ater is an essential component in the generation of electricity, from steam-driven turbines to hydroelectric power, and finding new ways to protect water resources and use them more efficiently is a priority for Georgia Power and the electric utility industry.

Georgia Power, in partnership with the Electric Power Research Institute, Southern Research Institute and other generation companies, created the Water Research Center at Plant Bowen near Cartersville, Ga., to identify technologies that will reduce, conserve and improve the quality of water returned to the environment from power plants.

The Water Research Center focuses on seven distinct research areas of study, such as moisture recovery, carbon technology water issues and solid landfill water management, among others. The first-of-its-kind research facility is expected to yield industry wide insights that will help minimize the use and increase conservation of this valuable natural resource.





id You Know?

Georgia Power withdraws approximately 1.3 billion gallons of water per day from Georgia's public waterways, but returns about 90 percent (or 1.1 billion gallons) of it back to its source.

Georgia Power's plants consume about three-fourths of a gallon of water through evaporation from its cooling towers to generate one kilowatt-hour of electricity.

About 26 gallons of water a day

— or a half-filled bath tub —

are needed to generate

the electricity for a

typical Georgia home.

Each cooling tower at
Plant Bowen circulates
about 300,000 gallons
of water per minute
— the same amount
circulated by the Georgia
Aquarium in one minute. That's
also enough water to fill an
Olympic-size swimming pool in
about two minutes.

Virtually all of the water consumed in electricity production at Georgia Power coal-fired generating plants is lost through evaporation from cooling towers. That equates to about 156 million gallons per day, or the volume of three Georgia Power headquarters.



Consumption is the difference between water withdrawn and water returned to the source, which is then available for downstream water demands.

In 2012, Plant Bowen's operation reduced the flow in the Etowah River by less than 1 percent to provide the power for one-third of Georgia Power's 2 million residential customers.





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