

Plant Harlee Branch  
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**GEORGIA POWER**  
 A SOUTHERN COMPANY

BRANCH  
**PLANT BRANCH**

Operated And Maintained By

**GEORGIA POWER**  
 A SOUTHERN COMPANY

## OUR MISSION

*We, the employees of Plant Branch,  
are committed to providing clean, reliable  
electricity at the lowest possible cost  
to the customers of Southern Company.  
We will work as a team to conduct our  
business ethically with the best interest  
of our fellow employees, stockholders  
and the environment in mind.*



### POWER FOR THE FUTURE

Located on 1,900 acres on Lake Sinclair in Putnam County between Eatonton and Milledgeville, Plant Branch was the first million-plus-kilowatt electric generating station to operate on the Georgia Power system.

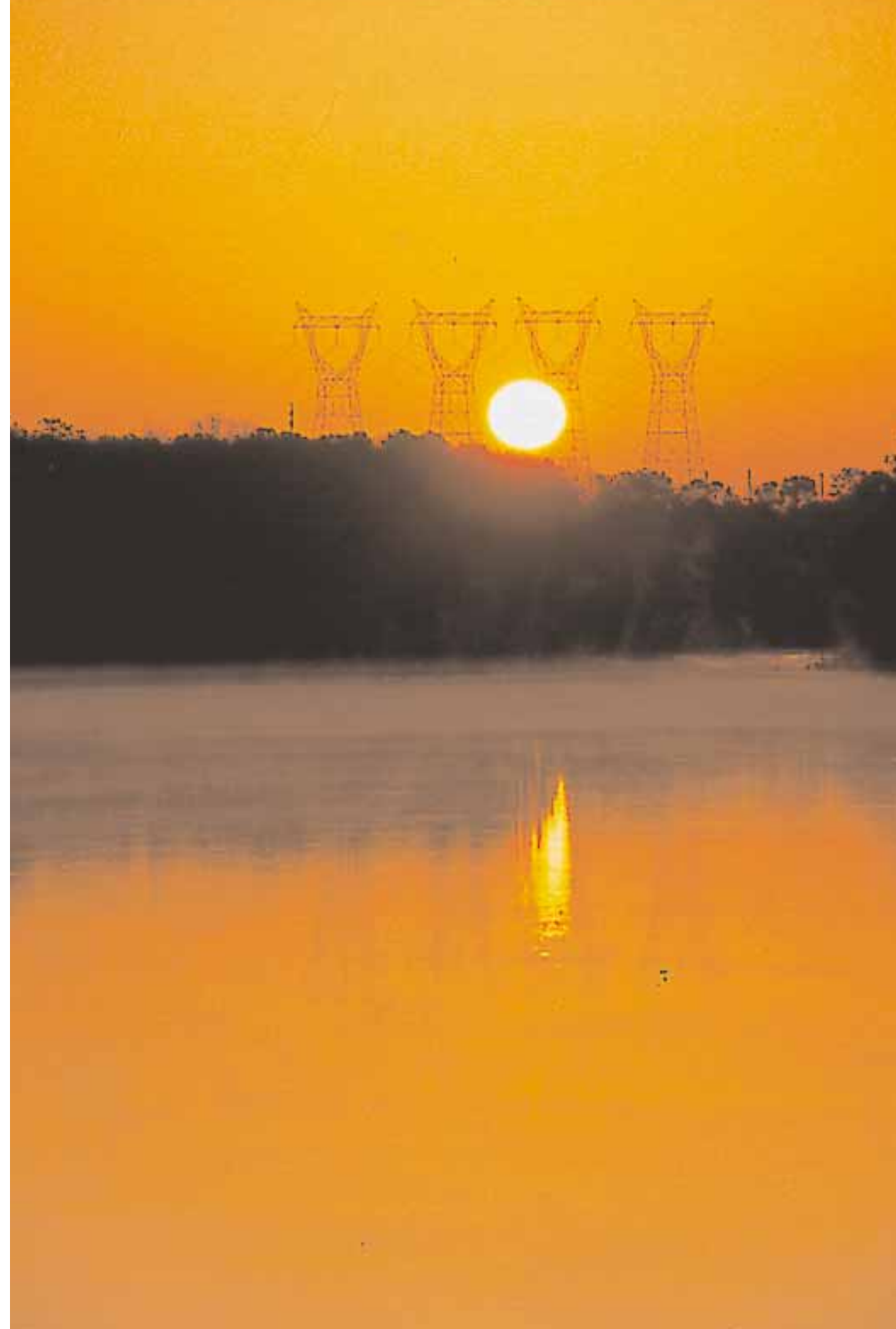
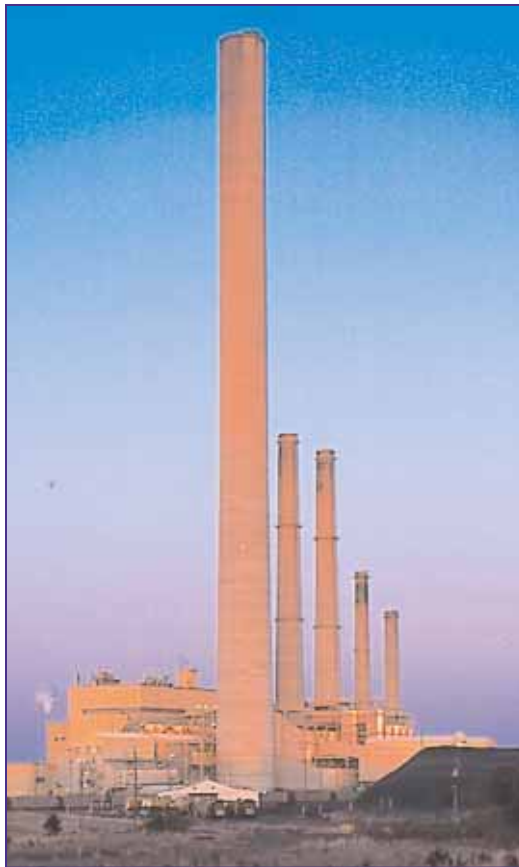
It is named for Harlee Branch Jr., former chairman of the board of Southern Company and president of Georgia Power. Construction on the plant began in 1961, and by the summer of 1969, four units were in operation. The 1,539,000 kilowatts generated by Plant Branch provides enough electrical power for 342,000 households.

## ABOUT THE PLANT

Unit 1 began commercial operation in 1965, with a generating capacity of 250,000 kilowatts. It was followed on line by Unit 2 in 1967, adding another 319,000 kilowatts to the plant's generating capacity. The 480,000 kilowatt Unit 3 was completed in 1968, and Unit 4 with 490,000 kilowatts of capacity, began operation in 1969.

The main operating area of the plant site includes the powerhouse and the turbine area for all four units; ash disposal ponds and ash settling pond; a retention pond; a coal-storage yard; and a 230-kilovolt substation that feeds electricity generated at the plant into Georgia's Integrated Transmission System.

The plant meets or exceeds requirements of state and federal agencies including the U.S. Environmental Protection Agency (EPA), the Georgia Environmental Protection Division (EPD), U.S. Department of Energy, U.S. Occupational Safety and Health Administration (OSHA), and the U.S. Equal Employment Opportunity Commission (EEOC).



## HOW ELECTRICITY IS PRODUCED AT PLANT BRANCH

Plant Branch operates on the same principles as other fossil-fueled electric generating plants. Coal that has been ground into a fine powder by a pulverizer is blown into a furnace-like device, called a boiler, and burned. The heat produced converts water, which runs through a series of pipes in the boiler, to steam. The high-pressure steam turns the blades of a turbine, which is connected by a shaft to a generator. The generator spins and produces electricity.

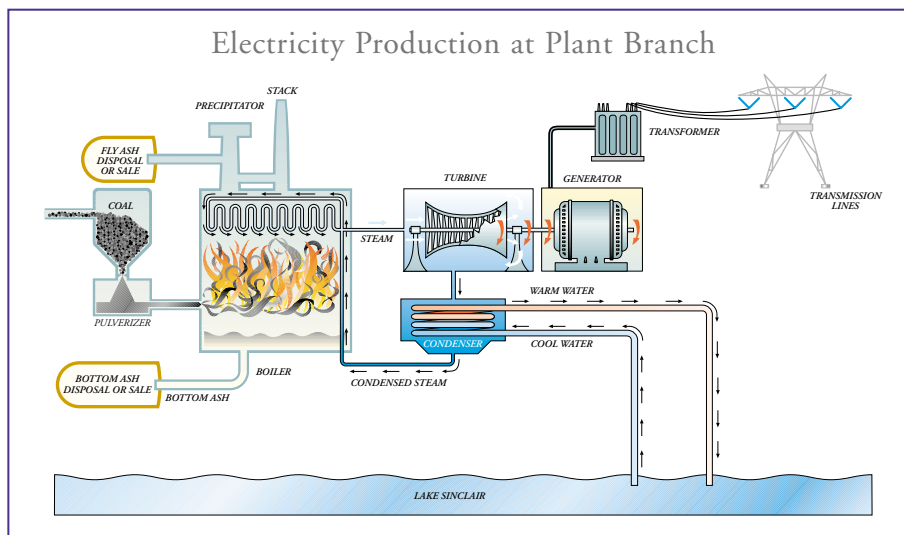
The four turbines at Plant Branch are powered by boilers capable of producing a combined total of 10.9 million pounds of steam per hour. With all four units in operation, the boilers burn about 3 million tons of coal per year. The coal needed to operate Plant Branch is kept in a storage and handling area next to the powerhouse.

An ample supply of coal is maintained at the site at all times, allowing the plant to continue operations should there be an interruption in coal deliveries.

A condenser for each unit converts turbine exhaust steam into water so it can be returned to the boiler for reuse in the steam-making process. In this closed cycle, the same water is used repeatedly.

Water drawn from Lake Sinclair serves as coolant in the condensers. After its trip through the condensers, this cooling water is discharged into Beaver Dam Creek, which is a tributary of Lake Sinclair.

As electricity is generated at Plant Branch, it is conducted to an adjacent substation, where a power transformer increases the voltage. The high-voltage electricity is then fed into transmission lines for distribution throughout the state.



All aspects of plant operations are centrally controlled to maintain highest efficiency.

## ENVIRONMENTAL COMPLIANCE

Georgia Power incorporates strict environmental standards into operating each generating facility. Plant Branch is no exception.

Samples of the plant's coal supply are analyzed regularly to ensure it complies with state air-quality regulations. To further protect the environment, electrostatic precipitators are used to remove more than 98 percent of the fly ash from the flue gases that leave the boiler after the coal-burning process. Opacity and gas monitors in the facility's 1,000-foot-tall stack continually measure and record the plant's emissions.

Environmental stewardship is also demonstrated through involvement in various habitat-enhancement activities and participation by employees in environmental activities within the company and the community. The plant recycles cardboard, paper and metal.

Through participation in Southern Company's Environmental Excellence Program, Plant Branch monitors all environmental trends and makes continuous improvements to the plant. Protecting the air, soil, water and wildlife is of paramount importance to Plant Branch's employees. The program helps create the highest possible environmental awareness among employees. They take pride in seeing that their plant attains or exceeds all environmental regulations, helping to solidify the company's position as an environmental leader. It is our policy to comply with or exceed all environmental laws and regulations. Plant Branch's management gives this issue the highest priority.



**Plant personnel monitor the environment around the plant to ensure compliance with state and federal regulations.**



**Wildlife abounds on plant property.**

## ECONOMIC EFFECT

Plant Branch has had a significant effect on the economic vitality of Putnam County and surrounding counties. It will continue to do so throughout its operating life.

The facility permanently employs more than 300 people, most of whom live in nearby communities. It has an annual payroll of more than \$14 million.

In addition, Putnam County receives more than \$2.9 million in property and sales taxes from Georgia Power each year.

Plant Branch not only contributes to the economy of central Georgia but also helps assure an adequate supply of electricity for the entire Southeast's economic growth.

## SAFETY AND HEALTH

The health and well-being of employees at Plant Branch is of the utmost importance. Safety is top priority in each of the many daily work activities, which stretch over this large facility. The employees' commitment to creating the safest work environment in the nation is exemplified by their various actions, ranging from daily safety briefings, training and safety observations, to signs and banners and recognition of those who demonstrate a commitment to safety.

## EMPLOYEES AND COMMUNITY SUPPORT

Plant Branch's team of employees is the foundation of the plant. Employees participate in many programs and service organizations. They also actively participate in and contribute to many community service organizations, including March of Dimes, United Way and Habitat for Humanity. They actively join in American Red Cross blood drives.

They act as mentors and participate in programs such as powerTOWN, an electricity safety program, and Environmental Teachers Corps. They are educating the community about energy, safety and Georgia Power.

**Cub Scouts have built a handicapped-accessible nature trail on Plant Branch property.**



## GEORGIA POWER AND SOUTHERN COMPANY

Georgia Power is the largest of five operating companies owned by Atlanta-based Southern Company, the largest investor-owned utility in the United States. The others are Alabama Power, Gulf Power, Mississippi Power and Savannah Electric. Southern Company also is parent to Southern Energy Inc., which designs, builds, owns and operates power production and delivery facilities and provides a broad range of energy-related services in the United States and international markets. Southern Company is the largest producer of electricity in the United States. By the end of 1998, Southern Company generated 164 billion kilowatt-hours at its U.S. facilities and operated more than 43,000 megawatts of capacity worldwide.

Georgia Power contributes 14,436 megawatts to Southern Company's total. It supplies electricity to 97 percent of the state of Georgia and has a transmission network serving 1.8 million customers. At the end of 1998, Georgia Power operated 43 plants with 153 generating units within its service territory.

Fossil fuels account for about 73 percent of the electricity generated by Georgia Power. The remainder is supplied by nuclear and hydroelectric plants.

