

BASIN TODAY

BASIN ELECTRIC POWER COOPERATIVE

FALL 2020



**CO-OP MONTH:
WE ARE OUR MEMBERS**

The fall colors are stunning at Basin Electric's PrairieWinds 1 wind project near Minot, North Dakota. The gold of the canola and the blue of the wetlands are beautiful examples of how the co-op works in harmony with both agriculture and the environment.

COOPERATIVE PRINCIPLES

THE SEVEN FOUNDING VALUES OF CO-OPS

EVERY OCTOBER
IS CO-OP MONTH

Cooperatives are unique in that they operate under a set of cooperative principles. Check out the stories in this issue to see examples of how Basin Electric follows all seven of these cooperative principles.



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VOLUME 23 | NUMBER 3

ON THE COVER

Chase Dauenhauer is the owner and operator of Grandpa Al's Hayrides, a hay and sleigh ride business his Grandpa Albert started many years ago. Dauenhauer, a member of Basin Electric Class C member Capital Electric Cooperative in Bismarck, North Dakota, is pictured here with his wife, Toni, and their children, Wyatt, Oakley, Layne, and McCoy.

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Use your smartphone barcode scanner to view stories online.

PAUL SUKUT

WE LISTEN TO LEAD

How many times have you heard the old saying: “Why do we have two ears and one mouth? So we listen twice as much as we talk.”

We say that to children to get them to think about the virtues of silence (and settle down with the chatter as they’re doing so). As adults, we sometimes hear a similar message from coaches who specialize in courageous conversations.

At Basin Electric, listening to our members is how we do business. You may have noticed the theme of our 2020 annual meeting is “Listen & Lead.” Over the last few years, we have found more ways to listen to our members: the Members-Only Meeting, held immediately following our Annual Meeting each year, is a prime example.

Launched this year, the Cooperative Awareness Campaign is an effort to better understand alignment on key topics facing the Basin Electric family. Paulsen, an external consultant, has spent the past six months conducting interviews and focus groups with Basin Electric directors, senior staff, Class A managers, and their Management Advisory Committees. Paulsen was asked to identify and prioritize key issues, measure alignment within the cooperative family, and provide communication recommendations based on their findings. At all levels of the cooperative, there was alignment on the two most important items: affordable rates and reliable power.

In September, for the first time, we held a roundtable to include our board of directors, managers from our Class A member cooperatives, and senior staff. And then the next day, we held the latest session of continuous strategic

planning with our board and senior staff to work through the focus of our cooperative.

Senior staff is using findings from the Cooperative Awareness Campaign and these meetings to help focus employees on specific strategic objectives. Our three pillars of strategic focus are 1) Member and employee focus; 2) Operational effectiveness/continuous improvement; and 3) Strategic direction/the forward look.

In our focus on members and employees, we hope to continue to support efforts which promote and sustain a culture of safety, health, well-being, and environmental excellence among all employees, families, and neighbors. We will continue transparency with members through communication, support services, and education. We will also continue our workforce planning process while sustaining benefit and compensation programs that attract potential employees, plus care for existing employees.

For operational effectiveness and continuous improvement, we seek to continue compliant, competitive, reliable operation and maintenance of our assets, while seeking out and implementing potential efficiencies and improved work processes to maintain low-cost electricity for our member-owners. We also strive to maximize margins and stabilize member rates. It's worth noting that there has not been a rate increase since 2016; in fact, rates were decreased in 2020.

As far as the strategic direction and forward look, we are evaluating and refining the cooperative's risk culture while maintaining strong financial positioning and creating deferral goals to minimize member rate fluctuations. We are balancing market exposure with long-term energy and capacity options while optimizing the cooperative's portfolio. And through an informed and collaborative effort, we are positioning the cooperative for the future by blending our current assets with new markets and technological advancements.

I have asked our employees to focus on specific objectives in 2020, falling into those three pillars.

Member and employee focus: We need to maintain a safe and compliant work environment. We have executed the Cooperative Awareness Campaign, and are enhancing communication and transparency with member-owners

and employees. We continue to find better ways to attract, train, and retain our employee workforce.

Continuous improvement: On the operations side of things, we are exploring Dakota Gas revenue opportunities and enhancing the competitiveness of our electric plants. We continue an emphasis on cost containment and risk mitigation, and we are working to maintain appropriate market exposure to take advantage of current low-priced energy.

Strategic direction: Looking toward the future, we are developing a resource plan to meet our growing member load forecast. As a cooperative family, we continue to build and maintain revenue deferral, evaluate margin levels, and evaluate how margins are used. We are exploring plant options at Dakota Gas and the future of our coal resource base. Finally, we work to maintain an A credit rating.

At the beginning of 2020, our senior staff members were asked to talk with their employees to find the best way to accomplish the objectives above. Now nearly at the end of the year, our strategic planning staff is meeting with each department at Basin Electric to illustrate where progress has been made in these areas. At our Members-Only Meeting, we will walk through these points to take stock of what has been accomplished.

We will likely do an awful lot of talking at this meeting, but for our members, now is the time to think about the questions and concerns you want to address. We will hold our meeting virtually due to the need for social distancing during the COVID-19 global pandemic. But we are ready to listen to our members' concerns and ideas. You will have the ability to ask questions through a chat feature in the Webex platform and through an email address provided during the broadcast.

We look forward to spending these hours focused on you — the owners of this cooperative.



Paul Sukut, CEO and general manager



The Senate Environment and Public Works Committee's visit to the Wyoming ITC was widely covered by the news media.

Senate committee visits Wyoming Integrated Test Center at Dry Fork Station

The Senate Environment and Public Works Committee visited the Wyoming Integrated Test Center (ITC) at the Dry Fork Station near Gillette, Wyoming, for a field hearing to analyze the state's efforts on carbon capture and sequestration.

The "Utilizing Significant Emissions With Innovative Technologies (USE IT) Act," is meant to expand the deployment of carbon capture by allocating funding for research and development to identify commercial uses of carbon dioxide and carbon dioxide pipeline permitting reforms. Committee Chairman U.S. Sen. John Barrasso (R-WY) and U.S. Sen. Mike Enzi (R-WY) attended the hearing.

In May 2019, Basin Electric CEO and General Manager Paul Sukut testified in support of the USE IT Act in Washington, D.C.

The ITC is a carbon research facility providing space for researchers to test carbon capture, utilization, and sequestration technologies using coal-based flue gas from Dry Fork Station.



<https://bit.ly/SenateITCvisit>

Basin Electric directors approve long-range engineering plan

The Basin Electric board of directors approved the 2021-2030 long-range engineering plan.

More than a billion dollars is expected to be spent on all facilities over the next 10 years, with about three-quarters of the money going toward the transmission system.

"We continue to concentrate on our transmission system maintenance to ensure we provide reliability and safety for our member systems," said Tom Christensen, Basin Electric senior vice president of Transmission, Engineering, and Construction.

These costs are integrated into the financial forecast and capital budget.



<http://bit.ly/2021-2030EngineeringPlan>

Basin Electric system reaches new summer member billing peak

Basin Electric hit a new all-time-high summer billing peak of 3,851 megawatts (MW).

The August 2020 member peak sale level surpassed the previous all-time-high summer member sale level by about 68 MW. The previous summer member billing peak was 3,783 MW, set in July 2019.

Basin Electric's all-time high peak occurred in January 2019 at 4,060 MW.



<http://bit.ly/2020SummerPeak>

Directors approve financial forecast

Basin Electric's 10-year financial forecast for 2021-2030 was approved by directors at the September meeting.

According to Darla Jensen, Basin Electric manager of financial planning and forecasting, the forecast was delayed by a month due to the COVID-19 global pandemic.

COOPERATIVE PRINCIPLE #3

THE SEVEN FOUNDING VALUES OF CO-OPS

MEMBERS' ECONOMIC PARTICIPATION

Members contribute equitably to, and democratically control, the capital of their cooperative. At least part of that capital remains the common property of the cooperative. Members allocate surpluses for any or all of the following purposes: developing the cooperative; setting up reserves; benefiting members in proportion to their transactions with the cooperative; and supporting other activities approved by the membership.

The forecast shows projected net margins averaging \$88 million annually, with a total of \$1.8 billion in excess margin over the period of the forecast. "Once Basin Electric has achieved \$90 million in consolidated margin each year, any margin above that is considered excess. It gives us the opportunity to clean up our balance sheet: accelerate depreciation, accrue for decommissioning costs, and expense any deferred assets."

The forecast includes spending of \$1.4 billion for capital expenditures over the 10-year period.



<http://bit.ly/2021-2030FinancialForecast>

Railroad bridge destroyed by fire rebuilt, back in service



The wooden bridge caught fire Aug. 31.

A railroad bridge that caught fire and burned Aug. 31 cutting off access to a critical rail line has been replaced.

The bridge is on the rail line that connects Dakota

Gasification Company, Antelope Valley Station, and The Coteau Properties Company's Freedom Mine to the main rail line in Beulah, North Dakota.

BNSF Railway owns the multi-span bridge and quickly made arrangements to replace it. Contractors were onsite Sept. 1 with two crews working around the clock to complete the bridge rebuild. The bridge was

returned to service on Sept. 8 after access to the critical railroad line was certified and restored.

The Spring Creek crossing bridge is located about one-and-a-half miles west of Beulah. This eight-mile section of railway is the only way to move product in or out of the three facilities.



<http://bit.ly/SpringCreekBridgeRebuilt>

Basin Electric facility selected for Lignite Energy Council safety award

Basin Electric's Leland Olds Station was one of four power plants and two lignite mines to receive safety awards during the Lignite Energy Council's virtual fall conference held Sept. 30-Oct. 1.

Employees of Leland Olds Station and The Coteau Properties Company's Freedom Mine were recognized with Distinguished Safety Awards for having accident rates below the industry average.

John Jacobs, former Basin Electric senior vice president of Operations, and Dave Sauer, former Dakota Gas senior vice president and chief operating officer, were among seven individuals who were recognized with the Ambassador of Lignite Award for their contributions to the lignite industry over the span of their careers.



<http://bit.ly/LOSSafetyAward>



The new Spring Creek railroad bridge was replaced and returned to service just over a week after the fire destroyed the original bridge this summer.

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BASIN ELECTRIC RESOLUTIONS COMMITTEE MEETS

By Angela Magstadt

The Basin Electric Resolutions Committee, made up of directors from each of Basin Electric's districts and a Basin Electric board member, had its annual review meeting Sept. 11. The meeting was held virtually due to the COVID-19 global pandemic.

After re-electing David Sigloh, director of Upper Missouri Power Cooperative headquartered in Sidney, Montana, as its chairperson, the committee reviewed the cooperative's existing resolutions, making small edits and updates. The format of the Great Plains Synfuels Plant resolution (resolution E-6) was discussed without developing a consensus and will be revisited at the next meeting. The committee also decided to arrange the resolutions in priority order so the most important resolutions would be at the top of each category.

No new resolutions were brought forward by the membership thus far. The Resolutions Committee will meet again Nov. 2, prior to Basin Electric's 2020 Annual Meeting of the Membership.

COOPERATIVE PRINCIPLE #2

THE SEVEN FOUNDING VALUES OF CO-OPS

DEMOCRATIC MEMBER CONTROL

Cooperatives are democratic organizations controlled by their members, who actively participate in setting policies and making decisions. Elected representatives (directors/trustees) are elected from among the membership and are accountable to the membership. In primary cooperatives, members have equal voting rights (one member, one vote). Cooperatives at other levels are organized in a democratic manner.

BASIN ELECTRIC'S 2020 RESOLUTIONS COMMITTEE MEMBERS

Gary Bachman

East River Electric Power Cooperative

David Hansen

L&O Power Cooperative

Mark Brehm

Central Power Electric Cooperative

Louis Reed

Northwest Iowa Power Cooperative

Jack Finnerty

Tri-State Generation & Transmission Association

Clarence Keller

Central Montana Electric Power Cooperative

Dwight Rossow

Rushmore Electric Power Cooperative

David Sigloh

Upper Missouri Power Cooperative

Jim Erk

Grand Electric Cooperative

Philip Habeck

Members 1st Power Cooperative

Dave Onken

Corn Belt Power Cooperative

Dan Gliko

Basin Electric board representative

BASIN ELECTRIC BYLAW REVIEW COMMITTEE MEETS, RECOMMENDS CHANGES TO BYLAWS

By Angela Magstadt

Basin Electric's 2020 Bylaw Review Committee met Sept. 11. The meeting was held virtually due to the COVID-19 pandemic. The role of the committee, which is made up of one manager and one director from each district, is to review proposed amendments to the bylaws and provide recommendations to the membership.

During this year's meeting, members of the committee reelected Vic Simmons, general manager of Rushmore Electric Power Cooperative, as chairperson. They reviewed the following four proposed amendments and voted to recommend them to the membership.

Proposed amendment 1 would allow an association of municipalities located outside of a district the cooperative serves, on an all requirements basis, to become a Class A member of Basin Electric. In the past, when Basin Electric was a borrower of Rural Utilities Service (RUS), the co-op was not allowed to borrow money to serve municipalities. Now that it no longer borrows funds from RUS, this is no longer an issue. This amendment includes safeguards that would not allow Basin Electric to pilfer municipal members from other member cooperatives.

Proposed amendment 2 would allow Basin Electric to conduct annual or special member meetings via video conference. Mark Foss, Basin Electric senior vice president and general counsel, says he is confident that this year's virtual annual meeting will be lawful under the current bylaws, but it is a better practice to specifically include the option in the bylaws.

Proposed amendment 3 deals with language written when Basin Electric was an RUS borrower. The current bylaws state that Basin Electric will follow RUS accounting rules and regulations. The amendment broadens the language to state that the cooperative will follow the accounting rules and regulations of any applicable regulatory body.

Proposed amendment 4 removes Delta-Montrose Electric Association from the list of Basin Electric members. This member left the membership earlier this year.

As required by the bylaws, the four proposed amendments were included in the Notice of Annual Meeting, which was mailed Oct. 13. The members will have the opportunity to vote on the proposed amendments at Basin Electric's Annual Meeting on Nov. 4.

BASIN ELECTRIC'S 2020 BYLAW REVIEW COMMITTEE MEMBERS

DISTRICT	MANAGER	DIRECTOR
District 1	Thomas Boyko	James Ryken
District 2	Curt Dieren	David Hansen
District 3	Tom Meland	Mark Brehm
District 4	Matthew Washburn	Louis C. Reed
District 5	Duane Highley	Rick Gordon
District 6	Doug Hardy	Clarence Keller
District 7	Vic Simmons	Dwight Rossow
District 8	Claire Vigasaa	David Sigloh
District 9	Kevin Mikkelsen	Tim Velde
District 10	Mike Easley	Jim Collins
District 11	Dave Onken	Ken Kuyper

COOPERATIVE PRINCIPLE #4

THE SEVEN FOUNDING VALUES OF CO-OPS

AUTONOMY & INDEPENDENCE

Cooperatives are autonomous, self-help organizations controlled by their members. If they enter into agreements with other organizations, including governments, or raise capital from external sources, they do so on terms that ensure democratic control as well as their unique identity.



MEASURING THE VALUE OF MEMBERSHIP

By Kalli Senske

Each of Basin Electric's 140 members spanning nine states joined the cooperative for a different reason. For some, it's the value of transmission and delivery. For others, it's the investments in power and infrastructure to ensure cost-effective, reliable service for generations.

We talked with two members – Corn Belt Power Cooperative and Yellowstone Valley Electric Cooperative – to hear firsthand why they find it valuable to be a member of Basin Electric.

Yellowstone Valley Electric Cooperative

Headquartered in Huntley, Montana, Yellowstone Valley Electric serves 21,000 meters. They receive 83-84% of their power supply from Basin Electric.

Yellowstone Valley Electric was a Basin Electric member up until the early 2000s and then rejoined the co-op in 2013. Brandon Wittman, Yellowstone Valley CEO and general manager, says they learned a lot during their time away from Basin Electric, and are happy to be back with the co-op again.

"It's a volatile world out there. Basin has a long-standing history and a tremendous amount of assets, and they've managed those assets well. So I would say stability is a huge benefit of Basin Electric," Wittman says.

Corn Belt Power Cooperative

Located in Humbolt, Iowa, Corn Belt Power joined Basin Electric more than a decade ago. At the time, they had been in a joint dispatch for many years, and that dispatch decided to join Midcontinent Independent System Operator (MISO).

"We had a choice to join MISO or become a Basin member. Looking at the considerations, we felt Basin was the better option— mostly looking at scope and scale," says Ken Kuyper, executive vice president and general manager of Corn Belt Power. "Basin is a part of an RTO [regional transmission organization], and size has a lot of advantages in an RTO market. We saw value in being associated with a cooperative instead of an RTO directly."

Long-term perspective

Large generating assets require large capital commitments, which in turn require financing. Having long-term member contracts allows for certainty of repayment by the lenders and a lower interest rate. Lower interest rates for the generation and transmission cooperative (G&T) allow for lower member rates, which allows for the G&T to operate at lower equity levels.

Basin Electric is able to do long-term planning because there is a long-term member contract commitment. This

commitment allows for long-term generating assets, regardless of fuel source (natural gas, coal, wind, solar, etc.).

"Some don't like the long-term contracts that Basin has. I have the opposite view. I think it makes it easier to manage your co-op because you have that long-term stability," Wittman says.

Consistent rates

Within the cooperative, rates are always one of the most discussed topics. Every member hopes for consistency in rates because they know their customers at the end of the line need affordable power. As a power supplier, Basin Electric remains the lowest-priced cooperative and G&T in the region.

"When our members come in, they want to talk about rates, and it's a lot easier discussion if you can predict your rates will be stable into the future," Kuyper says. "Growth in sales helps to spread our cost over a broader footprint. By being able to hold or decrease rates, it helps when trying to attract certain industries."

Basin Electric's democratically-elected board of directors serves as the cooperative's ratemaking authority, setting rates for the sales to members. They have not increased rates since 2016 and even approved a rate decrease for 2020. The long-term forecasting of rates helps make for an easier conversation with end-user consumers.

"When a member opens the bill, the first thing they look for is the number. Basin Electric has supported us that way tremendously. They've kept very stable rates, and they've actually reduced rates over the years. We haven't raised our rates since May 2011 so we're about to go 10 years without a rate adjustment," Wittman says. "Our biggest expense is power supply and because of that, Basin remaining as stable as they are has allowed us to remain stable, too. That's huge for our members."

Power in size

Kuyper says Basin Electric's size brings opportunity for its members, including Corn Belt Power.

"Basin Electric can take care of billing and everything you have to do with the RTO. They can build a larger facility when resources are needed. And the size of the wind and solar farm projects they're involved in helps

to get better prices than we could," Kuyper says. "The savings you get by being larger and the expertise of being more specialized in those areas of the market all provide a value."

Benefit of communication

Wittman says Yellowstone Valley's service area is growing rapidly, and percentage-wise, they are one of the top electric co-ops for growth in the nation. This is partially because their service area has expanded to cover new subdivisions on the west side of Billings, Montana, which has also diversified their membership.

"We've started to serve a lot more residential. We have a lot of very young families and also a lot of retirees," Wittman says. "But then you balance that with our longstanding grassroots members to the east, and that's almost all agriculture."

Because of the opportunities and challenges with a diverse membership, Yellowstone Valley has started to focus on communication more strongly.

"We've embarked on some new things, like doing more advertising, so we can connect with the different demographics we're serving," Wittman says. "Basin has been helpful on the communications side, and on several different levels, to help us with this effort."

Having a voice

The collaboration within the membership is what makes Basin Electric great. Whether a member is a Class A or Class C, each member brings a unique perspective, which is why it's important that everyone's voice is heard.

Yellowstone Valley is a Class C member, and Wittman says he likes the structure and the way Basin Electric views the membership.

COOPERATIVE PRINCIPLE #1

THE SEVEN FOUNDING VALUES OF CO-OPS

OPEN & VOLUNTARY MEMBERSHIP

Membership in a cooperative is open to all persons who can reasonably use its services and stand willing to accept the responsibilities of membership, regardless of race, religion, gender, or economic circumstances.

"We're a member of a Class A. You may consider that down a level, but if I have a concern, I feel I can talk with my Class A member, and I know that message gets where it needs to," Wittman says. "And I can still talk with someone at Basin, no matter what our membership level is. If I need to talk to Dave [Raatz, Basin Electric senior vice president of Asset Management, Resource Planning, and Rates] or Paul [Sukut, Basin Electric general manager and CEO], I'll just give them a call. Basin is big but it doesn't feel big. It still feels like a family."

Basin Electric answers to its members, who are the cooperative's owners. That's why the opinions and recommendations given by members at all levels are taken seriously.

The electric cooperative way

Cooperative culture is something that is best understood by experiencing it firsthand. Member economic participation, cooperation among cooperatives, and democratic member control are just a few of the

principles that cooperatives were founded upon. It's this culture of collaboration that helps meet the unique needs of our members.

Kuyper says the electrical world keeps changing dramatically, and Wittman shares a similar sentiment about electric co-ops.

"The whole electric co-op network in general is so unique. With the size of Basin Electric and the number of electric co-ops that are members, it would be easy to be a number and be lost in the shuffle, but I don't feel that way. The structure is set up so I can go to the proper channels to get my thoughts and opinions heard," Wittman says. "I strongly believe in the cooperative model. It's just amazing."

Basin Electric's members are its most valuable resource and the reason it exists. As a cooperative, we are all focused on the member at the end of the line. That's the co-op difference.



Headquartered in Huntley, Montana, Yellowstone Valley Electric was a Basin Electric member until the early 2000s and then rejoined the co-op in 2013.



DISPATCHABLE POWER: WHEN GIVING UP CONTROL IS A GOOD THING

By Angela Magstadt

Reliability and affordability is at the forefront of Basin Electric's mission of providing wholesale energy and services to its members. Southwest Power Pool (SPP) will soon require changes to its members' equipment that will provide improved congestion management, minimize price volatility, and increase reliability of its generation resources.

SPP (the regional transmission organization Basin Electric joined in 2015) has control of the co-op's coal and natural gas generation facilities, communicating via automatic generation control on when to ramp them up or down depending on what the market needs.

But in addition to coal and natural gas, Basin Electric has a great deal of wind in its generation portfolio, and many of its wind projects were built as non-dispatchable resources, which means the turbines can't respond to SPP's energy signals — if the wind is blowing, the unit is running.

Nichole Braunberger, Basin Electric manager of market operations, says wind is difficult to forecast, sometimes blowing harder than it was forecasted to and other times underperforming, which often results in too much or too little power in the market, affecting both reliability and price volatility.

Depending on pricing and performance, Basin Electric's real-time traders have the ability to curtail its wind generation.

Because many of Basin Electric's wind projects were not built as dispatchable, they did not provide SPP the ability

to manage the generation output in the market, which created inefficiencies. Once wind projects become dispatchable, the units can respond to a five-minute energy signal from SPP, and SPP can control the unit to lower its output when it is needed.

Because of these issues, in 2018 SPP began researching how much money could be saved and how much reliability could be improved by making the majority of the market participants' non-dispatchable generation dispatchable. The research concluded that this would be prudent and gave its members until Jan. 1, 2021 to install the necessary equipment to make all their units dispatchable.

In late 2019, Basin Electric's electrical engineers began installing the equipment that passes data between the Emergency Management System (EMS) and the wind project's control system so it could accept megawatt set points from SPP. On the wind projects that Basin Electric purchases power from but are owned by other entities, Basin Electric's EMS team worked with the site to make sure the equipment they install can communicate and respond appropriately to dispatch instructions from SPP. The project was completed this spring, go-live testing was completed in early May, and the units became dispatchable throughout 2020.

Now that the units are dispatchable, they have the ability to be dispatched by SPP. "The goal of SPP's requirement is to allow the market to run more efficiently and increase market reliability," Braunberger says. "Basin Electric will benefit from the project simply by capturing more value at the generator and via being a member of SPP."

A DAY IN THE LIFE OF...

DONAVON

ALARM MONITOR/SERVICE DISPATCHER

DICK

By Erin Laverdure

From a distance, Donavon Dick watched as a bouquet of pheasants rutted and scratched in a field near Sidney, Nebraska. In a blink, the serene scene was disrupted by a hawk, swooping in to snatch a pheasant for lunch. The bird struggled valiantly and successfully, and the hawk flew away, talons empty.

Dick observed the National Geographic-like conflict at the Sidney 345-kilovolt substation from more than 525 miles away while monitoring cameras from Basin Electric's security headquarters in Bismarck, North Dakota. It's one of his many duties as an alarm monitor/service dispatcher for the co-op's security and response services (SRS), where he splits his time between security and dispatch.

He started at Basin Electric as a service dispatcher in 2012. After earning a degree in criminal justice, Dick moved to alarm monitoring in 2014 where he works 12-hour shifts from 10 a.m. to 10 p.m., spending most of his time in security and then working in dispatch as needed, particularly during times of high call volumes.

On the security side, Dick monitors cameras, access logs, and alarms throughout the Headquarters complex and at the cooperative's remote facilities that are not staffed around the clock, like Transmission System Maintenance (TSM) outposts and distributed generation facilities. He also conducts on-site security rounds at the Bismarck and Menoken, North Dakota, facilities. "We check the doors, check for smoke or water damage, anything that's unusual or could be a hazard. We check fence lines, gates, and make sure no one can enter," he says.

Most camera and alarm alerts are innocuous. Procedures are in place so security knows who should be onsite and when. If Dick does get an alert that needs investigating, he contacts the on-call personnel at the site, and together they determine whether law enforcement should be contacted.

Many times, it's simply employees who are still working on-site, or wildlife, which he finds entertaining. "You'll see the same animals night after night, the same coyotes, rabbits, and skunks — the skunks seem to eat bugs," he says.

During the pandemic, while most Headquarters employees have been working from home, Dick and his SRS colleagues have remained on-site to conduct their essential duties. In the absence of an open reception area, security has the added responsibility of taking switchboard calls and managing contactless business-critical pick-ups and drop-offs.

On the dispatch side, Dick manages phones and radios for electric cooperatives that use Basin Electric's call center. Cooperatives can direct their after-hours calls to Basin Electric, where dispatchers greet callers with the cooperative's name and log their concerns.

"Our primary job is to take outage calls. We'll contact the lineman on call and he'll update us on the radio with what he found," Dick says. "We track the linemen for their safety throughout the course of the outage until they're back at the shop."

Each cooperative that uses SRS has its own set of procedures for taking calls and managing outages and line crew call-outs. Dick documents everything from the call and outage response, including the cause and restoration time, and sends reports to the cooperative.

If call volumes are especially high during a severe storm, callers may be met with a recorded message acknowledging the outage and for most callers, that's all they want to know. Otherwise, callers can stay on the line to speak with a dispatcher.

Working in dispatch is a customer service-centered job, and occasionally Dick encounters frustrated co-op members, which he manages with compassion. "When people call and they're upset, it could be they've got something else going on in their life, like family or health issues. Power going out only compounds their frustration with the current situation. In addition to telling us their power is out, they may tell you what's going on in their personal life. I think they just want to be listened to and want to know you understand."

Both the security and dispatch sides of his job carry the challenge of managing the unknown. "You have to adjust in the moment — you've always got to be ready to handle the unknown." He's also responsible for managing an ever-changing knowledge base, like maintaining an Emergency Medical Technician certification and learning new outage management systems and call procedures.

Dick brings a mind for detail, watchful eyes, and empathetic ears to his position at Basin Electric. "It's always nice to help someone in need," he says. "People from time to time will thank me for getting their power on or for helping them feel safer. It's rewarding when people express gratitude."

ON THE WEB

A destructive derecho ripped through central and eastern Iowa on Aug. 10. The intense, widespread, and fast-moving windstorm leveled buildings, snapped power poles like toothpicks, and left thousands of people without power for days.

Basin Electric's Security Response Services (SRS), which takes calls reporting outages and dispatches line workers to repair damage, fielded thousands of calls and dispatched over 100 line crews in the 24-hour period after the storm.

Read more about the derecho, and how it affected two Basin Electric members at



<http://bit.ly/IowaDerecho>



Dirt work started March 31, 2019, to prepare a site near Dry Fork Station for geologic testing for the Wyoming CarbonSAFE project.

CONTAIN THE CARBON

WYOMING CARBONSAFE TO DETERMINE WHETHER CARBON DIOXIDE CAN BE PRACTICALLY, FEASIBLY, AND PERMANENTLY STORED UNDERGROUND NEAR DRY FORK STATION

By Tracie Bettenhausen

They call it “Carbon Valley™” — yes, it’s trademarked, by Energy Capital Economic Development of Gillette, Wyoming, in February 2020. It’s a term that has been used locally by city and county officials, economic developers, and economic advocates, such as at the Campbell County (Wyoming) Chamber of Commerce. It’s meant to describe the goal of turning Campbell County into a global hub for advanced carbon research, development, and commercialization.

Carbon Valley is where the Dry Fork Station takes up residence, and serves as home to two research projects: Wyoming CarbonSAFE and the Integrated Test Center. This area of Wyoming is also home to a carbon dioxide (CO₂) pipeline that stretches from southwest Wyoming up into Montana, existing enhanced oil recovery and undeveloped oil fields, and the Wyoming Innovation Center, which supports the coal research conducted by University of Wyoming and School of Energy Resources.

Wyoming CarbonSAFE, implemented by the U.S. Department of Energy, is investigating the feasibility of underground CO₂ emissions storage from coal-based electric generation facilities. Feasibility is determined by whether storage is found to be practical, secure, and permanent. Several deep geologic layers are being studied for their suitability for CO₂ storage, including the site at Dry Fork Station near Gillette.

Starting in 2018 through this summer, the mission of the project was to validate the feasibility of carbon capture on the site from a technical sense: Is the geology capable of carbon storage? Are there underground rock seals robust enough to hold the carbon dioxide there permanently?

Fred McLaughlin, senior research scientist with the University of Wyoming Research School of Energy Resources, says the project needed to determine whether the formation could store up to 50 million metric tons of CO₂ over 25 years within the designated storage site. “I think we’ve proven feasibility within the storage area; now it’s a matter of finalizing those boundaries. Do we need three different sites, or four? Or two, three, or five wells? One of the major goals of Phase 3 is to really dial in those metrics,” he says.

Wyoming elected officials, media, and the public were invited to an open house on May 1, 2019, to learn more about the project.



Phase 3 of the project began Oct. 1, which includes finalizing site characterization, permitting wells for CO₂ storage, integrating carbon capture technology from the Wyoming Integrated Test Center, and environmental analysis for commercial operation. The actual injection of CO₂ won't happen until Phase 3 is successfully completed and parties agree to move on to Phase 4.

McLaughlin says a good amount of work had been done even before CarbonSAFE to learn more about the subsurface in Wyoming. "We learned a lot more about the deep reservoirs than anybody has ever been able to learn at that site. We didn't have any wells, prior to Phase 2, that went that deep [two miles]," McLaughlin says. "We have identified a couple new reservoir zones, or what we would call flow zones internally, that would be really good CO₂ injection targets."



A core taken from the test well. These cores help geologists learn more about the rock deep below Wyoming's surface.

Scott Quillinan, director of research at the University of Wyoming Research School of Energy Resources, says the research teams were able to come within three to four feet of accuracy on their models. "So you can imagine how impressive that is, two miles below the subsurface. ... We did find one deep sandstone reservoir below the injection target that we didn't know was there, so that was pretty neat to find," he says. "The discovery of that additional deep sandstone really helps the viability of the project because it'll increase the overall storage capacity."

Phase 3 brings the first true mashup of CarbonSAFE with another research project at the Dry Fork Station — the Wyoming Integrated Test Center. The University of Wyoming team will work with Membrane Technology Research. "They are conducting an engineering FEED (front-end engineering design) study for carbon capture at Dry Fork Station. For the first time, we will be

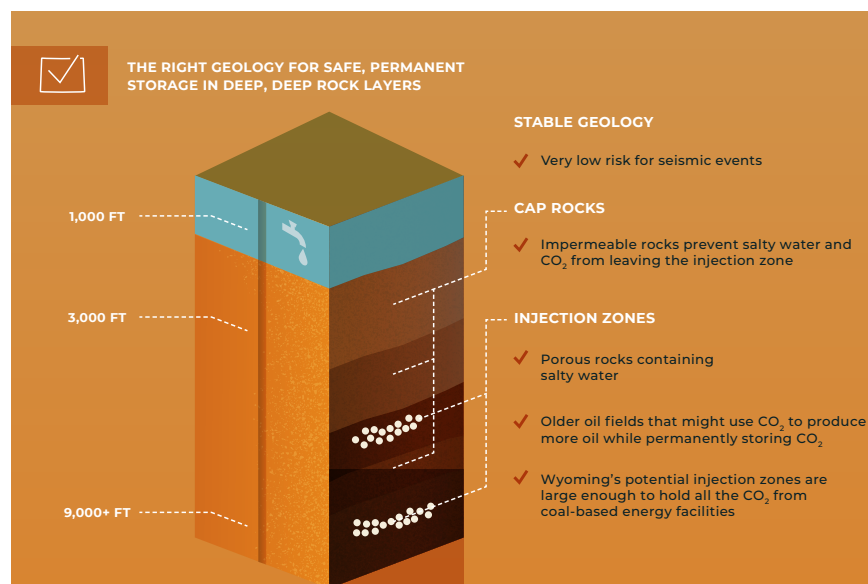
integrating that study into ours," Quillinan says. "We are working for Basin Electric to determine what this storage site might look like. At the end of Phase 3 if it looks like it's operational, we would be handing over the keys. ... This project helps remove all the risk for characterizing the subsurface; the U.S. Dept. of Energy is taking that financial risk."

Both Quillinan and McLaughlin say the employees of Dry Fork Station, and residents of Gillette, have been interested in their progress.

"When we stop at the gas station, for example, we have the University of Wyoming logo on our vehicle. A lot of people will come up and ask how the project is progressing, and what other projects are on the horizon," Quillinan says. "They have a lot of questions about storage space and when will this [injection] begin. There is a lot of local knowledge and interest."

While locals are especially interested in the future of the coal industry, Quillinan says the benefit of the work on CarbonSAFE goes beyond coal. The Greencore Pipeline, a CO₂ pipeline that delivers carbon dioxide for enhanced oil recovery to fields in Wyoming, is a major piece of infrastructure already in place for the transportation of CO₂.

"Everybody is starting to realize this isn't just about coal; this is about fossil energy in general. There is a lot of natural gas folks, and oil and gas folks, in the region that are interested in seeing this project progress and how it can be applicable and employable in other industries," Quillinan says.





DEDICATION TO COMMUNITY DRIVES EMPLOYEE TO BE OF SERVICE

By Kalli Senske

Residents in Mercer and Oliver County, North Dakota, know the importance of the Beulah Rural Fire Protection District. This volunteer crew covers a 350-square-mile area and is always there when help is needed.

Eli Schumann, maintenance field technician at the Great Plains Synfuels Plant, has been a member of the Beulah fire department since 2006 and has served as Beulah fire chief since 2016.

"I started in high school in Stanton [North Dakota] when the department came to school looking for daytime volunteers. I wasn't 18 yet so I had to get my parents' permission but they agreed, and I've been doing it ever since," Schumann says.

Members of the department are on-call 24/7, and as fire chief, Schumann says he never knows how many people will respond to a call.

"You don't know until the trucks start calling in as to how many we've got. When I figure that out, it helps make my decision if I'm calling for mutual aid," he says.

When it comes to structural fires, the Beulah Rural Fire Protection District has an agreement with Hazen Fire and Rescue. Beulah and Hazen, North Dakota, are the biggest departments in the county, so both are automatically paged if there's a structural fire so they can work together to put it out as quickly as possible.

Such was the case in late August when a fire at the Spring Creek railroad bridge near Beulah caught fire. This eight-mile section of railway is the only way to move product in or out of Dakota Gasification Company, Antelope Valley Station, and The Coteau Properties Company's Freedom Mine. When Beulah

COOPERATIVE PRINCIPLE #7

THE SEVEN FOUNDING VALUES OF CO-OPS

CONCERN FOR COMMUNITY

Cooperatives work for the sustainable development of their communities through policies supported by the membership.

Rural Fire Protection District was paged to the scene, mutual aid was requested from Hazen Fire and Rescue to help put out the fire. Read more about the fire at <http://bit.ly/SpringCreekBridgeFire> and construction of the new bridge on page 5.

Schumann says his department usually averages three calls per month, but 2020 has been an exceptionally busy year.

"This year we are at 36 calls so far. We've been paged out for fires, carbon monoxide, traffic control at accidents, and ambulance assists," he says. "With it being so dry this year, we are watching the weather and anticipating potential fires this fall."

Schumann says he is thankful that Basin Electric lets him and his crew leave work when there's a call, as long as they have supervisor approval.

"Basin has been really supportive of us responding to calls because they're supportive of community involvement," Schumann says.

He also appreciates the way the co-op puts safety first by giving eight hours of rest time to an employee who was out all night on a call.

"If I get a call at 9 p.m. and it doesn't wrap up until 7 a.m., I can call my supervisor and he'll tell me to sleep for eight hours and then come in. Some years you have a bunch of overnight calls and some years you don't have any, but having that extra sleep makes a big difference in doing your job safely," he says.

A lot of the Beulah fire crew is made up of power plant employees. "I have a lot of guys at DGC [Dakota Gasification Company] and AVS [Antelope Valley Station], Coteau Freedom Mine, and Coyote Station. My supervisor is one of my captains," Schumann says. "We also have business owners that help during the day. That helps a lot with the daytime coverage."

When it comes to being a volunteer firefighter, it's a full-time job. Balance that with family and working full-time, and it's easy to see what a gift these volunteer individuals are to the community.

FIRED UP ABOUT SUPPORTING THOSE WHO PROTECT US

October is National Fire Prevention month. When you think of those who strive to keep us safe, firefighters are often one of the first groups that come to mind.

In appreciation for the services they provide, Basin Electric's Charitable Giving Program began giving \$500 annual donations to the fire departments that serve its facilities in 2010, bringing more than \$16,000 to date to fire departments across its service area, many of which are small departments operated by volunteers and on extremely limited budgets.

In addition to the annual donation, Basin Electric has also donated retired fleet vehicles, auto extraction tools, and additional funding to purchase equipment necessary to do their jobs and keep their communities safe.

"Safety is something we are constantly talking about at Basin Electric," says Blake Stoner, Basin Electric's cooperative safety administrator. "We know the essential role local fire departments

play in keeping our employees safe, both at work and at home. These donations are just one way of showing our support and saying thank you for all that they do for our communities."



Earlier this year, Basin Electric donated \$15,554 to the Groton (South Dakota) Area Fire & Protection and Rescue District. The donation was given to fund the entire cost of a new Power Pro Cot for their ambulance, which will reduce the chance of EMT and patient injuries when lifting and moving patients from the ambulance.

Retirees



Doug Delvo, maintenance field technician at Dakota Gasification Company, retired on June 6 after working at the plant for 37 years.

"Doug was very thorough and liked to see jobs to the end," says Eric Pressnall, Dakota Gas area planner. "He'd often stop back at completed jobs to make sure things were still working right. He was a top-notch mechanic who took the time to make things right."

Pressnall continues, "As a new technician working with Doug, I was in awe of his knowledge and concern over equipment operating properly. We're lucky he mentored many of the technicians that are still with us. I'll miss his vast knowledge of the plant, and of course his wife Shevon's desserts."

In his retirement, Delvo says he looks forward to, "taking it easy and enjoying life."



Randy Meier retired from Dakota Gasification Company on July 6. He joined the co-op in 2014 and retired as a maintenance field technician.

"Randy was an upbeat and positive employee, and great to have on the crew. He was very willing to lend a hand to others and would assist anywhere needed," says Quinn Messer, field maintenance supervisor. "He had a great attitude and was fun to joke around with."



James Arbogast, control room operator at Laramie River Station, retired on July 17. He started as a laborer in 1987 and held many positions in his career, including utility operator, equipment operator, assistant plant operator, plant operator, and control room operator.

Arbogast looks forward to traveling in his retirement. "I have been to 28 of the 62 national parks and hope to visit the other 34," he says. "I also plan to work on photography – it's a lifelong passion. I have spent a lot of time taking pictures of mustangs around the Rock Springs area." He also looks forward to spending time with his wife and kids and not working any more night shifts.



Tony Montoya, water treatment operator, retired from Laramie River Station on July 6. He worked at Laramie River Station for nearly 28 years.

"I have worked in all the operations departments at Laramie River Station: coal yard, scrubbers, and the main plant before landing at the water treatment plant," Montoya says. "I've enjoyed working with the good people at Laramie River Station, especially all of my IBEW Local 612 brothers and sisters."

"Tony was very conscientious and always put in the effort to do whatever job he was assigned at the highest level. Whether it was learning more about the equipment and processes of the water treatment plant or cleaning the lime slurry system, he took pride in doing a good job," says Jay Houx, water treatment plant supervisor. "He was also always willing to do whatever it took to improve Laramie River Station by volunteering to be on different committees such as its safety committee. I'll miss Tony's upbeat attitude and willingness to help when asked or whenever he saw help was needed."

In his retirement, Montoya plans to, "enjoy every day with my grandcubs and family, and just live and be happy in the moment."



Kevin Borner retired as a shift supervisor on Sept. 3 after nearly 44 years at Leland Olds Station. He started as a laborer in 1976 and held many positions in his career, including boiler attendant, equipment attendant, turbine electric operator, and control room operator.

"Kevin is the last of the 'old guys' to retire from LOS. His past experiences were very helpful in getting through operational issues we hadn't seen before," says Jamey Backus, Leland Olds Station plant manager. "Kevin also loved to tell stories, sometimes about work but usually about fishing or hunting."

Borner plans to spend his retirement golfing, fishing, camping, hunting, traveling, doing woodworking projects, and spending time with his children and grandchildren.



Cordell Eckroth worked at Dakota Gasification Company for 35 years. He retired on Aug. 14 as a process operations field technician.

Ryan Rask, utilities section shift supervisor, says Eckroth liked routine. "We always appreciated that Cordell was one to show up for work when he was scheduled to; he definitely had a routine after 35 years of working at the plant. We wish him the best in his retirement."

Eckroth looks forward to spending time with family and travelling.



Jack Eggleston retired from Laramie River Station on Oct. 2 after a 31-year career, most recently as a control room operator.

"I have worked with Jack since his hire date, and we worked on the same crew for many years. We also grew up together, carpooled to work for 24 years, and he is my neighbor," says Tim Walker, a fellow control room operator. "Jack was a very dedicated worker and trustworthy person. He is an excellent cook so I will miss his cooking – fried chicken being everyone's favorite."

Employees receive degrees

The following Basin Electric and Dakota Gasification Company employees earned degrees from accredited institutions of higher learning over the past year.



Annie Kaul, buyer at Headquarters, earned a bachelor's degree in business administration. She graduated from University of Mary (Bismarck, North Dakota) in December 2019.



Bret Weiland, service dispatcher at Headquarters, earned a bachelor's degree in energy management. He graduated from Bismarck (North Dakota) State College in December 2019.



Billie Weltikol, warehouseperson at Beulah (North Dakota) Transmission System Maintenance, earned a bachelor's degree in energy management. She graduated from Bismarck State College in December 2019.



Travis Watson, safety coordinator at Antelope Valley Station, earned a bachelor's degree in occupational safety and health with a concentration in fire science. He graduated from Columbia Southern University (an online university in Orange Beach, Alabama) in January 2020.



Germain Krueger, senior enterprise application architect at Headquarters, earned a bachelor's degree in business information technology. She graduated from Minot (North Dakota) State University in May 2020.

COOPERATIVE PRINCIPLE #5

THE SEVEN FOUNDING VALUES OF CO-OPS

EDUCATION, TRAINING, & INFORMATION

Education and training for members, elected representatives (directors/trustees), CEOs, and employees help them effectively contribute to the development of their cooperatives. Communication about the nature and benefits of cooperatives, particularly with the general public and opinion leaders, helps boost cooperative understanding.

EMPLOYEE HIGHLIGHTS

Service awards



Dale Johnson
35 years
vice president and
plant manager
Dakota Gasification Company



Mark Wasem
35 years
control room operator
Antelope Valley Station



Larry Hruby
30 years
supervisor, maintenance
planner/scheduler
Leland Olds Station



Myles Hafner
25 years
supervisor, system protech
Beulah TSM



Daniel Bowen
20 years
control room operator
Laramie River Station



Richard Cook
20 years
control room operator
Laramie River Station



Cameron Delgado
20 years
lead yard equipment operator
Laramie River Station



Gary Everett
20 years
maintenance field technician
Dakota Gasification Company



Jesse Kaelberer
20 years
shift supervisor, fertilizer
Dakota Gasification Company



Jerard Kaylor
20 years
supervisor, field maintenance
Dakota Gasification Company



Stacey Kessler
20 years
supervisor, substation
engineering
Menoken TSM



Kevin Kraft
20 years
process operations
field technician
Dakota Gasification Company



Doran Link
20 years
process operations
field technician
Dakota Gasification Company



Paul Mindeman
20 years
energy system administrator III
Headquarters



Trina Lundquist
20 years
supervisor, warehouse
Dakota Gasification Company



Les Mahin
20 years
process operations
field technician
Dakota Gasification Company



Joey Nelson
20 years
shift supervisor, fertilizer
Dakota Gasification Company



Denise Quick
20 years
mechanic/welder
Laramie River Station



Darvin Schlender
20 years
process operations
field technician
Dakota Gasification Company



Kelly Simonton
20 years
mechanical supervisor
Laramie River Station



Bruce Sloan
20 years
shift supervisor
Dry Fork Station



Jayson Walcker
20 years
process operations
field technician
Dakota Gasification Company



David Windmeier
20 years
shift supervisor
Laramie River Station



Jessie Wood
20 years
process operations
field technician
Dakota Gasification Company

New employees



Timothy Morton started work as a process operations field technician at the Great Plains Synfuels Plant on July 27. Before joining the co-op, he worked in his hometown at the Beulah (North Dakota) Water Plant.



Nick Scharbach started work as a process operations field technician at the Great Plains Synfuels Plant on July 27. He previously worked as an assistant control room operator at Coal Creek Station in Underwood, North Dakota. He is originally from Hazen, North Dakota.



Josh Schwab, process operations field technician, started work at the Great Plains Synfuels Plant on July 27. Schwab previously worked at Great River Energy's Coal Creek Station. He is originally from Hazen, North Dakota.



Gary Oster, dispatcher, started work at Headquarters on Aug. 4. Before joining the co-op, he worked as an insurance agent at Western Frontier Insurance Agency in Washburn, North Dakota. Oster has more than 37 years of experience in the insurance industry. Since 1985, he's called the Bismarck and Dickinson, North Dakota, areas home.



Baylee Carr, process operations field technician, started work at the Great Plains Synfuels Plant on Sept. 8. He previously worked as a pipeline operator at Oneok NGL Pipeline in Watford City, North Dakota. Carr is originally from Hazen, North Dakota.



Michael Morris started work as a process operations field technician at the Great Plains Synfuels Plant on Sept. 8. Before joining the co-op, he worked as a laborer for the City of Beulah, North Dakota. He earned an associate's degree in process plant technology from Bismarck (North Dakota) State College.



Jennifer Kemmet, dispatcher, started work at Headquarters on Sept. 23. She previously worked as a human resources field clerk at Bilfinger Westcon in her hometown of Bismarck, North Dakota.

COOPERATIVE PRINCIPLE #6

THE SEVEN FOUNDING VALUES OF CO-OPS

COOPERATION AMONG COOPERATIVES

By working together through local, national, and international structures, cooperatives improve services, bolster local economies, and deal more effectively with social and community needs.

In the spirit of this principle, Basin Electric's blog, Live Wire, highlighted other area cooperatives during Co-op Month. Check it out at



basinelectric.wordpress.com



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the community, for the community.



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