



Arc Fault Circuit Interrupters *Prevent House Fires*

Your home is your safe haven, and National Electric Safety Month is a good time to learn about a relatively new technology that helps to keep your home safe from an electrical fire caused by an arc fault. An arc fault is an unintended arc created by current flowing through an unplanned path; arcing creates high intensity heating at the point of the arc, resulting in burning particles that may easily ignite surrounding materials, such as wood framing or insulation. Arc Fault Circuit Interrupters (AFCI) are designed to detect a wide range of arcing electrical faults, protect the circuit, and prevent fires from occurring.

Unlike standard circuit breakers that detect overloads and short circuits, AFCI use advanced technology to recognize different arcing conditions, categorize them as normal or dangerous, and de-energize the circuit when they are dangerous. Branch Feeder Breaker AFCI are installed at the origin of a branch circuit or feeder, such as at a panelboard.

An arc fault is an unintended arc created by current flowing through an unplanned path...

Combination Breaker AFCI are designed to detect lower level arcing in both branch circuits and power supply cords.

Beginning in 2014, AFCI started being required for most branch circuits in a house, protecting every room in the house except the garage and exterior. It's important to note that part of this code now requires all receptacle outlets being installed or replaced meet modern AFCI requirements, no matter the age of the home. It could add cost to your wiring projects, but it should keep you safer from electrical fires. It's a good idea to know if your home's electrical system includes AFCI.

Tips & Tools

Electrical Fire Safety Rules: Your First Line of Defense



You should consider AFCI the second line of defense, and these general rules your family's first line of defense. Please follow them for a safer home environment:

- Avoid overloading extension cords, sockets and plugs
- Never attempt electrical repair or rewiring without proper certification and experience
- Never force a three-prong plug into a two-receptacle socket
- Replace any light switches that are hot to the touch
- Extension cords should only be used on a temporary basis, should be in good condition and the proper length and weight for the task
- Appliances that generate heat such as TVs and computers should be given several inches of clearance all around for good air circulation and cooling
- Use bulbs that have the correct wattage requirements for each fixture

We're All in this Together

The events on the world scene surrounding coronavirus have challenged our idea of normal life and tested the limits of our societal structures. While social distancing and stay-at-home orders are mixing up daily routines, the role of the electric utility remains clear—to keep the lights on. It's a matter of national security. As the “world's biggest machine,” the electric grid quietly breathes life into the front lines of keeping the public healthy and functioning, from hospitals and fire stations to homes and businesses.

Our peers have compared the pandemic to a storm, and while it is frightening and devastating, that's where the similarities end. What we are facing is less certain than anything we have seen before; it is less predictable, and we can't reach into our memory to model its behavior. It's not bound to a geographic area and its end cannot be imagined, like the sunny days following a hurricane. We've never needed to consider so many of our general work force out sick or quarantined, and we can't predict the economic fallout. There is no guidebook for this emergency. And by the way, hurricane season is around the corner.

This mix of uncertainty, hazard, and criticality is exactly what utilities plan for, to ensure the reliability and resiliency of our system. As events have unfolded, we have implemented plans that guarantee electric service is available to all our members. These plans cover every aspect of our business, from the continuity of administrative functions and providing assistance to members, to operating the electric grid and responding to outages. They consider

a range of scenarios, including the most extreme, and each day brings new information to analyze, and the need to adjust plans accordingly.

This crisis is manageable, but it will not be without hardship. The economic fallout is hitting our communities particularly hard. Many are out of work, forcing tough decisions on what bills to pay. As this adversity works through the system, it creates a financial strain on the cooperative that could be felt for some time. Again, be assured we've planned for these scenarios, to protect the system you invest in every month.

Our purpose statement reads: “Brunswick EMC is the trusted energy partner, delivering superior value and creating a brighter future with our members and communities.” Every decision we make is with this purpose in mind. This is the commitment of every employee and contractor that works for BEMC. It has guided our response to this unprecedented event thus far, and it will guide us through it and beyond. As you move forward, thinking about the wellbeing of your friends and family, as you discuss plans to rebuild your business or get back to work, as you hit the light switch, start the stove, or turn on Netflix, be assured that electricity will be there. And if the “machine” is temporarily pushed to its limit, and it falters, rest easy, the power will be back on soon. This crisis is tough, it's enduring, but it's manageable. We are all in this together, and we'll get out together.



Joshua Winslow,
*CEO and
General Manager*



Check bemc.org and Facebook for updates as we navigate the impact of COVID-19 together.

The Benefits of Microgrids

Reducing peak demand on electric systems is becoming more and more important, as is our desire to increase the use of renewable energy. At the same time, battery storage technology is improving, and we're eager to improve the overall resiliency of electric systems. Microgrids offer a way for a community, area or facility to be somewhat autonomous, and take advantage of technological advances for their benefit as well as the common good.

A microgrid is a local energy grid with control capability, which means it can disconnect from the traditional grid and operate autonomously. A microgrid generally operates while connected to the grid, but importantly, it can break off and operate on its own using local energy generation during power outages, and to control peak demand. This can be very beneficial during major weather events and can play an important part in helping electric power distributors manage power loads.

Microgrids can be powered by distributed generators, batteries, and/or renewable resources like solar panels. Power generated can also be sold to distributors as a revenue stream. Beyond the load management and other environmental advantages, the resiliency afforded by microgrids is an asset to a growing number of emergency response buildings, and buildings that serve vulnerable populations.

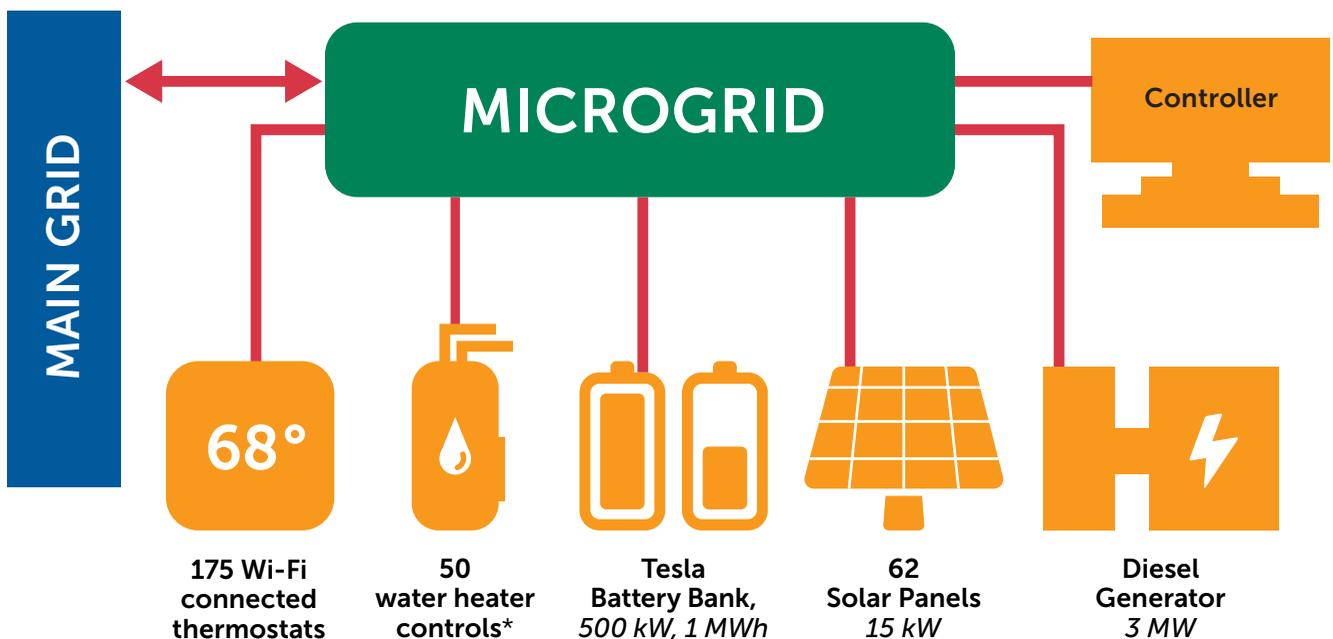
Heron's Nest

Heron's Nest, an environmentally friendly village located in Shallotte near Village Point, features a microgrid. Designed by the Adams Group, the floor plans include programmable water heaters and thermostats, rooftop solar panels, a 50-kw solar field, and on-site battery storage, all designed to lessen the carbon footprint, promote sustainable living and control peak demand.

Brunswick Electric partnered with the Adams group to develop a pilot program assessing the value of a new water heater demand control technology, and worked with Vaughn water heaters for units that are equipped with Carina Technologies controls, which regulates the functionality of the water heater and has an LED display.



An example of a microgrid





BEMC Awards Community Grants to 33 Organizations

Brunswick Electric has been providing grants to community groups and non-profit organizations who make a difference in the lives of our members since 2003. Funding for the Community Grants program comes from the equipment auction held during the BEMC Annual Meeting. Following are the 2020 recipients:

- Autism Society of NC, Inc.: Improving Lives of Individuals with Autism in BC
- Brunswick Christian Recovery Center: Women’s Drug Recovery Center
- Brunswick County Computers 4 Kids: Computers 4 Kids
- Brunswick County Habitat for Humanity: Tooling up for Habitat
- Brunswick County Literacy Council, Inc.: Literacy for All
- Brunswick Islands Baptist Church: Loaves and Fishes Food Pantry
- Brunswick Search and Rescue, Inc.: Location, Location, Location!
- Brunswick Senior Resources, Inc.: Disposable Undergarment Program
- Cerro Gordo Volunteer Fire & Rescue: Crash Truck Lights
- Columbus Baptist Association: Toy Store
- Columbus County Beekeepers Association: CC Beekeepers Recruitment and Retention Project
- Evergreen Volunteer Fire Department: Project Lifesaver
- Every Woman’s Purse: Every Woman’s Purse
- Families First, Inc.: Meeting the Needs of Survivors of Domestic Violence
- Friends of the Library Southport & Oak Island (FOLSOI): Imagine Your Story Summer Reading Program
- Going Beyond the Pink: ACCESS-Access to Critical Cancer Education & Support Services
- Hope Harbor Home: Energy Efficiency
- Kiwanis Club of Shallotte (SBI): Money Smart Financial Education Program
- Lower Cape Fear LifeCare: We Honor Veterans Program
- Men and Women United for Youth and Families, CDC: Food Pantry
- Oak Island Water Rescue: Surf Boat Replacement
- Power Walking Ministries: Shoes Change Souls
- Seaside United Methodist Church: STARS
- South Brunswick Interchurch Council: The Lord’s Food Pantry
- Southport Lions Foundation Inc.: Vision Assistance Program
- Southport Oak Island Interchurch Fellowship: Feeding the Hungry
- Special Olympics of NC: Special Olympics Brunswick County
- The First Tee of Coastal Carolinas: Leadership Adventure Initiative
- The Wild Horse Preserve at Grayce Wynds: Wild Horse Preserve Pasture Shelter
- Tri Beach Cruisers: Brunswick Toy Run
- Veteran’s Memorial Park of America, Inc.: Freedom Circle
- WAVES 4 K.I.D.S.: Stuffing Book Bags
- Wilmington CareNet Counseling Center: CareNet Benevolent Initiative



Office Closures All BEMC offices will be closed on Monday, May 25, in observance of Memorial Day.



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