

Plant Cleveland

Location

Cleveland County,
North Carolina

Capacity

720 MW

Fuel Resource

Natural Gas

Ownership

Southern Power



Plant Cleveland is a natural gas-fueled, simple-cycle combustion turbine electric generating plant located near Grover in Cleveland County, North Carolina. The plant will be used to serve the growing electricity needs in the Carolinas and elsewhere in the Southeast. The plant's four generating units began commercial operation on Dec. 1, 2012.

Size

The plant consists of four combustion turbine units, with a combined capacity of 720 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 combustion turbine produces electricity at 16,800 volts before being "stepped up" in a transformer to 230,000 volts for transmission.

Economic Impact

The Cleveland County Generating Facility is expected to produce millions of dollars in economic benefits through job creation and property taxes for Cleveland County and the surrounding, growing market of the Carolinas.

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