Energy Effects of EPA’s Proposed Clean Power Plan

Pennsylvania Senate Environmental Resources and Energy Committee
Harrisburg, PA
June 27, 2014
EPA’s Section 111(d) Proposal

- EPA proposed State Specific goals by 2020 and 2030
- EPA’s Final rule by June 2015
- State Plans Due to EPA by June 2016
- EPA may grant extensions
  - Individual State Plans for 1 year
  - Multi State Plans for 2 Years
EPA’s Section 111(d) Proposal

- EPA proposed CO2 emission reduction goals for Pennsylvania.
  
  - **Interim Goal by 2020**
    - 37% from 2005 level
    - 23% from 2012 level
  
  - **Final Goal by year 2030**
    - 44% from 2005 level
    - 31% from 2012 level
EPA’s Section 111(d) Proposal

• EPA established CO2 emission targets using:
  o Coal-fired boiler heat rate improvements (assumed 6%)
  o Switching to natural gas fired units
  o Switching to additional nuclear power
  o More renewable energy
  o Energy efficiency programs (“outside the fence”)
EPA’s Section 111(d) Proposal

• The EPA’s Clean Power Plan makes Section 111(d) the State Energy Plan, rather than a component of the State Energy Plan.

• EPA claims that these measures represent the “Best System of Emission Reduction” (BSER) which has been “adequately demonstrated.”
EPA’s Section 111(d) Proposal

- EPA proposed Pennsylvania’s final goal using the following rate reduction contributions:
  - Redispatch of natural gas (11%)
  - Redispatch of additional nuclear (7%)
  - Renewable energy (43%)
  - Energy efficiency programs (27%)
  - Coal-fired heat rate improvements (11%)
• Pennsylvania’s coal fleet annual capacity

<table>
<thead>
<tr>
<th>Year</th>
<th>Capacity Factor</th>
<th>Coal Consumption</th>
<th>Reduction in Coal Consumption from 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>73.4%</td>
<td>43.4 million tons</td>
<td>N/A</td>
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<tr>
<td>2012</td>
<td>54.6%</td>
<td>33.0 million tons</td>
<td>24%</td>
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<tr>
<td>2020</td>
<td>23.7%</td>
<td>12.5 million tons</td>
<td>71%</td>
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<tr>
<td>2030</td>
<td>16.9%</td>
<td>10.5 million tons</td>
<td>76%</td>
</tr>
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PA’s Section 111(d) White Paper

• PA’s White Paper offers a “no regrets” strategy.
  – Process efficiency improvements
    o Addresses the single greatest impediment to efficiency improvements
    o Framework is based on facilitating compliance
  – Regulates only the truly affected sources
  – CO₂ reductions achieved from other sectors
PA’s framework results in:

- Cleaner air
- A fuel diverse energy profile
- Lower electricity prices
- More jobs
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