# A Closer Look at GHG Performance Standards

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# Overview

- Brief Review of Process for Establishing State Plans Covering Existing Power Plants
- Review of Options for State Plans
  - Traditional Performance Standards
  - Rate-based Averaging
  - Emissions Trading Options
  - Portfolio Approach

# Performance Standards at a Glance

- Very little experience interpreting Section 111(d) of the Clean Air Act
- Covers categories of sources for which new source performance standards (NSPS) are issued—
  - Boilers, 40 CFR Part 60, Subpart Da
  - Turbines, 40 CFR Part 60, Subpart KKKK
  - New category of sources—EGUs with a nameplate capacity of 25MW or greater?

# How the State Plan Process Works

- EPA issues NSPS for category of sources
- EPA issues “guideline” to states calling for state plan to cover existing sources within same category.
- Guideline to include:
  - Description of system(s) of emissions reductions EPA considers adequately demonstrated
  - Degree of emissions limitation achievable, costs, and environmental impacts
  - Time periods for compliance
  - Other helpful information

# Section 111(d) State Plans

- Per EPA regulations, states must submit plan within 9 months of issuance of federal guideline, unless a longer time is provided:
  - Clean Air Act references SIP process for this planning exercise, including possibility for FIP
    - Under SIP process, EPA may only require minimum stringency, not manner of regulation—i.e., broad state discretion
  - Public notice and review required
  - State may consider “remaining useful life” of the existing sources to be covered

# Section 111(d) State Plans

- Requirements for State Plans:
  - Emissions standards and compliance schedules “no less stringent” than those in guidelines
  - [“Allowance system”] or emissions rates
  - If more than 12 months granted for compliance, must give measurable milestones for progress
  - Monitoring and compliance

# Stringency of State Plans

- States may adopt less stringent limits or longer compliance times than those in the EPA guidelines if they show:
  - Unreasonable cost due to age, location or basic process design
  - Physical impossibility of installing necessary control equipment
  - “Other factors specific to the facility or class of facility that make application of a less stringent standard or final compliance time significantly more reasonable”
- States may always be more stringent

# Standard of Performance

The term “standard of performance” means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated. §111(a)(1)(emphasis added).

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# Standard of Performance

High-level points:

- Must be tailored to ensure an emissions result;
- Must take costs, impacts and energy requirements into account; and
- Must be a “system of emissions reduction” that has been demonstrated.

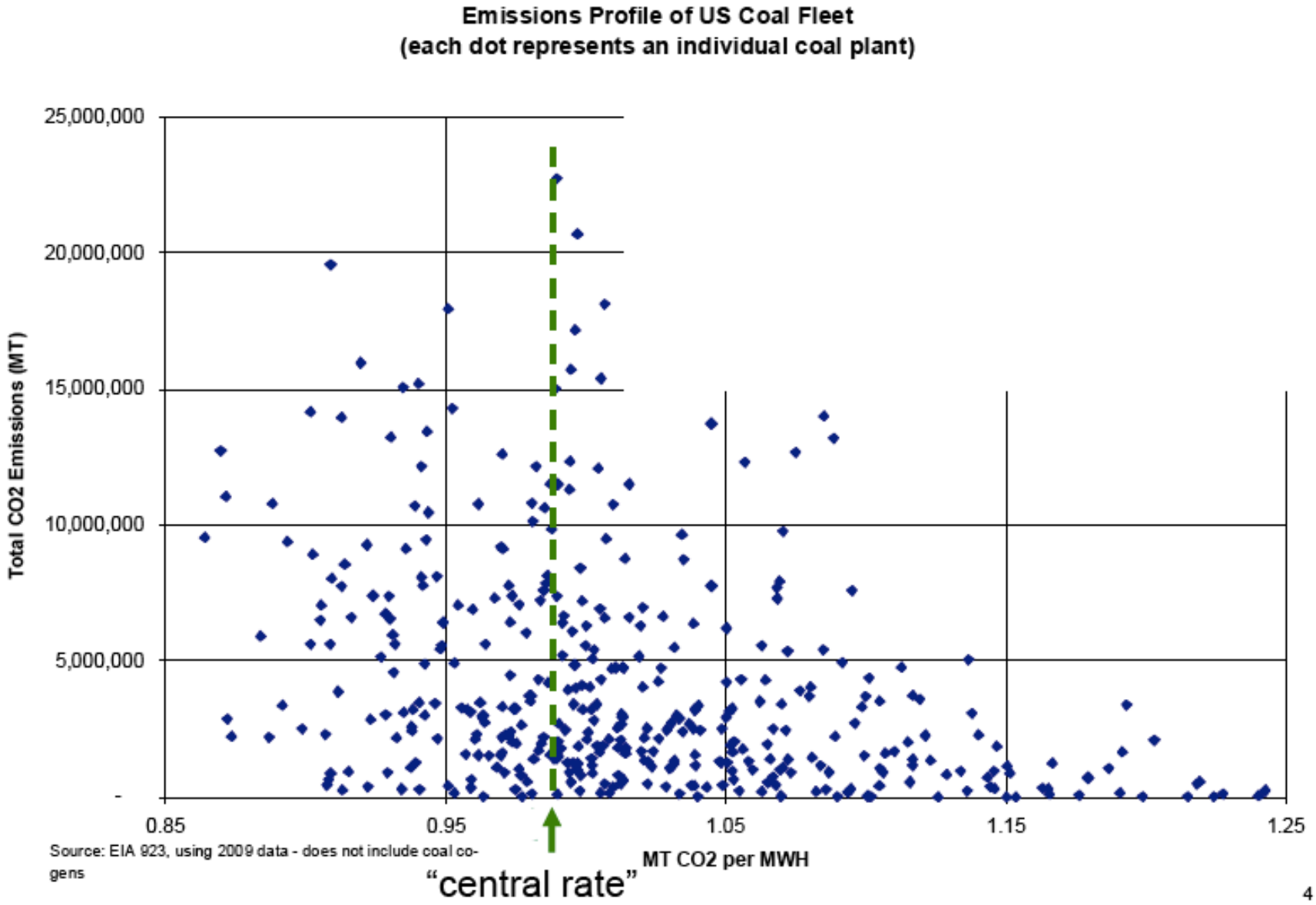
# Importance of SIP-like Process

Reference to SIP-like process in section 110, which in turn provides for “economic incentives such as fees, marketable permits, and auctions of emissions rights.”

# What instruments are allowed?

- Clear that emissions rate limitation applied at the plant level is allowed.
  - Could be output-based limitation (e.g., tons of CO2 per MWHr);
  - Could be input based (e.g., tons of CO2 per MMBTu); and
  - Could be fuel-specific or fuel-neutral.

# Distribution of coal plant emission rates by total annual emissions



# What about averaging?

- Standard could allow averaging across plants in the category:
  - Some plants would meet the standard, some do better than the standard, and some do worse as long as the average is met.
  - But how to implement?
    - Emissions trading; or
    - Corporate averaging.

# What about averaging?

- What is the baseline metric or benchmark?
  - Will Depend on EPA-prescribed stringency
    - Could start at current average emissions rate and improve it over time
    - Issue with ensuring actual emissions reductions in rate-based approach.
  - Some have suggested a flexibility “premium”

# Cap and Trade?

- The Bush EPA took the position that cap and trade is allowed as a standard under section 111(d), and this view has not been questioned by Obama EPA.
- Clean Air Mercury Rule (CAMR) proposed cap and trade for reducing mercury emissions from coal plants.  (Tossed for other reasons).
- Administrator Jackson testified that emissions trading under the Clean Air Act would look very different from Waxman-Markey

# Cap and Trade?

- Cap and trade would allow for trading across covered sources to ensure the lowest cost reductions.
- Regional Greenhouse Gas Initiative in the East has established infrastructure and model rule.

# What Might §111 Cap and Trade look like?

- Issue: Scope.
- Issue: Offsets.
- Issue: Interstate, Inter-sector & International trading
- Issue: Temporal flexibility through banking, borrowing or longer compliance periods
- Issue: cost-containment mechanisms

# What about Other Measures?

- State Implementation Plan reference suggests broad latitude on the one hand.
- Statute calls for “system of emission reduction” and refers to “emissions limitation” on the other.
- Renewable Portfolio Standards, Energy Efficiency Resource Std., etc.
- May come down to demonstrating state equivalency.

# What about Other Measures?

- What about plant-by-plant plan that calls for certain retirements, repowering, etc. similar to the Xcel plan in Colorado?
  - Key may be enforceable mechanism to achieve emissions reductions

# Discussion

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