

Cross State Air Pollution Rule: Pathways to Compliance

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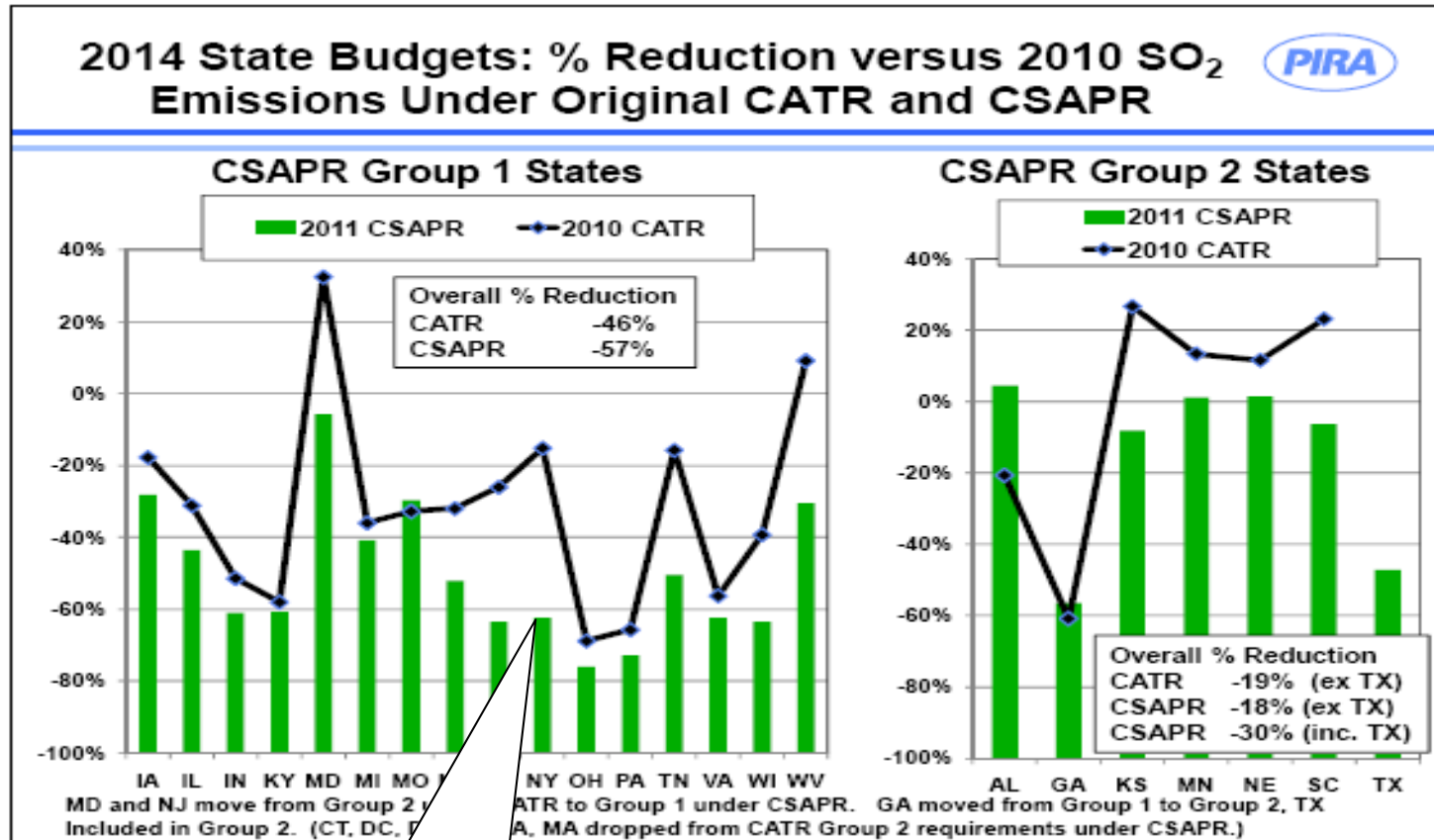
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Cross State Air Pollution Rule

- ◆ **USEPA Proposed Clean Air Transport Rule (CATR) is now finalized as the Cross State Air Pollution Rule (CSAPR)**
 - *Limits SO₂ and NO_x emissions in 28 Eastern States*
 - DE and New England are exempt
 - *Provides for limited interstate trading of emission allowances*
 - Up to 18% / 21% of State Budget is allowable, however other considerations may prevail
 - *Limits begin Jan. 2012*

New York State's Relative Allocation



New York Budget

Reductions are large and arrive soon

Comparison of CSAPR Allowance Budgets with Trading vs. 2010 Actual Emissions			
	2010 Actual Emissions	2012 CSAPR Rule	2014 CSAPR Rule
SO2	48,056	32,233	21,920
NOx Annual	24,750	20,689	
NOx Season	12,455	10,077	

CSAPR Allocations

New York State [1] Emission Allocations under the Cross State Air Pollution Rule					
	Year	SO2	Annual NOX	Ozone Season NOX	
A	In-Service Unit Allocations	2012	23,929	15,589	7,454
		2014	16,339		
B	Retired Unit [2] + Non-EGU Allocations [3]	2012	2,840	1,412	624
		2014	1,865		
C	New Unit Set-Aside [4]	2012	547	527	250
		2014	372		
D	Total Allocation (A+B+C)	2012	27,316	17,528	8,328
		2014	18,576		
E	Trading Variability * D, 18% Annually, 21% Ozone Season	2012	4,917	3,155	1,749
		2014	3,344		
F	Assurance Level (D+E)	2012	32,233	20,683	10,077
		2014	21,920		

[1] Linden Cogeneration Facility is not included.

[2] Retired Units Include: Poletti, Project Orange, Greenidge, Westover, and Ogdensburg Cogen.

[3] Three (3) Consolidated Edison Steam System Boilers were given allocations.

[4] New Unit allocations will be given to: Empire Generating and SCS Astoria II. Any remaining new unit set-aside will be reallocated among existing generators.

Scenario 1: Best Demonstrated Emission Rates & Buy Allowances

	Year	SO2	Annual NOX	Ozone Season NOX
Total New York Allocation	2012	27,316	17,528	8,328
	2014	18,576		
New York Assurance Level	2012	32,233	20,683	10,077
	2014	21,920		
Scenario 1 Emissions		31,905	20,813	10,917

Scenario 2: Fuel Switching, Best Demonstrated Emission Rates, & Buy Allowances

	Year	SO2	Annual NOX	Ozone Season NOX
Total New York Allocation	2012	27,316	17,528	8,328
	2014	18,576		
New York Assurance Level	2012	32,233	20,683	10,077
	2014	21,920		
Scenario 2 Emissions		24,104	20,079	10,577

Scenario 3: Retire Low Capacity Factor Units, Best Demonstrated Emission Rates, & Buy Allowances

	Year	SO2	Annual NOX	Ozone Season NOX
Total New York Allocation	2012	27,316	17,528	8,328
	2014	18,576		
New York Assurance Level	2012	32,233	20,683	10,077
	2014	21,920		
Scenario 3 Emissions		26,668	19,392	10,273

USEPA's Estimates for Allowance Prices

	Emission Allowance Prices (2007\$/ Ton)	
	2012	2014
Annual SO ₂ Group 1 Trading Program	\$1,000	\$1,100
Annual SO ₂ Group 2 Trading Program	\$600	\$700
Annual NO _x Trading Program	\$500	\$600
Ozone Season NO _x Trading Program	\$1,300	\$1,500

EPA Estimate of Annual Allowance Costs for NY

◆ **SO₂**

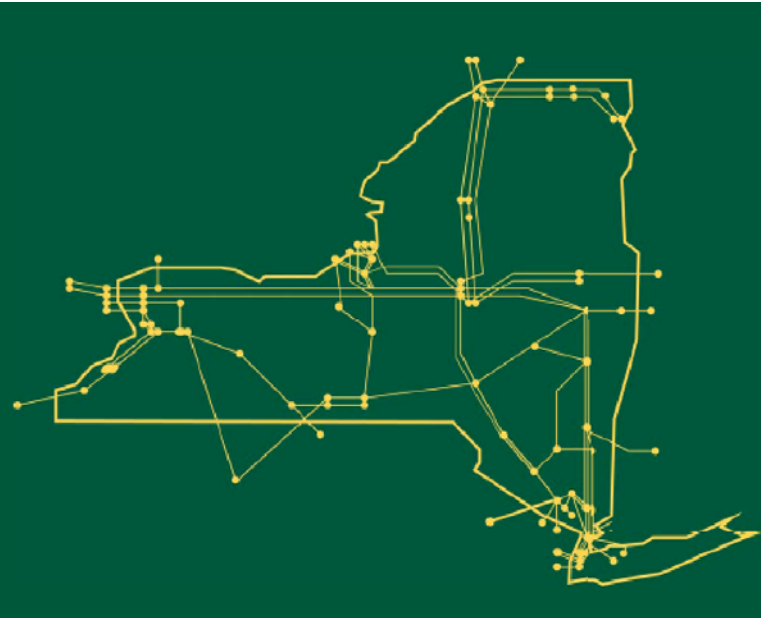
- *32,233 Tons SO₂ emissions X \$1,000/Allowance = \$32.2 Mil.*

◆ **NOx**

- *20,683 Tons NOx emissions X \$500/Allowance = \$ 10.3 Mil.*
- *10,077 Tons Ozone Season NOx emissions X \$1,300/Allowance = \$13.1 Mil.*

◆ **Total = \$ 55.6 Mil.**

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



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