North Central's News

Delivering a difference to parts of Knox, Antelope, Pierce, and Holt Counties Since 1945

Thoughts and Comments from General Manager Keith E. Harvey

A brief look at Nebraska's National Rivers and also some thoughts on the proposed "Green New Deal" and how grid reliability will diminish or vanish

How many of you are aware that there are two river districts in Northeast Nebraska that are designated as National Wild and Scenic Rivers under the 1968 National Wild and Scenic Rivers Act? These two districts are administered by the National Park Service (NPS) and are among only 38 administered out of the 208 rivers designated as National Wild and Scenic Rivers (NWSR) located in the U.S. The only other river so designated in the central United States is a small section of the Rio Grande along the southern edge of Texas. In 1978 the NWSR Act designated the 59 miles from Gavins Point to Ponca State Park as a NWSR with a National Recreational Designation. This is referred to as the 59-mile District and is given Missouri National Recreational designation. "Then in 1991, Congress designated the 39-mile segment of the Missouri from Ft. Randall Dam to the headwaters of Lewis and Clark Lake, the lower 20 miles of the Niobrara from the Knox County Line to its confluence with the Missouri River, and the segment of the Verdigre Creek from Verdigre, north to the Niobrara River as NWSR's with the National Recreational River designation. This is known as the 39-mile District" (Nielsen, 12). So do remember that when you are on the waters in these areas, you are actually in the national parks system with real Park Service rangers. Take some time this spring and summer to take a car, boat or covered wagon, if you like, and visit these beautiful locations which are part of Nebraska's and the Nation's wild and scenic rivers.

I do understand that some of these areas mentioned have been damaged by the recent flooding and ice floes on these rivers. Rest assured that these waters will overcome this damage and, at some point, revert to their normal state of serenity and beauty. Still, come and visit and spend some time in the nearby communities as many of them rebuild and/or recover from the flooding that occurred. The residents may very well enjoy a smiling face. And the scenery is still well worth the trip. As Henry David Thoreau wrote "In wilderness is the preservation of the world."

continued to page 2

IMPORTANT NOTICE

As most of you already know, North Central Public Power District has had problems with the delivery of its bills sent out on March 2, 2019. With a few exceptions, most customers still have not received that first bill. Bills were re-sent later in March and they were received within a few days. Since the first printing of the bills have not been received and are still out in the U.S. postal service system, we may have a problem. Going forward, it will be important for our customers to check the date on the bills as we do not know if, or when, that bill print from early March will be delivered. We do not want customers paying the wrong bill amount because they have received the lost bill and do not realize it is not the current bill. Until that lost bill is received, please be vigilant that you are paying the correct bill. We are sorry for this inconvenience. Thank you for your patience.

A brief look....

continued from page 1

Now I would like to make a few points about the proposed "Green New Deal" that is being promoted by one of the political parties as a possible national policy to deal with climate change. First, predicting that the climate will change is akin to saying river flooding and predicting that rivers will flood one day. You cannot go wrong with a prediction like that because no matter what happens, the predictor eventually has to be right – climate does change and rivers do flood. Though the key point is, with climate change at least, the degree to which mankind's activities play a role in projected negative outcomes. So let us start with the ultimate in the reduction of carbon from the earth. That would be total removal. Since we are a carbon-based lifeform that would mean all life on earth, except for a few cyanobacterium and other unusual lifeforms, would die. Animals need carbon for the energy of life and plants need carbon dioxide to replace the oxygen used in animal respiration and other energy production (and many other things). Has anyone besides me ever wondered why renewable energy is called "green" energy? Green is the color of plants and plants are green because they have chlorophyll, which needs carbon dioxide in order to make sugars and release oxygen into the atmosphere. Another way of saying this is that most plants thrive in higher levels of carbon dioxide. Back in the days of the dinosaurs (the Mesozoic Era from 245 million to 66 million years ago for those of you wanting details) there was "luxuriant plant growth even in Greenland and Antarctica, as the fossil record clearly shows…" (Robinson & Robinson III, 25). The major ice ages about 450 million years ago and 760 million years ago occurred when carbon dioxide levels in the atmosphere were much higher than those today and there were no humans to have contributed to those events (Ibid). So with all of this information, and what I know about the laws of physics and the electric grid, let us now look at the "Green New Deal".

This grand idea calls for a fully renewable electric grid. The economic challenges are great, but the simple fact is that it is probably technologically impossible. An electric power grid must balance, on a second-by-second basis, the consumer demand with the generated supply. In the event of a sudden imbalance between load and generation, there has to be a rapid response to restore balance in a relatively short period of time or very bad things begin to happen. In the event of a loss of generation, renewable energy simply cannot be counted on to pick up the slack and battery backup would be prohibitively expensive. "Fossil-fuel turbines, by contrast, very naturally compensate for sudden supply outages" (Blohm, A15). I will not go into the physics of this, but it has to do with the inertia of the spinning mass of these types of rotors. This inertia (called governor response) can last up to 15 minutes and give operators a chance to bring on reserve capacity to compensate for the loss of generation. And wind-rotor inertia is too short-lived to be of any great value at this point. If the load and demand are not balanced in a required timeframe, then generators will start shutting down to prevent damage. I leave that to you to research and figure what will happen at that point in time.

Of course, with a renewable grid, batteries could store the excess and wind or solar could still be tapped somewhere to make up the generation shortage over a short time period. The electrical problem with this plan is that electricity stored in batteries must be converted from direct current (DC) into alternating current (AC) to allow for synthetic governor response in the case of a disruption. "But according to a 2017 report from the Institute of Electrical and Electronics Engineers, if a large enough share of the power grid flows through inverters, the grid itself may collapse. An all-renewables power grid is destined to collapse" (Ibid). It should be noted that this last paragraph comes from an article (see citations below) written by Robert Blohm who is a member of the Operating Committee and the Standards Committee of the North American Electric Reliability Corp., the continental bulk electric system's reliability regulator designated by the U.S. Energy Policy Act of 2005 and by all the Canadian provinces' energy regulators. Do you think his knowledge of the reliability of the electric grid is at least as great as that of the politician or politicians who are pushing the "Green New Deal"? That is a question for a lot of people who are interested in the reliability of their electricity.

Speaking of reliability of the electric grid, the customers in Nebraska find themselves in the enviable position of having the most reliable electric grid of any state in the United States in 2018 in rankings by U.S. News & World Report magazine (Nebraska State Chamber of Commerce & Industry Newsletter, 1). This Newsletter also showed Nebraska as having the 5th lowest electric rates for residential customers (HowMuch.net, 1). These two rankings speak volumes about the State's public power system. As with any service, the higher reliability that is desired – the higher the cost to attain it. Thus, to be a state with as much rural area as Nebraska and still achieve the highest reliability ranking is no small feat. Additionally, in the rural areas where there may only be an average of two or three meters per mile of line, there are a lot of miles of line stretched out across the landscape that are exposed to all types of weather (lightning, ice, tornados and so on), animals and just normal aging of infrastructure. The key here

continued to page 3

A brief look ....

continued from page 2

is local control by the customers who elect a board of directors from the area that are accessible and live under the same conditions as the rest of the customers. Also, all of the money that is collected as return on investment is spent upgrading and maintaining the electric system – there are no shareholders to receive dividends.

The reliability of North Central Public Power District's piece of the electric grid is also dependent on the reliability of the bulk delivery system and the generation available. If we do not get electricity from the generators to us, then there is no way we can deliver to our customers what we do not have. The grid has many safe-guards and redundancies built in to it, but it must be managed in real-time every second of every minute of every hour of every day. According to one article I read a few years ago (sorry – this one I do not remember the source) the U.S. electric grid was rated the Number One invention of the last 100 years and was also rated as the most complex "machine" ever constructed. The key word here is complex. We have politicians who have little or no knowledge of how this massive network actually performs what it does. They want to garner attention and votes by discussing how it needs to be reconstructed using 100% renewable energy and put a short deadline on how long it should or will take to accomplish. This would be almost comical if it weren't being actually considered as a good idea by many people in this country. I certainly do not have all of the answers to this energy issue. I can tell you that I am glad that my name is not attached to the tiger that proponents of this idea may have by the tail. With just a look to South Australia and their recent electricity woes, or the Netherlands and Germany with the world's highest electric rates, these "forward thinkers" might want to start measuring the depth of the water before they jump head first into the single most important support of our entire standard of living – electricity and the grid that delivers it. One major foul-up in the grid that collapses all, or a big part of it, will show those involved that the other end of that tiger that they have hold of by the tail is filled with razor-sharp teeth and a very bad disposition. And it is nothing more than those pesky laws of physics that have been violated in ways that just do not work in the universe as we know it – at least not on this planet.

In the final analysis, the point I am trying to make is that while there are all kinds of changes and technology that may help reshape the grid, it may not be wise to set a date to do it before the technology is ready for prime time. I do not know where the future lies for the electric industry. I feel strongly that if anyone wants to change things in this industry, they may want to start with something less mission critical than the grid – something where a mistake will not have the potential to cripple a large segment of our nation with the loss of electrical power for some extended period. The ideas that drive the desire to change the generation mix are indeed noble and important. Let's just take the time to make any transition smooth and reliable and life will truly be good.

I know that many of you are facing some very difficult situations with the recent and continued flooding and its aftermath and wish only the best as you move towards some degree of normalcy in your lives. North Central is working to meet all of our commitments with regards to line builds and storm damage repairs. We thank you for allowing us to serve your electric distribution needs and will continue to work to keep your reliability high and your rates as low as fiscal responsibility allows us. North Central sends you our best wishes.

Energy rankings measuring states' energy infrastructure, https://www.usnews.com/news/best-states/rankings/infrastructucture/energy

How much Americans pay in electricity rates in each state, https://howmuch.net/articles/electricity-rates-by-state

Nielsen, Curt. (2018, Nov. 21). **Nebraska's National Parks**, *Stanton Register*, pg. 12.

Robinson, G Dedrick, and Robinson III, Gene D., **Global Warming: Alarmists, skeptics & deniers: A geoscientist looks at the science of climate change**. Abbeville, SC., Moonshine Cove Publishing, 2012.

NCPPD ROW/Maintenance employee Brian York.

Managing Trees Under Power Lines and Updating No Spray List

Power outages can occur when trees grow into or fall on power lines. This is not only an inconvenience, but can be very costly.

North Central PPD manages these invasive trees by spraying under and around its lines. This helps to control the underbrush from growing into the lines and to give lineman better access to the poles. If you have property that needs to be on NCPPD's No Spray List, please call the Operations Department at 402-358-5112 or 800-578-1060.

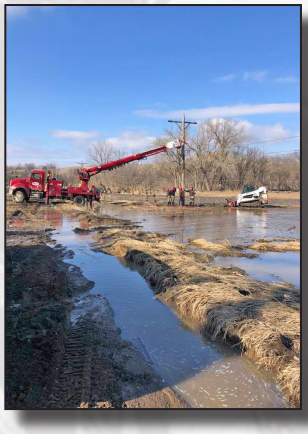
Brian York, NCPPD ROW/Maintenance employee, will be working in the Knoxville, Verdigre, and Ash Grove Hall areas this summer.

Storm cyclone causes historic flooding and damages

March 13, 2019, winter storm Ulner created much havoc across Nebraska, including the North Central Public Power (NCPPD) service area. The storm unleashed rains causing historic levels of flooding. NCPPD had some poles wash out and some hit by debris resulting in outages. Because of the rising water, many roads were closed, limiting access to these downed structures. NCPPD crews continued to work in these extreme conditions to restore power. Parts of the Village of Santee and some rural areas were without power for two days. NCPPD, with the help of Nebraska Public Power District (NPPD), installed a 1600 kVA generator on Friday restoring power to the rest of the Village of Santee. Warmer temperatures throughout the weekend and receding waters aided the restoration process. NCPPD's crews made repairs to Santee's distribution lines through the weekend allowing NPPD to take the generator offline late Sunday afternoon. Many repairs will still need to be completed in the Niobrara area in the coming months. The NCPPD Operations Department would like to thank all the customers for their help and understanding in this historic flooding.

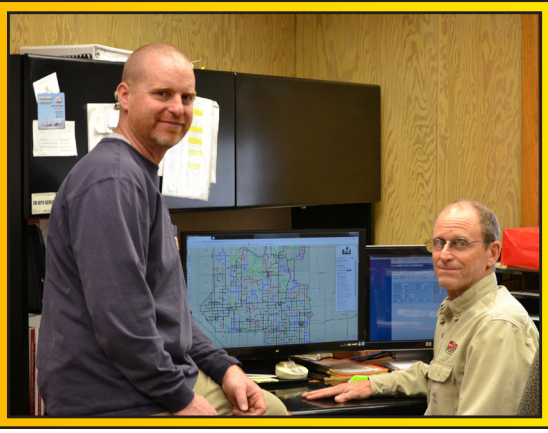
Rising water prevented access to outage areas

Ice chunks block access to poles



Thanks to the many people who helped to pull out NCPPD trucks

Portable substation arrives to provide power to Santee



Hickman hands reigns over to Hoffman

Tim Hoffman has become the new Staking Engineer at NCPPD with the retirement of Art Hickman. Tim will continue as a lineman while performing the Staking Engineer duties. Tim joined NCPPD in 2000 after receiving his Utility Lineman degree from Northeast Community College. He began as an Apprentice Lineman, working his way to Jouneyman Lineman, Crew Foreman, Lead Lineman, before becoming Staking Engineer. Tim has also acquired a Bachelor of Business from Bellevue University. Tim and his wife Jennifer have four daughters: Jessica, Katie, Ashley and Sidney.

Youth Energy Leadership Camp Application Available

Linda Sokol,
Energy Advisor

Every year North Central Public Power District (NCPPD) makes a trip to the Nebraska Rural Electric Association's Youth Energy Leadership Camp available to teen applicants. This year's camp will be held July 8-12 at the Nebraska State 4-H Camp in the Halsey National Forest, Halsey, NE.

If you have a student in the 9th, 10th or 11th grade that would like to attend, the deadline for submitting an application is May 1, 2019. The Youth Energy Leadership Camp is established as an operating rural electric system and provides a "hands-on" approach to member-owned businesses. The students will join high school students from Nebraska and Wyoming, along with adult counselors and junior counselors. The adult counselors are employees of rural electric systems who donate their time and talents to the camp. The junior counselors are selected by their peers to return to next year's camp.

A highlight of the camp involves a tour of the Kingsley Hydro Station at Lake McConaughy and Gerald Gentleman Station, a coal-fired power plant at Sutherland, NE. Recreational activities include basketball, volleyball and canoeing, with a banquet and a dance.

An application form can be obtained on our website www.ncppd.com under the Youth Programs link, at your local school from your guidance counselor, or contact our office and we will mail or email it.

NCPPD's board of directors will review the camp applications and select which students will be invited to the camp.

Hickman retires from 40 year career

Art Hickman began at North Central Public Power District (NCPPD) in 1994 after 15 years at KBR RPPD. He started as a Journeyman Lineman, then Crew Foreman, and finally Staking Engineer/Safety Director. Art has been a cornerstone to NCPPD's Safety Program. In 2016, he received the Jack McEnerney Award from the Nebraska Rural Electric Association (NREA) Job Training & Safety Conference for his outstanding efforts in safety and training. His wife Shari, and sons Terry (wife Kylie and son Denton) and Trent joined many of his family and friends wishing him well in his retirement.

From our homes to yours . . .

Chicken Kiev Crescent Bake

Ingredients

8 uncooked chicken tenderloins
¼ tsp garlic powder
¼ tsp pepper
⅛ tsp salt
3 Tbsp butter
1 can refrigerated crescent rolls
3 Tbsp Italian style panko crispy bread crumbs
1 container (7.5 oz) chives-and-onion cream cheese
⅓ Cup milk

Directions

Heat oven to 375°F. Season chicken with garlic powder, pepper and salt. In 10-inch nonstick skillet, melt 2 Tbsp of the butter over medium-high heat. Cook chicken in butter 8 to 10 minutes or until chicken is well-browned on all sides. Remove from skillet; cool slightly. Unroll dough, and separate into 8 triangles. Place piece of chicken on wide end of triangle, and roll up dough around chicken; place in ungreased 13x9-inch baking dish. Repeat to use all of chicken and dough. In small microwavable bowl, heat remaining 1 tablespoon butter in microwave uncovered on High 15 to 30 seconds or until melted. Brush crescents with melted butter; top with bread crumbs. Bake 15 minutes. A few minutes before removing dish from oven, using same skillet, heat cream cheese and milk over medium heat, stirring constantly, until smooth and bubbling. Pour sauce into baking dish around crescent-wrapped chicken. Bake 5 to 7 minutes or until crescents are golden brown and sauce is bubbling.

NORTH CENTRAL PUBLIC POWER DISTRICT

1409 Main St • PO Box 90 • Creighton, NE 68729-0090
www.ncppd.com • E-Mail: ncentral@ncppd.net
Customer Service: 402-358-5112 or 800-578-1060
Reporting Power Outage: 888-358-5112

PRSRT STD
U.S. POSTAGE
PAID
NORFOLK, NE
Permit No. 125

Powered by Integrity

The Bargain Barn

FOR SALE: Heavy duty 3 point single bale mover. Call 402-340-2656.

FOR SALE: Near new poly calf group hut. For calves or sheep. Call 402-640-0114.

FOR SALE: (2) 8 X 10 Hay feeders; (1) Round bale feeder. Call 402-640-0114.

FOR SALE: 6' X 10' Portable wood building with floor. Call 402-640-0114.

FOR SALE: 1988 Alumacraft Trophy 190 Fishing/Skiing Boat with Shorelander Trailer. 140 horse Suzuki motor, 9 horse kicker motor, 859 Hummingbird Depth Finder, on board 3 bank charger. Canopy very good. Power drive 70lb thrust. 24 volt Trolling motor with remote and I-pilot. Always in garage. Very good condition. Call 402-394-1500.

LOOKING FOR: Piano or organ. Call 402-360-1623.

WANTED: Scrap metal. Will clean up farm place of all metal. Paying top dollar. Call 402-841-2242.

FOR SALE: 2014 Nitro 27 Bass Boat with 175 HP Mercury ProXS Motor, Minkota 24 volt trolling motor with IPilot Remote. has spotlock 2 Digital on-boaird battery chargers, jack plate, & much more. Has customer aluminum wheels & new tires. #27,000 OBO. Call 402-841-2242.

FOR SALE: John Deere 2955 Silage Cutter. Very good shape. Call 402-358-3229.

FOR SALE: 3pt Backhoe and 3pt Broadcast Seeder. Call 402-340-9830.

Do you have something to sell or are you looking for something in particular? You may call, send or email (bargain.barn@ncppd.net) your description of what's for sale or what you are looking for to our office. The ad will run in the Bargain Barn section free for one month. Please include name and telephone number. No commercial ads will be accepted, personal items only.

Thank You

North Central Public Power District would like to thank the City of Plainview customers who allowed tree trimming and removal these past few months. Tree maintenance is important to provide safe, reliable power to our customers and reduce costs from repairs.

NCPPD will resume tree maintenance in the City of Plainview for customers that did not get trees trimmed or cut this past season. NCPPD will wait for the fall when the ground freezes to lessen damage to yards.