

PUBLIC POWER CONNECTIONS

TRIMMING HELPS MAINTAIN RELIABLE SERVICE

Transmission lines coming in contact with tree branches is a leading cause of outages

Vegetation management, particularly tree trimming, is a necessary part of providing reliable electric service. Power outages are often caused by tree limbs that either contact or fall on service lines. According to the Federal Energy Regulatory Commission, tree contact with transmission lines is a leading cause of electric power outages and a common cause of past regional blackouts.

Any power line contact with a tree limb can cause a short circuit. This is a real safety concern for residents.

Tree trimming reduces the impact of major storms on electric service and power interruptions. It also removes dangerous limbs or trees, which enables easy access to equipment for faster and safer repairs, and prevents damage to equipment.



It is recommended for residents to plant trees and shrubs 15 to 30 feet away from power lines, and large trees more than 50 feet away. There are many guides available which can help recommend the best trees to plant near right of ways. The American Public Power Association's Tree Power Program (www.publicpower.org) and the Arbor Day Foundation (www.arborday.org) are excellent resources.

Do not attempt to prune trees or branches around electric lines yourself as any contact with lines can cause electrocution.

Questions about tree trimming and utility vegetation management practices are best directed to your local municipal electric utility.

HOW IT WORKS: SUBSTATION

The main function of a substation is to change the voltage of electricity. After electricity is generated, substations will step up voltage for transmission or step it down for distribution.

The further power has to travel (transmission), the higher the voltage needs to be. Businesses and residential areas run on a lower voltage than is needed for transmission and so substations step it down to the needs of the recipient (distribution). A substation is a collection of protective devices, transformers and other equipment that is used to serve the local load and distribute electricity at the local level. Transmission-level substations contain similar equipment but are rated for higher voltages.

In addition to changing voltages, substations also have many safeguards such as circuit breakers and fuses, which are designed to protect distribution networks and machineries against high short circuit currents. This means circuits can be safely isolated for repairs.

You've probably seen substations around your area. They are usually outdoors and enclosed by a fence. Substations are sometimes housed inside a building in residential or high-density areas to reduce noise.

With so much power concentrated in one area, substations are extremely dangerous



for non-qualified personnel. Workers have many requirements for access, including maintaining specified safe distances from energized equipment. The fence and warning signs are there for your protection. If an item such as a child's ball or toy goes into a substation area, do not retrieve it yourself.

MAKE SPRING CLEANING SAFER INSIDE, OUTSIDE

Now that the season is changing, people are ready for spring cleaning and yard work. According to the Home Safety Council (www.homesafetycouncil.org), there are more than 10 million unintentional home injuries in the United States every year that result in visits to hospital emergency rooms.

Make sure to store household and garden chemicals safely and securely in closed containers out of the reach of children and pets. Here are a few additional tips to help you and your family stay safe this spring season.

In the yard:

- Debris can accumulate over the winter months. Before mowing, walk the lawn and pick up any sticks, stones, toys and other items that could shoot out from the mower or damage the blade.
- Use fertilizers, insect and weed killers according to product instructions. Keep pets and children away from treated areas.



Choose integrated pest management or nontoxic products where possible.

- Help prevent back injuries by using proper lifting technique – bend at the knees, not at the waist and keep your back straight. Lift with your legs and keep the object you are lifting close to your body. Ask for help when moving very heavy objects.

In the house:

- Be sure to read chemical labels and instructions before using cleaning products. Wear plastic or rubber gloves and eye protection if you're using corrosive chemicals.
- Never mix cleaning products as combinations of certain chemicals, such as chlorine and ammonia, can create harmful gases.
- Always label containers if chemicals are removed from their original bottles.
- Contact your local Solid Waste Authority to discard hazardous and flammable chemicals.

WHAT IS...? MUTUAL AID

Mutual Aid is a network of municipal electric systems that stands ready to provide assistance to fellow municipal systems when local utility emergencies occur that are too widespread to be handled by one system alone.

Crews from participating member communities in six states can help each other through American Municipal Power, Inc.'s (AMP) Mutual Aid program.

AMP's program, which started in 1984, arose from the concept of neighbor helping neighbor to support each other in the event an overwhelming

need arises. Having this program in place ensures electricity is restored following a storm as quickly as possible.

The Mutual Aid program enhances the quality of municipal utility services to member communities' customers, and fosters and strengthens relationships among communities.

A member community's municipal electric system in need of help makes a call to its AMP coordinator and emergency response efforts are organized. Communities in or near the area provide back-up coordina-



tion and management – increasing service reliability.

Since the Mutual Aid Program's foundation, communities have reliably been there for each other in times of emergency such as tornados, severe storms, high winds and heavy ice.



Proper attic ventilation increases energy efficiency, and is key in avoiding mold and mildew. It also prevents wood from rotting and protects your insulation. Make regular attic checks to see if there are any signs of moisture such as condensation, rust, wet insulation or a moldy smell. All attic vents should be open and clear, no matter what time of year it is. Call a home inspector if you have any suspicions or concerns.