A man in a suit and tie is holding a glass flask containing a clear liquid. The flask has markings for 100, 150, 200, and 250 ml, with 'APPROX.' written below the 250 ml mark. The word 'CARBON' is printed in large white letters across the flask, and 'SMART' is printed in large red letters to the right of the flask. In the background, there is a molecular model with blue and white spheres. The background is a grid pattern.

Nick Irvin, an engineer in research and technology management, is involved in the development of technology that captures carbon dioxide from coal-fueled power plant emissions. Both liquid and solid substances are being tested, as the industry seeks new, innovative, and cost-effective ways to capture carbon dioxide. Southern Company is currently focusing on testing various liquid substances, called solvents, to find the best solution to this challenging problem.

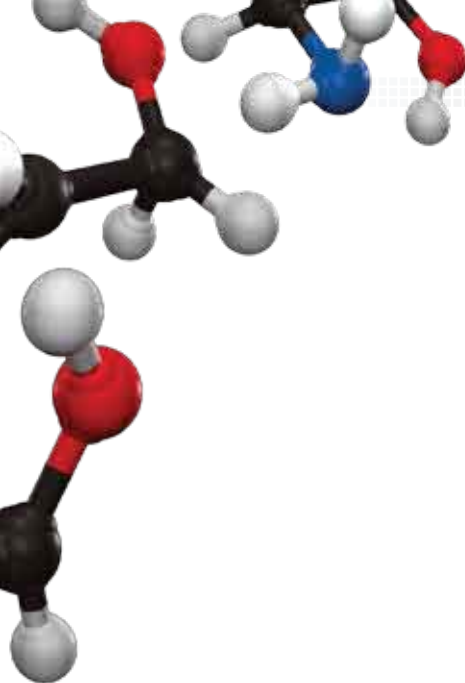
CARBON SMART

We're embarking on a "first" in our industry. Using our own advanced coal-gasification technology and locally mined lignite, we plan to break ground on a 582-megawatt plant in Mississippi in 2010, pending state approval.

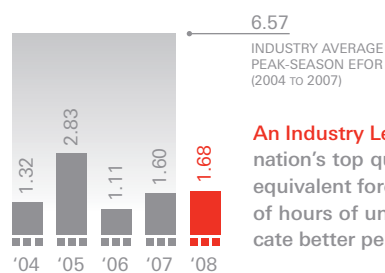
We also plan to use new technology that captures half of the carbon dioxide emissions, making this the nation's only gasification-based electric generating plant with this capability. These emissions will be compressed, stored underground, and used for enhanced oil recovery.

Our research is demonstrating that carbon dioxide storage is technically viable and safe. More demonstrations are planned to better understand the costs and deep geologic capacity for this form of carbon storage.

We are operating and helping fund the U.S. Department of Energy's National Carbon Capture Center, which is devoted to finding technology-based solutions that reduce greenhouse gases while ensuring that electricity remains reliable and affordable. That's Carbon Smart.



Mercury Research Center. Southern Company's world-renowned Mercury Research Center in Pensacola, Fla., has been the test site of many programs aimed at the development of new and innovative emissions-control technologies. Since opening in 2006, 18 companies from the U.S., Japan, Germany, France, and Denmark have conducted research and technology development at the facility. During a recent Southern Company-led study, researchers injected activated carbon into emissions to make mercury molecules easier to capture. If successful, the test could lead to additional cost-effective methods to reduce mercury emissions from coal-powered plants. The work of engineer Jessica Freeland and many others has been critical to the success of the facility.



**SOUTHERN COMPANY
PEAK-SEASON EFOR**
(PERCENT)

An Industry Leader In Operations. Southern Company is consistently listed in the nation's top quartile for peak-season performance as measured industrywide by equivalent forced outage rate (EFOR). EFOR is calculated by dividing the number of hours of unplanned outages by total generation hours, and lower scores indicate better performance. We consistently score better than the industry average.

Smarter Generation. Climate change is a worldwide challenge, and Southern Company is committed to finding solutions through technology that make environmental and economic sense. Our diverse portfolio of generation sources and our increased commitment to energy efficiency are also essential to meeting the growing needs of customers and addressing environmental challenges.

We continue to invest billions of dollars to help improve our environment now and for future generations, and we are ever committed to safely providing reliable, affordable electricity to our customers.

Because coal is the most abundant, affordable, secure fuel resource available in the U.S. today, our research and development of cleaner coal technologies continues. In fact, we are an industry leader in developing advanced clean-coal technologies. Our selective catalytic reduction technology is recognized as among the best in the industry. Since 1990, this technology has helped us reduce our emissions of nitrogen oxides by 40 percent, while generation has increased by 37 percent. Our planned advanced coal-gasification facility in Mississippi, featuring carbon dioxide capture and storage, will also play a critical role in the sustainability of coal as a fuel for power generation.

Our research into biomass generation has proven so successful and economical that we're converting one of our coal plants into a 100 percent biomass plant. Using wood chips to produce electricity, this 96-megawatt plant will be one of the largest biomass plants in the U.S. Our wind research has moved offshore, where wind velocities are higher. We're also studying the development of wind turbines that may be more suitable to our climate. And we're embarking on solar test projects at two of our largest corporate buildings, as well as researching the energy production capabilities of solar panels on billboards along Florida highways.

We continue to progress with our plans to build two new nuclear units in Georgia, each with a capacity of 1,100 megawatts. Pending licensing, the first of these two units is expected to be in service in 2016 and the second is expected to follow in 2017.

A diverse portfolio—energy efficiency and conservation, renewable energy sources, new nuclear generation, and clean-coal technologies—plays a vital role in meeting our company's and our nation's rising energy demand in an environmentally responsible way.

Nuclear Energy is clean, safe, reliable, and economical. We believe it is a smart energy choice and must be a part of our energy portfolio. A single uranium pellet the size of a pencil eraser can produce as much electricity as 17,000 cubic feet of natural gas, 1,780 pounds of coal, or 149 gallons of oil.

