

THE COMMITTEE ON ENERGY AND COMMERCE

MEMORANDUM

June 17, 2014

TO: Members, Subcommittee on Energy and Power

FROM: Committee Staff

RE: Hearing on "EPA's Proposed Carbon Dioxide Regulations for Power Plants"

On June 19, 2014, at 9:30 a.m. in 2123 of the Rayburn House Office Building, the Subcommittee on Energy and Power will hold a hearing on the Environmental Protection Agency's proposed carbon dioxide (CO2) regulations for power plants announced June 2, 2014.

I. <u>WITNESS</u>

The Honorable Janet McCabe, Acting Assistant Administrator for Air and Radiation, U.S. Environmental Protection Agency.

II. <u>BACKGROUND</u>

On June 25, 2013, President Obama announced a "<u>Climate Action Plan</u>," which directs the Environmental Protection Agency (EPA) to establish greenhouse gas (GHG) emissions standards for new and existing fossil fuel-fired power plants. Additionally, the President issued a <u>Presidential Memorandum</u> specifically directing the agency: 1) to propose standards for new plants by September 20, 2013, and to finalize those standards in a "timely fashion"; 2) to propose standards, regulations, or guidelines for modified, reconstructed, and existing plants by June 1, 2014, and to finalize those standards, regulations, or guidelines by June 1, 2015; and 3) to require States to submit implementation plans not later than June 30, 2016. The President directed EPA to develop these power plant standards pursuant to <u>section 111</u> of the Clean Air Act (CAA).¹

On September 20, 2013, EPA announced a proposed rule under section 111(b) of the CAA for new power plants entitled "<u>Standards of Performance for Greenhouse Gas Emissions from New</u> <u>Stationary Sources: Electric Utility Generating Units</u>." Section 111(b) of the CAA applies to new, modified, and reconstructed sources and authorizes the EPA Administrator to establish Federal standards of performance, frequently referred to as "New Source Performance Standards" (NSPS) for listed categories of sources.² The Subcommittee had a <u>hearing</u> on the proposal on Nov. 14, 2013.

² For additional information on section 111 and the proposed rule for new plants, see Nov. 12, 2013 <u>Background</u> <u>Memorandum</u>. Because the proposed rule seeks to mandate "Carbon Capture and Storage" technologies for new coal-

¹ See 42 U.S.C. §7411. For information relating to section 111 generally, see <u>Background Memorandum</u> for the Subcommittee's Nov. 14, 2013 hearing on the proposed new plant rule. A "standard of performance" is defined under section 111 as:

a standard for the 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**. 42 U.S.C. §7411(a)(emphasis added).

On June 2, 2014, EPA announced a proposed rule under section 111(d) for existing power plants entitled "*Emission Guidelines for Existing Stationary Sources: Electric Generating Units*" ("Clean Power Plan").³ Section 111(d), rarely invoked by the agency, applies to existing sources; the section authorizes the Administrator to prescribe regulations establishing a procedure under which States submit to the Administrator a plan establishing standards of performance for certain existing sources and certain air pollutants. EPA refers to these standards as "Existing Source Performance Standards", and, in the history of the agency, has only applied section 111(d) to five source categories, most recently during the Clinton Administration.⁴ EPA maintains that the agency may promulgate regulations for power plants under 111(d), notwithstanding express language in the U.S. Code excluding sources regulated under section 112 of the CAA from regulation under section 111(d).⁵ See <u>42 U.S.C. 7411(d)(1)(A)(i)</u>.

The June 2, 2014 proposed rule is 645-pages and is accompanied by hundreds of pages of fact sheets, memoranda, technical support documents and a regulatory impact analysis.⁶ In the proposal, EPA proposes to set unique "state-specific rate-based goals for carbon dioxide emissions from the power sector" that the agency maintains are achievable if a State undertakes a combination of measures across its power sector.⁷ EPA derives its "goals" for States based on the consideration of four "building blocks," which include measures to:

1) "make fossil fuel power plants more efficient," which EPA projects would result in an average heat rate improvement of 6% for coal units;

2) "use low-emitting power sources more," which EPA projects could be achieved by dispatch to existing and under-construction natural gas combined cycle units to up to 70% capacity factor;

3) "use more zero- and low-emitting power sources," which EPA projects could be achieved through dispatch to new clean generation, including new nuclear generation under construction,

³ See Proposed Rule Prepublication Version; see also Press Release; Fact Sheets; Regulatory Impact Analysis; Spreadsheets; and Legal Memorandum and Technical Support Documents, including: Power Sector Modeling; Technical Support Document: Projecting EGU CO2 Emission Performance in State Plans (PDF); Technical Support Document: Goal Computation (PDF); Technical Support Document: Goal Computation (PDF); Technical Support Document: Alternative Renewable Energy Approach (PDF); Technical Support Document: GHG Abatement Measures (PDF); Technical Support Document: Part 75 Monitoring and Reporting Considerations (PDF); Legal Memorandum for Proposed Carbon Pollution Guidelines for Existing Power Plants (PDF); Memorandum: Emission Reductions, Costs, Benefits and Economic Impacts Associated with Building Blocks 1 & 2 (PDF).

fired power plants that are commercially unviable, this proposed rule is widely considered to be a de facto ban on new coal-fired power plants in the United States.

⁴ These source categories include fertilizer plants (1977), sulfuric acid mist (1977), Kraft pulp mills (1979), primary aluminum plants (1980), and municipal solid waste landfills (1996). *See, e.g.*. <u>Proposed Rule Prepublication Version</u> at p. 77, n. 43.

⁵ See Legal Memorandum for Proposed Carbon Pollution Guidelines for Existing Power Plants (PDF) at pp. 20-27. Fossil fuel-fired power plants are regulated under EPA's "Mercury and Air Toxics Standards" pursuant to section 112 of the CAA. See <u>"National Emission Standards for Hazardous Air Pollutants From Coal-and Oil-Fired Electric Utility</u> <u>Steam Generating Units and Standards for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and</u> <u>Small Industrial-Commercial-Institutional Steam Generating Units.</u>" That "MATS" rule is <u>projected</u> by the agency to impose annual costs of \$9.6 billion, including \$35 billion for capital costs.

⁶ See note 3, supra.

⁷ See <u>Proposed Rule Prepublication Version</u>, p. 1 and <u>EPA Fact Sheet: Clean Power Plan National Framework for States</u>.

moderate deployment of new renewable generation, and continued use of existing nuclear generation; and

4) "use electricity more efficiently," for which EPA assumes increases in demand-side energy efficiency of 1.5% annually.

Using 2012 emissions data, EPA derives "interim" goals for States to be met over the 2020-2029 period, as well as a "final" goal to be met in 2030 and thereafter.⁸ *See* Appendix attached hereto. EPA states that "[o]nce the final goals have been promulgated, a state would no longer have an opportunity to request that the EPA adjust its CO2 goal."⁹

Under EPA's proposal for existing power plants, States would be required to submit State implementation plans to EPA by June 30, 2016, with an option to use "a two-step process for submitting final plans if more time is needed," including due to "the timing of legislative approval processes and complexities associated with regional approaches."¹⁰ EPA calculates the rule will reduce CO2 emissions 30 percent below 2005 levels for the power sector, and projects costs of \$7.3 billion to \$8.8 billion in 2030 and "public health and climate benefits worth an estimated \$55 billion to \$93 billion per year in 2030."¹¹ EPA is not proposing goals for Vermont, Washington, D.C., Indian country, or U.S. territories at this time.¹²

On June 2, 2014, EPA also announced proposed CO2 standards under section 111(b) for new and reconstructed power plants. The proposed rule is entitled "*Carbon Pollution Standards for Modified and Reconstructed Stationary Sources: Electric Generating Units*," and also is accompanied by a fact sheet, the same regulatory impact analysis for existing plants, and a related memorandum.¹³ EPA proposes various unit-specific emissions limits for different types of units, and alternatives relating to whether they made a modification before or after becoming subject to the proposed standards for existing plants described above.

III. <u>ISSUES</u>

The following issues may be examined at the hearing:

- The scope of the proposed CO2 regulations for existing power plants;
- The legality and feasibility of the proposed CO2 regulations for power plants;
- Potential impacts of EPA's proposed CO2 regulations on electricity rates, electric reliability, and economic growth; and,
- Potential impacts of EPA's proposed CO2 regulations on long-term global climate patterns.

⁸ *Id.* EPA "is also proposing to give states the option to convert the rate-based goal to a mass-based goal if they choose to in their state plans. Adopting a mass-based goal would better allow a state or group of states to cap their tonnage of CO2 emissions and set up a trading program if they chose." *Id.*

⁹ See <u>Proposed Rule Prepublication Version</u> at p. 28.

¹⁰ See EPA Fact Sheet: Clean Power Plan Flexible Approach.

¹¹ See EPA Fact Sheet: Clean Power Plan Overview and EPA Fact Sheet: By the Numbers.

¹² See Proposed Rule Prepublication Version at p. 346, n. 257.

¹³ See Proposed Rule Prepublication Version; Fact Sheet; Amended Text Memorandum; Regulatory Impact Analysis.

IV. <u>STAFF CONTACTS</u>

If you have any questions regarding the hearing, please contact Mary Neumayr, Patrick Currier, or Tom Hassenboehler of the Committee staff at (202) 225-2927.

APPENDIX – PROPOSED STATE GOALS FOR EXISTING POWER PLANTS (Adjusted Output-Weighted-Average Pounds of CO2 Per Net MWh From All Affected Fossil Fuel-Fired EGUs)

	Interim Goal	Final Goal
State		
Alabama	1,147	1,059
Alaska	1,097	1,003
Arizona *	735	702
Arkansas	968	910
California	556	537
Colorado	1,159	1,108
Connecticut	597	540
Delaware	913	841
Florida	794	740
Georgia	891	834
Hawaii	1,378	1,306
Idaho	244	228
Illinois	1,366	1,271
Indiana	1,607	1,531
Iowa	1,341	1,301
Kansas	1,578	1,499
Kentucky	1,844	1,763
Louisiana	948	883
Maine	393	378
Maryland	1,347	1,187
Massachusetts	655	576
Michigan	1,227	1,161
Minnesota	911	873
Mississippi	732	692
Missouri	1,621	1,544
Montana	1,882	1,771
Nebraska	1,596	1,479
Nevada	697	647
New Hampshire	546	486
New Jersey	647	531
New Mexico *	1,107	1,048
New York	635	1,040 549
North Carolina	1,077	992
North Dakota	1,817	1,783
Ohio	1,452	1,705
Oklahoma	931	895
Oregon	407	372
Pennsylvania	1,179	1,052
Rhode Island	822	782
South Carolina	840	782
South Dakota	800	741
Tennessee	1,254	1,163
Texas	853	791
Utah *		
	1,378	1,322
Virginia Washington	884	810
Washington West Virginia	264	215
West Virginia Wisconsin	1,748	1,620
Wisconsin	1,281	1,203
Wyoming * Evolution EGUs located in In	1,808	1,714

* Excludes EGUs located in Indian country within the state.

SOURCE: "Clean Power Plan" Proposed Rule Prepublication Version at pp. 346-348, Table 8.