



Wisdom Station solar project nearing completion

Corn Belt Power's first solar project is now mostly complete. After a few delays, the remaining panels in the 150 kilowatt array are generating energy at Wisdom Station.

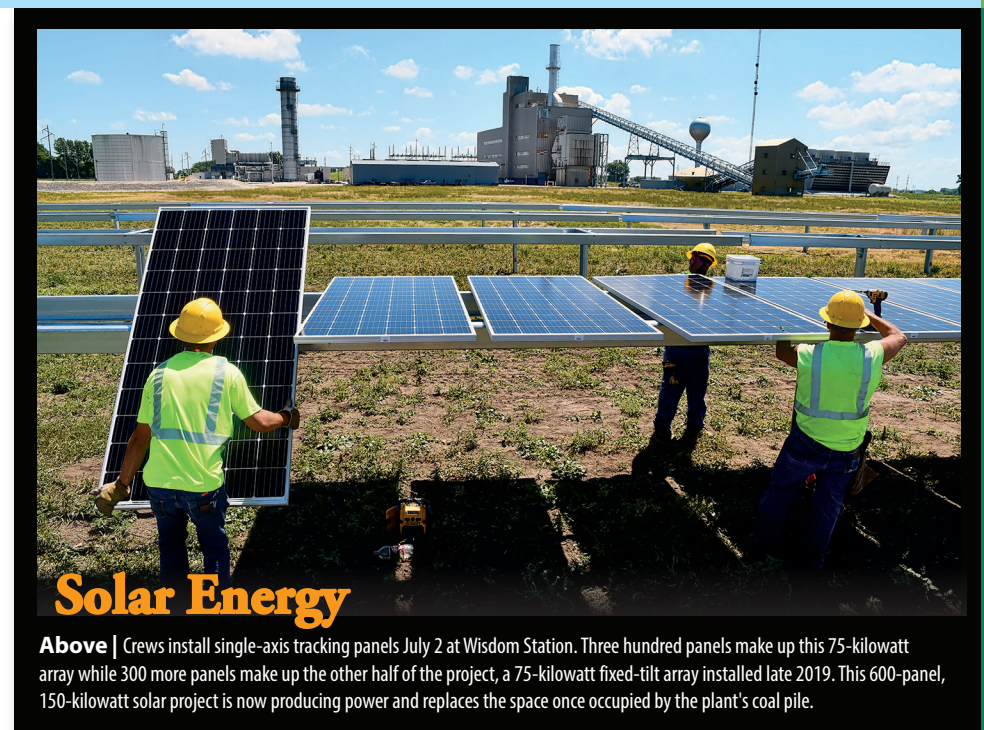
The project features two different types of photovoltaic panel arrangements, a fixed-tilt array and an array of single-axis tracking panels.

"So far the Wisdom Solar project is performing well," said Jacob Olberding, vice president, power supply, Corn Belt Power. "The fixed tilt array has been in service for almost a year and the single axis tracking array began producing power earlier in July. It was a fun project to be a part of and was a good learning experience. The experience gained from this project will be valuable if Corn Belt is able to do another larger solar project in the future."

The panels take up the space once occupied by the plant's coal pile. Wisdom Station converted to an all-gas burning facility in 2014.

There are 600 total panels at Corn Belt Power's Wisdom Station with 75-kilowatts of generation on each of the fixed tilt and single-axis tracking arrays.

"We hope to learn more about the true costs and benefits of the two technologies – fixed tilt versus single axis tracking," said Olberding. "We tried to set up as much of an 'apples to apples' comparison as we could. The two arrays are located right next to each other. Each array has the same size model, quantity of solar panels and inverters. We will be monitoring and documenting the performance and costs associated with the two arrays throughout the life of the project so that our members can make informed decisions when



Solar Energy

Above | Crews install single-axis tracking panels July 2 at Wisdom Station. Three hundred panels make up this 75-kilowatt array while 300 more panels make up the other half of the project, a 75-kilowatt fixed-tilt array installed late 2019. This 600-panel, 150-kilowatt solar project is now producing power and replaces the space once occupied by the plant's coal pile.

considering the two technologies."

A fixed-tilt array is an array in which the panels never move and are pointed in one direction at all times. The single-axis tracking panels will move with the sun to maximize energy generation.

"We are still waiting on the tracker control unit (TCU) that controls the position of the panels in the tracking array," said Olberding. "Those panels will be locked in their stow position - parallel with the ground - until the TCU is installed. These stowed panels are currently producing energy. Once the TCU is installed, the project will be fully complete."

Iowa Choice Renewables, a company established and run by a group of electric cooperatives in rural Iowa, installed the

system.

"Iowa Choice Renewables was easy to work with throughout the project," said Olberding.

The array interconnects to the Iowa Lakes Electric Cooperative distribution system at Wisdom Station. Olberding said the Iowa Lakes staff was helpful through the interconnection process.

"They were very accommodating and flexible," he said. "They were great partners in this process."

The project adds to the seven megawatts of nameplate capacity already on Corn Belt Power's system.

Corn Belt Power plans to set up a webpage for co-op members to see how the two different arrays are performing. ■



Check out our Facebook page
for more storm photos:
facebook.com/cornbeltpower

Above | A shattered, laminate transmission pole rests de-energized in the ditch two and a half miles south of Huxley after the Aug. 10 derecho downed this two-mile section of line amongst many others around the state.

Derecho rips through Iowa

On Monday, August 10, a powerful weather event known as a derecho devastated parts of central Iowa.

According to the National Weather Service, a derecho (pronounced similar to “deh-REY-cho”) is a widespread, long-lived wind storm that is associated with a band of rapidly moving showers or thunderstorms. Although a derecho can produce destruction

similar to the strength of tornadoes, the damage typically is directed in one direction along a relatively straight swath. As a result, the term “straight-line wind damage” sometimes is used to describe derecho damage. By definition, if the wind damage swath extends more than 240 miles (about 400 kilometers) and includes wind gusts of at least 58 mph (93 km/h) or greater along

most of its length, then the event may be classified as a derecho.

The storm left thousands without power and caused hundreds of millions of dollars in damage. Corn Belt Power sustained little damage with 16 broken poles in our co-op service territory. Crews are patrolling the system for any other storm related issues. Other systems weren’t so lucky. Central Iowa Power Cooperative (CIPCO) sustained heavy damage. More than 2,000 power poles were broken statewide.

After quickly repairing the damage to its own system, Corn Belt Power sent 16 employees to assist CIPCO with their restoration effort.

Thank you to all who contributed to restoration efforts, especially the 16 Corn Belt Power employees photographed on the back cover, back row, from left: **Ethan Miller, Devin Chesler, Ethan Petersen, Jeff Codner, Shane Darr** and front row, from left: **Mark Saxton, Reed Dreyer, Connor Almond, Ryan Conlon, Travis Hefty, Mike Devers, Justin Hinners, Matt Wittrock, Adam Bird, Dean Jensen and Randy Rohr.**

At the height of the outage event, more than 60,000 cooperative member accounts were without power. Within 72 hours, two-thirds of those accounts were restored. More than 20 cooperatives from across the region assisted with restoration efforts. ■

Work complete for TrinityRail expansion

In August, Corn Belt Power crews met their deadline to power the TrinityRail Maintenance expansion in the Butler Logistics Park.

Corn Belt Power crews constructed its new Bauman Substation and Feldman Switching Station to power the nine-and-a-half megawatt new load. While the new infrastructure is just adjacent to the Butler Logistics Park, it isn’t a dedicated service to TrinityRail. The new substation and switching station will also deliver power to the immediate area.

With the expansion, the company plans to employ more than 250 people in 350,000 square feet of building space that sits on 230 acres. Railcar facility services will range from repairs and maintenance, to coatings, cleaning, inspections and testing. The facility will be near the Iowa Northern shortline railroad, which

provides transloading services and supports the local grain and renewable energy industries. According to Freight Waves, a publication for the freight

industry, the new facility will enable Trinity to internally service and maintain approximately half of its 123,000 owned and managed railcars. ■



Expanding load

Above | Corn Belt Power Cooperative electricians build Feldman Switching Station to help power the TrinityRail Maintenance expansion located in the Butler Logistics Park. This business expansion will employ more than 250 additional employees. Corn Belt Power crews have also built the Bauman Substation to help energize the growing business.

News in brief

Duane Arnold reactor to remain shutdown due to storm damage, plant decommissioning to start ahead of schedule

In 2018, NextEra Energy scheduled to cease Duane Arnold Energy Center plant operations in October 2020. However, that timeline has been moved up due to extensive damage to the plant's cooling towers following the Aug. 10 derecho that devastated parts of Iowa. NextEra Energy has made the difficult decision to start decommissioning the plant early. Here's what NextEra had to say about the incident.

"After conducting a thorough assessment of the damage caused by recent severe weather, NextEra Energy Resources has made the decision not to restart the reactor at Duane Arnold Energy Center and to proceed with the previously announced decommissioning plans," the statement reads. "The strong storms that hit the area on Aug. 10 caused extensive damage to Duane Arnold's cooling towers, and our evaluation found that repairing those towers before the site's previously-scheduled decommissioning on Oct. 30, 2020, was not feasible. As we have done since we announced the decommissioning of Duane Arnold in 2018, we will continue to work with all our employees to minimize the impact of this situation on them and their families."

Corn Belt Power and its members are 10-percent stakeholders in the plant. Before Corn Belt Power joined Basin Electric Power Cooperative as a Class A member, Duane Arnold made up a large portion of energy supplied to members. Since joining Basin Electric, Corn Belt Power's generation mix has diversified. Today, the co-op's 10-percent stake or about 62 MW makes up only 1.6-percent of power supplied to members.

"The plant was an important generator for Corn Belt Power in the 80's, 90's and early 2000's," said Ken Kuyper, executive vice president and general manager, Corn Belt Power Cooperative. "We're sad to see its early retirement. This decision makes the best sense for all parties involved."

It will take years before the area where the plant is located will return to green fields. Until that time, plant employees will continue to monitor and guard the facility.



DAEC reactor shutdown

Above | Duane Arnold Energy Center sustained significant damage to the plant's cooling towers during the Aug. 10 derecho that devastated parts of Iowa. After an assessment, NextEra Energy made the difficult decision to keep the reactor shut down and proceed with plant decommissioning ahead of the October 2020 scheduled timeline.



Leadership development

Above | Kathy Peterson, LEAD facilitator with PeopleWorks Inc., welcomes a new class of Corn Belt Power Cooperative employees to the Leadership Exploration And Development program. Corn Belt Power established the LEAD program to help develop leadership skills in existing employees.

New LEAD class begins

Over the next several years, Corn Belt Power Cooperative will lose hundreds of years of experience and knowledge to retirements. Corn Belt Power is not alone. Cooperatives across the country are facing the same issue as many leaders see retirement on the near horizon and that's why training the next crop of cooperative leaders is important.

After the success of the first class, Corn Belt Power brought back its LEAD program this year. LEAD is a program to help develop leadership skills in existing employees. It stands for Leadership Exploration and Development. The program was created in conjunction with Kathy Peterson of PeopleWorks, Inc. Throughout the year, participants learn about topics such as setting goals, leading change, managing stress and dealing with difficult conversations. Those in the program will attend sessions about cooperative financials, generating sources, electric rates and the cooperative business model.

"We want to make sure that we continue to develop the next generation of Corn Belt Power leaders," said Ken Kuyper, executive vice president and general manager. "The LEAD program does just that. It allows employees the ability to learn more about Corn Belt Power's operation and the electric utility industry as a whole."

On Wednesday, August 12, this year's class began its LEAD journey by hearing from Peterson and Ryan Cornelius, vice president, corporate relations.

This year's participants are: Connor Almond, Courtney Christensen, Eric Hankey, Jim Mertz, John Naber, Jon Myer, Mike Devers and Rod Stephas. ■



August Touchstone Energy Volunteer Challenge winner | Richard Hall, member services representative, Calhoun County REC, donated his \$100 prize drawing to Manson Firefighters Association.



The power of human connections

Richard Hall, pictured left, member services representative, Calhoun County REC, isn't just an energy advisor. He displays the Touchstone Energy value of commitment to community by being a Lieutenant in the Manson Firefighters Association. Hall has been a firefighter for seven years. We thank Hall for his service to his community.

McCullough now NERC certified system operator



Congratulations to Jacob McCullough, system operator, for passing the North American Electric Reliability Corporation Reliability Coordinator test in July. In May, McCullough started his new position as a system operator and has studied for two intense months. Jake will continue on-the-job training over the next several months in the control center. Congratulations for passing your exam, Jake! ■

Corn Belt Power Cooperative Watts Watt

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.

Copyright 2020

- Kenneth H. Kuyper, Executive Vice President and General Manager
- Ryan Cornelius, Editor; Vice President, Corporate Relations; CCC
- Marena V. Fritzier, Marketing Director; CCC

facebook.com/cornbeltpower
 youtube.com/cornbeltpower

@CornBeltPower
 www.cbpower.coop