

# EPA's Experience with Allowance Auctions

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# Overview of EPA SO<sub>2</sub> Auction

- Basics
- Purpose/goal of EPA auction
- Design of the EPA auction
- EPA's experience with the auction
- Recent developments
- Conclusions/Lessons Learned

# Basics

- Title IV of the Clean Air Act Amendments provides for a small SO<sub>2</sub> auction (about 2.8%)
- Auction proceeds are returned to sources
- First auction was held in 1993 and the 14<sup>th</sup> auction was held last March
- SO<sub>2</sub> auctions are a very small part of the SO<sub>2</sub> market



# Purpose of the EPA Auction

- Provide source of allowances for new entrants
  - Early fears of “hoarding”
  - Title IV also included direct sales provision for the same purpose.
- Support development of market
  - Price discovery
  - But not interfere with private market

# Design of EPA Auction

- Form, vintages, frequency of auction decided by Congress
  - Price discriminating auction
  - Spot and 7-year advance auction
  - Annual auction, open participation

# Design of EPA Auction (continued)

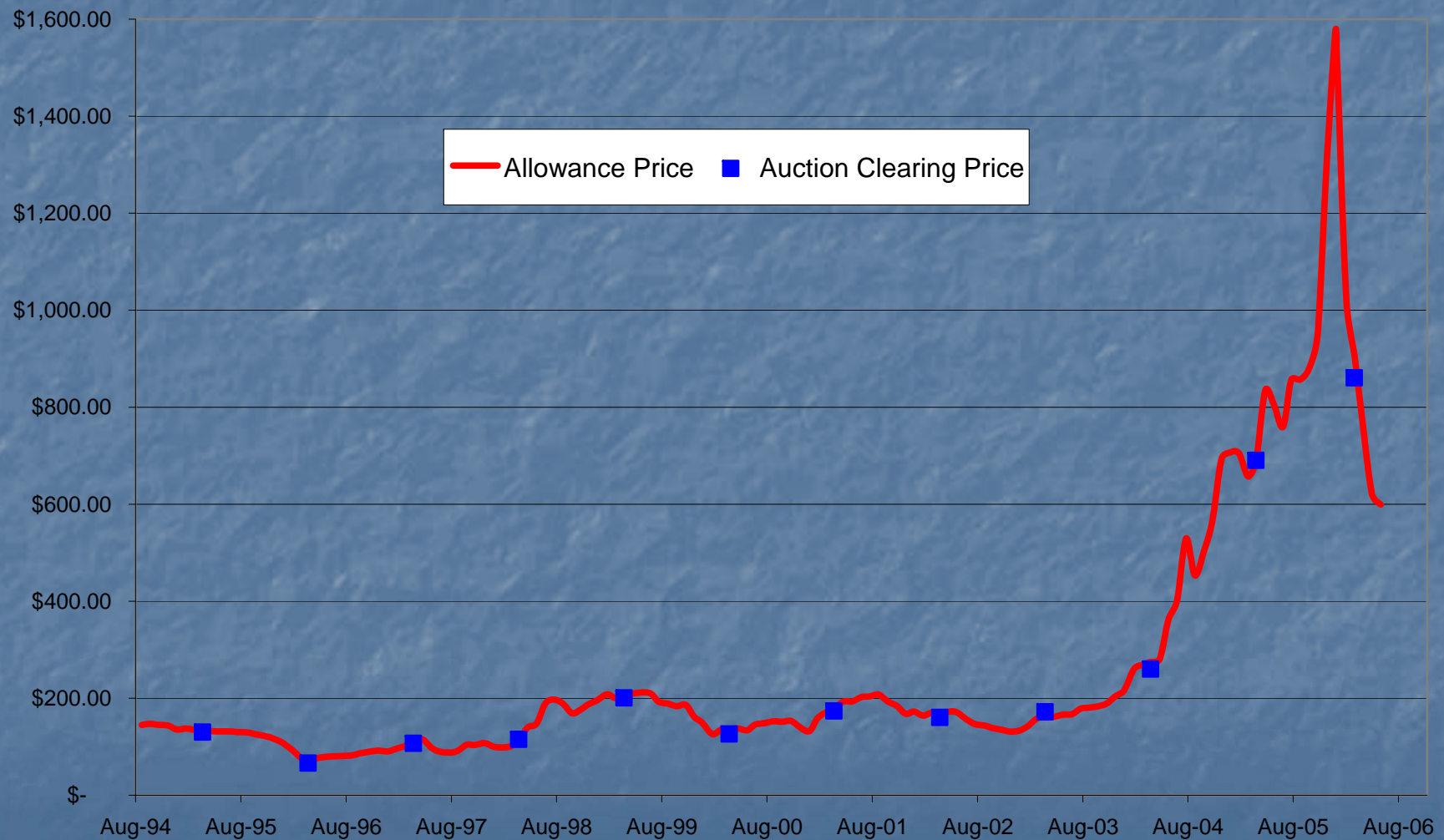
- EPA sought credibility for fledgling market
  - Initially tried to enlist Treasury Dept.
  - Decided to use a private exchange to administer
  - Put out a “no-cost” RFP
  - Chose Chicago Board of Trade (CBOT) (other applicants were NYMEX and Cantor-Fitzgerald)
- EPA administers proceeds from auction and returns funds to companies



# Early Experience with Auctions

- First auction in 1993
  - Clearing price (\$131) was about half of what was thought to be the “market” price
  - Some observers attributed low price to auction design (this was refuted by subsequent research)
  - Over the next year, the market and auction prices largely converged

# Allowance Price vs. Auction Clearing Price





# Who has been using auction?

- Auctions open to everyone
- Power producers have bought roughly 2/3
- Traders/brokers have bought roughly 1/3
- NGO's/Schools/individuals <1%
- Additional Provision: Allowances may be offered up for sale
  - Only 345,000 offered, with 15,000 successfully sold (most over first 4 years)

# Recent Developments

- In 2005, CBOT decided to stop running auction
- EPA took over administration and ran 2006 auction
- EPA is integrating auction operation into allowance management software
  - Greater efficiency
  - Quicker turnaround

# Lessons Learned

- The purpose of an auction should guide its design
- Auctions important for price discovery in early years when there is limited information
- Fears about market power and hoarding were unfounded
- Speed, efficiency, accuracy, and transparency are important for ensuring credible administration