

Status of Legal Issues of the Clean Power Plan; Implications for the Power Industry

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I. Key CO₂ Cases and Regulations

- *Massachusetts v. EPA* – The Foundational Basis for USEPA
- *UARG v. EPA* – Prevention of Significant Deterioration, Title V
- Clean Air Act 111(b) – Proposed New and Modified Electric Generating Sources
- Clean Air Act 111(d) – Proposed Existing Electric Generating Sources

II. *Massachusetts v. EPA*, 549 U.S. 497 (2007)

- In 2003, reversing prior EPA determinations: EPA found:
 - EPA lacked authority under the Clean Air Act to regulate carbon dioxide and other GHGs.
 - Even if EPA had such authority, it declined to set GHG emissions standards for vehicles.
- In *Massachusetts V. EPA* (2007), the Supreme Court ruled that the Clean Air Act **requires** EPA to regulate *any air pollutant*, including CO₂, for motor vehicles under Clean Air Act 202(a)(1).

III. *UARG v. EPA*, 574 U.S. ___ (2014)

- Holding: The Clean Air Act does not provide the authority to regulate GHGs under ***Prevention of Significant Deterioration*** (PSD), based exclusively on a source's tons/yr of GHG
- Holding: The Clean Air Act does not provide the authority to regulate GHGs under ***Title V***, based exclusively on a source's tons/yr of GHG

- Holding: The Clean Air Act requires sources permitted for above threshold emission of conventional pollutants to comply with “**best available control technology**” for GHGs, so-called “**anyway sources**”
- UARG represents a limitation on EPA attempt to extend GHG coverage to existing sources
- But recognizes regulatory authority over PSD, as an adjunct when conventional pollutants drive PSD coverage
- Partial victory for both industry and environmentalists

IV. Clean Air Act 111(b) New Source Performance Standards – New/Modified Sources

- Section 111(b) Allows EPA to establish pollution control standards for new or modified sources, based on Best System of Emission Reduction
 - January 2014: EPA proposed emission standards for GHGs
 - Natural gas-fired stationary combustion turbines
 - 1,000 pounds of CO₂ per megawatt-hour (lb CO₂/MWh-gross) for larger units (>850 mmBtu/hr)
 - 1,100 lb CO₂/MWh-gross for smaller units (≤850 mmBtu/hr)
 - Coal/oil utility boilers and integrated gasification combined cycle units
 - Standard is Based on the performance of a new efficient coal unit implementing partial carbon capture and storage (CCS)
 - 1,100 lb CO₂/MWh-gross over a 12-operating month period, or
 - 1,000-1,050 lb CO₂/MWh-gross over an 84-operating month (7-year) period

V. Clean Air Act 111(d) – Existing Sources

- Allows EPA to provide pollution control standards for existing sources via State Implementation Planning Process
 - June 2014/October 2014 (Supp.): EPA proposed standards for GHGs and requires states to modify state implementation plans
 - Sets CO² intensity target (30%) for each state for the year 2030, as well as an “interim goal” applied as an average of the 2020-2029 period, and requires every state to create its own plan to achieve the CO² reduction target set for the state
 - Emission target for each state is based on EPA’s assessment of the “Best System of Emission Reductions” (BSER)

- EPA defines BSER via four Building Blocks:
 - 1) making coal plants more efficient through heat rate improvements and others;
 - 2) displacing existing coal with existing natural gas plants;
 - 3) increasing use of nuclear and renewable energy; and
 - 4) decreasing electricity consumption by increasing end-user energy efficiency

Plant
Efficiency

EPA Assures that Power Industry Heat Rate Improvements by 6%*

Problems:

- A. Lower capacity factors due to proposed dispatching requirements will cause actual decrease in Heat Rate (HR)
- B. Many HR efficiencies have already been achieved
- C. Turbine overhauls – long outage, not achievable in timeframe

Natural
Gas

Gas Unit Re-Dispatching – Current Natural Gas Units Can Achieve 70% Utilization (page 9)*

Problems:

- A. Natural gas utilization are load lead following
- B. Cycling base coal limits reduce efficiency
- C. Current shutdown of coal capacity – lead to more natural gas generation anyway, less diversity in electric generation mix
- D. Pipeline capacity limitations on re-dispatch

Renewable
Energy

Increasing Nuclear and Renewable (pages 12-13)*

- A. EPA determinations regarding renewable growth does not reflect economic realities of solar, as well as wind – permitting limits and transmission access
- B. EPA misstates total expected growth and non-shutdown of nuclear

Energy
Efficiency

Energy Efficiency Growth Control*

- A. Different state requirements
- B. Questionable EPA projections in demand and growth and efficiency reduction in demand

* See, generally, “Potential Reliability Impacts of EPA’s Proposed Clean Power Plan,” North American Electric Reliability Corporation – Initial Reliability Review November, 2014

V. Clean Air Act 111(d) – Existing Sources

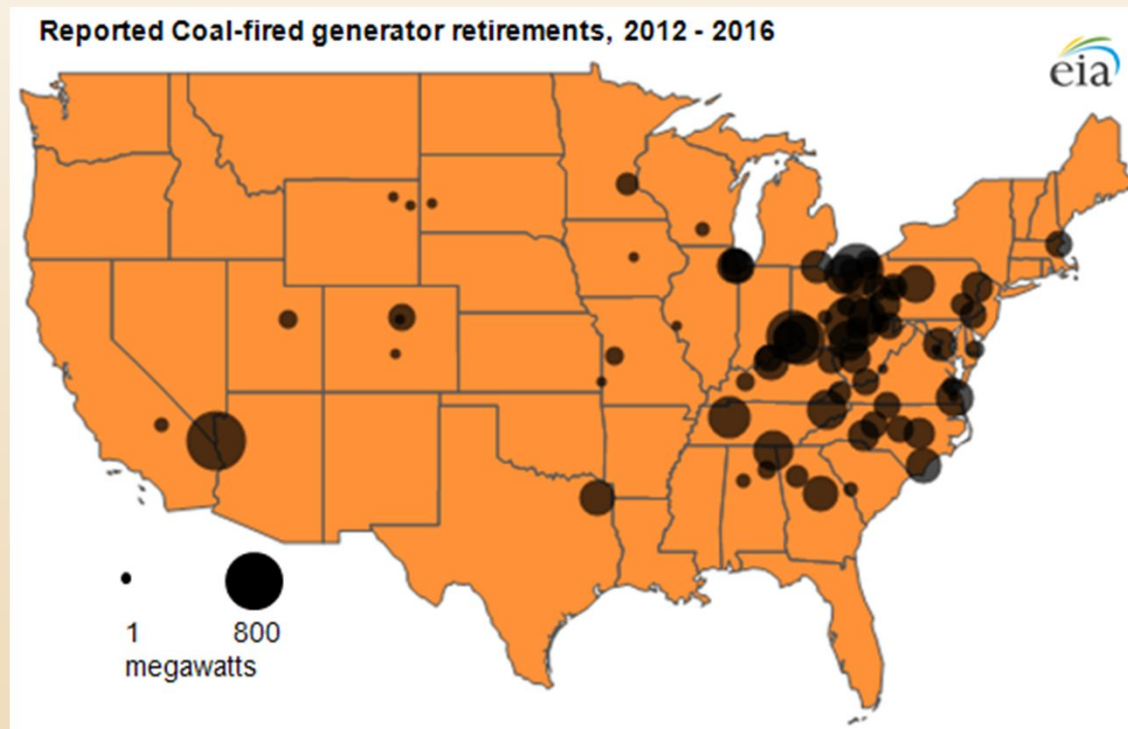
- Key Clean Air Act 111(d) Public Comments**
 - EPA may not regulate sources under the Clean Air Act 111(d) that are already regulated under the Clean Air Act 112
 - Section 111(d) of the Clean Air Act applies to source-oriented “inside the fence line” sources. There is no authority to expand authority over national power grid
 - Building blocks 2, 3, and 4 not “best system of emission reduction”
 - The proposal raises several concerns regarding cost and reliability
 - Timing of plan is not practical
 - The proposal unprecedented EPA reliance on section 111(d)

** See, e.g., Comments submitted by Ohio EPA, West Virginia, and the North American Electric Reliability Corporation, available at Docket ID No. EPA-HQ-OAR-2013-0602

- Congress did not intend section 111(d) to allow restructure of U.S. electric generation, transmission, and distribution systems
- Section 111(d) does not permit regulation of “end users” through mandatory consumer efficiency requirements
- Proposed regulations interfere with exclusive provisions of federal power authorities in regulation of sale and transmission of electric power
- State environmental agencies to not have authority to regulate outside the fence line
- Multiple failure of EPA to consider cost, feasibility or other technical considerations
- Summer 2015: EPA intends to finalize rules for both new/modified and existing sources

VI. Other Non-CO₂ Factors Impacting the Power Industry Reliability

- Mercury Air Toxics Standard Closures – 30 GW



VI. Other Non-CO₂ Factors Impacting the Power Industry

- Ozone National Ambient Air Quality Standard
 - December 2014: EPA issued proposed rulemaking
 - 65-70 ppb (8-hour standard)
 - Many areas attaining the current standard will be in non-attainment under proposed standard
 - Significant compliance costs for the energy sector

VI. Other Non-CO₂ Factors Impacting the Power Industry

- Reliability
 - 30 GW set to retire in the next two years
 - December 2014: PJM Interconnection LLC requested delay of 2000 mw of generation set for closure until after the winter of 2015-2016.
 - PJM and NERC have concerns that closure will cause problems with reliability