

# WATTS GOING ON...

at Coastal Electric Cooperative, Inc.

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## A Note from the CEO

By: Mark Walling

Owning a car was once considered a luxury, but most people today would agree that it's more of a necessity. If you have one, you are very aware of the fixed cost that you incur whether you drive your car or not. Just to have the car available to use, you must pay for the car, property taxes, license fees, and insurance. In addition to fixed costs, you have expenses for fuel, and maintenance costs such as replacing the brakes and tires. The more you drive, the more you spend on fuel and maintenance. The cost of operating the electric system is very similar to owning and operating a car.

Your monthly electric bill, or "light bill" as we like to say in the south, is composed of two components: a fixed charge, which your cooperative calls the facility charge, and the energy charge.

The energy charge varies month to month, depending on the volume of energy you consume. The weather, heat in the summer and cold in the winter, is probably the single biggest factor that causes your monthly consumption to change throughout the year. The fixed charge, or facility charge, is the same every month until the cooperative has to change it due to the changing cost for the service provided. This facility charge is intended to cover the fixed cost of making the power available at your residence or business if and when you choose to use it.

Coastal Electric does not generate any of the electricity that you consume. We purchase the power from Central Electric Power Cooperative at 13 delivery points throughout our territory. We take delivery at 69,000 or 115,000 volts, step it down to 12,470 volts, then distribute it throughout our territory. When it reaches your home or business, we step it down again to a usable level, typically 120 volts. This distribution requires transformers, wire, and a lot of other equipment to transmit the power to your location. Unfortunately, most of the equipment we utilize in our daily operations has increased between 40% and 100% in the past five years. As a result, your cooperative has to increase the facility charge six dollars per month, or about twenty cents per day, beginning with the January 2024 billing period. For a residential user who consumes about 1200 kWh per month, this is a monthly increase of about three percent. The energy charge remains unchanged, making ten consecutive years without an increase on that component of your bill.

None of us want to pay more for the things we need. Rest assured that your cooperative team is working hard to hold down cost as much as possible, while not allowing the service and reliability to you, our members, to suffer.

### BEST BETS FOR

## Winter Savings

Energy consumption spikes during winter months as we spend more time indoors and heating systems work overtime. You can help reduce demand and strain on the electric grid by conserving during peak energy times. Reducing energy use will also help lower your energy bills.

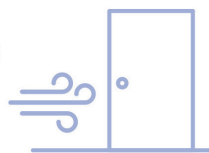
### UNPLUG WHEN POSSIBLE

Turn off unnecessary lights and electronics when you aren't using them.



### ELIMINATE DRAFTS AND AIR LEAKS

Seal air leaks and drafts around windows and exterior doors.



### USE APPLIANCES WHEN ENERGY DEMAND IS LOWER

Run large appliances like clothes washers, dryers and dishwashers in the middle of the day or evening time.



### MAINTAIN HEATING EQUIPMENT

Maintain your heating system by replacing dirty, clogged filters and scheduling an annual inspection for necessary maintenance.



### LOWER THE THERMOSTAT

Home heating accounts for a large portion of energy consumption. Adjust your thermostat to the lowest comfortable setting (68 degrees or lower).



# Beginner's Guide to the Electric Grid

By: Maura Giles



Mark Walling, CEO

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Electricity plays an essential role in everyday life.

It powers our homes, offices, hospitals and schools. We depend on it to keep us warm in the winter (and cool in the summer), charge our phones and binge our favorite TV shows. If the power goes out, even briefly, our lives can be disrupted.

The system that delivers your electricity is often described as the most complex machine in the world, and it's known as the electric grid.

What makes it so complex? We all use different amounts of electricity throughout the day, so the supply and demand for electricity is constantly changing. For example, we typically use more electricity in the mornings when we're starting our day, and in the evenings when we're cooking dinner and using appliances. Severe weather and other factors also impact how much electricity we need.

The challenge for electric providers is to plan for, produce and purchase enough electricity so it's available exactly when we need it. Too much or too little electricity in one place can cause problems. So, to make sure the whole system stays balanced, the electric grid must adjust in real time to changes and unforeseen events.

At its core, the electric grid is a network of power lines, transformers, substations and other infrastructure that span the entire country. But it's not just a singular system. It's divided into three major interconnected grids: the Eastern Interconnection, the Western Interconnection and the Electric Reliability Council of Texas. These grids operate independently but are linked to allow electricity to be transferred between regions when backup support is required.

Within the three regions, seven balancing authorities known as independent system operators (ISOs) or regional transmission organizations (RTOs) monitor the grid, signaling to power plants when more electricity is needed to maintain a balanced electrical flow. ISOs and RTOs are like traffic controllers for electricity.

The journey of electricity begins at power plants.

Power plants can be thought of as factories that make electricity using various energy sources, like natural gas, solar, wind and nuclear energy. Across the U.S., more than

11,000 power plants deliver electricity to the grid.

Coastal Electric Cooperative receives power from our generation and transmission (G&T) co-op, Central Electric Power Cooperative, Inc.. We work closely with CEPCI to provide electricity at the lowest cost possible. Being part of a G&T benefits members like you by placing ownership and control in the hands of your co-op, prioritizing affordability and reliability, supporting local economic development and fostering a sense of community.

To get the electricity from power plants to you, we need a transportation system.

High-voltage transmission lines act as the highways for electricity, transporting power over long distances. These lines are supported by massive towers and travel through vast landscapes, connecting power plants to electric substations.

Substations are like pit stops along the highway, where the voltage of electricity is adjusted. They play a crucial role in managing power flow and ensuring that electricity is safe for use in homes and businesses.

Once the electricity is reduced to the proper voltage, it travels through distribution power lines, like the ones you typically see on the side of the road. Distribution lines carry electricity from substations to homes, schools and businesses. Distribution transformers, which look like metal buckets on the tops of power poles or large green boxes on the ground, further reduce the voltage to levels suitable for household appliances and electronic devices.

After traveling through transformers, electricity reaches you—to power everyday life.

We're proud to be your local, trusted energy provider. From the time it's created to the time it's used, electricity travels great distances to be available at the flip of a switch. That's what makes the electric grid our nation's most complex machine—and one of our nation's greatest achievements.

## HOW ELECTRICITY GETS TO YOU



**step 1**  
**Generation**  
Electricity is generated from various sources.



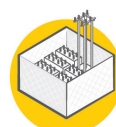
**step 2**  
**Step-Up Transformer**  
Voltage is increased to push the electricity over long distances.



**step 3**  
**Transmission Power Lines**  
Lines carry electricity over long distances.



**step 4**  
**Transmission Substation**  
Voltage is lowered so electricity can travel across the local system.



**step 5**  
**Distribution Substation**  
Voltage is lowered further for safe distribution.



**step 6**  
**Distribution Power Lines**  
Electricity travels across these lines in your community.



**step 7**  
**Final Stop**  
A transformer reduces voltage a final time, and electricity is sent to your home.

