

# Electric News

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## Little Ocmulgee EMC Earns Safety Accreditation

**L**ittle Ocmulgee EMC (LOEMC) recently received accreditation for its safety practices from the Georgia Electric Cooperative Safety Accreditation Program. The award is based on the utility's safety record and safety programs over the last three years.

Little Ocmulgee EMC operates in a culture of safety, making sure we do everything possible to keep our employees and members of the public safe. Accreditation demonstrates that a cooperative is doing all the right things to stress safety on the job—regardless of where an employee works.

"Receiving this safety award is certainly an honor. Our goal is the safety of all our employees, our members and the general public and most of all that all our employees return home safely to their families every day," says Troy Giddens, LOEMC Safety Coordinator. "All the training we go through to acquire the safety accreditation highlights Little Ocmulgee EMC's commitment to safety."

The accreditation process consists of two primary components: record-keeping and a multiday, on-site

visit. The record-keeping portion includes a check of a cooperative's safety records and its adherence to safety programs and regulations from the Occupational Safety and Health Administration and the Department of Transportation, along with Environmental Protection Agency standards and regulations.

A team of inspectors from Georgia EMC and other Georgia cooperatives conducts an on-site field observation of everything related to the co-op, including buildings, equipment and vehicles. For the second part of the inspection, the team of inspectors reviews LOEMC's safety documents that support the requirements.

The inspection process ensures that Little Ocmulgee EMC employees are following the proper safety protocols in the office and in the field to keep themselves, co-workers and the general public safe. The program is intended to establish electric utility

safety and loss control standards to prevent injuries and to recognize LOEMC and the employees who work every day to maintain a safe work environment. A safe workplace also saves time and money, which benefits the electric cooperative and consumer-members alike.



Safety Coordinator Troy Giddens displays the Certificate of Safety Accreditation that Little Ocmulgee EMC received from Georgia EMC.

# Keep the Power Flowing Safe

**H**urricane Michael in October 2018, and Hurricane Irma just a year earlier, reminded us that while Little Ocmulgee EMC strives to deliver the highest possible degree of reliable service, natural disasters can tear down power lines and leave residents without power for several days.

More than just an inconvenience, prolonged power outages can result in a loss of a season's harvest of vegetables and meat not easily replaced. Having a standby power source to operate a well pump can assure sanitary plumbing continues to function. Just having cooling fans can make an ordinarily air-conditioned home habitable.

A 2,000-watt portable generator like the Honda EU2000 costs just under \$1,000 and can power a refrigerator-freezer or a microwave (although not at the same time). That same small generator will run a few portable fans and lamps that can help you stay in your home while Little Ocmulgee EMC linemen work to clear fallen trees, rebuild lines and restore power.

Larger generators, like the Honda EU7000 inverter generators, can power more than one refrigerator-freezer and maybe a small HVAC system. They retail online for about \$4,000.

Despite what the name implies, the Honda EU7000

generator is rated for a steady output of 5,500 watts. It is capable of producing 7,000 watts, but only in a peak capacity. This means it will run things such as a small 7,000-watt air conditioner, or any other device that requires a large amount of cranking amps to start, but the power use falls off as it starts running. For things such as heaters, power tools that use motors or your household electronics, you'll want to use the 5,500-watt rating to estimate your capacity for power.

A portable generator, located outdoors in a well-ventilated area away from your home and connected to critical individual appliances with extension cords of adequate capacity, can safely help you weather the storm. But when homeowners try to make temporary electrical connections to allow that generator to energize the whole house, it creates a very dangerous condition.

Backfeeding occurs when electricity from your generator flows back through your electrical panel and meter onto Little Ocmulgee's electrical grid. Backfeeding can occur when a generator is connected to your home wiring system without disconnecting from utility power. The most common way this could occur is if you directly connect a generator to your electrical panel or to a circuit in your home.

If you feed power back into the utility system during an outage, you will energize the transformer serving your house.

This poses an electrocution hazard for Little Ocmulgee EMC line crews and for your neighbors who may not know the lines are energized. If utility power is restored while your generator is backfeeding, your generator may be severely damaged and it could cause an electrical fire in your home.

## How can backfeeding be prevented?

The simple answer is to always keep generator power and utility power isolated from each other. Permanent generators are isolated from the utility's electrical system with a transfer switch installed between the generator and the electrical panel. The transfer switch allows power to be fed from only one source at a time.

Portable generators are usually connected directly to an appliance or piece of equipment through an extension cord. As long as the equipment is not hard-wired to the building's electrical panel, there is no path back to the panel. Transfer switches are available to safely connect portable generators to building electrical systems.



Little Ocmulgee EMC linemen John Yawn, left, and Jerry Edge work to restore power.



# ely When the Lights Go Out

## Can't I accomplish the same thing by throwing the main breaker?

Not safely. Simple circuit breakers do not make a positive disconnection between the home electric system and the generator system. What's more, they've been known to fail, and the consequences are high if they do fail. If you plug your generator directly into a wall outlet, the wiring in your home is no longer protected by a circuit breaker in your power panel. The wiring in your home could then become overloaded, overheat and start a fire. The only safe way to create a positive disconnection between the two electric systems is through the use of a transfer switch.

Generators can provide comfort, safety and security during power outages and emergencies, and can be installed temporarily during these situations. A generator must be installed properly to protect electrical utility workers, family members and property. Also, improper installation of your portable generator and transfer switch system could void your homeowner's insurance in case of accident or injury.

A manual transfer switch is the key to safe and convenient operation of portable generators for standby power. By isolating those circuits using generator power, a transfer switch eliminates the risk of backfeeding the electrical utility, which can cause injury to workers and property damage.

By installing a transfer switch or transfer panel at your breaker box and connecting a generator to the transfer switch, you can run selected appliances such as a heat pump, well pump (which cannot be run with standard extension cords), refrigerator, television, computer, printer or lighting circuit during a power outage, depending on the capacity of your generator. Since many home standby generators cannot handle all of these loads at the same time, the transfer switch allows you to manually transfer each of these loads separately whenever you need them.

Good planning requires that you determine the wattage output you need before buying a generator. The output should at least meet or exceed the total rated watts of the equipment you will operate in case of an outage.

If you are new to the generator market, it can be pretty confusing to understand the large number of differences between generators.

## Conventional generators

Conventional generators are the most widely used and have been around the longest. How they work has remained essentially unchanged. They run on diesel, gasoline or propane which, in simple terms, powers a motor attached to an alternator that produces electricity. The generator's motor runs at a constant speed (usually 3,600 rpm) to produce the required electrical current (typically 120 volts AC / 60



Seth Crosby is one of the Little Ocmulgee linemen who work hard to keep members' lights on.

Hertz). The engine's rpm should not fluctuate, otherwise it will alter the frequency (Hertz) of electrical output.

## Inverter generators

Inverter generators are a recent technology, made possible by advanced electronic circuitry and state-of-the-art magnets. The technology generally outputs AC current like most conventional generators, but the current is then converted to DC voltage, and then "inverted" back to clean AC voltage, thus how it gets its name. This inversion maintains a constant flow of current to your appliance.

## Fuel efficiency / run time

The run time depends largely on the fuel tank size. Any size fuel tank can be attached to generators, regardless whether conventional or inverter technologies. However, inverters are more fuel-efficient, and the engine speed adjusts according to the power load needed. Conventional generators, by contrast, normally run at an even 3,600 rpm, regardless of the power load. Fuel savings can be significant.

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# Keep the Power Flowing Safely, *Continued from page 18C*

## Noise

Noise is one factor that truly separates the two categories of generators. Inverter generators are designed to be comparatively quiet. The engine can throttle back when the load is light, saving fuel and substantially reducing noise. An inverter generator running low could be the equivalent of people talking, while many conventional generators can have the same noise range as a chain saw.

## Max power output

Conventional generators come in just about any size, from 500 watts up to 50,000 watts and higher. Inverter generators focus on convenience, quiet operation and portability, but their maximum output possibilities are more limited. They are mainly available in 1,000- to 4,000-watt models.

## Quality of power produced

A conventional generator is essentially an engine connected to an alternator and run at a speed that produces the desired AC frequency, regardless of the load on it (as the load increases the engine throttles up

to keep the engine speed the same). The output of the alternator is connected directly to the load, without any processing. As we talk about the inverter technology in the next paragraph, it becomes clear why quality of power becomes a key point for many when they choose a generator model.

With an inverter generator, the engine is connected to an efficient alternator, which produces AC electricity, just like a conventional generator. But then a rectifier is used to convert the AC power to DC and capacitors are used to smooth it out to a certain degree. The DC power is then “inverted” back into clean AC power at the desired frequency and voltage. The system produces consistent and reliable power independent of the engine speed. The result is much “cleaner” power than is possible with a conventional generator, essentially the same quality of electricity that you typically get from your electric company.

When the power goes out, having a generator enables you to continue to have refrigeration, light and many of the other conveniences we’ve come to enjoy. Make sure you aren’t creating unnecessary danger by properly and safely using your generator to prevent backfeed. It could save a life.

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## Little Ocmulgee EMC to Celebrate 81 Years of Service to the Members

**T**he 81st Little Ocmulgee EMC Annual Meeting of Members will be held Nov. 13, 2019, at the Wheeler County High School gymnasium in Alamo. Doors will open promptly at 12:30 p.m. for member registration.

Prior to the business session, which begins at 2 p.m., there will be a health fair, vendor booths and gospel entertainment. Door prizes will be awarded at the conclusion of the meeting.

Pursuant to the Little Ocmulgee EMC Bylaws, a committee to nominate members for directorship has been appointed. The following members will serve:

- **Laurens County (District 1):** Jimmy Butler, Curtis Pauldo, Larry Windham
- **Telfair/Dodge counties (District 2):** Marty Kinnett, Carey Knowles, John E. Seay
- **Wheeler/Montgomery counties (District 3):** Carey Clark, Tommy Clark, Jamie Nobles

If you have comments or suggestions concerning

nominations or persons who wish to be considered for director nomination, please contact these committee members.

The Nominating Committee will meet Aug. 27, 2019, to make director nominations. One director from each district is elected each year and will serve staggered three-year terms.

Directors seeking re-election for another three-year term are:

- **Laurens County (District 1):** LaRue Fountain
- **Telfair/Dodge counties (District 2):** Wesley Yawn
- **Wheeler/Montgomery counties (District 3):** Carey Locke

Nominations for directors can also be made by petition, which must be signed by 15 or more Little Ocmulgee EMC members and submitted to the Co-op no later than Sept. 13, 2019, at 5 p.m. Nominations are not allowed from the floor at the annual meeting.