ORAL ARGUMENT NOT YET SCHEDULED

No. 24-1120 (and consolidated cases)

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

STATE OF WEST VIRGINIA, *et al.*,
Petitioners,
v.
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *et al.*,
Respondents.

On Petitions for Review of Final Agency Action of the United States Environmental Protection Agency
89 Fed. Reg. 39,798 (May 9, 2024)

BRIEF OF THE CHAMBER OF COMMERCE OF THE UNITED STATES OF AMERICA AS *AMICUS CURIAE* IN SUPPORT OF PETITIONERS

Brent A. Rosser
Hunton Andrews Kurth LLP
One South at the Plaza, Suite 3500
101 South Tryon Street
Charlotte, North Carolina 28280
(704) 378-4700

F. William Brownell
Matthew Z. Leopold
Erica N. Peterson
Hunton Andrews Kurth LLP
2200 Pennsylvania Ave. NW
Washington, DC 20037
(202) 955-1500

Elbert Lin
Counsel of Record
Hunton Andrews Kurth LLP
951 East Byrd Street, East Tower
Richmond, VA 23219
elin@huntonak.com
(804) 788-7202

Andrew R. Varcoe
Christopher J. Walker
U.S. CHAMBER LITIGATION CENTER
1615 H Street, NW
Washington, DC 20062
(202) 463-5337

Counsel for Amicus Curiae

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

In accordance with D.C. Circuit Rule 28(a)(1), *amicus curiae* states as follows:

A. Parties, Intervenors, and *Amici Curiae*

These cases involve the following parties:

Petitioners:

No. 24-1120: States of West Virginia, Indiana, Alabama, Alaska, Arkansas, Florida, Georgia, Idaho, Iowa, Louisiana, Mississippi, Missouri, Montana, Nebraska, New Hampshire, North Dakota, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, and Wyoming; Commonwealths of Kentucky and Virginia.

No. 24-1121: States of Ohio and Kansas.

No. 24-1122: National Rural Electric Cooperative Association.

No. 24-1124: National Mining Association; America's Power.

No. 24-1126: Oklahoma Gas and Electric Company.

No. 24-1128: Electric Generators for a Sensible Transition.

No. 24-1142: United Mine Workers of America, AFL-CIO.

No. 24-1143: International Brotherhood of Electrical Workers, AFL-CIO.

No. 24-1144: International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers, AFL-CIO.

No. 24-1146: Midwest Ozone Group.

No. 24-1152: Edison Electric Institute.

No. 24-1153: NACCO Natural Resources Corporation.

No. 24-1155: Idaho Power Company.

No. 24-1222: Appalachian Region Independent Power Producers Association.

No. 24-1226: Rainbow Energy Center, LLC.

No. 24-1227: Montana-Dakota Utilities Co.

No. 24-1233: Westmoreland Mining Holdings LLC, Westmoreland Mining LLC, and Westmoreland Rosebud Mining LLC.

Respondents:

Respondents are the U.S. Environmental Protection Agency and Michael S. Regan, Administrator, United States Environmental Protection Agency (in Nos. 24-1120, 24-1121, 24-1122, 24-1124, 24-1126, 24-1146, 24-1153, 24-1155, 24-1222, 24-1226, 24-1227, 24-1233) and the U.S. Environmental Protection Agency (in Nos. 24-1128, 24-1142, 24-1143, 24-1144, 24-1152).

Intervenors and *Amici Curiae*:

Louisiana Public Service Commission and the Tennessee Valley Public Power Association, Inc. are Intervenor-Petitioners.

American Lung Association; Clean Air Council; American Public Health Association; Clean Wisconsin; Natural Resources Defense Council; States of New York, Arizona, Colorado, Connecticut, Delaware, Hawaii, Illinois, Maine, Maryland, Michigan, Minnesota, New Jersey, New Mexico, North Carolina, Oregon, Rhode Island, Vermont, Washington, and Wisconsin; Commonwealths of Massachusetts and Pennsylvania; Cities of Boulder, Chicago, and New York; City and County of Denver; the District of Columbia; California Air Resources Board; Edison Electric Institute; Consolidated Edison, Inc.; New York Power Authority; Pacific Gas and Electric Company; Power Companies Climate Coalition; and Sacramento Municipal Utility District are Intervenor-Respondents.

Chamber of Commerce of the United States of America is a movant-*Amicus Curiae* in support of Petitioners.

Sierra Club, Environmental Defense Fund, and Professor Rachel Rothschild are *Amici Curiae* in support of Respondents.

B. Rulings Under Review

These consolidated cases involve final agency action of the United States Environmental Protection Agency titled "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," published at 89 Fed. Reg. 39,798 (May 9, 2024).

C. Related Cases

Seventeen consolidated cases (Case Nos. 24-1120, 24-1121, 24-1122, 24-1124, 24-1126, 24-1128, 24-1142, 24-1143, 24-1144, 24-1146, 24-1152, 24-1153, 21-1155, 24-1222, 24-1226, 24-1227, 24-1233) seek review of the agency action challenged here. *Amicus curiae* is unaware of any other related cases.

CORPORATE DISCLOSURE STATEMENT

The Chamber of Commerce of the United States of America ("Chamber") states that it is a non-profit, tax-exempt organization incorporated in the District of Columbia. The Chamber has no parent corporation, and no publicly held company has 10% or greater ownership in the Chamber.

TABLE OF CONTENTS

TABLE OF AUTHORITIES

Cases **Page(s)**

Statutes

Other Authorities

GLOSSARY

BSER	Best System of Emission Reduction
CCS	Carbon Capture and Sequestration
CO_2	Carbon Dioxide
EGU	Electric Generating Unit
EPA	U.S. Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
MISO	Midcontinent Independent System Operator
NERC	North American Electric Reliability Corporation
OUCC	Indiana Office of Utility Consumer Counselor
PJM	PJM Interconnection
WECC	Western Electricity Coordinating Council

INTEREST OF *AMICUS CURIAE*

The Chamber of Commerce of the United States of America ("Chamber") is the world's largest business federation.[1] It represents approximately 300,000 direct members and indirectly represents the interests of more than 3 million companies and professional organizations of every size, in every sector, and from every region of the country. An important function of the Chamber is to represent the interests of its members in matters before Congress, the Executive Branch, and the courts. To that end, the Chamber regularly files *amicus curiae* briefs in cases, like this one, that raise issues of concern to the business community.

The Chamber supports policies that reduce greenhouse-gas emissions as much and as quickly as reasonably possible, consistent with the pace of innovation and the feasibility of implementing large-scale technical change. The Chamber also has a strong interest in ensuring

[1] *Amicus curiae* states that no counsel for any party authored this brief in whole or in part and no entity or person, aside from *amicus curiae*, its members, or its counsel, made any monetary contribution intended to fund the preparation or submission of this brief.

that agency regulations comply with the law, and that judicial review of regulations is timely and effective.

Pursuant to D.C. Circuit Rule 29(d), the Chamber certifies that a separate brief is necessary. The Chamber is aware that other *amici curiae* may file briefs in this litigation, but believes that a joint brief would not be practicable because of the significantly different interests and perspectives of the prospective *amici*. The Chamber represents the interests of over 3 million businesses from every sector and region of the country and thus has a unique perspective and experience that will aid the Court in understanding how EPA's Final Rule will affect businesses nationwide.

INTRODUCTION

Yet again, EPA is acting well outside the bounds of its statutory authority. In 2015, with the Clean Power Plan, EPA claimed to find "in the previously little-used backwater of Section 111(d)" of the Clean Air Act, *West Virginia v. EPA*, 597 U.S. 697, 730 (2022), the authority to force a transformation of the nation's power sector. The Supreme Court stayed that rule, *West Virginia v. EPA*, 577 U.S. 1126 (2016), and then, in *West Virginia*, 597 U.S. 697, confirmed that EPA had exceeded its authority in

choosing generation-shifting measures as a "best system of emission reduction" under section 111(d).

Now, just two years later, EPA is back with a different "best system of emission reduction" that stretches another part of section 111 past its breaking point. Among its other "meaningful constraints," section 111 requires that a chosen best system must have "been adequately demonstrated," 42 U.S.C. § 7411(a)(1)—meaning that EPA must "make sure the best system has a proven track record." *West Virginia*, 597 U.S. at 759 (Kagan, J., dissenting). EPA has not done so. The primary "best system of emission reduction" in the Rule[2]—90% carbon-capture-and-sequestration ("CCS") on an annual basis—does not even exist for electric generating units ("EGUs"), much less have a proven track record for EGUs.

Indeed, EPA concedes that "no commercial power plant is consistently achieving 90% capture," Resp'ts' Opp'n to Mots. to Stay Final

[2] "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," 89 Fed. Reg. 39,798 (May 9, 2024).

Rule at 44, ECF No. 2059170, and instead argues that section 111 "authorizes technology forcing, in the sense that the EPA is authorized to promote a system which is not yet in widespread use[,] provided the technology is in existence and the EPA has adequate evidence to extrapolate." 89 Fed. Reg. at 39,830. But that reading is not a plausible reading of the statute—much less the best reading, which this Court must apply. *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2266 (2024).

In addition to exceeding its statutory authority, the Rule is arbitrary and capricious on other grounds. The Rule does not meet the "adequately demonstrated" standard even under EPA's erroneous interpretation of that standard. The Rule also fails to reasonably explain how it will not jeopardize the reliability and affordability of the nation's power, which is critical to the functioning of our economy and the activities of daily life. EPA itself projects that the Rule will increase the rate of retirements of electric power generation above the rate EPA says would occur without the Rule. EPA, EPA-452/R-24-009, Regulatory Impact Analysis at 3-25 to 3-28 (Apr. 2024), EPA-HQ-OAR-2023-0072-8913 ("RIA"). That means less generation that will be available to meet

demand, regardless of weather or time of day. At the same time, the Rule will severely restrict the development of equally reliable replacement generation, even as demand for electricity is increasing and projected to soar in the coming decade. Yet, EPA failed to explain how the generation forced by the Rule to retire can or will be replaced in order to meet this growing demand.

The Rule is legally defective and should be vacated.

ARGUMENT

I. EPA Misinterpreted Clean Air Act Section 111 as a Technology-Forcing Provision.

Section 111 authorizes EPA to regulate power plants by setting a "standard of performance" for their emission of pollutants. 42 U.S.C. § 7411(a)(1). That standard must be "achievable" and reflect the "best system of emission reduction" ("BSER") that EPA determines "*has been* adequately demonstrated" for the particular source category. *Id.* (emphasis added). This requires, at the very least, that EPA must "make sure the best system has a proven track record." *West Virginia*, 597 U.S. at 759 (Kagan, J., dissenting). Under this Court's precedent, a system "has been adequately demonstrated" if it "has been shown to be 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.*, 486 F.2d at 433–34, or based on only "'prototype'" or "pilot scale" demonstration facilities. *Sierra Club*, 657 F.2d at 341 n.157.

The Rule, however, features a primary "best system of emission reduction" that lacks any meaningful track record and is not realistically available to the electric power industry. The Rule seeks to reduce greenhouse gases from new natural gas-fired, and existing coal-fired, EGUs, mainly by identifying carbon capture and sequestration ("CCS") technology with 90% CO_2 capture as BSER for these units. CCS technology is highly promising, and Chamber members are investing in developing and commercializing the technology for a range of applications. But as explained below, EPA's hypothesized CCS system for EGUs (requiring a 90% annual capture rate) does not exist at this time, and there is no evidence that it will be available in the near future. *See infra II.*

EPA acknowledges as much, but asserts that section 111 authorizes it to project a BSER that *might be* demonstrated in the future. 89 Fed.

Reg. at 39,831. EPA asserts that "the BSER can be forward-looking in nature and take into account anticipated improvements in control technologies" and, accordingly, that the Agency "may reasonably project the development of a control system at a future time." *Id.* at 39,801. On this view, EPA asserts that it is enough if "the technology is in existence and the EPA has adequate evidence to extrapolate." *Id.* at 39,830. EPA supports this reading of the statute by saying that the word "demonstrated" in section 111 should be interpreted to mean "to 'explain or make clear by using examples, experiments, *etc.*,'" suggesting all that is needed is a pilot "'demonstration project'" or "'demonstration plant'" as "examples of technological feasibility." *Id.* at 39,830–31.

As the Supreme Court recently made clear, the judiciary "must exercise independent judgment in determining the meaning of statutory provisions." *Loper Bright*, 144 S. Ct. at 2262. That inquiry begins, of course, with the text. *Ross v. Blake*, 578 U.S. 632, 638 (2016). And in reviewing that text, the Court looks to the ordinary meaning of statutory terms where a definition is not provided, *HollyFrontier Cheyenne Refining, LLC v. Renewable Fuels Ass'n*, 594 U.S. 382, 388 (2021), as well

as the "conventional rules of grammar," *Facebook, Inc. v. Duguid*, 592 U.S. 395, 402 (2021).

EPA's reading, which suggests it need merely show that the base technology underlying the chosen "system" exists, should be rejected for at least three reasons. First, EPA misconstrues both the subject and verb tense of the phrase "*has been* adequately *demonstrated*." The Agency reads the phrase to require only that "the technology is in existence." 89 Fed. Reg. at 39,830. But that rewrites 42 U.S.C. § 7411(a)(1) in two important ways: first, it changes the subject of the phrase from the "system" to the base technology, and second, it ignores the present perfect tense "has been demonstrated." Properly read, the phrase and its subject mandate not merely that some aspect of the underlying technology "exists" today; rather, the chosen "*system*" must have "a proven track record." *West Virginia*, 597 U.S. at 759 (Kagan, J., dissenting).

Second, EPA uses a secondary definition of "'demonstrate[]'"—namely, to "'explain or make clear by using examples, experiments, etc.'"—to support its view that a proven track record is unnecessary here. That interpretive move is not plausible. 89 Fed. Reg. at 39,830. The most common definitions at the time of the Clean Air Act's enactment required

far more than what EPA suggests. "Demonstrate" meant "to show clearly," "to prove or make clear by reasoning or evidence," or "to illustrate or explain esp. with many examples." WEBSTER'S SEVENTH NEW COLLEGIATE DICTIONARY 220 (1970); *see also* WEBSTER'S NEW WORLD DICTIONARY OF THE AMERICAN LANGUAGE 376 (1970) (defining "demonstrate" as "to show by reasoning; prove").

Third, EPA ignores that the system must not only be "demonstrated" but "*adequately* demonstrated." "Adequately" means "in an adequate manner," and "adequate" means "fully sufficient for a specified or implied requirement." WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY at 25 (1986). That forecloses EPA's position that it need only establish "technological feasibility" by way of a single "test or study—as in, for example, a 'demonstration project' or 'demonstration plant.'" 89 Fed. Reg. at 39,830–31. It is not enough that the technology can work in some form (say, CCS with 30% CO_2 capture) and might therefore evolve eventually into the BSER. The word "adequately" requires that the chosen *system* (CCS with 90% CO_2 capture) is "reasonably reliable, reasonably efficient, and . . . can

reasonably be expected to serve the interests of pollution control without becoming exorbitantly costly." *Essex Chem.*, 486 F.2d at 433.

To support this strained reading of the text, the Rule relies on *Portland Cement Association v. Ruckelshaus*, 486 F.2d 375 (D.C. Cir. 1973), and *Lignite Energy Council v. EPA*, 198 F.3d 930 (D.C. Cir. 1999). 89 Fed. Reg. at 39,834–35. EPA now seeks to downplay those cases. Resp. of Fed. Resp'ts in Opp'n to Appl. for Stay at 30, *West Virginia v. EPA*, No. 24A95 (U.S. Aug. 19, 2024) ("Resp'ts' Stay Opp'n"). And for good reason, as they do not support EPA's position.

First, *Portland Cement* and *Lignite Energy* were not about whether a BSER "has been adequately demonstrated," which is the relevant question here. Instead, these cases were about the "degree of emission limitation" for certain new sources. In *Portland Cement*, the petitioners 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.

Second, whatever these cases have to say, they are arguably both founded on the mistaken understanding, since corrected by the Supreme Court, that section 111 concerns *new* emission sources only. In *Portland Cement*, the court rejected any focus on "the state of the art at present" because, in its view, section 111 "is addressed to standards for new plants" only. 486 F.2d at 391. And in *Lignite Energy*, the court similarly based its conclusion on the premise that section 111 "applies only to new sources." 198 F.3d at 934. In the D.C. Circuit's view at the time, because section 111 "applies only to new sources . . . [it] looks toward what may fairly be projected for the regulated future, rather than the state of the art at present." *Id.* (cleaned up). But as the Supreme Court has since recognized, section 111 applies to *both* new and existing sources. *West Virginia*, 597 U.S. at 706.

EPA also now protests that it did not rely on any asserted authority "to 'make a projection,'" but instead found that "'the basic technology already exists.'" Resp'ts' Stay Opp'n at 30, 37. This argument relies on making an implausible distinction between projection—which EPA

claims it did not do—and extrapolation—which the Agency admits it did do. But in any event, it is irrelevant. As explained above, the legal standard—correctly understood—requires more than simply a determination that the base technology exists. The chosen system must have a proven track record. *That* is the "single, best meaning" of the statute. *Loper Bright*, 144 S. Ct. at 2266.

Nor is there merit to EPA's suggestion that it is entitled to deference on its reading of "adequately demonstrated" because section 111 "'expressly delegate[s]' to EPA the responsibility to judge adequate demonstration." Resp'ts' Stay Opp'n at 24 (quoting *Loper Bright*, 144 S. Ct. at 2263). That conflates two very distinct questions: the meaning of "adequately demonstrated," and the application of that standard. The first—what the statutory phrase "adequately demonstrated" means—is a threshold legal question on which "courts must exercise independent judgment." *See Loper Bright*, 144 S. Ct. at 2262. As the Supreme Court recognized in *Loper Bright*, even when a term or phrase "'leaves agencies with flexibility'" in application, such as in the case of the terms "appropriate" or "reasonable," the agency must still "regulate subject to the limits imposed" by those terms. *Id.* at 2263 (quoting *Michigan v.*

EPA, 576 U.S. 743, 752 (2015)). And it is the role of the Court—not the agencies themselves—to "'fix'" those "'boundaries.'" *Id.*

Finally, in fixing those boundaries, the Court must take into account the logical implications, and practical impacts, of an interpretation that would allow EPA to project "adequate[] demonstration" simply by opining that a base technology might exist in some lesser form. EPA's position that section 111 allows it to set the BSER based on projections—or "extrapolations," as the Agency prefers to say—into the future would allow it to restructure the Nation's energy market by requiring *existing* facilities to retrofit a system that may never emerge. That sort of sweeping authority is unlikely to be found in a "little-used" statutory "backwater." *West Virginia*, 597 U.S. at 730. In sum, EPA's interpretation is implausible and incorrect.

II. EPA's Chosen System of Emissions Reduction Has Not Been Adequately Demonstrated.

Even if EPA's interpretation of "adequately demonstrated" were to be accepted, the Rule would still be arbitrary and capricious. EPA's primary "best system of emission reduction" comprises three main components: (1) capturing CO_2 at an annual rate of 90%; (2) transporting it by pipeline to a storage site; and (3) storing it in deep underground

sites. But EPA has not shown that any of these components "has been adequately demonstrated," much less that all three exist as an integrated "system of emission reduction" for EGUs. And developments since EPA issued its Rule only further confirm that such an integrated system does not yet exist for EGUs.

A. EPA Has Not Presented Adequate Evidence of *Any* of the Three Components of Its Chosen Emissions Reduction.

First off, EPA's evidence fails to meet the "adequately demonstrated" standard for *any* of the three components of its chosen system of emissions reduction. As Petitioners explain, EPA has not shown any track record for 90% capture of CO_2 from EGUs. Pet'rs' Br. 45–51, ECF No. 2073644. Indeed, EPA concedes that "no commercial power plant is consistently achieving 90% capture." Resp'ts' Opp'n to Mots. to Stay Final Rule at 44. Among other things, the record shows, and EPA acknowledges, that the primary example it offers—Unit 3 of Saskatchewan Power's Boundary Dam coal plant—has failed to demonstrate capture at the sustained rate of 90% required by the Rule. Pet'rs' Br. 45–48.

Nor has EPA shown any basis for the development of a pipeline system sufficient to transport CO_2 from generating facilities nationwide to sequestration sites. In the Proposed Rule, EPA had projected the build-out of a large-scale interstate pipeline network.[3] But in the Rule, EPA has abandoned that unjustified projection. 89 Fed. Reg. at 39,855. Instead, it pivots to predicting "the construction of relatively short lateral pipelines that extend from the source to the nearest geologic storage reservoir." *Id.* But this would require a massive number of shorter pipelines to be rapidly permitted and constructed. As Petitioners explain, there is no basis in the Rule, or reality, to believe EPA's prediction that such pipeline construction will happen. Pet'rs' Br. at 63–66. As is commonly known, and as EPA itself concedes, 89 Fed. Reg. at 39,858–62, the permitting and approval process alone can take several years and often far longer in light of significant local and national opposition to the construction of CO_2 pipelines. *See, e.g.*, Chamber

[3] "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," 88 Fed. Reg. 33,240, 33,369 (proposed May 23, 2023).

Coalition Comments at 17–23 (Aug. 8, 2023), EPA-HQ-OAR-2023-0072-8196 ("Chamber Comments").

Finally, there is only speculation in the Rule about geologic sequestration of CO_2 at the scale required by the Rule. As Petitioners explain, commercial storage for the amount of CO_2 that would result from a 90% rate of capture—were that even possible and were there even sufficient pipelines for transport—is neither available now nor anticipated in the near term. Pet'rs' Br. 66–70.

B. Developments Since EPA Promulgated the Rule Reinforce What Was Clear From the Record—That EPA's Primary BSER Is Based on Speculation.

Recent developments only further confirm that 90% CCS for EGUs does not yet exist—and will not be available in the near future. In comments to EPA, the Chamber explained not only that there was then no basis for selecting 90% CCS as a BSER, but also that it was unlikely that any such basis would develop in the near term. Chamber Comments at 10–30. Events in the months since the Rule's issuance have borne out the Chamber's assessment.

For example, Illinois recently enacted a law that will significantly delay the construction of CO_2 pipelines there. On July 19, 2024, the

Governor of Illinois signed a bill that banned the construction of CO_2 pipelines until July 1, 2026, unless the Pipeline and Hazardous Materials Safety Administration ("PHMSA") finalizes new federal safety regulations before that date.[4] Even after July 1, 2026, however, the new law does not allow the Illinois Commerce Commission to issue a certificate to construct until the applicant has obtained "all required permits or approvals from the [PHMSA], U.S. Army Corps of Engineers, and Illinois Department of Agriculture, in addition to all other permits and approvals necessary for the construction and operation of the pipeline prior to the start of any construction."[5] As noted above, the permitting and approval process alone for such pipelines can take several years, and often far longer.

There is other local opposition, too. In July 2024, the Indiana Office of Utility Consumer Counselor ("OUCC") filed testimony opposing a proposed CCS study for a power plant in that state, claiming that "'the

[4] Andrew Adams, *After Years of Controversy, Illinois Pauses CO2 Pipeline Construction, For Now*, CAPITOL NEWS ILLINOIS, July 19, 2024, https://tinyurl.com/pskbfsak (last visited Sept. 12, 2024).

[5] Ill. Pub. Act 103-0651.

feasibility and affordability of a CCS system'" is "'speculative.'"[6] Across the Midwest, local residents are continuing their "fight[] to kill" the construction of CO_2 pipelines through their states.[7] In North Dakota, a utility is reconsidering its planned $2 billion CCS project in light of the significant amount of "'uncertainty'" created by EPA's section 111 Rule, as well as economic concerns.[8] And in Louisiana, environmental groups recently challenged an EPA rule granting the state authority over wells used to sequester captured carbon, arguing that Louisiana lacks the requisite expertise "in light of . . . the state's past failures regulating less complicated wells."[9] If history is any indication, such litigation can take years to resolve.

The timeline for regulatory approvals has also not improved. Approvals for CO_2 capture wells continue to lag at the federal level, with

---

[6] Sean Wolfe, *Indiana's consumer advocate wants to thwart Duke Energy's carbon capture study*, POWER ENGINEERING (July 16, 2024), https://tinyurl.com/4tej2n7k (last visited Sept. 12, 2024).

[7] Nina Elkadi, *A battle in rural Midwest as farmers fight carbon capture pipeline*, THE NEW LEDE (July 16, 2024), https://tinyurl.com/3rwkm69v (last visited Sept. 12, 2024).

[8] Carlos Anchondo, *Major coal CCS project hits delays, cost spikes*, E&E NEWS (June 25, 2024), https://tinyurl.com/4wsuhrst (last visited Sept. 12, 2024).

[9] Opening Br. of Pet'rs at 1, *Deep S. Ctr. for Env't Just. v. EPA*, No. 24-60084 (5th Cir. June 12, 2024), ECF No. 48-1.

145 applications pending before EPA as of July 19, 2024, and only four final permit decisions issued.[10] In some cases, EPA projects that it will take nearly three years to complete its "technical review" of a single well application.

In the face of these and other challenges, a number of potential CCS projects have also been scrapped since EPA issued its Rule. In November 2023, Wolf Carbon Solutions withdrew its application for a proposed 260-mile CO_2 pipeline in light of concerns expressed by state regulators.[11] And in Wyoming, another company recently announced that it was scrapping plans to build a "direct air" carbon capture facility in the state due to competition for renewable energy from data centers.[12]

Consistent with these recent developments, the National Academies of Science, Engineering, and Medicine published a congressionally mandated report in August 2024, providing a "sober look"

---

[10] Underground Injection Control (UIC) Class VI Permit Tracker (last updated July 19, 2024), available at https://tinyurl.com/34h4tm6d.

[11] Nara Schoenbert, *Wolf Carbon Solutions pauses its bid for Illinois approval of a controversial 260-mile CO2 pipeline*, CHICAGO TRIBUNE (Nov. 26, 2023), https://tinyurl.com/3hmkjszd (last visited Sept. 12, 2024).

[12] Corbin Hiar, *Project Bison fails. What's next for the carbon removal megaproject?*, E&E NEWS (Sept. 5, 2024), https://tinyurl.com/5n7n72dj (last visited Sept. 12, 2024).

at the "difficult tasks" associated with the development and build-out of "carbon utilization infrastructure," including CCS.[13] This "comprehensive" report, which included input from more than 70 experts in the field, noted the significant "disparity between present capacity and the required infrastructure" to achieve CCS at scale, with the "largest disparity" associated with "CO_2 capture."[14]

The report also determined that the "scale and geographic distribution of present transport capacity does not support the creation of a nationwide CO_2 utilization network."[15] In particular, the National Academies recognized that "CO_2 pipeline development [also] faces regulatory challenges and public opposition," citing the "recent cancellation of a 1300-mile CO_2 pipeline" in the Midwest as "highlight[ing] such barriers."[16]

In short, the report found that the "[p]rimary barriers to CO_2 utilization development are the cost of CO_2 capture and, in cases where

---

[13] National Academies of Sciences, Engineering, and Medicine. 2024. *Carbon Utilization Infrastructure, Markets, and Research and Development: A Final Report* at xiii, Washington, DC: The National Academies Press, https://doi.org/10.17226/27732.

[14] *Id.* at xiii, 420.

[15] *Id.* at 421.

[16] *Id.* at 431.

onsite CO_2 utilization is not feasible, transportation infrastructure costs."[17] Far from a system that has been adequately demonstrated, the report concluded that "[p]otential infrastructure development scenarios … are speculative"; that "additional research is needed to understand and mitigate risks [of] … CO_2 transport"; and that "[d]evelopment of infrastructure to transport CO_2 … could be the limiting factor in scaling up CO_2 utilization given the significant costs, long-lead times, and public concern."[18]

III. The Rule Is Also Arbitrary and Capricious Because the Rule Fails to Explain How It Will Not Jeopardize the Reliability of the Nation's Power.

Agency action is also arbitrary and capricious if the agency failed to "examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'" *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (citation omitted). EPA failed to meet that standard here because it did not explain how the generation

[17] *Id.* at 444.
[18] *Id.* at 445, 455.

forced to retire as a result of its Rule can or will be replaced, and how the Rule will not therefore jeopardize electric reliability.

As the Chamber explained to EPA, electricity demand is expected to surge in the coming years and decades, due in part to the widespread electrification of the transportation, manufacturing, and housing sectors. Chamber Comments at 34. Data center and AI growth are expected to accelerate this trend. According to a recent report, AI alone is projected to drive a 160% increase in data center power demand by 2030, contributing to a "spike in power demand [that] hasn't been seen in the US since the early years of this century."[19]

The Chamber also noted that state public utility commissions and regional grid operators have been increasingly vocal about reliability concerns, in the face of this expected surge in demand. Chamber Comments at 33. And State PUCs and regional grid operators have continued to raise these concerns. 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

[19] Goldman Sachs, *AI is poised to drive 160% increase in data center power demand*, May 14, 2024, https://tinyurl.com/2a6d3rcb (last visited Sept. 12, 2024).

already operating near the limits of its resource availability. In a recent report, MISO stated that it is time "to face some hard realities," including "immediate and serious challenges to the reliability of our region's electric grid."[20] MISO recognized the need for "new dispatchable generation"—that is, generation "that can be turned on and off and adjusted as needed"[21]—in light of "the conventional dispatchable coal and natural gas resources that are being retired."[22] "A key risk is that many existing '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."[23] While "several emerging technologies may someday change that calculus, they are not yet proven at grid scale."[24] Until then, MISO "will continue to need dispatchable resources for reliability purposes."[25]

---

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

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

[22] *Id.* at 2.

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

[24] *Id.*

[25] *Id.*

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.[26] In a recent assessment, NERC found "clear evidence of growing resource adequacy concerns over the next 10 years," and identified large areas of the country at a "high" risk of failing to meet demand, including MISO's 15-state area.[27] In just four years, "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."[28]

The same is true in other parts of the country. SERC a reliability corporation serving more than 97 million customers across 16 mainly southeastern states, faces an energy shortfall in the 2025-2027 period "'as

---

[26] 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).

[27] NERC, *2023 Long-Term Reliability Assessment* at 6-9 (Dec. 2023), https://tinyurl.com/bdm36c27.

[28] *Id.* at 7-9. For context, 1 GW is generally enough energy to power about 750,000 homes. California ISO, *Understanding electricity*, https://tinyurl.com/2p9tbykp (last visited Sept. 12, 2024).

demand forecasts increase faster than the transitioning resource mix grows.'"[29] Likewise, the Western Electricity Coordinating Council ("WECC"), which manages grid reliability in 14 western states and parts of Canada and Mexico, recently identified data centers as an "'emerging risk'" to reliability.[30] According to the WECC, new data centers "are far outpacing the growth in new electrical energy supply and transmission," presenting a "major challenge to grid reliability" in the region.[31]

PJM Interconnection, the regional grid operator responsible for ensuring reliability for 65 million people across 13 states and the District of Columbia, has seen dramatic increases in electric generation capacity prices across its region.[32] For example, electricity consumers across PJM's footprint will pay $14.7 billion for capacity in the 2025/2026

---

[29] Robert Walton, *Rising peak demand, 83 GW of planned retirements create blackout risks for most of US: NERC*, UTILITY DIVE (Dec. 14, 2023) https://tinyurl.com/565uzset (last visited Sept. 12, 2024).

[30] Alex Baumhardt, *Energy Demand From Data Centers Growing Faster Than West Can Supply, Experts Say*, INVESTIGATEWEST (Aug. 27, 2024), https://tinyurl.com/y6enjh68 (last visited Sept. 12, 2024).

[31] *Id.*

[32] Ethan Howland, *PJM capacity prices hit record highs, sending build signal to generators*, UTILITY DIVE (July 31, 2024), https://tinyurl.com/bdzfzr78 (last visited Sept. 12, 2024).

delivery year, a $12.5 billion increase over the current years.[33] These "unprecedented costs" will be passed onto customers, with some seeing monthly bills increase by as much as 24 percent in the coming years.[34]

To the extent that EPA's Rule is not already impacting generation markets, the Rule is poised to make all this worse. Because the Rule imposes a system that has not yet been adequately demonstrated and currently is very costly, it is likely to cause widespread retirement of dispatchable generation while simultaneously preventing the development of new generation resources—exactly the problem that is causing reliability (and also now cost) concerns across the country. EPA's own modeling projects that the vast majority of regulated EGUs will not implement CCS but will instead retire. RIA at 3-25 to 3-28. According to EPA, this increased rate of retirements "reflect[s] EGU operators making least-cost decisions on how to achieve efficient compliance" with the Rule. *Id.* at 3-28.

---

[33] Office of People's Counsel, State of Maryland, *Bill and Rate Impacts of PJM's 2025/2026 Capacity Market Results & Reliability Must-Run Units in Maryland* (Aug. 2024), https://tinyurl.com/c856d9tw.

[34] *Id.* at 30.

In an August 13, 2024, response to a Congressional inquiry, FERC Commissioner Mark C. Christie concurred. According to Commissioner Christie, EPA's Rule will "have a very damaging impact on grid reliability by forcing the premature retirements of vitally needed dispatchable generation units and preventing the construction of sufficient new dispatchable resources."[35] This "loss of vitally needed dispatchable generation resources will be catastrophic," and there is "very little FERC can do to reverse the effects" of EPA's Rule.[36] "[O]nce critically needed power plants retire," Commissioner Christie explained, "they are gone."[37]

PJM has expressed similar concerns about the Rule.[38] According to PJM, EPA's Rule 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 "as a

---

[35] Letter from FERC Comm'r Christie to the Hon. Cathy McMorris Rodgers, Chair, Committee on Energy and Commerce, U.S. House of Representatives, et al., responding to questions re: EPA's Clean Power Plan 2.0 at 1 (Aug. 13, 2024), https://tinyurl.com/r929r8vd.

[36] *Id.* at 2.

[37] *Id.*

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

result of new data center load, electrification of vehicles and increased electric heating load."[39]

Yet, despite being presented with the issue during the rulemaking process, EPA never explained how the Rule will not jeopardize electric reliability. Among other things, EPA did not explain how fossil generation forced to retire because of the Rule can or will be replaced at current levels and with similar dispatch characteristics. As the Chamber noted in supplemental comments, EPA's failure to address reliability concerns came up at FERC's annual reliability conference in November 2023 at which EPA answered questions from FERC Commissioners on the proposed rule. Chamber Supplemental Comments at 1, 10, Ex. A (Dec. 20, 2023), EPA-HQ-OAR-2023-0072-8196. FERC Commissioner Danly noted that while EPA's technical support documents may have attempted to address "resource adequacy," EPA did not separately address the distinct concept of "reliability" prior to issuing its proposal.[40] As Commissioner Danly explained, "'the term resource adequacy is defined as the provision of adequate generating resources to meet

[39] *Id.* at 3.

[40] Transcript of FERC 2023 Reliability Technical Conference at 175, Docket No. AD23-9-000 (Nov. 9, 2023), https://tinyurl.com/nhh64d29.

projected load and generating reserve requirements in each power region, while reliability includes the ability to deliver the resources to the loads, such that the overall power grid remains stable.'"[41]

In sum, the Rule is arbitrary and capricious because EPA failed to reasonably address reliability issues that were before the agency. *State Farm*, 463 U.S. at 43 (agency action is arbitrary and capricious if the agency "entirely failed to consider an important aspect of the problem"); *Ohio v. EPA*, 144 S. Ct. 2040, 2053–54 (2024) (agency must offer a reasoned response to substantial comments).

CONCLUSION

The Petitions should be granted and the Rule vacated.

Dated: September 13, 2024

Respectfully submitted,

/s/ Elbert Lin

Elbert Lin
HUNTON ANDREWS KURTH LLP
Riverfront Plaza, East Tower
951 East Byrd Street
Richmond, VA 23219
(804) 788-8200
elin@huntonak.com

[41] Letter from FERC Comm'r Danly to Senators Barrasso and Capito at 2 (Nov. 8, 2023), https://tinyurl.com/2nszx7wn.

Brent A. Rosser
Hunton Andrews Kurth LLP
One South at the Plaza, Suite 3500
101 South Tryon Street
Charlotte, North Carolina 28280
(704) 378-4700

F. William Brownell
Matthew Z. Leopold
Erica N. Peterson
Hunton Andrews Kurth LLP
2200 Pennsylvania Ave. NW
Washington, DC 20037
(202) 955-1500

Andrew R. Varcoe
Christopher J. Walker
U.S. CHAMBER LITIGATION CENTER
1615 H Street, NW
Washington, DC 20062
(202) 463-5337

Counsel for Amicus Curiae
Chamber of Commerce of the
United States of America

CERTIFICATE OF COMPLIANCE

The undersigned counsel states that this document complies with Federal Rules of Appellate Procedure 27(d)(2) and 29(a)(5) because it contains 5,627 words, as counted by Microsoft Word, excluding the parts excluded by Federal Rules of Appellate Procedure 27(d)(2) and 32(f) and D.C. Circuit Rule 32(e)(1).

This document also complies with the typeface and type-style requirements of Federal Rules of Appellate Procedure 27(d)(1)(E) and 32(a)(5) and (6) and Local Rule 27(a)(2) because it has been prepared in a proportionally spaced typeface in 14-point Century Schoolbook font.

/s/ Elbert Lin

CERTIFICATE OF SERVICE

I certify that on this 13th day of September, 2024, a copy of the foregoing document was served electronically through the Court's CM/ECF system on all registered counsel.

/s/ Elbert Lin