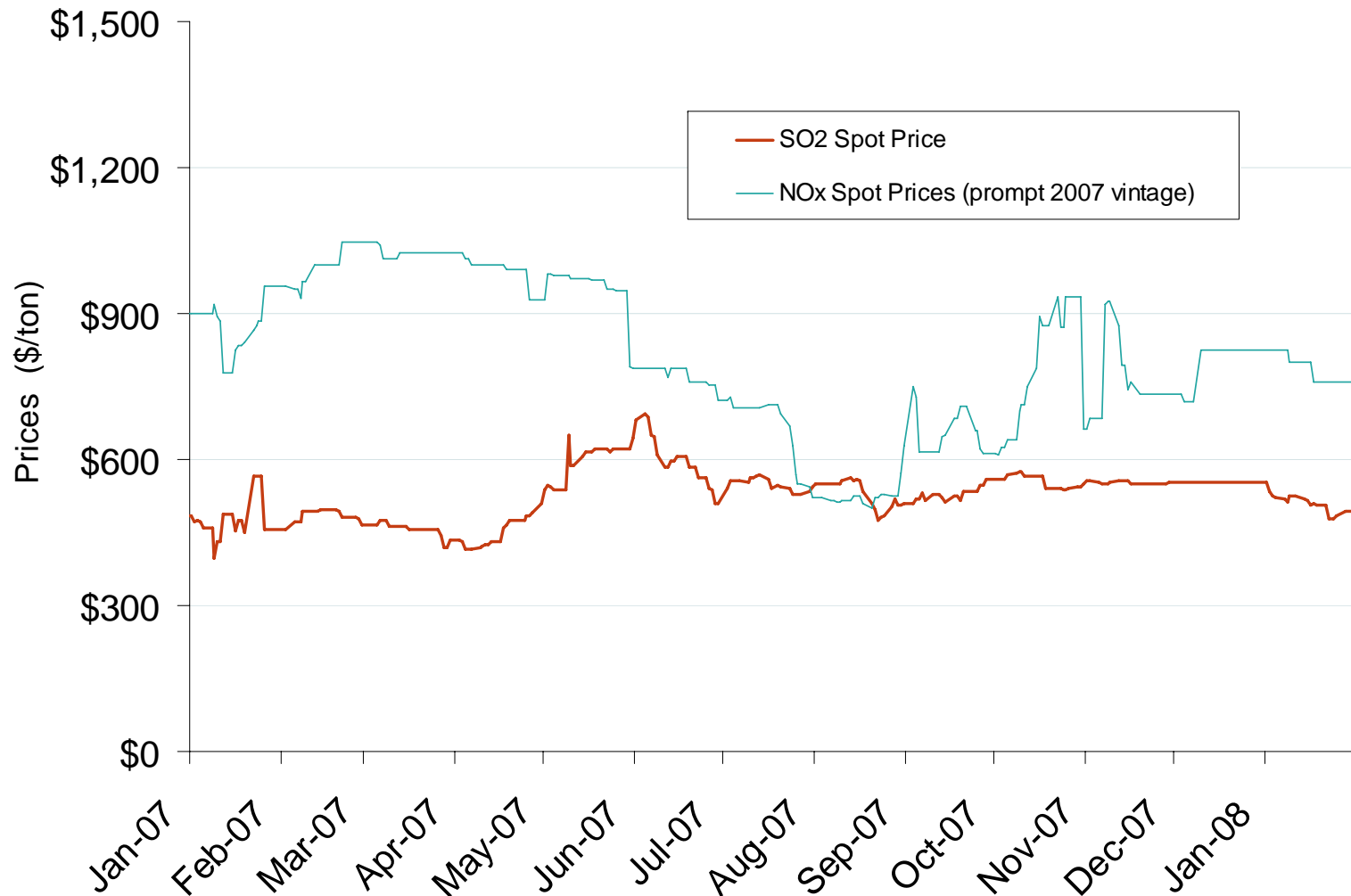


## SO<sub>2</sub> and NO<sub>x</sub> Allowance Spot Prices



Source: Derived from Cantor Fitzgerald data.

See notes on following pages.

Updated February 8, 2008

## SO<sub>2</sub>

The number of vintage year 2007 SO<sub>2</sub> allowances issued by the EPA is once again 9.5 million. An additional 6.26 million allowances carried forward from previous years results in a total of 15.76 million allowances available for compliance in 2007.

Of the 9.5 million 2007 SO<sub>2</sub> allowances, 125,000 or 1.3% auctioned for a total of \$55.5 million, down 50% from the 2006 SO<sub>2</sub> spot auction. Lower 2007 spot auction revenue echoes lower prices and less volatile SO<sub>2</sub> markets observed in late 2006 and into 2007. Prices stabilized following a run-up in late 2005 where prices peaked at \$1626.08 by early December of 2005. According to the EPA, the run-up is attributed to uncertainty over the implementation of the Clean Air Interstate Rule (CAIR) issued in March of 2005.

In 2007, there were 14 spot auction winners with the average winning bid at \$443.39, down from \$883.10 in 2006. Financial institutions came out on top winning approximately 80% of the allowances, followed by traditional end-users who walked with 17.5%. Retirement funds won the remaining .5%.

**SO<sub>2</sub> emissions are likely to fall below the 9.5 million ton cap again this year.** SO<sub>2</sub> emissions are down 4% compared with last year at this time despite a slight increase in coal consumption, most notably in the electric power sector. However, this increase in coal consumption coupled with lower SO<sub>2</sub> emissions may be explained by an increase in production of lower-sulfur coal. According to the EIA, coal production is up 2.3% year-to-date in Wyoming, which produces low-sulfur Powder River Basin coal. Alternatively, production is down in higher sulfur coal states of Kentucky, Pennsylvania, and West Virginia, the three states that when combined, make up 1/3 of total US coal production.

Additional factors contributing to lower SO<sub>2</sub> emissions are the surplus of 6.26 million allowances carried over from previous years and a 64% increase in flue gas desulfurization retrofits (FGD) per GW compared with 2006. According to CERA, in 2006, 3.9 GW of FGD retrofits were brought on-line compared with the 10.9 GW of retrofits expected by the end of 2007.

As of the end of November, the 2007 SO<sub>2</sub> spot allowance low price was \$396/ton on January 9th. Allowance prices peaked at \$694/ton on June 4th.

## NO<sub>x</sub>

Although the EPA administers the NO<sub>x</sub> 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<sub>x</sub> trading program, called the NO<sub>x</sub> SIP Call, includes 22 states. The NO<sub>x</sub> compliance season runs from May 1st through September 30th, however NO<sub>x</sub> 2007 vintage trades take place throughout the 2007 calendar year.

EPA data show total 2006 NO<sub>x</sub> emissions at 491,000 tons, down 7% from 2005 and below the 2006 Regional Budget of 521,000 tons. After 2006 compliance, there were 217,000 banked allowances.

**NO<sub>x</sub> emissions fell within the 2007 Regional Budget of 521,501 tons this year despite the addition of Missouri to the NO<sub>x</sub> program this May.** The final total of 503,038 tons leaves 24,313 tons to be added to the 217,000 banked allowances carried over from 2006. A well-supplied market and an increase in pollution control equipment coming online at coal-fired power plants in 2007 contribute to below-cap NO<sub>x</sub> emissions output for 2007. According to CERA, 5.6 GW of selective catalytic reduction (SCR) retrofits are expected to be online at coal-fired power plants in 2007 compared with the 2.4 GW of SCR retrofits in 2006. In addition, 2.1 GW of selective non-catalytic reduction retrofits (SNCR) are expected to be online in 2007 compared with 2 GW in 2006.

As of December 2007, the 2007 NO<sub>x</sub> SIP Call low price was \$500/ton on August 13th. NO<sub>x</sub> 2007 vintage peaked at \$1,046 on February 14th.