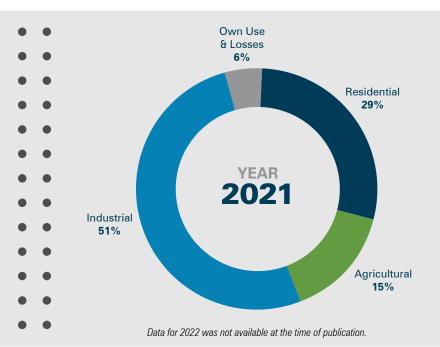
BEEKEEPERS LOCATE UP TO 2,500 BEEHIVES ON THE GLENHAROLD MINE SITE EACH SUMMER. WILDFLOWER VARIETIES IN THE AREA PRODUCE HIGH-QUALITY HONEY, ACCORDING TO THE BEEKEEPERS.

# PUTTING PEOPLE FIRST

Basin Electric was founded by rural Americans with the objective of bringing reliable, affordable, and responsible energy to the people of the Great Plains. Today, we accomplish this objective through the efforts of our dedicated teammates who operate, maintain, and manage our generation and transmission facilities. And we continue putting people first by having a laser-focus on the needs of our consumer-owners who continue to require reliable and affordable energy produced in a safe and environmentally responsible manner.

The winter climate in the Upper Great Plains can be life-threatening for a considerable portion of the year. During periods of extreme temperatures when electricity usage is at its highest, we want our members to heat and cool their homes, keep their livestock fed and watered, and operate their businesses with the knowledge that their electricity will be reliable and affordable.

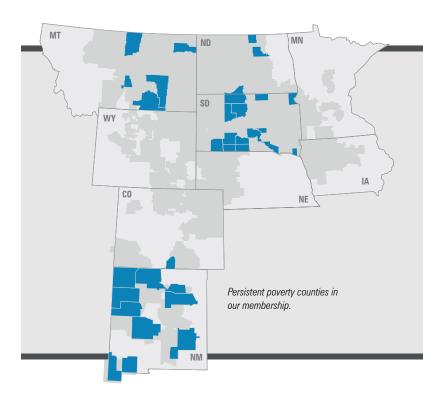




### **SECTORS WE SERVE**

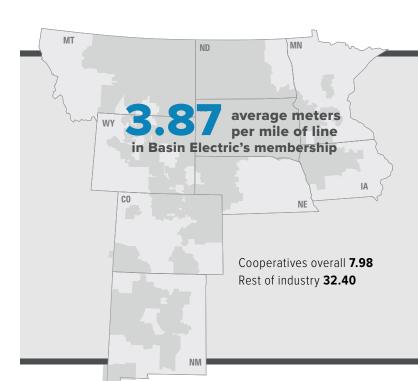
For 60 years, Basin Electric has maintained a commitment to the member at the end of the line. The infrastructure we have built to serve our members supports their quality of life and our affordable rates help spur commerce in rural America.

BASIN ELECTRIC EMPLOYEES SERVE ON 113 BOARDS IN THEIR COMMUNITIES. IN ADDITION, FULL-TIME EMPLOYEES ARE ENCOURAGED TO USE UP TO 16 HOURS OF PAID TIME OFF VOLUNTEERING IN THEIR COMMUNITIES.



## KEEPING RATES AFFORDABLE

Persistent poverty is a challenge in a number of the counties our members serve. We do not want to exacerbate the economic burdens of lower-income consumers with unaffordable electricity rates. Basin Electric's low rates help prevent energy poverty for the most vulnerable consumers our members serve.



# BASIN ELECTRIC MEMBERS SERVE AREAS OTHERS WOULDN'T

Rural electric cooperatives were created during the New Deal era. At the time, investor-owned utilities refused to serve most of rural America because areas with low population density were less profitable to serve. When farmers and other rural Americans formed electric cooperatives, it enabled modern convenience and the technology enabled by electricity to be accessed by all.



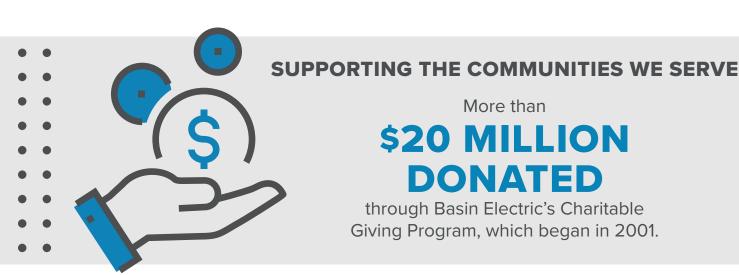


### **COMMUNITY FOCUSED**

Basin Electric is committed to the communities where our members serve and where our employees live and work. These communities have supported the cooperative throughout the years by providing a strong workforce, essential services, and a sense of pride in a "together we can" approach. In appreciation for that support, Basin Electric expresses its cooperative spirit by extending a helping hand to our members and communities by donating time and funds to a wide variety of charitable and non-profit organizations.

The cooperative's Charitable Giving Program disburses funds through stand-alone donations and member-matching donations.

Community growth and sustainability are vital to our mission, and financial contributions are important to helping service organizations grow and thrive. As a good cooperative citizen, Basin Electric is committed to supporting service organizations across our service area.



BASIN ELECTRIC WAS NAMED A TOP 10 WORKPLACE BY THE BISMARCK-MANDAN YOUNG PROFESSIONALS NETWORK NINE TIMES IN THE PAST 15 YEARS.



### **EMPLOYEES IN LEADERSHIP**

Because of its dedication to the communities we serve, Basin Electric works hard to equip its employees with leadership and community-minded opportunities and values. A few of the ways we do this include:

- Offering employee training programs that provide learning and networking opportunities. Employee-led campaigns help Basin Electric bring manpower to various community-focused charity events.
- Education-based programs such as paid internships for college students, partnerships with technical colleges that offer industry-specific coursework, and tuition assistance for employees seeking to further their education.

These actions demonstrate that Basin Electric is also committed to its workforce. Our investment in our employees has proven to pay back through enhanced leadership skills, fresh and forward-thinking ideas, and a commitment to doing the right thing for the Basin Electric membership and its employees.

### SUPPORTING MILITARY SERVICE

Basin Electric has received two distinguished awards for support of employees serving our country: the Extraordinary Employer Support Award, presented by the U.S. Department of Defense and Employer Support of the Guard and Reserve, and the Secretary of Defense Employer Support Freedom Award.

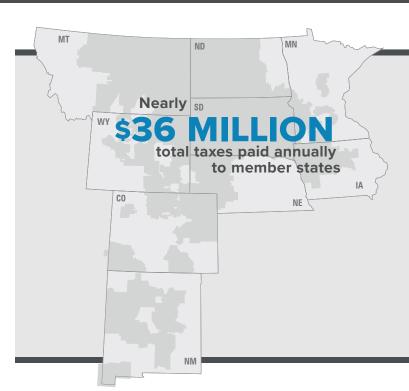
Thousands of nominations are submitted each year, but only several dozen employers have received these awards since their inception.

These awards are given to employers for outstanding support of their employees who serve in the National Guard and Reserve. Basin Electric's support includes providing full salary, continuation of benefits, care packages, and family support to employees fulfilling their military-ordered obligations.



Basin Electric has long been a military supporter and has several active duty employees at the cooperative. Pictured is Basin Electric Senior Fleet & Logistics Administrator Nathan Johnson.





# CONTRIBUTING TO LOCAL ECONOMIES

Basin Electric provides significant economic benefits to the areas it serves. In addition to bringing jobs with competitive wages to rural areas, we also contribute millions of tax dollars to the areas we serve and operate. The map shows the property and sales taxes Basin Electric and its subsidiaries pay in our service area (payroll taxes are not included). The data shown is from 2022 and does not include tax compensation paid through purchased power agreements. In addition to contributing to our local tax bases, Basin Electric has also returned nearly \$800 million to our members via retiring patronage capital credits and bill credits since 2000.

# OWNED BY THOSE WE SERVE

Basin Electric is part of a three-tiered electric cooperative system, owned and governed by its members. There are many characteristics that strengthen our governance model, but two are especially noteworthy. First, the members of our board of directors are democratically elected at each level so they are well aligned with the opportunities and challenges in the cooperative's service area. Second, each of our board members must be an end-use consumer, so they feel the impact of Basin Electric's strategic and operational decisions.

The top tier consists of 121 distribution cooperatives and municipal utilities. These members are the "last mile of line" that provide electric service to approximately 3 million people in our nine-state service area. The cooperatives are owned by their end-use consumers and their boards are comprised of end-use consumers democratically elected by other end-use consumers. The second tier consists of 11 districts, 10 of which are intermediate power supply cooperatives whose membership is comprised of distribution cooperatives and municipal utilities. The remaining district, while not a transmission cooperative itself, is comprised of distribution cooperatives and a municipal utility. The transmission cooperatives are owned by their members and their boards are elected by their members. Each of these 11 districts are represented on Basin Electric's board.

Basin Electric is the third tier of this cooperative system, founded in 1961 to provide generation, power procurement, and bulk transmission service to the broader system.

### **OPEN AND TRANSPARENT COMMUNICATION**

Basin Electric prides itself on open and transparent communication and given the size and diversity of our service area, effective communication is essential. The table below details the engagement channels we leverage to communicate with our diverse group of stakeholders.

OUR STAKEHOLDERS INCLUDE	ENGAGEMENT CHANNELS	
Member directors, managers, and staff	Websites     Quarterly magazine     Newsletter     Monthly board report video and summary     Quarterly Class A district meetings     Member manager conferences	<ul> <li>Annual member CFO update</li> <li>Annual members-only meeting</li> <li>Annual Meeting</li> <li>Member service programs</li> <li>Resolutions &amp; Bylaws Committees</li> <li>Facility tours</li> </ul>
Communities	Direct communication     Support of community events and programs	<ul><li>First responder training</li><li>Volunteerism</li></ul>
Employees	<ul><li>Intranet</li><li>Quarterly magazine</li><li>Newsletter</li><li>Monthly board report video and summary</li></ul>	<ul><li>CEO in-person visits</li><li>Team meetings</li><li>Training events</li></ul>
Regulators	Direct communication     Routine outreach	Filing applications
Local, state, and federal government	Public meetings/hearings	• Education for policymakers
Unions	Labor relations personnel     Benefits meetings	• Annual meetings
Banks, rating agencies, and investors	Quarterly updates     Annual in-person visits	<ul><li>Facility tours</li><li>Ongoing dialogue</li></ul>
Insurance companies	Annual in-person visits	Ongoing dialogue

### **COOPERATIVE PRINCIPLES**



OPEN AND VOLUNTARY MEMBERSHIP



DEMOCRATIC
MEMBER CONTROL



MEMBER ECONOMIC PARTICIPATION



AUTONOMY AND INDEPENDENCE



EDUCATION, TRAINING, AND INFORMATION

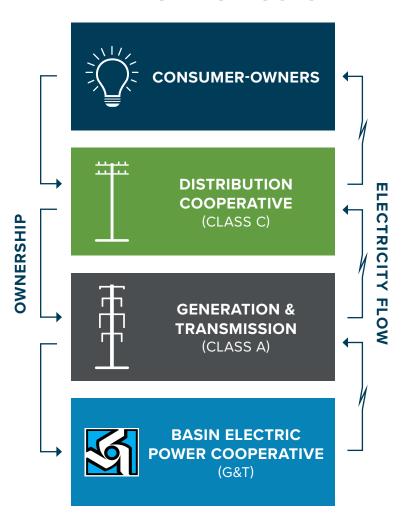


COOPERATION
AMONG COOPERATIVES



CONCERN FOR COMMUNITY

### **MEMBERSHIP STRUCTURE**



### IN CONCLUSION

This Sustainability Report attempts to convey Basin Electric's past and ongoing commitment to being a good cooperative citizen. These efforts were in place long before ESG (environmental, social, and governance) became a buzzword and we will continue to build and improve upon these efforts as we strive to provide our members with affordable and reliable power produced in a safe and environmentally responsible manner.



1717 East Interstate Avenue | Bismarck, North Dakota Phone: 701.223.0441 | basinelectric.com

PRINTED ON RECYCLED PAPER



•

