Comments of the U.S. Chamber of Commerce, National Lime Association, ConservAmerica, and American Chemistry Council

Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units

Docket ID No. EPA-HQ-OAR-2025-0124
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I. Executive Summary

The undersigned associations—U.S. Chamber of Commerce, National Lime Association, ConservAmerica, and American Chemistry Council (collectively, "commenters") support achievable, durable efforts to reduce emissions while maintaining an efficient and stable national electric grid poised to support unprecedented growth in demand during the years to come.

The U.S. Chamber of Commerce ("Chamber") is the world's largest business federation. The Chamber represents approximately 300,000 direct members and indirectly represents the interests of more than three million companies and professional organizations of every size, in every industry sector, and from every region of the country. The reliability and affordability of electricity are important issues to our members, including those members who own and operate the facilities that are directly affected by EPA's proposed rule.

The National Lime Association (NLA) is the trade association for manufacturers of high calcium quicklime, dolomitic quicklime, dead-burned dolomitic lime, and hydrated lime, collectively referred to as "lime." Lime provides cost-effective solutions to many of society's manufacturing processes and industries. It is used in the steel manufacturing process, road building, and the creation of other building products like mortar and plaster. Lime is also a critical component in environmental compliance for many industries, as it is used to purify water and scrub air pollutants from stack emissions. Lime is used by electric utilities to abate air emissions of pollutants under the Clean Air Act.

ConservAmerica is a non-profit organization dedicated to pursuing market-based, durable solutions to our nation's most pressing environment and energy challenges. Toward that end, ConservAmerica develops and supports policies that are grounded in the principles of economic growth, the rule-of-law, private property rights, subsidiarity, and cooperative federalism. ConservAmerica engages policymakers and the public through a variety of fora, including in major

agency rulemakings impacting air and water pollution, the development and deployment of reliable and affordable energy sources, wildlife conservation, and access to public lands and waters.

The American Chemistry Council (ACC) represents a diverse set of companies engaged in the business of chemistry, an innovative, $517 billion enterprise, driving innovation through investments in research and development (R&D) that exceed $11 billion annually, providing 537,000 skilled, good-paying jobs—plus over 4.1 million related jobs[1]. The business of chemistry operates by creating complex chemical reactions requiring large amounts of process heat and power, making reliable access to affordable energy and feedstocks essential to the industry's current and long-term competitiveness. ACC members also provide critical chemistries, materials, and products used in the sourcing, manufacture, production, and deployment of lower emissions technologies and infrastructure across the US and global economies—including but not limited to abatement solutions under consideration in this proceeding. In short, chemical manufacturers are affected as energy users, climate technology providers, and indirectly, climate technology takers.

Commenters strongly support a broad range of policy actions to support resource adequacy while reducing greenhouse gas ("GHG") emissions, including research, development, and deployment of carbon capture and storage ("CCS") and other technologies. However, regulations requiring the application of these technologies must be based on realistic, credible assumptions, and must comply with the law. Accordingly, commenters support EPA's proposal to repeal its 2024 rule ("CPP 2.0") imposing standards of performance on fossil fuel-fired electric generating units ("EGUs") based on three main components (capturing carbon dioxide at an annual rate of 90%; transporting it by pipeline to a storage site; and storing it in deep underground sites) as the

[1] ACC delivers value to our members through advocacy, using best-in-class member engagement, political advocacy, communications, and scientific research to foster progress in our economy, environment, and society.

best system of emission reduction ("BSER") under section 111 of the Clean Air Act. CPP 2.0 exceeds EPA's authority under section 111 and was based on faulty factual assumptions about the widespread availability and cost of CCS technology and the time that would be required for the buildout of a nationwide infrastructure system to support widespread CCS in the power sector. In addition, CPP 2.0 failed to account for the impact that the rule's requirements would have on the adequacy and reliability of the electric grid.

For these and other reasons, EPA should promptly finalize its proposal to repeal CPP 2.0 and should expressly adopt the rationale set forth in EPA's alternative proposal for repeal. As discussed further below, EPA should also expressly recognize that the best reading of CAA section 111 is that EPA is required to make a pollutant-specific significant contribution finding for any particular pollutant before regulating emissions of that pollutant for a listed source category under section 111(b).[2]

II. Background

A. Section 111 of the Clean Air Act ("CAA")

CAA section 111 requires EPA to publish a list of categories of stationary sources that "in [its] judgment . . . cause[] or contribute[] significantly to, air pollution which may reasonably be

[2] These comments do not opine on other issues raised in EPA's proposed rule, including EPA's proposed application of the "significant contribution" requirement set forth at 90 Fed. Reg. 25,767-68. (Nor, of course, should these comments be taken as opining on any aspect of EPA's more recent proposed rule entitled *Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*, 90 Fed. Reg. 36,288 (Aug. 1, 2025) (which is subject to a separately pending notice-and-comment process), or of the previous EPA action titled *Endangerment and Cause or Contribute Finding for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66,496 (Dec. 15, 2009)). However, we emphasize that irrespective of whether EPA adopts any other rationale for repeal of the CPP 2.0 rule, EPA should expressly include the rationale set forth in EPA's alternative proposal, 90 Fed. Reg. 25,768-77, when EPA finalizes this proposed rule. Doing so will contribute to ensuring that repeal of the CPP 2.0 rule is durable notwithstanding future developments, including the prospect of new litigation challenging the forthcoming final rule.

anticipated to endanger public health or welfare." 42 U.S.C. § 7411(b)(1)(A). Once a source category is listed, EPA must establish "standards of performance for new sources within such category," a.k.a. new source performance standards ("NSPS") *Id.* § 7411(b)(1)(B). "Concurrently upon or after proposal of standards of performance," EPA "will publish a draft emission guideline containing information pertinent to control of the designated pollutant" from existing facilities, and such "[e]mission guidelines . . . will provide information for the development of State plans." 40 C.F.R. § 60.22a(a), (b). For existing sources within a listed category, EPA "shall establish a procedure similar to that provided by [CAA section 110] under which each State shall submit to the Administrator a plan" which "establishes standards of performance" after being approved by EPA. *Id.* § 7411(d)(1). When applying the standard of performance to an existing source through its state plan, the state may "take into consideration, among other factors, the remaining useful life of the existing source." *Id.*

Section 111 defines "standard of performance" for purposes of both new and existing sources as "a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction [("BSER")] which (taking into account the cost of achieving reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines ***has been adequately demonstrated***." *Id.* § 7411(a)(1) (emphasis added).

B. EPA's Clean Power Plan

In 2015, EPA regulated GHG emissions from power plants for the first time by adopting NSPS for new fossil fuel-fired EGUs under CAA section 111(b).[3] EPA at the same time issued its

[3] Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units; Final Rule, 80 Fed. Reg. 64,510 (Oct. 23, 2015) ("2015 NSPS").

regulation for existing EGUs—the Clean Power Plan ("CPP").[4] In the CPP, EPA determined that the BSER consisted of three building blocks: (1) heat rate improvement, (2) increased utilization of natural gas-fired plants, and (3) shifting to renewable generation. In other words, the CPP was based on "generation shifting from higher-emitting to lower-emitting" electricity generation. 80 Fed. Reg. at 64,728. In determining the BSER for the CPP, EPA considered and rejected carbon capture and sequestration ("CCS") because "there are lower-cost systems of emission reduction available to reduce emissions from existing plants." *Id.* at 64,883–84. The Supreme Court stayed the CPP before it could go into effect. *West Virginia v. EPA*, 577 U.S. 1126 (2016).

C. EPA's Repeal of the CPP

In 2019, after a change in presidential administrations and before the D.C. Circuit could decide on the merits of the legal challenges to the CPP, EPA repealed the CPP. 84 Fed. Reg. 32,520 (July 8, 2019). EPA explained that generation shifting could not be considered the BSER because section 111 "limits the BSER to those systems that can be put into operation *at* a building, structure, facility or installation," and the CPP based BSER on "a shift in the energy generation mix at the grid level." *Id.* at 32,523–25. Further, the CPP's generation-shifting measures triggered application of the "major questions doctrine" under which courts expect clear congressional authorization when an agency decides matters of vast economic and political significance. *Id.* at 32,529 (citing *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 324 (2014)). Far from providing clear authorization, Congress had expressly precluded use of measures such as generation shifting. *Id.*

In the same rulemaking, EPA promulgated a different section 111(d) rule, the Affordable Clean Energy ("ACE") Rule. *Id.* at 32,532. EPA determined that the BSER for emissions of carbon

[4] Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Final Rule, 80 Fed. Reg. 64,662 (Oct. 23, 2015).

dioxide ("CO_2") from existing coal-fired EGUs consisted of only building block one from the Clean Power Plan—heat rate improvement. *Id.* at 32,522, 32,537. In that rule, EPA again rejected CCS as the BSER, explaining that "[t]he high cost of CCS, including the high capital costs of purchasing and installing CCS technology and the high costs of operating it, including high parasitic load requirements," precluded adopting it as BSER. *Id.* at 32,548.

D. *West Virginia v. EPA*

In *West Virginia v. EPA*, the Supreme Court held that EPA was correct to repeal the CPP because Congress did not provide "'clear congressional authorization'" for EPA to set the BSER based on a "generation shifting approach." 597 U.S. 697, 732 (2022) ("*West Virginia*"). In her dissent, Justice Kagan wrote that section 111(d) "imposes . . . a set of constraints . . . that would preclude [an] extreme . . . regulation" such as one that forces "'coal plants to 'shift' away virtually all of their generation—i.e., to cease making power altogether.'" *Id.* at 775 (Kagan, J., dissenting). These "constraints" include, Justice Kagan explained, the requirement for EPA to "[t]ake into account costs and nonair impacts, and make sure that the best system has a proven track record." *Id.* at 758–59. In Justice Kagan's view, the CPP did not run afoul of section 111 "because the statutory constraints prevent it from doing so." *Id.* at 779 n.7 (emphasis omitted).

E. CPP 2.0

On May 9, 2024, after another change in presidential administration, EPA promulgated yet another rule under Section 111, the CPP 2.0 rule. In this new rule, EPA repealed the ACE Rule and adopted new emissions guidelines for GHG emissions from existing fossil fuel-fired EGUs.[5]

[5] 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. 39,798 (May 9, 2024) ("CPP 2.0").

EPA explained that it was repealing the ACE Rule because EPA believed that the heat rate improvements that were identified as the BSER in that rule were not an appropriate BSER for existing coal-fired EGUs. 89 Fed. Reg. at 39,799. The CPP 2.0 rule also included guidelines for GHG emissions from existing fossil fuel-fired steam generating units, including subcategories for coal-fired units, oil-fired units, and gas-fired units. *Id.* For long-term coal-fired units (those operating beyond 2039), EPA finalized CCS with a 90% capture rate as the BSER, with a compliance date of January 1, 2032. *Id.* at 39,801. EPA explained that, in light of the significant capital expenditures involved in deploying CCS technology and the fact that a number of facilities had already announced their plans to retire, EPA was finalizing a separate BSER for existing coal-fired units that plan to permanently close by January 1, 2039. The BSER for this category was co-firing with natural gas at a level of 40% of the unit's annual heat input, with a compliance date of January 1, 2030. Alternatively, EPA finalized an applicability exemption from BSER for those units permanently ceasing operations by January 1, 2032. *Id.*

III. Discussion

A. EPA should promptly finalize its alternative proposal to rescind CPP 2.0 because CPP 2.0 exceeds EPA's authority under the Clean Air Act.

1. EPA should rescind CPP 2.0 because CCS at a 90% capture rate is not adequately demonstrated at scale and the accompanying performance standards are not achievable.

In the proposed rule, EPA proposes to rescind CPP 2.0 because it exceeds EPA's authority under the Clean Air Act. 90 Fed. Reg. at 25,768–77. As explained below, EPA should finalize this proposal because CPP 2.0 exceeds EPA's authority under the CAA by relying on a BSER that has not been adequately demonstrated and imposes standards that are not achievable at the capture rate and widespread deployment required under that rule.

a) CPP 2.0's emissions reduction requirements have not been adequately demonstrated.

There are a number of guardrails on when a technology can be considered adequately demonstrated consistent with the requirements of Section 111(a)(1). An "'adequately demonstrated'" system must be commercially "available" to be "install[ed] in new plants," *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973), "reasonably reliable, reasonably efficient," *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433 (D.C. Cir. 1973), and not "unreasonably costly," *Sierra Club v. Costle*, 657 F.2d 298, 384 (D.C. Cir. 1981). EPA cannot select a system that is "purely theoretical or experimental." *Essex Chem. Corp.*, 486 F.2d at 433–34. Nor can EPA base its decision on "mere speculation or conjecture" that a system will emerge that is commercially available and technologically feasible for all regulated sources nationwide. *Lignite Energy Council v. EPA*, 198 F.3d 930, 934 (D.C. Cir. 1999) (per curiam). That means EPA cannot justify its standard based on only "'prototype'" or "pilot scale" demonstration facilities. *Sierra Club*, 657 F.2d at 341 n.157. Rather, EPA must examine the effects of the technology on a grand scale and consider the representativeness to the industry as a whole of the tested plants on which it relies. *Id.* at 330, 382. Indeed, as Justice Kagan explained in her dissent in *West Virginia*, EPA must "make sure the best system has a proven track record." 597 U.S. at 759 (Kagan, J., dissenting). CPP 2.0 does not comply with these constraints.

(1) CPP 2.0's CCS requirement has not been adequately demonstrated.

In CPP 2.0, EPA failed to show any—much less a proven—track record for 90% capture of CO_2 from EGUs. Indeed, EPA conceded that "no commercial power plant is consistently achieving 90% capture," Resp'ts' Opp'n to Mots. to Stay Final Rule at 44, *West Virginia v. EPA*, No. 24-1120 (D.C. Cir. June 11, 2024), Doc. # 2059170, yet that is precisely what CPP 2.0 requires of every power plant operating after a designated date.

The primary example on which EPA relied for adopting CCS as the BSER—Unit 3 of Saskatchewan Power's Boundary Dam coal plant—has failed to demonstrate capture at the sustained rate of 90 percent required by CPP 2.0. EPA cited a report detailing the facility's operations and efforts to make Unit 3 more reliable despite technical challenges.[6] But as EPA acknowledged, "the capture plant has not consistently operated" at 90% total capture efficiency. 89 Fed. Reg. at 39,848. That was an understatement. The report EPA cited in CPP 2.0 indicates that the facility achieved 90% capture on just a few days during a five-year period of operation—in other words, less than 1% of the time.[7] Indeed, SaskPower itself said that "SaskPower's CCS facility is not capturing 90 percent of emissions from Boundary Dam Unit 3."[8] Another report similarly concluded: "Boundary Dam 3 . . . has captured less than its pre-specified target by a wide margin (about 50%)."[9]

The only power plant in the United States capturing CO_2 is Petra Nova in Texas. The project was suspended after four years of operation though it went back online in September 2023.[10] The project "suffered chronic mechanical problems and routinely missed its targets."[11] In fact, since it started in 2017, Petra Nova suffered outages on 367 days, with issues with the carbon-

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[6] *See* 89 Fed. Reg. at 39,848 n.290 (citing Stavroula Giannaris, et al., *SaskPower's Boundary Dam Unit 3 Carbon Capture Facility—The Journey to Achieving Reliability*, Proceedings of the 15th International Conference on Greenhouse Gas Control Technologies (Mar. 15-18, 2021), EPA-HQ-OAR-2023-0072-0053_Attachment 28 ("Giannaris")).

[7] Giannaris at 10, Fig. 8.

[8] SaskPower Comment (Aug. 4, 2023), EPA-HQ-OAR-2023-0072-0687; *see also* 89 Fed. Reg. at 39,848 ("Boundary Dam has more recently been *capable* of achieving capture rates of 83 percent *when the capture plant is online*") (emphasis added).

[9] Institute for Energy Economics and Financial Analysis, The Carbon Capture Crux: Lessons Learned at 47 (Sept. 2022), https://tinyurl.com/mv8m4r4a.

[10] Institute for Energy Economics and Financial Analysis, The Good, the Bad, and the Ugly reality about CCS (Dec. 3, 2024), https://tinyurl.com/4byvyhne.

[11] Nichola Groom, *Problems plagued U.S. CO2 capture project before shutdown: document*, Reuters (Aug. 7, 2020), https://tinyurl.com/bj5u2jru.

capture facility accounting for more than a quarter of those outage days.[12] In its first three years of operation, the facility missed its carbon capture targets by about 17%.[13]

The second component of CCS—the widespread transportation of pressurized CO_2 from generating facilities to sequestration sites—also has not been adequately demonstrated. In support of CPP 2.0, EPA claimed that "the U.S. CO_2 pipeline network has steadily expanded, and appears primed to continue to do so." 88 Fed. Reg. 33,240, 33,293 (May 23, 2023). Yet, there are only about 5,300 miles of CO_2 pipelines in operation across the U.S. today,[14] which falls well short of the 20,000 to 25,000 miles EPA estimated would be necessary to meet the requirements of CPP 2.0 by January 1, 2032, *id.* at 33,369. Such a significant buildout of pipeline infrastructure faces numerous regulatory, technical, and logistical constraints in addition to local opposition and legal challenges that would make permitting such pipelines highly challenging, resulting in delayed, or in some instances cancelled, construction of such buildout.

By contrast with the approach Congress has taken for the gas and electric transmission systems, Congress has not designated a lead agency to streamline the approval and authorization process for CO_2 pipelines. That means that designing, constructing, and routing a CO_2 pipeline is a significant undertaking involving a myriad of state and federal agencies, private landowners, and stakeholders. EPA relied primarily on two projects to support its predictions regarding the buildout of CO_2 pipeline infrastructure—Midwest Carbon Express and Heartland Greenway. Both of those projects have been stalled due to lawsuits, other legal challenges, and local opposition. Midwest Carbon "face[d] opposition from citizens, environmentalists, property rights advocates and

[12] *Id.*

[13] *Id.*

[14] Nora Harren, *What's Next for CO2 Pipeline Safety?*, Pipeline Safety Trust (June 9, 2025), https://tinyurl.com/4ks8dpzr; Kelsey Grant, *Carbon Dioxide Pipelines 101*, Clear Path (Mar. 13, 2025), https://tinyurl.com/4xck4mdf.

landowners in all of the impacted states. Landowners and impacted counties along the proposed route strongly oppose the use of eminent domain for the carbon pipeline project."[15] As of March 2025, the company announced that it had paused its application for approval of the pipeline in South Dakota after that state banned eminent domain for CO_2 pipelines.[16] Heartland Greenway faced similar opposition over the course of many years, and in 2023 the project was cancelled.[17] A number of other CO_2 pipeline projects have since been proposed. But these projects also encountered public opposition and regulatory challenges, including the denial of state siting permits. Due to these challenges, two developers (Navigator CO_2 Ventures and Wolf Carbon Solutions) have canceled their respective projects.[18]

The third component of CCS is CO_2 storage or sequestration. CO_2 sequestration at the scale that would be needed to support CPP 2.0 has also not been adequately demonstrated. Geologic storage of CO_2 may take place only through compliance with regulations under one of two regulatory classes—Class II or Class VI—in EPA's Underground Injection Control (UIC) program. Class II with respect to CO_2 refers to the process of enhanced recovery. But opportunities for enhanced recovery are limited to a subset of oil- and gas-bearing formations, which are not distributed throughout all areas of the country. As for the Class VI program, there has been very little experience with that program to date. Since the program was started in 2010, EPA has issued

[15] Proposed Summit Midwest Carbon Express CO2, Pipeline Fighters HUB, https://tinyurl.com/msm2wz6f (last visited July 24, 2025).

[16] Josh Chilson, *Summit pauses CO2 pipeline application in South Dakota*, SOUTH DAKOTA PUBLIC BROADCASTING (May 12, 2025), https://tinyurl.com/3etnrfpb.

[17] Leah Douglas, *Navigator CO2 Ventures cancels carbon-capture pipeline project in US Midwest*, REUTERS (Oct. 20, 2023), https://tinyurl.com/44r57b8u.

[18] Jack Dura, Navigator cancels proposed Midwestern CO2 pipeline, citing 'unpredictable' regulatory processes, ASSOCIATED PRESS (Oct. 20, 2023), https://tinyurl.com/rdn3vmtx; Leah Douglas, Wolf Carbon Solutions seeks end to carbon pipeline application in Illinois, REUTERS (Nov. 21, 2023), https://tinyurl.com/mukc6wep.

only 11 permits.[19] And although states may administer that program instead of EPA, only four states have been authorized to do so—North Dakota, Wyoming, Louisiana, and West Virginia. North Dakota has issued eight Class VI permits,[20] Wyoming has issued seven,[21] and Louisiana and West Virginia have not yet issued any.

CCS technology is highly promising, and commenters' members are investing in developing and commercializing the technology for a range of applications. But the CCS system that EPA adopted as BSER for EGUs in CPP 2.0, including a 90% capture rate and the accelerated buildout of required nationwide infrastructure, does not exist at this time, and is unlikely to exist at the scale that would have been required on the timeline set forth by the agency. EPA must comply with the law, including only selecting as BSER a system that has been adequately demonstrated taking into account cost and other considerations.

(2) By relying on a system that has not been adequately demonstrated, CPP 2.0 effectively requires generation shifting.

Because the CPP 2.0 rule relies on a system that has not been "adequately demonstrated," the rule effectively requires sources to shift generation from higher-emitting to lower-emitting generation. EPA's own modeling of CPP 2.0 confirms as much, because it shows that virtually all operators of fossil generation would decline to implement CCS to achieve the required reductions and would instead shift generation to smaller or lower load gas-fired generation or renewable

[19] Underground Injection Control (UIC) Class VI Permit Tracker, (last visited July 24, 2025), https://tinyurl.com/2md5zry8.

[20] North Dakota Department of Mineral Resources, "Class VI – Geologic Sequestration Wells," https://tinyurl.com/3xdnb2vz (accessed July 24, 2025).

[21] Wyoming Department of Environmental Quality, "Class VI," https://tinyurl.com/26ajf2c6 (accessed July 24, 2025).

generation.[22] That modeling illustrated that CPP 2.0 necessarily required generation shifting. In fact, EPA admitted in 2023 that generation shifting was the inevitable result of CPP 2.0 when EPA characterized the proposed rule, which imposed nearly the same requirements as the final rule, as having the effect of "shifting generation to lower-CO_2 emitting and non-affected EGUs" in earlier versions of the proposed rule that were released.[23] Although that language was removed from the final version of the proposal and the final rule, EPA did not make any substantive changes to the *de facto* generation shifting that is necessarily forced by that final rule.

b) In CPP 2.0, EPA failed to show that its preferred system of emissions reduction was "best."

Section 111 instructs EPA to balance a number of factors in determining the "best system of emission reduction," including "the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements." 42 U.S.C. § 7411(a)(1).

EPA failed to adequately account for the current costs of CCS or the significant and nationwide infrastructure networks necessary to facilitate the use of these technologies on power plants. Technical assessments show that current carbon capture technology has a significant parasitic power demand when deployed at power plants, making energy generation less efficient. As EPA acknowledged in its CPP 2.0 proposal, "including a 90 percent or greater carbon capture system in the design of a new NGCC [Natural Gas Combined Cycle] will increase the parasitic/auxiliary energy demand and reduce its net power output." 88 Fed. Reg. at 33,302. This

[22] Integrated Proposal Modeling and Updated Baseline Analysis at 15–16, Tbl. 11 (July 7, 2023), EPA-HQ-OAR-2023-0072-0237; EPA, EPA-452/R-24-009, 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 at 3-19 to 3-21 (Apr. 2024), EPA-HQ-OAR-2023-0072-8913 ("2024 RIA").

[23] EPA, EO 12866 111 EGU 2060-AV09 and 2060-AV10 NPRM RIA 20230421 RLSO (Apr. 21, 2023), https://tinyurl.com/ynkcenfx.

means, for example, that an NGCC unit designed to provide 500 MW-net of power would be de-rated by 11 percent (to a 444 MW-net plant) with the installation of CCS. *Id.* EPA's solution to this problem was to insist that units simply "scal[e] larger." *Id.* But doing so would impose additional costs and impact the ability to meet energy demands.

CPP 2.0 raises serious reliability and resource adequacy concerns. Precisely because the rule sets unworkable standards based on unrealistic assumptions, the rule will threaten electric reliability, as well as impose major costs on regulated parties and the U.S. economy. Because it imposes a system that has not yet been adequately demonstrated and currently is very costly, CPP 2.0 is likely to cause widespread retirement of dispatchable generation while simultaneously preventing the development of new, dispatchable generation resources. That is particularly concerning because such generation is needed to balance the expansion of renewables and to satisfy the significant increase in electricity demand that is expected over the coming years and decades, due in part to data center and AI growth, as well as the potential for widespread electrification of transportation, manufacturing and housing sectors. EPA's own modeling projects that the vast majority of regulated EGUs will not implement CCS but will instead retire to achieve "efficient compliance" with the rule.[24] That prospect is highly concerning—not only to commenters but to regional and independent electric power system operators who have been warning for years that power plant retirements are greatly outpacing the commissioning of new generation resources.

For example, the Midcontinent Independent System Operator, Inc. ("MISO"), which manages the delivery of energy to roughly 45 million people throughout the middle of the United States, is already operating near the limits of its resource capacity. In a recent report, MISO stated

[24] 2024 RIA at 3-25 to 3-28.

that it is time "to face some hard realities," including "immediate and serious challenges to the reliability of our region's electric grid."[25] MISO recognized the need for "new dispatchable generation"—that is, generation "that can be turned on and off and adjusted as needed" [26]—in light of "the conventional dispatchable coal and natural gas resources that are being retired."[27] "A key risk is that many 'dispatchable' resources . . . are being replaced with weather-dependent resources such as wind and solar," which "lack certain key reliability attributes that are needed to keep the grid reliable every hour of the year."[28] While "several emerging technologies may someday change that calculus, they are not yet proven at grid scale."[29] Until then, MISO "will continue to need dispatchable resources for reliability purposes."[30]

MISO's warnings about grid reliability are echoed by the North American Electric Reliability Corporation ("NERC"), the Electric Reliability Organization that the Federal Energy Regulatory Commission ("FERC") has certified pursuant to the Federal Power Act to establish and enforce reliability standards, subject to FERC review, for the nation's bulk-power system.[31] In a recent assessment, NERC found "mounting resource adequacy challenges over the next 10 years as surging demand growth continues and thermal generators announce plans for retirement," and identified large areas of the country at an "elevated" risk of failing to meet demand, including

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[25] MISO, MISO's Response to the Reliability Imperative at 1 (Feb. 2024), https://tinyurl.com/ya7tz7y9.

[26] *Id.* at 1, 2.

[27] *Id.* at 2.

[28] *Id.* at 1 (emphasis omitted).

[29] *Id.*

[30] *Id.*

[31] *See, e.g., S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41, 51, 79 (D.C. Cir. 2014) (per curiam) (discussing NERC); 16 U.S.C. § 824*o*(a).

MISO's 15-state area.[32] By 2028, "MISO is projected to have a 4.7 GW shortfall if expected generator retirements occur despite the addition of new resources that total over 12 GW."[33]

PJM Interconnection, the regional grid operator responsible for ensuring reliability for 65 million people across 13 states and the District of Columbia, has expressed similar concerns.[34] According to PJM, CPP 2.0 is likely to "drive premature retirement" of EGUs and "dissuade new gas resources from coming online," even though such resources are needed to meet "significant increases" in demand.[35] This new reality has also led to the recent, dramatic increases in electric generation capacity prices across the PJM region. The functioning of our national economy, and the vast majority of the small and large businesses within it, depends on a power system that can routinely handle demand increases without risking interruptions in service or dramatic market disruptions.

CPP 2.0 failed to address how fossil generation forced to retire as a result of the rule could or would be replaced at necessary levels and with similar dispatch characteristics, notwithstanding strong evidence that electricity demand is growing rapidly in the coming years and thereafter. As the Department of Energy ("DOE") explained in a recent report, without intervention "it is impossible for the nation's bulk power system to meet the AI growth requirements while maintaining a reliable power grid and keeping energy costs low."[36] DOE estimated that blackouts

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[32] NERC, 2024 Long-Term Reliability Assessment at 6-9 (Dec. 2024) (updated July 15, 2025), https://tinyurl.com/5ek8dn7s.

[33] *Id.* at 7-9.

[34] PJM, *PJM Statement on the Newly Issued EPA Greenhouse Gas and Related Regulations* at 2-3 (May 8, 2024), https://tinyurl.com/3uu34edn.

[35] *Id.* at 3.

[36] U.S. Department of Energy, *Resource Adequacy Report, Evaluating the Reliability and Security of the United States Electric Grid*, at 1 (July 2025), https://tinyurl.com/yc6xrxfu ("DOE Resource Adequacy Report").

could increase by 100 times in 2030 if the U.S. continues to shutter power plants and fails to add additional capacity to meet rising demand.[37]

c) CPP 2.0's emissions limitations are not "achievable" as required by the CAA.

Section 111 requires that a "standard of performance" be set at a level that "reflects the degree of emission limitation achievable" through application of the BSER, 42 U.S.C. § 7411(a), at "each individual regulated source," *West Virginia*, 597 U.S. at 728. "An achievable standard is one which is within the realm of the adequately demonstrated system's efficiency" and is not "purely theoretical or experimental." *Essex Chem. Corp.*, 486 F.2d at 433–34. But the degree of emission reduction required to be achieved by the CPP 2.0 rule is not currently achievable at scale. In CPP 2.0, EPA made predictions that are unrealistic in a number of respects, including predictions concerning the development of a vast, nationwide pipeline infrastructure in a very short timeframe, which was predicted to be driven by financial support from the Inflation Reduction Act ("IRA"), Pub. L. No. 117-169, 136 Stat. 1818 (2022). Although the IRA's 45Q tax incentives were positive steps in boosting lower carbon energy generation, they would not have sufficed to drive the development of the immense infrastructure network needed to facilitate compliance with the requirements of CPP 2.0. It bears emphasis that such a network, including both pipelines and injection wells, would need to be developed by third parties in locations other than the power plant facilities that are wholly beyond the control of the owners and operators of regulated sources. In addition, though a key CCS-focused tax credit remains intact, many other clean energy IRA incentives have been reduced or will soon be eliminated as a result of the passage of the One Big Beautiful Bill Act, making it even more unlikely that the needed energy infrastructure could develop at anything close to the pace needed to maintain a reliable electric grid under CPP 2.0.

[37] *Id.*

Moreover, well-known shortcomings in permitting processes make the buildout timeframes envisioned in CPP 2.0 implausible.

d) CPP 2.0's phase 1 emission performance standards for new gas-fired EGUs in the baseload and intermediate load subcategories are not "achievable."

The phase 1 emission performance standard for new and reconstructed gas-fired EGUs in the baseload subcategory and emission performance standard for new and reconstructed gas-fired EGUs in the intermediate load subcategory have been demonstrated in practice to not be achievable. In CPP 2.0, EPA assumed that its 800 lbs. CO_2/MWhr-gross rate for the baseload subcategory and 1,170 lbs. CO_2/MWhr-gross rate for the intermediate load subcategory would be achievable for all new large combined-cycle EGUs if they changed their technological design to match the top performing units. But at this time, technological improvements do not exist that could be installed onto future combined-cycle EGUs to ensure that they achieve this standard in practice. The only way to reduce the CO_2 emissions from a unit (outside CCS-related systems) is to improve the EGU's average efficiency. Yet, the entire gas turbine industry is already strongly incentivized to produce highly efficient, and by association, low-CO_2 emissions units.

The variation in the performance of units, despite the fact that all units are designed to be highly efficient, is due to factors beyond the control of the owner or operator. One of these factors is the unit's operating cycle over the 12-month average period. Combined-cycle EGUs operate under highly variable conditions, resulting in variable emission rates, including periods of higher emission rates during startup/shutdown, low load operation and ramping. A combined-cycle EGU following a typical operation would go through a varying number of start-stop cycles, periods of baseload operation, periods of part-load operation, and duct firing. For many plants, the grid operator dictates the load to the turbine, meaning that the plant operator has little control over

exactly how the plant operates. The plant is required to operate to match the demand on the grid and its dispatch directives from the grid operator. Further, gas-fired combined cycle EGUs will likely operate with even more frequent and varied ramping cycles in the future, as the grid will be characterized by increased generation from intermittent resources such as solar and wind power.

EPA states in its proposal that it is not reopening the standards of performance for phase 1 for new and reconstructed baseload fossil fuel-fired stationary combustion turbines and standards of performance for new and reconstructed intermediate load combustion turbines. 90 Fed. Reg. at 25,768. However, these standards should be revised because they are not achievable as required under section 111. Since EPA has not proposed new standards in the current proposal or sought comment on what those standards should be, we encourage EPA to expeditiously issue a supplemental proposal to solicit comment on revised standards.

e) CPP 2.0 is unlawful because its performance standards require installation of infrastructure beyond the source's fence line.

CPP 2.0 is also unlawful because its performance standards require installation of infrastructure beyond the source's fence line. Section 111 provides that performance standards apply specifically to regulated sources. EPA sets federal standards for new "sources within [a listed source] category." 42 U.S.C. § 7411(b)(1)(B). These standards of performance must be "applicable . . . to" individual sources within the regulated source category. *Id.* § 7411(d)(1), 7411(a)(2). As the Supreme Court explained, in section 111, "Congress intended a technology-based approach" that "focuses on improving the emissions performance of individual sources." *West Virginia*, 142 S. Ct. at 2611.

Despite this key boundary on EPA's authority under section 111, CPP 2.0 is not limited to regulating based on activities that can take place at the source. Instead, CPP 2.0 imposes regulation based on the assumed development of national systems of infrastructure that cannot be applied at

the source and are outside the control of any source owner or operator. The transportation of CO_2 and the sequestration of CO_2 require the development of vast infrastructure networks that may be a considerable distance from the coal or gas-fired EGU. For example, the majority of the existing CO_2 pipeline network is located west of the Mississippi River, while many of the sources that would require capture and transport are east of the Mississippi River.[38] Further, for most EGUs, the local geology does not support sequestration at or near the powerplant site. And even if an area has geologic features that might accommodate sequestration, that does not guarantee that a sequestration facility will be built and available. Even if such facilities are built, a vast, interstate network of CO_2 pipeline infrastructure would still be required. The language of the statute and EPA's previous practice reject this approach. Before CPP 2.0, EPA's long-standing view was that "[t]he standard that the EPA develops [is] based on the [BSER] achievable *at that source*."[39] And even in the CPP, EPA acknowledged that the phrase "best system of emission reduction" may include only "measures that can be implemented—'appl[ied]'—by the sources themselves" even though CPP itself violated this command by imposing generation shifting requirements that depended on measures taking place far from the regulated source.[40]

f) EPA failed to provide an adequate basis for departing from its previous conclusion that CCS was not BSER for existing sources.

It is well established in administrative law that an agency must give a reasoned explanation for its actions, including changes in position. *See Dep't of Commerce v. New York*, 588 U.S. 752, 785 (2019). An agency can change its existing policies, but it must provide "a reasoned explanation for the change." *Encino Motorcars, LLC v. Navarro*, 579 U.S. 211, 221 (2016). That explanation

[38] U.S. Department of Energy, Siting and Regulating Carbon Capture, Utilization and Storage Infrastructure, at 20 (Jan. 2017) https://tinyurl.com/2utcer4t.

[39] 79 Fed. Reg. 36,880, 36,885 (June 30, 2014) (emphasis added).

[40] 80 Fed. Reg. at 64,720.

must be more thorough when the change in position upsets serious reliance interests. An agency must "provide a more detailed justification" when "its new policy rests upon factual findings that contradict those which underlay its prior policy" or "when its prior policy has engendered serious reliance interests that must be taken into account." *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).

EPA failed to meet this requirement in the CPP 2.0 rule, as the rule did not explain how EPA could determine CCS to be the BSER even though EPA had found twice over the past eight years that CCS cannot be the BSER for existing sources. In the CPP rule, EPA rejected CCS as BSER for existing sources in part because "the scale of infrastructure required to directly mitigate CO_2 emissions from existing EGUs through CCS can be quite large and difficult to integrate into the existing fossil fuel infrastructure." 80 Fed. Reg. at 64,690. In the ACE Rule, EPA again rejected CCS as the BSER for existing sources, explaining that the high costs of purchasing, installing, and operating CCS technology at that time foreclosed its adoption as BSER. 84 Fed. Reg. at 32,548. EPA failed to provide anything close to a reasonable explanation for EPA's departure from its previous conclusions on this key issue, such as an account that would have explained that CCS infrastructure and costs (and any other relevant factors) had changed enough over the elapsed eight years to justify adopting a CCS-based system as BSER. In a September 2022 report, the Institute for Energy Economics and Financial Analysis explained that CCS "is more costly and complex than other applications."[41] Moreover, "[c]apturing CO_2 consumes a lot of energy, effectively reducing the amount of electricity delivered to consumers."[42] This introduces "additional energy

[41] Bruce Robertson & Milad Mousavian, Institute for Energy Economics and Financial Analysis, *The Carbon Capture Crux: Lessons Learned* at 37 (Sept. 1, 2022), https://tinyurl.com/5fwkah73.

[42] *Id.* at 37, 73.

penalties into the mix, typically by drawing steam or power to operate the capture process," all of which could necessitate "charging a premium price to consumers."[43]

In the 2024 CPP 2.0, EPA failed to take into account the serious reliance interests of electric utilities, which have a long planning horizon for significant capital commitments and should have been able to rely on EPA's prior conclusion that CCS does not qualify as BSER for existing sources. In contrast to the eight years during which EPA had expressly concluded that CCS was not BSER, CPP 2.0 has been on the books for only less than two years (during which time electric utilities have vigorously challenged the CPP 2.0 rule in court), and thus, has not generated the same long-standing reliance interests that EPA's previous determination had established. Further, the conclusion that CCS is not BSER is compelled by a proper application of CAA section 111's "adequately demonstrated" standard as explained above.

g) CPP 2.0 is unlawful because EPA was wrong to conclude that it had authority to project which technologies might emerge as adequately demonstrated in setting BSER.

EPA claimed in CPP 2.0 that even though CCS was not in routine use, EPA could still select CCS as BSER because EPA has broad latitude to predict what technologies will emerge in the future. In support of that assertion, EPA relied on the D.C. Circuit's decisions in *Lignite Energy Council v. EPA*, 198 F. 3d 930, 934 (D.C. Cir. 1999) (per curiam) and *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973). That assertion, however, conflates the question whether a system "has been adequately demonstrated" with the question whether the resulting "degree of emission limitation [is] achievable," 42 U.S.C. § 7411(a)(1), and unduly weakens the "adequately demonstrated" requirement. *Portland Cement* and *Lignite Energy* were not about whether a BSER "has been adequately demonstrated," but instead were about the "degree of

[43] *Id.* at 37, 47, 73.

emission limitation" for certain new sources. In *Portland Cement*, the petitions for review challenged stationary source standards for new or modified Portland cement plants. 486 F.2d at 378. And thus, it was "the 'achievability' of the proposed standard that [wa]s in issue" when the court said it could consider "what may fairly be projected for the regulated future." *Id.* at 391. Likewise, *Lignite Energy* was also about "extrapolat[ing] from . . . studies . . . in setting . . . [a] new source performance standard." 198 F.3d at 934.

Moreover, in those cases the technology would be applicable at the source and subject to the control of the source owner or operator. CPP 2.0, however, relied on predictions not only about the technology applied at the source but also about the actions of third parties in building a vast national system of infrastructure. EPA also relied on predictions about the impact of the IRA's tax incentives to encourage the production of clean energy. EPA then claimed it had even more leeway in making predictions because of the "lead time" it had provided for the development of national CCS infrastructure. 89 Fed Reg. at 39,832 n.223. But *Portland Cement* does not authorize EPA to impose any standard it wants so long as EPA provides lead time. Instead, the court explained that its analysis was "partially dependent on 'lead time'" as EPA was requiring compliance "immediately," and thus, "the latitude of projection [wa]s correspondingly narrowed." 486 F.2d at 391–92. In any event, EPA did not actually provide any lead time in CPP 2.0, as EPA recognized that sources would need to start complying immediately to have any chance of meeting the imposed deadlines. 88 Fed. Reg. at 33,402. EPA should repeal CPP 2.0 because, among other reasons, the agency unlawfully relied on a speculative, "'crystal ball inquiry'" to make predictions about the emerging maturity of technologies while effectively requiring immediate compliance. *Essex Chem. Corp.*, 486 F.2d at 433 (quoting *Portland Cement*, 486 F.2d at 391).

2. CPP 2.0 is contrary to the Supreme Court's decision in *West Virginia v. EPA* (2022).

In its 2022 decision in *West Virginia*, the Supreme Court rejected EPA's attempt to "forc[e] a shift throughout the power grid from one type of energy source to another." 597 U.S. at 727–28. But in 2024, EPA did the same thing in the CPP 2.0 rule, by basing the BSER on technology that had not been adequately demonstrated and on performance standards that were unlikely to be met. This in turn necessarily forced facilities to shut down; reduce generation; or shift fuels in order to avoid the technology requirements of the rule altogether. In fact, EPA recognized that a source could avoid the existing-coal-plant CCS requirement by making a federally enforceable commitment to retire its regulated facilities by 2039. The need for that escape hatch further underscores that the CCS BSER set forth in the CPP 2.0 rule was not adequately demonstrated or cost-effective. Further, EPA's own modeling for CPP 2.0 showed that most affected EGUs would not implement CCS but instead would either retire or reduce the amount of electricity generated so as to be exempt from the rule's compliance requirements.[44] The Supreme Court also foreclosed EPA from adopting natural gas co-firing as BSER, explaining that EPA could not simply require coal plants to become natural gas plants. *West Virginia*, 597 U.S. at 728 n.3.

3. In CPP 2.0, EPA failed to consider numerous factors that it was required to consider under section 111 and the Administrative Procedure Act.

Section 111 requires that EPA consider the cost of achieving the proposed emission reduction, "any nonair quality health and environmental impact, and energy requirements." 42 U.S.C. § 7411(a)(1). Also, under the Administrative Procedure Act ("APA") as well as the CAA, agencies are required to engage in reasoned decision-making; an agency's rule will be found

[44] Integrated Proposal Modeling and Updated Baseline Analysis, at 15–16, Tbl. 11; 2024 RIA at 8-2.

arbitrary and capricious and unlawful if the agency, among other things, "entirely failed to consider an important aspect of the problem." *Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43, 52 (1983); *see also Michigan v. EPA*, 576 U.S. 743, 750–51, 752 (2015). CPP 2.0 fails to meet this standard because EPA did not accurately consider the emissions reductions, compliance costs, and reliability impacts associated with the rule. For that reason, among others, EPA should repeal it.

First, EPA misapprehended and misrepresented the emissions reductions and regulatory compliance costs associated with CPP 2.0. In CPP 2.0 EPA relied on faulty assumptions that shift compliance responsibilities and costs into the baseline scenario, making it look as if the rule itself would not be the cause of those serious consequences and costs. EPA failed to account for foreseeable increased electricity demand (with such demand projections now much greater than when CPP 2.0 was finalized), and reasonable predictions of IRA impacts. EPA's faulty underlying assumptions caused it to conclude improperly that CPP 2.0 would lower power sector emissions by only 1% and thus vastly underestimated, likely on the order of tens of billions of dollars, the regulatory compliance costs of the rule. EPA also assumed that new transmission would be built instantly when needed, and at minimal-to-negligible cost. EPA's Integrated Planning Model ("IPM") assumed a significant "transmission capacity expansion" within the next several years to "meet capacity and energy needs."[45] These assumptions are unrealistic, given the cost and amount of time that it takes to build the necessary supporting transmission infrastructure due to extensive federal and state permitting delays, supply chain and construction challenges, and local opposition.

[45] EPA, Power System Operation Assumptions, at 3-11 (Sept. 2021), https://tinyurl.com/yc5dux88 (describes the assumptions pertaining to the North American electric power system as represented in the EPA Platform v6 Summer 2021 Reference).

Second, EPA failed to adequately consider the reliability impacts of CPP 2.0. Electricity demand is now surging, and this increase is expected to continue for many years to come, driven by the electrification of the transportation and building sectors, as well as from the buildout of data centers and AI. The rate of electricity demand growth is the highest it has been in over two decades, and over the next ten years, peak power needs are expected to rise by over 18%.[46] In light of the projected increase in electricity demand, a number of State public utility commissions and regional grid operators have raised concerns about the ability of the electric grid to meet this demand. For example, MISO, which manages the delivery of energy to roughly 45 million people throughout the middle of the United States, explained that "the MISO region faces resource adequacy and reliability challenges due to the changing characteristics of the electric generating fleet, inadequate transmission system infrastructure, growing pressures from extreme weather, and rapid growth."[47] And in a recent report, the Department of Energy expressed concern that blackouts could increase by 100 times in 2030 if the U.S. continues to shutter power plants and fails to add additional capacity to meet rising demand.[48] EPA provided no explanation as to how fossil generation forced to retire as a result of CPP 2.0 could be replaced at current levels and with similar dispatch characteristics, let alone address the impact of rapid growth in electricity demand in the coming years and decades.

[46] North American Electric Reliability Corporation, 2024 Long-Term Reliability Assessment at 9 (Dec. 2024, updated July 15, 2025), https://tinyurl.com/mpb6n7s5.

[47] Testimony of Jennifer Curran, Senior Vice President, Planning and Operations, MISO Before the House Committee on Energy and Commerce, Subcommittee on Energy, at 5 (Mar. 25, 2025), https://tinyurl.com/4ccsjk5n.

[48] DOE Resource Adequacy Report at 1.

4. CPP 2.0 placed unlawful restrictions on state planning authority that are inconsistent with section 111(d).

Section 111(d)(1) of the Clean Air Act provides that states are to establish standards of performance for their sources, after taking into consideration EPA's BSER determination, as well as remaining useful life and other factors ("RULOF"). However, in CPP 2.0, EPA improperly limited the states' planning authority in a number of ways that also support the repeal of CPP 2.0.

First, EPA attempted to preempt states' consideration of RULOF by saying that "the Agency does not anticipate that states will be in the position of conducting numerous RULOF analyses as part of their state planning processes." 89 Fed. Reg. at 39,964. But it is up to the states, not EPA, to decide whether and how to consider RULOF. Second, CPP 2.0 emphasized that "states carry the burden of making any demonstrations in support of less-stringent standards of performance pursuant to RULOF in developing their plans." *Id.* at 39,963. And while a state is required to explain its consideration of RULOF, EPA is required to defer to a reasonable determination by the state. 40 C.F.R. § 60.24(f). Third, CPP 2.0 requires states to evaluate "the systems of emission reduction that the EPA identified in the applicable emission guidelines using the factors and evaluation metrics that the Agency considered in assessing those systems." 89 Fed. Reg. at 39,968. But EPA is required to defer to the states' consideration of other systems of emission reduction which EPA has determined are not BSER, including the manner in which the states choose to consider those systems. Finally, CPP 2.0 imposed limits on states' consideration of trading and averaging. *Id.* at 39,968, 39,982. But EPA can review trading provisions in state plans and work with states to ensure the mechanisms adopted are sufficient to implement BSER. And as EPA has noted, compliance flexibilities such as trading and averaging have been included in previous EPA rules and may prove beneficial. 88 Fed. Reg. at 33,392–96.

5. Without delaying its repeal of CPP 2.0, EPA should make some corrective changes to its Regulatory Impact Analysis (RIA).

The central scenario of the RIA for the current proposed rule estimates cumulative cost savings of $19 billion versus $130 billion in disbenefits.[49] This analysis contains some flaws that significantly underestimate costs and overestimate disbenefits that EPA should either acknowledge or fix before finalizing its current proposal. Doing so will give stakeholders and the public a more accurate picture of the costs and benefits of the regulation.

First, the 2025 RIA significantly underestimates electricity demand because it uses outdated assumptions. The RIA for the proposed rule relies heavily on the 2024 RIA for the final rule, which based its estimates of electricity demand primarily on the 2023 Annual Energy Outlook ("AEO"). That outlook is outdated compared to the current AEO 2025, which projects significantly higher electricity demand than what EPA used in the CPP 2.0 2024 RIA as shown in the table below:[50]

	CPP 2.0 RIA (TWh)	**EIA AEO 2025 (TWh)**	**Difference (TWh)**	**EIA-CPP %**
2028	4,459	4,593	134	3.0
2030	4,597	4,710	113	2.5
2035	4,939	5,187	248	5.0
2040	5,254	5,756	502	9.6
2045	5,576	6,211	635	11.4
2050	5,928	6,646	718	12.1

In 2040, for example, the underestimation amounts to a 500 terawatt-hour difference in energy demand, which is the equivalent of adding the amount of energy consumed by Texas to the grid. Serving that additional demand under CPP 2.0 would add many billions to the baseline

[49] EPA, EPA-452/R-25-002, Regulatory Impact Analysis for the Proposed Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units at 6-6 (June 2025), EPA-HQ-OAR-2025-0124-0063 ("2025 RIA").

[50] U.S. Energy Information Administration, Annual Energy Outlook 2025 (Apr. 15, 2025), https://tinyurl.com/3vxbtbtz.

compliance costs. EPA acknowledges in the 2025 RIA that "current projections point towards a significantly higher electricity demand environment," which may result in higher cost savings.[51] But before finalizing the rule, EPA should take the next step of estimating saved compliance costs based on the updated AEO 2025 to more accurately reflect future U.S. power grid dynamics and the associated savings from repealing CPP 2.0.

Second, EPA's IPM model puts a thumb on the scale by unreasonably projecting that IRA tax incentives will result in the closure of almost all U.S. coal plants, thereby omitting those closures from inclusion in modeled compliance costs. This overestimates the impact of the IRA, especially given recent modifications made to its associated tax credits (*e.g.*, 45Y and 48E) and underestimates the impact of CPP 2.0 in leading to the closure of coal plants. The IPM also assumes the buildout of transmission infrastructure instantaneously and at very little cost, which is not a realistic assumption. *Supra* pp. 10–11.

Third, the IPM overestimates the grid contributions from renewables and lacks any true reliability analysis. The 2024 IPM, on which the 2025 RIA is based, overestimates the extent to which renewables would replace coal. The IPM base case assumes a replacement ratio of less than 2 (1.8 and 1.4 for the years 2030 and 2028, respectively), such that 1 gigawatt of coal could be replaced by just under 2 gigawatts of renewables.[52] But the AEO 2023 shows more than 20 times more renewable/storage capacity replacing one MW of retired coal.[53] The replacement ratio is important because renewable generation is "non-dispatchable," meaning that it is not always available because it is dependent on uncontrollable factors such as the amount of sunshine or wind

[51] 2025 RIA at 6-6.
[52] IPM Technical Report, at 3–10.
[53] U.S. Energy Information Administration, Annual Energy Outlook 2023 (Mar. 2023), https://tinyurl.com/485hf5cy.

present at a generation site. Coal and gas generation, in contrast, is dispatchable, or in other words, is usually available at full capacity on demand. Thus, in reality, it takes multiple MWs of capacity from renewable sources to replace one MW of retired coal or gas generation. Further, Congress has since placed new restrictions on energy tax credits that will slow the development of renewables even more.[54] In short, the IPM base case scenario underestimated the costs of CPP 2.0, which means that there are greater cost savings to repealing CPP 2.0 than are shown by EPA's 2025 RIA. In addition, the 2024 IPM failed to accurately account for the impact of CPP 2.0 on the reliability of the grid. CPP 2.0 would significantly affect the reliability of the grid if there is not enough renewable energy to replace the coal generation that retires under the rule. EPA should correct these faulty assumptions in order to more accurately depict the cost savings and benefit to the adequacy and reliability of the grid from repealing CPP 2.0.

Finally, nearly all of the $110 billion in disbenefits set forth in the 2025 RIA come from the monetization of claimed health effects resulting from higher projected $PM_{2.5}$ levels after repeal of CPP 2.0. At a minimum, EPA should not claim monetized health disbenefits below the current regulatory level of the national ambient air quality standards ("NAAQS"). For example, it is likely that half or more of the coal plants that would close under CPP 2.0 are in areas that are already in attainment for the $PM_{2.5}$ NAAQS. If that is the case, EPA is counting a similar level of premature mortality and $PM_{2.5}$ disbenefits in areas designated by EPA as having safe levels of $PM_{2.5}$. And all of this despite EPA's long-standing recognition that the associations between $PM_{2.5}$ exposure and mortality are "uncertain at [such] low concentrations" of $PM_{2.5}$.[55] In other words, it is inconsistent

[54] One Big Beautiful Bill Act, Pub. L. No. 119-21 (2025); Solar Energy Industries Association, *Explained: The Clean Energy Provisions in the "One Big Beautiful Bill"* (July 21, 2025), https://tinyurl.com/yv4rsj7p.

[55] Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, 89 Fed. Reg. 16,202, 16,228 (Mar. 6, 2024).

for the RIA to conclude that monetizable health effects occur below the level of the $PM_{2.5}$ NAAQS that EPA has separately determined is safe.

B. The best reading of CAA section 111 is that EPA is required to make a source-specific and pollutant-specific significant contribution finding before regulating emissions of that pollutant from a listed source category.

EPA must apply the "best" reading of the statute. *Loper Bright Enters. v. Raimondo*, 603 U.S. 369, 400 (2024). In its 2015 Section 111(b) final rule, EPA asserted that once EPA has made an initial endangerment determination for a source category for any pollutant, EPA need only offer a rational basis for regulating additional pollutants, regardless of any relationship between the regulated pollutant and the endangerment determination. 80 Fed. Reg. at 64,530; 89 Fed. Reg. at 39,825. EPA then pointed to the 2009 Endangerment Finding it made for vehicle emissions under Title II of the CAA regulating motor vehicles as providing the required "rational basis" for the endangerment finding under section 111 regulating stationary sources. EPA now proposes to conclude that this is not the "best" reading of section 111. EPA proposes instead that the "best" reading of CAA section 111 requires the agency to determine that emissions of an air pollutant from a listed source category significantly contribute to dangerous air pollution before regulating emissions of that pollutant from the relevant source category. 90 Fed. Reg. at 25,763. For the reasons that follow, commenters agree with the interpretation of section 111 that is set forth in the proposed rule.

In determining the "best" meaning of the statute, EPA should apply "the traditional tools of statutory construction." *Loper Bright*, 603 U.S. at 401. That includes paying attention to the specific words that Congress chose and applying the plain meaning of those words. *Ross v. Blake*, 578 U.S. 632, 638 (2016) ("Statutory interpretation, as we always say, begins with the text."); *Sandifer v. U.S. Steel Corp.*, 571 U.S. 220, 227 (2014) ("It is a 'fundamental canon of statutory construction' that, 'unless otherwise defined, words will be interpreted as taking their ordinary,

contemporary, common meaning.'"). The words of the statute "must be read in their context and with a view to their place in the overall statutory scheme." *Gundy v. United States*, 588 U.S. 128, 141 (2019) (citation omitted); *see also Util. Air Regul. Grp.,* 573 U.S. at 321 ("[R]easonable statutory interpretation must account for both 'the specific context in which . . . language is used' and 'the broader context of the statute as a whole.'" (citation omitted)). The statute should be construed "so that effect is given to all its provisions, so that no part will be inoperative or superfluous, void or insignificant." *Corley v. United States*, 556 U.S. 303, 314 (2004).

The plain language of section 111(b)(1)(A) establishes that the purpose of the NSPS program is to regulate and reduce emissions that "contribute[] significantly" to "air pollution" that "endanger public health or welfare." 42 U.S.C. § 7411(b)(1)(A). This requirement means that the section 111 contribution finding must be both source- and pollutant-specific. Once EPA lists a source category for regulation under CAA section 111(b)(1)(A) based on EPA's determination that "it causes, or contributes significantly to, [dangerous] air pollution," *id.*, EPA must promulgate "standards of performance" for new sources in that category under CAA section 111(b)(1)(B). And CAA section 111(a)(1) defines "standard of performance" as "a standard for emissions of air pollutants" determined in a specified manner. *Id.* § 7411(a)(1). Together these provisions show that not only does EPA need to make a significant contribution determination when it adds a new source category, but it also needs to find that an air pollutant significantly contributes to dangerous air pollution before it can establish a "standard of performance" for emissions of that air pollutant. In other words, once EPA determines a source category can be regulated under section 111, EPA must take a pollutant-by-pollutant approach to finding a significant contribution for an individual pollutant before issuing standards of performance. It's conceivable, for example, that a particular source category emits a regulated pollutant but that this category as a whole emits too small a share

of overall emissions of that pollutant to pose a significant contribution justifying regulating the entire category. Alternatively, there could be a sufficiently large source category that is listed under section 111 for emissions of other pollutants, but that emits the pollutant in question at levels that do not contribute significantly to endangerment and thus do not warrant issuing standards of performance for those emissions. EPA's current proposed interpretation allows for both those important statutory goals to be met.

Any other reading of section 111 would divorce the significant-contribution determination from the subject of the regulation—emissions of an air pollutant from sources in a listed source category. If EPA could add a pollutant to the list of regulated pollutants for a listed source category based on anything less than a significant contribution determination, it would effectively read the "significant" standard out of the statute. Of course, in such a situation EPA's decision would still be subject to review under the APA's arbitrary-and-capricious standard, and potentially other standards, but EPA would nonetheless be engaging in costly regulation of pollutants for which EPA not only did not make a significant contribution finding, but *could not* make a significant contribution finding. That reading is inconsistent with the text and context of the CAA, and, as EPA correctly notes, section 111 does not contemplate unbounded regulatory authority over *all* pollutants irrespective of their deleterious properties or quantities emitted from specific source categories.

The fact that section 111 requires a separate *significant contribution* determination for each source category compels the conclusion that EPA must also assess the pollutant to be regulated under NSPS for each source category and cannot simply incorporate the determinations for a pollutant under an entirely different CAA provision. This is the best and only permissible reading of the statutory language. Congress's inclusion of the "contributes significantly" modifier in

relation to section 111 endangerment findings—especially where Congress chose to not include similar modifiers in other sections of the CAA—must be read with purpose and as intentional. Accordingly, commenters agree with EPA that section 111 compels a determination that emissions of an air pollutant from a listed source category significantly contributes to dangerous air pollution before the agency may promulgate emission standards for that pollutant from the relevant source category.

IV. Conclusion

For the foregoing reasons, EPA should promptly finalize its proposal to repeal CPP 2.0 as exceeding EPA's authority under CAA section 111. CPP 2.0 is unlawful under the CAA, among other reasons, because it relies on a BSER that has not been adequately demonstrated, results in standards that are not achievable in the timeline required, requires activities that take place beyond the fence line of the source, and is contrary to the Supreme Court's 2022 decision in *West Virginia*. In addition, in issuing CPP 2.0, EPA failed to adequately consider a number of relevant factors, including costs and the effect of the rule on grid reliability. EPA in CPP 2.0 also improperly restricted states' planning and ability to set performance standards based on local conditions.

In addition, consistent with EPA's obligation to apply the best reading of the statute it administers, EPA should recognize that the best reading of CAA section 111 is that EPA is required to make a pollutant-specific significant contribution finding for any particular pollutant before regulating emissions of that pollutant for a listed source category under section 111(b).