

Plant Oleander

Location

Cocoa, Florida

Capacity

791 MW

Fuel Resource

Natural Gas

Ownership

Southern Power



Plant Oleander is a dual fuel, simple-cycle combustion turbine electric-generating plant located near Cocoa, Florida. The primary fuel is natural gas and the backup fuel is distillate (fuel oil). The plant went online in June 2002 and was purchased by Southern Company from Constellation Energy in the spring of 2005.

Size

The plant consists of five combustion turbine units, four at 157 megawatts, and one at 163 megawatts, with a combined capacity of 791 megawatts.

Technology

Simple-cycle technology is an efficient and environmentally-sensitive method of generating electricity. In a simple-cycle combustion turbine, an electric motor turns a turbine shaft causing air to flow through the inlet air filter. After the air is compressed, it is mixed with fuel in combustion chambers and is burned. The expanding burned fuel is directed through turbine blades, forcing them to turn. The turbine is directly coupled to the generator and jointly turns at 3,600 RPM. The first four combustion turbines produce electricity at 18,000 volts before being “stepped up” in a

transformer to 230,000 volts for transmission, while the 5th combustion turbine produces electricity at 18,000 volts before being “stepped up” in a transformer to 138,000 volts for transmission.

Economic Impact

Plant Oleander provides millions of dollars in economic benefits to the city of Cocoa, Brevard County, and the surrounding, growing Florida market. Nearby counties and the entire state also benefit by job availability and the economic development boost created by having immediate access to a reliable source of electric power.

Southern Power, a subsidiary of Southern Company, is a leading U.S. wholesale energy provider meeting the electricity needs of municipalities, electric cooperatives, investor-owned utilities and other energy customers. Southern Power and its subsidiaries own or have the right to own 47 facilities operating or under construction in 11 states with more than 12,800 MW of generating capacity in Alabama, California, Florida, Georgia, Maine, Minnesota, Nevada, New Mexico, North Carolina, Oklahoma and Texas.

Atlanta-based Southern Company is America's premier energy company, serving 9 million customers through its subsidiaries with clean, safe, reliable and affordable energy. With electric utilities in four states, natural gas distribution utilities in seven states, a competitive generation company serving wholesale customers across the country and a nationally recognized provider of customized energy solutions, as well as fiber optics and wireless communications, Southern Company and its subsidiaries are inventing America's energy future.

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