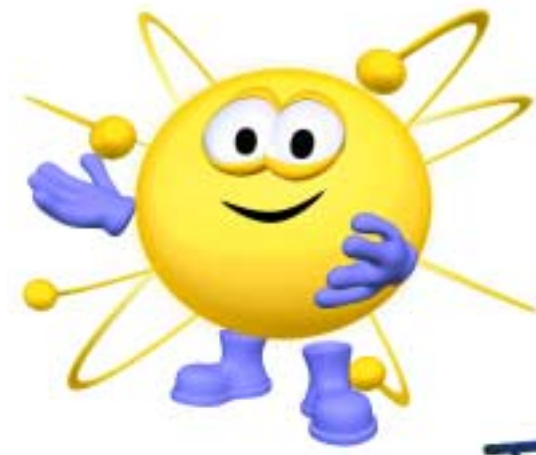


Making Electricity at the PowerHouse

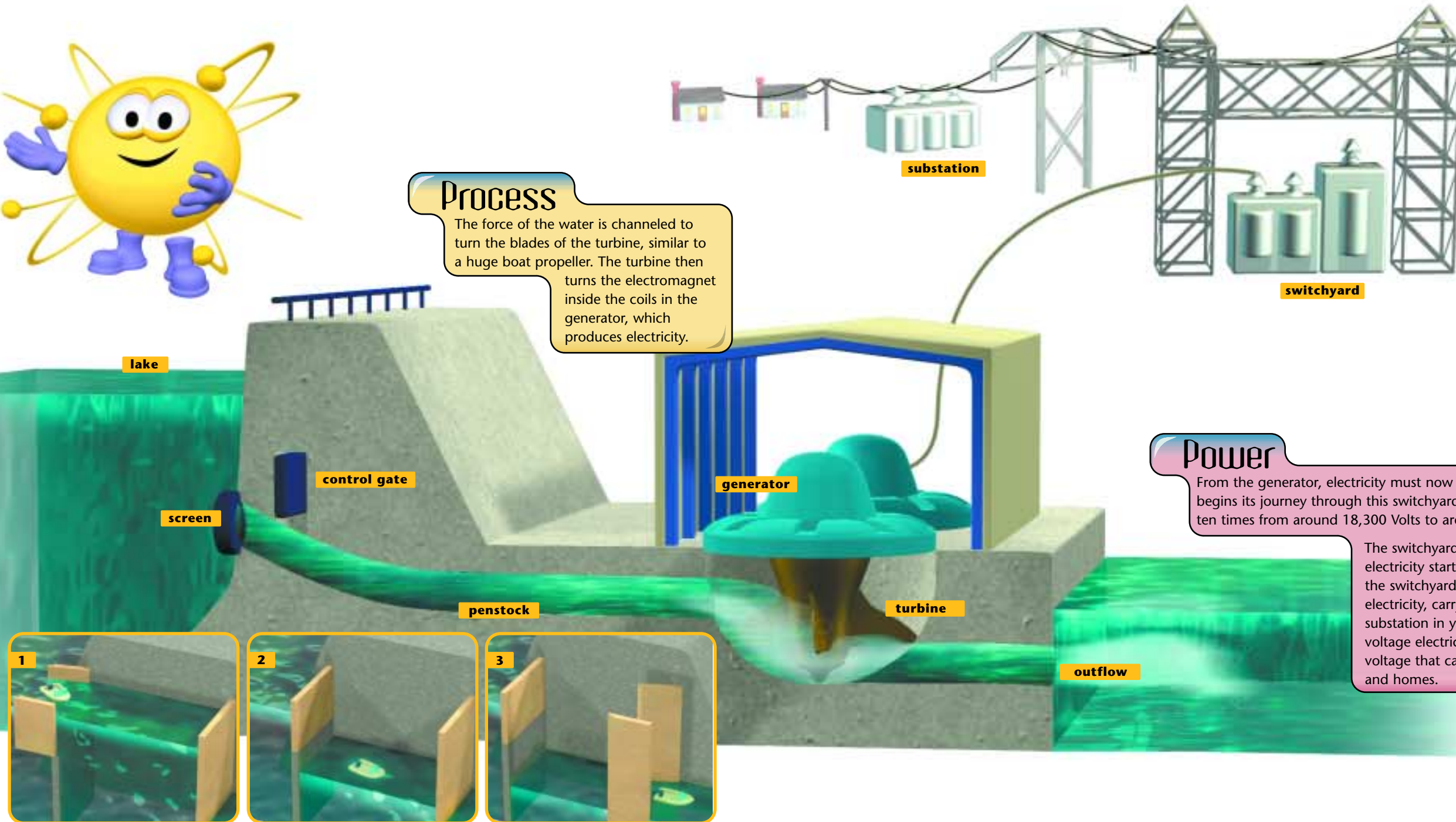


Natural Resource

Just to get started making electricity, you need equipment and energy. In the case of a hydroelectric power station such as Jefferies Hydro Station, the source of this energy is water—and lots of it! The downhill flow of water, as it rushes through the turbine, is the natural resource behind hydroelectric power. This clean, pure resource generates electricity without any associated fuel costs or environmental concerns.

Through the Locks

Water seeks its own level, which is how boats travel from Lake Moultrie through the Pinopolis Lock at Jefferies Dam. **1.** The two giant doors open allowing a boat to float into the lock at lake-level. **2.** Approximately 6 million gallons of water drain down to canal-level. **3.** The other doors open, and the boat floats out into the Tailrace Canal towards the Cooper River.



Process

The force of the water is channeled to turn the blades of the turbine, similar to a huge boat propeller. The turbine then turns the electromagnet inside the coils in the generator, which produces electricity.

Power

From the generator, electricity must now reach homes and businesses. It begins its journey through this switchyard, where transformers boost it about ten times from around 18,300 Volts to around 230,000 Volts.

The switchyard is like a highway on-ramp, where electricity starts its travels. Transmission lines leaving the switchyard are the interstate highways of electricity, carrying high-voltage power to a substation in your neighborhood. Here, the high-voltage electricity is "stepped down" to a lower voltage that can be used safely in your schools and homes.



Jefferies Hydroelectric Station

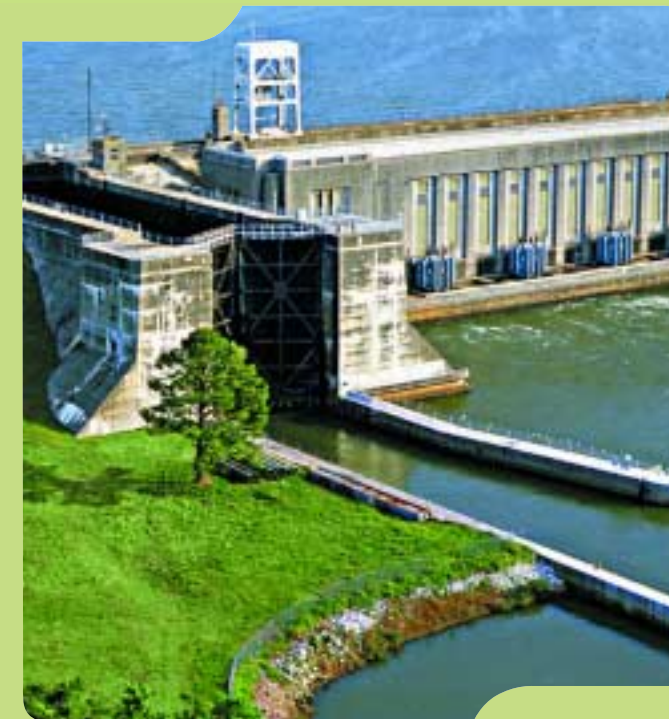
- Located in Moncks Corner, S.C.
- Began commercial operation in 1942.
- Five units at Jefferies produce 128 megawatts and form the centerpiece of Santee Cooper's hydroelectric operations resulting from the Santee Cooper Hydroelectric and Navigation Project, constructed from 1939 to 1942.
- Originally called the Pinopolis Power Plant, it was renamed in 1966 for Richard M. Jefferies, a former state senator and governor, and Santee Cooper's chief executive from 1943 to 1964.
- The Pinopolis Lock is located here, a 75-foot boat lift connecting the lakes to the Tailrace Canal and Cooper River.
- Combined with its steam-generated power, Jefferies can produce more than 526 megawatts of electricity—more than enough to light up every household in the Charleston area!

Santee Cooper POWER
Dependable Power. Dependable People.

Santee Cooper is South Carolina's

PowerHouse

Jefferies Hydro



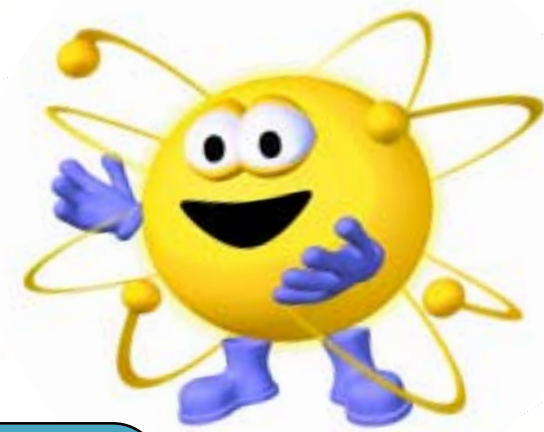
The Jefferies Hydroelectric Generating Station is located near Moncks Corner on Lake Moultrie. Jefferies' five turbine generators use the downhill flow of water as it passes into the Tailrace Canal to produce approximately 200 million kilowatt-hours each year.



Hi! I'm Edison the Electron—but you can call me Eddie! Follow me as we explore a powerhouse!

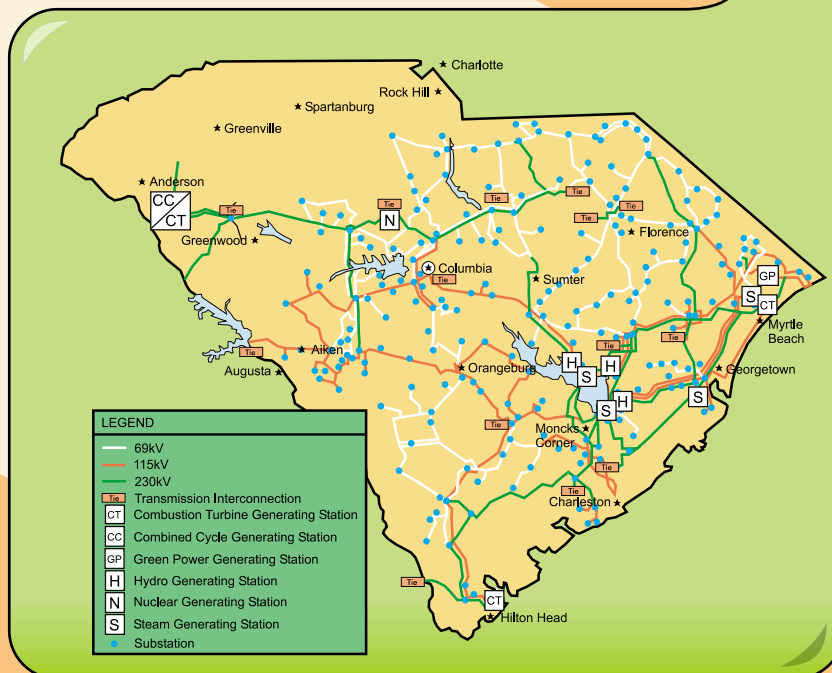


Santee Cooper is South Carolina's PowerHouse



Santee Cooper Networks

Santee Cooper is South Carolina's most powerful resource. With five generating stations, a mix of hydroelectric, steam and natural gas-fired generating stations, Santee Cooper provides dependable, low-cost electricity directly to customers in Horry, Georgetown and Berkeley counties. By connecting to a network of almost 7,000 miles of transmission and distribution lines, Santee Cooper also provides power to members of all 20 electric cooperatives in the state. Now that's really "power to the people," over 1.6 million people in all!



GOFER Sited Statewide

Santee Cooper's Give Energy for Oil Recovery (GOFER) program saves precious energy resources by recycling used motor oil. The used oil is collected in special trucks at drop-off sites across the state and is taken to be burned as fuel to make electricity. In addition to recycling used motor oil, GOFER keeps the oil from being dumped on the ground or in our sewer which can pollute our drinking water. For GOFER site locations, visit www.scgofer.org



Energy Conservation

Recycling and saving energy can save your family a lot of money. So, please, turn off the lights when you leave the room! Using electricity wisely helps Santee Cooper use less of our earth's precious energy resources to make electricity. Hey, for more ways to save energy around your house, visit our special Web site, www.scsave.com, for a whole list of energy-saving tips.

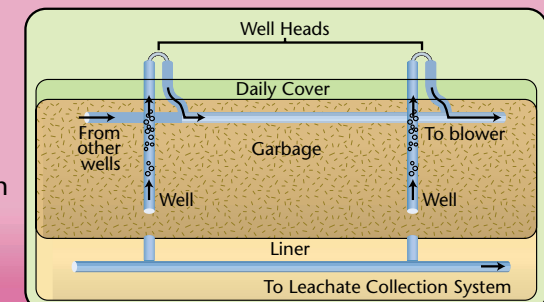


Environmental Awareness

Because so many people enjoy boating and fishing on our lakes, Santee Cooper is as committed to keeping the environmental standards high as we are to providing power at low rates. We constantly monitor air and water quality around our generating stations to ensure that we maintain standards that comply with all Federal Environmental Protection Agency regulations. Also, each year Santee Cooper sponsors an Environmental Essay Contest for seventh-grade students across the state. It gives them a chance to learn more about the world around them and to win prizes in the process!

Green Power

Santee Cooper is the first utility in South Carolina to offer Green Power. Green Power is electricity made from natural or renewable energy sources, such as wind, solar or, as in Santee Cooper's operation, gases produced by garbage decomposing in landfills. By purchasing Green Power from Santee Cooper you can help the environment.



Powerful Careers

More than 1,700 people work at Santee Cooper. They enjoy careers as line technicians, lab specialists, engineers, accountants and more. And they're challenged to apply their skills and learn more each day. To help them, employees each year benefit from the company's tuition aid program.



Science and Technology

Santee Cooper depends on powerful computers to monitor its operations and keep things running at peak performance. Santee Cooper employees put computer technology and skills in physics, mathematics and chemistry to work in their jobs every day.



A History of Public Service

In 1934, only 3 percent of South Carolina's rural residents had electricity. That's when the Legislature created Santee Cooper to provide public power to the people who lived in the small towns and farms across the state. In just 10 years, more than 93 percent of them had electric power to light their homes.



Community Action

Today, Santee Cooper does more than provide dependable power at some of the lowest rates in the nation. Through community outreach programs we sponsor education, electrical safety, energy conservation and environmental awareness programs. We work to attract more businesses and jobs to the communities we serve. For more information on our community programs, visit www.sclearn.com.

