Cuming County Public Power District

January 2022

A Few Words From GM, Chet McWhorter

As you may have heard, Nebraska Public Power District has recently announced a goal to achieve net-zero Carbon emissions from their electrical generation by 2050. NPPD, like many other electrical generating utilities, has been under quite a lot of pressure from certain environmental interests, credit rating agencies, and a subset of the public to move toward this Carbon friendly stance. To this end, the NPPD board passed a strategic directive called SD 05 to direct their management and employees to work toward this lofty goal.

Of course, as with most goals, there are a few questions left to be answered. One that comes to mind is: Can this even be done? At this point, the answer is a qualified no. We need further advancements in technology in the areas of Carbon sequestration and/or storage and in power storage. There are small scale Carbon sequestration projects in operation but not at the scale that would be needed to allow for NPPD's current resources to operate at their full capacity. NPPD is working with the US Department of Energy and others on a great project out in Sutherland, Nebraska that would remove the Carbon from the air and store it for later use. On the power storage front, there are several battery technologies being created and studied that might allow for long term storage of electricity at a scale that would allow for optimal use of renewable energy resources like wind and solar. Without the storage options, wind and solar are only on when they are on and can only be used when there is sun or wind. We need more options.

The second question in my mind is: What will this cost? That might be the billion-dollar question. With the push toward electrification of everything from cars to tractors, there is a potential to see electrical need increase by 170% by 2035 according to estimates provided by the US government. It is quite a stretch to move away from tried-and-true generation resources during a time of unprecedented electrical usage. What I would hate to see is a scenario where we lose any ground on either cost or reliability of electrical service.

The best news I've heard of late on the Carbon front is that there are several advanced nuclear reactors that are in development. There will be several small-scale nuclear projects that are coming on line over the next few years in the US. Nuclear power provides the flexibility of a coal plant or a natural gas plant without the Carbon emissions. The new advanced reactors have a lot of safety built into the way that they use, store, and dispose of the nuclear fuel. This might be the technology that takes us into the Carbon constrained future without breaking the bank or losing system reliability.

We are living in interesting times. It seems that every goal or strategy that comes down the pike are full of either answers to questions that weren't asked or more questions than they provide answers. It makes my head swim to try to keep track of all the philosophies and theories that are floated about as though they are fact. Must be the modern age that we live in. Always remember that we are working hard to keep costs under control and to maintain reliable service to you all. We know what is expected and will continue to be diligent in living up to your expectations. I hope this finds you and yours enjoying the winter. May you have a blessed new year!

All in a Day's Work...

Christmas in our Communities

Left: Hanging Christmas Decorations in Bancroft. **Right:** Hanging Christmas garland and lights in Beemer. **Bottom Left & Center:** Helping with the Christmas tree on main street and hanging Christmas Decorations in Dodge. **Bottom Right:** Helping with the Christmas tree on main street in West Point. We are proud to help in the communities we serve!

Underground Work South of Wisner

Left: Using the trencher to create the trench where the wire will be set.
Right: The transformer box at the top of the hill where the power lines will connect. **Bottom Pictures:** The digger and trucks along the trenches.

EnergyWise℠ Tip: Air Fryers

By: NPPD Energy Efficiency Program Manger Cory Fuehrer

Think quick: What is the most common side dish to serve with a cheeseburger? Naturally, you said "French fries". In fact, the United States Department of Agriculture cited during the 2000s, U.S. per capita consumption of frozen potatoes averaged 55 pounds per year. With that kind of eating, you would think we invented deep frying!

In reality, the process of deep-frying foods started in the 5th millennium BC. Having invented deep-frying during that time, Egyptians had no idea it would change the culinary world. During the middle ages, fritters, which are dough batter filled with meats or fruits, became popular throughout Europe. Finally, in the 1830s, fried potatoes or "French Fries" became popular in France and Belgium. Today, people have become very creative and will fry just about anything.

By the late 1800s, cast iron cookware became widely available and people began preparing fried foods in their homes. In 1918, the Pitco Frialator was invented. This piece of equipment quickly became a staple in restaurant kitchens since it extended the life of cooking oil. Shortly thereafter, National Presto Industries, one of the forerunners in the electric housewares industry, began selling some of the first electric home fryers. In 1976, they introduced "The Fry Baby," further solidifying our love affair with fried foods.

But the 1980s brought a new focus on the connection between nutrition and health. By the end of the last millennium, studies were underway identifying the correlation between fried food intake and increased risk of heart disease, elevated blood pressure and obesity, among other problems. To date, no study has shown a positive correlation between fried food intake and good health.

Does this mean we must give up our long-lived passion for fried food? No! Introduced in 2005 for commercial kitchens, air fryers have recently gained popularity for home use as a great alternative to oil fryers.

Here are some of the reasons:

Efficiency – Traditional fryers work by flash cooking food. After an oil-filled vat is heated to the necessary temperature, food is placed in a basket and completely submerged. Since oil fryers often produce fumes, ventilation is recommended. But air fryers can cook with just a tablespoon of or no oil at all using a sealed cooking compartment and circulating hot air around the food. Thus, it emits no fumes and releases less heat. If someone is trying to keep the kitchen cool, this is appreciated. Though air fryer cooking times are slightly longer when compared to traditional fryers, more heat is kept in the fryer.

Safety – Ever notice what happens when frozen food is put into extremely hot oil? Oil splatters everywhere. In addition, potentially harmful fumes can be created during the cooking process. Air fryers dramatically reduce these risks because all the cooking occurs in a locked compartment. When finished, most models turn off, which reduces the chance of burnt food.

Easy to Clean – Since most of its parts are removable and dishwasher-safe, cleaning an air fryer is a breeze! Compare that to time spent draining, storing or disposing of oil, disassembling, and then scouring an oil fryer.

Less Cost to Operate – Quality cooking oil costs a significant amount of money. Assuming it is not scorched during use and stored properly, the oil may be usable a couple more times before it becomes too contaminated from previous use and needs to be disposed of. With an air fryer, little or no oil is needed.

Healthier Meals – Using little or no oil when air frying ensures excess oil is not soaked up by your food. That translates to fewer calories and less fat.

Versatility – Deep fryers are strictly for frying foods. With an air fryer, different accessories allow users to grill and roast foods. Air fryers can even bake desserts!

Cuming County Public Power District, in partnership with Nebraska Public Power District, want to help you make the most of the energy and cost of keeping you and your family fed!

10 Simple Ways to Stay Warm & Save Energy

1. **Open the drapes.** The sun's rays will help heat your home for free. Let them shine in through south-facing windows all day. Then, cover the windows once the sun goes down.
2. **Dress in layers.** It costs a lot less to pull on a sweater or wrap a blanket around you while you watch TV than it does to move the thermostat up even a couple of degrees. Add a couple throw rugs to tile and wood floors, and keep blankets on the sofa. Wear socks and fuzzy slippers indoors.
3. **Humidify.** An electric humidifier will add moisture to the air, which makes it feel warmer and helps retain the heat. Your whole house will feel more comfortable if the air isn't too dry.
4. **Open heating vents.** And move furniture and other items away from them so they're not blocked and can do a good job of evenly distributing warm air through the house.
5. **Turn on the fans.** Flip the switch that makes the blades spin clockwise so they push heated air, which naturally rises, back down into the room.
6. **Turn off exhaust fans.** Kitchen and bathroom fans serve an important purpose, they clear the air of humidity and odors. But once the air clears, turn them off. The longer a fan runs, the more heated air it send into the great outdoors.

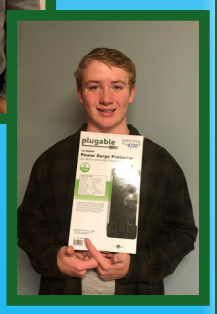
7. **Add insulation.** Especially if your home is older, the attic insulation might have fallen out of place and even diminished over the years. That could mean heat is escaping through the roof.
8. **Tune up your furnace.** Call a professional HVAC technician to inspect and repair your system and change its filters.
9. **Lower the temperature at bedtime.** Throw an extra blanket on your bed and turn the thermostat down 10 degrees before you turn in. You could save up to 10 percent on your heating bill if you let your house cool off a bit for eight hours.
10. **Close the fireplace damper once the fire dies down.** An open damper when the fireplace is not in use lets warm air escape through the chimney.

4-H Achievement Day

Cuming County Public Power District gives special awards to 4-Hers that have an interest in electrical projects at the Cuming County Fair. The 4-H Achievement Day was November 14, 2021 at the Nielsen Community Center in West Point.

These special awards were given to Jackson Cooney (Grand Champion Overall) and Levi McKay (Reserve Champion Overall).

Thank you to all of the 4-H participants that took an interest in electrical projects. We are proud of you!



Congrats to Jackson & Levi

CCPPD Board of Directors

Regular meetings of the CCPPD Board of Directors are normally held on the second Wednesday of each month at the CCPPD office.

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