Cuming County Public Power District

November 2022 Newsletter

Manager's Report

By Chet McWhorter, CCPPD GM

Autumn is an interesting time of year. There is a finality and completion that seems to permeate this time of year. The crops have gone through their growing cycle and are being harvested and put up. Trees stop their growing for the year and go dormant. Flowers die or go to sleep for the winter. Even the bears start to get grumpy and fat to lay down for a long winter's nap. Thankfully, we don't spend much time with bears in Cuming County, one less thing to worry about, right? We do, however, have the same changing seasons of each year and each life that are telling and guiding the human experience. As we start into the winter season, I am reminded of events that occurred in February of 2021. They called it winter storm Uri. I called it a normal winter, but they never ask me prior to renaming our weather. What was abnormal was the fact that the Midwest, in fact the entire center of the US, ran out of electricity and that is the type of event that makes me lose sleep. Before we get into the heart of the winter season, I felt it appropriate to discuss some of the areas of concern that exist for the electric grid.

There were multiple issues at play during Uri that led to the wide spread rolling power outages. A primary limitation that still exists in the grid is a lack of transmission infrastructure. Transmission lines are extremely important to move the electricity from where it is generated to where it will be consumed. The issue that we have is that it has been very difficult to build new transmission lines for the past several years. There are environmental concerns. For example, NPPD has been trying to complete a large transmission project in Western Nebraska and has been held up for quite a while trying to mitigate concerns over a beetle that lives out there and is in some way endangered. The concern is that the holes that need to be dug to support the transmission line structures will upset the habitat of these beetles. Also, in many cases, landowners do not want to give easements for lines to be built across their property. Between the environmental limitations and landowner preferences there can be a long lead time from when a project is imagined to when a project is ready to be constructed. Additionally, it takes a long time to engineer these projects and there are limitations based on available materials and available line workers to build these projects. The NPPD project I mentioned was to be completed in 2016 but now the best estimate has it being completed in 2025.

Another area that was identified as a major factor in the shortages associated with Uri was generation. There was and is a winterizing problem in the southern US. There were reports of coal piles frozen to the ground, natural gas pipelines freezing up, wind turbines that couldn't turn due to frozen gear lubrication, and solar panels that didn't produce due to being covered with frost and snow. All of these issues are not new to us that live in areas that are accustomed to four distinct seasons but apparently, they caught our southern neighbors by surprise. Texas, for example, had a massive shortage of electricity during Uri, just like they did this past summer. Texas is highly reliant on wind power and natural gas for their electricity. Essentially, they put all of their eggs in a few baskets instead of contemplating a diverse mixture of electrical generation. Another major sticking point for me with Texas is that they suffered a similar winter in 2010, identified their weaknesses, and did absolutely nothing to mitigate these weaknesses for the next eleven years and seemed surprised when they suffered a similar fate in 2021. This is definitely the downside of being part of an interconnected machine like the eastern US electrical grid. The decisions that are made several states away can have a direct impact on us and there's not a whole lot that can readily be done about it.

The saddest thing of all of this is that the issues that led us to the outages in 2021 have not been remedied and if anything, have continued at an even greater pace. The biggest single issue that the region faces is a continual increase of intermittent generation and a continual decrease in always available baseload generation. There are two basic

Continued on next page...

Lighting Info

By: EE Program Mgr Cory Fuehrer

Remember going to the store in the "good old days" to purchase a pack of light bulbs? Once in the bulb section, you may have noticed several brands, but one 60-watt bulb was likely the same as the next. You knew how bright it would be, how its color (warm white) would appear and how long it would likely last (750 to 1,000 hours of use). By multiplying its rated wattage by the hours used and dividing by 1,000, it was easy to determine the kilo-watt-hours (kWh) of electricity it used.

These days, the lighting section of hardware and home improvement stores are filled with a myriad of light-emitting diode (LED) bulbs (lamps). To further complicate matters, various lamps have different color appearances, input wattages and rated lifetimes. What's more, not all LEDs are dimmable and those that are, may not work on a traditional dimmer switch!

How are you supposed to decide what to buy? Fortunately, since 2012, the Federal Trade Commission has required every manufacturer of general-purpose lamps to display a "Lighting Facts" label on their packaging. The label's five sections explained below can help assure you make the right selection.

Brightness

While the actual amount of light a lamp produces is measured in lumens, the amount of light provided by a bulb used to be directly related to its wattage. One 60-watt incandescent bulb produced 800 lumens, as much as the next brand's bulb. One hundred-watt bulbs were twice as bright, producing 1,600 lumens.

As energy efficient compact fluorescent lamps (CFLs) and LED lamps became available, manufacturers started labeling their products with an incandescent equivalent wattage to help customers identify the expected light output. In reality, the actual wattage of LED lamps is 75% to 85% less than its "watts equivalent" rating.

Because lumens produced by LED products can vary significantly, labeling requirements provided the following ranges of output that are considered equivalent to the fixed values of traditional bulbs.

40-watts equivalent = 350 – 749 lumens
60-watts equivalent = 750 – 1,049 lumens
75-watts equivalent = 1,050 – 1,489 lumens
100-watts equivalent = 1,490 – 2,600 lumens

When purchasing, assure the lumen output of new LEDs matches the output of others in the same light fixture to avoid the appearance of brighter and dimmer lamps.

Estimated Yearly Energy Cost

This section identifies the annual energy cost if the LED lamp is operated for three hours everyday for 365 days a year and the

Continued on next page...

Manager's Report

Continued from page 1...

reasons for this, and they are both related to policy decisions. An example is the Inflation Reduction Act that was passed a few months ago by President Biden. This act set aside $370billion for additional renewable electricity generation (wind, solar, biomass, hydroelectricity, etc.). The second piece is market based. There isn't an adequate market value for generators that are available all the time or that have fuel stored so that they can run when needed. There should be a difference in value for a coal or gas or a nuclear plant that can run whenever needed 24/7/365 versus a wind tower that can be counted on to run 15% of the time, or a solar system that can be counted on 25% of the time. Further, there is not any organization or entity that is truly in charge of reliability. There is basically a thought that electricity providers will just do the right thing. That is a good assumption in public power, but I don't think that the record shows that every electrical utility will act in the best interest of the public.

Regardless of the challenges, please know this; CCPPD is engaged in finding solutions to these and any other issues that limit our ability to provide you with the needed electricity that powers your daily life. We will not give up on the identification and solution of each and every issue or obstacle to reliable and affordable electricity for all of our customers. The Board and Employees of CCPPD understand our roles and responsibilities and take them very seriously. We will continue to work on your behalf to keep the lights on and keep your processes working as smoothly as possible. If you have any ideas, questions, or suggestions for these issues, please contact me. I hope you have a great rest of autumn and that you enjoy your Thanksgiving holiday with many friends and family members who bring you comfort and joy!!

Lighting Info Continued

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consumer pays an average price of 11.0¢ per kWh for electricity. Incidentally, the United States Energy Information Administration identifies Nebraska's average residential cost of electricity at 11.1¢ per kWh.

Life

The rated life reflected on the Lighting Facts label shows how many years the lamp should last when operated every day of the year for three hours. If operated less than three hours, consumers can expect it to last longer. The converse is also true. Unlike incandescent bulbs that "burn out," LEDs tend to lose light output as they are used. Within the lighting industry, LED products are rated by the hours of operation until the lamp drops to 70% of its original output. To determine the number of rated hours from the label, multiply the label's number of years by 1,095. For example, if the label identifies a life of 13.7 years, the LED is rated at 15,000 hours of operation.

Light Appearance

Throughout history as fluorescent lighting became commonplace, people referred to the appearance of white light as "warm white" and "cool white". As more options regarding appearance became available, the lamp's correlated color temperature (CCT), expressed in Kelvin (K) units (without the word "degrees") was used to describe this attribute.

Today, consumer lighting products are rated from 2200K to 6500K. Sliding up the scale, color appearance starts at a warm, yellow-white light and progresses to a cool, bluish/purplish white. The scale on the Lighting Facts label indicates where on the scale a particular lamp will appear.

Energy Used

Not to be confused with the term "watts equivalent" that may also appear on the package, this value is the actual electrical power required to operate an LED or other lamp. When multiplying this wattage by the number of hours the lamp is operated, dividing by 1,000, then multiplying by the average cost per kWh of electricity, an accurate estimated cost of operation can be determined. Note the efficiency or efficacy of an LED that produces a specific amount of lumens is determined by how many watts are required to achieve that level of brightness. When dividing the rated lumens by the energy (watts) used, energy efficiency is improved as lumens produced per watt increases.

Though not identified on the Lighting Facts label, another consideration you'll want to remember while shopping is that not all LED lamps can be dimmed. Packaging should indicate whether a particular lamp has this capability. In addition, some existing dimmer switches require a minimum power of 50 watts connected to properly operate. Because LEDs tend to have lower wattages than incandescent bulbs, the electric circuit will not reach the minimum power required. Consequently, LEDs may start to flicker, make buzzing noises or overheat. If so, replacing the switch with a dimmer designed for use with LEDs may be necessary.

Understanding the Lighting Facts label is just the beginning of how you can reduce your lighting costs. In partnership with Nebraska Public Power District, Cuming County Public Power District can help identify other ways to gain the most value from your energy costs. Please call 402-372 2463 or stop into the office at 500 S Main Street in West Point with any questions.

Operation Round-Up®

"Round-up" your electric bill to the next dollar

People helping people is a rural way of life. Cuming County Public Power District (CCPPD) has a unique way to help others in our area. It's called Operation Round-Up. The program lets customers round up their electric bill to the next dollar amount, with the spare change going to a host of individuals and organizations that apply for funding.

It's a small price to pay. The most it can cost in a given month is 99 cents, though it could be as little as a penny. The average amount is 45 cents, and most customers will pay around $6 a year.

These nickels and dimes make a huge difference. A five-member board volunteers their time and decides where the money is distributed. Our current Operation Round-Up board members are Amber Bridges (Bancroft); Brooke Fullner (Beemer), Brenda Duhsmann (West Point), Kay Raabe (Wisner) & Danielle Ortmeier (Dodge).

Thank you to all of our customers that are part of this great program that helps so many in our area!

Bancroft Summer Rec


Central Catholic Booster Club

First Presbyterian Church


Cuming County Fair Foundation

Operation Round-Up Authorization Form

Choose one Option:

☐ Yes, I would like to participate in the Operation Round-Up® Program. I wish to have my monthly electric bill rounded up to the next highest dollar.

☐ Yes, I would like to participate in the Operation Round-Up® Program. I wish to contribute $_____ per month to the Operation Round-Up® Program, and the amount will be added to my monthly electric bill.

Name:_____

Address: _____

City: _____ State: _____ Zip:_____

Email:_____

Phone:_____

Account Number:_____

Please return to: CCPPD • PO Box 256 • West Point NE 68788

Please call with any questions: 402-372-2463 or toll free 877-572-2463

Total Awarded:

$4,500.00

Total Awarded since Program Began in 1999:

$263,308.92

Bancroft Summer Rec
$500.00
Scoreboard Upgrade

Central Catholic Booster Club
$500.00
Activity Center Updates

Cuming County Fair Foundation
$500.00
Restoration of 1880's Wagon

First Presbyterian Church
$500.00
New Roof

Howells Dodge Elementary
$500.00
OODLE Seats

Nebraska Chistian Women's Conf
$500.00
Nielsen Center Rental

St. John's Lutheran Church
$500.00
Bathroom Upgrades

Toys for Tots
$500.00
Toys for Kids at Christmas

West Point Christmas Festival
$500.00
Reindeer & Horse Carriages