



PSDF Inducted into Alabama Engineering Hall of Fame

February 2011

The Power Systems Development Facility (PSDF) was inducted into the State of Alabama Engineering Hall of Fame at a ceremony Saturday in Montgomery.

The Hall of Fame honors individuals, projects and corporations with outstanding accomplishments in the field of Engineering who have significantly contributed to the betterment of their communities.

"This award is a tribute to the dedication and engineering excellence of the many Southern Company employees that have worked at the PSDF over the years," said Kerry Bowers, Director of the facility. "Through their collective contributions, new technology solutions for coal-based power generation are becoming a reality."

Advanced technology

Established in 1995, the PSDF leads the United States' efforts to develop coal-based-power-plant technologies that are cleaner, less expensive and more environmentally acceptable.

The facility is co-funded by the United States Department of Energy, Southern Company and other industrial organizations. Located in Wilsonville, Ala., the PSDF employs 131 full-time Southern Company and Alabama Power personnel. 137 other positions are filled by construction labor brokers and other subcontractor employees.

As a pre-commercial-scale R&D and testing facility, the PSDF evaluates emerging coal-based power technologies and components. An important feature of the PSDF is that it's designed at a size large enough to provide meaningful data under real operating conditions for commercial power plant use. This allows components to be integrated into a complete functioning system, so that the interactions can be observed – this advantage can't be done in individual component development programs.

The PSDF has consistently produced innovations by testing advanced coal-based electric power technologies, including: gasification, combustion and syngas cleanup processes.

The PSDF is the host of the National Carbon Capture Center engaged in working with technology companies world-wide to accelerate the development of affordable CO₂ capture technologies.

PSDF's success – TRIG™ in action:

The PSDF developed Transport Integrated Gasification (TRIG™), which was selected for commercial deployment through the Department of Energy's Clean Coal Power Initiative. Plant Ratcliffe, in Kemper County, Miss. will introduce the first commercial application of TRIG™ technology. The 582-megawatt Mississippi Power plant is expected to begin operation by 2014.

In China, the Dongguan TMEP Facility will add TRIG™ to an existing gas-turbine-combined-cycle plant so that it can use clean, synthetic gas from coal as its fuel for generating electricity rather than fuel oil. The plant will prove that TRIG™ offers an effective solution to China's energy needs.

By advancing engineering innovation, the PSDF has provided new paths for our nation's energy future.