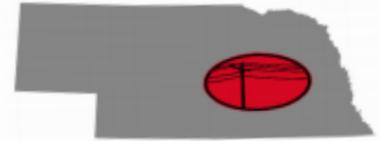


POLK COUNTY RURAL PUBLIC POWER DISTRICT

‘The Livewire’

“Committed to enhancing the lives of our customers by providing safe, reliable and economical energy through excellence in customer service and innovation”



June 2022

Watt Matters

By Barb Fowler - General Manager

Mardell Johnson, Polk County RPPD Board of Director 1989-2022

Character matters. I regret not having the opportunity to interview Mardell before he passed away in early April. I never had many long or detailed conversations with him, but I always thought of him as a man of character. I simply wanted to sit down with him and ask the questions that would help me discover how he has cultivated such a character of trustworthiness and respect.

To me, Mardell’s quiet demeanor and soft-spoken words reflected a person who chose humility, patience, and fairness. He was always very thorough in his decision making and committed to viewing an issue from all angles before giving the green light or voting

no. He made sure he took the time to offer appreciation and to question. Mardell seemed to always treat people within the same bandwidth of respect, a true reflection of his character that only could come from habit.

Character is a combination and collection of many qualities and traits, personal behavior, and reactions to situations and circumstances. Character applies to organizations as well and Polk County RPPD strives to be an organization of character, the sum total of all our teammates’ thoughts and actions. The Board develops direction and policies to ensure all customers are treated fairly and equitably. Management ensures teammates perform to their potential and respectfully interact with both our



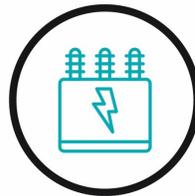
customer-owners and each other. And, our teammates work together and help hold each other accountable in reaching our common goal of safely providing power to our communities. We work to be an organization of character, because it matters.

The Steps to Restoring Power

When a Major outage occurs, our crews restore service to the greatest number of people in the shortest time possible - until everyone has power.



1. High-Voltage Transmission Lines
These lines carry large amounts of electricity. They rarely fail but must be repaired first.



2. Distribution Substations
Crews inspect substations, which can serve hundreds or thousands of people.



3. Main Distribution Lines
Main lines serve essential facilities like hospitals and larger communities.



4. Individual Homes and Businesses
After main line repairs are complete, we repair lines that serve individual homes and businesses.

Under Pressure

By Cory Fuehrer - NPPD Energy Efficiency Program Manager

When it comes to irrigation, there is no place like Nebraska. By the time the 2007 United States Department of Agriculture (USDA) Farm and Ranch Irrigation Survey was conducted, Nebraska overtook California as the state with the largest number of irrigated acres and has held the title ever since.

Before our state was founded, Nebraska farmers had started our incredible irrigation history. When Nebraska joined the United States on March 1, 1867, about 10,000 acres of crops were already irrigated with surface water from ponds, lakes, and rivers. By 1950, irrigated coverage increased more than 100-fold due to the rapidly expanding groundwater use. However, a revolutionary new water delivery system would help drive Nebraska to more than 8 million irrigated acres by the end of the century: the center pivot.

Traditional delivery systems used high-volume, low-pressure pumps to draw from water sources, then relied on gravity to distribute water through canals, pipes, siphon tubes, and crop rows. Sadly, about half of the water used by this method ran off fields, percolated down through the soil, or evaporated before plants could utilize it. Center pivots keep the pumped water contained until it is released in close proximity to the plants being watered. Some center pivot systems deliver water so efficiently that 95% or more is utilized by the crop. Today, nearly 90% of Nebraska's irrigated ground is watered with approximately 60,000 center pivots.

Converting to center pivot irrigation systems has provided farmers with significant effort, time, and water savings while increasing crop yields. Unfortunately, there have been many missed opportunities to optimize energy efficiency in doing so. While traditional systems were designed for



high-flow/low-pressure operation, pivot systems require less flow but much higher pressure to deliver uniform water distribution. When converting, it was common to forego the additional cost of replacing the original pump with one designed to match the new pivot's flow and pressure requirements. Many farmers have opted to modify existing pumps by installing inexpensive valves and regulators. Some chose to replace their old pump simultaneously but may have selected a new pump that oversized delivery pressure. Still, others selected pivots with sprinkler packages that provided wetting diameters larger than necessary to eliminate runoff concerns. This too, requires more pressure than necessary, which results in greater energy consumption.

The 2018 USDA Farm and Ranch Irrigation Survey indicated that one in eight irrigation wells in Nebraska operate above 60 pounds per square inch (psi). While a handful have operating conditions that can only be addressed by higher pumping pressure, many could find significant energy savings through system improvements.

The table below illustrates the operation of a center pivot system with average overall efficiency that spans 135 acres. Over the course of a

season, 10 acre/inches of water are pumped with an average lift of 138 feet and a flow rate of 760 gallons per minute. A system designed to operate at 45 psi will require about 16% less energy than one designed for 65 psi.

Though many ag producers have seen considerable cost savings and enhanced performance by reducing the operating pressure of their entire system, many others may still be using more energy or pumping more water than needed.

PCRPPD offers incentives in partnership with Nebraska Public Power District. You may be eligible for one of the EnergyWise agricultural operations. All-electric irrigation systems, as well as other electricity-saving improvements around the farm, bring value to producers as well as power providers. Contact Wade at PCRPPD by calling (402) 764-4381 or visiting their website at www.pcrppd.com.

	Diesel (gallons)	Nat. Gas (gallons)	Propane (gallons)	Electric (kWh)
@65 psi	4,923	9,973	8,931	69,529
@45 psi	4,131	8,370	7,495	58,354
Savings	792	1,603	1,436	11,175

Stay Cool While Spending Less

Summer months can bring some of the highest energy costs of the year with the high demand for air conditioning. Keeping your home comfortable can be expensive, but it can also be dangerous. If your air conditioner runs too often, it can stress your home's electric system and create a risk of shock or fire.

To help your home be more energy-efficient, Safe Electricity has the following tips for energy efficiency this summer:

- **Update your insulation** - This will keep cool air in your home and hot air out. You can add more insulation on top of the existing insulation in your attic. Research the type of insulation you should use.
- **Ventilate the attic** - When the outside temperature is in the 90s, your attic can easily reach 140 degrees Fahrenheit. Adequately sized vents or an attic fan can help keep hot air from building up.
- **Get the air conditioner ready** - Shut off power to the unit before cleaning it. On the inside, wash or vacuum cleanable filters, and replace disposable ones. Outside, clear leaves and other debris away from the condensing unit. Hose off any accumulated dirt. It is a good idea to call a professional to inspect your unit early in the summer.

- **Use a smart or programmable thermostat** - Leave it at a higher temperature while you're away, and set it to cool the house half an hour before you return home.
- **Install awnings over windows exposed to direct sunlight** - Sunlight equals additional heat in your home.
- **Consider installing ceiling fans** - On moderately warm days, a ceiling fan may be enough to keep you comfortable. You can decrease your air conditioner use by using a fan on warmer days.

Even in summer, you don't have to sacrifice comfort to stay within your budget. Here are a few easily achieved cost-saving tips:

- Turn off the air conditioner, open windows, and doors, and let outside air cool your house on moderate days.
- Avoid unnecessary trips in and out of the house. Heat and humidity come in each time you open the door.
- Keep the sun out of your house. Close blinds, shades, or draperies during the hottest part of the day. Consider planting fast-growing trees and shrubs near your home, but away from power lines, to provide shade.



- Set heat-producing devices away from the air conditioner thermostat. The heat from a lamp could cause the thermostat to read higher temperature and keep the air conditioner running more than necessary.
- If you are shopping for a new air conditioning unit, look for one with the blue Energy Star label. An Energy Star air conditioner will save money in the long run by using less electricity. Your electric utility or state may have incentives for purchasing a more efficient model.

Remember, if you are looking at purchasing any energy-efficient items for your home, give Wade a call at PCRPPD, (402) 764-4381, to verify if you would qualify for any EnergyWise incentives.



WHAT IS SMARTHUB?

SmartHub is a web and mobile app that allows you to take control of all aspects of your utility account. Pay your bill, manage your use and contact us with service issues quickly and easily online or on your mobile device.



- Manage Your Account
- View and Pay Your Bill
- Monitor Usage 24/7
- Report Service Issues
- Receive Important Updates

Five Tips for Hiring an Electrician

A licensed electrician can help with a variety of home projects from lighting upgrades to full renovations. Keep the following tips in mind if you're looking to hire an electrician.



1. Hire a licensed, qualified electrician for the job.

Look for a master electrician to manage the project. Master electricians have the most experience and will often oversee the work of a journey-level electrician or apprentice.

2. Make sure the electrician is insured.

Seasoned electricians know the importance of protecting themselves in case of an accident.

3. Read *all* the reviews.

Hire an electrician that has several positive reviews - not just one or two. Read reviews on different sites, like Nextdoor, Yelp and HomeAdvisor, and consider asking your neighbors for recommendations.

4. Determine your budget. Get two quotes.

Knowing your budget upfront helps move the process along. Prices can greatly vary, so get multiple quotes (at least two).

5. Talk timeline.

Some electricians accidentally overbook projects. If your job is time-sensitive, convey that early on and discuss a realistic timeline with the electrician.

POLK COUNTY RURAL PUBLIC POWER DISTRICT

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Judy Rieken - District 3 2026

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Wade Rahn - Customer Service/IT Manager
Justin Sunday - Engineering & Safety/
Compliance Manager
Andy Roberts - Foreman
DJ Crowell - Purchasing & Warehouse
Coordinator

