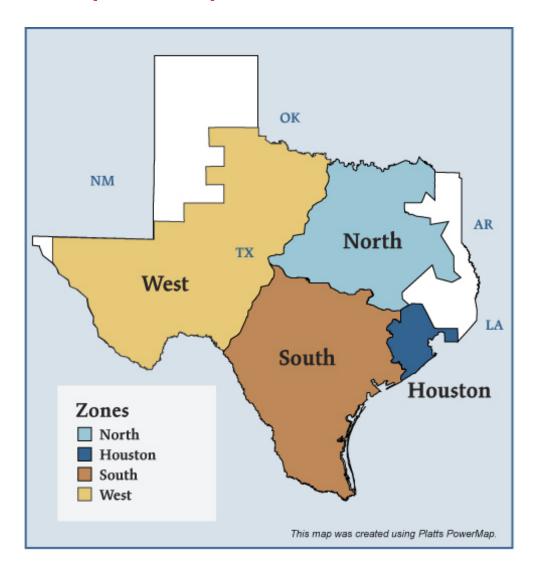
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Texas (ERCOT) Electric Market Zones



Texas Electric Market: Overview and Focal Points

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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 IntercontinentalExchange (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 2008 State of the Markets Report

Market Monitor:

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%

As of December 2007, ERCOT expects reserve margins to be 13.1% in 2008 and 12.1% in 2009.

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

Texas Electric Market: Overview and Focal Points

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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

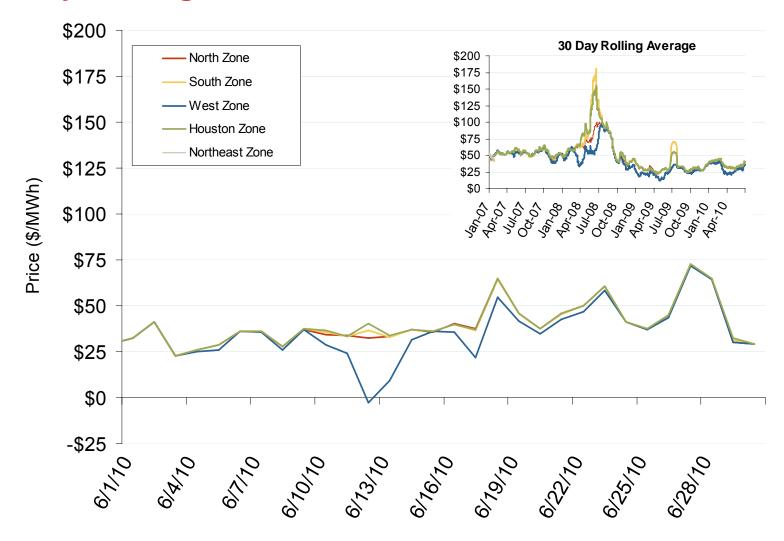
The ERCOT control area is not synchronously connected to the Eastern or Western Interconnection (it is a separate interconnection) but it can exchange about 1,100 MW with SPP and Mexico through DC links. An additional 250 MW of exchange capacity with Mexico came online in 2007.

Annual Average Bilateral Prices

Annual Average Day Ahead On Peak Prices (\$/MWh)

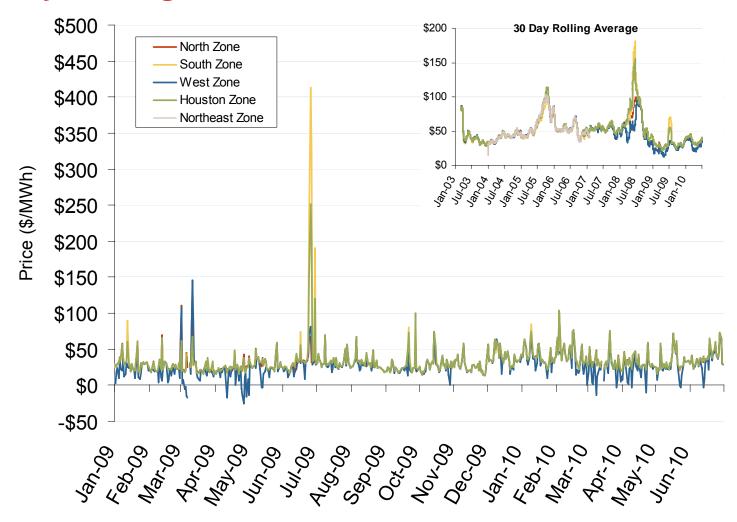
	2005	2006	2007	2008	2009	5-Year Avg
SPP North	\$67.44	\$55.84	\$60.21	\$68.77	\$32.94	\$57.04
ERCOT North	\$77.14	\$61.03	\$59.53	\$73.42	\$34.89	\$61.16

Daily Average of ERCOT Real Time Prices - All Hours

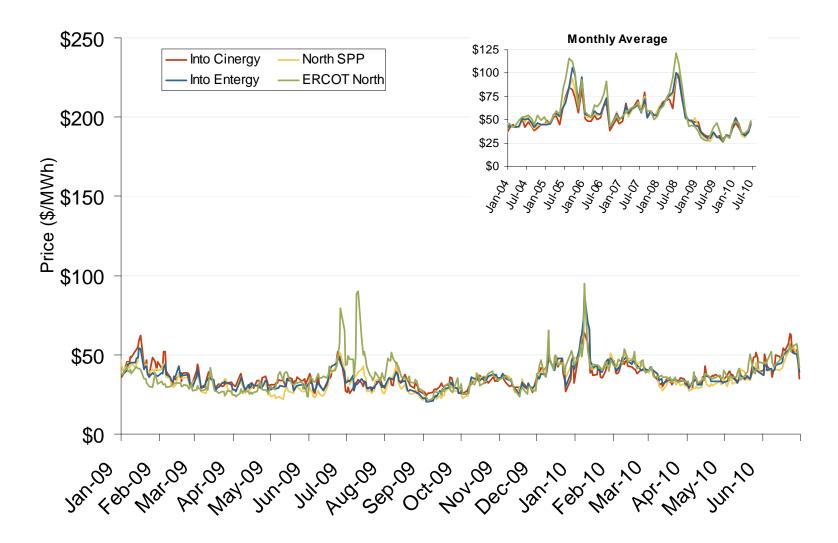


Source: Derived by *Bloomberg* from *ERCOT* data as reported by *Bloomberg*.

Daily Average of ERCOT Real Time Prices - All Hours

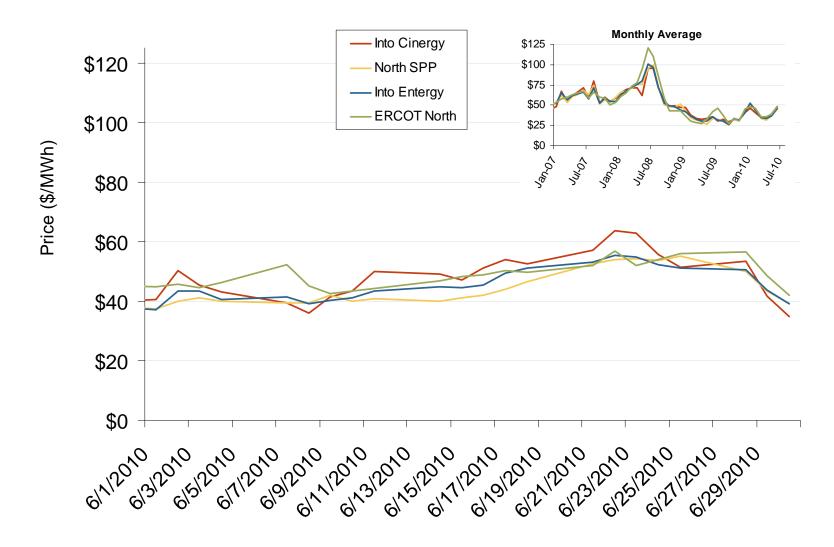


Midwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from Platts data.

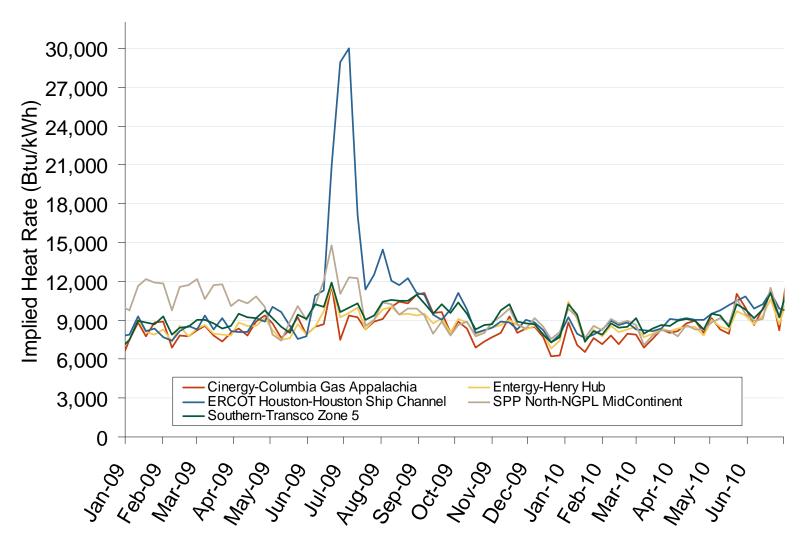
Midwestern Daily Bilateral Day-Ahead On-Peak Prices



Source: Derived from Platts data.

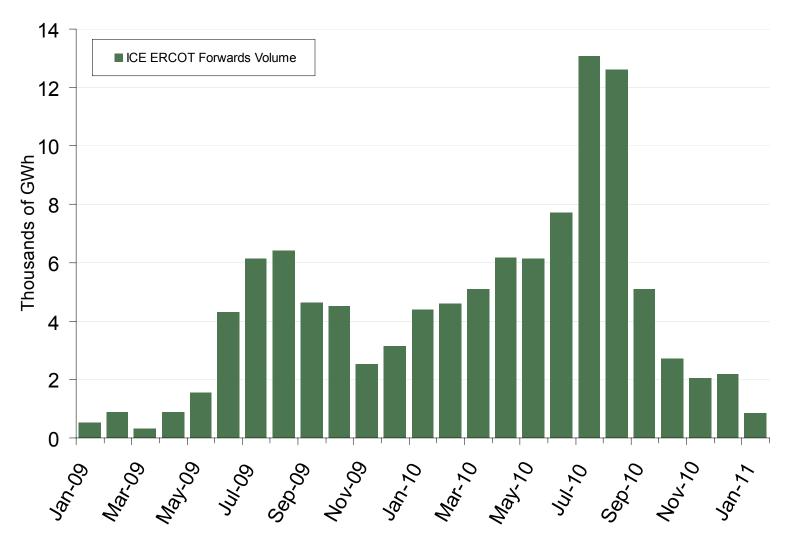
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Implied Heat Rates at South Central Trading Points Weekly Averages



Source: Derived from *Platts* on-peak electric and natural gas price data.

ERCOT Forwards Volume



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

Weekly Electric Generation Output and Temperatures South Central Region

