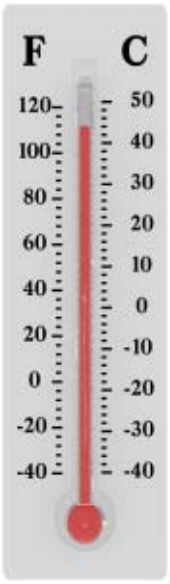
PUBLIC POWER DISTRICT
CUSTER CURRENTS
Empowering Progress
With Area Service Centers in Sargent, Callaway, Stapleton and Thedford
August 2011

Why Demand Matters

By Rick Nelson, General Manager

It has been a wet spring and early start to summer. The grass is green, the corn is growing. In late July the heat came up and the rain pretty much stopped. The demand for electricity is rising.



Irrigation has begun. We were near to an all-time peak of electricity usage the third week of July, so I thought it was a good time to talk about peak power and the costs associated with that power.

In the big cities, air conditioning use gets really high when the heat comes on. For us in Custer's service territory, hot and dry weather also fires up the need to irrigate. While our reasons for needing more electricity in the summer differ from our city cousins, in both places it means we need more than usual during a given time.

The electricity that we buy in those peak periods (hot hours of hot days) is much more expensive than the electricity we buy when everybody is snug in their beds at 1 a.m.

There are three main reasons for this.

The first is that we have to build (and pay for) enough power plant capacity to meet our most extreme peak demand, so that when everybody does kick on their AC and their big pumps at the same time, enough electricity will be there.

Problem is, that extra generating equipment sits idle much of the time and kicks on only when needed, or it's running and selling into the market. The use of that part-time equipment is priced so that those who need it pay for it, rather than just raising everyone's rates across the board. That is as it should be.

The second reason is that to save you money, we burn our cheapest fuels first, 24/7, year-round. Which means that when we fire up the extra generators, it is often using more expensive fuel.

The third reason is that NPPD, our power supplier, occasionally has to go out on the "spot market" to buy some extra juice. It doesn't happen often, but when it does, it's pricey.

Quite naturally, our goal (and yours too, hopefully) should be to reduce the amount of peak-time electricity that we use. The more equipment and appliances we can be running in off-peak hours, the better and cheaper it is for everyone.

What is demand?

The amount of electricity drawn from an electric system at given time, measured in kilowatts.

Custer has long been a pioneer in shifting use from on-peak power to off-peak power. We do it by controlling irrigation wells and shifting them to off-peak hours. Literally, we can flip a switch on a hot afternoon and start shutting off those pumps if it looks like we are going to hit a big peak and thus rack up huge costs. If your coffee klatch includes any of our local irrigators, you should thank them for the leadership they've provided and the good example they've been setting. They're saving money this way, of course, but they are also doing the right thing for the overall system and for the planet.

The more power use we can shift to off-peak hours, the more money we can save. As of today, Custer can shift about 40 megawatts (MW) from on-peak to off-peak by controlling irrigation wells.

As the kids would say, that is a ginormous amount of electricity, considering that our system-wide peak demand is usually about 95 MW's. To put that 40 megawatts into perspective, one megawatt is enough to run about 800 homes.

We do this load-shifting in conjunction with NPPD and its other wholesale customers. Essentially we shift what amounts to the output of one big baseload generating facility from on-peak, when a smaller supply of electricity is available, to off-peak when a larger supply is available. This allows NPPD to run its generators at higher levels 24 hours a day, and that leads to operating cost efficiencies.

There are more things we can be doing to cut those peaks. We'll be talking about them in the coming months and years. We'll be asking questions to find out what you think. We'll listen carefully to your thoughts. And, as always, you don't have to wait until you're asked if you have a question, comment, or idea that you'd like to share. Just pick up the phone or drop me an email at rnelson@custerpower.com.

Ceiling Fans Bring Relief on Hot Days

Those lazy, hazy days of summer are upon us. If you are interested in keeping money in your pocket and lowering your power bill, consider installing ceiling fans in your home. Using ceiling fans along with air conditioning will allow you to turn your thermostat up about 4 degrees. A higher setting on your thermostat will help keep your energy bills down, saving you cash.

Fans keep you cooler by using the wind chill effect. This effect works by blowing air around a room, making it easier for sweat to evaporate from your skin. Sweating is how people eliminate excess body heat. The more sweat that is evaporated from the skin – the cooler you feel. Although any fan can create this effect, ceiling fans are considered the most effective for their ability to circulate air through an entire room.

The wind chill effect can save you money.

Remember to adjust your thermostat when using a ceiling fan to realize all of the potential savings.
For more information on reducing waste on your power bill, go to the Energy Efficiency Resource Center.

Farewell College Students

Chelsea Lindner, the daughter of Henry and Cindy Lindner, has joined us in the office this summer. A recent graduate of Broken Bow High School she gained experience answering the phone, opening mail, taking payments and in general helping customers with their billing needs. Chelsea will begin her studies at the University of Nebraska – Lincoln this fall, in architecture. Chelsea said, "I enjoyed working at Custer PPD a lot and understand more about electricity and its uses."

Wes Slack was the recipient of Custer's Utility Line Scholarship last year. He is the son of Craig and Janet Slack from Ansley, Nebraska. He is in the final year of the utility line program at Northeast Community in Norfolk. This summer he has been working with the substation crew, learning about Supervisory Control and Data Acquisition (SCADA). "I've learned a lot by working on the job. I have been able to practice the skills necessary to become a successful lineman," said Wes.

Caleb Mulligan is a graduate of Mitchell Technical College in Mitchell, South Dakota. He received CPPD's scholarship this year and will enter the Utility Line Program at Northeast Community College. He is the son of Mark and Judy Mulligan, who currently live south of Valentine and also own a small acreage north of Halsey. In addition to changing out poles, Caleb has also been learning about SCADA and substation equipment.

Mason Wigle is enrolled in the Utility Line Program at Metro Community College in Omaha, Nebraska. He has completed the 18 month program and is doing his internship with Custer this summer, to complete his education. Mason is the son of Ron and Brenda Wigle. Mason said, "I have enjoyed working at Custer PPD this summer and feel I have gained a lot more knowledge and hands on experience in utility line work."

Frito Corn Salad

Prep/Total Time: 10 min
Makes: 15 servings, 1/3 cup each

What You Need

2 cans yellow kernel corn, drained
1/2 red bell pepper, sliced and chopped
1/2 green bell pepper, sliced and chopped
1/2 purple onion, chopped
1 cup mayonnaise
1 cup shredded cheddar cheese
5 ounces of Frito chili cheese corn chips

Make It

1 Mix all the ingredients except the chips.
2 Add the chips in before serving otherwise the chips will get soggy.
3 Red peppers are expensive so you can just use green instead.

Nutritional Information

Calories 189.6	Calories from Fat 96	Total Fat 10.7 g
Saturated Fat 2.7 g	Monounsaturated Fat 2.9 g	Polyunsaturated Fat 4.3 g
Trans Fat 0.0 g	Cholesterol 11.9 mg	Sodium 356.3 mg
Potassium 125.7 mg	Magnesium 22.4 mg	Total Carbohydrate 21.7 g
Dietary Fiber 2.0 g	Sugars 3.3 g	Protein 4.2 g

There are many ways this recipe can be varied. If you don't like mayonnaise, use Miracle Whip. Add salsa for more zest or use different types of corn. The calories could be reduced by using low-fat Miracle Whip and low-fat cheese.

We had a chance to taste a variation of this salad at an irrigators meeting in Stapleton, Nebraska. It had such an interesting combination of ingredients and tasted so good we made it again for the office staff. It was a big hit and everyone who got to taste it agreed we should share the recipe. Beware of the calories. It is so good you will want to eat the whole bowl! A big "Thank You" to Pam Schaeffer and Candi Salisbury for fixing it for our meeting and sharing the recipe.

CUSTER CURRENTS

Newsletter of the
CUSTER PUBLIC POWER DISTRICT
Broken Bow, NE - Phone 872-2451
www.custerpower.com

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Board Meetings

The regular monthly meeting of the Custer Public Power District Board of Directors is on the last Thursday of each month, beginning at 10:00 a.m. in the main office in Broken Bow on Hwy. 2.

An agenda for each regular meeting of the board is available for public inspection during business hours.

In the event of matters of an emergency nature or conflicts with other meeting dates, the Board of Directors will set changes. Any change in the monthly meeting date will be posted in the legal notice at the main headquarters building at Broken Bow and at each of the District's area service centers located in Callaway, Sargent, Stapleton and Thedford, Nebraska.