

THE WIRE

CURRENT NEWS FROM THE ELKHORN RURAL PUBLIC POWER DISTRICT

October 2016

Serving the Elkhorn River Valley since 1940

Volume 25, Number 10

ERPPD is dedicated to providing **SAFE, RELIABLE, COST-EFFECTIVE** electricity for **ALL** customers.

NATIONAL PUBLIC POWER MONTH

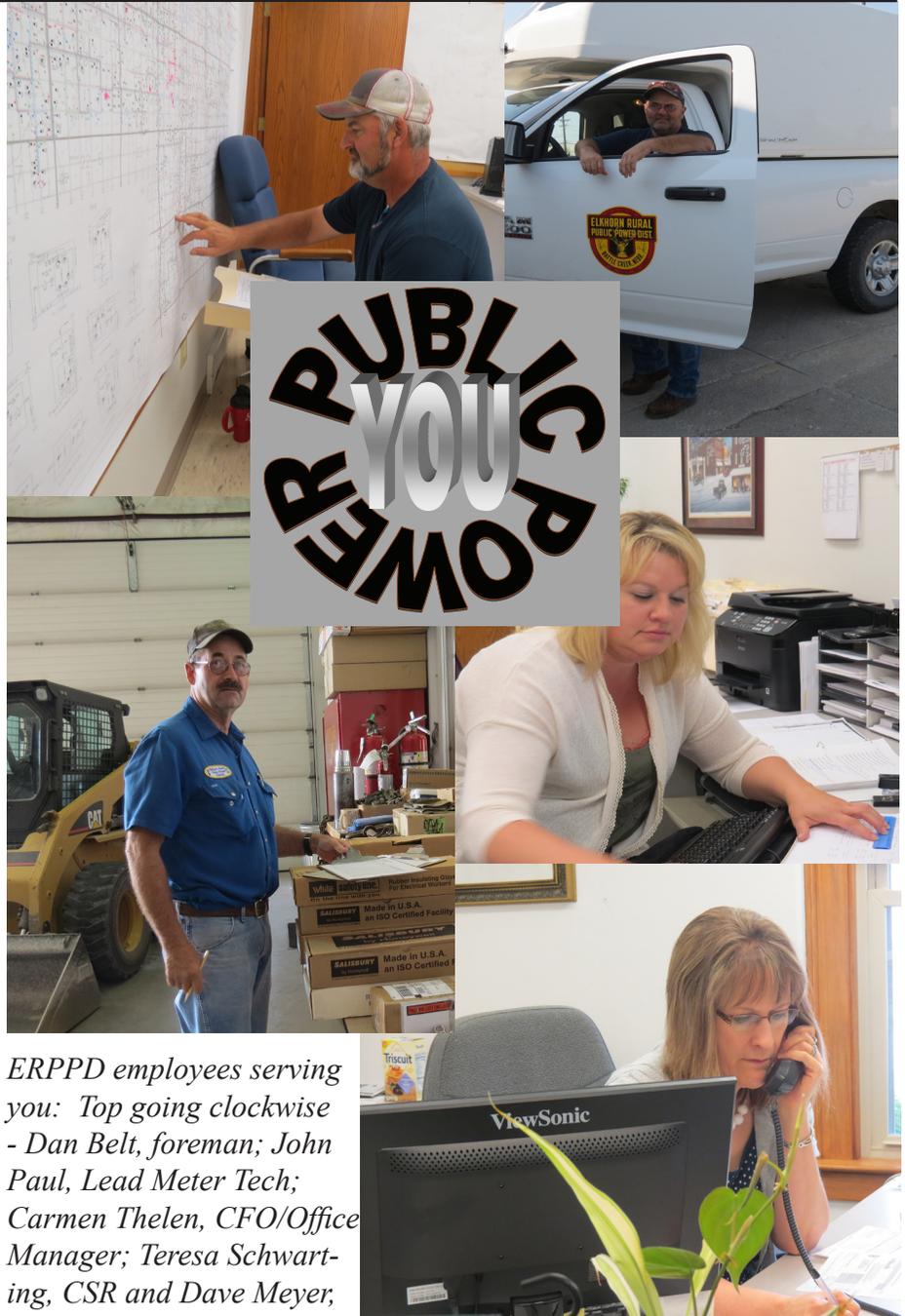
Public Power Month isn't about celebrating the organizations that keep your lights on, it IS about celebrating you, our customer/owner.

We, here at Elkhorn Rural Public Power District, have the greatest privilege of serving you and providing you with Safe, Reliable, Cost Effective electricity.

Very recently, we received a thank you from a customer who appreciated our great customer service and concern for safety during an outage.

"I want to thank you so much for the prompt service last evening when my home became impacted by a lighting strike. Wow, when the lightning struck the transformer in the corner of our lot line, very near our home. . . what a shock to our home. I was so pleased to see how quickly the team from ERPPD responded. In addition, I commend you for making time to come to the home to ensure safety and provide a recommendation on our next steps. It was so comforting to have the power restored for many home owners in the neighborhood. Your service is top notch - BE PROUD! I admired the professionalism you exhibited when working on the situation and MOST OF ALL making time to come to the front door and check on how it was working." - Jan White

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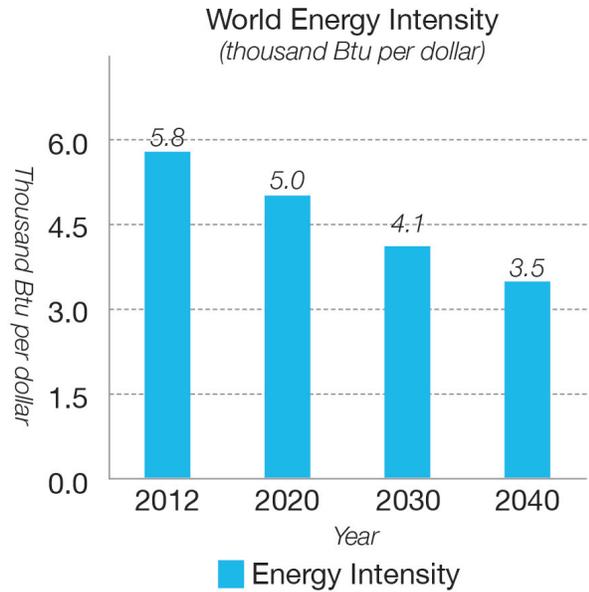


ERPPD employees serving you: Top going clockwise - Dan Belt, foreman; John Paul, Lead Meter Tech; Carmen Thelen, CFO/Office Manager; Teresa Schwartz, CSR and Dave Meyer, Warehouse Coordinator



Energy Efficiency Increasing Around the World

Energy intensity is one way to measure energy efficiency trends. It compares energy consumption to economic production. Since 1990, energy intensity has declined by almost one-third. The chart shows that trend is expected to continue, with energy intensity declining almost 2 percent per year through 2040.



Source: Energy Information Administration

Emissions At a 20 Year Low



“For those of you who are not breathlessly following the most recent data that has come out, I would note recent data that we’ve seen suggests or finds that for the first half of 2016, energy sector emissions in the United States are actually down 6 percent from last year, and 15 percent from 2005,” said Mr. Deese, White House Advisor, “And they’re at their lowest level in nearly 20 years.”

The U.S. Energy Information Administration reported in May that U.S. energy-related emissions are down 12 percent from 2005 even though the U.S. economy has grown during that time by 15 percent.

Wind and solar energy contribute to the decline, but decreases in the use of coal and increases in natural gas for electricity generation also contribute. While wind is expected to account for nearly 6 percent of generation and solar for 1 percent in 2017, natural gas is forecast to hit 34 percent and coal to fall to 30 percent in 2016, the agency reported.

The U.S. leads the world in greenhouse gas reductions.

This information came out ahead of President Obama attending several summits in September where the environment would be discussed.

Source: *The Washington Times* 8/30/16

RENEWABLES - HYDRO

Last month we looked at renewables - especially wind - and how they fit into the generation mix. (You can see that article by visiting www.erppd.com/about-erppd/news-letter or go to FaceBook).

This month is a look at hydro and how that fits in the energy mix.

Recently, the Wind and Water Power Technology Office at the Department of Energy released a report on the state of U.S. hydropower. Hydropower is our fourth largest source of electricity and our single largest renewable source providing 6 percent of America's electricity.

The report indicates that there is a potential for hydropower in the future by re-powering existing dams, adding power generation to those dams that don't have it and upgrading and improving the dams that have hydropower in them already. According to the report, the nation's current hydropower has an electricity generating capacity of about 101 gigawatts that could grow by about 50 percent by 2050.

Environmental concerns are paramount when looking at hydro, since building dams or holding ponds for hydroelectric "pumped storage"; impacts rivers, land and wildlife.

Hydro, as indicated by the chart to the right, has a relatively cheap building cost per kilowatt hour of energy produced, especially when compared with solar thermal.

Nebraska has 21 hydro generating units along the Platte, Loup, Cedar, Niobrara and Missouri Rivers.



Nebraska Public Power District, El-horn RPPD's energy supplier, generates about 4 percent of it's electricity from hydro. NPPD operates 3 hydro electric generators and buys the output of several other hydros in the state.

NPPD conducted a study to assess the potential of hydroelectric generation capacity in Nebraska. The study found limited opportunities for efficiency improvements in the existing hydro plants.

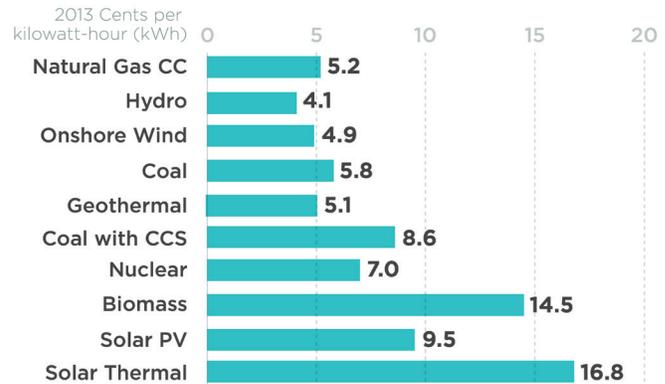
The study also indicated that hydrokinetics (letting the river's natural current turn turbines without the construction of a dam) is somewhat a new technology and Nebraska's canals and rivers do not provide the necessary depth and velocity. Screening considerations did identified four sites with suitable topography for pumped storage.

Hydro is a really flexible generation source that could help bridge the gap when the wind isn't blowing or the sun isn't shining, as well as lowering the carbon footprint associated with energy generation.

Sources - *The Washington Post* "The Surprisingly Bright Future. . ." by Chris Mooney and Brady Dennis July 26, 2016; nppd.com; *Nebraska Power Association talking points*.

THE COST OF NEW GENERATION

The cost to build new power plants can vary widely. Each type of generation carries a ballpark price tag. The costs shown below, based on each kilowatt-hour produced, take into account plant construction, fuel, operating and maintenance costs, operating performance assumptions, expected operating life, and general tax and financing assumptions.



NOTE: Wind and solar generation are not directly comparable to other technologies because their power production varies based on weather conditions. These costs also do not reflect tax incentives or grid integration costs.

Source: Estimates developed by NRECA using U.S. Energy Information Administration data from 2015.



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We work hard to make sure outages don't occur, through strategic plant maintenance, vegetation management and line monitoring. When an outage occurs, we want to make sure your experience is the same as Jan's.

We also serve you in many other ways - answering the phone and the questions that come in on a daily basis, creating a budget that keeps rates and rate increases at a minimum, keeping electric lines and equipment safe and reliable, which keeps electricity coming to your homes and businesses, plus many more things.

You are at the center of public power and we want to take this opportunity to thank you for being our customer!

Happy Public Power Month!

SAFETY NEWS



ALERT TODAY, ALIVE TOMORROW: HEADS UP FOR FARM SAFETY

Stay safe around downed power lines. Consider all lines, equipment and conductors to be live and dangerous.



If you are inside farm machinery that makes contact with a downed power line, know what to do!

If you can drive safely away from the power source without bringing down the utility pole and lines, travel at least 40 ft. before exiting.

If you are unable to drive the machinery due to injury, obstacles or it is inoperable, do NOT exit. Call for help and warn anyone nearby NOT to approach.

If the vehicle is on fire, or you must exit for other safety reasons, follow these steps:

1. Jump clear of the vehicle. Do not let any part of your body or clothes touch the ground and the machinery at the same time.
2. Land with feet together and hop away in small steps to minimize the path of electric current and avoid electric shock.
3. Keep going until you are at least 40 ft. away.
4. Call for help. Make sure no one gets within 40 ft. of the downed line.
5. Do not re-enter the area or vehicle until emergency responders and your electric co-op crews determine it is safe.

Energy Efficiency Tip of the Month



An average household dedicates about 5% of its energy budget to lighting. Switching to energy-efficient lighting is one of the fastest ways to cut your energy bills. By replacing your home's five most frequently used light fixtures or bulbs with models that have earned the ENERGY STAR rating, you can save \$75 each year.

Source: energy.gov

Elkhorn Rural Public Power District will be closed

Friday, Nov. 11, for Veterans Day

and

Thursday & Friday, Nov. 24 & Nov. 25, to celebrate the Thanksgiving weekend.



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