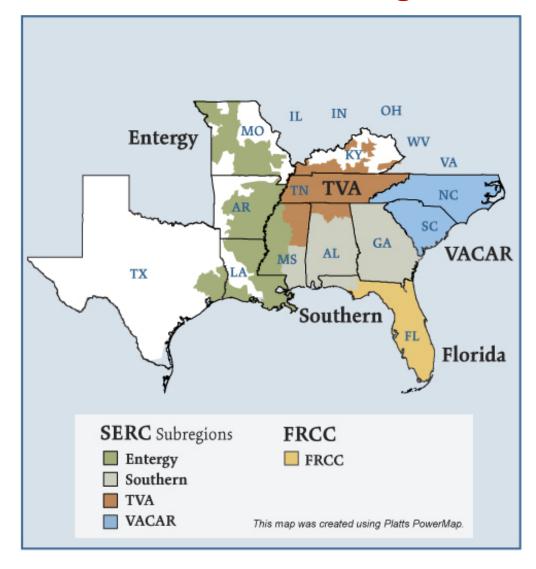
## **Southeast Electric Regions**



#### **Overview**

#### **Market Description**

Florida Reliability Coordinating Council (FRCC) and SERC Reliability Corporation (SERC) reliability regions minus the portions of SERC in the Midwest ISO (MISO) and in PJM.

#### Geography

States covered: All or most of Florida, Arkansas, Louisiana, Mississippi, Alabama, Georgia, Tennessee, North Carolina, South Carolina and parts of Missouri, Kentucky and Texas.

Reliability region: Southeastern Electric Reliability Council (SERC) and Florida Reliability Coordinating Council (FRCC)

Balancing authorities: See list on page 5 and 6.

Hubs: Entergy, Southern, TVA

#### RTO/ISO

None

## **Generation/Supply**

Marginal fuel type: Coal and natural gas

Generating capacity (summer 2006): 299,712 MW

Capacity reserve (summer 2006): 64,188 MW

Reserve margin (summer 2006): 27%

#### **Demand**

All time peak demand: 237,100 MW (2005)

In summer of 2006, demand in parts of the region, such as the Southern Company service area, reached record levels on several occasions due to extremely hot weather.

Peak demand growth: -0.6% (2005–2006)

Summer Peak Demand (MW): 237,100 (2005) 235,524 (2006)

Source: Derived from SERC and FRCC data and discussions.

#### **Prices**

Annual Average of Daily Bilateral Day Ahead On-Peak Prices

Platts "Into Southern" Index

2004: \$48.64/MWh 2005: \$70.90/MWh 2006: \$56.11/MWh

Prices increased in 2005 as a result of disturbances to the natural gas market. Prices declined in 2006 as natural gas storage levels remained above historical ranges throughout the injection season (April through October).

#### Interconnections/Seams

Coming soon

#### **Focal Point**

**Florida Power Demand:** Power demand in peninsular Florida grew 4.3% per annum in the four years ending 2005, compared to the United States average of 2.6%, according to EIA statistics. The state's utilities have increasingly relied on gas-fired generation, which produced 33% of 2005 electricity output and is projected to hit 44% in 2015. The Florida Public Service Commission has noted that this trend could increase both reliability and pricing risks.

**Drought Affects Hydro:** A continued drought in the Southeast has left hydroelectric facilities with significantly lower water levels going into this summer than in previous years. For example, Southern Company expects its hydroelectric facilities to have decreased capacity of almost 1,600 MW, down almost 70% from its normal hydro capacity.

**New Nuclear Capacity**: The Tennessee Valley Authority (TVA) returned its nuclear plant Browns Ferry Unit 1 to operation on May 21, 2007 after over 20 years of inactivity. The Browns Ferry Nuclear Plant located outside of Huntsville, Alabama is made up of two nuclear units that were first put into operation in 1977. Since 1985, however, Unit 1 has been idle. Because of increased electric demand within TVA, the TVA Board voted in 2002 to restart the unit at a cost of \$1.8 billion. Browns Ferry Unit 1 will provide an additional 1,100 MW of capacity.

#### **Balancing Authorities in the Southeast Electric Market**

#### **Regional Reliability Council and Balancing Authority NERC Acronym FRCC HST** City of Homestead City of Tallahassee **TAL** Florida Municipal Power Pool **FMPP** Florida Power & Light **FPL** Florida Power Corporation **FPC** Gainesville Regional Utilities GVL JEA (Jacksonville) **JEA** Reedy Creek Improvement District RC Seminole Electric Cooperative **SEC** Tampa Electric Company **TEC** Utilities Commission, City of New Smyrna Beach **NSB SERC** Alabama Electric Cooperative, Inc. **AEC** Associated Electric Cooperative, Inc. **AECI** Batesville Control Area **BCA** Big Rivers Electric Corp. **BREC** CECD, LLC - Conway **CNWY** Progress Energy Carolinas - EAST **CPLE** Progress Energy Carolinas - WEST **CPLW** DECA, LLC - North Little Rock DENL DECA, LLC - Ruston **DERS Duke Power Company** DUK Electric Energy, Inc. EEI Entergy Services, Inc. **EES** East Kentucky Power Cooperative, Inc. **EKPC** Louisiana Generating, LLC LAGN Union Power Partners, LLC **PUPP** South Carolina Public Service Authority (Santee Cooper) SC South Carolina Electric & Gas Company **SCEG** Southeastern Power Administration - Hartwell **SEHA SERU** Southeastern Power Administration - Russell Southeastern Power Administration - Thurmond **SETH** South Mississippi Electric Power Association **SMEE** Southern Company Services, Inc. **SOCO** Tennessee Valley Authority **TVA** CECD, LLC - West Memphis **WMUC** Alcoa Power Generating, Inc. - Yadkin Division YAD

The following SERC balancing authorities are members of MISO and are included in the Midwest electric market:

Ameren Transmission

Illinois Power Co.

Central Illinois Light Co

Southern Illinois Power Cooperative

Columbia Water & Light

CWLD

PJM Interconnection balancing authority for Dominion and is included in the PJM electric market.

**Source: WWW.TSIN.com** 

(ftp://www.nerc.com/pub/sys/all\_updl/oc/opman/ctrlareg.pdf)

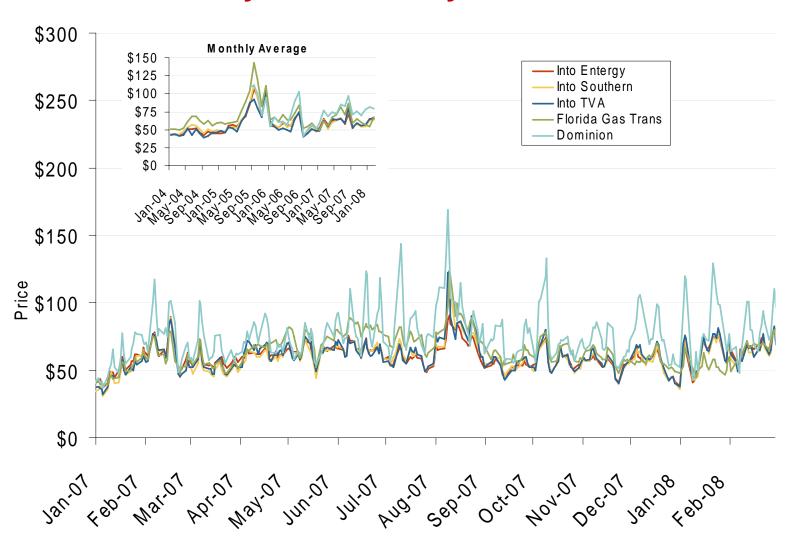
## **Supply and Demand Statistics for the Southeast**

Supply Demand Statistics			
	2004	2005	2006
Summer Generating Capacity MW	272,604	297,221	299,712
Summer Peak Demand MW	220,299	237,100	235,524
Summer Reserves MW	52,305	60,121	64,188
Summer Reserve Margin:	24%	25%	27%
Annual Load (GWh):	1,077,069	1,188,598	1,205,776

# **Annual Average Bilateral Prices**

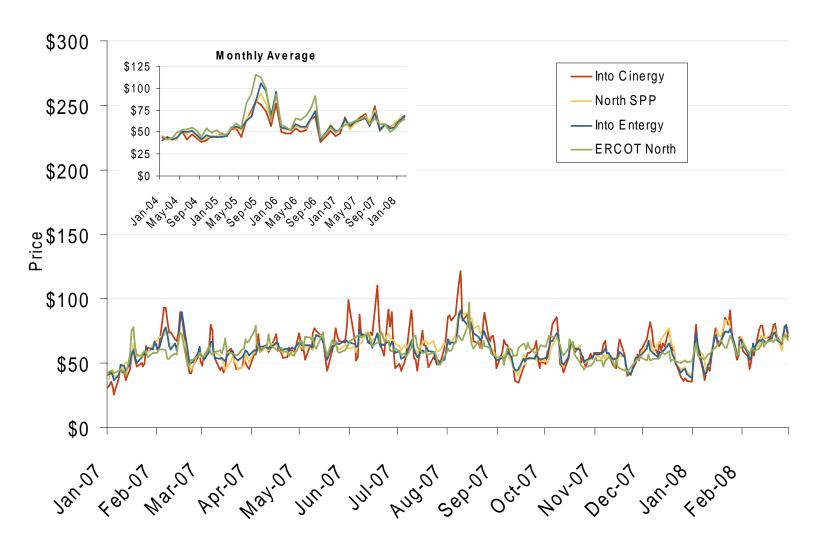
Annual Average Day Ahead On Peak Prices (\$/MWh)				
	2005	2006	2007	5 Years
VACAR	\$71.88	\$56.34	\$60.52	\$55.70
Southern	\$70.84	\$55.50	\$59.10	\$55.11
TVA	\$67.39	\$53.48	\$60.28	\$52.83
Florida	\$85.03	\$64.02	\$65.59	\$65.02
Entergy	\$69.96	\$56.28	\$59.74	\$54.62

## Southeastern Daily Bilateral Day-Ahead On-Peak Prices



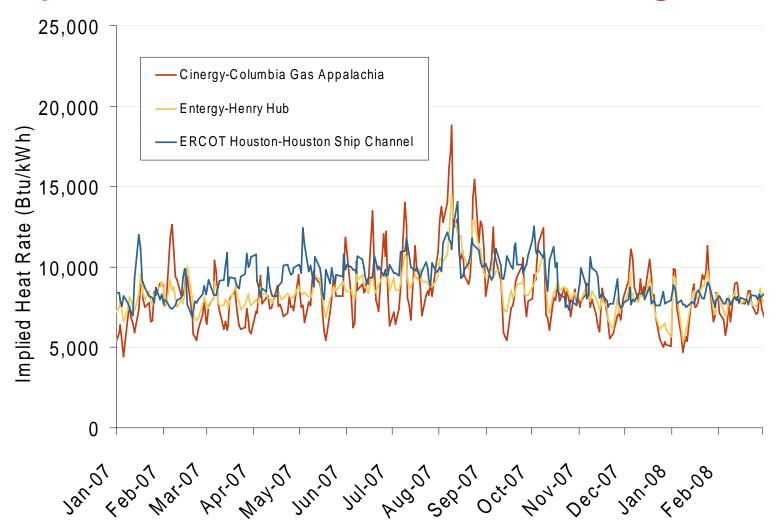
Source: Derived from Platts data.

## Midwestern Daily Bilateral Day-Ahead On-Peak Prices



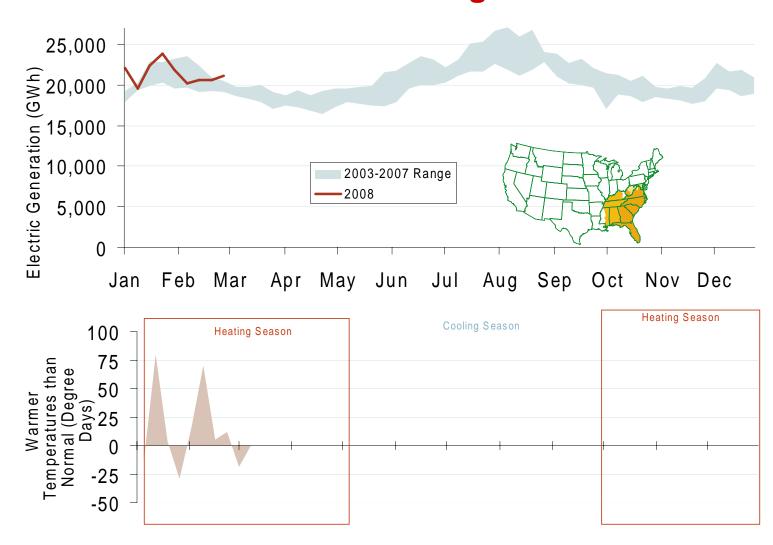
Source: Derived from Platts data.

## Implied Heat Rates at South Central Trading Points

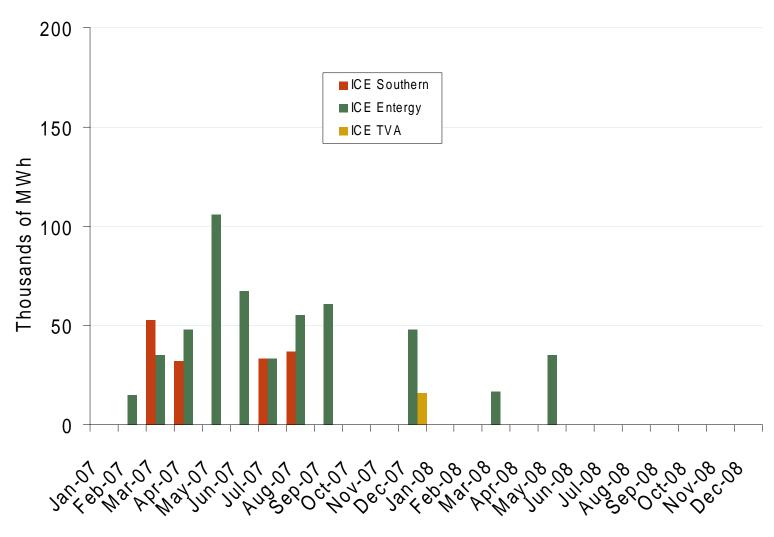


Source: Derived from Platts data

# Weekly Electric Generation Output and Temperatures Southeast Region

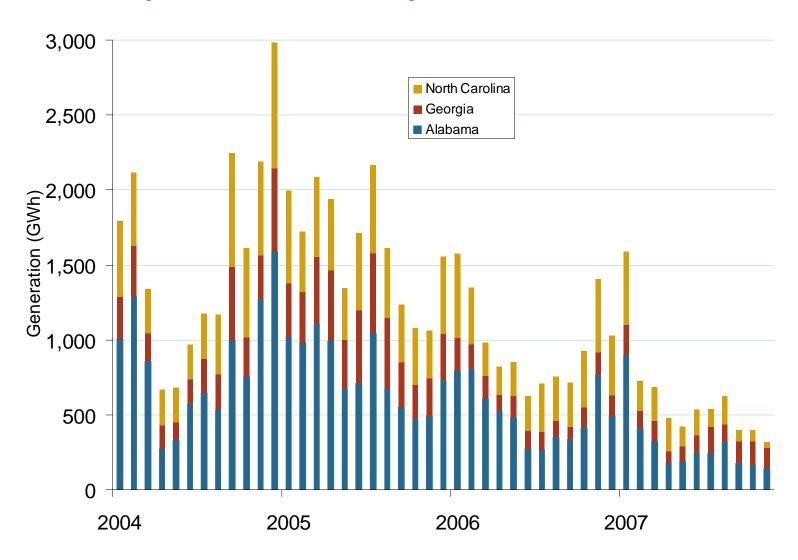


## **Southeast Forward Volumes**



Source: Derived from ICE data. ICE on-peak forward (physical) volumes are for Entergy, Southern and TVA and include monthly, dual monthly, quarterly, and calendar year contracts traded for each month.

# **Monthly Southeastern Hydroelectric Generation**



Source: Derived from EIA and EPA data.