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**SMART ENERGY**


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**WHAT'S SMART ABOUT SOUTHERN COMPANY?**


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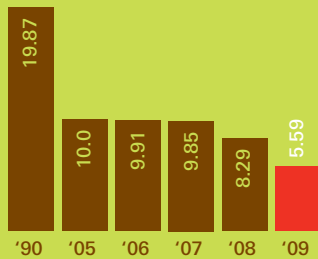
**Our drive to find cutting-edge technologies that will help grow our clean, reliable, affordable energy supply and our energy efficiency initiatives.**

Southern Company believes the key to meeting our growing energy demand is a broad portfolio of available energy resources, including energy efficiency, renewable energy, clean coal, new nuclear, natural gas, and hydro. We are aggressively working to reduce the inefficient use of energy through our efficiency and conservation programs. We have dozens of research projects under way as we explore and develop renewable energy options, including biomass, solar, wind, geothermal, and landfill gas. We are researching more economical ways to produce cleaner energy at the National Carbon Capture Center in Wilsonville, Ala., and at our world-renowned Mercury Research Center in Pensacola, Fla. We're an industry leader in the research and development of clean-coal technologies. Pending final approval, we plan to begin construction this year on a Mississippi plant

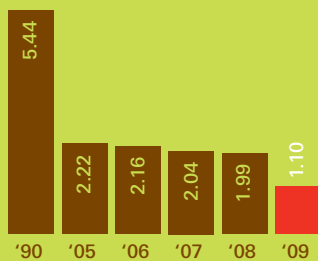
that will produce energy using an advanced coal-gasification technology that we helped to develop. We are the first utility in the nation to begin early site work on new nuclear generation. We are constructing two new nuclear units at our Vogtle plant in Georgia, and earlier this year we received approval for a conditional loan guarantee totaling approximately \$3.4 billion for this project. We are working on several projects to promote distributed generation – small-scale sources of generation located near the areas they serve – including energy storage and renewable energy. In the future, distributed generation is expected to play a role in helping our company and our industry meet demand and reduce the need for long-distance transmission infrastructure. As you can see, we are delivering a diverse portfolio of smarter, cleaner energy sources.

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**New Nuclear** – Southern Company is on schedule to be the first U.S. utility in more than 30 years to build new nuclear-powered generation. The project will add two new units with more than 2,200 megawatts of capacity at Plant Vogtle in Georgia, with startups planned for 2016 and 2017. Plant Vogtle's two existing units have more than 2,400 megawatts of capacity. The additional units are expected to create approximately 3,500 jobs during construction and an additional 800 permanent jobs when the units begin operation. Jim Williams (pictured) is the site support manager helping to oversee construction of the two new units.



**SULFUR DIOXIDE (SO<sub>2</sub>) EMISSIONS**  
(POUNDS PER MEGAWATT-HOUR)



**NITROGEN OXIDE (NO<sub>x</sub>) EMISSIONS**  
(POUNDS PER MEGAWATT-HOUR)

To preserve our low-cost generation, we're installing new environmental technologies on our coal units that greatly reduce emissions. Since 1990, we've invested \$7.5 billion in these technologies, reducing emissions of SO<sub>2</sub> by approximately 60 percent and NO<sub>x</sub> by approximately 70 percent, while increasing electricity generation by more than 30 percent. Over the next three years, we plan to invest another \$2.4 billion in these technologies to further reduce emissions of SO<sub>2</sub> and NO<sub>x</sub>, as well as mercury.

**Energy Efficiency** – We continue to invest millions each year in programs designed to help customers use energy more efficiently, thus reducing the need for new generation. So far, we've reduced peak electricity demand by 3,200 megawatts. Now we plan to invest \$1 billion by 2020 to reduce peak demand by another 1,000 megawatts.

① **Biomass** – After years of successful power plant testing, we're ready to go commercial with biomass. We broke ground in Texas last year on one of the largest 100 percent biomass plants in the nation. The 100-megawatt Nacogdoches Generating Facility will serve the city of Austin for 20 years. We also plan to convert existing plants from coal to biomass.

② **Renewables** – We recently formed a partnership with Turner Renewable Energy, owned by business leader and environmentalist Ted Turner, to pursue development of renewable energy projects in the U.S. Initially, we will focus on developing and investing in large-scale solar projects in the Southwest, where solar resources are currently most efficient, with the goal of further commercializing the technology and making it more cost-competitive. Aside from this partnership, we're producing energy from biomass and landfill methane gas, and we're marketing geothermal technology. We continue to test solar energy and study the potential for wind energy in the Southeast. Our 196-foot meteorological tower on Florida's Gulf Coast measures wind speed and duration and air temperature. By analyzing this data, we will be able to determine if wind is a cost-effective energy resource in northwest Florida. Steve Wright (pictured), the renewable energy project developer overseeing this project, shows how anemometers attached to the tower measure wind speed.

③ **Clean Hydro** – Hydropower is the least expensive and cleanest form of energy we produce. It is an important part of our current fuel mix and future plans. Pumped-storage hydro – a form of energy storage – releases water for generation, captures it in a lower reservoir, and pumps it back up to a higher reservoir for re-use. Jerry Nelson (pictured) is one of eight mechanics at Wallace Dam who oversee maintenance of the daily operations of the plant.

④ **National Carbon Capture Center** – Chosen by the U.S. Department of Energy to manage and operate this center in Wilsonville, Ala., we are leading the nation's efforts to test technologies that will economically capture carbon dioxide. The work of engineer WanWang Peng (pictured) and others will serve as a crucial bridge to move this technology from the lab to commercial demonstration.

**Clean Coal** – We have taken the Integrated Gasification Combined Cycle technology of turning coal into a clean, synthetic gas and advanced it into a more efficient technology called Transport Integrated Gasification (TRIG™), which produces energy from low-rank coals such as lignite. Pending regulatory approval, we plan to break ground this year on a 582-megawatt TRIG plant in Mississippi, where lignite is abundant. This plant will capture about 65 percent of its carbon dioxide emissions, which will be compressed and sold for use in an oil recovery process. Our TRIG technology is expected to make its first commercial debut in China by 2012, replacing the use of fuel oil at an existing 120-megawatt plant.

