Climate Policy Under the Clean Air Act

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Resources for the Future

MIT-NESCAUM Endicott House Symposium

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Coal Steam Units—Heat-Input Weighted Heat Rates
<table>
<thead>
<tr>
<th><strong>Source Category</strong></th>
<th><strong>CO2e Emissions (% of U.S. total)</strong></th>
<th><strong>Potential Reduction as Percent of US Inventory</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity boilers</td>
<td>34%</td>
<td>up to 3.1% (including 0.5 - 1.4% from coal-fired plants and that much again from biomass co-firing)</td>
</tr>
<tr>
<td>Cement plants</td>
<td>2%</td>
<td>0.02 - 0.2%</td>
</tr>
<tr>
<td>Industrial boilers</td>
<td>20%</td>
<td>0.2 - 2%</td>
</tr>
<tr>
<td>Petroleum refineries</td>
<td>3%</td>
<td>0.03 - 0.3%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>59%</td>
<td>up to 5.6%</td>
</tr>
</tbody>
</table>

*Not estimated and/or included:*

landfills, iron & steel, agriculture, buildings, transportation, petroleum production, natural gas systems

Emission Reductions in 2020 (from 2005 Levels)

- Domestic Reductions
- Domestic Offsets
- International Offsets
- Non-Market Offsets

Economy-wide Targets
Cap Level
Clean Air Act with Conventional Regulations
 Tradable Performance Standard for Coal EGUs

Waxman-Markey

Note: Waxman-Markey EIA modeling results include banking
Emission Reductions in 2020 (from 2005 Levels)

What if we scale down emissions reductions to eliminate banking?

Economy-wide Targets

Cap Level

Clean Air Act with Conventional Regulations

 Tradable Performance Standard for Coal EGUs

Waxman-Markey\(^1\)

Waxman-Markey Scaled

Domestic Reductions  Domestic Offsets  International Offsets  Non-Market Offsets

Note: Waxman-Markey EIA modeling results include banking

Outline of GHG Regulation under the Clean Air Act

1970-2008: Legal Foundation
- Clean Air Act: statutory authority
- Massachusetts v. EPA
- Preemption?

Mobile Sources

2009-2010: EPA Action
- Endangerment Finding
- New CAFE Standards
- Revised “Johnson Memo”

The Future

Stationary Sources

Preconstruction Permits (New/Modified Sources)
- Tailoring Rule
- BACT?

Regulatory Pathways (Existing Sources)
- At least four possible pathways
- NSPS appears most likely
- Legal challenges?
Potential State Role under Section 111(d)

- Enforcement likely to devolve to the states.
- States might be assigned emissions budgets.
- Criterion is to identify the “best system” of emissions reduction.
- Regulation could only be directed at emissions sources (i.e., investments inside the fence.)
- However, the state could design the system to complement other regulatory efforts at the state level.
- Cap and trade is one type of system that could be considered by the state or a group of states.
- Allocation decisions would be left to the state.
- As occurred under the NOx Budget Program (implemented under section 110 NAAQS, not section 111 NSPS), the EPA might develop a model rule that would allow for trading across states.

Thank you!