Nodak Neighbor

September-October 2008
Official Publication of Nodak Electric Cooperative
www.nodakelectric.com

Your Touchstone Energy® Partner

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On the cover: The days become shorter, but more colorful, as fall arrives. *Photo by Minnkota Power Cooperative, Inc.*

E-BILLING

Have you checked it out?

Learn about our e-bill option by visiting our Web site at **www.nodakelectric.com**, or call 701-746-4461 (toll-free 1-800-732-4373) and ask how to get signed up for our e-bill service.

Help Keep Your Power Costs Down

Please use extreme caution when burning around our electrical equipment, and always tend to a fire once it is lit. Let's all do our part to keep the lights on and costs down.

CFLs *and* Mercury

Facts about Compact Fluorescent Lamps (CFLs) and mercury

CFLs use two-thirds less energy than standard incandescent light bulbs and last up to 10 times longer. Replacing a 60-watt incandescent with a 13-watt CFL can save you about $30 in energy costs over the life of the bulb.

Recent concerns have risen about mercury in CFLs. Following are some facts you need to know.

- It is true that CFLs do contain a very small amount of mercury sealed within the glass tubing – an average of 5 milligrams (roughly equivalent to the tip of a ball-point pen). Mercury is an essential, irreplaceable element in CFLs and is what allows the bulb to be an efficient light source.
- CFLs are safe to use in your home. No mercury is released when the bulbs are in use and they pose no danger to you or your family when used properly. Because there is such a small amount of mercury in CFLs, your greatest risk if a bulb breaks is getting cut from glass shards.
- CFLs should be disposed of properly, like batteries or thermostats. Visit **www.epa.gov/bulbrecycling** to find out more information on disposal options.

Research indicates there is no immediate health risk to you or your family should a bulb break and it is cleaned up properly. You can minimize any risks by following these proper disposal guidelines:

- Sweep up – don't vacuum – all of the glass fragments and fine particles.
- Place broken pieces in a sealed plastic bag and wipe the area with a damp paper towel, putting the used towel in the plastic bag as well.
- If weather permits, open windows to allow the room to ventilate.

Sources: ENERGY STAR
Colorado Department of Public Health and Environment

Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194
www.pca.state.mn.us/waste/hhw/hhw-localprograms.html

George Berg
President & CEO

Perspective

Billing cycle to be adjusted due to AMR conversion

One of the biggest, if not the biggest, projects we have had over the last 30 years has been our conversion to an automated meter reading system. The capital investment in this system is more than $5 million, and the conversion has required an immense commitment of employees throughout our organization. In the world of electric utilities, we are quite small, and this type of project places a strain on the workload of our line workers, technicians, engineers and billing people.

We are pleased that after a little more than one year, we are "seeing the light at the end of the tunnel" with this project. Nearly all of our meters have been replaced with new meters, and more than two-thirds of these meters are now being read with the new automated system. We expect to have the ability to read all of our meters over our power lines by year-end.

One of the last steps in the project, which is most confusing to everyone, relates to an adjustment in the billing dates. With the old meter reading system, there was a long delay between the period of time when power was used and when a bill was sent out. Meter reading was a time-consuming process, and we needed to get all of the readings before we could process the bills for a specific month. Two to three weeks elapsed from the time the power was used until the bill was sent out.

The new automated meter reading system will allow Nodak to literally read all of your meters in just minutes. With this system, very little time elapses from the time you use power until we send out the next bill. You can probably see what develops during the conversion. The first bill after your meter is converted to the new system comes relatively soon after your previous bill. This doesn't mean you are receiving a double billing, it only means there is a one-time shift in the timing of these bills. From then on, your monthly bill will be much closer to the actual period of time the power is consumed.

> **"The new automated meter reading system will allow Nodak to literally read all of your meters in just minutes. With this system, very little time elapses from the time you use power until we send out the next bill."**

We understand a cash management concern can arise when two monthly billings come closer together than normal. For this reason, we are more than willing to work with anyone who needs extra time to pay the bill they receive just after the conversion to the new system. Because of the confusion with the change, we are sending a letter to everyone just before the new bill comes to alert them to the situation.

Another problem, which can arise when two monthly bills come within a couple of weeks, is that the payment of the first bill may be in the mail when the next bill is sent out. When that situation arises, the second bill will show a previous balance, which in essence, has been paid. We are asking everyone to make sure they don't pay the previous balance if it was recently mailed.

Fortunately, this transition to a new meter reading system is a one-time thing. The new state-of-the-art system will be much better and will save the cooperative money in the long run. For those of you who have been reading your own meter, it will save you the burden of doing that in the future. For Nodak, the new system will create huge efficiency benefits, as well as provide us with more accurate and more current billing data.

We appreciate any cooperation we can get making this necessary, but complicated, transition.

Small-scale Wind

By Brenda Kleinjan
South Dakota Rural Electric Association

Electric cooperatives in the region have been making significant investments in utility-scale wind projects in recent years. In fact, of the more than 45 megawatts (MW) of installed wind projects listed with the South Dakota Public Utilities Commission, cooperatives either own or purchase the output of nearly 44.8 MW – more than 99 percent – of that capacity.

These large-scale turbines stand tall enough and large enough to more effectively harness the wind than their smaller counterparts. And, even then, they generate electricity only about one-third of the time. Hobby wind farms – those using wind devices smaller than 25 kilowatts, typically generate less than 1,500 kilowatt-hours per month and cost $15,000 to install. (One 100-watt light bulb burning for 10 hours will use one kilowatt.)

While that energy use is comparable to what the average electric co-op consumer uses in a month, there's a good chance that usage isn't always at the time the wind is blowing. Homeowners looking at the small wind applications need to consider many things before embarking on a small-scale wind project. A number of factors influence how well a small wind electric system will work for homeowners.

First is the availability and reliability of wind; second is tower height restrictions; third is space – generally at least an acre is needed for the turbine; fourth is the amount of electricity needed; and finally, economics. Small wind systems work well in remote areas where building lines in to pump water may not be cost-effective. However, for most homeowners, the system is not a cure-all. In fact, even the main federal promoters of small-scale wind note that one of the factors in determining whether a small wind system makes financial sense is to consider the amount of money currently being spent for electricity.

According to U.S. Department of Energy's Energy Efficiency and Renewable Energy (EERE) figures, the systems make the most sense when energy costs are 15-cents per kilowatt-hour and more. According to the DOE's Energy Information Administration data, the average South Dakota electric rate is well below those levels.

Steve Wegman, a former analyst for the South Dakota Public Utilities Commission, noted that first-time costs associated with the machines are an important consideration. According to the American Wind Energy Association, small turbines cost between $3,000 to $50,000 installed, with a typical home system costing $32,000. Wegman said suppliers have told him that they have sold 18 small wind machines in western South Dakota and eastern Wyoming. One major drawback in Wegman's eyes is the durability of the small wind turbines in the often harsh winters of the Dakotas and Minnesota.

"I have yet to see a small wind machine make it through two winters in the Dakotas," said Wegman, noting that often the materials used to make the machines are not industrial-type materials. Wegman also noted that the small machines have a "notorious rate of failure. They come crashing down."

Because of the machines' designs, they are high revolutions per minute (rpm) machines, making 110 to 130 million rpm annually. South Dakota's cold temps also take their toll.

"They literally tear themselves apart," Wegman said. He compares the needed maintenance with a car driven 100,000 miles – there is a lot of needed maintenance to keep the car functioning properly for that many miles.

"These machines do need maintenance," Wegman said. "Oftentimes, people think the machine is going to work forever without any maintenance.

"A lot of people believe that wind machines are a plug and play technology like a TV where you go home and plug it in," Wegman said. Utilizing the technology is much more involved.

Another factor is that the quality of the electricity – dips, surges and cycle synchronation – causes voltage and frequency problems that can be disastrous for sensitive electronics. Nationwide, small wind machines account for less than 15 MW of production annually, Wegman said, a small fraction of the nation's overall electric needs. In contrast, the Hyde County Wind Farm operated by FPL Energy is rated at 40 MW. Electric cooperatives purchase the entire output of the farm.

Homeowners looking to small wind may want to consider efficiency improvements instead.

EERE publications say the first thing any homeowner should do is to reduce energy consumption by making their home more energy efficient.

"Because energy efficiency is usually less expensive than energy production, making your house more energy efficient first will probably be more cost-effective," the EERE says in a booklet about small wind systems.

According to the EERE, homeowners can reduce heating and cooling needs by 30 percent by investing a few hundred dollars in proper insulation and weatherization. Additional savings can be realized by properly maintaining and upgrading heating, ventilation and air-conditioning systems. Other ways to cut home energy costs are to install energy efficient windows, replace lights in high-use areas with compact fluorescent lights and replace aging appliances with ENERGY STAR® appliances.

Levelized Payment Plan

Would you like an easy way to budget your monthly electric bill?

Nodak offers a levelized payment plan that allows you to spread your payments out over the course of a year. Your monthly consumption is continually averaged over a 12-month period to avoid uneven payments. Your monthly levelized payment amount will be the same or within a few dollars each month.

So why switch?

- **No more wondering or guessing what your electric bill will be ... no surprises.**
- **It's easier to plan monthly expenses when you know your average payment amount.**
- **If you will be out of town when your electric bill is due, you'll know the amount to pay in advance.**
- **No large fluctuations between winter and summer electric bills.**
- **No big "catch-up month" each year.**

Your power account must be current to participate and you must be receiving service for a period of at least one year.

If you are interested in using the Levelized Payment Plan option, call 701-746-4461 or 1-800-732-4373. You may also contact us through e-mail at nodak@nodakelectric.com.

Simplify your life.

Pay your electric bill automatically with AutoPay

Tired of writing checks and remembering when your monthly bills are due? Make life a little simpler and pay your electric bill without writing a check.

We are pleased to offer you the Automatic Payment Plan. You can have your payment made automatically from your checking account or savings account. And, you won't have to change your present banking relationship to take advantage of this service.

AutoPay will help you in several ways:

- It saves time – fewer checks to write
- Helps meet your commitment in a convenient and timely manner – even if you're on vacation or out of town
- It saves postage
- It's easy to sign up, easy to cancel
- Perfect complement to Nodak e-billing

Here's how the Automatic Payment Plan works:

You authorize regularly scheduled payments to be made from your checking or savings account. Then, just sit back and relax. Your payments will be made automatically on the specified day, and proof of payment will appear with your statement.

The authority you give to charge your account will remain in effect until you notify us in writing to terminate the authorization. We will withdraw your payment from your account approximately 10 days after you receive your monthly billing statement. Please allow up to 60 days for automatic withdrawal to begin.

The Automatic Payment Plan is dependable, flexible, convenient and easy.

If you are interested in using the AutoPay Plan, call 701-746-4461 or 1-800-732-4373 and ask how to get started on this service. You may also contact us through e-mail at nodak@nodakelectric.com.

Harvest safety

Fall is here and harvest may be almost complete for some farm operations. Here are some safety reminders and tips to reduce operation downtime this fall.

- Overhead power lines are a significant risk of electrocution on the farm. Always keep in mind that most overhead power lines have no protective insulation.
- High-voltage lines can sag several feet when they are warm. Allow extra space near high-voltage lines; remember high-voltage lines can "arc" to conductive materials near the line without actually touching.
- Be aware of power lines whenever you're moving equipment like augers, conveyors, sprayers, bale elevators, hoppers and scaffolds. Maintain at least a 10-foot clearance.

- Keep smaller equipment like ladders, poles or rods at least 10 feet away from overhead power lines.
- If you're planning a new building, contact Nodak Electric or a licensed electrician for help placing electrical service lines.

- Take care when climbing, trimming or cutting trees, especially after a storm. Broken or damaged power lines can send electricity through tree limbs and fences, so use extreme caution with chain saws, axes and pruning poles.
- Be sure your children do not fly kites or balloons with long strings in the vicinity of power lines.

Grain bin regulations

The National Electrical Safety Code requires that power lines be at least 18 feet above the highest point on any grain bin with which portable augers and other portable filling equipment is used. The clearance must be maintained a specified distance around the bin.

Maintenance

Good maintenance can keep your electrical system and equipment operating safely for years to come – but neglecting it can quickly lead to accidents, fires or costly downtime.

- Keep all electrical equipment and service areas clean. Clear away dust, cobwebs and nests made by birds or mice, also make sure moisture isn't accumulating in your equipment.
- Make sure all wiring and cords are protected from human and animal contact or damage from equipment.
- Check to see if circuit breakers in the service panel are the correct size for their circuits.
- Check outlets and switches for loose connections or broken or missing cover plates.
- When replacing light bulbs, make sure the wattage doesn't exceed the fixture's rating.
- Keep high-intensity light fixtures away from combustible materials.
- Be sure to turn off and unplug equipment before cleaning or repairing. Turn off the power at the service panel when checking outlets, switches and light fixtures.

Just A Little Bit Of Change

Can Make A Whole Lotta Difference.

Believe it or not, when you switch to compact fluorescent light bulbs, you're changing a whole lot more than just a bulb. You're changing the way you use electricity. Or rather, the way you'll use less of it. Switching to compact fluorescent bulbs can reduce your lighting costs by up to 70%. And that's just the start. By ensuring your home is well insulated, properly sealed, and using energy efficient appliances, a lot of little changes can really add up. ***To learn more about saving energy, visit touchstoneenergysavers.com.***

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