

## The Clean Air Act and Power Sector Carbon Standards: Basics of Section 111(d)

Jeremy M. Tarr, Nicholas Institute for Environmental Policy Solutions, Duke University

In his Climate Action Plan released June 2013, President Obama called on the U.S. Environmental Protection Agency (EPA) to finalize regulations controlling carbon dioxide (CO<sub>2</sub>) emissions from new and existing fossil fuel-fired power plants.<sup>1</sup> The EPA recently proposed CO<sub>2</sub> emission limits for new power plants and is preparing to fulfill its Clean Air Act mandate to issue regulations for existing power plants. These regulations will affect thousands of electricity-generating units, which contribute nearly 40% of CO<sub>2</sub> emissions nationwide.<sup>2</sup> This policy brief offers an overview of the substantive and procedural requirements for existing-source regulations and explains the regulatory timeline outlined by the president.

### Covered Sources

Under section 111(d) of the Clean Air Act, the EPA must regulate CO<sub>2</sub> emissions from existing plants once it finalizes new source performance standards for CO<sub>2</sub> emissions. The agency proposed performance standards for new coal and natural gas plants on September 20, 2013. Section 111(d) applies to CO<sub>2</sub> emissions because that pollutant is not regulated under the Clean Air Act as a criteria pollutant in the National Ambient Air Quality Standards program or as a hazardous air pollutant. Section 111(d) regulations will cover existing fossil fuel-fired power plants (such as coal and natural gas plants) because it applies to existing sources that would be subject to the new source performance standards if they were new sources.<sup>3</sup>

### Regulatory Process

Section 111(d) regulation generally involves three steps. First, the EPA releases “guideline documents” that identify systems of emission reduction and the “best system of emission reduction” (BSER) for the covered pollutant (e.g., CO<sub>2</sub>).<sup>4</sup> The BSER must be “adequately demonstrated.” In determining whether a system is adequately demonstrated, the EPA considers cost, energy requirements, and health and environmental impacts.<sup>5</sup> Guideline documents also include an emission guideline, which indicates the degree of emission limitation achievable through application of the BSER.<sup>6</sup>

Second, each state creates a plan that establishes standards of performance and provides for implementation and enforcement of the standards.<sup>7</sup> A performance standard must reflect the emission guideline identified by the EPA.<sup>8</sup>

1. Standard of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units, \_\_\_ Fed. Reg. \_\_\_ (proposed Sept. 20, 2013) (to be codified at 40 C.F.R. pt. 60).

2. U.S. Energy Information Agency, How much of U.S. carbon dioxide emissions are associated with electricity generation?, <http://www.eia.gov/tools/faqs/faq.cfm?id=77&t=11>; U.S. ENERGY INFORMATION ADMINISTRATION, JUNE 2013 MONTHLY ENERGY REVIEW 159, 165 (2013), <http://www.eia.gov/totalenergy/data/monthly/pdf/sec12.pdf>.

3. 42 U.S.C. § 7411(d)(1) (2006).

4. 40 C.F.R. § 60.22(b) (2011).

5. 42 U.S.C. § 7411(a)(1) (2006).

6. § 60.22(b)(5).

7. § 7411(d)(1).

8. § 7411(a)(1).

Notably, states play a significant role under section 111(d). They, not the EPA, establish performance standards and determine how covered entities within their borders will meet those standards.<sup>9</sup>

Third, each state submits to the EPA a section 111(d) plan, which the agency approves or denies on the basis of whether the plan satisfies the criteria outlined in EPA guideline documents. If a state fails to submit a plan or submits a plan that the EPA determines is unsatisfactory, the agency may develop a plan for the state.<sup>10</sup>

## Timing for Implementation of Existing-Source Standards

### Re-propose CO<sub>2</sub> Standards for New Power Plants

In a memorandum accompanying his Climate Action Plan, President Obama outlines a three-year timeline for the development of section 111(d) regulations.<sup>11</sup> The president instructs the EPA to re-propose CO<sub>2</sub> emission standards for new fossil fuel-fired power plants by September 20, 2013, a directive the EPA has satisfied.<sup>12</sup> The president did not articulate a deadline for finalizing new source performance standards, though the Clean Air Act requires they be finalized within one year of their publication in the Federal Register.<sup>13</sup>

### Propose / Finalize Existing-Source Regulations

The presidential memorandum calls on the EPA to propose section 111(d) rules by June 1, 2014. Existing regulations require the EPA's proposed guideline documents to include the following:

- Information on the public health and welfare impacts of carbon dioxide,
- Descriptions of systems of emissions reduction that the EPA has determined are adequately demonstrated,
- Amount of emission reduction achievable by each such system and the cost and environmental impacts of implementing the system,
- Typical time period for “design, installation, and startup of identified control systems,” and
- An emission guideline, achievable by the BSER that has been adequately demonstrated for the covered facilities as well as a timeline within which equally stringent emission standards could be achieved.<sup>14</sup>

Although the EPA provides a compliance timeline for achieving the emissions guideline,<sup>15</sup> states can establish a shorter timeline.<sup>16</sup> Compliance schedules can vary among source subcategories based on unit size, type, class, and other factors.<sup>17</sup> As a result, the precise date by which existing power plants must comply with performance standards is uncertain. According to the president's timeline, the EPA will finalize the section 111(d) rule by June 1, 2015. This timeline includes a comment period—likely two to three months—following issuance of the proposed rule.<sup>18</sup>

### State Implementation Plan

The president's timeline requires states to submit section 111(d) plans by June 30, 2016. This deadline gives states thirteen months to develop the plans. Though this timeframe is longer than the regulations' default period of nine months,<sup>19</sup> states will have to decide among compliance options relatively quickly. Regulations allow the EPA to extend the submission deadline when necessary.<sup>20</sup>

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9. § 7411(d)(1).

10. § 7411(d)(2).

11. Presidential Memorandum from President Obama on Power Sector Carbon Pollution Standards 1–2 (June 25, 2013), <http://www.whitehouse.gov/the-press-office/2013/06/25/presidential-memorandum-power-sector-carbon-pollution-standards>.

12. The EPA first proposed new source performance standards for CO<sub>2</sub> emissions from power plants in April 2012. Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources; Electric Utility Generating Units; Proposed Rule, 77 Fed. Reg. 22,392 (April 13, 2012).

13. 42 U.S.C. § 7411(b)(1)(B) (2006).

14. 40 C.F.R. § 60.22(b) (2011).

15. § 60.22(b)(5).

16. 40 C.F.R. § 60.24(c) (2011).

17. 40 C.F.R. § 60.22(b)(5) (2011).

18. For the Clean Air Mercury Rule, the comment period was 90 days, which included a 30-day extension of the initial 60-day period: 70 Fed. Reg. 28,606, 28,608 (May 18, 2005). For the proposed NSPS for CO<sub>2</sub> emissions, it was 60 days. Standard of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units, \_\_\_ Fed. Reg. \_\_\_ (proposed Sept. 20, 2013) (to be codified at 40 C.F.R. pt. 60).

19. 40 C.F.R. § 60.23(a)(1) (2011).

20. 40 C.F.R. § 60.27(a) (2011).

State plans must not only establish a performance standard, but also show how the state will implement it. If a compliance schedule in a state plan extends beyond 12 months of the plan’s submission deadline, the plan must require “legally enforceable increments of progress.”<sup>21</sup>

Regulations require the EPA to approve or disapprove a state plan within four months of the submission deadline. If a plan is not submitted or is disapproved, the agency must “promptly” publish a proposed federal implementation plan and promulgate that plan within six months of the submission deadline. The federal plan must require compliance with emission standards “as expeditiously as practicable,” yet within the timeline specified in the EPA’s guideline document.<sup>22</sup> According to the president’s timeline, the EPA is scheduled to approve state plans by October 30, 2016, and, if necessary, promulgate federal implementation plans by December 30, 2016.

Table 1. President Obama’s timeline for power plant regulations

Activity	Date
EPA re-proposes CO <sub>2</sub> performance standard for new power plants	September 20, 2013
EPA proposes existing guidelines for existing power plants	June 1, 2014
Public comment period	Summer 2014
EPA finalizes existing-source guidelines	June 1, 2015
States submit implementation plans	June 30, 2016
EPA evaluates implementation plans	October 30, 2016
EPA develops federal implementation plans as necessary	December 30, 2016

21. 40 C.F.R. § 60.24(e)(1). A state may determine, with some restrictions, the compliance schedule after submitting its implementation plan to the EPA. § 60.24(e)(2).

22. 40 C.F.R. § 60.27(b)–(e) (2011).



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