LATHAM & WATKINS LLP

RECLAIM – Lessons Learned for California's GHG Market

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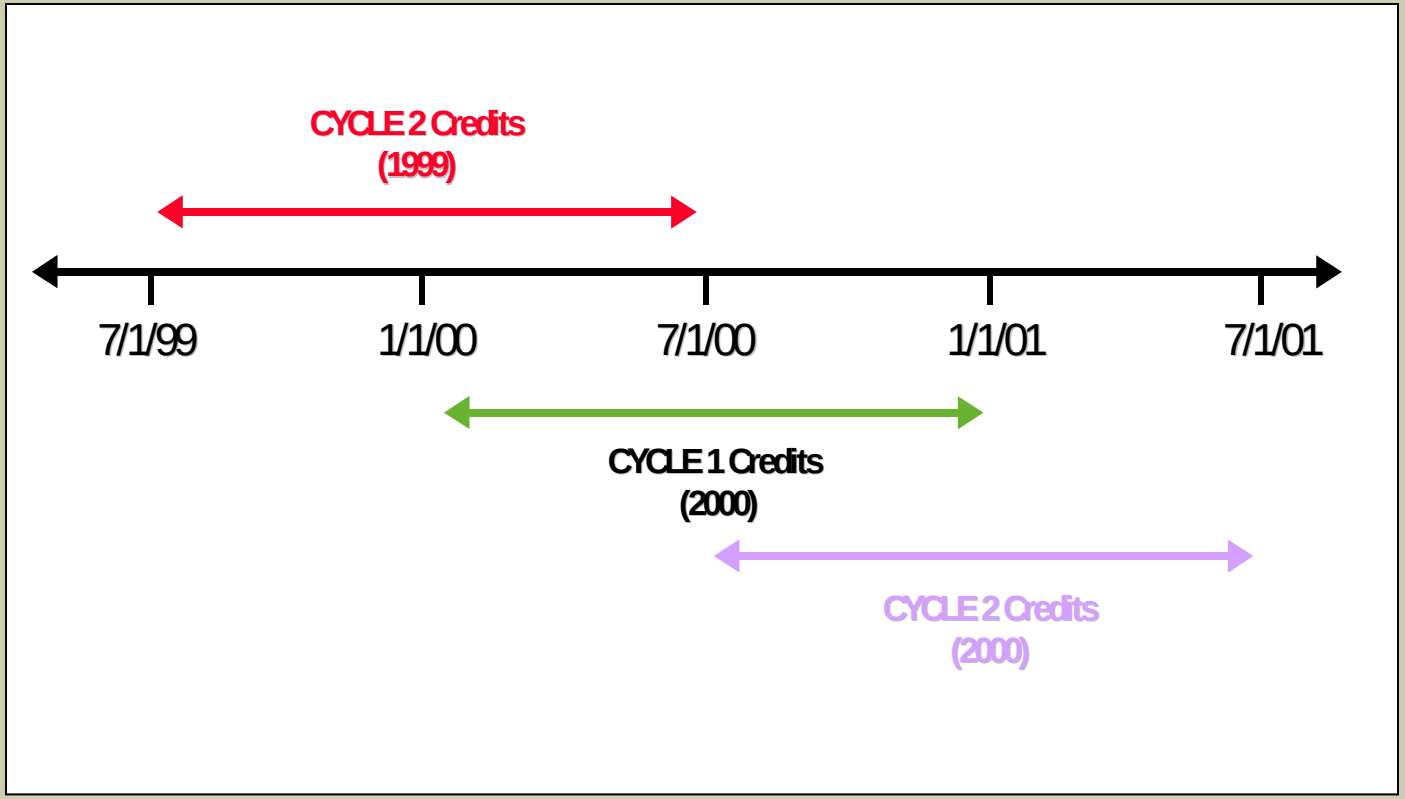
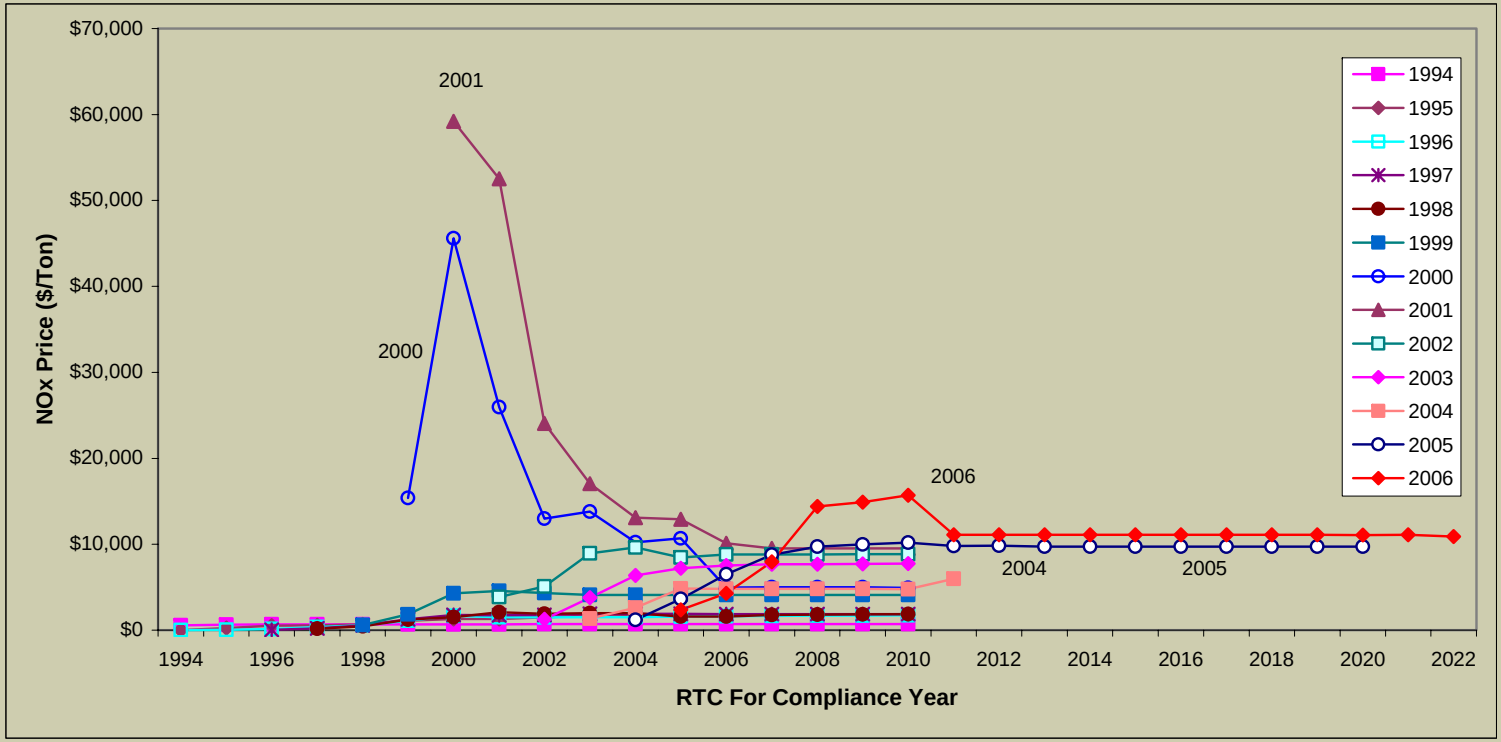
RECLAIM

- 364 facilities (56% power plants/refineries)
- annual allowances of NOx and SO2
- 1994 through 2010 and beyond
- 8% annual decline 1994 through 2003
- reduces NOx from 105 to 27 tons per day
- RECLAIM Trading Credits (RTCs) issued for 12 month period only; no banking (except for 2-cycle compliance periods)
- $15,000 per ton Re-Evaluation Benchmark

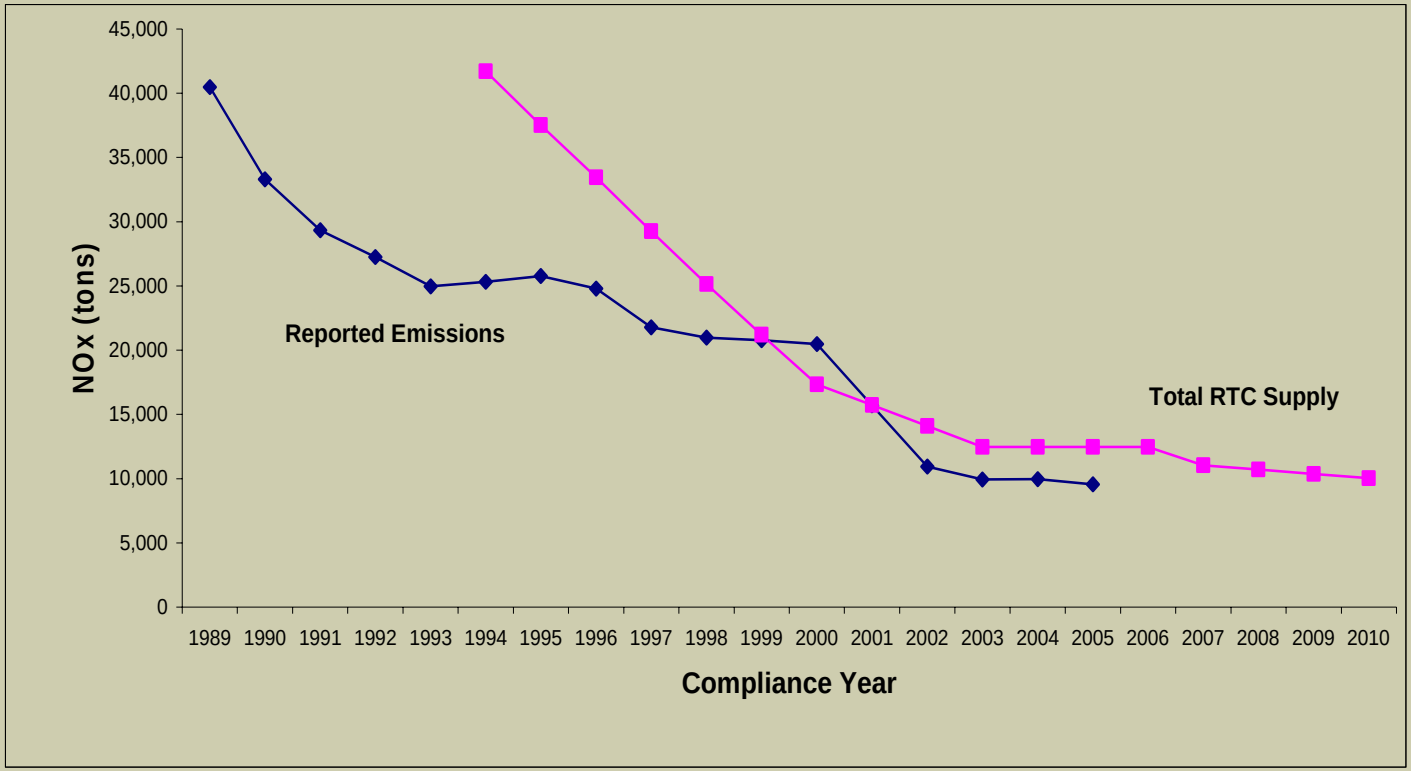
RECLAIM Trading Cycles



NOx Prices


$70,000
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0
NOx Price ($/Ton)
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
RTC For Compliance Year
2001
2000
2006
2004
2005
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006

NOx Emissions and Available RTCs



NOx Compliance Margin

	Annual NOx Emissions[1] (tons)	% Change from 1994	Total NOx RTCs[2] (tons)	NOx RTCs Left Over (tons)	NOx RTCs Left Over (%)
1994	25,314	0.0%	40,127	14,813	37%
1995	25,764	1.8%	36,031	10,267	28%
1996	24,796	-2.0%	32,017	7,221	23%
1997	21,786	-13.9%	27,919	6,133	22%
1998	20,982	-17.1%	24,678	3,696	15%
1999	20,775	-17.9%	21,013	238	1.1%
2000	20,491	-19.1%	17,197	-3,294	-19%
2001	15,721	-37.9%	15,693	-28	-0.18%
2002	10,943	-56.8%	14,044	3,101	22%
2003	9,942	-60.7%	12,484	2,542	20%
2004	9,953	-60.7%	12,477	2,524	20%
2005	9,556	-62.3%	12,484	2,928	23%

Power Supply and Demand Context in 2000

- Emerging Capacity Shortage in 2000
  - 1996 - condition of excess capacity
  - 1996-2000
    - 14% growth in electricity demand
    - but only 2% growth in new generation capacity
  - Decrease in out-of-basin power
    - higher loads in other Western states and poor hydro conditions in the Northwest
- Deregulation of Power Sector
  - 1998 Sale of Power Plants
  - High degree of uncertainty regarding future dispatch of relatively high heat rate plants

What Went Wrong?

- Power Generators' ***Activity Levels*** Skyrocketed
  - summer 2000 generation up 74% from summer 1999
  - summer mass NOx emissions up 38.5%
  - power plant ***emission rates down 20%***
  - ***Net Effect:*** power plants purchased 67% of 2000 allowances while having been issued only 14%
  - w/o trading, RECLAIM allocations would have allowed only a 40% CF during 2000 (and only 30% by 2003)
- Market Imperfections - price signal confusion and delay
- Control Installations - insufficient to respond in time
  - special problem for old, inefficient peaking units
- No Safety Valves
  - EPA Reg. IX Failed To Approve Mobile and Area Source Credit Rules
  - No banking

RECLAIM Effect on Power Market?

- PX single-price auction process
  - set short-term wholesale price according to highest-cost generator
  - during 2000 summer peak, highest cost was often set by generators purchasing NOx RTCs
  - net effect - added $500 million to $2 billion to cost of power in summer of 2000 (CEC staff draft report 12/20/2000; $1.5 billion impact - Joskow and Kahn 1/2001)

Lessons

Program Scale – a larger, more varied universe of regulated sources (particularly those with varying marginal control costs) would reduce sensitivity to activity level fluctuations.

- increase the number and type of participating sources in cap program

Temporal Flexibility (e.g., banking) – would provide a time cushion for the market to respond and would avoid near-term impacts of unanticipated activity level fluctuations.

Safety Valve – access to sources outside the cap would have provided a hedge against shortfall in allowance market

- intersector trading (open market access to mobile and area source credits), or

Clean air investment fund (~SCAQMD mitigation fee program)

Market Information - greater transparency and more real-time information flow would have provided early warning