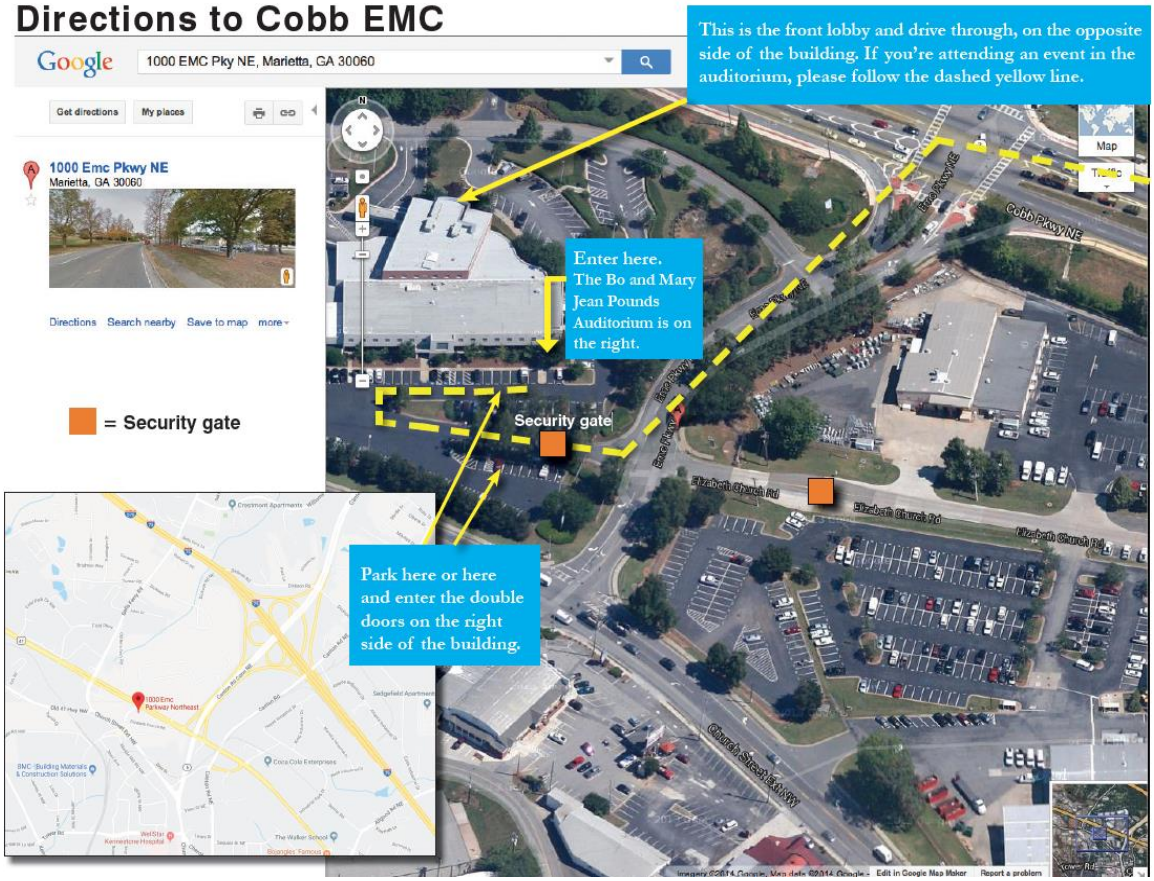
2027 Cobb EMC Youth Leadership Program

The study materials in this document will prepare you for the Cobb EMC Youth Leadership Program Quiz. Please come to the Cobb EMC Auditorium on Tuesday, August 11, 2026, at 5:30 p.m. for the Youth Tour Quiz. The top scoring student must score at least a 70 from each school.



Directions:

I-75
From I-75 take exit 267B to Highway 41. Turn right (north) onto Highway 41 at traffic signal. At the next traffic signal turn left onto EMC Parkway. Take the second street on right through security gate. The building will be directly in front of you (Building 1000). Enter through the double doors marked Bo and Mary Jean Pounds Auditorium.

Important Facts and Figures

Rural Electrification Administration

1935 - Franklin Roosevelt signed the executive order creating the Rural Electrification Administration (REA). A reorganization of the United States Department of Agriculture (USDA) in the mid-1990's resulted in REA becoming the Rural Utilities Service (RUS).

1938 - Senator Richard B. Russell energized Cobb EMC's first electric lines on December 17, 1938. When he flipped the switch, he provided power to 489 homes and 14 businesses.

Why do you call your cooperative "Cobb EMC?" Shouldn't it be Cobb REMC?

The letters REMC mean Rural Electric Membership Corporation. Cobb County was once considered a rural area. However, Cobb County was dramatically affected by Atlanta's growing pains. Appropriately, our name officially became Cobb Electric Membership Corporation in 1976.

Current Events

- Cobb EMC employs 387 people, serves over 196,600 members and maintains over 9,505 miles of line. With more than 219,000 meters served, Cobb EMC is one of the largest of Georgia's 41 EMCs and among the largest of the nation's 900 EMCs.
- The EMCs in Georgia serve approximately 4.4 million members.
- Cobb EMC's average cost per kilowatt-hour of electricity, as of this printing, is approximately 8 cents.

Affiliated Organizations

Oglethorpe Power Corporation

Oglethorpe Power Corporation was established in 1975 to provide electricity to 39 of the 41 EMCs in Georgia. Cobb EMC does not generate its own power. Thirty-nine EMCs (this includes Cobb EMC) in Georgia banded together to form Oglethorpe Power Corporation to provide electricity for their members. Currently, we purchase electricity from Oglethorpe and then sell the power to our members. Oglethorpe Power Corporation is in Tucker, Georgia.

Georgia Electric Membership Corporation (GEMC)

GEMC was formed in 1940 as the statewide EMC organization. Georgia EMC represents the 41 EMCs in the state. Georgia EMC provides legislative service, job safety training and coordination, as well as programs in public relations, advertising, and any other subject that may be of interest to the EMCs. Georgia EMC also publishes a magazine called Georgia Magazine. Cobb EMC members receive this magazine on a bi-monthly basis. The magazine contains many helpful articles on energy conservation, etc. Georgia EMC is in Tucker, Georgia.

National Rural Electric Cooperative Association (NRECA)

NRECA is the national EMC organization. It represents the approximately 1,000 EMCs in the United States. NRECA provides similar programs on a national basis that Georgia EMC provides on a state level. One of the activities NRECA sponsors is the Youth Tour in which you are participating. NRECA's headquarters is in Washington, D.C.

Touchstone Energy Cooperatives

Touchstone Energy Cooperatives is a national network of electric cooperatives across 46 states that provides resources and leverages partnerships to help member cooperatives and their employees better engage and serve their members. By working together, Touchstone Energy cooperatives stand as a source of power and information to their 30 million owners every day.

About Cobb EMC

How is Cobb EMC different from Georgia Power?

The goal of both companies is the same—to serve the people in their respective service areas with an adequate supply of electricity. However, there are quite a few differences between Cobb EMC and Georgia Power. Georgia Power is referred to as an "investor-owned utility" (IOU for short). This means that anyone may purchase stock in this company and, therefore, they become a stockholder of Georgia Power Company. Georgia Power then operates on a profit basis so their stockholders can make money from their investments. So, stockholders benefit from the corporation's profits.

As with all EMCs, Cobb EMC is a non-profit that is owned by the members we serve. This means only customers of Cobb EMC can own the company. By merely applying for electric service and paying a small membership fee, a person becomes part owner and a "member" of this corporation. Therefore, all money in excess of operating costs and expenses (margins) is assigned back to the members (customers) of Cobb EMC. The money returned to our members is referred to as Capital Credits. Cobb EMC also does not pay income or profit taxes, because we have no net income or profit.

Our Difference

As a not-for-profit, member-owned corporation, Cobb EMC is dedicated to providing its members the best service at the lowest possible price. We strive to be a good corporate citizen and neighbor, as well as a recognized leader in the utility industry.

The Seven Cooperative Principles

1. Open and Voluntary Membership
2. Member Control
3. Member Economic Participation
4. Autonomy and Independence
5. Education Training and Information
6. Cooperation Among Co-ops
7. Concern for Community

Who runs Cobb EMC?

The members run Cobb EMC. Now, of course, we can't have 196,000+ members directly determining our rates and policies, but they do determine these things indirectly. In September of each year, Cobb EMC holds an annual business meeting for all our members. The members are reminded of this meeting date and its importance annually. Cobb EMC has 9 directors who are the governing body, and they represent the entire membership.

Who are Cobb EMC's Directors?

District 1 - Edward Crowell

District 2 - Rudy Underwood

District 3 - Kelly Bodner
(Chair)

District 4 - David McClellan

District 5 - Tripper Sharp
(Vice Chairman)

District 6 - David Tennant

District 7 - Malcolm Swanson

District 8 - Bryan Boyd
(Secretary/Treasurer)

District 9 - Eric Broadwell

Who is Cobb EMC's President/Chief Executive Officer?

Kevan Espy

Cobb EMC's Youth Tour

What is the Washington Youth Tour?

The Youth Tour was created from comments in a speech made by Senator Lyndon B. Johnson as he addressed the 1957 NRECA Annual Meeting in Chicago. Beginning that year and for several more, some of the Texas Electric Corporation sent groups of young people to Washington, D.C. to work in Senator Johnson's office. As a result, the students were given an opportunity to learn about government during a portion of their summer vacations. The idea caught on and soon an increasing number of young people came to tour Washington D.C. to get familiar with the government. In 1964, the NRECA began to coordinate the program and suggests that groups arrange their schedules to be on tour the same week. This is Georgia's oldest leadership program for teens. The tour is an all-expenses-paid week-long event that brings together over 1,400 students from across the country.

Current Youth Tour Objectives and Purposes:

- Educating the youth on all aspects of rural electrification in order to promote a better understanding of the value of rural electric cooperatives.
- To provide an opportunity for teenage students to visit monuments, government buildings, and cooperative related organizations in order to become familiar with the historical and political environment of the nation's capital.
- To provide an opportunity for youth to meet elected officials in order to better understand how the federal government works
- To develop the leaders of tomorrow through leadership training and communication.

Energy Conservation

Heating Tips

- Allow the sun to help heat your home by opening your draperies. At night keep all drapes closed to reduce both infiltration and conduction of heat. Insulated drapes will increase comfort levels.
- If you have a fireplace, keep the damper closed whenever you do not have a fire.
- Electric heat pumps can provide highly efficient heating when properly sized and installed. Plus, you get a cooling system also. Call our Energy Services Department for more information.
- Set your thermostat on 68 degrees in the winter.

Cooling Tips

- Trees, shrubbery and awnings will help reduce your air conditioning costs by simply shading your home or its doors and windows from the hot summer sun.
- Keep draperies closed to block the sun from entering through windows. Insulated drapes will increase the comfort level of your home.

- If you are considering purchasing either a room or central air conditioner, we highly recommend the high efficiency units. These units can save considerably as compared to standard units. It may cost more initially but the savings will usually offset the upfront costs. Check for S.E.E.R. This is the Seasonal Energy Efficiency Ratio, and it is used as a standard of measurement to determine air conditioning efficiency. Look for the yellow label on the window unit, ask your contractor or call your Cobb EMC representative. The higher the S.E.E.R., the more efficient the unit.
- Set your thermostat on 78 degrees in the summer.

Water Heating

- A timer, used properly, will reduce operating costs.
- Avoid letting hot water run constantly when hand washing dishes, shaving, cleaning, etc.
- A quick shower will use less hot water than tub baths, but hot showers of more than about 5 minutes will normally use more hot water than a tub bath.
- The water heater and all hot water pipes can easily be insulated to conserve energy. Check with your local building or plumbing supplier for availability of various materials.
- Check all faucets for leaks, especially hot water leaks. This can result in surprisingly large amounts of wasted hot water and increased operating costs.

Lighting

- Make use of natural lighting whenever and wherever possible.
- Keep lamp bulbs, fixtures, and shades clean. Dust and dirt sometimes absorb light by as much as 50%.
- One large bulb provides more lighting than several smaller ones, even though the total wattage is the same.
- Install three-way switches and solid-state dimmers where various lighting levels are needed. They help to adjust lighting to just the right setting.
- Install photo electric controls on outdoor lighting. This will allow them to operate automatically at dusk. Timers may be used for indoor lighting when the occupants are out of the home.

- Fluorescent lamp bulbs give two to four times as much light as incandescent bulbs of the same wattage, and last about 25 times longer.
- In the mid 1920's, Russian inventor Oleg Losev independently created the first light-emitting diode (LED). In 1927, Losev published his findings in a Russian journal.
- The light-emitting diode (LED) is one of the most energy efficient light technologies. Some of the advantages of LED's are:
    - Longer lasting (LED last 25 times longer than incandescent lighting)
    - More durable (made from epoxy lenses, much more resistant to breakage)
    - More efficient (uses at least 75% less energy)

Electricity Facts

Electricity is the most versatile form of energy, but it's mysterious. No one can see, smell, or hear electricity. Please answer the following questions about electricity?

- **Where does electricity come from?**

  Electricity is electrons in motion. It occurs in nature in the form of lightning, electric eels, and even the small shock you sometimes get when you touch a doorknob. There are two kinds of electricity: static and current. Most of the electricity we use in our everyday lives is made in a power plant by spinning a magnet inside coils of wire. This puts electrons in motion and creates a flow of electricity. It's made the same way, whether it's produced in a small coal-burning power plant or the most modern nuclear plant.

- **What's an Electron?**

  It's a very small particle of an atom carrying a tiny electrical charge. To give you an idea of its size, it takes six billion electrons to light a 100-watt light bulb for a single second.

- **What is the difference between voltage and amperage?**

  Electric current is the flow of electrons. Amperage is the amount of flow. And voltage is the amount of pressure behind the flow.

- **Does the human brain produce electricity?**

  Not only the brain, but the entire body produces electricity through chemical reactions in the cells. The body is a highly complex electrical system with the brain functioning as the control and switching center. Most of everything we see, hear, taste, smell, and feel are the result of tiny electrical signals sent to the brain from various parts of the body

- **What is static electricity?**

  Static electricity is the electricity that is "standing still". Every substance in nature has atoms. And every atom has electrons. But some atoms can have too many electrons, and some atoms do not have enough. If a substance doesn't have enough electrons, it is positively charged. If it has too many, it is negatively charged. Another important thing to remember is that electricity travels at the speed of light = 186,000 miles per second, so you can't see it!

- **What is the difference between nuclear fission and nuclear fusion?**

  Nuclear fission is the splitting apart of heavy atoms. Nuclear fusion is the joining together of light atoms. Both actions release enormous amounts of energy. All nuclear plants today operate by nuclear fission.

Can electricity be made from the sun?

- Yes, it can. Solar energy from the sun can be used to generate electricity. Solar energy is created by nuclear fusion that takes place in the sun. The two most common ways are photovoltaic (solar panels) and concentrating solar power. Solar energy is harnessed by solar panels or photovoltaic cells, which convert the sun's light and heat into electricity.

- **Can electricity leak out of electric sockets?**

  No. The air between the two contacts of the socket blocks the flow of electricity. Unless the socket is damaged, or there is some sort of electrical short circuit, the only way the electricity can get out of the socket is when something is plugged into the socket. This completes the electric circuit and allows the electricity to flow from the outlet.

- **What is Current electricity?**

  It is a constant flow of electrons. Direct current (DC) means the electrons move in one direction. Alternating current (AC) means the electrons flow in both directions. Power plants make AC.

- **What are those reset buttons on some of the outlets in my bathroom?**

  Ground-Fault Circuit Interrupters (GFCIs) are devices that quickly shut off power when problems occur. They minimize electrical shock hazards. Never use a penny or piece of aluminum foil to replace a burned-out fuse.

- **What fuels are used to generate power for the electric consumers of Georgia?**

  At present, the electricity generated in Georgia uses nuclear as the predominant source of fuel. Nuclear energy is by far the safest energy source as well as the least expensive for low carbon generated long-term electricity.

The breakdown is:

Nuclear	39%
Coal	12%
Gas	34%
Hydro	6%
Others including Solar	9%

Cobb EMC's Safety Ambassador

"Wattson"

The Red-tailed Hawk