

## Texas (ERCOT) Electric Market Zones



**Federal Energy Regulatory Commission • Market Oversight @ FERC.gov****Overview****Geography**

States covered: Most of Texas

Reliability regions: Electric Reliability Council of Texas (ERCOT)

Balancing authority: Electric Reliability Council of Texas (ERCOT)

Zones: Houston, North, South, West.

**RTO/ISO**

ERCOT schedules and centrally dispatches the grid within a single control area, ensures transmission reliability and wholesale open access, and manages financial settlement in the wholesale power market. It also administers the Texas competitive retail market, including customer switching. ERCOT operates wholesale markets for:

- Balancing energy
- Ancillary service markets with zonal congestion management.

Market participants trade electricity bilaterally directly, through brokers and through the Intercontinental Exchange (ICE). Physical products predominantly use the ERCOT hub pricing point, but physical and financial products priced at the four ERCOT zones are also traded.

**[ERCOT 2006 State of the Markets Report](#)**

Market Monitors:

Dan Jones of Potomac Economics – Independent Market Monitor, ERCOT

Jess Totten, Design Oversight and Pam Whittington Enforcement Oversight, PUC of Texas

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**Generation/Supply**

Marginal fuel type: Coal and natural gas

Generating capacity (summer 2007): 71,244 MW

Capacity reserve (summer 2007): 8,744 MW

Reserve margin (summer 2007): 14%

The region currently has excess capacity, and some generation has been mothballed or decommissioned. Reserve margins are nevertheless expected to decline to ERCOT's 12.5% target in the next two years.

**Demand**

All time peak demand: 62.5 GW (set August 13, 2007)

Peak demand growth: 0.0% (2006–2007)

Summer Peak Demand (GW): 60.2 (2005) 62.3 (2006) 62.5 (2007)

Source: *PUC of Texas*

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**Prices**

Annual Average Real-Time Price at ERCOT North Hub

**2004** \$42.33/MWh

**2005** \$66.47/MWh

**2006** \$51.39/MWh

**2007** \$51.96/MWh

**Interconnections/Seams**

The ERCOT control area is not synchronously connected to the Eastern or Western Interconnection (it is a separate interconnection) but it can exchange about 1,100 MW with SPP and Mexico through DC links. An additional 250 MW of exchange capacity with Mexico came online in 2007.

**Focal Points**

**Market Redesign:** The Energy Reliability Council of Texas (ERCOT) plans to launch a nodal, two-settlement electricity market in early 2009. Soon afterward, ERCOT will raise the offer cap for balancing energy and ancillary services to \$3,000/MWh. The new market design does not include a capacity market. ERCOT increased its offer cap for balancing energy and ancillary services to \$1,500/MWh in March 2007 and to \$2,250/MWh in March 2008.

**Rapid Growth in Wind Generation:** Texas has more than 5,100 MW of wind generating capacity and may have as much as 10,000 MW by the end of 2008. In April 2008, ERCOT released a study providing four options for possible transmission additions to serve wind-rich zones in western and western central Texas, pursuant to the state's Competitive Renewable Energy Zone initiative.

## Supply and Demand Statistics for Texas

<b>Supply Demand Statistics</b>				
	2004	2005	2006	2007
Summer Generating Capacity MW	75,056	69,380	70,756	71,244
Summer Peak Demand MW	58,506	60,214	62,339	62,500
Summer Reserves MW	15,324	9,166	8,417	8,744
Summer Reserve Margin:	26%	15%	14%	14%
Annual Load (GWh):	289,113	299,227	NA	NA
Annual Net Generation GWh	NA	NA	NA	NA

Source: Derived from FERC staff discussion with Texas Public Utility Commission

Updated October 22, 2007

1076

## Annual Average Bilateral Prices

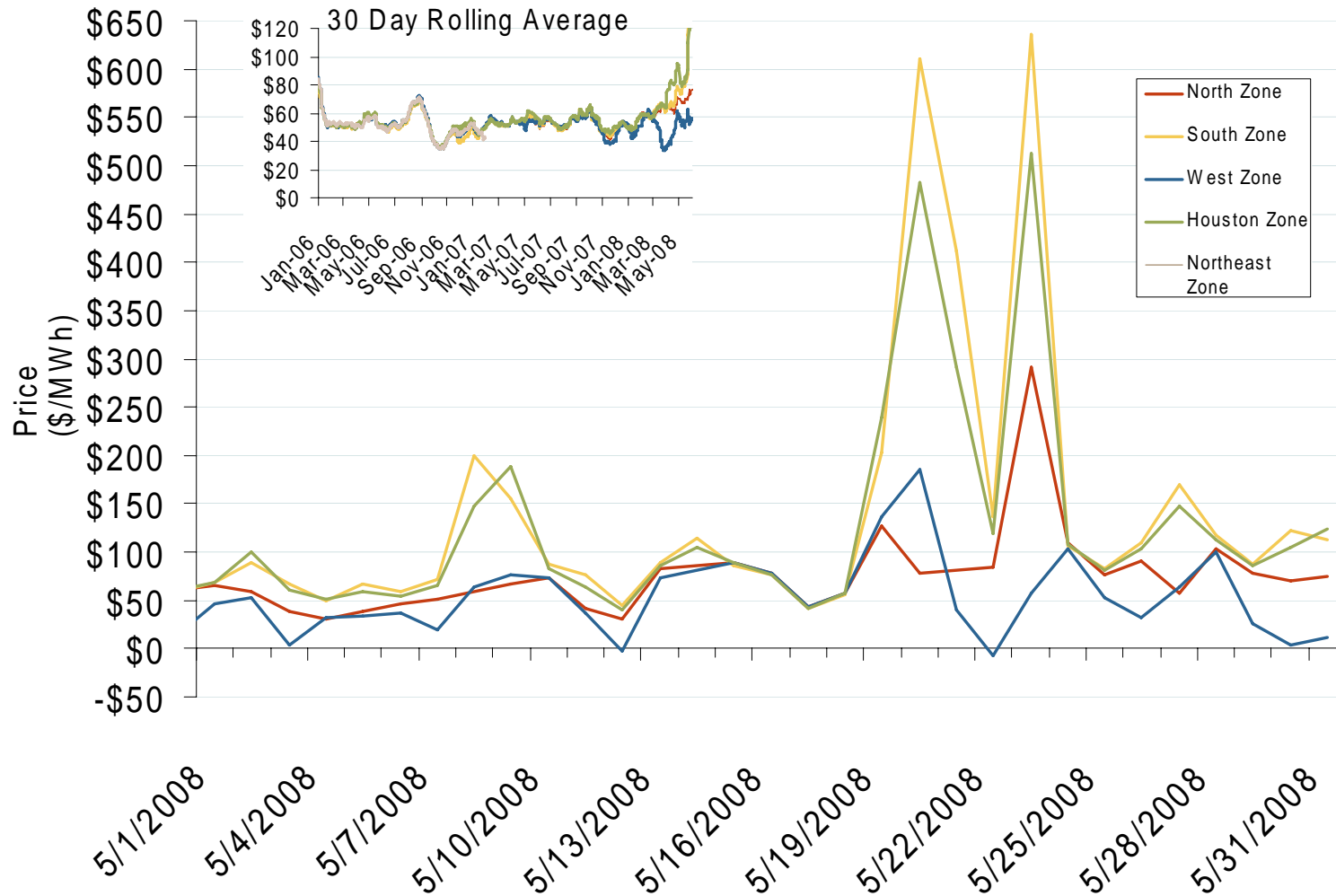
Annual Average Day Ahead On Peak Prices (\$/MWh)				
	2005	2006	2007	5 Years
SPP North	\$67.44	\$55.84	\$60.21	\$54.04
ERCOT	\$70.96	\$57.83	\$58.27	\$56.16

Source: Derived from *Platts* data.

Updated March 7, 2008

1077

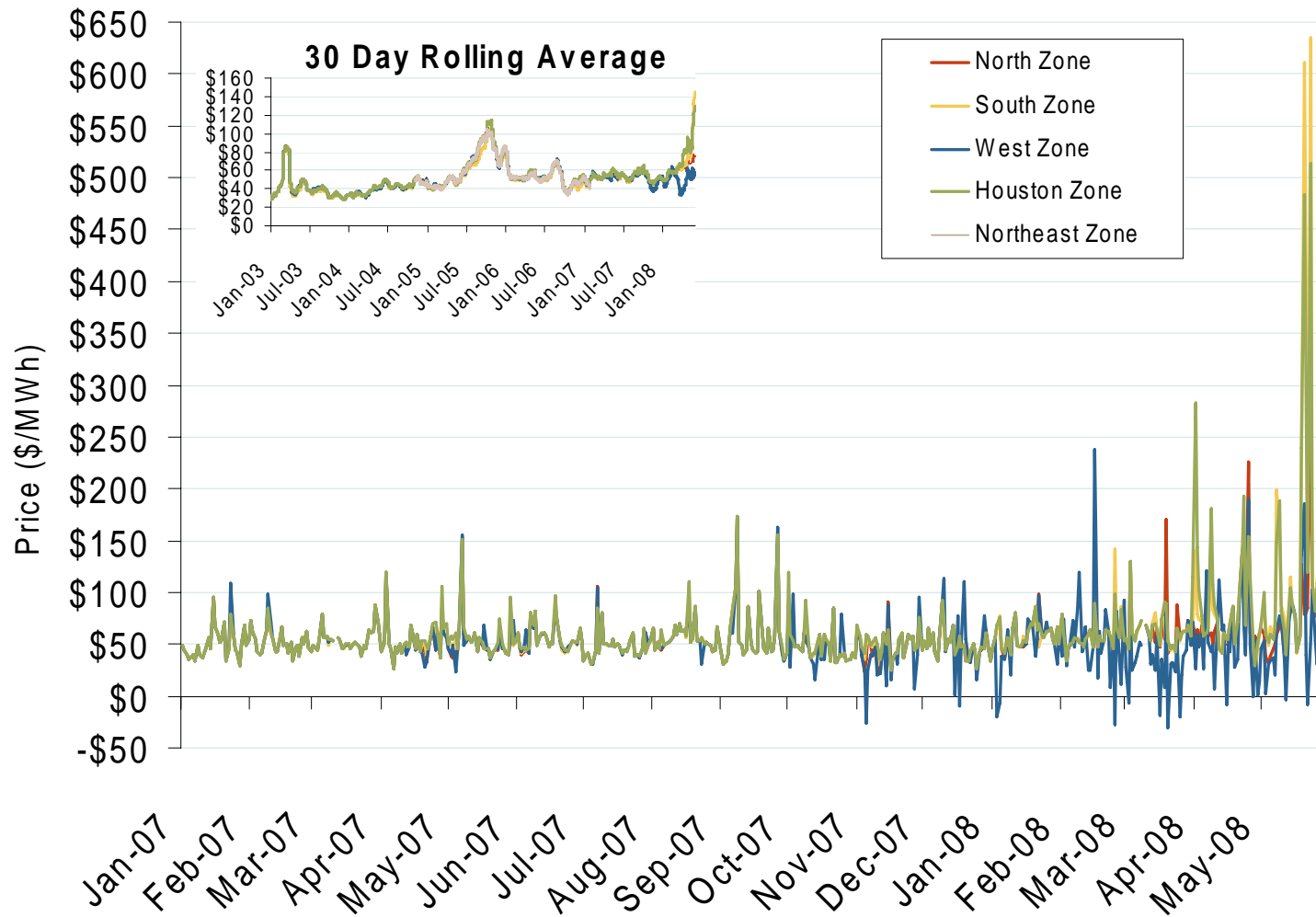
# Daily Average of ERCOT Real Time Prices - All Hours



Source: Derived by Bloomberg from ERCOT data as reported by Bloomberg.

Updated June 6, 2008

## Daily Average of ERCOT Real Time Prices - All Hours

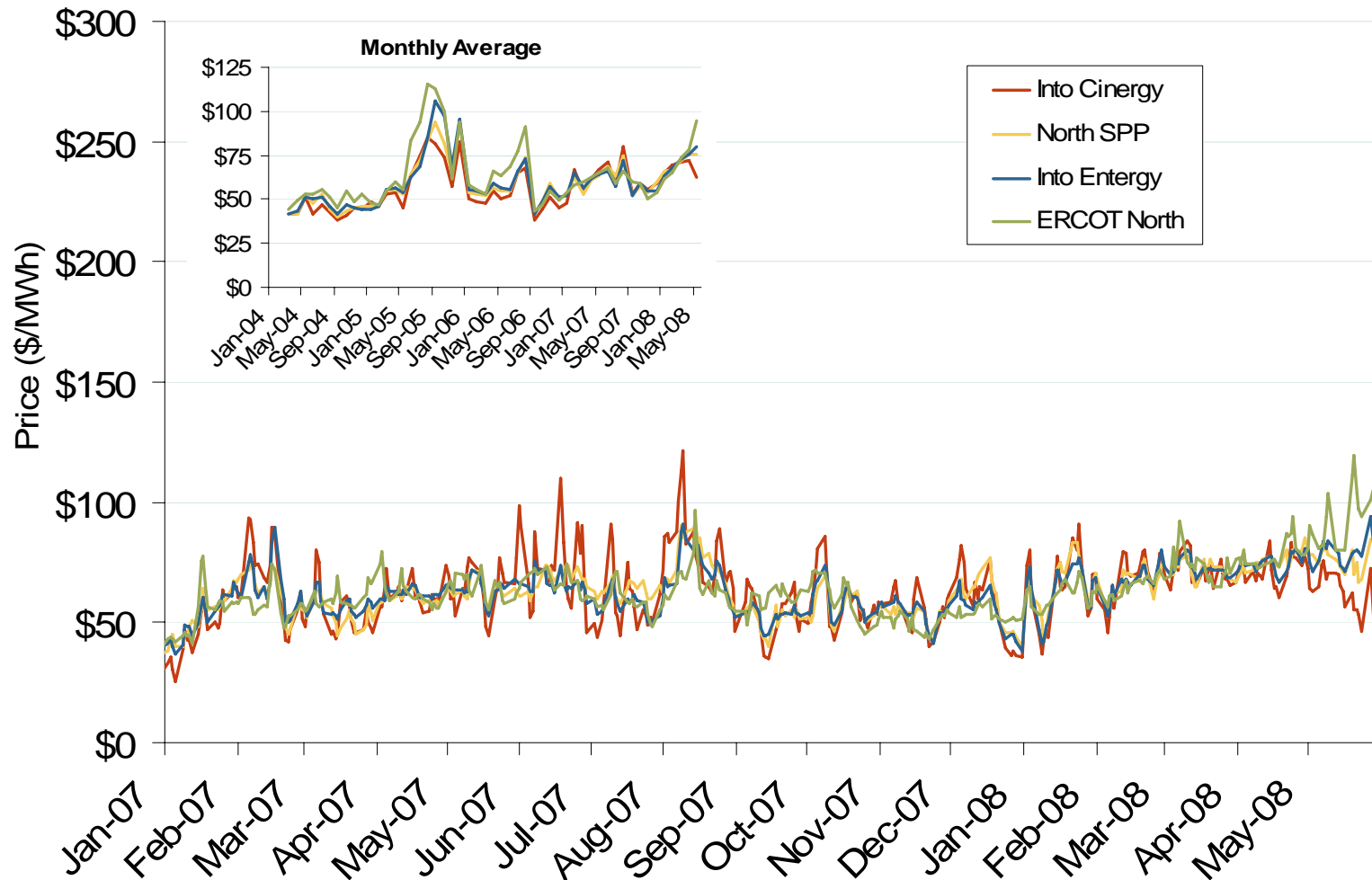


Source: Derived by Bloomberg from ERCOT data as reported by Bloomberg.

Updated June 6, 2008 1078



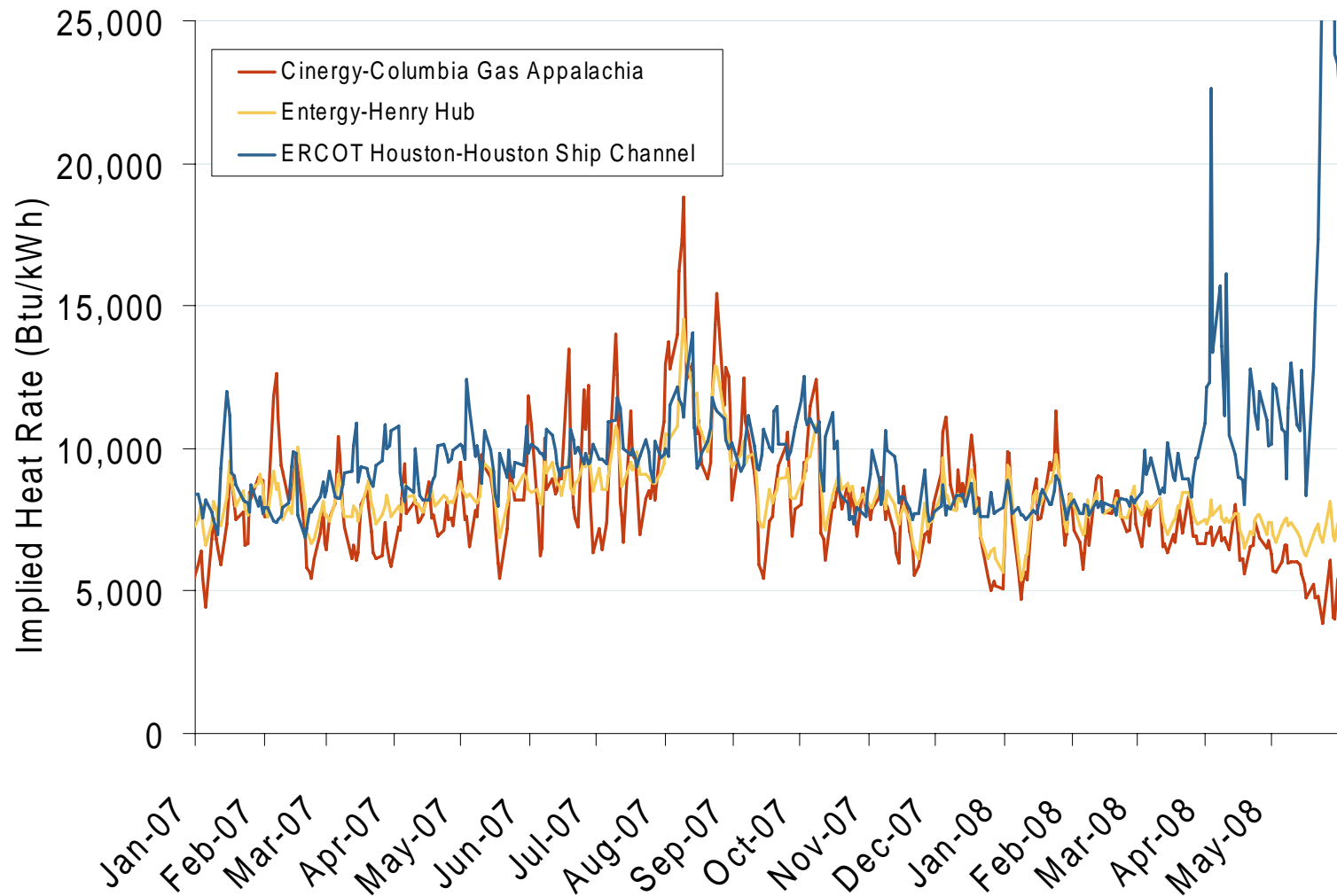
# Midwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from *Platts* data.

Updated June 6, 2008 1079

## Implied Heat Rates at South Central Trading Points

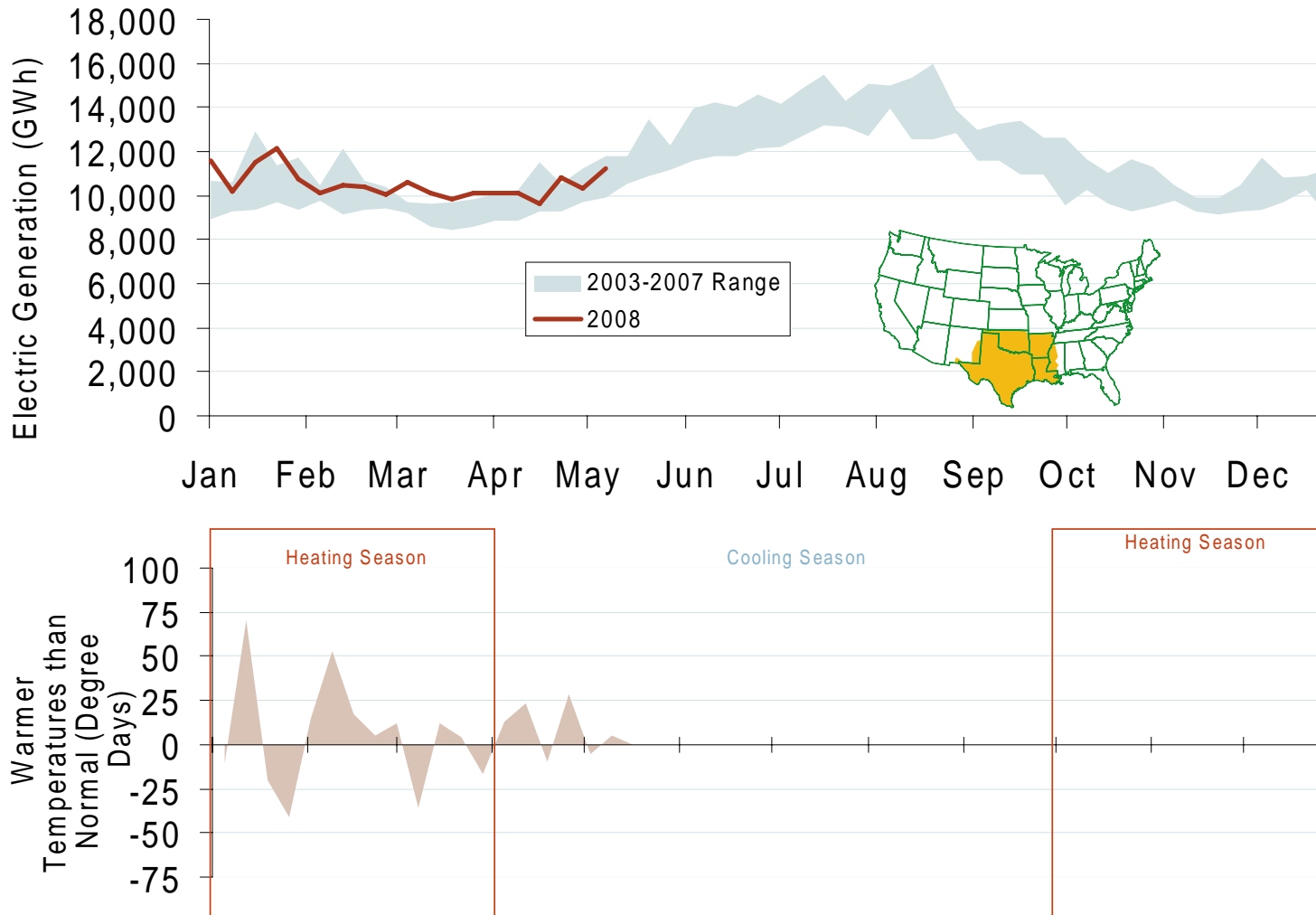


Source: Derived from *Platts* data

Updated June 6, 2008

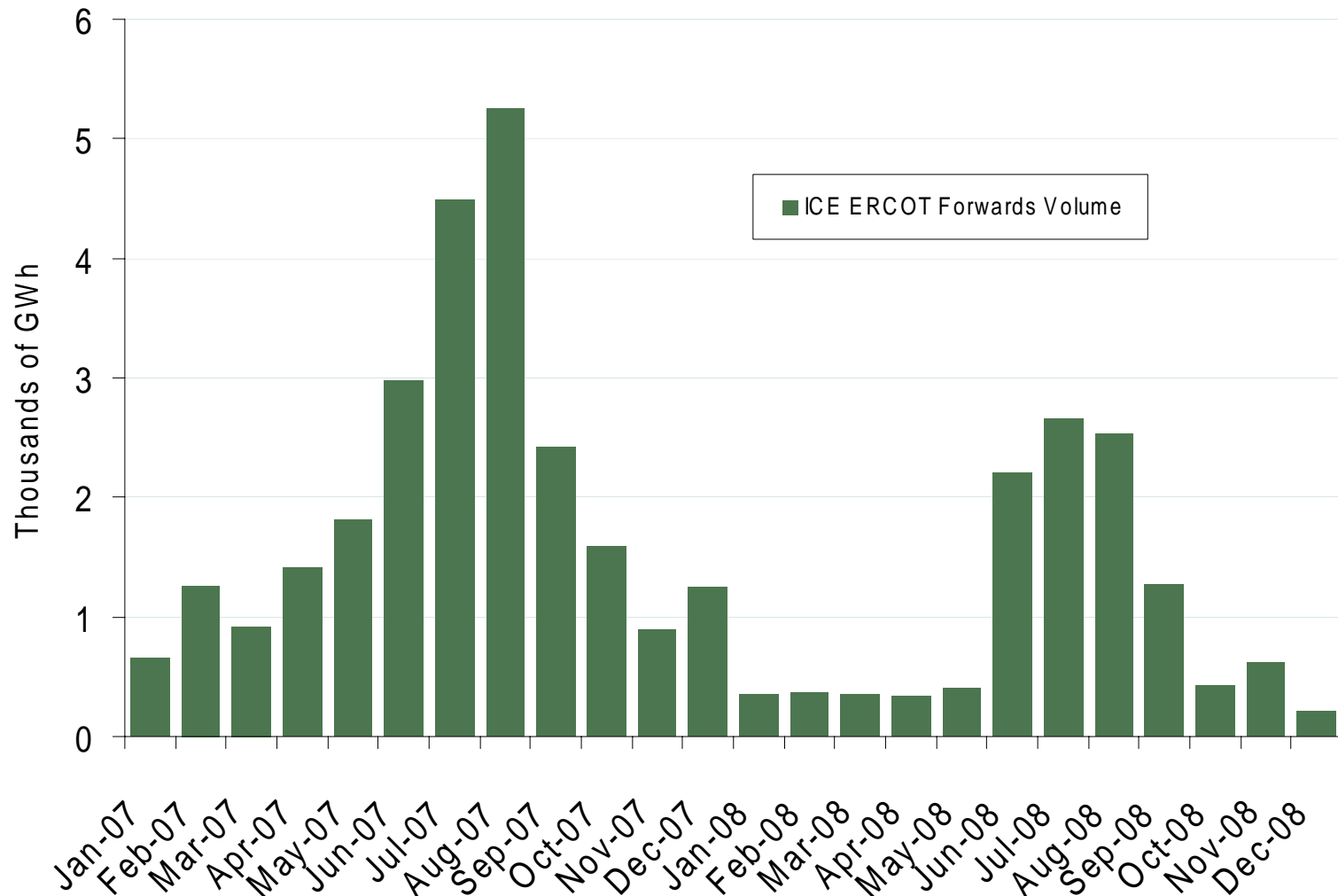
1140

# Weekly Electric Generation Output and Temperatures South Central Region



Source: Derived from EEI and NOAA data.

## ERCOT Forwards Volume



Source: Derived from ICE data. ICE forwards (physical) volume for ERCOT include on-peak monthly, dual month, quarterly, and calendar year contracts traded for each month.

Updated June 6, 2008 1080