

# Policy Perspective:

## Addressing Energy Challenges in Uncertain Times

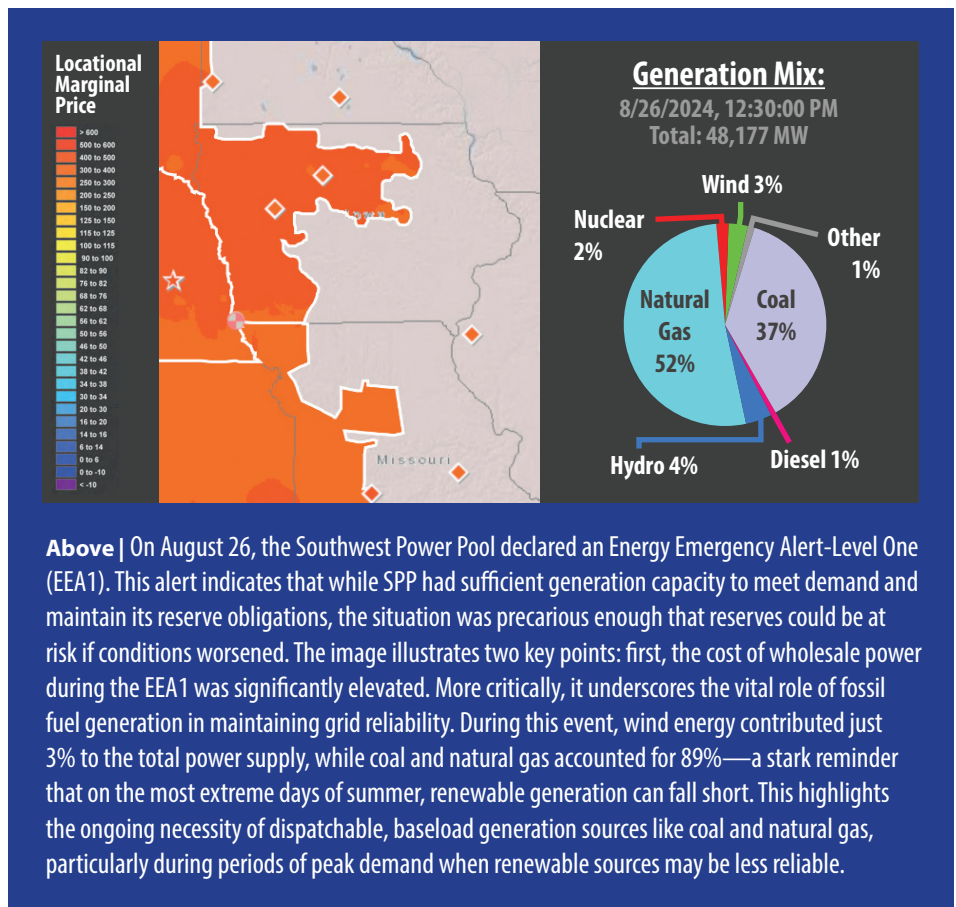
Today, we are more concerned than ever about the future of our shared electric grid and our ability to provide the reliable and affordable service consumers expect. Our electric grid is amid extensive change. Changes in supply, demand, and extreme weather conditions are stressing the limits of energy reliability.

Demand for electricity is outpacing supply from our generation fleet. Residential and commercial energy use is expected to increase at an unprecedented pace as our nation becomes more electrified and large data centers are added. While a tremendous amount of renewable energy has been added in the Southwest Power Pool region, which provides significant environmental benefits, renewable energy is not always available. Corn Belt Power works with Basin Electric Power Cooperative, our power supplier, and SPP, our regional transmission organization, to ensure the lights stay on.

However, the reality is that we need more dispatchable generation for those times when the wind isn't blowing, and the sun isn't shining. Many of our current generators are aging or nearing retirement, and we also need to expand transmission to connect new generators to the grid. This expansion is crucial not only for enhancing grid security but also for ensuring that lower-cost energy reaches consumers.

### Grid alerts: Why do they happen?

In the past, there were only a few weeks during the hottest days of summer or coldest days of winter when SPP risked an energy shortfall. Now, SPP is issuing grid alerts throughout the summer and winter. Our risk of having inadequate supply to meet demand has greatly increased, and grid emergencies are likely to occur more frequently, last longer, and have a more



**Above |** On August 26, the Southwest Power Pool declared an Energy Emergency Alert-Level One (EEA1). This alert indicates that while SPP had sufficient generation capacity to meet demand and maintain its reserve obligations, the situation was precarious enough that reserves could be at risk if conditions worsened. The image illustrates two key points: first, the cost of wholesale power during the EEA1 was significantly elevated. More critically, it underscores the vital role of fossil fuel generation in maintaining grid reliability. During this event, wind energy contributed just 3% to the total power supply, while coal and natural gas accounted for 89%—a stark reminder that on the most extreme days of summer, renewable generation can fall short. This highlights the ongoing necessity of dispatchable, baseload generation sources like coal and natural gas, particularly during periods of peak demand when renewable sources may be less reliable.

significant impact on our lives and our communities.

Our region is increasingly reliant on variable resources. Variable resources are generation types, often renewable energy, that vary in how much power they can provide due to reliance on as-available fuel. While these resources provide environmental and cost benefits when available, they also pose a challenge for grid operators when they are not. Solar power is dependent on time of day and year, and it is reduced by cloud cover or low sunlight. And, in Iowa, snow and ice cover in the

winter months decrease solar generation.

Wind power depends on weather patterns, which can shift wildly, and even be at risk when wind speeds are too high to operate safely. Hydropower is reduced during times of drought or in extreme freezing conditions.

All this means is renewable energy output can vary widely. For instance, in just 4 hours, we have seen wind power go from providing over 16,000 megawatts (MW) of energy to less than 2,200 MW.

We have also experienced a period in June 2023 when only **Continued on page 2...**

# Policy Perspective Continued:

**Continued from page 1...** 110 MW of energy was produced by the 32,000 MW of nameplate wind capacity existing at that time in the SPP region. To put it in perspective, during that period in June 2023, 0.3% of the entire wind capacity in SPP's footprint was able to generate electricity.

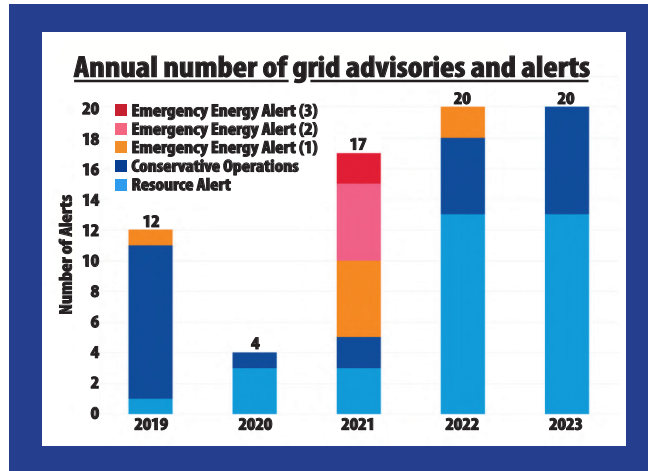
While a wind farm may have a nameplate capacity of 250 MW, we can only consistently rely on about 30% of that output over time. Solar generation in our region performs similarly, typically achieving around 20% of its nameplate capacity on average. This percentage tends to be higher during the summer months but can drop significantly during the winter.

A coal or natural gas-fired power generation unit can be relied on upwards of 90% of the time. These statistics aren't meant to diminish the value of wind and solar but to provide a realistic understanding of their current capabilities.

Unfortunately, we can't rely on wind and solar energy all the time. When we tap variable energy resources, like wind and solar, we must have baseload generation sources in place as a backup. We need to ensure the lights, heating and cooling systems, businesses and farms have power. Simply put, many times on the hottest and coldest days of the year, we can't rely on wind or solar.

During these times, SPP relies most heavily on dispatchable generation: power

sources that have available fuel and can be quickly adjusted to meet the needs of the power grid. Dispatchable power plants - coal and natural gas - can be turned on or



off, or their power output can be increased or decreased on demand allowing them to provide more electricity when demand is high or less when demand is low.

## What are we doing to mitigate risk?

SPP, Corn Belt Power and our other energy partners must plan for times of extreme power use. We do that in the form of what we call reserve margins. Reserves are resources that are held back, standing by to provide additional energy when needed. Reserve margins are the amount of unused available generating capability of an electric power system (during peak demand for a utility system) as a percentage of total capability needed to meet peak demand.

These margins are shrinking in SPP and across the country.

Tighter reserve margins mean there's less room for error when we experience unexpected events or emergencies, increasing the risk of forced outages.

We continue to work with policymakers and regulators on a state and federal level for a sensible all-of-the-above generation approach.

The ongoing energy transition must recognize the need for time and technology development while including all energy sources to maintain reliability and affordability. A resilient and reliable electric grid that affordably keeps the lights on is the cornerstone of our rural economy.

Electric cooperative families and businesses rightfully expect the lights to stay on at a price they can afford. To maintain the reliability of your power supply, we must adopt

an all-of-the-above strategy that includes renewable energy and dependable resources we have come to rely on like coal, natural gas, nuclear and hydropower. This diverse energy mix is essential to meeting those expectations day in and day out.

Our mission remains the same. We are here to provide safe, reliable, and affordable electricity that is also environmentally responsible. We will continue to advocate on your behalf and do everything we can to continue to live up to that mission.

*Information from SPP's recently released "Our Generational Challenge" report was used in this perspective. Learn more about the report here: <https://spp.org/media/2163/our-generational-challenge-paper.pdf>. ■*

## Corn Belt Power hosts hands-on training for Prairie Energy staff

Corn Belt Power Cooperative's Engineering and System Operations department hosted a specialized training session at Prairie Energy Cooperative Sept. 11.

This training is part of Corn Belt Power's ongoing efforts to ensure that distribution co-op staff are proficient in safe and effective operation of field infrastructure, including switches and other critical components.

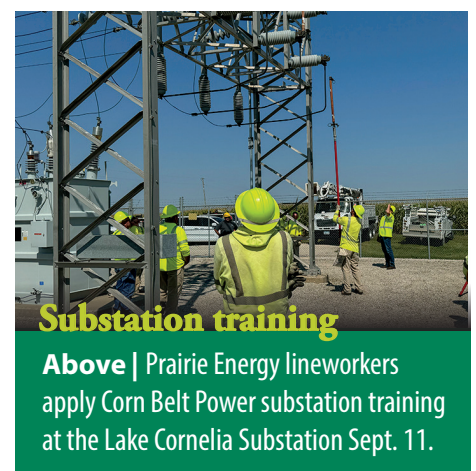
"These sessions are conducted periodically as part of our commitment to safety and reliability," said Jeremy Stattelmann, transmission superintendent, Corn Belt Power. "By offering hands-on training, we hope to equip distribution staff with the knowledge

necessary to help maintain our grid."

Corn Belt Power staff led the training at Prairie Energy and featured comprehensive components, including a detailed instructional video, classroom-based guidance and practical fieldwork.

Corn Belt Power employees involved in the session included Justin Hesnard, Mike Finnegan, Jeremy Stattelmann, Jon Behounek and Andy Stalzer.

Following the classroom session, crews gathered at the Lake Cornelia Substation, where participants had an opportunity to apply their learning in a real-world environment. ■



### Substation training

Above | Prairie Energy lineworkers apply Corn Belt Power substation training at the Lake Cornelia Substation Sept. 11.

## Cooperation among cooperatives leads to large Make-A-Wish donation

Corn Belt Power Cooperative, Midland Power Cooperative and Basin Electric Power Cooperative joined forces to make a sizeable donation to the Humboldt County Make-A-Wish Foundation.

Basin Electric Power Cooperative donated \$11,000, matching Corn Belt Power's \$10,000 donation and Midland Power's \$1,000 donation. In total, the three organizations donated \$22,000.

The Humboldt Community Foundation opened an endowment fund in partnership with Make-A-Wish Iowa. Anyone in the community can contribute to the fund at the foundation. Once the fund hits \$300,000, it will then generate a \$15,000 draw down every single year, forever, to fund a wish for a child in Humboldt County. State endowment tax credits are available when donating to this local fund.

With the three cooperatives' donations, the fund cleared the \$210,000 mark. **To learn more, visit: [www.humboldtgives.com/makeawish-humboldt-county](http://www.humboldtgives.com/makeawish-humboldt-county)**



### Make-A-Wish donation

**Above** | Jacob Olberding, executive vice president and general manager, Corn Belt Power, right, presents Make-A-Wish Foundation donation to Keri Benjamin, ARNP, middle, and Michelle Sleiter, chief executive officer, Humboldt County Memorial Hospital.

## Calhoun hosts annual meeting

One board position changed hands following Calhoun County Electric Cooperative Association's annual meeting, Thursday, Sept. 5.

Members voted to appoint Steve Pelz to the cooperative's board following Ron Hanson's term expiration. Duane Beschorner was re-elected for another term. Following the meeting, the board reorganized as follows: Jim Miller, president; Steve Boedecker, vice president; Jason McKenney, secretary; and Duane Beschorner, treasurer.

During the meeting, members in attendance heard from Jim Miller, board president; Keaton Hildreth, CEO; and a report from this past summer's Youth Tour participant. Members had the opportunity to take a bucket truck ride and see a live-line safety demonstration. ■



### Calhoun annual meeting

**Above** | Calhoun County Electric Cooperative Association members enjoy a bucket truck ride and learn about electric vehicles at the Calhoun County ECA annual meeting Sept. 5

## Corn Belt Power conducts communication upgrades

Over the past year, Corn Belt Power's Communications and SCADA teams have worked to replace field switches to enhance the cooperative's communication infrastructure capabilities. Corn Belt Power completed internal upgrades and switchovers September 10 through 12 to improve our network while employees completed field switch enhancements.

These new networking devices will boost network performance and scalability. The latest switches provide higher throughput, increased port density, and advanced routing capabilities, which will better support Corn Belt Power's growing data traffic and expanding network needs. Additionally, these devices come equipped with advanced features, including improved redundancy protocols, better fault tolerance and enhanced failover mechanisms.

The new switches will support the latest protocols and standards, making it easier to adopt new technologies and integrate with future advancements. This forward-thinking approach will extend the lifecycle of our network infrastructure and protect our investment over time.

In addition, the new devices have enhanced management capabilities and automation features that streamline network operations. This can lead to significant cost savings by reducing the time and effort required for network management and troubleshooting. Additionally, improved energy efficiency and reduced maintenance requirements can lower operational costs over the lifespan of the devices. ■



### Communications upgrade

**Above** | Zach Thompson, SCADA technician, left, and Travis Kampen, communications technician, explain new internal network upgrades Sept. 20.

Guest speaker, Brenda Clark-Hamilton, engages cooperative communicators and energy advisors at the Storm Lake retreat Sept. 18. Clark-Hamilton presented on having difficult conversations and de-escalating upset member situations. She offered this quote to the group from Max Lucado, "Conflict is inevitable, but combat is optional."

PRSRST STD  
 U.S. Postage  
 PAID  
 Humboldt, Iowa  
 Permit No. 32



**September Touchstone Energy Volunteer Challenge winner | Nick Kerns**, director, Iowa Lakes Electric Cooperative, donated his \$100 prize to the Twin Lakes Restoration Association.

## Corn Belt Power hosts communicators and energy advisors retreat

Forty energy advisors, communicators and member service personnel from Corn Belt Power and NIPCO's service territory attended this year's annual retreat in Storm Lake Sept. 17 and 18.

Attendees heard from the following speakers and their topics:

- Tom Grady and Molly Hamm, Bucket Media, digital advertising
- Tim Gaughan, Rheem, new water heater technology
- Julie Crook, Inside Information, energy efficiency database survey results
- Don Martin, Southwest Power Pool, SPP 101 and state of the grid
- Elliott Gebel, IAEC, legislative update and advocacy
- Brenda Clark-Hamilton, guest speaker, de-escalating tactics when speaking with angry members
- Rick Rockacy, WaterFurnace, Geothermal systems 101

The group reviewed high-level results from the Guernsey-conducted energy efficiency rebate study. Corn Belt Power and NIPCO also presented updates and discussed topics including electric vehicles and the Momentum is Building conference.

"This was a great opportunity to pull the two groups together and exercise the fifth cooperative principle: education, training and information," said Ryan Cornelius, vice president corporate relations, Corn Belt Power Cooperative. "We had great attendance, a nice speaker lineup and open discussion about the issues facing our electric cooperatives and how we can provide value to each member-owner at the end of the line." ■



**Left | Don Martin**, Southwest Power Pool, presents an SPP 101 and state-of-the-grid session with communicators and energy advisors at the Storm Lake retreat Sept. 18.

### **Corn Belt Power Cooperative** **Watts Watt**

Copyright 2024. Watts Watt is published monthly for employees and associates of Corn Belt Power Cooperative, 1300 13th St. North, Humboldt, Iowa 50548-0508. This institution is an equal opportunity provider and employer.

- Jacob Olberding, Executive Vice President and General Manager
- Ryan Cornelius, Editor; Vice President, Corporate Relations; CCC
- Marena V. Fritzler, Marketing Director; CCC

 [facebook.com/cornbeltpower](https://facebook.com/cornbeltpower)  
 [youtube.com/cornbeltpower](https://youtube.com/cornbeltpower)

 [@CornBeltPower](https://twitter.com/CornBeltPower)  
[www.cbpower.coop](https://www.cbpower.coop)