

ORAL ARGUMENT NOT YET SCHEDULED**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.

Case No. 24-1120
(and consolidated cases)

**UNOPPOSED MOTION OF ENVIRONMENTAL DEFENSE FUND FOR
LEAVE TO FILE BRIEF AS *AMICUS CURIAE* IN OPPOSITION TO
MOTIONS TO STAY THE FINAL RULE**

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CIRCUIT RULE 26.1 CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1 and Circuit Rule 26.1, Movant *Amicus Curiae* Environmental Defense Fund states that it is a non-profit environmental and public health organization. Environmental Defense Fund has no parent corporation nor any publicly held corporation that owns 10% or more of its stock.

Dated: June 11, 2024

/s/ Sean H Donahue
Sean H. Donahue

**UNOPPOSED MOTION OF ENVIRONMENTAL DEFENSE FUND FOR
LEAVE TO FILE BRIEF AS *AMICUS CURIAE* IN OPPOSITION TO
MOTIONS TO STAY THE FINAL RULE**

Pursuant to Federal Rule of Appellate Procedure 29(a)(2)-(3) and D.C. Circuit Rule 29(b), Environmental Defense Fund (EDF) respectfully seeks leave to submit a brief as *amicus curiae* in opposition to the eight pending motions to stay the Environmental Protection Agency's final rule to reduce carbon dioxide emissions from important categories of power plants, 89 Fed. Reg. 39,789 (May 9, 2024). EDF has consulted with the parties to these consolidated cases regarding this motion. All parties who responded either consented to, did not oppose, or took no position on EDF's proposed submission of an amicus brief in opposition to the stay motions.

EDF is a national non-profit, nongovernmental, and non-partisan environmental organization with members, offices, and staff across the United States who are carrying out the organization's mission to build a vital earth for everyone. Our key priorities are to stabilize the climate and strengthen people's ability to thrive in a changing climate. EDF pursues these aims by using science, economics, law, and uncommon partnerships to find practical and lasting solutions to challenging environmental problems.

Petitioners challenge EPA's carbon dioxide standards for fossil-fuel fired power plants. These standards require reductions in carbon emissions and will result

in significant climate and health benefits for communities across the country, furthering the interests of EDF and its members, and increasing society's chances of avoiding the worst dangers of climate change.

EDF respectfully submits that its participation as *amicus* would assist the Court in its consideration of this case. EDF has extensive knowledge and experience concerning air quality control, the Clean Air Act, and impacts of greenhouse gas and other air pollution on public health and the environment. For years, EDF has been involved in administrative and legal proceedings regarding Clean Air Act requirements concerning carbon pollution from power plants, including the instant rulemaking.

WHEREFORE, proposed *amicus* respectfully requests leave to file a brief of *amicus curiae* and in opposition to a stay of the final rule.

Respectfully submitted,

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Counsel for Amicus Curiae

Dated: June 11, 2024

CERTIFICATE OF COMPLIANCE

This motion has been prepared in a proportionally spaced, 14-point Times New Roman font and contains 322 words.

/s/ Sean H. Donahue
Sean H. Donahue

Dated: June 11, 2024

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.

Respondents: The respondents in cases 24-1120, 24-1121, 24-1122, 24-1124, 24-1126, 24-1146, 24-1153, 24-1155 are the U.S. Environmental Protection Agency and Michael S. Regan, Administrator, United States Environmental Protection Agency. Respondent in cases 24-1128, 24-1142, 24-1143, 24-1144, 24-1152 is the U.S. Environmental Protection Agency.

Intervenors: 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; and Edison Electric Institute are intervenors for respondents. Tennessee Valley Power Association and Louisiana Public Service Commission are movant-intervenors for petitioners.

Amici: Chamber of Commerce of the United States of America is a movant-*Amicus Curiae* in support of Petitioners and Environmental Defense Fund, Sierra Club, and Professor Rachel Rothschild are movants-*Amicus 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

Thirteen 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, 24-1155) seek review of the agency action challenged here. *Amicus curiae* is unaware of any other related cases.

CERTIFICATE OF SERVICE

I hereby certify that, on this 11th day of June, 2024, I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the District of Columbia Circuit using the Court's CM/ECF system, which will send notice of such filing to all counsel who are CM/ECF registered users.

/s/ Sean H. Donahue

Sean H. Donahue

Dated: June 11, 2024

ORAL ARGUMENT NOT YET SCHEDULED

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v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

PETITION FOR REVIEW OF A FINAL AGENCY ACTION OF THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**BRIEF OF THE ENVIRONMENTAL DEFENSE FUND AS *AMICUS*
CURIAE IN OPPOSITION TO MOTIONS TO STAY**

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Dated: June 11, 2024

/s/ Sean H Donahue
Sean H. Donahue

RULE 29 STATEMENTS

Amicus Curiae certifies that no party in these consolidated proceedings opposes the filing of this amicus brief.

Pursuant to Fed. R. App. P. 29(a)(4), *Amicus* states that no party or party's counsel authored this brief in whole or in part, and that no other person besides *Amicus* or its counsel contributed money that was intended to fund preparing or submitting the brief.

Pursuant to D.C. Cir. R. 29(d), *Amicus* states that a separate brief is necessary in order to reflect the distinct perspective of *Amicus* on the multiple stay motions that have been filed, and in light of the compressed time frame for responding to such motions.

/s/ Sean H. Donahue
Sean H. Donahue

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GLOSSARY

CCS	Carbon Capture and Sequestration
EDF	Environmental Defense Fund
EEI	Edison Electric Institute
EGST	Electric Generators for a Sensible Transition
EPA	U.S. Environmental Protection Agency
Infrastructure Act	Infrastructure Investment and Jobs Act of 2021
NMA et al.	National Mining Association and America's Power
Rules	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)

INTEREST OF *AMICUS CURIAE*

Amicus Environmental Defense Fund (“EDF”) is a nonprofit nonpartisan public interest organization, guided by science and law, and dedicated to reducing climate pollution and strengthening the ability of people and nature to thrive while addressing the climate change impacts people experience now.

INTRODUCTION AND SUMMARY OF ARGUMENT

In *West Virginia v. EPA*, the Supreme Court concluded that Section 111 of the Clean Air Act, 42 U.S.C. § 7411, is generally “limited to ensuring the efficient pollution performance of each individual regulated source,” 597 U.S. 697, 726-28 (2022). The Rules challenged here fall squarely *within* that scope; they rely on technologies (carbon capture and sequestration (“CCS”) and co-firing) that reduce emissions from individual sources. As EPA explained, CCS “is a traditional, add-on control intended to reduce the emissions performance of individual sources.” 89 Fed. Reg. 39,798, 39,901 (May 9, 2024). Indeed, CCS is akin to “scrubber” technologies that have, since the inception, served as the “best system of emission reduction” under Section 111. *See Essex Chemical Corp. v. Ruckelshaus*, 486 F.2d 427, 439-41 (D.C. Cir. 1973). Here, as there, EPA’s application of the statutory factors to the evidence in the record reveals no “clear error of judgment.” *Id.* at 440 (citing *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402, 416 (1971)). Movants urge the Court to second-guess EPA’s determinations about technical

feasibility, efficacy, cost, and timing—matters squarely within EPA’s technical expertise. *See id.*; *Lignite Energy Council v. EPA*, 198 F.3d 930, 933 (D.C. Cir. 1999).

The stay motions do not meet the standards for extraordinary relief. Movants should not be allowed to leverage their own inaction on carbon pollution as a basis to further delay regulatory action. Such arguments defy Section 111, which Congress designed to propel implementation of pollution controls even when (*unlike* the established CCS techniques here) the relevant technologies are nascent. Furthermore, the stay motions ignore recent acts of Congress that directly support EPA’s Rules, including large federal investments in CCS in the 2021 Infrastructure Investment and Jobs Act (“Infrastructure Act”) and the 2022 Inflation Reduction Act, and a new Clean Air Act section directly addressing regulation of power-sector greenhouse-gas emissions.

ARGUMENT

I. STAY MOVANTS PERVERSELY SEEK TO TURN PAST INACTION ON CARBON EMISSIONS INTO AN EXCUSE FOR CONTINUED INACTION, CONTRAVENING SECTION 111.

For decades, fossil-fired power plants have emitted more dangerous climate-warming pollution than any other stationary sources.¹ Coal-fired plants, specifically, are the country's largest industrial sources of carbon pollution, responsible for more than half of all power-sector emissions in 2022.² New gas-fired plants, if uncontrolled, will emit millions of tons of greenhouse-gas pollution over their lifetimes.

Uncontrolled power-plant climate pollution has a massive cost. Once emitted, carbon dioxide remains in the atmosphere for centuries, compounding health, safety, and environmental harms.³ Americans are today suffering from extreme storms and floods, rising temperatures, wildfires and wildfire smoke, unhealthy air quality, illness, threats to food and water supplies, unstable insurance

¹ See 89 Fed. Reg. at 39,799 (citing EPA, *Sources of Greenhouse Gas Emissions* (2024), <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>).

² See U.S. Energy Information Admin., *Coal and the Environment* (2024), <https://www.eia.gov/energyexplained/coal/coal-and-the-environment.php>.

³ See Intergovernmental Panel on Climate Change, *Summary for Policymakers*, in CLIMATE CHANGE 2023: SYNTHESIS REPORT 17 (2023), https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf (“Risks are increasing with every increment of warming”).

markets, and lost homes due to the accumulated stocks of greenhouse gases.⁴ Each additional ton of carbon dioxide emitted into the atmosphere contributes to the mounting climate crisis.

Meanwhile, the public has waited too long for critical Clean Air Act protections. Although EPA has long been under a statutory obligation to control harmful climate pollution, *see* 42 U.S.C. § 7411(b), (d); *West Virginia*, 597 U.S. at 710, litigation and administrative delays have forestalled implementation of the limits Congress mandated. *See, e.g., West Virginia v. EPA*, 577 U.S. 1126 (2016) (staying Clean Power Plan); 84 Fed. Reg. 32,520 (July 8, 2019) (repealing and replacing Clean Power Plan); *Am. Lung Ass’n v. EPA*, 985 F.3d 914 (D.C. Cir. 2021) (vacating replacement rule), *rev’d by West Virginia*, 597 U.S. at 700. Industry has profited from these delays while the public has paid the price—in significant climate-change harms and technological progress that federal standards would have prompted.

Yet Movants seek more delay. Their central theme is that CCS is not “adequately demonstrated.” *See* 42 U.S.C. § 7411(a)(1). But they deal only selectively with EPA’s substantial record, ignoring the robust evidence supporting

⁴ *See* 89 Fed. Reg. at 39,799 n.2; National Center for Environmental Information, *Billion-Dollar Weather and Climate Disasters: Overview*, <https://www.ncei.noaa.gov/access/billions/> (enumerating sharply increasing large weather and climate disasters).

EPA’s determinations. Worse, Movants seek to exploit the fact that owners of fossil-fired plants have largely managed to avoid greenhouse-gas regulation as a basis for further delay—insisting that, even though all technological components are available (*see* 89 Fed. Reg. at 39,845-47), industry’s failure to adopt CCS broadly forecloses EPA from deciding that it meets the statutory criteria.⁵

As Respondents show, that position is contrary to the statute and to precedent. And the main reason carbon controls at power plants are limited is simple: throughout much of the nation, *there has never been an enforceable standard to control those emissions to a meaningful degree*. Absent any such requirement, plants have not invested in carbon controls and instead have externalized the costs of their pollution onto the public. The absence of widespread adoption proves nothing about whether CCS is “adequately demonstrated.” The Court should reject Movants’ self-justifying regulatory immunity.

⁵ *See, e.g.*, ECF#2056359 at 11 (NMA, et al.) (“CCS ... has never been achieved at the level mandated by the Final Rule, and so is not adequately demonstrated.”); ECF#2056352 at 9 (EEI) (“EPA fails to show that any of [its CCS] examples operates at sufficient scale”); ECF#2056364 at 9-10 (EGST) (“experience is quite limited with using CCS”); ECF#2054190 at 6-7 (West Virginia, et al.); ECF#2055522 at 7 (Ohio and Kansas).

II. SECTION 111 IS DESIGNED TO ENCOURAGE IMPLEMENTATION OF POLLUTION-CONTROL TECHNOLOGY AND DOES NOT REQUIRE THAT TECHNOLOGY ALREADY BE WIDELY DEPLOYED

Movants' stagnant conception of Section 111 ignores the provision's role in driving technology deployment. Congress *did not* require "best system" technology to "be in actual routine use somewhere," S. Rep. No. 91-1196, at 16 (1970), instead underscoring that Section 111 standards "should provide an incentive for industries to work toward constant improvement in techniques for preventing and controlling emissions from stationary sources," *id.* at 17; *see also* S. Rep. No. 95-127, at 17-18 (1977) ("[Section 111] sought to assure the use of available technology and to stimulate the development of new technology."); 89 Fed. Reg. at 39,830-32 (discussing history).

This Court has recognized the technology-forcing character of Clean Air Act Section 111. *See Sierra Club v. Costle*, 657 F.2d 298, 346-47, 364 (D.C. Cir. 1981); *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973) ("Section 111 looks toward what may fairly be projected for the regulated future, rather than the state of the art at present"). EPA has long employed Section 111 to promulgate standards that drive development and deployment of technology that,

while adequately demonstrated, is not in wide use.⁶ For example, when EPA promulgated the 1971 sulfur dioxide standard based on sulfur scrubbers, only three power plants used such scrubbers and only one vendor sold them. Within six years, those numbers increased to fourteen vendors and 119 scrubbers installed, under construction, or planned.⁷

Movants' claims disregard congressional intent, judicial precedent, and EPA's longstanding practice of setting standards to spur the dissemination (and

⁶ See, e.g., *Essex Chem.*, 486 F.2d at 436-37 (finding operation of technology at one plant can serve as the basis for adequate demonstration); *Lignite Energy Council*, 198 F.3d at 934 (upholding standard for industrial boilers where EPA based the standard solely on the technology's performance at utility boilers); *Sierra Club*, 657 F.2d at 363-64 (upholding standard based on a higher degree of control than had been achieved by existing sources); see also Dena Adler & Andrew Stawasz, Inst. for Policy Integrity, *Defining "Adequately Demonstrated:" EPA's Long History of Forward-Looking Regulations under Section 111 of the Clean Air Act* 5-8 (2024), https://policyintegrity.org/files/publications/EPA%E2%80%99s_Long_History_of_ForwardLooking_Standards_Under_Section_111_of_the_Clean_Air_Act_Policy_Brief.pdf; Larry Parker, et al., *Climate Change: Potential Regulation of Stationary Greenhouse Gas Sources Under the Clean Air Act* 17 (Congressional Research Serv. 2009) ("It is an understatement to say that the new source performance standards promulgated by the EPA were technology-forcing." (quoting Donald Shattuck, et al., *A History of Flue Gas Desulfurization (FGD)—The Early Years*, UE Technical Paper (2007))).

⁷ Parker, et al., *supra*, at 18; EPA, Press Release, *EPA Says Scrubbers Necessary for Health Protection Under Coal Conversion Plan* (July 14, 1977), <https://www.epa.gov/archive/epa/aboutepa/epa-says-scrubbers-necessary-health-protection-under-coal-conversion-plan.html>.

even the development) of control technology.⁸ Although Movants would prefer to address climate pollution on their own schedule, *see, e.g.*, ECF#2056352 at 23 (EEI) (“Once CCS is in fact adequately demonstrated, EEI’s members will deploy it”), the Clean Air Act prioritizes public health and welfare. Section 111 authorizes EPA to “force” technology development through regulation; *a fortiori* it allows EPA to predicate standards upon technologies like CCS that are well established though not yet “in widespread use.” 89 Fed. Reg. at 39,832. Indeed, in support of its determination, EPA exhaustively explained that each component of the CCS requirement is achievable and that CCS is “ripe for wider implementation,” *id.* at 39,939.

III. MOVANTS IGNORE RECENT ACTS OF CONGRESS THAT DIRECTLY SUPPORT THE RULES

Though one would never know it from the stay motions, Congress recently enacted two major statutes that provide “important context” for and directly support EPA’s Rules. *See* 89 Fed. Reg. at 39,820; *see also id.* at 39,800, 39,806, 39,822 & nn.166-69, 39,851. In the 2021 Infrastructure Act and the 2022 Inflation Reduction Act, Congress provided major financial support for the deployment of power-sector CCS. And in the latter, Congress specifically directed EPA to do

⁸ *See* Margaret Taylor, et al., *Regulation as the Mother of Innovation: The Case of SO₂ Control*, 27 L. & Pol’y 349, 356, 362 fig.4 (2005) (detailing how regulation drove development of technologies, resulting in the U.S. scaling and selling them globally).

what the agency has done here: use the Clean Air Act to reduce climate pollution beyond the substantial reductions expected from market forces and voluntary action. *See* 42 U.S.C. § 7435(a)(6). Movants’ silence on the recent enactments is telling.

The legislation undercuts Movants’ arguments in multiple respects. First, by providing substantial financial support for CCS, these statutes contribute to cost-reasonableness of the standards and enable greater stringency under a statute that makes “cost” an explicit part of EPA’s rulemaking. *See* 42 U.S.C. § 7411(a)(1); 89 Fed. Reg. at 39,820 (statutory investments “influence where control technologies can be feasibly and cost-reasonably deployed”). In the Infrastructure Act, Congress invested billions of dollars in grants and low-interest loans to support expansion of power-plant CCS. Pub. L. No. 117-58, §§ 40301-40308, 135 Stat. 986, 986-1005 (2021). Those investments include funds for carbon-capture hubs, related infrastructure (*e.g.*, pipelines, transport), and carbon-storage projects. 89 Fed. Reg. at 39,934. In the Inflation Reduction Act, Congress greatly expanded—by fivefold—the value of “Section 45Q” tax credits for CCS. Pub. L. No. 117-169, § 13104, 136 Stat. 1924 (2022); *see also* 89 Fed. Reg. at 39,800 (discussing the establishment and expansion of 45Q credits).⁹ The two statutes thus

⁹ Many Movants celebrated these investments. *See e.g.*, EEI, *Statement on the Inflation Reduction Act Being Signed Into Law* (Aug. 15, 2022),

incentivize and facilitate the deployment of CCS ... [and] support the EPA's conclusion that CCS is the [best system] ... because it is an adequately demonstrated and available control technology that significantly reduces emissions of dangerous pollution and because the costs of its installation and operation are reasonable.

89 Fed. Reg. at 39,800.

Second, the legislation provides recent, conspicuous confirmation that, for Congress, reducing power plant climate pollution “is a high priority” and one that Congress meant for EPA to play a primary role in addressing—contrary to reflexive arguments (e.g., ECF#2054190 at 4, 6, 14-15 (West Virginia, et al.); ECF#2056364 at 5-7 (EGST); ECF#2056359 at 10-11 (NMA et al.)) that the Rules implicate a “major question” that Congress did not authorize EPA to address.

The Inflation Reduction Act effected “[t]he most important and far-reaching amendments to the [Clean Air Act] in more than a generation,” 168 Cong. Rec. E868 (2022) (Statement of Chair Frank Pallone, Jr.)—including Section 135, the “Low Emissions Electricity Program.” 42 U.S.C. § 7435. Among other initiatives,

<https://www.eei.org/en/news/news/all/eei-statement-on-the-inflation-reduction-act-being-signed-into-law> (“[T]hese policies strongly support the technologies needed to accelerate the deployment of new clean energy resources ... provid[ing] significant long-term benefits to electricity customers across America.”); Duke Energy, *Federal Infrastructure Funding*, <https://www.duke-energy.com/partner-with-us/infrastructure-investment-jobs-act> (last visited June 10, 2024) (calling the 2021 and 2022 acts an “historic investment in clean energy infrastructure”); Am. Pub. Power Ass’n, *APPA Applauds House Passage of the Inflation Reduction Act* (Aug. 12, 2022), <https://www.publicpower.org/publication/appa-applauds-house-passage-inflation-reduction-act>.

Section 135 requires EPA “to assess [by August 2023], the reductions in greenhouse gas emissions that result from changes in domestic electricity generation and use that are anticipated” through 2031, and “to *ensure* that reductions in greenhouse gas emissions are achieved through use of the *existing authorities* of [the Clean Air Act], incorporating the [required baseline] assessment.” *Id.* § 7435(a)(5)-(a)(6) (emphasis added). Thus, it requires EPA to employ the Act’s existing authorities to reduce greenhouse-gas emissions above and beyond the baseline reductions expected to occur from other causes. Indeed:

Congress understood in requesting this assessment that the process of decarbonizing U.S. electricity production was already well underway and accelerating even prior to enactment of the IRA.... By requiring a ‘reduction’ that incorporates EPA’s assessment, Congress is directing the Agency to use the authorities of the [Act] to achieve greater reductions than would otherwise be achieved.

Greg Dotson and Dustin J. Maghamfar, *The Clean Air Act Amendments of 2022: Clean Air, Climate Change, and the Inflation Reduction Act*, 53 *Envtl. L. Rep.* 10017, 10033 (2023). Section 111 of the Clean Air Act—enacted in 1970 and strengthened twice thereafter—is of course one of the “existing authorities” referenced in 42 U.S.C. § 7435(a)(6). *See* 168 *Cong. Rec.* E868 (2022) (Rep. Pallone noting “[t]hese ‘existing authorities’ include CAA Section 111”). Movants’ rote assertions that the Rules trigger “major questions,” *see* ECF#2054190 at 3, 13-15, even as Movants completely ignore important recent legislation that directly supports EPA’s Rules, confirms that Movants’ arguments

have little to do with respecting Congress's will. Enacted immediately after *West Virginia*, the Inflation Reduction Act provides contemporary and clear confirmation of congressional intent that EPA regulate power-plant carbon, taking into account the newly provided incentives in so doing. Since the Rules follow this fresh legislative command and use the "traditional" technology-based approach recognized in *West Virginia*, there is no foothold for Movants' major-questions claims.

Finally, it is significant that Congress has, in new Section 135(a)(6), funded and directed EPA to use Clean Air Act authorities to achieve emissions reductions *beyond* the reductions expected from ongoing clean-energy trends. Congress recognized that the public interest favors emissions reductions from fossil-fired plants themselves, *see also West Virginia*, 597 U.S. at 709-710, and is not fully vindicated simply because "the electric generating industry" has "already significantly reduced emissions," ECF#2056364 at 28, by replacing some fossil generation with clean power. Furthermore, that Congress obligated EPA to "ensure" that emissions reductions occur through 2031, 42 U.S.C. § 7435(a)(5), (6), shows that Congress, unlike Movants, understands that reduction of power-plant climate pollution is highly time-sensitive.

CONCLUSION

The Court should deny the motions to stay the Rules.

June 11, 2024

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

I hereby certify that the foregoing *Amicus Curiae* Brief contains 2554 words, excluding exempted portions, and was composed in Times New Roman font, 14-point. I certify that the foregoing complies with applicable type-volume and typeface requirements.

Dated: June 11, 2024

/s/ Sean H. Donahue
Sean H. Donahue

CERTIFICATE OF SERVICE

I hereby certify that on June 11, 2024, I have served the foregoing brief on all registered parties through the Court's electronic case filing (CM/ECF) system.

/s/ Sean H. Donahue
Sean H. Donahue

ADDENDUM

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(3) encourage the energy industry to improve the opportunities for students of minority-serving institutions, veterans, and displaced and unemployed energy workers to participate in internships, preapprenticeships, apprenticeships, and cooperative work-study programs in the energy industry; and

(4) work with the National Laboratories to increase the participation of underrepresented groups, veterans, and displaced and unemployed energy workers in internships, fellowships, training programs, and employment at the National Laboratories.

(f) TERM.—

(1) IN GENERAL.—Subject to paragraph (2), the Board shall terminate on September 30, 2026.

(2) EXTENSIONS.—The Secretary may renew the Board for 1 or more 5-year periods by submitting, not later than the date described in subsection (d), a report described in that subsection that contains a determination by the Secretary that the Board should be renewed.

TITLE III—FUELS AND TECHNOLOGY INFRASTRUCTURE INVESTMENTS

Subtitle A—Carbon Capture, Utilization, Storage, and Transportation Infrastructure

42 USC 16292
note.

SEC. 40301. FINDINGS.

Congress finds that—

(1) the industrial sector is integral to the economy of the United States—

(A) providing millions of jobs and essential products; and

(B) demonstrating global leadership in manufacturing and innovation;

(2) carbon capture and storage technologies are necessary for reducing hard-to-abate emissions from the industrial sector, which emits nearly 25 percent of carbon dioxide emissions in the United States;

(3) carbon removal and storage technologies, including direct air capture, must be deployed at large-scale in the coming decades to remove carbon dioxide directly from the atmosphere;

(4) large-scale deployment of carbon capture, removal, utilization, transport, and storage—

(A) is critical for achieving mid-century climate goals; and

(B) will drive regional economic development, technological innovation, and high-wage employment;

(5) carbon capture, removal, and utilization technologies require a backbone system of shared carbon dioxide transport and storage infrastructure to enable large-scale deployment, realize economies of scale, and create an interconnected carbon management market;

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(6) carbon dioxide transport infrastructure and permanent geological storage are proven and safe technologies with existing Federal and State regulatory frameworks;

(7) carbon dioxide transport and storage infrastructure share similar barriers to deployment previously faced by other types of critical national infrastructure, such as high capital costs and chicken-and-egg challenges, that require Federal and State support, in combination with private investment, to be overcome; and

(8) each State should take into consideration, with respect to new carbon dioxide transportation infrastructure—

(A) qualifying the infrastructure as pollution control devices under applicable laws (including regulations) of the State; and

(B) establishing a waiver of ad valorem and property taxes for the infrastructure for a period of not less than 10 years.

SEC. 40302. CARBON UTILIZATION PROGRAM.

Section 969A of the Energy Policy Act of 2005 (42 U.S.C. 16298a) is amended—

(1) in subsection (a)—

(A) by redesignating paragraphs (3) and (4) as paragraphs (4) and (5), respectively; and

(B) by inserting after paragraph (2) the following:

“(3) to develop or obtain, in coordination with other applicable Federal agencies and standard-setting organizations, standards and certifications, as appropriate, to facilitate the commercialization of the products and technologies described in paragraph (2);”;

(2) in subsection (b)—

(A) by redesignating paragraph (2) as paragraph (3);

(B) by inserting after paragraph (1) the following:

“(2) GRANT PROGRAM.—

“(A) IN GENERAL.—Not later than 1 year after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall establish a program to provide grants to eligible entities to use in accordance with subparagraph (D).

Deadline.

“(B) ELIGIBLE ENTITIES.—To be eligible to receive a grant under this paragraph, an entity shall be—

“(i) a State;

“(ii) a unit of local government; or

“(iii) a public utility or agency.

“(C) APPLICATIONS.—Eligible entities desiring a grant under this paragraph shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

“(D) USE OF FUNDS.—An eligible entity shall use a grant received under this paragraph to procure and use commercial or industrial products that—

“(i) use or are derived from anthropogenic carbon oxides; and

“(ii) demonstrate significant net reductions in lifecycle greenhouse gas emissions compared to incumbent technologies, processes, and products.”; and

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(C) in paragraph (3) (as so redesignated), by striking “paragraph (1)” and inserting “this subsection”; and
 (3) by striking subsection (d) and inserting the following:
 Time period. “(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out this section—
 “(1) \$41,000,000 for fiscal year 2022;
 “(2) \$65,250,000 for fiscal year 2023;
 “(3) \$66,562,500 for fiscal year 2024;
 “(4) \$67,940,625 for fiscal year 2025; and
 “(5) \$69,387,656 for fiscal year 2026.”.

SEC. 40303. CARBON CAPTURE TECHNOLOGY PROGRAM.

Section 962 of the Energy Policy Act of 2005 (42 U.S.C. 16292) is amended—

- (1) in subsection (b)(2)—
 - (A) in subparagraph (C), by striking “and” at the end;
 - (B) in subparagraph (D), by striking “program.” and inserting “program for carbon capture technologies; and”; and
 - (C) by adding at the end the following:
 - “(E) a front-end engineering and design program for carbon dioxide transport infrastructure necessary to enable deployment of carbon capture, utilization, and storage technologies.”; and
- (2) in subsection (d)(1)—
 - (A) in subparagraph (C), by striking “and” at the end;
 - (B) in subparagraph (D), by striking the period at the end and inserting “; and”; and
 - (C) by adding at the end the following:
 - “(E) for activities under the front-end engineering and design program described in subsection (b)(2)(E), \$100,000,000 for the period of fiscal years 2022 through 2026.”.

SEC. 40304. CARBON DIOXIDE TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION.

(a) IN GENERAL.—Title IX of the Energy Policy Act of 2005 (42 U.S.C. 16181 et seq.) is amended by adding at the end the following:

“Subtitle J—Carbon Dioxide Transportation Infrastructure Finance and Innovation

42 USC 16371.

“SEC. 999A. DEFINITIONS.

“In this subtitle:

“(1) CIFIA PROGRAM.—The term ‘CIFIA program’ means the carbon dioxide transportation infrastructure finance and innovation program established under section 999B(a).

“(2) COMMON CARRIER.—The term ‘common carrier’ means a transportation infrastructure operator or owner that—

“(A) publishes a publicly available tariff containing the just and reasonable rates, terms, and conditions of nondiscriminatory service; and

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“(B) holds itself out to provide transportation services to the public for a fee.

“(3) CONTINGENT COMMITMENT.—The term ‘contingent commitment’ means a commitment to obligate funds from future available budget authority that is—

“(A) contingent on those funds being made available in law at a future date; and

“(B) not an obligation of the Federal Government.

“(4) ELIGIBLE PROJECT COSTS.—The term ‘eligible project costs’ means amounts substantially all of which are paid by, or for the account of, an obligor in connection with a project, including—

“(A) the cost of—

“(i) development-phase activities, including planning, feasibility analysis, revenue forecasting, environmental review, permitting, preliminary engineering and design work, and other preconstruction activities;

“(ii) construction, reconstruction, rehabilitation, replacement, and acquisition of real property (including land relating to the project and improvements to land), environmental mitigation, construction contingencies, and acquisition and installation of equipment (including labor); and

“(iii) capitalized interest necessary to meet market requirements, reasonably required reserve funds, capital issuance expenses, and other carrying costs during construction; and

“(B) transaction costs associated with financing the project, including—

“(i) the cost of legal counsel and technical consultants; and

“(ii) any subsidy amount paid in accordance with section 999B(c)(3)(B)(ii) or section 999C(b)(6)(B)(ii).

“(5) FEDERAL CREDIT INSTRUMENT.—The term ‘Federal credit instrument’ means a secured loan or loan guarantee authorized to be provided under the CIFIA program with respect to a project.

“(6) LENDER.—The term ‘lender’ means a qualified institutional buyer (as defined in section 230.144A(a) of title 17, Code of Federal Regulations (or a successor regulation), commonly known as Rule 144A(a) of the Securities and Exchange Commission and issued under the Securities Act of 1933 (15 U.S.C. 77a et seq.)), that is not a Federal qualified institutional buyer.

“(7) LETTER OF INTEREST.—The term ‘letter of interest’ means a letter submitted by a potential applicant prior to an application for credit assistance in a format prescribed by the Secretary on the website of the CIFIA program that—

“(A) describes the project and the location, purpose, and cost of the project;

“(B) outlines the proposed financial plan, including the requested credit and grant assistance and the proposed obligor;

“(C) provides a status of environmental review; and

“(D) provides information regarding satisfaction of other eligibility requirements of the CIFIA program.

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“(8) LOAN GUARANTEE.—The term ‘loan guarantee’ means any guarantee or other pledge by the Secretary to pay all or part of the principal of, and interest on, a loan made to an obligor, or debt obligation issued by an obligor, in each case funded by a lender.

“(9) MASTER CREDIT AGREEMENT.—The term ‘master credit agreement’ means a conditional agreement that—

“(A) is for the purpose of extending credit assistance for—

“(i) a project of high priority under section 999B(c)(3)(A); or

“(ii) a project covered under section 999B(c)(3)(B);

“(B) does not provide for a current obligation of Federal funds; and

“(C) would—

“(i) make a contingent commitment of a Federal credit instrument or grant at a future date, subject to—

“(I) the availability of future funds being made available to carry out the CIFIA program; and

“(II) the satisfaction of all conditions for the provision of credit assistance under the CIFIA program, including section 999C(b);

“(ii) establish the maximum amounts and general terms and conditions of the Federal credit instruments or grants;

“(iii) identify the 1 or more revenue sources that will secure the repayment of the Federal credit instruments;

“(iv) provide for the obligation of funds for the Federal credit instruments or grants after all requirements have been met for the projects subject to the agreement, including—

“(I) compliance with all applicable requirements specified under the CIFIA program, including sections 999B(d) and 999C(b)(1); and

“(II) the availability of funds to carry out the CIFIA program; and

Deadline.

“(v) require that contingent commitments shall result in a financial close and obligation of credit or grant assistance by not later than 4 years after the date of entry into the agreement or release of the commitment, as applicable, unless otherwise extended by the Secretary.

“(10) OBLIGOR.—The term ‘obligor’ means a corporation, partnership, joint venture, trust, non-Federal governmental entity, agency, or instrumentality, or other entity that is liable for payment of the principal of, or interest on, a Federal credit instrument.

“(11) PRODUCED IN THE UNITED STATES.—The term ‘produced in the United States’, with respect to iron and steel, means that all manufacturing processes for the iron and steel, including the application of any coating, occurs within the United States.

“(12) PROJECT.—The term ‘project’ means a project for common carrier carbon dioxide transportation infrastructure or associated equipment, including pipeline, shipping, rail, or

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other transportation infrastructure and associated equipment, that will transport or handle carbon dioxide captured from anthropogenic sources or ambient air, as the Secretary determines to be appropriate.

“(13) PROJECT OBLIGATION.—The term ‘project obligation’ means any note, bond, debenture, or other debt obligation issued by an obligor in connection with the financing of a project, other than a Federal credit instrument.

“(14) SECURED LOAN.—The term ‘secured loan’ means a direct loan to an obligor or a debt obligation issued by an obligor and purchased by the Secretary, in each case funded by the Secretary in connection with the financing of a project under section 999C.

“(15) SUBSIDY AMOUNT.—The term ‘subsidy amount’ means the amount of budget authority sufficient to cover the estimated long-term cost to the Federal Government of a Federal credit instrument—

“(A) calculated on a net present value basis; and

“(B) excluding administrative costs and any incidental effects on governmental receipts or outlays in accordance with the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.).

“(16) SUBSTANTIAL COMPLETION.—The term ‘substantial completion’, with respect to a project, means the date—

“(A) on which the project commences transportation of carbon dioxide; or

“(B) of a comparable event to the event described in subparagraph (A), as determined by the Secretary and specified in the project credit agreement.

“SEC. 999B. DETERMINATION OF ELIGIBILITY AND PROJECT SELECTION.

42 USC 16372.

“(a) ESTABLISHMENT OF PROGRAM.—The Secretary shall establish and carry out a carbon dioxide transportation infrastructure finance and innovation program, under which the Secretary shall provide for eligible projects in accordance with this subtitle—

“(1) a Federal credit instrument under section 999C;

“(2) a grant under section 999D; or

“(3) both a Federal credit instrument and a grant.

“(b) ELIGIBILITY.—

“(1) IN GENERAL.—A project shall be eligible to receive a Federal credit instrument or a grant under the CIFIA program if—

“(A) the entity proposing to carry out the project submits a letter of interest prior to submission of an application under paragraph (3) for the project; and

“(B) the project meets the criteria described in this subsection.

“(2) CREDITWORTHINESS.—

“(A) IN GENERAL.—Each project and obligor that receives a Federal credit instrument or a grant under the CIFIA program shall be creditworthy, such that there exists a reasonable prospect of repayment of the principal and interest on the Federal credit instrument, as determined by the Secretary under subparagraph (B).

Determination.

“(B) REASONABLE PROSPECT OF REPAYMENT.—The Secretary shall base a determination of whether there is a

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reasonable prospect of repayment under subparagraph (A) on a comprehensive evaluation of whether the obligor has a reasonable prospect of repaying the Federal credit instrument for the eligible project, including evaluation of—

“(i) the strength of the contractual terms of an eligible project (if available for the applicable market segment);

“(ii) the forecast of noncontractual cash flows supported by market projections from reputable sources, as determined by the Secretary, and cash sweeps or other structural enhancements;

“(iii) the projected financial strength of the obligor—

“(I) at the time of loan close; and

“(II) throughout the loan term, including after the project is completed;

“(iv) the financial strength of the investors and strategic partners of the obligor, if applicable; and

“(v) other financial metrics and analyses that are relied on by the private lending community and nationally recognized credit rating agencies, as determined appropriate by the Secretary.

“(3) APPLICATIONS.—To be eligible for assistance under the CIFIA program, an obligor shall submit to the Secretary a project application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

“(4) ELIGIBLE PROJECT COSTS.—A project under the CIFIA program shall have eligible project costs that are reasonably anticipated to equal or exceed \$100,000,000.

“(5) REVENUE SOURCES.—The applicable Federal credit instrument shall be repayable, in whole or in part, from—

“(A) user fees;

“(B) payments owing to the obligor under a public-private partnership; or

“(C) other revenue sources that also secure or fund the project obligations.

“(6) OBLIGOR WILL BE IDENTIFIED LATER.—A State, local government, agency, or instrumentality of a State or local government, or a public authority, may submit to the Secretary an application under paragraph (3), under which a private party to a public-private partnership will be—

“(A) the obligor; and

“(B) identified at a later date through completion of a procurement and selection of the private party.

“(7) BENEFICIAL EFFECTS.—The Secretary shall determine that financial assistance for each project under the CIFIA program will—

“(A) attract public or private investment for the project;

or

“(B) enable the project to proceed at an earlier date than the project would otherwise be able to proceed or reduce the lifecycle costs (including debt service costs) of the project.

“(8) PROJECT READINESS.—To be eligible for assistance under the CIFIA program, the applicant shall demonstrate a reasonable expectation that the contracting process for

Deadline.

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construction of the project can commence by not later than 90 days after the date on which a Federal credit instrument or grant is obligated for the project under the CIFIA program.

“(c) SELECTION AMONG ELIGIBLE PROJECTS.—

“(1) ESTABLISHMENT OF APPLICATION PROCESS.—The Secretary shall establish an application process under which projects that are eligible to receive assistance under subsection (b) may—

“(A) receive credit assistance on terms acceptable to the Secretary, if adequate funds are available (including any funds provided on behalf of an eligible project under paragraph (3)(B)(ii)) to cover the subsidy amount associated with the Federal credit instrument; and

“(B) receive grants under section 999D if—

“(i) adequate funds are available to cover the amount of the grant; and

“(ii) the Secretary determines that the project is eligible under subsection (b).

“(2) PRIORITY.—In selecting projects to receive credit assistance under subsection (b), the Secretary shall give priority to projects that—

“(A) are large-capacity, common carrier infrastructure;

“(B) have demonstrated demand for use of the infrastructure by associated projects that capture carbon dioxide from anthropogenic sources or ambient air;

“(C) enable geographical diversity in associated projects that capture carbon dioxide from anthropogenic sources or ambient air, with the goal of enabling projects in all major carbon dioxide-emitting regions of the United States; and

“(D) are sited within, or adjacent to, existing pipeline or other linear infrastructure corridors, in a manner that minimizes environmental disturbance and other siting concerns.

“(3) MASTER CREDIT AGREEMENTS.—

“(A) PRIORITY PROJECTS.—The Secretary may enter into a master credit agreement for a project that the Secretary determines—

“(i) will likely be eligible for credit assistance under subsection (b), on obtaining—

“(I) additional commitments from associated carbon capture projects to use the project; or

“(II) all necessary permits and approvals; and

“(ii) is a project of high priority, as determined in accordance with the criteria described in paragraph (2).

“(B) ADEQUATE FUNDING NOT AVAILABLE.—If the Secretary fully obligates funding to eligible projects for a fiscal year and adequate funding is not available to fund a Federal credit instrument, a project sponsor (including a unit of State or local government) of an eligible project may elect—

“(i)(I) to enter into a master credit agreement in lieu of the Federal credit instrument; and

“(II) to wait to execute a Federal credit instrument until the fiscal year for which additional funds are available to receive credit assistance; or

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“(ii) if the lack of adequate funding is solely with respect to amounts available for the subsidy amount, to pay the subsidy amount to fund the Federal credit instrument.

“(d) FEDERAL REQUIREMENTS.—

“(1) IN GENERAL.—Nothing in this subtitle supersedes the applicability of any other requirement under Federal law (including regulations).

“(2) NEPA.—Federal credit assistance may only be provided under this subtitle for a project that has received an environmental categorical exclusion, a finding of no significant impact, or a record of decision under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

“(e) USE OF AMERICAN IRON, STEEL, AND MANUFACTURED GOODS.—

“(1) IN GENERAL.—Except as provided in paragraph (2), no Federal credit instrument or grant provided under the CIFIA program shall be made available for a project unless all iron, steel, and manufactured goods used in the project are produced in the United States.

“(2) EXCEPTIONS.—Paragraph (1) shall not apply in any case or category of cases with respect to which the Secretary determines that—

“(A) the application would be inconsistent with the public interest;

“(B) iron, steel, or a relevant manufactured good is not produced in the United States in sufficient and reasonably available quantity, or of a satisfactory quality; or

“(C) the inclusion of iron, steel, or a manufactured good produced in the United States will increase the cost of the overall project by more than 25 percent.

“(3) WAIVERS.—If the Secretary receives a request for a waiver under this subsection, the Secretary shall—

“(A) make available to the public a copy of the request, together with any information available to the Secretary concerning the request—

“(i) on an informal basis; and

“(ii) by electronic means, including on the official public website of the Department;

“(B) allow for informal public comment relating to the request for not fewer than 15 days before making a determination with respect to the request; and

“(C) approve or disapprove the request by not later than the date that is 120 days after the date of receipt of the request.

“(4) APPLICABILITY.—This subsection shall be applied in accordance with any applicable obligations of the United States under international agreements.

“(f) APPLICATION PROCESSING PROCEDURES.—

“(1) NOTICE OF COMPLETE APPLICATION.—Not later than 30 days after the date of receipt of an application under this section, the Secretary shall provide to the applicant a written notice describing whether—

“(A) the application is complete; or

“(B) additional information or materials are needed to complete the application.

Public
information.

Deadline.

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“(2) APPROVAL OR DENIAL OF APPLICATION.—Not later than 60 days after the date of issuance of a written notice under paragraph (1), the Secretary shall provide to the applicant a written notice informing the applicant whether the Secretary has approved or disapproved the application. Deadline.

“(g) DEVELOPMENT-PHASE ACTIVITIES.—Any Federal credit instrument provided under the CIFIA program may be used to finance up to 100 percent of the cost of development-phase activities, as described in section 999A(4)(A).

“SEC. 999C. SECURED LOANS.

42 USC 16373.

“(a) AGREEMENTS.—

“(1) IN GENERAL.—Subject to paragraph (2), the Secretary may enter into agreements with 1 or more obligors to make secured loans, the proceeds of which—

“(A) shall be used—

“(i) to finance eligible project costs of any project selected under section 999B;

“(ii) to refinance interim construction financing of eligible project costs of any project selected under section 999B; or

“(iii) to refinance long-term project obligations or Federal credit instruments, if the refinancing provides additional funding capacity for the completion, enhancement, or expansion of any project that—

“(I) is selected under section 999B; or

“(II) otherwise meets the requirements of that section; and

“(B) may be used in accordance with subsection (b)(7) to pay any fees collected by the Secretary under subparagraph (B) of that subsection.

“(2) RISK ASSESSMENT.—Before entering into an agreement under this subsection, the Secretary, in consultation with the Director of the Office of Management and Budget, shall determine an appropriate credit subsidy amount for each secured loan, taking into account all relevant factors, including the creditworthiness factors under section 999B(b)(2). Consultation.

“(b) TERMS AND LIMITATIONS.—

“(1) IN GENERAL.—A secured loan under this section with respect to a project shall be on such terms and conditions and contain such covenants, representations, warranties, and requirements (including requirements for audits) as the Secretary determines to be appropriate.

“(2) MAXIMUM AMOUNT.—The amount of a secured loan under this section shall not exceed an amount equal to 80 percent of the reasonably anticipated eligible project costs.

“(3) PAYMENT.—A secured loan under this section shall be payable, in whole or in part, from—

“(A) user fees;

“(B) payments owing to the obligor under a public-private partnership; or

“(C) other revenue sources that also secure or fund the project obligations.

“(4) INTEREST RATE.—

“(A) IN GENERAL.—Except as provided in subparagraph (B), the interest rate on a secured loan under this section shall be not less than the interest rate reflected in the

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yield on United States Treasury securities of a similar maturity to the maturity of the secured loan on the date of execution of the loan agreement.

“(B) LIMITED BUYDOWNS.—

“(i) IN GENERAL.—Subject to clause (iii), the Secretary may lower the interest rate of a secured loan under this section to not lower than the interest rate described in clause (ii), if the interest rate has increased during the period—

“(I) beginning on, as applicable—

“(aa) the date on which an application acceptable to the Secretary is submitted for the applicable project; or

“(bb) the date on which the Secretary entered into a master credit agreement for the applicable project; and

“(II) ending on the date on which the Secretary executes the Federal credit instrument for the applicable project that is the subject of the secured loan.

“(ii) DESCRIPTION OF INTEREST RATE.—The interest rate referred to in clause (i) is the interest rate reflected in the yield on United States Treasury securities of a similar maturity to the maturity of the secured loan in effect, as applicable to the project that is the subject of the secured loan, on—

“(I) the date described in clause (i)(I)(aa); or

“(II) the date described in clause (i)(I)(bb).

“(iii) LIMITATION.—The interest rate of a secured loan may not be lowered pursuant to clause (i) by more than 1½ percentage points (150 basis points).

“(5) MATURITY DATE.—The final maturity date of the secured loan shall be the earlier of—

“(A) the date that is 35 years after the date of substantial completion of the project; and

“(B) if the useful life of the capital asset being financed is of a lesser period, the date that is the end of the useful life of the asset.

“(6) NONSUBORDINATION.—

“(A) IN GENERAL.—Except as provided in subparagraph (B), the secured loan shall not be subordinated to the claims of any holder of project obligations in the event of bankruptcy, insolvency, or liquidation of the obligor.

“(B) PREEXISTING INDENTURE.—

“(i) IN GENERAL.—The Secretary shall waive the requirement under subparagraph (A) for a public agency borrower that is financing ongoing capital programs and has outstanding senior bonds under a preexisting indenture, if—

“(I) the secured loan is rated in the A category or higher; and

“(II) the secured loan is secured and payable from pledged revenues not affected by project performance, such as a tax-backed revenue pledge or a system-backed pledge of project revenues.

“(ii) LIMITATION.—If the Secretary waives the nonsubordination requirement under this subparagraph—

Waiver authority.

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“(I) the maximum credit subsidy amount to be paid by the Federal Government shall be not more than 10 percent of the principal amount of the secured loan; and

“(II) the obligor shall be responsible for paying the remainder of the subsidy amount, if any.

“(7) FEES.—

“(A) IN GENERAL.—The Secretary may collect a fee on or after the date of the financial close of a Federal credit instrument under this section in an amount equal to not more than \$3,000,000 to cover all or a portion of the costs to the Federal Government of providing the Federal credit instrument.

“(B) AMENDMENT TO ADD COST OF FEES TO SECURED LOAN.—If the Secretary collects a fee from an obligor under subparagraph (A) to cover all or a portion of the costs to the Federal Government of providing a secured loan, the obligor and the Secretary may amend the terms of the secured loan to add to the principal of the secured loan an amount equal to the amount of the fee collected by the Secretary.

“(8) MAXIMUM FEDERAL INVOLVEMENT.—The total Federal assistance provided for a project under the CIFIA program, including any grant provided under section 999D, shall not exceed an amount equal to 80 percent of the eligible project costs.

“(c) REPAYMENT.—

“(1) SCHEDULE.—The Secretary shall establish a repayment schedule for each secured loan under this section based on—

“(A) the projected cash flow from project revenues and other repayment sources; and

“(B) the useful life of the project.

“(2) COMMENCEMENT.—Scheduled loan repayments of principal or interest on a secured loan under this section shall commence not later than 5 years after the date of substantial completion of the project. Deadline.

“(3) DEFERRED PAYMENTS.—

“(A) IN GENERAL.—If, at any time after the date of substantial completion of a project, the project is unable to generate sufficient revenues in excess of reasonable and necessary operating expenses to pay the scheduled loan repayments of principal and interest on the secured loan, the Secretary may, subject to subparagraph (C), allow the obligor to add unpaid principal and interest to the outstanding balance of the secured loan.

“(B) INTEREST.—Any payment deferred under subparagraph (A) shall—

“(i) continue to accrue interest in accordance with subsection (b)(4) until fully repaid; and

“(ii) be scheduled to be amortized over the remaining term of the loan.

“(C) CRITERIA.—

“(i) IN GENERAL.—Any payment deferral under subparagraph (A) shall be contingent on the project meeting criteria established by the Secretary.

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“(ii) REPAYMENT STANDARDS.—The criteria established pursuant to clause (i) shall include standards for the reasonable prospect of repayment.

“(4) PREPAYMENT.—

“(A) USE OF EXCESS REVENUES.—Any excess revenues that remain after satisfying scheduled debt service requirements on the project obligations and secured loan and all deposit requirements under the terms of any trust agreement, bond resolution, or similar agreement securing project obligations may be applied annually to prepay the secured loan, without penalty.

“(B) USE OF PROCEEDS OF REFINANCING.—A secured loan may be prepaid at any time without penalty from the proceeds of refinancing from non-Federal funding sources.

“(d) SALE OF SECURED LOANS.—

“(1) IN GENERAL.—Subject to paragraph (2), as soon as practicable after substantial completion of a project and after notifying the obligor, the Secretary may sell to another entity or reoffer into the capital markets a secured loan for the project if the Secretary determines that the sale or reoffering can be made on favorable terms.

“(2) CONSENT OF OBLIGOR.—In making a sale or reoffering under paragraph (1), the Secretary may not change any original term or condition of the secured loan without the written consent of the obligor.

“(e) LOAN GUARANTEES.—

“(1) IN GENERAL.—The Secretary may provide a loan guarantee to a lender in lieu of making a secured loan under this section if the Secretary determines that the budgetary cost of the loan guarantee is substantially the same as, or less than, that of a secured loan.

“(2) TERMS.—The terms of a loan guarantee under paragraph (1) shall be consistent with the terms required under this section for a secured loan, except that the rate on the guaranteed loan and any prepayment features shall be negotiated between the obligor and the lender, with the consent of the Secretary.

42 USC 16374.

“SEC. 999D. FUTURE GROWTH GRANTS.

“(a) ESTABLISHMENT.—The Secretary may provide grants to pay a portion of the cost differential, with respect to any projected future increase in demand for carbon dioxide transportation by an infrastructure project described in subsection (b), between—

“(1) the cost of constructing the infrastructure asset with the capacity to transport an increased flow rate of carbon dioxide, as made practicable under the project; and

“(2) the cost of constructing the infrastructure asset with the capacity to transport carbon dioxide at the flow rate initially required, based on commitments for the use of the asset.

“(b) ELIGIBILITY.—To be eligible to receive a grant under this section, an entity shall—

“(1) be eligible to receive credit assistance under the CIFA program;

“(2) carry out, or propose to carry out, a project for large-capacity, common carrier infrastructure with a probable future increase in demand for carbon dioxide transportation; and

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“(3) submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

“(c) USE OF FUNDS.—A grant provided under this section may be used only to pay the costs of any additional flow rate capacity of a carbon dioxide transportation infrastructure asset that the project sponsor demonstrates to the satisfaction of the Secretary can reasonably be expected to be used during the 20-year period beginning on the date of substantial completion of the project described in subsection (b)(2).

“(d) MAXIMUM AMOUNT.—The amount of a grant provided under this section may not exceed an amount equal to 80 percent of the cost of the additional capacity described in subsection (a).

“SEC. 999E. PROGRAM ADMINISTRATION.

42 USC 16375.

“(a) REQUIREMENT.—The Secretary shall establish a uniform system to service the Federal credit instruments provided under the CIFIA program.

“(b) FEES.—If funding sufficient to cover the costs of services of expert firms retained pursuant to subsection (d) and all or a portion of the costs to the Federal Government of servicing the Federal credit instruments is not provided in an appropriations Act for a fiscal year, the Secretary, during that fiscal year, may collect fees on or after the date of the financial close of a Federal credit instrument provided under the CIFIA program at a level that is sufficient to cover those costs.

“(c) SERVICER.—

“(1) IN GENERAL.—The Secretary may appoint a financial entity to assist the Secretary in servicing the Federal credit instruments.

“(2) DUTIES.—A servicer appointed under paragraph (1) shall act as the agent for the Secretary.

“(3) FEE.—A servicer appointed under paragraph (1) shall receive a servicing fee, subject to approval by the Secretary.

“(d) ASSISTANCE FROM EXPERT FIRMS.—The Secretary may retain the services of expert firms, including counsel, in the field of municipal and project finance to assist in the underwriting and servicing of Federal credit instruments.

“(e) EXPEDITED PROCESSING.—The Secretary shall implement procedures and measures to economize the time and cost involved in obtaining approval and the issuance of credit assistance under the CIFIA program.

“SEC. 999F. STATE AND LOCAL PERMITS.

42 USC 16376.

“The provision of credit assistance under the CIFIA program with respect to a project shall not—

“(1) relieve any recipient of the assistance of any project obligation to obtain any required State or local permit or approval with respect to the project;

“(2) limit the right of any unit of State or local government to approve or regulate any rate of return on private equity invested in the project; or

“(3) otherwise supersede any State or local law (including any regulation) applicable to the construction or operation of the project.

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42 USC 16377.

“SEC. 999G. REGULATIONS.

“The Secretary may promulgate such regulations as the Secretary determines to be appropriate to carry out the CIFIA program.

42 USC 16378.

“SEC. 999H. AUTHORIZATION OF APPROPRIATIONS; CONTRACT AUTHORITY.

Time periods.

“(a) AUTHORIZATION OF APPROPRIATIONS.—

“(1) IN GENERAL.—There are authorized to be appropriated to the Secretary to carry out this subtitle—

“(A) \$600,000,000 for each of fiscal years 2022 and 2023; and

“(B) \$300,000,000 for each of fiscal years 2024 through 2026.

“(2) SPENDING AND BORROWING AUTHORITY.—Spending and borrowing authority for a fiscal year to enter into Federal credit instruments shall be promptly apportioned to the Secretary on a fiscal-year basis.

“(3) REESTIMATES.—If the subsidy amount of a Federal credit instrument is reestimated, the cost increase or decrease of the reestimate shall be borne by, or benefit, the general fund of the Treasury, consistent with section 504(f) of the Congressional Budget Act of 1974 (2 U.S.C. 661c(f)).

“(4) ADMINISTRATIVE COSTS.—Of the amounts made available to carry out the CIFIA program, the Secretary may use not more than \$9,000,000 (as indexed for United States dollar inflation from the date of enactment of the Infrastructure Investment and Jobs Act (as measured by the Consumer Price Index)) each fiscal year for the administration of the CIFIA program.

“(b) CONTRACT AUTHORITY.—

“(1) IN GENERAL.—Notwithstanding any other provision of law, execution of a term sheet by the Secretary of a Federal credit instrument that uses amounts made available under the CIFIA program shall impose on the United States a contractual obligation to fund the Federal credit investment.

“(2) AVAILABILITY.—Amounts made available to carry out the CIFIA program for a fiscal year shall be available for obligation on October 1 of the fiscal year.”.

(b) TECHNICAL AMENDMENTS.—The table of contents for the Energy Policy Act of 2005 (Public Law 109-58; 119 Stat. 600) is amended—

(1) in the item relating to section 917, by striking “Efficiency”;

(2) by striking the items relating to subtitle J of title IX (relating to ultra-deepwater and unconventional natural gas and other petroleum resources) and inserting the following:

“Subtitle J—Carbon Dioxide Transportation Infrastructure Finance and Innovation

“Sec. 999A. Definitions.

“Sec. 999B. Determination of eligibility and project selection.

“Sec. 999C. Secured loans.

“Sec. 999D. Future growth grants.

“Sec. 999E. Program administration.

“Sec. 999F. State and local permits.

“Sec. 999G. Regulations.

“Sec. 999H. Authorization of appropriations; contract authority.”; and

(3) by striking the item relating to section 969B and inserting the following:

“Sec. 969B. High efficiency turbines.”.

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SEC. 40305. CARBON STORAGE VALIDATION AND TESTING.

Section 963 of the Energy Policy Act of 2005 (42 U.S.C. 16293) is amended—

(1) in subsection (a)(1)(B), by striking “over a 10-year period”;

(2) in subsection (b)—

(A) in paragraph (1), by striking “and demonstration” and inserting “demonstration, and commercialization”; and

(B) in paragraph (2)—

(i) in subparagraph (G), by striking “and” at the end;

(ii) in subparagraph (H), by striking the period at the end and inserting “; and”; and

(iii) by adding at the end the following:

“(I) evaluating the quantity, location, and timing of geologic carbon storage deployment that may be needed, and developing strategies and resources to enable the deployment.”;

(3) by redesignating subsections (e) through (g) as subsections (f) through (h), respectively;

(4) by inserting after subsection (d) the following:

“(e) LARGE-SCALE CARBON STORAGE COMMERCIALIZATION PROGRAM.—

“(1) IN GENERAL.—The Secretary shall establish a commercialization program under which the Secretary shall provide funding for the development of new or expanded commercial large-scale carbon sequestration projects and associated carbon dioxide transport infrastructure, including funding for the feasibility, site characterization, permitting, and construction stages of project development.

“(2) APPLICATIONS; SELECTION.—

“(A) IN GENERAL.—To be eligible to enter into an agreement with the Secretary for funding under paragraph (1), an entity shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary determines to be appropriate.

“(B) APPLICATION PROCESS.—The Secretary shall establish an application process that, to the maximum extent practicable—

“(i) is open to projects at any stage of development described in paragraph (1); and

“(ii) facilitates expeditious development of projects described in that paragraph.

“(C) PROJECT SELECTION.—In selecting projects for funding under paragraph (1), the Secretary shall give priority to—

“(i) projects with substantial carbon dioxide storage capacity; or

“(ii) projects that will store carbon dioxide from multiple carbon capture facilities.”;

(5) in subsection (f) (as so redesignated), in paragraph (1), by inserting “with respect to the research, development, demonstration program components described in subsections (b) through (d)” before “give preference”; and

(6) by striking subsection (h) (as so redesignated) and inserting the following:

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Time period.

“(h) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this section \$2,500,000,000 for the period of fiscal years 2022 through 2026.”.

Time period.
42 USC 300h–9.

SEC. 40306. SECURE GEOLOGIC STORAGE PERMITTING.

(a) DEFINITIONS.—In this section:

(1) ADMINISTRATOR.—The term “Administrator” means the Administrator of the Environmental Protection Agency.

(2) CLASS VI WELL.—The term “Class VI well” means a well described in section 144.6(f) of title 40, Code of Federal Regulations (or successor regulations).

(b) AUTHORIZATION OF APPROPRIATIONS FOR GEOLOGIC SEQUESTRATION PERMITTING.—There is authorized to be appropriated to the Administrator for the permitting of Class VI wells by the Administrator for the injection of carbon dioxide for the purpose of geologic sequestration in accordance with the requirements of the Safe Drinking Water Act (42 U.S.C. 300f et seq.) and the final rule of the Administrator entitled “Federal Requirements Under the Underground Injection Control (UIC) Program for Carbon Dioxide (CO₂) Geologic Sequestration (GS) Wells” (75 Fed. Reg. 77230 (December 10, 2010)), \$5,000,000 for each of fiscal years 2022 through 2026.

(c) STATE PERMITTING PROGRAM GRANTS.—

(1) ESTABLISHMENT.—The Administrator shall award grants to States that, pursuant to section 1422 of the Safe Drinking Water Act (42 U.S.C. 300h–1), receive the approval of the Administrator for a State underground injection control program for permitting Class VI wells for the injection of carbon dioxide.

(2) USE OF FUNDS.—A State that receives a grant under paragraph (1) shall use the amounts received under the grant to defray the expenses of the State related to the establishment and operation of a State underground injection control program described in paragraph (1).

(3) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Administrator to carry out this subsection \$50,000,000 for the period of fiscal years 2022 through 2026.

SEC. 40307. GEOLOGIC CARBON SEQUESTRATION ON THE OUTER CONTINENTAL SHELF.

(a) DEFINITIONS.—Section 2 of the Outer Continental Shelf Lands Act (43 U.S.C. 1331) is amended—

(1) in the matter preceding subsection (a), by striking “When used in this Act—” and inserting “In this Act.”;

(2) in each subsection, by inserting a subsection heading, the text of which is comprised of the term defined in the subsection;

(3) by striking the semicolon at the end of each subsection (other than subsection (q)) and “; and” at the end of subsection (p) and inserting a period; and

(4) by adding at the end the following:

“(r) CARBON DIOXIDE STREAM.—

“(1) IN GENERAL.—The term ‘carbon dioxide stream’ means carbon dioxide that—

“(A) has been captured; and

“(B) consists overwhelmingly of—

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“(i) carbon dioxide plus incidental associated substances derived from the source material or capture process; and

“(ii) any substances added to the stream for the purpose of enabling or improving the injection process.

“(2) EXCLUSIONS.—The term ‘carbon dioxide stream’ does not include additional waste or other matter added to the carbon dioxide stream for the purpose of disposal.

“(s) CARBON SEQUESTRATION.—The term ‘carbon sequestration’ means the act of storing carbon dioxide that has been removed from the atmosphere or captured through physical, chemical, or biological processes that can prevent the carbon dioxide from reaching the atmosphere.”.

(b) LEASES, EASEMENTS, OR RIGHTS-OF-WAY FOR ENERGY AND RELATED PURPOSES.—Section 8(p)(1) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(p)(1)) is amended—

(1) in subparagraph (C), by striking “or” after the semicolon;

(2) in subparagraph (D), by striking the period at the end and inserting “; or”; and

(3) by adding at the end the following:

“(E) provide for, support, or are directly related to the injection of a carbon dioxide stream into sub-seabed geologic formations for the purpose of long-term carbon sequestration.”.

(c) CLARIFICATION.—A carbon dioxide stream injected for the purpose of carbon sequestration under subparagraph (E) of section 8(p)(1) of the Outer Continental Shelf Lands Act (43 U.S.C. 1337(p)(1)) shall not be considered to be material (as defined in section 3 of the Marine Protection, Research, and Sanctuaries Act of 1972 (33 U.S.C. 1402)) for purposes of that Act (33 U.S.C. 1401 et seq.).

43 USC 1337
note.

(d) REGULATIONS.—Not later than 1 year after the date of enactment of this Act, the Secretary of the Interior shall promulgate regulations to carry out the amendments made by this section.

Deadline.
43 USC 1331
note.

SEC. 40308. CARBON REMOVAL.

(a) IN GENERAL.—Section 969D of the Energy Policy Act of 2005 (42 U.S.C. 16298d) is amended—

(1) by redesignating subsection (j) as subsection (k); and

(2) by inserting after subsection (i) the following:

“(j) REGIONAL DIRECT AIR CAPTURE HUBS.—

“(1) DEFINITIONS.—In this subsection:

“(A) ELIGIBLE PROJECT.—The term ‘eligible project’ means a direct air capture project or a component project of a regional direct air capture hub.

“(B) REGIONAL DIRECT AIR CAPTURE HUB.—The term ‘regional direct air capture hub’ means a network of direct air capture projects, potential carbon dioxide utilization off-takers, connective carbon dioxide transport infrastructure, subsurface resources, and sequestration infrastructure located within a region.

“(2) ESTABLISHMENT OF PROGRAM.—

“(A) IN GENERAL.—The Secretary shall establish a program under which the Secretary shall provide funding for eligible projects that contribute to the development of 4

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regional direct air capture hubs described in subparagraph (B).

“(B) REGIONAL DIRECT AIR CAPTURE HUBS.—Each of the 4 regional direct air capture hubs developed under the program under subparagraph (A) shall be a regional direct air capture hub that—

“(i) facilitates the deployment of direct air capture projects;

“(ii) has the capacity to capture and sequester, utilize, or sequester and utilize at least 1,000,000 metric tons of carbon dioxide from the atmosphere annually from a single unit or multiple interconnected units;

“(iii) demonstrates the capture, processing, delivery, and sequestration or end-use of captured carbon; and

“(iv) could be developed into a regional or inter-regional carbon network to facilitate sequestration or carbon utilization.

“(3) SELECTION OF PROJECTS.—

“(A) SOLICITATION OF PROPOSALS.—

Deadline.

“(i) IN GENERAL.—Not later than 180 days after the date of enactment of the Infrastructure Investment and Jobs Act, the Secretary shall solicit applications for funding for eligible projects.

“(ii) ADDITIONAL SOLICITATIONS.—The Secretary shall solicit applications for funding for eligible projects on a recurring basis after the first round of applications is received under clause (i) until all amounts appropriated to carry out this subsection are expended.

Deadline.

“(B) SELECTION OF PROJECTS FOR THE DEVELOPMENT OF REGIONAL DIRECT AIR CAPTURE HUBS.—Not later than 3 years after the date of the deadline for the submission of proposals under subparagraph (A)(i), the Secretary shall select eligible projects described in paragraph (2)(A).

“(C) CRITERIA.—The Secretary shall select eligible projects under subparagraph (B) using the following criteria:

“(i) CARBON INTENSITY OF LOCAL INDUSTRY.—To the maximum extent practicable, each eligible project shall be located in a region with—

“(I) existing carbon-intensive fuel production or industrial capacity; or

Time period.

“(II) carbon-intensive fuel production or industrial capacity that has retired or closed in the preceding 10 years.

“(ii) GEOGRAPHIC DIVERSITY.—To the maximum extent practicable, eligible projects shall contribute to the development of regional direct air capture hubs located in different regions of the United States.

“(iii) CARBON POTENTIAL.—To the maximum extent practicable, eligible projects shall contribute to the development of regional direct air capture hubs located in regions with high potential for carbon sequestration or utilization.

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“(iv) HUBS IN FOSSIL-PRODUCING REGIONS.—To the maximum extent practicable, eligible projects shall contribute to the development of at least 2 regional direct air capture hubs located in economically distressed communities in the regions of the United States with high levels of coal, oil, or natural gas resources.

“(v) SCALABILITY.—The Secretary shall give priority to eligible projects that, as compared to other eligible projects, will contribute to the development of regional direct air capture hubs with larger initial capacity, greater potential for expansion, and lower levelized cost per ton of carbon dioxide removed from the atmosphere.

“(vi) EMPLOYMENT.—The Secretary shall give priority to eligible projects that are likely to create opportunities for skilled training and long-term employment to the greatest number of residents of the region.

“(vii) ADDITIONAL CRITERIA.—The Secretary may take into consideration other criteria that, in the judgment of the Secretary, are necessary or appropriate to carry out this subsection.

“(D) COORDINATION.—To the maximum extent practicable, in carrying out the program under this subsection, the Secretary shall take into account and coordinate with activities of the carbon capture technology program established under section 962(b)(1), the carbon storage validation and testing program established under section 963(b)(1), and the CIFIA program established under section 999B(a) such that funding from each of the programs is leveraged to contribute toward the development of integrated regional and interregional carbon capture, removal, transport, sequestration, and utilization networks.

“(E) FUNDING OF ELIGIBLE PROJECTS.—The Secretary may make grants to, or enter into cooperative agreements or contracts with, each eligible project selected under subparagraph (B) to accelerate commercialization of, and demonstrate the removal, processing, transport, sequestration, and utilization of, carbon dioxide captured from the atmosphere.

Grants.
Contracts.

“(4) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out this subsection \$3,500,000,000 for the period of fiscal years 2022 through 2026, to remain available until expended.”.

Time period.

Subtitle B—Hydrogen Research and Development

SEC. 40311. FINDINGS; PURPOSE.

42 USC 16151
note.

(a) FINDINGS.—Congress finds that—

(1) hydrogen plays a critical part in the comprehensive energy portfolio of the United States;

(2) the use of the hydrogen resources of the United States—
(A) promotes energy security and resilience; and

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for such calendar year, subject to the limitation imposed by the last sentence of such subparagraph.

Regulations. Guidelines. (5) RECAPTURE.—The Secretary shall, by regulations or other guidance, provide for recapturing the benefit of any increase in the credit allowed under subsection (a) by reason of this subsection with respect to any property which ceases to be property eligible for such increase (but which does not cease to be investment credit property within the meaning of section 50(a)). The period and percentage of such recapture shall be determined under rules similar to the rules of section 50(a). To the extent provided by the Secretary, such recapture may not apply with respect to any property if, within 12 months after the date the taxpayer becomes aware (or reasonably should have become aware) of such property ceasing to be property eligible for such increase, the eligibility of such property for such increase is restored. The preceding sentence shall not apply more than once with respect to any facility.”

Determination. Time period.

26 USC 48 note. (b) EFFECTIVE DATE.—The amendments made by this section shall take effect on January 1, 2023.

SEC. 13104. EXTENSION AND MODIFICATION OF CREDIT FOR CARBON OXIDE SEQUESTRATION.

(a) MODIFICATION OF CARBON OXIDE CAPTURE REQUIREMENTS.—

26 USC 45Q. (1) IN GENERAL.—Section 45Q(d) is amended to read as follows:

Definition. “(d) QUALIFIED FACILITY.—For purposes of this section, the term ‘qualified facility’ means any industrial facility or direct air capture facility—

Effective date. “(1) the construction of which begins before January 1, 2033, and either—

“(A) construction of carbon capture equipment begins before such date, or

“(B) the original planning and design for such facility includes installation of carbon capture equipment, and

“(2) which—

“(A) in the case of a direct air capture facility, captures not less than 1,000 metric tons of qualified carbon oxide during the taxable year,

“(B) in the case of an electricity generating facility—

“(i) captures not less than 18,750 metric tons of qualified carbon oxide during the taxable year, and

“(ii) with respect to any carbon capture equipment for the applicable electric generating unit at such facility, has a capture design capacity of not less than 75 percent of the baseline carbon oxide production of such unit, or

“(C) in the case of any other facility, captures not less than 12,500 metric tons of qualified carbon oxide during the taxable year.”.

(2) DEFINITIONS.—

(A) IN GENERAL.—Section 45Q(e) is amended—

(i) by redesignating paragraphs (1) through (3) as paragraphs (3) through (5), respectively, and

(ii) by inserting after “For purposes of this section—” the following new paragraphs:

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“(1) APPLICABLE ELECTRIC GENERATING UNIT.—The term ‘applicable electric generating unit’ means the principal electric generating unit for which the carbon capture equipment is originally planned and designed.

“(2) BASELINE CARBON OXIDE PRODUCTION.—

“(A) IN GENERAL.—The term ‘baseline carbon oxide production’ means either of the following: Time periods.

“(i) In the case of an applicable electric generating unit which was originally placed in service more than 1 year prior to the date on which construction of the carbon capture equipment begins, the average annual carbon oxide production, by mass, from such unit during—

“(I) in the case of an applicable electric generating unit which was originally placed in service more than 1 year prior to the date on which construction of the carbon capture equipment begins and on or after the date which is 3 years prior to the date on which construction of such equipment begins, the period beginning on the date such unit was placed in service and ending on the date on which construction of such equipment began, and

“(II) in the case of an applicable electric generating unit which was originally placed in service more than 3 years prior to the date on which construction of the carbon capture equipment begins, the 3 years with the highest annual carbon oxide production during the 12-year period preceding the date on which construction of such equipment began.

“(ii) In the case of an applicable electric generating unit which—

“(I) as of the date on which construction of the carbon capture equipment begins, is not yet placed in service, or

“(II) was placed in service during the 1-year period prior to the date on which construction of the carbon capture equipment begins, the designed annual carbon oxide production, by mass, as determined based on an assumed capacity factor of 60 percent.

“(B) CAPACITY FACTOR.—The term ‘capacity factor’ means the ratio (expressed as a percentage) of the actual electric output from the applicable electric generating unit to the potential electric output from such unit.”.

(B) CONFORMING AMENDMENT.—Section 142(o)(1)(B) is amended by striking “section 45Q(e)(1)” and inserting “section 45Q(e)(3)”. 26 USC 142.

(b) MODIFIED APPLICABLE DOLLAR AMOUNT.—Section 45Q(b)(1)(A) is amended—

(1) in clause (i)—

(A) in subclause (I), by striking “the dollar amount” and all that follows through “such period” and inserting “\$17”, and

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(B) in subclause (II), by striking “the dollar amount” and all that follows through “such period” and inserting “\$12”, and

(2) in clause (ii)—

(A) in subclause (I), by striking “\$50” and inserting “\$17”, and

(B) in subclause (II), by striking “\$35” and inserting “\$12”.

(c) DETERMINATION OF APPLICABLE DOLLAR AMOUNT.—

Effective dates.
26 USC 45Q.

(1) IN GENERAL.—Section 45Q(b)(1), as amended by the preceding provisions of this Act, is amended—

(A) by redesignating subparagraph (B) as subparagraph (D), and

(B) by inserting after subparagraph (A) the following new subparagraphs:

“(B) SPECIAL RULE FOR DIRECT AIR CAPTURE FACILITIES.—In the case of any qualified facility described in subsection (d)(2)(A) which is placed in service after December 31, 2022, the applicable dollar amount shall be an amount equal to the applicable dollar amount otherwise determined with respect to such qualified facility under subparagraph (A), except that such subparagraph shall be applied—

“(i) by substituting ‘\$36’ for ‘\$17’ each place it appears, and

“(ii) by substituting ‘\$26’ for ‘\$12’ each place it appears.

“(C) APPLICABLE DOLLAR AMOUNT FOR ADDITIONAL CARBON CAPTURE EQUIPMENT.—In the case of any qualified facility which is placed in service before January 1, 2023, if any additional carbon capture equipment is installed at such facility and such equipment is placed in service after December 31, 2022, the applicable dollar amount shall be an amount equal to the applicable dollar amount otherwise determined under this paragraph, except that subparagraph (B) shall be applied—

“(i) by substituting ‘before January 1, 2023’ for ‘after December 31, 2022’, and

“(ii) by substituting ‘the additional carbon capture equipment installed at such qualified facility’ for ‘such qualified facility’.”.

(2) CONFORMING AMENDMENTS.—

(A) Section 45Q(b)(1)(A) is amended by striking “The applicable dollar amount” and inserting “Except as provided in subparagraph (B) or (C), the applicable dollar amount”.

(B) Section 45Q(b)(1)(D), as redesignated by paragraph (1)(A), is amended by striking “subparagraph (A)” and inserting “subparagraph (A), (B), or (C)”.

(d) WAGE AND APPRENTICESHIP REQUIREMENTS.—Section 45Q is amended by redesignating subsection (h) as subsection (i) and inserting after subsection (g) following new subsection:

“(h) INCREASED CREDIT AMOUNT FOR QUALIFIED FACILITIES AND CARBON CAPTURE EQUIPMENT.—

“(1) IN GENERAL.—In the case of any qualified facility or any carbon capture equipment which satisfy the requirements of paragraph (2), the amount of the credit determined under

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subsection (a) shall be equal to such amount (determined without regard to this sentence) multiplied by 5.

“(2) REQUIREMENTS.—The requirements described in this paragraph are that—

Time periods.
Publication.
Guidelines.

“(A) with respect to any qualified facility the construction of which begins on or after the date that is 60 days after the Secretary publishes guidance with respect to the requirements of paragraphs (3)(A) and (4), as well as any carbon capture equipment placed in service at such facility—

“(i) subject to subparagraph (B) of paragraph (3), the taxpayer satisfies the requirements under subparagraph (A) of such paragraph with respect to such facility and equipment, and

“(ii) the taxpayer satisfies the requirements under paragraph (4) with respect to the construction of such facility and equipment,

“(B) with respect to any carbon capture equipment the construction of which begins on or after the date that is 60 days after the Secretary publishes guidance with respect to the requirements of paragraphs (3)(A) and (4), and which is installed at a qualified facility the construction of which began prior to such date—

“(i) subject to subparagraph (B) of paragraph (3), the taxpayer satisfies the requirements under subparagraph (A) of such paragraph with respect to such equipment, and

“(ii) the taxpayer satisfies the requirements under paragraph (4) with respect to the construction of such equipment, or

“(C) the construction of carbon capture equipment begins prior to the date that is 60 days after the Secretary publishes guidance with respect to the requirements of paragraphs (3)(A) and (4), and such equipment is installed at a qualified facility the construction of which begins prior to such date.

“(3) PREVAILING WAGE REQUIREMENTS.—

Applicability.

“(A) IN GENERAL.—The requirements described in this subparagraph with respect to any qualified facility and any carbon capture equipment placed in service at such facility are that the taxpayer shall ensure that any laborers and mechanics employed by the taxpayer or any contractor or subcontractor in—

“(i) the construction of such facility or equipment, and

“(ii) with respect to any taxable year, for any portion of such taxable year which is within the period described in paragraph (3)(A) or (4)(A) of subsection (a), the alteration or repair of such facility or such equipment,

shall be paid wages at rates not less than the prevailing rates for construction, alteration, or repair of a similar character in the locality in which such facility and equipment are located as most recently determined by the Secretary of Labor, in accordance with subchapter IV of chapter 31 of title 40, United States Code. For purposes

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of determining an increased credit amount under paragraph (1) for a taxable year, the requirement under clause (ii) of this subparagraph is applied to such taxable year in which the alteration or repair of qualified facility occurs.

“(B) CORRECTION AND PENALTY RELATED TO FAILURE TO SATISFY WAGE REQUIREMENTS.—Rules similar to the rules of section 45(b)(7)(B) shall apply.

Applicability.

“(4) APPRENTICESHIP REQUIREMENTS.—Rules similar to the rules of section 45(b)(8) shall apply.

Determination.
Requirements.
Records.

“(5) REGULATIONS AND GUIDANCE.—The Secretary shall issue such regulations or other guidance as the Secretary determines necessary to carry out the purposes of this subsection, including regulations or other guidance which provides for requirements for recordkeeping or information reporting for purposes of administering the requirements of this subsection.”.

26 USC 45Q.

(e) CREDIT REDUCED FOR TAX-EXEMPT BONDS.—Section 45Q(f) is amended—

(1) by striking the second paragraph (3), as added at the end of such section by section 80402(e) of the Infrastructure Investment and Jobs Act (Public Law 117-58), and

Applicability.

(2) by adding at the end the following new paragraph:

“(8) CREDIT REDUCED FOR TAX-EXEMPT BONDS.—Rules similar to the rule under section 45(b)(3) shall apply for purposes of this section.”.

(f) APPLICATION OF SECTION FOR CERTAIN CARBON CAPTURE EQUIPMENT.—Section 45Q(g) is amended by inserting “the earlier of January 1, 2023, and” before “the end of the calendar year”.

(g) ELECTION.—Section 45Q(f), as amended by subsection (e), is amended by adding at the end the following new paragraph:

Time period.

“(9) ELECTION.—For purposes of paragraphs (3) and (4) of subsection (a), a person described in paragraph (3)(A)(ii) may elect, at such time and in such manner as the Secretary may prescribe, to have the 12-year period begin on the first day of the first taxable year in which a credit under this section is claimed with respect to carbon capture equipment which is originally placed in service at a qualified facility on or after the date of the enactment of the Bipartisan Budget Act of 2018 (after application of paragraph (6), where applicable) if—

“(A) no taxpayer claimed a credit under this section with respect to such carbon capture equipment for any prior taxable year,

“(B) the qualified facility at which such carbon capture equipment is placed in service is located in an area affected by a federally-declared disaster (as defined by section 165(i)(5)(A)) after the carbon capture equipment is originally placed in service, and

“(C) such federally-declared disaster results in a cessation of the operation of the qualified facility or the carbon capture equipment after such equipment is originally placed in service.”.

(h) REGULATIONS FOR BASELINE CARBON OXIDE PRODUCTION.—Subsection (i) of section 45Q, as redesignated by subsection (d), is amended—

(1) in paragraph (1), by striking “and”,

(2) in paragraph (2), by striking the period at the end and inserting “, and”, and

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(3) by adding at the end the following new paragraph:
 “(3) for purposes of subsection (d)(2)(B)(ii), adjust the baseline carbon oxide production with respect to any applicable electric generating unit at any electricity generating facility if, after the date on which the carbon capture equipment is placed in service, modifications which are chargeable to capital account are made to such unit which result in a significant increase or decrease in carbon oxide production.”.

(i) EFFECTIVE DATES.—

(1) IN GENERAL.—Except as provided in paragraphs (2), (3), and (4), the amendments made by this section shall apply to facilities or equipment placed in service after December 31, 2022.

(2) MODIFICATION OF CARBON OXIDE CAPTURE REQUIREMENTS.—The amendments made by subsection (a) shall apply to facilities or equipment the construction of which begins after the date of enactment of this Act.

(3) APPLICATION OF SECTION FOR CERTAIN CARBON CAPTURE EQUIPMENT.—The amendments made by subsection (f) shall take effect on the date of enactment of this Act.

(4) ELECTION.—The amendments made by subsection (g) shall apply to carbon oxide captured and disposed of after December 31, 2021.

Applicability.
 26 USC 45Q
 note.

SEC. 13105. ZERO-EMISSION NUCLEAR POWER PRODUCTION CREDIT.

(a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 is amended by adding at the end the following new section:

“SEC. 45U. ZERO-EMISSION NUCLEAR POWER PRODUCTION CREDIT.

26 USC 45U.

“(a) AMOUNT OF CREDIT.—For purposes of section 38, the zero-emission nuclear power production credit for any taxable year is an amount equal to the amount by which—

“(1) the product of—

“(A) 0.3 cents, multiplied by

“(B) the kilowatt hours of electricity—

“(i) produced by the taxpayer at a qualified nuclear power facility, and

“(ii) sold by the taxpayer to an unrelated person during the taxable year, exceeds

“(2) the reduction amount for such taxable year.

“(b) DEFINITIONS.—

“(1) QUALIFIED NUCLEAR POWER FACILITY.—For purposes of this section, the term ‘qualified nuclear power facility’ means any nuclear facility—

“(A) which is owned by the taxpayer and which uses nuclear energy to produce electricity,

“(B) which is not an advanced nuclear power facility as defined in subsection (d)(1) of section 45J, and

“(C) which is placed in service before the date of the enactment of this section.

“(2) REDUCTION AMOUNT.—

“(A) IN GENERAL.—For purposes of this section, the term ‘reduction amount’ means, with respect to any qualified nuclear power facility for any taxable year, the amount equal to the lesser of—

“(i) the amount determined under subsection (a)(1),

or

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Treasury not otherwise appropriated, \$5,000,000, to remain available until September 30, 2031, to provide grants to States to adopt and implement greenhouse gas and zero-emission standards for mobile sources pursuant to section 177 of the Clean Air Act (42 U.S.C. 7507).

(h) **DEFINITION OF GREENHOUSE GAS.**—In this section, the term “greenhouse gas” means the air pollutants carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride.

SEC. 60106. FUNDING TO ADDRESS AIR POLLUTION AT SCHOOLS.

(a) **IN GENERAL.**—In addition to amounts otherwise available, there is appropriated to the Administrator of the Environmental Protection Agency for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$37,500,000, to remain available until September 30, 2031, for grants and other activities to monitor and reduce greenhouse gas emissions and other air pollutants at schools in low-income and disadvantaged communities under subsections (a) through (c) of section 103 of the Clean Air Act (42 U.S.C. 7403(a)–(c)) and section 105 of that Act (42 U.S.C. 7405).

(b) **TECHNICAL ASSISTANCE.**—In addition to amounts otherwise available, there is appropriated to the Administrator of the Environmental Protection Agency for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$12,500,000, to remain available until September 30, 2031, for providing technical assistance to schools in low-income and disadvantaged communities under subsections (a) through (c) of section 103 of the Clean Air Act (42 U.S.C. 7403(a)–(c)) and section 105 of that Act (42 U.S.C. 7405)—

(1) to address environmental issues;

(2) to develop school environmental quality plans that include standards for school building, design, construction, and renovation; and

(3) to identify and mitigate ongoing air pollution hazards.

(c) **DEFINITION OF GREENHOUSE GAS.**—In this section, the term “greenhouse gas” means the air pollutants carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride.

SEC. 60107. LOW EMISSIONS ELECTRICITY PROGRAM.

The Clean Air Act is amended by inserting after section 134 of such Act, as added by section 60103 of this Act, the following:

“SEC. 135. LOW EMISSIONS ELECTRICITY PROGRAM.

42 USC 7435.

“(a) **APPROPRIATION.**—In addition to amounts otherwise available, there is appropriated to the Administrator for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, to remain available until September 30, 2031—

“(1) \$17,000,000 for consumer-related education and partnerships with respect to reductions in greenhouse gas emissions that result from domestic electricity generation and use;

“(2) \$17,000,000 for education, technical assistance, and partnerships within low-income and disadvantaged communities with respect to reductions in greenhouse gas emissions that result from domestic electricity generation and use;

“(3) \$17,000,000 for industry-related outreach, technical assistance, and partnerships with respect to reductions in

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Deadline.

greenhouse gas emissions that result from domestic electricity generation and use;

“(4) \$17,000,000 for outreach and technical assistance to, and partnerships with, State, Tribal, and local governments with respect to reductions in greenhouse gas emissions that result from domestic electricity generation and use;

“(5) \$1,000,000 to assess, not later than 1 year after the date of enactment of this section, the reductions in greenhouse gas emissions that result from changes in domestic electricity generation and use that are anticipated to occur on an annual basis through fiscal year 2031; and

“(6) \$18,000,000 to ensure that reductions in greenhouse gas emissions are achieved through use of the existing authorities of this Act, incorporating the assessment under paragraph (5).

“(b) ADMINISTRATION OF FUNDS.—Of the amounts made available under subsection (a), the Administrator shall reserve 2 percent for the administrative costs necessary to carry out activities pursuant to that subsection.

“(c) DEFINITION OF GREENHOUSE GAS.—In this section, the term ‘greenhouse gas’ means the air pollutants carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride.”.

SEC. 60108. FUNDING FOR SECTION 211(O) OF THE CLEAN AIR ACT.

(a) TEST AND PROTOCOL DEVELOPMENT.—In addition to amounts otherwise available, there is appropriated to the Administrator of the Environmental Protection Agency for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$5,000,000, to remain available until September 30, 2031, to carry out section 211(o) of the Clean Air Act (42 U.S.C. 7545(o)) with respect to—

(1) the development and establishment of tests and protocols regarding the environmental and public health effects of a fuel or fuel additive;

(2) internal and extramural data collection and analyses to regularly update applicable regulations, guidance, and procedures for determining lifecycle greenhouse gas emissions of a fuel; and

(3) the review, analysis, and evaluation of the impacts of all transportation fuels, including fuel lifecycle implications, on the general public and on low-income and disadvantaged communities.

(b) INVESTMENTS IN ADVANCED BIOFUELS.—In addition to amounts otherwise available, there is appropriated to the Administrator of the Environmental Protection Agency for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$10,000,000, to remain available until September 30, 2031, for new grants to industry and other related activities under section 211(o) of the Clean Air Act (42 U.S.C. 7545(o)) to support investments in advanced biofuels.

(c) DEFINITION OF GREENHOUSE GAS.—In this section, the term “greenhouse gas” means the air pollutants carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride.