

#### MEMORANDUM

November 12, 2023

TO:	Members of the Subcommittee on Environment, Manufacturing, and Critical Materials
FROM:	Committee Majority Staff
RE:	Hearing entitled "Clean Power Plan 2.0: EPA's Effort to Jeopardize Reliable and Affordable Energy for States."

# I. INTRODUCTION

On Tuesday, November 14, 2023, at 10:30 a.m. in 2322 Rayburn House Office Building, the Subcommittee on Environment, Manufacturing, and Critical Materials will hold a hearing entitled "Clean Power Plan 2.0: EPA's Effort to Jeopardize Reliable and Affordable Energy for States." The hearing will examine State perspectives concerning the Environmental Protection Agency's (EPA's) proposed greenhouse gas emissions standards for the power sector and the reliable delivery of electricity.

# **II. WITNESSES**

- L. David Glatt, Director, North Dakota Department of Environmental Quality
- Chris Parker, Director, Utah Department of Commerce Division of Public Utilities
- Michelle Walker Owenby, Director, Division of Air Pollution Control, Tennessee Department of Environment and Conservation
- Serena McIlwain, Secretary of the Environment, State of Maryland

# III. BACKGROUND

#### A. Proposed GHG Standards for the Power Sector

Following the U.S. Supreme Court ruling in *West Virginia v. EPA*, which overturned the EPA's last attempt to regulate greenhouse gas (GHG) emissions from power plants, the EPA issued on May 11, 2023, an omnibus proposed rulemaking that would limit GHG emissions for fossil fuel-fired power plants, including from both new and existing natural-gas-fired plants and from existing coal-fired plants, pursuant to <u>Section 111</u> of the Clean Air Act (CAA).<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The Proposed Rules involve five separate proposed actions. See "New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emissions Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule," at <u>88 Fed. Reg. 33,240</u> (May 23, 2023).

#### Page 2 Majority Memorandum for November 14, 2023, Subcommittee on Environment, Manufacturing, and Critical Material Hearing

Section 111 of the CAA authorizes the EPA Administrator to list categories of stationary sources that, in the judgment of the Administrator, cause or contribute "significantly to air pollution which may reasonably be anticipated to endanger public health or welfare" and to establish "standards of performance" for such sources.<sup>2</sup>

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.<sup>3</sup> Section 111(d) applies to existing sources and authorizes the Administrator to prescribe regulations establishing a procedure under which States submit to the Administrator plans establishing standards of performance for certain existing sources and certain air pollutants. Under section 111(d) and the agency's implementing regulations, the EPA has issued "Emission Guidelines" for existing sources for six source categories that remain in effect.<sup>4</sup>

For purposes of Section 111, a "standard of performance" is defined 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 non-air quality health and environmental impact and energy requirements) the Administrator determines **has been adequately demonstrated**."<sup>5</sup>

The May 11, 2023, proposal for fossil-fuel fired power plants would set limits for new gasfired combustion turbines, certain existing gas-fired combustion turbines, and existing coal, oil, and gas-fired steam generating units. The proposed standards are based on technologies including carbon capture and sequestration/storage (CCS), low-greenhouse-gas (low-GHG) hydrogen co-firing, and natural gas co-firing, which can be applied directly to power plants that use fossil fuels to generate electricity.

The EPA proposals are complex. For example, the EPA is proposing requirements for four categories of existing coal units, depending on when the units retire: commit to retire before 2032; commit to retire before 2035 and limit operation to 20 percent capacity by 2030; commit to retire before 2040 and co-fire with 40 percent natural gas by 2030; and retire after 2040 and install CCS to achieve 90 percent carbon dioxide capture by 2030.<sup>6</sup>

For new gas-fired units, the EPA is proposing three general subcategories of units: low load (capacity factor less than 20 percent); intermediate load (capacity factor between 20 and 50

<sup>&</sup>lt;sup>2</sup> 42 U.S.C. § 7411(b).

<sup>&</sup>lt;sup>3</sup> Under section 111(b), EPA has listed and set NSPS standards for more than 70 stationary source categories and subcategories. A list of sources regulated under section 111 can be found in <u>40 CFR Part 60</u>

<sup>&</sup>lt;sup>4</sup> The current categories include sulfuric acid plants (acid mist), issued in 1977; phosphate fertilizer plants (fluorides), issued in 1979; Kraft pulp plants (total reduced sulfur), issued in 1979; primary aluminum plants (fluorides), issued in 1980; municipal solid waste landfills (landfill gases), issued in 2016; and fossil-fuel fired electric generating units (carbon dioxide), issued in 2019.

<sup>&</sup>lt;sup>5</sup> 42 U.S.C. §7411(a) emphasis added.

<sup>&</sup>lt;sup>6</sup> See EPA site: <u>https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power#rule-summary</u>, and <u>Overview Presentation: Clean Air Act Section 111 Regulation of</u> Greenhouse Gas Emissions from Fossil Fuel-Fired Electric Generating Units (pdf)

#### Page 3 Majority Memorandum for November 14, 2023, Subcommittee on Environment, Manufacturing, and Critical Materials Hearing

percent); and base load (capacity factor greater than 50 percent). Options for compliance, depending on subcategories, include 90 percent CCS beginning in 2035 or co-firing with 30 percent low-GHG hydrogen beginning in 2032 and increasing to 96 percent hydrogen by 2038.<sup>7</sup> Existing units greater than 300 megawatts and capacity factors over 50 percent are subject to these same compliance requirements. Units smaller than 300 megawatts will be subject to a separate rulemaking.

How these proposed standards affect decisions to continue operations or invest in new baseload fossil generating units and the related infrastructure required for compliance will be an issue for policymakers.

# B. EPA's EGU strategy

The proposed rules are part of a larger, comprehensive suite of regulatory actions for power plants. EPA Administrator Regan announced this suite of actions, known as the EGU (for "electric generating unit") strategy, to address climate, health, and environmental burdens from power plants.<sup>8</sup> These regulatory actions include the Interstate Transport Rule, Regional Haze, Risk and Technology Review for the Mercury Air Toxics Rule, effluent limitations, and a legacy coal combustion residue rule.

These rules are impacting operations of existing baseload generation in the bulk power system, compelling, in many instances, retirements of generating sources earlier than had been planned. For example, when the EPA proposed its ozone Interstate Transport Rule, also known as the "Good Neighbor Plan," in February 2022, it modeled that the rule would accelerate the retirements of an additional 18 gigawatts of coal generation by 2030. Other estimates projected the impacts as high as 42 gigawatts of early coal generation retirements in affected regions by 2027—upwards of 50 percent of coal generation capacity in some cases.<sup>9</sup> (The rule was finalized in March 2023 and has been subject to litigation in several Federal Circuit Courts.)

#### C. Electric reliability

Electric sector authorities, including grid operators and reliability entities, have reported increasing risks to electric reliability driven by accelerated retirement of conventional resources like coal, natural gas, and nuclear. This trend is magnified by operating limitations of new replacement generation, primarily wind and solar.

The North American Electric Reliability Corporation (NERC) warned in its reliability assessment for the Summer of 2023 that two-thirds of North America is at risk of energy shortfalls during high demand periods in summer.<sup>10</sup> NERC notes that other EPA regulations, namely its "Good Neighbor Plan," will limit operation of fossil fuel resources in 23 states during

<sup>&</sup>lt;sup>7</sup> Id. <u>Overview Presentation</u>.

<sup>&</sup>lt;sup>8</sup> Administrator Michael Regan, Remarks to CERAWeek About EPA's Approach to Deliver Certainty for Power Sector and Ensure Significant Public Health Benefits linked <u>here</u>.

<sup>&</sup>lt;sup>9</sup> See NRECA Comments on Proposed Federal Implementation Plan Addressing Regional Ozone Transport for the 2015 Ozone National Ambient Air Quality Standard, June 21, 2022. (Docket ID NO. <u>EPA-HQ-OAR-2021-0668</u>)
<sup>10</sup> "https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC\_SRA\_2023.pdf, NERC, May 2023.

# Page 4 Majority Memorandum for November 14, 2023, Subcommittee on Environment, Manufacturing, and Critical Material Hearing

summer.<sup>11</sup> This puts added stress on other resources and grid operators in regions that experience peak demand during the summer. NERC's reliability assessment for the Winter of 2023-2024 shows similarly large reliability risks during peak winter conditions.<sup>12</sup>

On August 8, 2023, the grid operators ERCOT, MISO, PJM, and SPP jointly filed comments on EPA's proposed rules. In their comments, the grid operators stated that their systems will need to rely even more on generation able to provide critical reliability attributes, like coal and natural gas, as more intermittent resources come onto the system. The grid operators also noted that the proposal could result in material, adverse impacts to reliability if significant technological advances in carbon capture and storage and hydrogen supply and transport do not occur as at the pace or scale anticipated by the EPA.<sup>13</sup>

#### **D. State Perspectives**

The proposed rule presents myriad issues for states, which would have to implement the standards, particularly on existing fossil generation sources. States have exclusive jurisdiction over intrastate electricity matters. States implement generation resource policies and regulate the siting and construction of most generation resources and transmission facilities within their jurisdictions.

Section 111(d) of the CAA allows for State authorities and flexibility for implementing EPA standards on existing sources. Under this section, States have discretion to consider "other factors" when developing compliance strategies; these factors may include remaining useful life of existing sources or other factors States determine appropriate to fulfill their responsibilities.<sup>14</sup> How the proposed rules affect State discretion for implementing the standards will be an issue to examine for policymakers. Factors such as the stringency of the standards, whether the standards have been adequately demonstrated,<sup>15</sup> whether the timelines for implementing the standards are feasible, and how the standards affect other state responsibilities relating to the supply and delivery of power, all have been issues raised in the rulemaking docket.

# **IV. ISSUES**

The following issues may be examined at the hearing:

• The impacts of the proposed standards on State responsibilities concerning the power sector and regulation of existing sources.

<sup>&</sup>lt;sup>11</sup> "2023 Summer Reliability Assessment," NERC, May 2023, at page 6.

<sup>&</sup>lt;sup>12</sup> <u>"2023-2024 Winter Reliability Assessment,</u>" NERC, November 2023.

<sup>&</sup>lt;sup>13</sup> https://www.pjm.com/-/media/documents/other-fed-state/20230808-comments-of-joint-isos-rtos-docket-epa-hqoar-2023-0072.ashx.

<sup>&</sup>lt;sup>14</sup> See generally comments of Attorneys General of the States of West Virginia, Alabama, Arkansas, Georgia, Idaho, Indiana, Iowa, Kentucky, Louisiana, Mississippi, Missouri, Montana,

Nebraska, New Hampshire, Ohio, Oklahoma, South Carolina, South Dakota, Texas, Utah, and Virginia (Docket No. EPA-HQ-OAR-2023-0072)

<sup>&</sup>lt;sup>15</sup> See testimony at June 6, 2023, Subcommittee hearing "Clean Power Plan 2.0: EPA's Latest Attack on Electric Reliability," linked <u>here</u>.

- Page 5 Majority Memorandum for November 14, 2023, Subcommittee on Environment, Manufacturing, and Critical Materials Hearing
  - The technical challenges and cost considerations relating to implementation of the proposed standards.
  - The impacts of the proposed standards on the electricity generation mix and electric reliability.

# V. STAFF CONTACTS

If you have any questions regarding this hearing, please contact Peter Spencer, David Burns, or Mary Martin of the Committee staff at (202) 225-3641.