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WISCONSIN ENERGY *Cooperative* November 2020 NEWS

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RATES OF THE PAST AND RATES OF THE FUTURE

Cost-of-service study to explore most equitable way to determine rates



By Kenneth Ceaglske,
 President/CEO

Over the years, as production and delivery costs have increased, all utilities have slowly increased rates, some on the fixed charge, some on the energy charge. For many utilities, a \$.001 increase in the per kilowatt-hour (kwh) was an easier sell than a \$1 change to the fixed charge, even though it worked out to the same amount for the “average” 1,000 kwh user.

For the longest time this progression was maintained by many utilities. This caused the “fixed” monthly charge to lag behind what are truly “fixed” costs. The “variable” energy costs would carry many of the costs that don’t change based on energy use.

Fixed costs include buildings, trucks, poles, wire, transformers, employees, financing costs, and other things that do not vary much with changes in usage. Variable costs, as the name implies, vary with usage of the electricity. For most utilities, that is energy and losses, with a few smaller categories. Taylor Electric, like many utilities, sees a monthly bill very similar to what you see at your home or business—higher in the summer or winter when heat or AC is in use, lower in the spring and fall. We also see something called losses. Losses are the energy used to deliver all of that energy around the system. This amounts to about 5% of our energy bill. Put simply, we buy enough energy in a month to cover all the members’ needs, plus about 5% to get it there.

TEC staff and the board are currently going through a cost-of-service study to look at what our costs are and what they should be. To divide the costs up simply, the service types are put into groups like residential, small business, large business, possibly different divisions of farms, etc. Then the attempt is made to figure out a way to divide the costs in a reasonable manner. Much is based on averages, so the house that is right next to a substation and uses very little wire pays the same amount as the last house on the line that uses miles of wire. It’s sort of like how the postal system has one price for letters, no matter where they go. When the process is done, we get actual or target rate structures. From there it is up to the board to determine what to do with the rates.

As I mentioned earlier, there has been a drift towards

lower fixed charges with higher energy in the past. Many utilities are trying to make the shift in the other direction to get the fixed charges back in line with fixed costs, since usage varies widely between services and is influenced by local onsite generation. The challenge can be how fast to make those changes. There is a balance, as an increase in fixed charges will create a decrease in energy charges, but that is also influenced by actual usage. In the case of rising fixed charge and decreasing energy, a large user’s bill will go down and a small user will see an increase. In the end there is some compromise, with a target rate that may take years to achieve in order to lessen the shock to you, the rate-paying member.

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As metering technology has improved, we can look more closely at member usage trends. “Demand” has been a part of our bulk energy and larger power users bill for quite some time but is a relatively new addition to the residential bills. Demand is the maximum amount of energy needed in a brief period of time (typically 15 or 30 minutes). The importance of this is that demand is how much energy our system needs to be able to supply at that maximum. That has a cost component with our Dairyland Power Cooperative (DPC) bill, as it defines how much generation DPC needs, as well as wire and transformer sizes on the distribution system.

Earlier this year we began showing the demand amount on the bills so that members could get used to the numbers. Some utilities have been looking at this as a way to split the current energy (kwh) charge into its actual components that appear on the bulk energy bill. Used that way, it would offset some of the energy charge proportionately into the demand charge. This change may make some bills go up, but will also drive some down. Similar to time-of-day rates or off-peak systems, it allows some savings to members who can flatten their usage across the day vs. all at once. It is a consideration for the board as we proceed through the rate study process.

As we look to future articles for the newsletter, my favorite articles to write are from you. If you have a question on a topic or trend concerning the co-op, I would bet someone else does, too. I would love to hear from you.



FIVE ELECTRICAL SAFETY FEATURES TO BE THANKFUL FOR

Most days, we go about our lives without thinking too much about the many electronic gadgets and electrical safety features that allow us to perform simple tasks at work and home without a second thought. This Thanksgiving, let's take a moment to be thankful for some of the devices that help make our daily tasks safer and more convenient.

For your safety: built-in devices

- 1. GFCIs:** Ground fault circuit interrupters are inexpensive electrical devices that can either be installed in your electrical system or built into a power cord to protect you from severe electrical shocks. GFCIs are generally installed where electrical circuits may accidentally come into contact with water, such as kitchens, bath, and laundry rooms, outdoors or in the garage. Be sure to test GFCIs monthly to make sure they are working properly.
- 2. AFCIs:** Arc fault circuit interrupters could potentially prevent more than 50% of electrical fires that occur every year, according to the Consumer Product Safety Commission. These safety devices are typically found within your electrical panel or receptacles in the wall. An arc fault is a dangerous electrical problem caused by damaged, overheated, or stressed electrical wiring or devices.
- 3. Circuit breakers:** Usually found in a garage, basement, or laundry room, circuit breaker boxes are an essential safety feature in your home, preventing electrical injuries and fires. Each box is filled with individual circuit breakers designed to "trip," or shut itself off when necessary to stop the flow of electricity. Circuits trip for several reasons, including overloaded circuits (too much draw on one circuit), ground faults (abnormal flow in a circuit), and short circuits (when current travels along an unintended path).

Use them safely: convenience items

- 1. Device chargers:** Whether for work or personal use, most of us can't go a day without accessing our favorite cell phone, tablet, laptop, or other portable essentials. While we rely on our chargers to keep these items running, be sure to treat charging compo-

nents with care and use them correctly. Here are some safety tips:

- ⚡ Personal electronic devices should NOT be placed under pillows or used on or underneath bedding.
 - ⚡ Do not leave cords plugged in when not charging because little ones or pets who put them in their mouths can get burned or shocked.
 - ⚡ Do not leave them around when not in use because toddlers might try to insert the wrong end into an electrical outlet and get shocked or burned (childproof your outlets as well if they are not the tamper-resistant versions).
 - ⚡ Don't use charging devices near water or in damp conditions.
 - ⚡ Replace original charging components with the same brand and type whenever possible. Using off-brand or generic versions can be dangerous if they are faulty.
- 2. Extension cords and multi-outlet power strips:** Extension cords and multi-outlet power strips or devices, while incredibly handy, should always be inspected for damage prior to use. Use them as a temporary fix, not a long-term solution, and use them safely:
 - ⚡ Plug them directly into an outlet, and not into another extension cord or power strip.
 - ⚡ If you are using a strip or extension cord outside, make sure it is rated for outdoor use.
 - ⚡ Never use an item that feels hot or is damaged in any way.
 - ⚡ Make sure these convenience items (cords and strips) are approved by a reputable independent testing laboratory like UL.
 - ⚡ When using an extension cord, make sure the wattage rating of the cord and the appliance match.

These are just a few items to be thankful for this year! For more information about safety around electricity, go to SafeElectricity.org.

HOW DO THESE ELECTRICAL SAFETY DEVICES KEEP US SAFE?

These three items required by the National Electrical Code help keep you and your family safe:

- **GFCIs**, or ground fault circuit interrupters, constantly monitor current flowing through a circuit. If the current flowing into the circuit differs by a very small amount (even in currents as small as 4 or 5 milliamps) from the returning current, the GFCI interrupts power to prevent shock or injury. However, GFCIs only do their job when they are in good working order; test them each month to be sure.
- **AFCIs**, or arc fault circuit interrupters, monitor the current flow and when they sense an unwanted arcing condition, the circuitry trips the internal contacts and interrupts the circuit before a fire can occur. Arc faults can occur when older wires become frayed or cracked, when a nail or screw damages a wire behind a wall, or when outlets or circuits are compromised.
- **Circuit breakers** trip (shut off) a circuit at predetermined amperage loads on a specific electrical line or circuit. If this limit is reached, the act of the breaker tripping opens the circuit and prevents the flow of current to that particular electrical line or circuit.

For more information about safety around electricity, go to SafeElectricity.org.

Be a Smart Cookie

Holiday Baking Tips

If you're planning to cook feasts or create treats this holiday season, follow these basic safety tips:

Test Smoke Detectors

Make sure they're working properly



Watch Your Sleeves

This is not a good time for loose sleeves

Put a Lid on it

Have lids handy in case of a grease fire



Old Things Don't Become New

Don't use appliances in disrepair

How the Cookie Crumbles

Consider having a fire extinguisher on hand



Where There's Heat There Could Be Fire

Keep flammables such as pot holders away from the stove

Not Child's Play

Keep children and pets away from cooking areas



Keeping Time

Use a timer when the oven or stove is on

Stay With it

Don't leave the room if you are broiling, frying or simmering food



Pay Attention

Take a nap **after** the feast



FOUR WAYS TO SAVE ENERGY IN THE KITCHEN

Ah, the kitchen. It's undeniably one of the most-loved rooms in our homes, especially as the holidays draw closer. It's where we gather with family and friends for our favorite meals and memories. But like most of us, you probably aren't thinking about saving energy when you're planning that perfect dish. Here are four ways you can save energy in the kitchen with minimal effort.

When possible, cook with smaller appliances. Using smaller kitchen appliances, like slow cookers, toaster ovens, and convection ovens, is more energy efficient than using your large stove or oven. According to the Department of Energy, a toaster or convection oven uses one-third to one-half as much energy as a full-sized oven.

Unplug appliances that draw phantom energy load. Halloween may be over, but it's possible you have energy vampires in your kitchen—these are the appliances that draw energy even when they're not in use, like coffee makers, microwaves, and toaster ovens. The Department of Energy has estimated that one home's energy vampires left plugged in year-round can add up to \$100–\$200 in wasted energy costs. Unplug them when they're not in use, or better yet, use a power strip for convenient control.

Help large appliances work less. There are small ways you can help your larger kitchen appliances run more efficiently. For example, keep range-top burners clean from spills and fallen foods so they'll reflect heat better. When it's time to put leftovers in the refrigerator, make sure the food is covered and allow it to cool down first. That way, the fridge doesn't have to work harder to cool warm food.

Use your dishwasher efficiently. Only run full loads, and avoid using the "rinse hold" function on your machine for just a few dirty dishes; it uses 3–7 gallons of hot water each use. You can also save energy by letting your dishes air dry. If your dishwasher doesn't have an automatic air-dry switch, simply turn it off after the final rinse and prop the door open so the dishes will dry faster.

Bonus tip: The best way to save energy is to not use it. Try a tasty, no-bake dessert recipe. Your sweet tooth (and energy bill!) will thank you.

By slightly adjusting a few of your habits in the kitchen, you'll be well on your way to energy savings. Contact us to learn about additional ways you can save energy and money at home.



Christmas WISH PROGRAM

You can make someone's Christmas a little brighter by participating in the 24th annual Christmas Wish program.

**For more than 23 years,
Taylor Electric has sponsored this program,
*making wishes come true***

for those whose spirits could use a little lift during the holidays. It's just one of the ways we practice the Seventh Cooperative Principle, **Concern for Community.**

Watch next month's issue of the *Wisconsin Energy Cooperative News* for more details about this year's program. For more information, contact WIGM/WKEB radio at 715-748-2566.

Energy Efficiency Tip of the Month

Keep cold air out to save energy. Seal air leaks around pipes and any gaps around chimneys and unfinished spaces behind cupboards and closets.

—Source: www.energy.gov



Taylor Electric's office will be closed November 26 and 27 for Thanksgiving. Have a safe and happy holiday!



Kenneth Ceaglske, President/CEO

N1831 State Highway 13, Medford, WI 54451
715-678-2411 • 800-862-2407
email: taylrec@tayloelectric.org
website: www.tayloelectric.org

Lainie Kellnhofer, Editor

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