

Small Changes Add Up to Big Savings



Steve Epperson
President/CEO

Our office will be closed in observance of Good Friday on Friday, April 2.



Sometimes the little things in life mean a lot. Simple steps such as turning off lights when you leave a room, unplugging appliances when you're not using them, and raising the temperature on your thermostat a bit as our weather warms up, when done together, can help your family rack up big energy savings.

At McDonough Power, we're always looking for ways to help you, our members. With energy costs rising due to a growing demand for electricity, higher power plant costs, and federal regulations, energy efficiency remains a key part of our efforts to keep rates affordable. Best of all, energy efficiency — simply making the electricity you use *do* more — saves you money.

Because we're part of the Touchstone Energy® Cooperatives network, you have access to a valuable resource that not only identifies simple energy-saving tasks but also illustrates the real-dollar savings they produce, specific to your home. TogetherWeSave.com uses real savings calculations — based on our co-op's rates and climate zone—to motivate and inspire small changes in behavior.

Intrigued? Check it out at www.TogetherWeSave.com. You'll be asked for your ZIP code; this helps us provide accurate electricity rates for your home.

The Virtual Home Tour provides a good starting point. As you move through each of the six rooms, clicking on areas highlighted in yellow prompts you to take various interactive energy-saving measures and shows how these changes translate into savings on your electric bill.

A visit to the attic, for example, recommends adding insulation. Slide the arrow up the scale to add extra inches of insulation and watch the exciting end result. Adding nine inches saves up to



\$143 a year. Add 15 inches, and that figure jumps to \$241.

Now head downstairs to the living room. Most folks enjoy watching television and playing Wii or Xbox games, but you don't need these gadgets on 24 hours a day. By unplugging entertainment center devices when they're not in use, you could save up to \$174 every year. Seems simple enough — and every small step adds up to big savings. In fact, just lowering your thermostat one degree in winter could save \$82.

The Website uses calculations targeted for our co-op's regular residential kWh electric rate and geographic location. In short, it gives you an accurate reflection of what your potential savings could be if you implement suggested steps. (7117C3-860B)

Want more in-depth information on energy efficiency? TogetherWeSave.com also includes a library of short videos on various topics.

Finding ways to help you save energy dollars during tough times is important to us. Valuable tools like TogetherWeSave.com are just one more way we at McDonough Power are looking out for you. Want to learn about other ways to make your home more energy efficient or schedule a home energy audit? Visit www.mcdonoughpower.com or call us at (309) 833-2101.



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How much is too much?

Learn how to estimate your home appliances' energy use to see if it's time for an upgrade

You've had your fridge forever. With the exception of some crumbling parts of the seal, it's in pretty good shape and keeps your food cool. Why worry about budgeting for an upgrade?

Some homeowners forget the impact inefficient appliances have on a home's monthly power bill. Replacing a refrigerator made before 1993 with a new, Energy Star-rated model could knock between \$65-\$100 off your electricity bill each year. To sweeten the deal, rebates funded by the federal stimulus bill provide further incentives for folks replacing old appliances with new, energy-efficient alternatives.

This leaves consumers with a question when evaluating older appliances: how much energy use is too much? To estimate the energy use of an appliance, use this formula:

$$\text{Wattage} \times \text{Hours used per day} \times$$
$$\text{Days used per year} \div 1,000 = \text{Kilowatt-hour (kWh) used annually}$$

For example:

Standard, large-screen television
(214 Watts)
 $214 \text{ Watts} \times 4 \text{ hours per day} \times 365$
 $\text{days per year} \div 1000 = 312 \text{ kWh}$

Then calculate the annual cost to use an appliance by multiplying the kWh per year by \$0.111 (regular residential rate) per kWh used.

$312 \text{ kWh} \times \$0.111 = \34.63 per year

In contrast, an Energy Star-rated standard, large-screen TV (151.5 Watts) costs \$24.63 [this uses the 0.111 rate] to power annually.

You can usually find the wattage of most appliances stamped on the bottom or back of the appliance or on its nameplate. The wattage listed is the maximum power drawn by the appliance. Since some appliances have a range of settings (i.e. hairdryers), the actual amount of power consumed depends on the setting used at any one time.

Here are examples of the range of wattages for common household appliances:

- Clothes washer: 350–500 Watts
- Clothes dryer: 1800–5000 Watts
- Dishwasher: 1200–2400 Watts (heat drying feature increases energy use)
- Hair dryer: 1200–1875 Watts
- Microwave oven: 750–1100 Watts
- Refrigerator (frost-free, 16 cubic feet): 725 Watts

Once you calculate how much money you spend to run aging home appliances, compare this to what it would cost to use more efficient models. With federal incentives bringing down the price of an Energy Star-rated refrigerator or clothes washer, the annual energy savings could be worth an up-front investment. There are other benefits too. For example, not only have clothes washers have become 64 percent more energy efficient since 2000 — the tub size increased by 9 percent. With a new model you can wash more clothes for less money every month! **(5213A9-958B)**

Don't want the hassle of adding up the potential savings? Touchstone Energy® Cooperatives' website, www.TogetherWeSave.com, demonstrates how small changes like replacing an appliance or unplugging electronics lead to big energy savings. On the website under 'Add Up Your Savings,' you can walk through a typical home's kitchen, living room, and other common areas. Upgrade appliances and make other energy-smart choices in each room. Each time you make a change, you're shown how much money you could save on your annual electric bill!

Ready for an upgrade? Remember, incentives are available to help you make an energy-efficient switch. For Illinois-specific details on how you can take advantage of the federal 'Cash for Appliances' program, with rebates ranging from \$50 to \$250, visit www.energysavers.gov/rebates. Details on other state and local utility rebates are available at www.dsireusa.org.

Source: U.S. Department of Energy, Energy Efficiency and Renewable Energy; U.S. Energy Information Administration, Association of Home Appliance Manufacturers, Natural Resources Defense Council, U.S. Energy Information Administration

Be careful when tackling home wiring projects

If spring sends you into remodeling mode, consider checking with professionals before you migrate to the nearest hardware store. While do-it-yourself (DIY) projects can be very satisfying to complete, they pose risks when it comes to electricity. (525HH45-951B)

"Mistakes can be costly — or even deadly," warns John Drengenberg, consumer affairs manager for Underwriters Laboratories, Inc., (UL), a Chicago, Ill.-based not-for-profit firm that tests and sets minimum standards for electric-consuming items. "The first and best safety tip is to call in an expert rather than be your own electrician."

An ongoing study by the Quincy, Mass.-based Fire Protection Research Foundation has given UL engineers a better understanding of typical DIY wiring mistakes. The most common:

Working with a live wire

It may seem perfectly obvious, but thousands of DIYers receive electric shock injuries each year. To avoid becoming a statistic, always turn off the circuit breaker (or remove the fuse) before working on or replacing electrical equipment. If you have a pre-1940's home, be mindful that you probably have more than one breaker box, or panel board, as electricians call them.

Using the wrong lightbulb

Most lighting fixtures feature a sticker on the socket that tells you the proper type and maximum wattage of the lightbulb to use. Installing a different type of bulb, or one with higher wattage, will not only make the room brighter, but could also damage the lights and

cause a fire. Heat is usually the catalyst in this case: the higher the wattage, the hotter the bulb and the hotter the wire that goes to the lighting fixture.

Not being grounded

For optimal safety, receptacles should be wired with the proper grounding and polarity. Generally, three-pronged outlets signify an effective ground path in the circuit. However, homes built before the mid-1960s probably don't have a grounding path, and simply replacing the existing outlet with a three-pronged outlet won't give you one.

"You see instances of this in homes with older wiring," Drengenberg says. "It's no worse than if you plug your two-pronged device into a two-pronged outlet. But it does give the homeowner a false sense of security."

Wiring with a grounding path usually sports a copper grounding wire with the cable. If you are uncertain about whether your home's wiring is grounded, inexpensive UL-listed outlet circuit testers are available to check for proper grounding and polarity. If your outlet is improperly grounded, call an electrician before moving forward in any project.

Splicing, splicing, splicing

Always make sure your wiring size and type match. Splicing wires by simply twisting them together and covering them with electrical tape is rarely a good idea. Instead, use wiring suitable to your home's wiring and place wiring connections in metal or plastic boxes to decrease fire risk.

Also keep in mind that circuits protected by 15-amp fuses or break-



ers should be wired with No. 14 AWG copper wire minimum. For 20 amps, use No. 12 AWG minimum size copper wire. Other guidelines apply, so if you expect to do any splicing, seek professional help before you begin.

Hooking new lights to old wires

Most light fixtures are marked with instructions for supply connections, such as "Use wire rated for at least 90C," which refers to the maximum temperature — 90 degrees Celsius or about 200 degrees Fahrenheit — under which a wire's insulation can safely be used. Again, if you have an older home (pre-1984, in this case), wiring may have a lower temperature rating than a new luminaire.

"This isn't something most DIYers even think to consider," Drengenberg cautions. "It probably won't burst into flame immediately, but it does increase the risk of a fire."

To avoid that risk, check your wire rating first, and either upgrade it or buy fixtures within the supply connection range.

Article courtesy of Underwriters Laboratories, Inc.



Tip of the Month

A significant amount of the average home energy bill pays for heating water. Take 5-minute showers instead of baths and make sure your water heater is set no higher than 120° F.



Source: U.S. Department of Energy

Kill A Watt™ Electricity Usage Monitors Available for Check-Out

Would you like to learn which appliances are costing you the most? Now you can cut down on costs and find out what appliances are actually worth keeping plugged in. Simply connect these appliances to the Kill A Watt™, and it will assess how efficient they really are. Now you'll know if it is time for a new refrigerator, if that old

air conditioner is still saving you money or how much of a phantom load that cell phone charger creates when it's not in use. With the Kill A Watt™ you'll know "Watts" killing you.

The monitors will be available to McDonough Power members for check-out. Please call or stop by the office for details. (6320D1-203C)



Did you know?

As your cooperative it is our responsibility to do our part in seeking and participating in solutions to reduce green house gas emissions. McDonough Power believes that it is important to remind members of what we're doing on your behalf.

- The cooperative is subsidizing one-quarter the price of a residential energy audit. The remainder is spread over 3-months on the member's bill in an effort to make this service affordable and provide our members information regarding energy efficiency and conservation.

- The cooperative's website is equipped with energy efficiency and conservation links as well as instructions on how to perform your own energy audit. www.mcdonoughpower.com

- The cooperative has Net Metering and Interconnection policies in place for those interested in installing their own renewable energy system.

- Since November 2008 McDonough Power has contributed a portion of all electric bills to the state's renewable energy program which funds potential renewable energy projects.

- McDonough Power is capable of producing reports displaying hour-by-hour and day-by-day usage on most meters. This is helpful in determining when energy spikes are taking place and what the possible culprits might be.

- We are equipped with Kill A Watt™ monitors that members can check-out to determine the consumption of appliances. (see information above regarding the monitors)

MAP LOCATION GAME

Every month we will have four map location numbers hidden throughout The Wire. If you find your map location number, call our office and identify your number and the page that it is on. If correct, you will win a \$10 credit on your next electric bill.