



# Polk County Rural Public Power District

*"Committed to enhancing the lives of our  
customers by providing safe, reliable,  
economical energy now and into the future."*

Your Touchstone Energy® Partner



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PO Box 465

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## Employees Recognized for Years of Service

Each year Polk County Rural Public Power District recognizes employees who reach milestones of employment with the company. This year's employee recognition dinner was held at the A&B Restaurant in Shelby. Congratulations is extended to four of our team members as we show appreciation for their contributions and commitment working for the District and its customers.

Grace Gerrard presented Cindi Perdue, a member of the accounting department, a certificate of appreciation for five years of service.

Line crew members recognized for their hard work and dedication are from left, Anthony Schnell, Trevor Willhoft and Jeff Waller. Schnell, has been with PCRPPD for five years and Willhoft 10 years. Jeff has surpassed the 20 year milestone.

There are 21 full time employees working for the benefit of our customers, with a combined 353 years of experience averaging nearly 17 years per employee.

"Within 10 years we could have as many as nine employees retire," said General Manager, Phil Burke. "That would be a lot of experience. We feel confident that present and future employees will step up to the plate and continue to provide quality service to our customers well into the future," he added. Congratulations to all!



Reminder: Please do not staple or tape payment stubs to checks. This may cause our scanner to jam. Thank you.

Have you heard the news? The 2015 EnergyWise program is offering a 15 bulb limit for a \$5.00 incentive per bulb. Watch for LED bulb sales and by the time you get the \$5 incentive you may find yourself getting a very good deal! Lamps must be 9 watts or greater and it is recommended that you purchase ENERGY STAR®.

# Caretaker™ 12 LED Replaces High Pressure Sodium and Mercury Vapor Area Lighting

Energy efficiency, high output, easy installation and low maintenance make the Caretaker LED Area Luminaire the best choice for security lighting applications such as perimeter area lighting, loading platforms, residential street lighting, parking areas, boat docks and access drives.

Polk County Rural Public Power District recently purchased the Caretaker™ LED area lights that will be replacing the current high pressure sodium and mercury vapor lights that have landscaped the countryside for nearly eighty years.

## **Superior Illumination Performance**

The Caretaker™ LED Area Luminaire delivers unmatched performance in a rugged design for low-cost, low maintenance security light applications where a highly visible light source is desired. ANEMA (National Electrical Manufacturers Association) photo control provides automatic dusk-to-dawn operation and high output LEDs (light emitting diodes) deliver over 5,200 lumens. At only 50W (replacing up to 175W HID), the Caretaker luminaire provides up to 85 percent in energy and maintenance savings compared to traditional HID products.

## **Low Maintenance and Long Life**

Key factors when addressing energy consumption and total cost of ownership include longevity, light output and low maintenance. With lumen maintenance greater than 84 percent at 36,000 hours, the Caretaker luminaire is virtually maintenance-free for over 15 years.

## **Ease of Installation**

Installation is made simple with a versatile, universal wall and wood pole mounting bracket. A specially designed support tab on the bracket enables the Caretaker luminaire to be positioned and secured in a single step. A hinged power tray door and a single, captive screw allows for safe and easy access when making electrical connections.

## **Built to Last**

Tough weather conditions are no match for the heavy-duty die-cast, aluminum housing. The LED module compartment is rated for IP66, wet location operation applications ensuring continued performance in extreme weather. A 6kV interval surge protection device protects drivers and LED components.



## **Light Installation Information**

Polk County RPPD will no longer be purchasing mercury vapor area lights. When existing lights are in need of repair they will be replaced with a retrofitted LED, 12 lamp fixture for a cost of \$165.00 plus tax. This cost covers the new fixture and installation.

Once the light is installed, you will be billed. Along with the invoice you will receive an EnergyWise™ Application Form. You can complete the form and return it to our office to receive an incentive in the amount of \$50.00.

## **Attention Irrigation Customers**

**We will be billing the 2015 Horsepower Charge on April 20th. All name and address changes, payment changes (which may include bank draft or recurring credit/debit) as well as control days must be reported to our office prior to April 1st. Having these changes ahead of time helps us to better serve you. The irrigation rates are printed at the top of the next page. Please call 402/764-4381 if you have any questions.**

# 2015 IRRIGATION RATES

SUNDAY ONLY	\$47.85 PER HP	\$0.0886 PER KILOWATT-HOUR
NO CONTROL	\$49.50 PER HP	\$0.0947 PER KILOWATT-HOUR
2 DAY CONTROL	\$41.10 PER HP	\$0.0885 PER KILOWATT-HOUR
3 DAY CONTROL	\$35.60 PER HP	\$0.0822 PER KILOWATT-HOUR
4 DAY CONTROL	\$30.85 PER HP	\$0.0792 PER KILOWATT-HOUR
5 DAY CONTROL	\$23.10 PER HP	\$0.0749 PER KILOWATT-HOUR
DISCONNECTED	\$13.60 PER HP	

NOTE-2 THROUGH 5 DAY CONTROL DAY SCHEDULES MAY INCLUDE AN OCCASIONAL SUNDAY CONTROL PERIOD NOT TO EXCEED 6 HOURS.

CUSTOMER CHARGE - SINGLE PHASE - \$59.75 PER MONTHLY BILLING

CUSTOMER CHARGE - THREE PHASE - \$66.00 PER MONTHLY BILLING

The horsepower charge is billed in April, is due upon receipt and delinquent June 10th. The monthly customer charge and energy charge per kilowatt-hour is billed July 20th, August 20th, September 20th and October 20th. The amounts billed are due upon receipt and become delinquent the 10th of the following month as stated on each invoice.

## March 2015 EnergyWise Tip: Motion Sensors

The lights are on, but no one is home. It's probably just me but my teen-agers are continually leaving lights on and fans operating long after they leave a room. If it's not just me, read on!

To remedy this problem an inattentive teenager creates, consider installing an occupancy or vacancy sensor on the electrical light circuit that is left "ON" the most often. Here are some considerations related to both.

First, consider what occupancy and vacancy sensors are and how they differ from each other. While both are considered "motion" sensors, occupancy sensors turn lights ON automatically upon detection of someone in the room and turn lights OFF automatically soon after an area is vacated. In comparison, vacancy sensors require manual activation of the lighting by the occupant; then, they turn lights OFF automatically after no one is detected in an area.

Now consider how they work. Typically, these sensors employ one of two technologies (or both) in the same controller. One such technology



*NPPD's Roger Hunt is a Certified Energy Home Rater and a member of the Energy Efficiency Team*

is passive infrared (PIR). PIR sensors are designed to detect motion from a heat-emitting source (such as a person entering a room) with its field-of-view. These sensors have segmented lenses. For units to see motion, the person must cross between two segments or bands. The distance between the segments or bands increases the farther a person is from the sensor, so motion has to be larger the farther it is from the unit. PIR sensors are considered line-of-sight sensors, meaning that the

sensor must be able to have a direct line-of-sight to the person making the motion.

The second is ultrasonic technology. Ultrasonic sensors use the Doppler principle. These sensors produce low intensity, inaudible sound and detect changes in the sound waves it produces that are caused by motion, such as walking into the room, reaching for a telephone, or turning in a chair. They are volumetric in nature and are not line-of-sight dependent. Since they fill the space with these sound waves, they are excellent in bathrooms with stalls, enclosed hall-

ways, or other oddly shaped rooms. In addition, they are much more sensitive to smaller motions.

What if PIR and Ultrasonic technology are combined into one sensor? They provide the best sensing solution available today. This pairing helps eliminate false activations (both ON and OFF) thus avoiding additional unnecessary energy use.

Yes, both types of sensors cost more than standard wall switches, but depending on how often lights are being left on when no one is in a room, energy savings could make up that extra cost in less than a couple of months. Installing a wall switch to replace a standard toggle switch using either technology was initially somewhat expensive, many models are now available for less than \$20.

Polk County RPPD and Nebraska PPD want to help you use the energy you purchase more efficiently. That includes helping to control unnecessary energy use when you are not home and to monitor where lights are being left on. For more ideas on how you can make your home or business EnergyWise, along with possible energy efficiency incentives contact Polk County RPPD.

# A Future for Nuclear Energy?

## *Back to the 'New' Reality...*

Only time will tell if we are about to cut back on nuclear power or not; for now it seems that many of us count on it to keep the wheels turning.

Thirty countries in the world use nuclear power; 23 of them are planning to expand. Most of this nuclear growth is based in Japan, China, India and Korea. Of the 72 new plants recently ordered worldwide, 48 are additional plants, the others are replacements. Soon a total of 29 newcomers will operate in China.

Today the nuclear revival seems to be a fact, despite a brief hesitation after the 2011 Fukushima Daiichi accident. The International Atomic Energy Agency (IAEA) projects that the world's total nuclear power capacity might almost double by 2030 as the world's hunger for low-emission power is rapidly growing and nuclear is relatively stable and cheap. For many, energy independence comes in as a good reason too.

In the past, nuclear power generation has mainly been found in Europe and North America. This center of gravity is now quickly shifting towards Asia. Beijing plans to increase China's nuclear capacity by three times from its current capacity within the next five years. While other regions hesitatingly wait to see what the future brings, China is actively investing both time and money, making a name for itself as a technological leader in unclear energy.

Other Asian countries may soon follow the same path; even the unfortunate Japan. For a country that was one of first to operate a nuclear plant in 1966 and is forced to import about 84% of its energy needs, nuclear is key. Today the Japanese government has again chosen to continue with nuclear energy. Restarting 48 dormant reactors, after new regulatory safety clearances have been obtained, is

slowly getting under way.

While Japan has little choice because its gas market is captive (with a limited number of competitive suppliers) and expensive, the situation elsewhere is different. In Europe nuclear discussion is sensitive and public perception of nuclear energy is poor. On the regulatory side, the European Institutions are not in the position to make a big fuss, with Austria having signed the Federal Constitutional Act for a nuclear-free Austria. They talk about 'low carbon energy', shy away from any integrated approach that includes nuclear and developed three specialized nuclear EU units with an army of 100 nuclear experts, dealing with safety policies and the Non-Proliferation Treaty of 1970 instead.

Nuclear technology has progressed enormously over the last 60 years or so; its potential is huge. Experts claim that nuclear power generation has a great future with many companies working on new generation nuclear reactor designs, using fuel more efficiently, with more passive safety features and longer lifetimes of up to 60 or even 80 years.

While gigantic steps are being taken to push new safety, safeguards, and security standards forward, the monitoring and management of a nuclear power plant itself comes in as a key issue too, especially when unforeseen circumstances turn up. Francesco Spano, researcher at the European Organization for Nuclear Research (CERN), explains: "When accidents arise, the problem often is the time line between the moment that irregularity happens and the assessment of how much time the nuclear technicians have to resolve it. The impression the world gets is that plant managers tend to try to deal with the problem on their own and without letting the outside know their fears", he

says.

When it came to relinquishing control of critical assets in cases of emergency, the then privately owned Fukushima owner, TEPCO, did not pass the issue over to government of international watchdogs in time. The newly licensed power plant had already experienced technical problems in the past, but they have always been able to act upon this. At 2:45 pm on March 11, 2011 the Fukushima area was hit by a heavy earthquake (9 on the Richter scale) damaging the electrical system seriously. Reactors automatically shut down. This was followed by a tsunami at 3:57 pm, hitting the reactors' back-up power system. Some 3 hours later, meltdown in reactor 1 was a fact, followed by reactor 3, 40 hours later and reactor 2 a further 77 hours later.

What followed was a total misjudgment of the situation, largely due to the communication of false information and critical time lost during the first hours, days and months after the accident, to act decisively. For Fukushima, the thin balance between transparency, international watchdog monitoring and immediate acceptance of responsibility did not work out. Unfortunately...

A century ago Winston Churchill recognized that "Safety and certainty lie in variety and variety alone." Could nuclear be the solution for the so called base load generation, continuously producing power we so desperately need? The answer is probably yes. Nuclear plants are -technically spoken made for that. Nuclear power holds the promise of a brighter future; we just need to deal with it in an ethical and responsible way.

*Spring is Here to Stay!*