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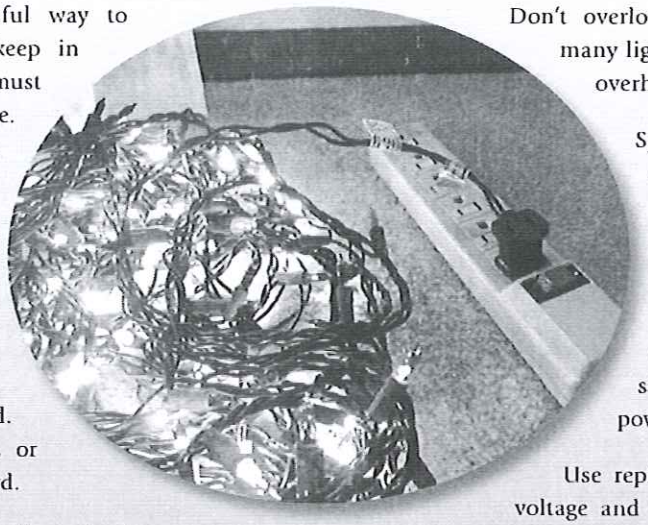
PUBLIC POWER CONNECTIONS

FOLLOW THESE TIPS FOR SAFE, EFFICIENT HOLIDAY

Efficiency and safety tips: Don't let holiday cheer get in the way of safety this year

Twinkling lights are a beautiful way to celebrate the holidays, but keep in mind they are electric devices that must be used with proper planning and care. Following these tips will help make sure you and your family have a safe holiday season.



Before You Decorate

Before you plug in the lights you stored after last year's holiday season, carefully inspect and discard any light strings that are damaged. A frayed or cracked electrical cord, or broken or empty socket, is a fire hazard.

If you need new lights, purchase only those that have been tested for safety by a nationally recognized testing laboratory, such as UL or ETL.

Consider energy-efficient LED lights for replacements. They may cost more to buy than incandescent holiday lights, but you will earn back that investment and more. LED lighting consumes about one-tenth the energy of conventional incandescent lights and lasts several years longer.

Be sure the lighting sets and extension cords you're planning to use for outdoors are rated for exterior use and certified for safety. That will be noted on the cords and the packaging.

Because you should never plug more than two extension cords together, buy cords in the lengths you need and make sure they can handle the lighting wattage.

As You Decorate

If you have a metallic Christmas tree, do not attach electric lighting to it. Defective lights can cause the tree to become an electrically charged hazard.

Check the general limit on the manufacturer's instructions for connecting multiple strings of lights. More strands can be connected by using stacking light strings instead of end-to-end.

Don't overload an outlet circuit by plugging too many lights into an extension cord. If the wiring overheats, it can cause a fire.

Spread the load over several circuits or consider using less lighting.

To avoid creating a tripping hazard, place extension cords against a wall, but do not run them under rugs.

Connect only light strands that are the same wattage. Mixing wattages can cause power surges and shorten the life of the bulbs.

Use replacement bulbs that are of the correct voltage and type for a specific light strand. Never remove a burned-out bulb and leave an open socket.

When hanging lights outside, remember to use only UL-approved hangers such as plastic gutter clips. Nails or staples can create a fire hazard if they cut through the wire insulation. Always take caution when using ladders or accessing roofs to hang lights. Be mindful of overhead power lines.

Use properly rated timers to turn your indoor and outdoor lighting on and off for you. Timers will help you save energy and money, plus ensure that your lighting is turned off at bedtime for your family's safety.

Plug outdoor lighting into circuits protected by a ground-fault circuit interrupter (GFCI) or a portable GFCI. Portable GFCIs are available at prices starting at less than $20 at stores where electrical supplies are sold.

When the Season is Over

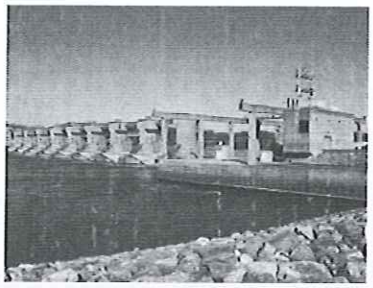
After the holiday, store the lights safely by coiling each string loosely around a stiff piece of cardboard. Then wrap it in fabric or paper to protect the bulbs and store in a sturdy container. You can also buy modestly priced lighting storage bags that contain rigid plastic spools for storing coiled lights.

SAFETY SPOTLIGHT

Scalding is one of the most common kitchen injuries. Use oven mitts or potholders when removing items from ovens, microwaves and stovetops. Scalding can occur from steam as well – be careful when lifting lids from heated food containers.

WHAT IS...? BASELOAD, INTERMEDIATE, PEAKING

In the power industry, there are three main types of facilities: baseload, intermediate and peaking.



Baseload generation comes from facilities that are designed to run at near capacity levels all the time – 24 hours a day, seven days a week. Baseload is intended to meet basic demand of your everyday power use. AMP's Prairie State Energy Campus and Belleville Hydroelectric Facility produce baseload power for numerous members. AMP is also constructing four hydro projects on the Ohio River, which will add more than 300 megawatts of new baseload generation to the region.

An **intermediate** generation facility is designed to provide energy during the 16 highest demand hours (when people are using the most energy) Monday through Friday. The AMP Fremont Energy Center is a natural gas combined cycle facility that provides intermediate generation to 87 participating AMP member utilities in seven states.

Facilities intended to provide energy during **peak** intervals run only when the demand for energy is at its very highest. Peak energy use is generally at midday and during the hottest and coldest times of year.

AMP's Ohio Municipal Electric Generation Agency (OMEGA) Joint Venture 2 consists of distributed generation units that provide peaking power to 36 participating communities. Solar is also a good example of peak generation because it is most productive during long summer days when there is increased availability of sunlight. AMP constructed the Napoleon Solar Facility, which went online in 2012.

HOW IT WORKS: WIND ENERGY

A sailboat catching the breeze is the same principle behind wind energy. Instead of a sail, a wind turbine has three blades. As the wind turns turbine blades, they spin a generator shaft. In the case of a sailboat, the wind transfers its energy of motion to the boat, which causes the boat to move. For a wind turbine, the natural kinetic energy of wind is converted into electricity through an electromagnetic generator at the top of the turbine.

The four main parts of a wind turbine are the base, tower, blades and nacelle. The nacelle is what houses the generator, shaft and gearbox.

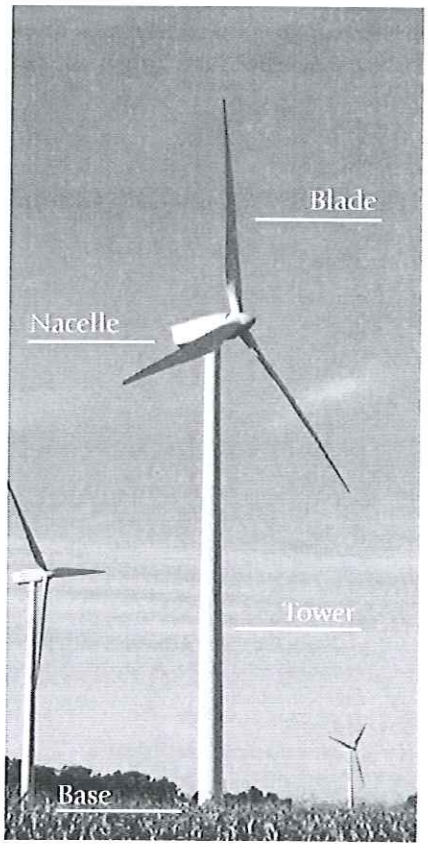
Wind turbines are usually built in groups known as wind farms. The American Municipal Power Wind Farm, located in Bowling Green, Ohio, has a generating capacity of 7.2 megawatts (MW), consisting of four 1.8-MW turbines. It was the first utility-scale wind farm in Ohio. The turbines themselves rest atop towers that are nearly 260 feet tall. The blades extend 132 feet from the turbine. When the blades rotate at their highest point, the wind turbine is nearly 400 feet tall.

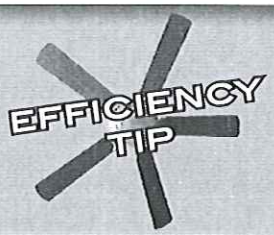
The AMP wind turbines are designed to run when wind speeds range between nine and 56 miles per hour (mph). They can withstand wind speeds in excess of 130 mph.

The optimal speed for the turbines is about 31 mph, which will rotate the blades almost 17 times per minute.

Historically, winter provides the most favorable wind conditions and is the best time for AMP wind generation. The farm generates about 122,000 kilowatt hours (kWh) per month in the summer and approximately 430,000 kWh per month in the winter. Wind power is an intermittent source of energy.

A number of AMP members also receive power from the Iberdrola Renewables' Blue Creek Wind Farm in northwest Ohio through a Power Purchase Agreement with Iberdrola.





Setting your ceiling fan on low speed in reverse (clockwise direction) can actually help heat your house in the winter. Because hot air rises, a ceiling fan on reverse will push this warm air down into the room. The mild circulation from the fan will help heat the room evenly, shortening the time it takes for your furnace or heater to do its job.