WILLISTON 577-3765

STANLEY 628-2242

NEW TOWN 627-3550

The Smart Grid

By enabling both new and existing electric grid components to communicate with each other, electric cooperatives can better monitor conditions, collect information, and remotely control devices over a distribution network. Often called the Smart Grid, this system can use various technologies, as shown here.



An electric co-op-designed MultiSpeak software interface allows meters, member databases and utility equipment to interoperate without expensive custom integration.



"Smart" substations enable utilities to remotely monitor breakers, transformers, batteries, and even temperature and wind speeds at the substation site. This information can increase reliability, security, and employee safety.

Source: National Rural Electric Cooperative Association



tracking outages as well as analyzing and billing purposes. Alerts can be sent back through the meter to notify advanced appliances when power use should be limited.

What is grid resiliency?

esiliency of the grid is one of the most popular concepts being talked about in the electric industry today. This concept recently made headlines in the wake of Hurricanes Irma and Maria.

www mwec com

which caused extraordinary damage to Puerto Rico's electric grid, resulting in the longest sustained outage in U.S. history. Lack of resilience became the go-to phrase to describe Puerto Rico's grid. Here in North Dakota, what

In this issue:

- **Investing in rural America**
- **Lightning protection**
- **Beat the heat**
- **Meeting minutes ... and more!**



does grid resiliency mean for you?

Resiliency is many things – it's reliability in your electric service, it's our ability to efficiently restore your power, it's being able to meet the demands of new technology and it's how we serve you with various generation sources without skipping a beat. Ultimately, resilience is how we deliver on our promise to improve the quality of life for our member-owners.

When it comes to having a resilient electric grid, it begins with a system that is designed and built to withstand high winds, powerful storms, cybersecurity threats and other disruptions that could result in outages. A resilient grid is also flexible and adaptable by allowing different types of generation – such as wind, solar, coal and hydro – to seamlessly work together to provide you with safe and reliable power. The way our systems react to advancements in technology – from demand response investments to serving the needs of electric vehicles – all factor into the resilience of our grid.

Resiliency is a 24/7, 365-days-a-year task. Whether it's the power lines, substations or generation facilities on our grid, it takes proactive maintenance and investment to keep them running smoothly. With thousands of consumers without power for months, the lack of resiliency in Puerto Rico's power grid wasn't solely caused by hurricane damage; it was the result of years of neglect in taking care of their system and preparing for a worst-case scenario.

In a similar way to how we maintain our vehicles with regular oil changes, inspections and tire rotations, a grid must also be properly maintained. Throughout the year, we regularly conduct pole and line inspections. Our goal is to find a problem before it becomes one. For example, if we find a weak pole that has damage, we replace that pole. Doing so ensures that pole is as strong – or as resilient – as it can be.

Living in North Dakota, we know that significant power outages can occur any time of year in our area. Whether we're at the mercy of the high winds, ice storms or cold temperatures, we have confidence in the resiliency of our system to recover from the situation with as little disruption as possible.

In the dictionary, resilience is defined as "the ability to bounce back, recover quickly and go back into shape or position after being stretched." When it comes to providing our member-owners with resilient service, this is what we work toward – day in and day out!



The federal government must invest in rural America

BY DAN RIEDINGER

ere's a simple fact that we at Mountrail-Williams Electric Cooperative know all too well: The 21st century economy runs the risk of leaving much of rural America behind. It's a concern shared by electric coops all across the country, because their strong community ties give them a bird's-eye view of the quality of life of the members they serve.

Rural America grows most of the food, generates much of the power and manufactures many of the goods that are used throughout the country. When the modern economy threatens to leave much of the country on the wrong side of the ledger, that's bad news regardless of where you live and work.

Today, fewer than 15 percent of U.S. businesses are located in rural areas and small towns. Bank loans for amounts less than \$1 million, primarily to family-owned small businesses and farms, have dropped by nearly half since 2005. These are warning signs for the basic building-blocks of the economy that serve as the foundation of America's economic stability.

The solution isn't simple, but it's within reach. It will take a concerted, long-term commitment from Congress and the administration to reverse this trend.

The Trump administration and Congress already have taken significant steps to jumpstart programs that bolster the rural economy. That's helping turn the tide in many communities. But reversing this trend requires a sustained focus across the executive branch and Capitol Hill.

The omnibus budget bill that Congress approved earlier this year is providing key resources and tools to foster development of energy, telecommunications and other essential services in rural America, including \$600 million for high-speed internet access in underserved regions.

Other sections of the omnibus bill fully fund lowinterest government loans or enhance the efficiency of permitting for rural electric programs to improve grid reliability.

These are positive steps. But there's more work to do. As local businesses built by the consumers we serve, electric cooperatives have meaningful ties to America's rural communities. And they are making strategic infrastructure investments to give communities the flexibility to adapt to tomorrow's energy needs, investing \$12 billion annually in the areas that they serve.

That's why co-ops have launched community microgrids, lead the nation in the deployment of community solar facilities and have invested in new XPRIZE carbon capture research.

But it takes more than smart energy infrastructure to rejuvenate rural communities. Co-ops also leverage public-private partnerships to enhance the quality of life.

Over the last two decades, co-ops have partnered with community stakeholders through the U.S. Department of Agriculture's rural economic development programs on hundreds of projects to construct essential infrastructure, renovate hospitals, build libraries and expand businesses. Co-ops also use the Rural Energy Savings Program to work with consumers on energy efficiency solutions to their homes to save money on their energy bills.

There's a major piece of legislation moving in Congress that offers an opportunity to bolster these important public-private programs while giving rural America an additional boost: the Farm Bill.

As Congress continues discussing the Farm Bill, it should support a stronger rural America and enhance key rural development programs by including:

- Additional funding for rural broadband grants and loans. A reliable, modern grid and vibrant rural communities depend on a robust communications infrastructure.
- Ample support for proven rural economic development programs.
- A focus on accelerating energy innovation to build new renewable energy resources and modernize the electric grid.
- Continued funding for rural electrification programs.

The need to invest in rural America is real for all of us. So too are the opportunities for our leaders to make a meaningful difference in its trajectory. ■

Dan Riedinger writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56 percent of the nation's landscape.

Patriotism in action

BY ANNE PRINCE

ccording to Merriam-Webster's dictionary, patriotism is "the love for or devotion to one's country." Perhaps no other day of the year evokes such a sense of patriotism than Independence Day. With flags rippling in the wind – red, white and blue bunting adorning porches and store fronts and local parades and marching bands on display, it's easy to feel a swell of pride for our country.

Arguably, another, perhaps deeper form of patriotism is active engagement in public and civic life. Involvement in your town promotes a richer community life, and ensures that institutions thrive and communities remain vibrant and inviting places to live work and play. Besides being enjoyable, your participation in community events and activities, together with your friends, neighbors and co-workers makes a difference. Simple things like supporting a bake sale or attending a local high school event signals to the young people in your community that you care and support them, and that the community itself is worth sustaining.

In fact, there are civic engagement opportunities through Mountrail-Williams Electric Cooperative (MWEC). You may recall that one of our most important cooperative principles is that of democratic participation. If you pay your bill, you are a member of the co-op with an opportunity to provide



The cooperative difference

- Electric co-ops are community-focused organizations that deliver safe, reliable and affordable energy to their consumer-members.
- Our electric co-op is unique because we belong to the communities we serve. The co-op is led by its members, which gives us a unique understanding of the needs of our local communities. In fact, many of our leaders and employees live right here in the community and are members of the co-op - just like you!
- Because we answer to local members (that's you!) rather than far-away shareholders, we're more nimble and able to respond quickly to the changing needs of

- our community. We even share any excess revenue with our members because we're not-for-profit.
- Even though we're locally owned and operated, we cooperate with other electric cooperatives across the country to develop new technologies, invest in equipment and infrastructure that benefits multiple co-ops in a region, and assist with major outages. This type of collaboration allows us to address complex challenges while remaining true to our local roots.
- Our electric co-op was built by the community, belongs to the community and continues to be led by the community – that's the cooperative difference!

Mountrail-Williams Electric Cooperative



input through voting during our annual meeting.

MWEC, like other types of co-ops, originated to serve a need that was not being met by traditional for-profit electric companies. While providing reliable electricity is our top priority, we are exploring other needs that might not be met otherwise. We make decisions based on long-term thinking – what decisions will benefit the larger community in which we operate? One of the best ways you can engage with your co-op is by casting your vote when it's time to elect board members. These are folks just like you, from our community, who provide guidance to co-op leadership on a myriad of issues and decisions both short term and long term.

Perhaps you haven't voted in the past because you didn't think you were qualified to weigh in on a particular topic, or maybe you simply didn't have time to vote. But you do have an opinion on the issues that affect our community and MWEC wants your particular perspective.

Everyone has valuable experience that informs their decision-making process. Diverse perspectives benefit the whole community. You may have a different view than your neighbor, but together, those perspectives provide a more balanced view of the community. You could be bringing new information that hadn't been previously considered. We seek more members participating in the process, because greater numbers reflect a consensus on the direction of the future and the will of the people.

The next opportunity to vote in the board election is June 2019. I would argue that voting, whether in the co-op or in local and national elections, is a form of patriotism, as it reflects a devotion to one's community and commitment to ensure that it thrives.

Democracy is not a spectator sport; it takes active civic engagement by citizens to thrive. This Independence Day, I hope you will embrace the local celebrations and actively participate in your community – and vote at every opportunity!

Anne Prince writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56 percent of the nation's landscape.



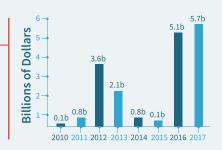
In the first quarter of 2017 alone, thunderstorms caused a record **\$5.7 billion** in losses, and lightning kills an average of **30 people a year**. Learn how to keep you, your family, and property safe from lightning.

► LIGHTNING IS DEADLY

22,600

An average of 22,600 fires were caused by **lightning** between 2007 and 2011.

According to Aon Benfield's Impact Forecasting, insured losses from lightning strikes are at an all-time high.



► LIGHTNING IS FAR REACHING

1/3 of all lightning related injuries occur indoors – stay away from:

Corded phones



Electronics



Plumbing

10

Lightning can strike

10 miles from a
thunderstorm.

30

people die a year from lightning strikes according to the National Weather Service.



Lightning can strike **anywhere**, not just the tallest objects.

► LIGHTNING PROTECTION

Power surges caused by lightning can damage the electronics in your home.



Lightning protection systems **intercept lightning strikes** and provide a grounding path for dangerous electricity to **discharge safely**, leaving occupants and homes safe from harm.



Panel box surge protective devices (SPDs) serve as the **first line of defense** against harmful home electrical surges, limiting voltages by diverting currents at the electrical service entrance. Only a **qualified electrician** should install SPDs.



Point-of-use surge protective devices protect electronics plugged into the device from surges, must be **replaced** over time or after a major surge event.



Power strips **DO NOT** provide surge protection.



No surge device can handle a **direct lightning strike**. Unplug sensitive electronics **WELL** before a storm to prevent damage.





Install and set a programmable thermostat. It could save up to 10 percent on heating and cooling costs a year.



Use a fan. Ceiling fans will allow you to raise the thermostat setting 4 degrees without impacting your comfort. As summer starts to heat up and temperatures rise, many of us are cranking up the air conditioners to stay cool. It should come as no surprise that air conditioners use about 5 percent of all the electricity produced in the U.S., according to the U.S. Department of Energy.

This summer, instead of blasting the air conditioner (and blowing your electricity bills through actions that will help you beat the heat. For example, replacing

a dirty, clogged air filter with a conditioner's energy consumption by 5-15 percent, while using a ceiling fan will allow you to raise the thermostat setting about 4 degrees without impacting your comfort.

With just a few small changes, you can relax in comfort this summer while saving some cold, hard cash.

Here are some tips from Mountrail-Williams Electric Cooperative:



Don't heat your home with appliances. On a hot day, consider using an outdoor grill rather than an oven.



Insulate your attic and seal cracks and openings to prevent warm air from leaking into your home.



Insulate and seal ducts to prevent air loss.



Install energy-efficient window coverings that let natural light in and prevent solar heat gain.

Unofficial minutes of regular board meeting

May 30, 2018

Directors present: Grant, Hartsoch, Johnson, Lynne, Jorgenson, Lalim, Ludwig, Lahtinen and Sorenson

Directors absent: None.

Others present: Manager Haugen, in-house counsel Johnson Ellis, attorney Foust and staff members.

The meeting was called to order at 8:30 a.m. The agenda was approved as presented. Minutes of the April 25 board meeting were approved as presented.

BUILDING UPDATE: JLG Architects representatives and FCI Constructors representatives presented the building update. The building is 82 percent complete and is currently on track to be turned over to the cooperative in September and to come in on or below budget. The board was also updated on the LEED certification for the building.

There are ongoing discussions with cooperative staff at the New Town office on location and space.

EXECUTIVE SESSION: The board meeting broke to meet in executive session to discuss easement issues.

ATTORNEY'S REPORT:

POLICY 205A AND 205B – In-house counsel Johnson Ellis brought minor language proposals to Policy 205a and Policy 205b. The board passed a motion approving the discussed changes.

CAPITAL CREDIT DISCUSSION – In-house Counsel Johnson Ellis updated the board on a request by a company who has purchased the assets of a bankrupt company.

OPERATING AND FINANCIAL REPORT: Jay Lux presented the operating report for the year to date and for the month of April. The total margins and capital credits for the year to date was \$10,107,315. OTIER is 2.82; MDSC is 2.53; cooperative equity is 24.91 percent; and SPP equity is 36.16 percent. Residential revenues are at a 13 percent increase from last year.

SPECIAL EQUIPMENT/WORK ORDER CLOSEOUTS: The board approved the closeout of the following special equipment/work orders:

Closeout 704	\$26,745.21
Closeout 705	\$88,432.30
Closeout 706	\$184,882.27
TOTAL	\$300,059.78

CAPITAL CREDIT RETIREMENTS: The board approved the retirement of the

following capital credit accounts for April:
Geraldine Aslakson estate.....
Darlene Dahl estate.....
Allen Ressler estate....

The board approved the retirement of the following capital credit accounts for May:

Robert Barkie estate Mary J. Goebel estate Wanda L. Driver estate Ruth White Owl estate Gloria Kallias estate

A resolution was authorized and approved by the board regarding capital credits.

MANAGER'S REPORT:

SAFETY – Manager Haugen discussed the safety meetings and trainings he attended and observed. The Safety & Loss Control Committee meeting minutes were provided. There was one lost-time accident reported in May.

RELIABILITY AND OUTAGE REPORT – Jerry Rehak presented the reliability and outage report for April. There were 111 outages in April.

UMZCG/MWEC UPDATE – The Upper Missouri Zone Coordination Group Membership (UMZCG) list as of May 12 was provided and Manager Haugen discussed the UMZCG meeting he attended in May and provided the meeting agenda.

National Information Solutions Cooperative (NISC) – Manager Haugen gave a report on the NISC Executive Forum he attended and the agenda for the meeting was provided.

BASIN ELECTRIC POWER
COOPERATIVE MAC MEETING
– Manager Haugen gave a report on
the Basin Electric Power Cooperative
MAC meeting. The agenda, unfinalized
financial forecast and the load incentive
rate for Class A members were provided.

UMGT/EAST RIVER MAC MEETING

– Manager Haugen gave a report on
the Upper Missouri/East River meeting
he attended. The distribution maps for
East River and Upper Missouri were
made available.

UMGT MAC MEETING – Manager Haugen gave a report on the Upper Missouri MAC meeting he attended. He provided the meeting notes, a "strategic pondering" note from the general manager, proposed 2019 A&G formula and its impact, and discussed the UMPC metering program expenses with the board.

AIRPORT UPDATE – A transmission line needs to be rerouted due to the placement of the new airport in Williston. To reroute the line, the cooperative will need to bury the line due to height restrictions of the airport. A proposed route has been presented and the cooperative is awaiting approval.

FINANCIAL FORECAST UPDATE

- The finalized financial forecast will be presented at the July board meeting.

CONSTRUCTION NOTES – The current construction notes were made available.

MEMBER CONCERNS – A member letter concerning the "no firearms" signs

located outside cooperative buildings was discussed by the board.

ANNUAL MEETING – The board approved a bill credit for members in attendance at the cooperative's annual meeting. The logistics of registration and seating for this year's annual meeting were also discussed.

MEETING REPORTS:

UPPER MISSOURI – Director Jorgenson gave a report on the latest meeting he attended. The general manager update from May 18 was made available.

BASIN – Director Jorgenson gave a report on the Basin Electric Power Cooperative board meeting he attended. The April board meeting minutes were made available.

NORTH DAKOTA ASSOCIATION OF RURAL ELECTRIC COOPERATIVES (NDAREC) – Director Grant reported on the Rural Development Finance Corporation board meeting and the minutes were made available.

N.D. PETROLEUM CONFERENCE – Manager Haugen and Director Sorenson gave a report on the North Dakota Petroleum Conference they attended in May.

ADJOURNMENT – There being no further business, the meeting was adjourned. ■

MOUNTRAIL-WILLIAMS ELECTRIC COOPERATIVE

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DIRECTORS

DIRECTORS				
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Robert GrantVice-Chairperson				
Cheryl Hartsoch Treasurer				
Blaine JorgensonSecretary				
Larry JohnsonDirector				
Aaron Lynne Director				
Garrett Lalim Director				
Luke Lahtinen Director				
Dick LudwigDirector				
Neff, Eiken				
& Neff, PCProject Attorney				
Dale HaugenGeneral Manager				

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A Touchstone Energy Cooperative

