

# Electric News

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## Little Ocmulgee EMC Partners with Cooperative Response Center Inc.

### *Working Together to Provide Excellent Service*

One of the most cost-effective ways Little Ocmulgee EMC (LOEMC) has to provide around-the-clock customer service is to use a contact center. Recently, we partnered with Cooperative Response Center, Inc. (CRC), a nationwide, 24/7 contact center, to assist with our customer service needs.

With locations in Austin, Minn.; Dunlap, Tenn.; and Abilene, Texas, CRC specializes in handling calls, dispatching line crews and providing excellent service by focusing on the human side of technology. LOEMC chose to join CRC because they understand the unique demands of the electric industry, which enables us to optimize service to our members.

CRC provides services primarily to rural electric utilities, including after-hours dispatch and around-the-clock customer care. When you call after regular business hours, your call is immediately routed to the call center, where knowledgeable staff members can address your concerns regarding electrical emergencies. It will dispatch crew members and follow up with you, if requested, to assure your power has been restored.

It is helpful that you provide important key information to avoid delays in getting help to you as quickly



**Keeping your contact information updated is crucial. If you are calling from a phone number Little Ocmulgee EMC has on file, your call automatically will sync with your account information, considerably shortening the response time.**

as possible, including your account number, physical address and, most important, your meter number. All of this information can be found on your billing statement.

Keeping your contact information updated is crucial. If you are calling from a phone number that Little Ocmulgee EMC has on file, your call automatically will sync with your account information, considerably shortening the response time.

To report an outage, please call Little Ocmulgee EMC at 1 (800) 342-1290.

# Benefits of Nuclear Power: Green, Efficient and Safe

**B**ecause electric cooperatives work hard to select the most reliable, safe and efficient resources to generate electricity, it is important for cooperative members to understand the basic operational differences among the resources and technologies used to generate power.

In coal and natural gas plants, hydrocarbons are combusted in an energy conversion process that drives a turbine to generate electricity. This process produces emissions such as sulfur dioxide, nitrogen oxide and particulate matter, which are regulated and managed on-site by environmental control technologies. Carbon dioxide is also emitted, but currently isn't regulated. Wind turbines require high-speed winds to turn large blades connected to a turbine-generator, and solar panels employ photovoltaics (PV) to directly convert sunlight photons to electricity. Nuclear plants are driven by splitting atomic nuclei in a process called fission, releasing energy that's used to drive a turbine-generator.

Wind, solar and nuclear are zero-emission technologies, with nuclear accounting for 55 percent of zero-emission electricity in the U.S. What can be mistaken for emissions are what appear to be white clouds rising from cooling towers employed at some nuclear plants to cool the water used in power generation. However, this is pure water vapor—not smoke, combustion byproducts or radiated gases.

“Nuclear power produces no emissions, is a high-density fuel, has a proven track record of safety and is by far the most reliable power generation technology,” Little Ocmulgee General Manager Lewis Sheffield says.

Annual capacity factor, which refers to the percentage of a year that a power plant is actually operating, is a standard measure of reliability. The chart below compares the different fuel sources, with nuclear leading all others.

Annual capacity factors for power generation	
Source	Annual Capacity Factor
Nuclear power	93.5%
Natural gas	56.8%
Coal	47.5%
Wind	34.8%
Solar PV	24.5%

SOURCE: U.S. ENERGY INFORMATION ADMINISTRATION, [bit.ly/npcffr](http://bit.ly/npcffr), [bit.ly/npcfsr](http://bit.ly/npcfsr)

One of the most important characteristics of an energy resource is energy density, which is a measure of how much energy is concentrated in the resource itself. This has much to do with a technology's capacity to maximize the amount of electricity generated from each unit of energy consumed.

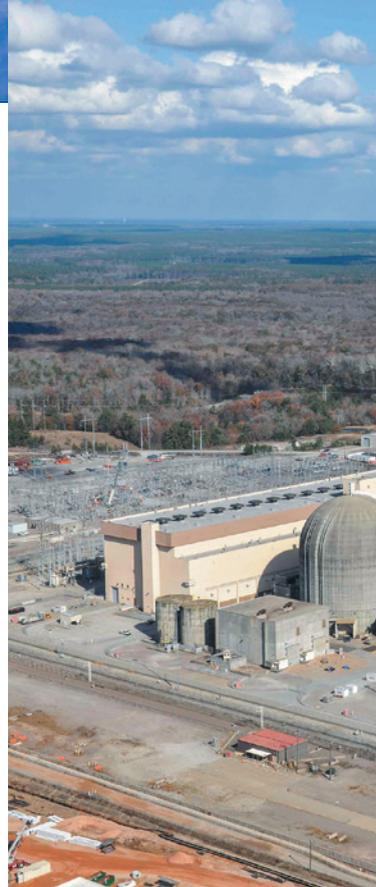
For fossil fuel plants, 1 kilogram (kg) of coal generates about 2.3 kilowatt-hours (kWh) of electricity, while 1 kg of natural gas generates about 6.8 kWh. For a typical U.S. nuclear plant, 1 kg of nuclear fuel generates about 353,547 kWh of electricity. Wind and solar have very low energy densities and don't compare to coal, natural gas and nuclear on a per-kilogram basis.

Because power plants are sized based on megawatts (MW) of generating capacity, they can be compared based on the megawatt-hours (MWh) of electricity generated for every MW of plant capacity. Last year, U.S. nuclear power accounted for 809.4 million MWh of electricity from a capacity of 98,788 MW. This translates to 8,193 MWh of electricity generated for every MW of installed capacity. The chart below compares nuclear power with several other fuel sources.

Each of these fuel resources adds value to a power

MWh of electricity generated for every MW of installed capacity	
Source	MWh Generated
Nuclear power	8,193
Natural gas	4,976
Coal	4,102
Wind	3,073
Solar PV	2,168

SOURCE: U.S. ENERGY INFORMATION ADMINISTRATION, [bit.ly/npcffr](http://bit.ly/npcffr), [bit.ly/npcfsr](http://bit.ly/npcfsr)



*This aerial view shows the Alvin W. Vogtle Electric Generating Plant units 1 and 2 in Burke County near Waynesboro. Units 3 and 4 are under construction.*



*Wind, solar and nuclear are zero-emission technologies, with nuclear accounting for 55 percent of zero-emission electricity in the U.S.*

generation portfolio, but the one resource that exceeds all others in all categories is nuclear power.

### **Safe and secure**

Nuclear power stands out not only for reliability and efficiency, but also for safety and security. The U.S. nuclear industry is arguably the most heavily regulated industry, with more direct oversight than any other industrial sector.

Nuclear reactor operators are held to some of the highest competency standards in the country and must be licensed through the Nuclear Regulatory Commission (NRC). This requires up to two years of training prior to operating a reactor, as well as one week of training for every five to six weeks of reactor operation. Many operators are recruited from the U.S. Navy, having served in the world's premier fleet of nuclear-powered vessels, which speaks to the discipline required in nuclear operations.

Each nuclear facility has on-site NRC inspectors who have unrestricted access to all operations. Inspectors undergo intense training and qualification before they are assigned and are required to participate in ongoing training to maintain their qualifications.

More than a dozen federal agencies work together to provide safety and security for nuclear plants, including the departments of Energy, Defense and Homeland Security. These agencies work to protect plants from external threats, such as airplane strikes and attempts to compromise a plant from within.

The U.S. nuclear industry is also linked to the broader global nuclear network, which facilitates regular visits to nuclear sites throughout the world in order to share information and ensure best practices. The two primary organizations involved in this work are the International Atomic Energy Agency and the Nuclear Energy Agency.

In recent years, U.S. nuclear plants have added new equipment to serve as backup systems to cool nuclear fuel rods so they don't overheat if there is a loss of power to the primary cooling systems.

Throughout its 50-plus-year life span, the U.S. nuclear power sector has had an unparalleled record of safety and security. This reliable resource will play a much-needed and critical role in America's future.



*A Nuclear Regulatory Commission senior resident inspector carries out his duties at a nuclear plant.*

# Right-of-Way Work Keeps You Connected



ISTOCK.COM / PHIL AUGUSTAVO

**T**he first time many people encounter the term “right-of-way” is in a driver’s manual or on a driver’s license test. It brings to mind something you have (or yield) when you’re behind the wheel of a motor vehicle.

But in the electric co-op world, “right-of-way” (ROW) takes on an important alternate meaning. It refers to the corridor or path an electric line follows, either along a road or through the woods.

Trees and branches that are downed by storms are a primary cause of power outages. Co-ops across Georgia have developed aggressive right-of-way maintenance programs, routinely trimming vegetation near power lines that could become a problem. Storms still may bring down branches or trees, but the trimmed-back vegetation is far enough from power lines that it is much less likely to fall across them.

“A good right-of-way program reduces outages a lot,” says Harry Reeves, Georgia EMC’s vice president of training, education and safety. “It also makes troubleshooting a lot easier.”

Trees along a utility ROW increase the possibility of power outages and blinks. They also can delay power restoration after storms because fallen trees and debris must be cleared before crews can gain access to damaged poles or lines.

Large trees around utility rights-of-way pose a safety hazard by providing children an opportunity to play near power lines. Power lines can carry up to 14,400 volts, and an energized tree branch is extremely dangerous—even deadly. When a tree limb comes in contact with a power line, someone touching or climbing the tree could be shocked or even electrocuted. It also can produce a spark, which can start a fire, especially if the area is very dry.

Each electric cooperative member agrees in the membership application to grant the cooperative a right-of-way easement, giving permission to cut and keep clear all trees within a set distance of primary power lines, secondary and service lines.

The distance allowed for clearing vegetation varies by co-op, from 15 feet to 25 feet on each side of a primary power line, says Reeves. The clearing cycle ranges from four to six years. Some co-ops use their own employees to do right-of-way work, while others hire contract crews.

Proper reclearing consists of removing trees, mowing underbrush, controlling vegetation growth and trimming limbs that extend into the right-of-way.

Many times trees that are outside of the allowed cutting area of the ROW are responsible for outages. The trees and/or tree limbs are not within the ROW, but the trees are tall enough to strike the wires when they fall.

If you believe that a tree on your property poses a threat to a power line, call Little Ocmulgee EMC at 1 (800) 342-1290. If it is determined that the tree is a danger and could strike the wires in falling, it could be removed at no cost to you.

In addition, when planting a tree in your yard, keep in mind the tree’s size at maturity. The larger the full-grown tree will be, the farther it needs to be from a power line.

The need for electricity to power the many devices in modern life has increased the importance of reducing the potential for outages, including by keeping rights-of-way cleared. “The demand of technology is why we have to do such a good job,” Reeves says. “We’re so dependent on technology; we can’t do without it.”