

### Manager Memos -by Curtis Kayton

Dear Consumer,

FUEL SUPPLY CONTINUED.....

Last month we established the different types of power plants and their fuel supply as:

1) **Thermal power plants** require a fuel source to heat water and create steam to spin a turbine. Fuel sources include Uranium (Nuclear), Coal, Natural Gas, Diesel, and even Oil (Fossil).

2) Hydroelectric power plants run water through a turbine.

3) Renewable power plants do not require a fuel source but are reliant on the wind and sun.

Why is this important? The answer is easy: Instantaneous load matching.

For a power plant to be considered reliable, its output must be perfectly matched with the load on the grid at an instantaneous moment every second of every minute, of every hour, and every day all twelve months of the year. If the load is not matched at every one of these instantaneous moments, the lights go out. Generation and load matching is a zero-sum game in its purest form. Meaning no more, or less electricity must be generated than what is needed at that moment. This never changes. Furthermore, it is a coordinated effort by all power plants connected to the grid and operating all synchronized with each other. It's a coordination effort of colossal proportion!

Over the past decade the US has seen a massive expansion of renewable energy power plants come online. Consequently, we have also seen a large amount of the nation's Thermal (namely Coal) powered plants forced into premature retirement. We are told this is a good thing.... but is it?

February of 2021 the Midwest, especially Texas, was reminded of our dependence on thermal power plants at critical times. Christmas time in 2022 taxed the grid along the east coast almost to the point of failure as well. Grid operators initiated those rolling outages to avoid a catastrophic collapse of the grid and power plant network over a multi-state area.

As a professional in this industry, I have seen many other "close calls" that have not made the news. So, the question remains: "why are we experiencing an increased frequency of power grid interruptions?" A common comment you hear is our nation's electrical infrastructure is obsolete, and not equipped for the future. The electric grid was never meant to generate and match load with anything other than Thermal or Hydroelectric generators. Because they are fuel operated, they can control when and how much they produce to match or "follow" the load at an instantaneous moment.

Renewable generators cannot control when they operate, and when they do Thermal generators must be ramped down causing a major disruption to the synchronization of the rest of the generators supplying the grid. Yet here we are. Adding more and more renewable generators and retiring more and more Thermal generators.

What does this mean for the long-term?

As power shortages and the threat of rolling blackouts increase in frequency, I am hopeful that policy and lawmakers realize we cannot transition away from Thermal sources of generation nearly as fast as some want and keep the lights on.

This is why fuel type matters.

If you would like to discuss further, feel free to call me at the office or stop in anytime.

### POLE-TOP AND BUCKET PROPEL TRAINING

Each month Chimney Rock PPD employees have a safety meeting. In August the crew practiced pole top rescue and propelling out of a bucket in the case of an emergency.

Pole-top rescue is an important safety procedure in the electrical industry and a vital skill for linemen to practice. When a lineman has become unconscious or unresponsive and they are not able to climb down the pole on their own, a pole-top rescue will be necessary and a safely executed pole-top rescue could end up saving the victim's life.



Bryce Hargens



Jacob Ashmore



Justin McAllister



Joel Duffield



Tanner Rafferty



DJ Kearns

### Sow Seeds of Caution to Reap Safe Harvest

Harvest season is one of the busiest times of year for farmers – and among the most dangerous. Before taking to the fields, Safe Electricity urges farm workers to be aware of potential electrical hazards and take safe steps to avoid tragedy. Take note of power lines where tall equipment will be used, keep an eye on the weather, and get a qualified electrician for work on drying equipment and other farm electrical systems.

Start with barns and sheds if you have outlets in areas that are exposed to weather and may potentially become wet, install ground fault circuit interrupters (GFCIs) to help prevent electric shock. GFCIs should also be on outlets where electric tools are used. Examine all wiring and machinery. Ensure that everything is grounded and working properly."

Before working in the field, check the height of farm machinery and note of the location of overhead power lines. Plan your route to avoid

them. Always check the weather forecast and never operate machinery when there is a risk for lightning. Make sure you're accounting for adverse weather conditions, and dedicating extra space for safety. During harvest season last year, a father and son were killed when working on their family farm in Jordan, Minnesota. According to officials, the men were lifting a farm auger when strong wind resulted in contact made with an overhead power line.

## BEWARE of dangers above. Your LIFE depends on it.



Look up and look out for power lines.

While harvesting, always be aware of overhead lines. Keep equipment far away from lines, at least 10 feet in all directions – below, above and to the sides. Use caution with ladders, poles and other extended machinery.

If contact is made between farming equipment and overhead lines, it's almost always best to stay in the cab. Warn others to stay away and call 9-1-1 to alert the utility and emergency services. Do not get off the equipment unless there is a fire or imminent risk of fire. In that rare case, the proper action would be to jump – not step – free and clear from the equipment landing with feet together. Do not touch the equipment and ground at the same time. Hop as far away as possible, as electricity radiates outward.



**Apple Crisp** 

cup all-purpose flour
3/4 cup rolled oats
cup packed brown
sugar
teaspoon ground
cinnamon
1/2 cup butter, softened
cups chopped peeled
apples
cup sugar
tablespoons cornstarch
cup water
teaspoon vanilla
extract

Preheat oven to 350 degrees. In a large bowl, combine the first 4 ingredients. Cut in butter until crumbly. Press half into a greased 2-1/2 qt. baking dish or a 9-in square baking pan. Cover with apples.

In a small saucepan, combine the sugar, cornstarch, water and vanilla. Bring to a boil; cook and stir 2 minutes or until thick and clear. Pour over apples. Sprinkle with remaining crumb mixture.

Bake 60-65 minutes or until apples are tender. Serve warm, with ice cream is desired.

# Energy Efficiency Tip of the Month

Did you know fall is the perfect time to schedule a tune-up for your heating system? Home heating accounts for a large portion of winter energy bills, and no matter what kind of system you have, you can save energy and money by regularly maintaining your equipment.

Combining proper equipment maintenance and upgrades with recommended insulation, air sealing and thermostat settings can save about 30% on your energy bills.

Source: Dept. of Energy

### Do we have your correct phone number or email address?

It is important to keep your information updated with Chimney Rock PPD. We have the ability to update our customers on planned outages or other important information by sending a text message to your cell phone. We are also able to email notifications that billings statements are available for viewing and paying online. If you would like to sign up for one of these services or need to update your personal information, please give our office a call.



Chimney Rock Public Power District 128 W 8th St. P O Box 608 Bayard, NE 69334

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During normal office hours and after hours call: (308) 586–1824 or (877) 773–6300

September Board Meeting: September 11th- 10:00 am

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