



A comparison of Clear Skies Act and Clean Power Act to control multi-pollutant emissions

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The legislative proposals S.556 (also known as the Clean Power Act, introduced by Senator Jeffords) and S. 2815 (also known as Clear Skies Act, introduced by Senator Bob

now be required to pursue an integrated multi-pollutant control strategy for control of NO_x, SO_x and mercury on their fossil fuel fired boilers. Therefore, a compliance strategy that is additive to their existing investment in

The Clear Skies Act does not address the CO₂ emissions and therefore no reductions will be required from power plants. However, the Clean Power Act proposes an annual allowance cap of 2.05 billion tons for CO₂ emissions by 2008. The basis for the proposed cap is the high presence of coal-based power production in the United States, which have higher CO₂ emissions compared to natural gas fired units.

The Clear Skies Act allows power plants to trade mercury allowances across different trading regions. The Clean Power Act does not provide for an inter-regional trading zone. The differences stem from varying arguments on the localized effects of mercury reduction.

The Clean Power Act concurs mercury emissions might only have local health impacts in the area immediately surrounding a facility. Therefore, allowing such a facility to buy allowances from other facilities might not fully address the risks caused by the mercury emissions. To further mitigate the localized effect of mercury emissions, the Clean Power Act requires the application of the maximum achievable control technology (MACT) on emitting facilities. In contrast, the Clear Skies Act argues that mercury can uniformly mix over a larger geographic area. Therefore, it is appropriate to use a cap and trade approach.

The Clear Skies Act proposes an annual mercury allowance allocation cap in two phases; 26 tons by 2010 and 15 tons by 2018. The Clear Skies Act represents a total reduction of 46 percent by 2010 and 69 percent by 2018 from current levels of 48 tons. On the other hand, the Clean Power Act proposes an earlier compliance timeline of 2008 with an annual emissions cap of 5 tons, a 90 percent reduction over current levels.

Timing, banking and birthday provisions

The Clear Skies Act proposes implementation in two phases. Phase I requires a 50 percent reduction for SO_x and 46 percent reduction for mercury from current levels by 2010 and a 59 percent reduction for NO_x by 2008. Phase II requires a total of 67 percent reduction for SO_x, NO_x and a 69 percent reduction for mercury by 2018.

Comparison of two leading multi-pollutant legislative proposals			
Pollutant	Current levels (estimated)	Clear Skies Act	Clean Power Act
Sulfur dioxide	8.9 million tons	4.5 million tons in 2010 3.0 million tons in 2018	2.2 million tons in 2008
Nitrogen oxide	5.1 million tons	2.1 million tons in 2008 1.7 million tons in 2018	1.51 million tons in 2008
Mercury	48 tons	26 tons in 2010 15 tons in 2018	5 tons in 2008
Carbon dioxide	2,352 million tons	None	2,050 million tons in 2008
Clear Skies Act		Clean Power Act	
• 3 Ps – NO _x , SO _x and Mercury		• 4 Ps – NO _x , SO _x , Mercury and CO	
• Reduction in two phases completing in 2018		• Aggressive reduction, targets and time frames	
• Cap & trade		• Cap & trade	
• Overrides NSR and other programs		• 40th birthday provision	

Current Emission levels is based on 2000 data
Source: RJM.

Smith) seek a sustained approach to pollution control at power plants in the United States. Although the significant differences between the proposals can influence compliance strategies adopted by power producers, the remarkable consensus in key areas suggests that additional regulations are possible in the very near future.

Both the proposals focus on a cap and trade system along with stringent emissions monitoring requirements and impose significant automatic penalties for noncompliance. However, the similarities end there.

The Clear Skies Act offers more flexibility by achieving compliance in two phases by 2018. It also provides additional relief to power producers who can design and adjust compliance strategies, and trade permitted emissions without a governmental approval. The Clean Power Act, on the other hand, adopts a more aggressive time frame of 2008 with greater incremental reductions and trading restrictions.

The implications of the two legislative proposals on power producers will vary depending on the proposal that is adopted by the Senate. However, to say the least, larger power producers in the United States will

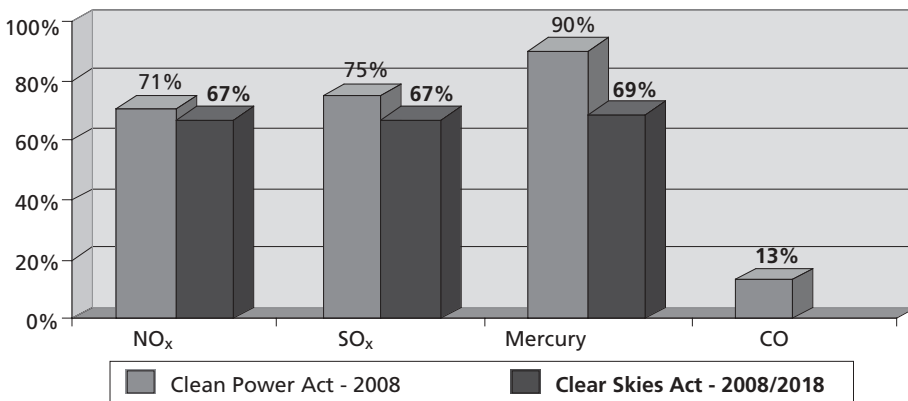
control technologies made as per the Clean Air Act (CAA) regulations will clearly be the most prudent approach. Multi-pollutant control technology providers, on the other hand, will now be required to achieve high removal efficiencies at low cost/ton rates to minimize impact on the cost of generation and meet the highest environmental standards.

Key differences between proposals

The Clear Skies Act is the less stringent of the two proposals. While the consensus in key areas of the proposals points toward an imminent market-based approach, there are major differences between the legislative proposals that can cause affected sources to consider different compliance strategies. The most important lie in the following areas:

- Treatment of CO₂ emissions;
- Mercury allowance allocation, trading restrictions and reduction;
- Size of the emissions cap for key pollutants;
- Timing and schedule of compliance;
- “Grandfathering” of units vs. auction of allowances;
- Modernization of older plants; and
- Regional trading zones.

Projected reductions



The Clear Skies Act achieves compliance in 2 phases compared to the Clean Power Act, which targets compliance by 2008 for all pollutants. Phase I of the Clear Skies Act has a compliance target for NO_x of 2008, and 2010 for SO_x and Mercury.

The Clean Power Act would achieve its cap of 2.25 million tons for SO₂, 1.5 million tons for NO_x and 5 tons for mercury by 2008, nearly 10 years before the Clear Skies Act. The Clean Power Act represents a reduction of 75 percent for SO₂, 71 percent for NO_x and 90 percent for mercury by 2008 from current emission standards.

The Clear Skies Act allows full banking of existing allowances into the new trading system while the Clean Power Act proposes a partial banking of allowance. Banking refers to unused allowances from one compliance period used for compliance in future periods. Allowing banking in a cap and trade program creates additional flexibility for sources, encouraging early emission reductions and reducing compliance costs. Under the Clear Skies Act, banked pre-2010 NO_x and SO₂ allowances can be traded 1:1 for 2010 SO₂

allowances and 2008 NO_x allowances. In the Clean Power Act banked pre-2008 SO₂ allowances can be traded 4:1 for 2008 allowances.

One of the major differences between the provisions in the proposal is the conflicting approach to treating existing resources. The Clear Skies Act exempts power plants affected by the multi-pollutant emission caps from new source review and best available retrofit technology requirements of the Clean Air Act. On the other hand, the Clean Power Act requires the modernization of power plants to match emission rates comparable to new sources by January 2013 or 40 years after the beginning of generation at the facility whichever comes later. This is popularly referred in the industry as the "birthday provision."

Both legislative proposals have two regional zones but they affect different pollutants. Under the Clean Power Act, the SO₂ cap is split into western and non-western regions. However, in the Clear Skies Act, the NO_x cap is split into western and eastern regional zones with separate trading programs for each zone.

In summary, both proposals call for an integrated "multi-pollutant" control approach. In either case it will be the most important reform in the United States to regulate air pollution. Both methodologies have their strengths and weakness including varying impacts on disbursement of capital and operating expenditure for power producers. Additionally, there are marked differences in the allocation of allowances between the two proposals, previously executed through a process known as "grandfathering." Both proposals auction the allowances but using different timeframes, methodologies and reimbursement objectives.

In spite of the differences, a proposal that is consistent with environmental and energy policy goals, providing certainty, cost-benefit, technological feasibility, compliance flexibility through market based mechanisms to achieve the proposed compliance levels is likely to well received by all the stakeholders in the industry. **ELP**

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