Electric Market National Overview

May 2007
Weekly U.S. Electric Generation Output and Temperatures

Source: Derived from EEI and NOAA data.

Updated May 4, 2007
Electric Market Overview: Financial Market Volumes

Financial Trading on ICE

Source: Derived from ICE data. ICE on-peak swap volumes include monthly, dual monthly, quarterly, and calendar year contracts traded for each month.

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**Renewable Energy Portfolio Standards (RPS)**

- A RPS requires a percent of energy sales or installed capacity to come from renewable resources.
- 22 states and DC have renewable energy standards. Three have goals only. New Hampshire passed an RPS in April. Virginia’s restructuring law set an RPS goal for utilities, with financial incentives.
- States that adopted transmission planning and cost recovery policies to support new renewable generation include California, Colorado, Minnesota, New Mexico and Texas.

* Minnesota’s requirement for Xcel Energy exceeds the state RPS; it is 30% by 2020.

Sources: Derived from data in: EEI, EIA, LBNL, PUCs, State legislative tracking services, Database of State Incentives for Renewables and Efficiency, and the Union of Concerned Scientists.

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**Electric Market Overview: Renewables**
Central Appalachian and Powder River Basin Coal Prices

Source: Derived from Bloomberg data.

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SO₂ and NOₓ Allowance Spot Prices

Source: Derived from Cantor Fitzgerald data.

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SO₂

In the 2006 EPA-administered SO₂ auction, merchants and retirement funds won more than 98% of the 125,000 2006 SO₂ spot allowances available for auction. Virtually no traditional investor owned utilities bid into this auction.

2006 SO₂ spot allowance prices peaked on January 3rd at $1,583/ton. Allowance prices dropped to $465/ton on November 21st – their lowest price in 2006. SO₂ spot closed the year at $483/ton on December 29th.

Factors contributing to lower SO₂ prices for 2006 are:

- **Below-cap SO₂ emissions output**: The 2006 SO₂ emissions cap established by the EPA’s Acid Rain Program was 9.5 million tons. Preliminary EPA data show power plant SO₂ emissions came in under the cap at 9.39 million tons which is down 8% compared with 2005’s SO₂ output of 10.22 million tons.
- **Surplus allowances**: Of the 15.7 million SO₂ allowances available for 2006 compliance, 6.16 million allowances were carried over from previous years.
- **Increased use of low-sulfur, Powder River Basin coal** due to improved rail deliverability.
- **Greater use of natural gas in running power plants** due to lower relative costs compared to residual fuel oil.
- **Increased hydro-electric and nuclear output**.
- **Regional factors**: Increased use of scrubbers in NC and KY and the mothballing of the Mohave generating station in Nevada.
NO\textsubscript{x}

Although the EPA administers the NO\textsubscript{x} trading program, allowance allocation is determined by state specifications and is generally based on the historical performance of the plant. As of 2007, the NO\textsubscript{x} trading program, called the NO\textsubscript{x} SIP Call, includes 22 states. The NO\textsubscript{x} compliance season runs from May 1st through September 30th, however NO\textsubscript{x} 2006 vintage trades take place throughout the 2006 calendar year.

In calendar year 2006, NO\textsubscript{x} SIP Call Allowance prices peaked on January 27th at $2,766. Prices dropped to their calendar-year low of $711 on December 8th. The NO\textsubscript{x} compliance season opened on May 1st at $2,433/ton. NO\textsubscript{x} 2006 vintage closed the 2006 compliance season at approximately $700/ton.

Factors contributing to lower NO\textsubscript{x} vintage prices for 2006 include:

- **Below-cap NO\textsubscript{x} emissions output**: Preliminary EPA data show total 2006 NO\textsubscript{x} emissions came in at 492,000 tons, down 7% compared with 530,000 tons in 2005 and below the 2006 cap of 520,957 tons.
- **Surplus allowances**: Generators currently have a bank of approximately 217,000 allowances, 30,000 of which are carried over from 2006.
- **Pollution controls** such as selective catalytic reduction (SCR) units outperforming expectations.
- **Declining natural gas prices** compared to 2005 prices.