

# PROJECT CASE STUDY

## POWERSOUTH COMPRESSED AIR ENERGY STORAGE

PowerSouth's McIntosh Power Plant includes four natural-gas fired combustion turbines and the United States' only Compressed Air Energy Storage (CAES) unit. The unit captures off-peak energy at night, when utility system demand and costs are lowest. Compressors force air into an underground storage reservoir at high pressure. The stored energy is then used during peak energy demand periods to generate enough electricity to power 110,000 homes. The CAES unit produces only about one-third the pollutants of a conventional gas combustion turbine.

In 2010, PowerSouth began construction of two new natural gas-fired generation units (no's 4 and 5) to add an additional 448MW of capacity to the McIntosh Power Plant. After 19 months of construction, the new units were completed ahead of schedule and \$52 million under budget, bringing the company's total generation capacity to more than 2,170 megawatts.

Lectrus provided two (2), watertight, fully integrated 16 ft x 49 ft electrical equipment centers for Units 4 and 5. We created a custom, NEMA 3R walk-in enclosure to house and protect critical power distribution equipment used to support the compressed air energy storage process, including: 480V and 4160V switchgear; transformers; control and distribution panels; 5kVA inverter; battery charger and rack; and switchboards and panel boards. The equipment was cooled with 15 tons of HVAC.

For more information about our company, products and services, or to request a proposal for your next project, please visit [lectrus.com](http://lectrus.com) or send an e-mail to [info@lectrus.com](mailto:info@lectrus.com).



### PROJECT PROFILE

#### // PROJECT //

PowerSouth Compressed Air Energy Storage, Units 4&5

#### // LOCATION //

McIntosh, Alabama

#### // MARKET SEGMENT //

Power Generation

#### // PRODUCT //

Equipment Center

#### // ENCLOSURE SIZE //

16ft x 49ft

#### // DATE COMMISSIONED //

November 2010

#### // CUSTOMER //

Siemens

#### // ENGINEER //

Black & Veatch

#### // OWNER //

PowerSouth Energy Cooperative

#### // LECTRUS REPRESENTATIVE //

Selectric Sales

# lectrus®

ENGINEERED TO SPEC. BUILT TO LAST.

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