

EPA's Final CO₂ Standards for the Power Sector: Robust Regulatory Record Sets the Stage for Legal Challenges

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On April 25, 2024, [EPA finalized its rule establishing greenhouse gas \(GHG\) standards for power plants under section 111 of the Clean Air Act \(CAA\)](#). The rule includes four severable components:

- Existing coal-fired power plants: CO₂ emission standards for existing coal-fired boilers operating long-term or medium-term (retiring units exempted), and natural gas- and oil-fired boilers (based on subcategories of low, intermediate, and baseload);
- New gas-fired plants: CO₂ emission standards for low, intermediate, and baseload subcategories;
- New, modified, and reconstructed coal-fired plants: Revised CO₂ emission standards for coal-fired units that undertake a large modification (i.e., increase hourly emission rate by more than 10%) to mirror the emission guidelines for existing coal-fired steam units;
- Repeal of Affordable Clean Energy (ACE): Repeal of the Trump-era rule, which had emission guidelines based on heat rate improvements.

EPA released these rules as part of [a suite of rules aimed at reducing air, water, and waste pollution from fossil fuel-fired power plants](#).

Fossil fuel-fired power plants are the largest stationary source of GHG pollution in the US.¹ EPA estimates that the rule will reduce 1.38 billion metric tons of CO₂ emissions through 2047 along with reductions in PM_{2.5}, SO₂, and NO_x, resulting in climate and public health net benefits of \$320 to \$370 billion (depending on the discount rate used).²

EPA explains that the final standards are “based on available and cost-effective technologies that directly reduce GHG emissions from these sources.”³ EPA further notes that “a range of cost-effective technologies and approaches to reduce GHG emissions from these sources is available to the power sector — including carbon capture and sequestration/storage (CCS), co-firing with less GHG-intensive fuels, and more efficient generation.”⁴ EPA’s final rule sets an emission rate for each subcategory, which enables power plants to use any alternative fuel or technology provided it meets the applicable emission rate. EPA highlights that through the Inflation Reduction Act (IRA) “Congress has also acted to provide funding and other incentives” to cut emissions from the power sector.⁵

¹ New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule (“Final Rule”), 89 Fed. Reg. 39798 (May 9, 2024) (to be codified at 40 CFR Part 60) <https://www.govinfo.gov/content/pkg/FR-2024-05-09/pdf/2024-09233.pdf> at 40004, 40008.

² EPA, Regulatory Impact Analysis for the New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule (“RIA”) (Apr. 2024), https://www.epa.gov/system/files/documents/2024-04/utilities_ria_final_111_2024-04.pdf at ES-5, ES-18.

³ Final Rule at 39799.

⁴ *Id.*

⁵ *Id.*



This final rule, which focuses on technology installed at each plant, differs from the Obama administration’s Clean Power Plan (CPP), which the [Supreme Court rejected in *West Virginia v. EPA*](#) on the basis that EPA lacked the authority to establish standards based on generation shifting.⁶

In this piece, we review the legal basis for the final rule, summarize the final standards focusing on the standards for existing coal-fired power plants and new natural gas-fired power plants, their compliance pathways, and the regulatory mechanisms included in the final rule in response to reliability concerns by stakeholders. Additionally, the Supreme Court’s decision in *West Virginia v. EPA* as well as the ongoing challenges to other rules that EPA has recently finalized, including the methane standards for the oil and natural gas sector (also under CAA section 111) and vehicle emission standards for GHGs likely frame legal challenges to the final rule, which are just getting underway.⁷ We explore how EPA responds to these anticipated arguments in the regulatory record for the final rule.

Read [EELP’s analysis of the proposed rule](#) and [power sector resources](#).

Legal Basis

Clean Air Act

As EPA explains, “[t]he purpose of CAA section 111 is to reduce emissions of air pollutants that endanger public health or welfare.”⁸ CAA section 111 requires EPA to identify source categories that emit dangerous air pollutants and regulate new and existing sources of those emissions.⁹ When it sets regulations, EPA must determine the “best system of emission reduction [BSER] ... adequately demonstrated” considering cost, “non-air quality health and environmental impacts, and energy requirements.”¹⁰ After EPA determines the BSER for an emissions source, it determines the “degree of emission limitation” achievable by applying that BSER.¹¹

For new sources, EPA sets new source performance standards (NSPS) that reflect the degree of emission limitation.¹² For existing sources, EPA sets standards in the emission guidelines (EGs), and states adopt state plans consistent with those guidelines.¹³ The CAA directs EPA to review new source performance standards every eight years, and EPA can review emission guidelines for existing sources as well.¹⁴

EPA explains that “BSER’s key features include that it must reduce emissions, be based on ‘adequately demonstrated’ technology, and have a reasonable cost of control.”¹⁵ Based on these factors, EPA defines BSER as CCS for base load units, which we discuss in detail below.

⁶ *West Virginia v. EPA*, 597 U.S. 697 (2022). Under the Clean Power Plan, BSER included “generation shifting” methods of reducing emissions by substituting increased generation from lower-emitting plants and substituting increased generation from renewable sources.

⁷ On May 9, legal challenges were filed in the DC Circuit by West Virginia and 24 other states, the National Rural Electric Cooperative Association, the National Mining Association, and a coal interest group, America’s Power.

⁸ Final Rule at 39834.

⁹ *Id.* at 39823.

¹⁰ 42 U.S.C. § 7411(a)(1); Final Rule at 39833.

¹¹ *Id.* at 39801.

¹² *Id.* at 39824.

¹³ *Id.*

¹⁴ 42 U.S.C. § 7411(b).

¹⁵ Final Rule at 39801, 42 U.S.C. § 7411(a)(1).



Inflation Reduction Act and Infrastructure Investment and Jobs Act

As additional support for EPA's determination of CCS as BSER for base load units, EPA cites recent Congressional actions.¹⁶ EPA discusses Congressional investment in CCS technology, including extending and increasing the 45Q tax credit in the IRA and new funding provided in the Infrastructure Investment and Jobs Act (IIJA). EPA states that "the IRA's provisions [...] demonstrate an intent to support development and deployment of low-GHG emitting technologies in the power sector through an array of additional tax credits, loan guarantees, and public investment programs."¹⁷

For this rule, EPA considered the impact of the 45Q tax credit in its analysis of CCS, noting the tax credit, "which defrays a significant portion of the costs of CCS, is available for the first 12 years of operation."¹⁸ EPA states that "these developments support the EPA's conclusion that CCS is the BSER for certain subcategories [...] because it is an adequately demonstrated and available control technology that significantly reduces emissions of dangerous pollution and because the costs of its installation and operation are reasonable."¹⁹

Regulatory History

EPA explains that since the 1970s it has issued regulations under CAA section 111 for over 60 source categories.²⁰ It notes that during that time, the DC Circuit and Supreme Court have developed caselaw interpreting section 111.²¹ EPA states that it has "typically," including in this rulemaking, "determined the BSER to be 'measures that improve the pollution performance of individual sources,' such as add-on controls and clean fuels."²² EPA first promulgated an NSPS for GHGs from new and modified fossil fuel-fired electric utility steam generating units and newly constructed and reconstructed stationary combustion turbine units in 2015.²³ For fossil fuel-fired steam generating plants, EPA determined the BSER to be a "new, highly efficient, supercritical pulverized coal (SCPC) EGU [electric generating unit] that implements post-combustion partial CCS technology."²⁴ In setting that BSER, EPA determined that CCS was adequately demonstrated, technically feasible, widely available, and implementable at reasonable cost.²⁵ For natural gas-fired stationary combustion turbines, EPA determined the BSER to be efficient natural gas combined cycle (NGCC) technology.²⁶ For new and reconstructed multi-fueled combustion turbines and natural gas-fired combustion turbines, EPA established a heat input-based standard based on using lower-emitting fuels.²⁷

¹⁶ EPA notes, "Congress enacted IRC section 45Q in section 115 of the Energy Improvement and Extension Act of 2008 to provide a tax credit for the sequestration of CO₂. Congress significantly amended IRC section 45Q in the Bipartisan Budget Act of 2018, and more recently in the IRA, to make this tax incentive more generous and effective in spurring long-term deployment of CCS. In addition, the IIJA provided more than \$65 billion for infrastructure investments and upgrades for transmission capacity, pipelines, and low-carbon fuels. Further, the Creating Helpful Incentives to Produce Semiconductors and Science Act (CHIPS Act) authorized billions more in funding for development of low- and non-GHG emitting energy technologies that could provide additional low-cost options for power companies to reduce overall GHG emissions." Final Rule at 39800.

¹⁷ *Id.* at 39819.

¹⁸ *Id.* at 39840.

¹⁹ *Id.* at 39800.

²⁰ *Id.* at 39801.

²¹ *Id.*

²² *Id.* at 39801, *citing* West Virginia v. EPA, 597 U.S. 697, 734 (2022).

²³ Final Rule at 39825.

²⁴ *Id.*

²⁵ *Id.*

²⁶ In 2018, EPA proposed to revise the NSPS, which EPA is withdrawing in this final rule. *Id.*

²⁷ *Id.*



Upon finalization of the 2015 NSPS, CAA section 111(d) required EPA to promulgate emission guidelines for GHG emissions from existing sources.²⁸ For that regulation, called the Clean Power Plan (CPP), EPA defined BSER as three sets of measures for emissions reduction, including improving heat rate, substituting increased generation from lower-emitting plants, substituting increased generation from renewable sources.²⁹ In 2016, the Supreme Court stayed the CPP, pending judicial review.³⁰ In 2019, The Trump administration repealed the CPP and replaced it with ACE, which limited standards to “measures that can be applied to and at the source.”³¹ However, EPA noted in ACE that “[m]arket-based forces ha[d] already led to significant generation shifting in the power sector,” and that there was “likely to be no difference between a world where the CPP is implemented and one where it is not.”³²

In 2022, the Supreme Court concluded that while the CAA authorizes EPA to set a BSER and degree of emission limitation, the “BSER of ‘generation-shifting’ raised a ‘major question,’ and was not clearly authorized by section 111.”³³ Throughout the final rule, EPA discusses how its approach in this rulemaking addresses the Court’s decision, as we discuss in the Legal Arguments section below.

Final Standards

EPA explains that the final standards will reduce harms to human health and that EPA “designed these standards and emission guidelines in a way that is compatible with the nation’s overall need for a reliable supply of affordable electricity.”³⁴ For the longest-running and most heavily operated existing coal-fired and for new natural gas-fired power plants that will be heavily operated in the future, EPA defines BSER based on CCS.³⁵ EPA states that CCS is an “available and cost-effective” technology that can be applied directly to power plants and can reduce 90 percent of carbon dioxide emissions from the plants.³⁶ EPA explains that its BSER determination was shaped in part by lower costs and that continued technological improvements in CCS technology are a result of a range of factors including power sector trends and federal investments in recently passed laws:

[w]ell documented trends in the power sector also influence the EPA’s determination of the BSER. In particular, CCS entails significant capital expenditures and is only cost-reasonable for units that will operate enough to defray those capital costs. At the same time, many utilities and power generating companies have recently announced plans to accelerate changing the mix of their generating assets. The IJJA and IRA, state legislation, technology advancements, market forces, consumer demand, and the advanced age of much of the existing fossil fuel-fired generating fleet are collectively leading to, in most cases, decreased use of the fossil fuel-fired units that are the subjects of these final actions.³⁷

The final rule details the technological development of CCS to support its BSER determination, explaining that “[t]his determination is based, in part, on the demonstration of the technology” at existing plants and the identification of “minor technological improvements” that can be applied to improve performance.³⁸ For example, EPA analyzes recent application of CCS to coal-fired units,

²⁸ *Id.* at 39826.

²⁹ *Id.*

³⁰ *Id.*; *West Virginia v. EPA*, 577 U.S. 1126 (2016).

³¹ Final Rule at 39826.

³² *Id.*, citing 84 FR 32561 (July 8, 2019).

³³ *Id.*

³⁴ *Id.* at 39800.

³⁵ Note that EPA removed the proposed BSER pathway of low-GHG hydrogen co-firing. *Id.* at 39805.

³⁶ *Id.* at 40022.

³⁷ *Id.* at 39800.

³⁸ *Id.* at 39847.



including Boundary Dam Unit 3,³⁹ “currently available, minor technological improvements” to CCS technology,⁴⁰ EPCAct05-assisted projects,⁴¹ retrofit projects on coal-fired plants that are currently in progress,⁴² CO₂ transport demonstrations,⁴³ infrastructure buildout,⁴⁴ transportation and sequestration site capacity assessments,⁴⁵ and other technical and economic considerations.

For each standard, the final rule sets an emission rate based on EPA’s determined BSER. As discussed more in the Grid Reliability and Compliance Extension Mechanisms section below, power plants can comply with the standard either through deploying the technology or fuel which EPA determined as the basis for BSER or, alternatively, a power plant can use any alternative fuel or technology provided it meets the specified emission rate.

Existing Fossil Fuel-Fired Steam Generating Units

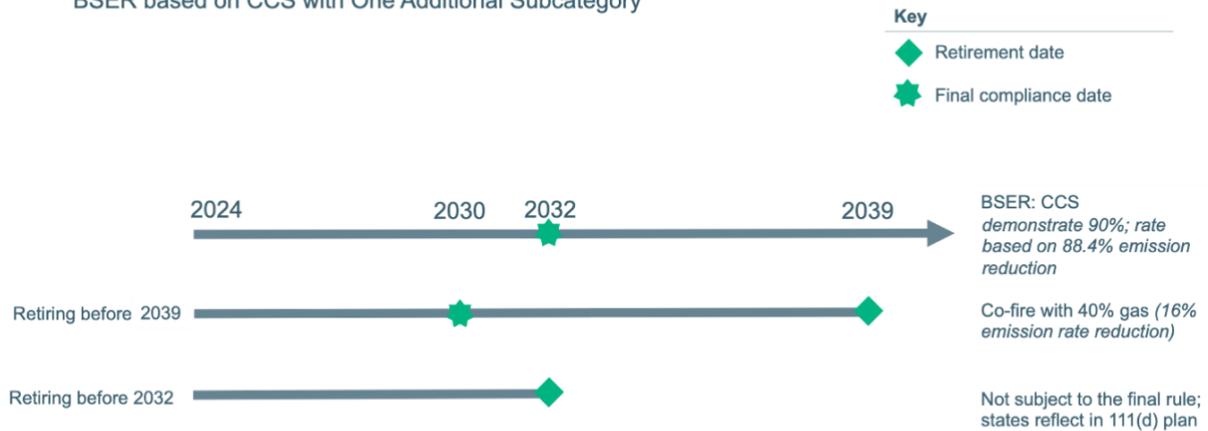
Coal-fired power plants

For existing coal-fired power plants, the final rule defines BSER as CCS with 90 percent capture of CO₂.⁴⁶ For these units, the BSER results in a “degree of emission limitation equivalent to an 88.4 percent reduction in emission rate (lb CO₂/MWh-gross)”⁴⁷ and the compliance deadline is January 1, 2032.⁴⁸ EPA states that CCS is an “adequately demonstrated technology that achieves significant emissions reduction and is cost-reasonable, taking into account the declining costs of the technology and a substantial tax credit available to sources.”⁴⁹

Figure 1.

Final Existing Coal Standards

BSER based on CCS with One Additional Subcategory



³⁹ *Id.* at 39848.

⁴⁰ *Id.* at 39847.

⁴¹ *Id.* at 39849.

⁴² *Id.* at 39851.

⁴³ *Id.* at 39855.

⁴⁴ *Id.* at 39856.

⁴⁵ *Id.* at 39862.

⁴⁶ *Id.* at 39840

⁴⁷ *Id.*

⁴⁸ *Id.* at 39801.

⁴⁹ *Id.*



The final rule also includes a subcategory for existing coal-fired steam generating units that are slated to retire before January 1, 2039. Given the capital costs of CCS deployment and the shorter available amortization period for these units that are retiring,⁵⁰ EPA bases BSER on “co-firing with natural gas, at a level of 40 percent of the unit’s annual heat input.”⁵¹ For these units, the degree of emission limitation is equivalent to a 16 percent reduction in annual emission rate and the compliance deadline is January 1, 2030.⁵² In justifying the inclusion of this subcategory, EPA notes that power companies have announced plans for about half of the capacity of existing coal-fired units to cease operating before 2039.⁵³ Thus, EPA assessed the cost of CCS for different amortization periods and created a separate standard for these plants.⁵⁴

The final rule exempts existing coal-fired power plants planning to close before January 1, 2032, but states will need to include them in their plan. EPA explains that these units do not have “cost-reasonable options” for reducing GHG emissions.⁵⁵

Figure 1 illustrates the timing and requirements for each of the final rule’s three components for existing coal-fired power plants.

Natural gas- and oil-fired steam generating units

For natural gas- and oil-fired steam generating units, the final rule is consistent with the proposed rule’s structure for subcategories based on capacity factor. EPA identifies BSER for intermediate load and base load natural gas- and oil-fired steam generating units as “routine methods of operation and maintenance.”⁵⁶ EPA explains that the presumptive standards for gas- and oil-fired steam generating units are “slightly higher” than in the proposal.⁵⁷ Low load sources with annual capacity factors of less than 8 percent will have a BSER of uniform fuels.⁵⁸ EPA establishes a compliance date of January 1, 2030, for all gas- and oil-fired operating units.

New and Reconstructed Fossil Fuel-Fired Combustion Turbines

The final rule includes standards for new and reconstructed fossil fuel-fired combustion turbines, including simple cycle combustion turbines and combined cycle turbines that begin construction

⁵⁰ *Id.* at 39841.

⁵¹ *Id.*

⁵² *Id.*

⁵³ *Id.* at 39817.

⁵⁴ *Id.* at 39841.

⁵⁵ *Id.* at 39801.

⁵⁶ *Id.* at 39959.

⁵⁷ *Id.* at 39801.

⁵⁸ Uniform fuels are “fuels with a consistent chemical composition.” *Id.* at 39960, 40029.



after May 23, 2023.⁵⁹ These standards update the standards EPA set in 2015 since the CAA requires EPA to review NSPS at least every 8 years.⁶⁰

EPA includes three subcategories based on fixed electric sales (i.e., capacity factor): base load, intermediate load, and low load turbines.⁶¹ The final rule sets the capacity factor threshold between intermediate and base load units at 40 percent, which EPA states “reflects the maximum capacity factor for intermediate load simple cycle turbines and the minimum prorated efficiency approach for base load combined cycle turbines that the EPA solicited comment on in proposal.”⁶²

For baseload gas-fired power plants, there are two phases. The emission rate for the first phase is based on highly efficient generation, and the second phase is an emission rate based on CCS with 90 percent capture.⁶³ The deadline for the second phase is January 1, 2032.⁶⁴

⁵⁹ EPA explains that the rule applies to “fossil fuel-fired electric utility steam generating unit (i.e., a utility boiler or IGCC unit) or stationary combustion turbine (in either simple cycle or combined cycle configuration)” and that the unit must meet the following requirements: “(1) be capable of combusting more than 250 MMBtu/h (260 gigajoules per hour (GJ/h)) of heat input of fossil fuel (either alone or in combination with any other fuel); and (2) serve a generator capable of supplying more than 25 MW net to a utility distribution system (i.e., for sale to the grid).” Certain units are exempted, including “(1) non-fossil fuel-fired units subject to a federally enforceable permit that limits the use of fossil fuels to 10 percent or less of their heat input capacity on an annual basis; (2) CHP units that are subject to a federally enforceable permit limiting annual net electric sales to no more than either the unit’s design efficiency multiplied by its potential electric output, or 219,000 MWh, whichever is greater; (3) stationary combustion turbines that are not physically capable of combusting natural gas (e.g., those that are not connected to a natural gas pipeline); (4) utility boilers and IGCC units that have always been subject to a federally enforceable permit limiting annual net electric sales to one-third or less of their potential electric output (e.g., limiting hours of operation to less than 2,920 hours annually) or limiting annual electric sales to 219,000 MWh or less; (5) municipal waste combustors that are subject to 40 CFR part 60, subpart Eb; (6) commercial or industrial solid waste incineration units subject to 40 CFR part 60, subpart CCCC; and (7) certain projects under development, as discussed in the preamble for the 2015 final NSPS.” *Id.* at 39904.

⁶⁰ 40 CFR part 60, subpart TTTT; Final Rule at 39904.

⁶¹ Final Rule at 39902.

⁶² *Id.* at 39911.

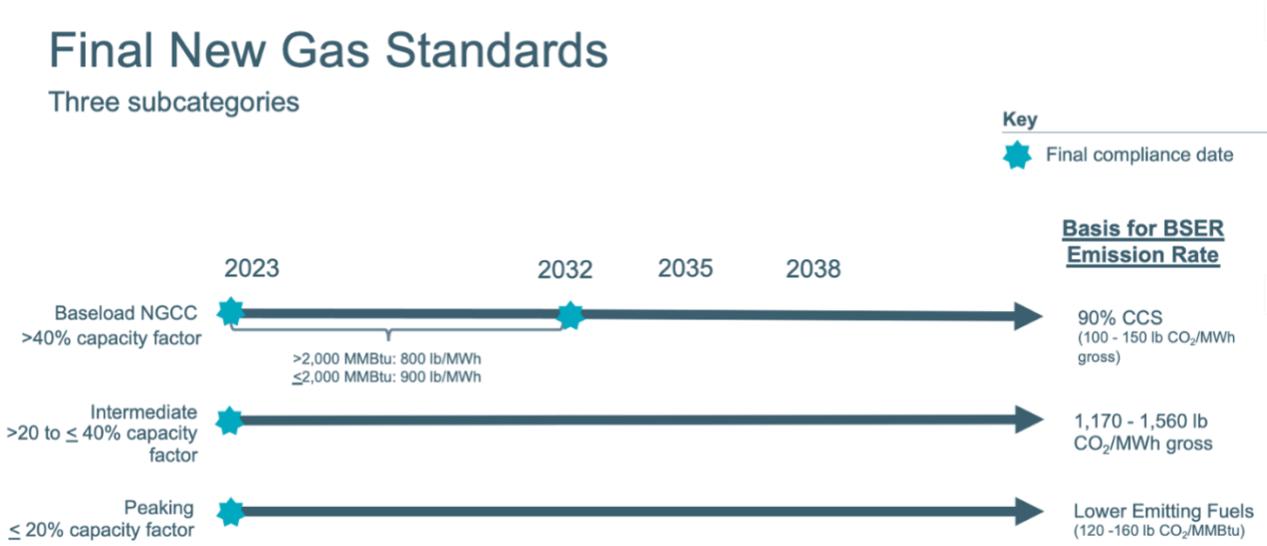
⁶³ *Id.* at 39903, 39923.

⁶⁴ *Id.*



For intermediate load units, the final rule sets BSER consistent with an emission rate of a “highly efficient simple cycle generation.”⁶⁵ For low load units (often called peaking units), the BSER is “the use of lower-emitting fuels.”⁶⁶

Figure 2.



In explaining its reasoning for the different subcategories and emission rates, EPA states that it solicited comment in the proposed rule on the threshold between intermediate and base load.⁶⁷ EPA states that when a unit exceeds the 40 percent capacity factor, “it is economical to add a HRSG [heat recovery steam generator] which results in the unit becoming both more efficient and less likely to cycle its operation,” concluding that these units are “better suited for more stringent emission control technologies including CCS.”⁶⁸ EPA also notes that it considered whether markets with high levels of variable renewable generation will need to curtail use of aeroderivative turbines because of the capacity factors and it found that most of the newer simple cycle turbines have operated below the base load electric sales threshold. EPA concluded that the 40 percent threshold will not impair the use of simple cycle turbines when needed, including to integrate renewable generation.⁶⁹

Figure 2 illustrates the timing and requirements for the three subcategories for new natural gas-fired power plants.

⁶⁵ *Id.* at 39903.

⁶⁶ *Id.*

⁶⁷ Specifically, “EPA solicited comment on whether the intermediate/base load electric sales threshold should be reduced further to a range that would lower the base load electric sales threshold for simple cycle turbines to between 29 to 35 percent (depending on the design efficiency) and to between 40 to 49 percent for combined cycle turbines (depending on the design efficiency). The specific approach the EPA solicited comment on was reducing the design efficiency by 6 percent (e.g., multiplying by 0.94) when determining the electric sales threshold.” EPA’s final rule does not include the sliding scale electric sales threshold based on the design efficiency, but rather sets the subcategorization thresholds on fixed electric sales, which is often referred to as capacity factor. *Id.* at 39911.

⁶⁸ *Id.* at 39912.

⁶⁹ EPA explains that “the final threshold is not overly restrictive since a simple cycle turbine could operate on average for more than 9 hours a day in the intermediate load subcategory.” *Id.*



New, Modified, and Reconstructed Fossil Fuel-Fired Steam Generating Units

For coal-fired plants that undertake a large modification,⁷⁰ EPA finalizes standards of performance that follow the emission guidelines for existing coal-fired units.⁷¹ EPA explains that this standard is based on its determination that modified sources are capable of meeting these standards, and it will avoid an “unjustified disparity” between modified and existing coal-fired sources.⁷²

EPA did not propose or finalize any changes to the 2015 standard for large modifications of oil- or gas-fired steam generating units, explaining that it is not aware of any units planning to make such modifications and that these units will not be incentivized to undertake modifications to avoid regulatory requirements in this rule.⁷³

EPA also explains that consistent with its proposal, the final rule does not revise existing regulations for new coal plants as EPA does not expect these facilities to be built going forward; however, EPA notes it will consider whether updated regulations are needed.⁷⁴

Existing Fossil Fuel-Fired Combustion Turbines

Notably, the final rule does not include any standards for existing natural gas-fired plants. EPA states that it “intends to issue a new, more comprehensive proposal to regulate GHGs from existing sources. The new proposal will focus on achieving greater emission reductions from existing stationary combustion turbines – which will soon be the largest stationary sources of GHG emissions – while taking into account other factors including the local non-GHG impacts of gas turbine generation and the need for reliable, affordable electricity.”⁷⁵ Separately, EPA issued framing questions to gather input on approaches regulating existing gas combustion turbines. [Comments are due by May 28.](#)

Severability

In promulgating these different final standards, EPA emphasizes that these are four independent rules that are fully severable from one another: the repeal of ACE; emission guidelines for existing fossil fuel-fired steam generating units; NSPS for new and reconstructed combustion turbines; and revisions to standards for new, modified, and reconstructed fossil fuel-fired steam generating units.⁷⁶ EPA notes that it “could have finalized each of these rules in separate Federal Register notices as separate final actions,” explaining that it “decided to include these four independent rules in a single Federal Register notice for administrative ease because they all relate to climate pollution from the fossil fuel-fired electric generating units source category.”⁷⁷ EPA explains that the evidence for each rule stands on its own, and “is independently sufficient to support each of the final BSERs.”⁷⁸

Additionally, within the group of actions for existing coal-fired power plants and new gas-fired power plants, the requirements for each subcategory are severable.⁷⁹ Accordingly, despite grouping these

⁷⁰ A modification that increases its hourly emission rate by more than 10 percent. *Id.* at 39802.

⁷¹ *Id.*

⁷² *Id.*

⁷³ *Id.*

⁷⁴ “However, the EPA has recently become aware that a new coal-fired power plant is under consideration in Alaska. Accordingly, the EPA is not, at this time, finalizing its proposal not to review the 2015 NSPS, and, instead, will continue to consider whether to review the 2015 NSPS. As developments warrant, the EPA will determine either to conduct a review, and propose revised standards of performance, or not conduct a review.” *Id.*

⁷⁵ *Id.* at 39806.

⁷⁶ *Id.* at 39802.

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*



rules into one single Federal Register notice, EPA intends that each is severable, and independent, from the other.

Grid Reliability and Compliance Extension Mechanisms

EPA explains that in promulgating this rule, it ensured that “these final actions can be implemented without compromising the ability of power companies, grid operators, and state and Federal energy regulators to maintain resource adequacy and grid reliability.”⁸⁰ EPA notes it received comments from and engaged with “balancing authorities, independent system operators and regional transmission organizations, state regulators, power companies, and other stakeholders,” including the Department of Energy (DOE) and the Federal Energy Regulatory Commission (FERC), “on the need for the final rule to accommodate resource adequacy and grid reliability needs.”⁸¹

In response to that input, EPA made adjustments to the rule, for example longer compliance timeframes and changes to the scope of affected sources, and finalized programmatic mechanisms to address reliability including a short-term reliability emergency mechanism and the option for states to provide a compliance date extension of one year in certain circumstances.⁸²

Short-term reliability mechanism

The final rule’s short-term reliability mechanism is available for new sources subject to the NSPS and existing sources if a state elects to include the option in its state plan. EPA intends the mechanism to address “specific and defined periods of time where the grid is under extreme strain” and reliability authorities have issued an emergency alert.⁸³ During periods that are designated as emergency events, defined as Energy Emergency Alert level 2 or 3 by NERC Reliability Standard,⁸⁴ new sources can calculate applicability and compliance without the emissions produced⁸⁵ and existing sources can use the baseline emission rate⁸⁶ if they provide appropriate documentation.

EPA makes clear in the final rule that this mechanism would be in addition to the Department of Energy’s (DOE) authority under the Federal Power Act section 202(c) to order temporary electricity generation from sources in specific emergencies including “events that would result in a shortage of electric energy.”⁸⁷

Extension for existing units ceasing operations

For existing coal-fired power plants electing to cease operations prior to 2032 or 2039, the final rule allows states to include a reliability assurance mechanism that authorizes the EPA regional administrator to extend a unit’s operation up to one year. To obtain an extension, the owner must submit a written application to the EPA Regional Administration that includes an analysis of the reliability risk if the unit were not in operation, an analysis by the planning authority verifying the reliability concern, and demonstration from the owner, grid operator, and other relevant authorities of a plan to resolve the underlying reliability issue leading to the need for the extension.⁸⁸ In its review of the application, if the request is for more than six months, EPA will also consult with the Federal Energy Regulatory Commission (FERC).⁸⁹

⁸⁰ *Id.* at 39803.

⁸¹ *Id.*

⁸² *Id.*

⁸³ *Id.* at 40014.

⁸⁴ *Id.* at 40015.

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ EPA further notes that DOE typically issues these 202(c) orders at the request of grid operators to supply additional energy at times of expected emergency-related shortages. *Id.* at 40012.

⁸⁸ *Id.* at 40017.

⁸⁹ *Id.*



Extension for units installing controls

The final rule also includes the option for an extension of up to one year for new and existing power plants if they experience a delay in installing a control technology that is beyond their control and the delay makes it impossible to meet the compliance deadline.⁹⁰ In this case, the owner or operator “must provide documentation of the circumstances that precipitated the delay (or the anticipated delay) and demonstrate that those circumstances were or are entirely beyond the owner or operator’s control and that the owner or operator has no ability to remedy the delay.”⁹¹ EPA explains that this mechanism is designed to address delays related to permitting, delivery of parts needed for the control technology, or other similar issues.⁹² The state air pollution control agency (for existing units) or EPA (for new units) will review the applications and approve or disapprove the compliance date extension request “based on its written determination that the affected EGU has or has not made each of the necessary demonstrations and provided all of the necessary documentation.”⁹³

For any extension beyond one year, states would need to revise their state plans.⁹⁴

States’ Application of RULOF for Existing Units

In addition to these new mechanisms included in the final rule, EPA emphasizes that under section 111(d) states can also consider remaining useful life and other factors (RULOF) to apply a less stringent standard or a longer timeline. To do so, a state must “demonstrate a fundamental difference between the information the EPA considered on reliability and the circumstances of the specific unit.”⁹⁵ This option for adding flexibility is described in more detail below in the State Plans section.

State Plans for Existing Coal-Fired Power Plants

Emission Reduction

EPA explains in the final rule that it is largely relying on its November 2023 revisions to the Clean Air Act section 111(d) implementing regulations for state plan submissions.⁹⁶ EPA emphasizes that the “foundational requirement” is for state plans to “achieve an equivalent level of emission reduction to the degree of emission limitation achievable through application of the BSER as determined by the EPA.”⁹⁷ The final rule outlines the process by which states use EPA’s presumptive standards of performance to set requirements for affected sources in their state. The states’ standards of performance “must be no less stringent” than EPA’s presumptive standards of performance, “after accounting for any application of RULOF [remaining useful life and other factors].”⁹⁸

⁹⁰ *Id.* at 39952, 39960.

⁹¹ *Id.*

⁹² *Id.*

⁹³ *Id.* at 39961, 40052.

⁹⁴ *Id.* at 40053.

⁹⁵ *Id.* at 39971.

⁹⁶ *Id.* at 39955; EPA, Adoption and Submittal of State Plans for Designated Facilities: Implementing Regulations Under Clean Air Act Section 111(d) (40 CFR 60) (Nov. 2023), <https://www.epa.gov/stationary-sources-air-pollution/adoption-and-submittal-state-plans-designated-facilities-40-cfr>. In January 2024, a coalition of 25 Republican state attorneys general challenged the rule in the DC Circuit. *West Virginia v. EPA*, D.C. Circuit No. 24-1009.

⁹⁷ Final Rule at 39955.

⁹⁸ EPA clarifies that, “state plans may not account for emission reductions at non-affected fossil fuel-fired EGUs, emission reductions due to the operation or installation of other electricity-generating resources not subject to these emission guidelines for the purposes of demonstrating compliance with affected EGUs’ standards of performance.” *Id.* at 39956.



Components of State Plans

Under the final rule, each state plan must include, for each unit, a standard of performance, compliance schedule, and increments of progress (IoPs) toward compliance, as well as an enforceable commitment and reporting requirements for units that are slated to close, as described below.⁹⁹ EPA explains that under the 111(d) implementing regulations, IoPs are metrics of progress toward compliance that are “required when the final compliance deadline (i.e., the date on which affected EGUs must start monitoring and reporting emissions data and other information for purposes of demonstrating compliance with standards of performance) is more than 20 months after the plan submittal deadline. [...] Under these emission guidelines, in particular, the lengthy planning and construction processes associated with the CCS and natural gas co-firing BSERs make IoPs an appropriate mechanism to assure steady progress toward compliance and to provide transparency on that progress.”¹⁰⁰

Baseline Emission Performance for Presumptive Standards

The final rule explains that for each unit, states must establish a baseline of CO₂ emissions and corresponding electricity generation or heat input and then apply the degree of emission limitation achievable through the application of the BSER.¹⁰¹ EPA notes that this methodology will result in a “unique” value for each unit in the state plan.¹⁰²

Compliance Timing and Extension Mechanism

The final rule requires states to submit their plans for existing coal-fired power plants 24 months after publication of the final emission guidelines (state plans will likely be due in May 2026). EPA explains that units must demonstrate their compliance on an annual basis. As explained above in the Grid Reliability and Compliance Extension Mechanisms discussion, states can also elect to include the option for owners or operators to request compliance extensions if there is a delay in implementing a control technology that is beyond their control or if units slated to retire need additional time to operate to address a reliability need.¹⁰³

Increments of Progress

The final rule assigns different increments of progress depending on the type of unit. For example, coal-fired units in the long-term and medium-term subcategories have BSER-specific increments of progress depending on whether they adopt the CCS or natural gas co-firing pathway. The increments of progress for long-term coal-fired plants include submission of the plant’s final control plan to the state planning authority; the planning for the start and completion of onsite construction or installation of the pollution control system; demonstration of permitting actions for pipelines; report identifying sequestration location and CO₂ transport plans; and final compliance with the performance standard.¹⁰⁴

EPA allows states to select the specific dates for the increments for these unit types, with some limitations.¹⁰⁵ For example, plants scheduled to cease operation by 2032 or 2039 have specific “reporting obligations and milestone requirements” based on the planned closure date.¹⁰⁶ EPA notes

⁹⁹ *Id.* at 39990.

¹⁰⁰ *Id.* at 39973.

¹⁰¹ EPA is finalizing subcategories based on fuel type: coal-fired, natural gas-fired, or oil-fired. EPA is also “creating a subcategory for coal-fired steam generating units operating in the medium term, and further subcategorizing natural gas- and oil-fired steam generating units by load level.” *Id.* at 39957-39958.

¹⁰² *Id.* at 39957.

¹⁰³ *Id.* at 39960.

¹⁰⁴ *Id.* at 39974.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.* at 39976.



that those steps include submitting an Initial Milestone Report five years before closure or 60 days after a state plan submittal that contains the “process steps [...] to permanently cease operation” including the timing for each step, a list of milestones for assessing each step, regulatory documents related to deactivation-related reliability, and more.¹⁰⁷ EPA notes that its approach is designed to allow states “flexibility to account for idiosyncrasies in planning processes, tailor compliance timelines to individual facilities, allow simultaneous work toward separate increments, and ensure full performance by the compliance date.”¹⁰⁸ EPA also highlights the additional “planning flexibilities” included in the program, including state plan revisions under the separate 111(d) implementing regulations, which can include “RULOF-based adjustment to approved standards of performance as well as the timelines to meet those standards, including the IOPs,” as well as the compliance date extension mechanisms.¹⁰⁹

Remaining Useful Life and Other Factors (RULOF)

Under the CAA “states may consider RULOF to apply a less stringent standard of performance or a longer compliance schedule” to a unit.¹¹⁰ EPA notes that the RULOF provisions in the separate general 111(d) implementing regulation will govern the use of RULOF for this rule.¹¹¹ EPA reiterates in this rule that states may only use RULOF “to deviate from an emission guideline” when there are “fundamental differences between the circumstances of a particular facility and the information the EPA considered in determining the degree of emission limitation or the compliance schedule” which make it unreasonable to achieve the emission standard.¹¹²

EPA confirms that “states may always adopt and enforce, as part of their state plans, standards of performance that are more stringent than the degree of emission limitation determined by the EPA and compliance schedules that require final compliance more quickly than specified in the applicable emission guidelines.”¹¹³

Compliance Flexibilities: Trading and Averaging

In EPA’s separate 111(d) implementing regulations, EPA explains that states may include compliance flexibilities, “including flexibilities that allow affected EGUs to meet their emission limits in the aggregate,” in state plans.¹¹⁴ In response to commenters requesting the ability to use trading and averaging, EPA recognizes that the presumptive standards may “provide some incentives among participating EGUs to over perform,” by operating “even more cleanly than required” by the standard, “because of the opportunity to sell compliance instruments to other units,” which also creates “some limited opportunity for other sources to vary their emission output.”¹¹⁵ Thus, the final rule confirms that “states are permitted to use emission trading, averaging,¹¹⁶ and unit-specific mass-based

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* at 39973.

¹⁰⁹ *Id.* at 39975.

¹¹⁰ *Id.* at 39956.

¹¹¹ *Id.* at 39962.

¹¹² EPA adds: “Critically, standards of performance and compliance schedules pursuant to RULOF must be no less stringent, or no longer, than is necessary to address the fundamental difference between the information the EPA considered and the particular facility that was the basis for invoking RULOF under 40 CFR 60.24a(e).” *Id.*

¹¹³ *Id.* at 39962-39963, *citing* 40 CFR 60.24a(i).

¹¹⁴ *Id.* at 39978.

¹¹⁵ *Id.* at 39978-39979.

¹¹⁶ EPA explains, “In general, rate-based averaging allows multiple affected EGUs to jointly meet a rate-based standard of performance. The scope of such averaging could apply at the facility level (i.e., units located within a single facility) or at the owner or operator level (i.e., units owned by the same utility).” *Id.* at 39983.



compliance¹¹⁷ in their plans for the medium- and long-term coal-fired subcategories under these emission guidelines, provided that the plan demonstrates that any such use will achieve a level of emission reduction that is in the aggregate as environmentally protective as it would be if each affected EGU achieving its rate-based standard of performance.”¹¹⁸ However, EPA states that it may limit the use of flexibilities to “protect the environmental outcomes.”¹¹⁹

Mass-based compliance

Commenters also encouraged EPA to enable mass-based compliance options. However, EPA notes that it has “significant concerns about the ability to demonstrate that mass-based compliance approaches achieve at least equivalent emission reduction as the application of rate-based, source-specific standards of performance.”¹²⁰ If a state elects to include such an option in its state plan, EPA will require a “backstop emission limitation” for units using mass-based compliance approaches.¹²¹ Additionally, while the final rule does not prohibit the use of a mass-based compliance approach for the medium-term coal-fired subcategory, the final rule only includes a presumptively approvable unit-specific mass-based compliance approach for sources in the long-term subcategory.¹²² EPA explains that it could not devise an approach. Rather, EPA will review emission trading or averaging programs on a case-by-case basis.¹²³

Multi-state issues

Under the final rules, states can use both rate- and mass-based interstate emission trading programs, which EPA recognizes “may increase compliance flexibility.”¹²⁴ However, EPA describes its “significant stringency-related and logistical concerns about interstate trading for these particular emission guidelines.”¹²⁵ EPA explains that it is concerned that such trading among states could diminish emission reduction.¹²⁶ If states were to develop a multi-state trading regime that met the overall requirement to ensure equivalent emission reductions, the final rule also makes clear that states would need to use the same “form of trading” and “consistent design element and identical trading program requirements.”¹²⁷ Additionally, each state would need to submit its own plan, but the states could coordinate the provisions related to interstate trading.¹²⁸

¹¹⁷ “EPA is allowing states to include unit-specific mass-based compliance in their plans for affected coal-fired EGUs in the medium- and long-term subcategories, it is also requiring states to use a backstop emission rate in conjunction with the mass-based compliance demonstration.” EPA explains that, “[i]f a state chooses to allow mass-based compliance for certain affected EGUs it must first calculate the rate-based emission limitation that corresponds to the presumptive standard of performance, and then explain how it translated that rate-based emission limitation into the mass that constitutes an affected EGU’s standard of performance.” *Id.* at 39985.

¹¹⁸ *Id.* at 39980.

¹¹⁹ *Id.*

¹²⁰ *Id.* at 39979.

¹²¹ EPA notes that one result of the backstop limitation is that “units cannot comply with their standards of performance merely by shifting their generation to other electricity generators. Therefore, the EPA’s BSERs in these emission guidelines are not based on generation shifting and, even if the EPA believed that *West Virginia v. EPA* implicated the use of compliance flexibilities, the permissible use of trading and averaging in this particular case does not implicate the Court’s concerns about generation shifting therein.” *Id.* at 39980.

¹²² *Id.* at 39979.

¹²³ *Id.*

¹²⁴ *Id.* at 39989.

¹²⁵ *Id.*

¹²⁶ EPA explains, “[f]or mass-based trading in particular, the EPA has concerns that further increasing the number of sources participating in the program heightens the risk that the mass budget will not be appropriately calculated due to the uncertainty in estimating future utilization of affected EGUs, thus inhibiting the ability of states to demonstrate that their program achieves an equivalent level of emission reduction.” *Id.*

¹²⁷ *Id.*

¹²⁸ *Id.*



Meaningful Engagement

As part of the state planning process, the final rule requires states to “conduct meaningful engagement with stakeholders.”¹²⁹ EPA states that this meaningful engagement requirement will

ensure that all interested stakeholders – including community members adversely impacted by pollution, energy workers affected by construction and/or other changes in operation at fossil-fuel-fired power plants, consumers and other interested parties – will have an opportunity to have their concerns heard as states make decisions balancing a multitude of factors including appropriate standards of performance, compliance strategies, and compliance flexibilities for existing EGUs, as well as public health and environmental considerations.¹³⁰

Legal Arguments

Consistent with EPA’s other recently released rules such as the methane requirements for the oil and natural gas sector and the vehicle emission standards, this power plant rule directly responds to the arguments EPA anticipates in legal challenges.

Major Questions Doctrine

Recognizing that the Supreme Court first applied the major questions doctrine to reject the Obama administration’s greenhouse gas standards for power plants in *West Virginia v. EPA*, EPA provides an in-depth analysis of how the final rule differs from the CPP’s generation-shifting approach. EPA explains that compared to the CPP, the final rule is not transformational or an expansion of EPA’s authority with political or economic implications. Rather, EPA describes the rule as “consistent” with the *West Virginia* decision and reliant on “traditional, add-on control intended to reduce the emissions performance of individual sources,” explaining that “anticipated retirements are largely consistent with historical trends, and due to many coal-fired units’ advanced age and lack of competitiveness with lower cost methods of electricity generation.”¹³¹

EPA also explains that this rule follows EPA’s past approach to pollution control as it focuses on regulation at the unit level. EPA states that CCS as the BSER “does not affect a fundamental revision of the statute, nor is it unbounded,” and it is a “traditional ‘add-on [pollution] control[]’ akin to measures that the EPA identified as BSER in prior CAA section 111 rules.”¹³²

EPA also anticipates the argument that the rule will have “the effect of shifting generation” because coal will be less competitive but explains that such an effect does not undercut the legal basis for the rule.¹³³ EPA further explains that even though some coal plants will retire rather than meet these obligations, this “does not mean that the rule ‘represents a transformative expansion [of EPA’s] regulatory authority’.”¹³⁴ EPA notes, “[t]hat sources will incur costs to control their emissions of dangerous pollution is an unremarkable consequence of regulation, which, as the Supreme Court recognized, ‘may end up causing an incidental loss of coal’s market share.’”¹³⁵ In addition, EPA emphasizes that generation shifting is a common practice for the sector: “for the power sector, grid operators constantly shift generation as they dispatch electricity from sources based upon their costs.”¹³⁶

¹²⁹ *Id.* at 39992.

¹³⁰ *Id.* at 39804.

¹³¹ *Id.* at 39901.

¹³² *Id.* at 39899.

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ *Id.*



EPA states that the trend of coal plant requirements, which the Trump administration’s ACE rule also recognized, would continue to happen “in the absence of this rule” as a result of aging plants with decreasing efficiency and higher operating costs.¹³⁷ It explains that “the modeling projections showing that many sources retire instead of installing controls are in line with the trends for these units in the absence of the rule — as the coal-fired fleet ages and lower-cost alternatives become increasingly available, more operators will retire coal-fired units with or without this rule.”¹³⁸

Finally, EPA discusses the legislative history of the CAA and more recent legislation, including the IRA and IIJA, as evidence of Congress’ “view that reducing air pollution — specifically, in those laws, GHG emissions to address climate change — is a high priority.”¹³⁹ EPA also cites Congress’ inclusion of the Low Emission Electricity Program (LEEP) in the IRA, which provides funding to EPA with the “express purpose of using CAA regulatory authority to reduce GHG emissions from domestic electricity generation through use of its existing CAA authorities.”¹⁴⁰ LEEP’s Congressional sponsor underscored EPA’s authority to promulgate this type of rulemaking, stating that EPA may undertake rulemaking “under CAA section 111, based on CCS, to address CO₂ emissions from fossil fuel-fired power plants, which may be ‘impactful’ by having the ‘incidental effect’ of leading some “companies... to choose to retire such plants.”¹⁴¹

BSER: Adequately Demonstrated Technology

Opponents of the rule are also likely to argue that CCS as BSER is not adequately demonstrated. Based on the comments submitted to EPA by some stakeholders, it is likely that opponents in the litigation will argue that CCS is not technologically feasible, that the associated infrastructure requirements will lead to unreasonable cost and timing hurdles, and that it will lead to reliability issues in the grid. In the final rule, EPA carefully reviews the regulatory history and case law governing past BSER determinations as well as the technological and logistical developments in CCS to respond to stakeholders and explain why its decision to base BSER on CCS is consistent with its regulatory record and technical analysis.

Technology

To support its conclusion that CCS is a technology that is adequately demonstrated, EPA cites the “plain text, statutory context, and legislative history of CAA section 111(a)(1),” to conclude that Congress tasked the EPA with determining BSER “based on a reasonable review of available evidence.”¹⁴² EPA explains that “Congress authorized the EPA to set a standard, based on the evidence, that encourages broader adoption of an emissions-reducing technological approach that may not yet be in widespread use.”¹⁴³ EPA describes the DC Circuit’s interpretation of the term “adequate,” noting that it “confers significant deference to the Administrator’s scientific and technological judgment.”¹⁴⁴

¹³⁷ *Id.*

¹³⁸ *Id.* at 39900.

¹³⁹ *Id.* at 39901.

¹⁴⁰ *Id.*

¹⁴¹ *Id.*, citing 168 Cong. Rec. E868 (August 23, 2022) (statement of Rep. Frank Pallone, Jr.); *id.* E879 (August 26, 2022) (statement of Rep. Frank Pallone, Jr.).

¹⁴² *Id.* at 39830.

¹⁴³ *Id.*

¹⁴⁴ EPA further explains, “In *Mississippi v. EPA*, for example, the D.C. Circuit in 2013 upheld the EPA’s choice to set the NAAQS for ozone below 0.08 ppm, and noted that any disagreements with the EPA’s interpretations of the scientific evidence that underlay this decision ‘must come from those who are qualified to evaluate the



EPA also includes a comprehensive analysis of the state of CCS technology, including an assessment of existing projects, a discussion of any technical or economic barriers those projects faced, and why those same hurdles can be overcome in future projects. For example, EPA recognizes the challenges at the Petra Nova project in Texas, which was shut down in May 2020 due to “poor economics.”¹⁴⁵ EPA also analyzes the use of CCS at Boundary Dam Unit 3, which is a lignite-fired plant in Canada and the first full-scale CCS retrofit of an existing unit. EPA explains that it reviewed the plant’s record of CO₂ capture, including “technical challenges have been sufficiently overcome or are actively mitigated” to achieve a high capture rate.¹⁴⁶ Noting the effect of the tax credits as well as process improvements, EPA concludes that the situation for CCS deployment is now “fundamentally different.”¹⁴⁷ EPA explains the changes since those projects: “Since 2011, the technological advances from full-scale deployments (e.g., the Petra Nova and Boundary Dam projects [...]) combined with supportive policies in multiple states and the financial incentives included in the IRA, mean that CCS can be deployed at scale today.”¹⁴⁸

EPA also refers to several projects for coal-fired power plants that are in progress and are designing their systems to apply lessons learned from prior projects in order to achieve higher capture rates.¹⁴⁹ EPA cites statements by technology providers that a 95 percent capture rate or greater can be achieved.¹⁵⁰

Infrastructure buildout

Opponents are also likely to challenge EPA’s BSER determination based on the need for infrastructure buildout and the time it will take to deploy that infrastructure. EPA discusses its analysis of these components as part of its BSER determination, including timing for compliance and the sequencing of infrastructure buildout for CCS. For example, the BSER analysis includes an assessment of past pipeline projects¹⁵¹ and an assessment of infrastructure¹⁵² and availability of sequestration.¹⁵³ EPA considers the lead time needed for CCS deployment, explaining that “[a]s a practical matter, CAA section 111’s allowance for lead time recognizes that existing pollution control systems may be complex and may require a predictable amount of time for sources across the source category to be able to design, acquire, install, test, and begin to operate them. Time may also be required to allow for the development of skilled labor, and materials like steel, concrete, and specialty parts,”¹⁵⁴ and EPA provides lead time for those steps to occur, for example by setting the base load combustion turbine standards in two steps.¹⁵⁵ In addition, the final rule includes added

science, not [the court].’ This *Mississippi v. EPA* precedent aligns with the general standard for judicial review of the EPA’s understanding of the evidence under CAA section 307(d)(9)(A) (‘arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law’).” *Id.*

¹⁴⁵ *Id.* at 39850.

¹⁴⁶ *Id.* at 39848.

¹⁴⁷ *Id.* at 39813.

¹⁴⁸ *Id.*

¹⁴⁹ *Id.* at 39849.

¹⁵⁰ *Id.* at 39847; 39851-39852.

¹⁵¹ *Id.* at 39855.

¹⁵² *Id.* at 39857.

¹⁵³ *Id.* at 39862.

¹⁵⁴ *Id.* at 39832.

¹⁵⁵ “Recognizing the lead time that is necessary for new base load combustion turbines to plan for and install the second component of the BSER (i.e., 90 percent CCS), including the time that is needed to deploy the associated infrastructure (CO₂ pipelines, storage sites, etc.), the EPA is finalizing a second phase compliance deadline of January 1, 2032, for this second component of the standard.” *Id.* at 39802.



compliance date flexibility to ensure that states can address reliability concerns and other delay issues.

Reliability

Opponents are also likely to challenge the BSER determination by arguing that it will have implications for energy reliability. Recent legal challenges to other EPA rules, for example in litigation challenging EPA's vehicle tailpipe emissions standards, argue that the impact of the rule on the grid exceeds EPA's authority and implicates the major questions doctrine.¹⁵⁶ For this final rule, EPA addresses reliability concerns by citing the extensive modeling it conducted, its consultation with FERC, DOE, and other reliability entities, and the final rule's compliance flexibility mechanisms. EPA explains that it responded to input from balancing authorities, grid operators, and other stakeholders focused on reliability "through changes to the universe of affected sources, longer compliance timeframes for CCS implementation, and other compliance flexibilities, as well as articulation of the appropriate use of RULOF to address reliability issues during state plan development and in subsequent state plan revisions."¹⁵⁷ In addition, EPA states that the short-term reliability mechanism and the extension mechanism for units installing control technology or planning to retire help to ensure reliability and provide states and grid operators with the flexibility if a reliability concern were to arise.¹⁵⁸

Role of States for Existing Power Plants

Finally, challengers may argue that states have primary authority to regulate air pollution and that EPA is overstepping its role with respect to the states. Opponents of EPA's methane rule for the oil and gas sector are making arguments that EPA is taking on the role of the states.¹⁵⁹ However, the Supreme Court has explained in *West Virginia* that,

[a]lthough the States set the actual rules governing existing power plants, EPA itself still retains the primary regulatory role in Section 111(d). The Agency, not the States, decides the amount of pollution reduction that must ultimately be achieved. It does so by again determining, as when setting the new source rules, "the best system of emission reduction . . . that has been adequately demonstrated for [existing covered] facilities."...The States then submit plans containing the emissions restrictions that they intend to adopt and enforce in order not to exceed the permissible level of pollution established by EPA.¹⁶⁰

In the final rule, EPA is careful to explain how the rule is implemented in a way that is consistent with EPA's longstanding authority to set standards that are then implemented in state plans. EPA notes "[c]onsistent with the cooperative federalism approach directed by the Clean Air Act, states will establish standards of performance for existing sources under the emission guidelines set out in this final rule."¹⁶¹

EPA also describes its consultation with states in finalizing the rule, explaining that EPA "elected to consult with representatives of state and local governments in the process of developing these actions to permit them to have meaningful and timely input into their development."¹⁶² Finally, EPA emphasizes the flexibility mechanisms built into the rule for the state planning process, for example,

¹⁵⁶ *State of Texas, et al v. EPA, et al*, Docket No. 22-01031 (D.C. Cir.).

¹⁵⁷ Final Rule at 39803.

¹⁵⁸ *Id.*

¹⁵⁹ *State of Oklahoma et al. v. EPA*, Docket No. No. 24-1059 (D.C. Cir.).

¹⁶⁰ *West Virginia v. EPA*, 597 U.S. at 710.

¹⁶¹ Final Rule at 40024.

¹⁶² *Id.* at 40025.



the compliance timelines and trading options, and affirms the states' ability to set more stringent standards than EPA.¹⁶³

¹⁶³ “States always have the authority and ability to include more stringent standards of performance and faster compliance schedules as federally enforceable requirements in their state plans.” *Id.* at 39970.