United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued October 8, 2020 Decided January 19, 2021

No. 19-1140

AMERICAN LUNG ASSOCIATION AND AMERICAN PUBLIC HEALTH ASSOCIATION,
PETITIONERS

v.

ENVIRONMENTAL PROTECTION AGENCY AND ANDREW WHEELER, ADMINISTRATOR,
RESPONDENTS

AEP GENERATING COMPANY, ET AL.,
INTERVENORS

Consolidated with 19-1165, 19-1166, 19-1173, 19-1175, 19-1176, 19-1177, 19-1179, 19-1185, 19-1186, 19-1187, 19-1188

On Petitions for Review of a Final Action of the Environmental Protection Agency

---

Steven C. Wu, Deputy Solicitor General, Office of the Attorney General for the State of New York, argued the cause for the State and Municipal petitioners and intervenor Nevada.

With him on the briefs were *Letitia James*, Attorney General, *Barbara D. Underwood*, Solicitor General, *Matthew W. Grieco*, Assistant Solicitor General, *Michael J. Myers*, Senior Counsel, *Andrew G. Frank*, Assistant Attorney General of Counsel, *Xavier Becerra*, Attorney General, Office of the Attorney General for the State of California, *Robert W. Byrne*, Senior Assistant Attorney General, *David A. Zonana*, Supervising Deputy Attorney General, *Jonathan A. Wiener*, *M. Elaine Meckenstock*, *Timothy E. Sullivan*, *Elizabeth B. Rumsey*, and *Theodore A.B. McCombs*, Deputy Attorneys General, *William Tong*, Attorney General, Office of the Attorney General for the State of Connecticut, *Matthew I. Levine* and *Scott N. Koschwitz*, Assistant Attorneys General, *Kathleen Jennings*, Attorney General, Office of the Attorney General for the State of Delaware, *Valerie S. Edge*, Deputy Attorney General, *Philip J. Weiser*, Attorney General, Office of the Attorney General for the State of Colorado, *Eric R. Olson*, Solicitor General, *Robyn L. Wille*, Senior Assistant Attorney General, *Clare E. Connors*, Attorney General, Office of the Attorney General for the State of Hawaii, *William F. Cooper*, Deputy Attorney General, *Aaron M. Frey*, Attorney General, Office of the Attorney General for the State of Maine, *Laura E. Jensen*, Assistant Attorney General, *Brian E. Frosh*, Attorney General, Office of the Attorney General for the State of Maryland, *John B. Howard, Jr.*, *Joshua M. Segal*, and *Steven J. Goldstein*, Special Assistant Attorneys General, *Maura Healey*, Attorney General, Office of the Attorney General for the Commonwealth of Massachusetts, *Melissa A. Hoffer* and *Christophe Courchesne*, Assistant Attorneys General, *Megan M. Herzog* and *David S. Frankel*, Special Assistant Attorneys General, *Dana Nessel*, Attorney General, Office of the Attorney General for the State of Michigan, *Gillian E. Wener*, Assistant Attorney General, *Keith Ellison*, Attorney General, Office of the Attorney General for the State of Minnesota, *Peter N. Surdo*, Special Assistant Attorney

General, *Aaron D. Ford*, Attorney General, Office of the Attorney General for the State of Nevada, *Heidi Parry Stern*, Solicitor General, *Gurbir S. Grewal*, Attorney General, Office of the Attorney General for the State of New Jersey, *Lisa J. Morelli*, Deputy Attorney General, *Hector Balderas*, Attorney General, Office of the Attorney General for the State of New Mexico, *Tania Maestas*, Chief Deputy Attorney General, *Joshua H. Stein*, Attorney General, Office of the Attorney General for the State of North Carolina, *Asher Spiller*, Assistant Attorney General, *Ellen F. Rosenblum*, Attorney General, Office of the Attorney General for the State of Oregon, *Paul Garrahan*, Attorney-in-Charge, *Steve Novick*, Special Assistant Attorney General, *Josh Shapiro*, Attorney General, Office of the Attorney General for the Commonwealth of Pennsylvania, *Ann R. Johnston*, Senior Deputy Attorney General, *Aimee D. Thomson*, Deputy Attorney General, *Peter F. Neronha*, Attorney General, Office of the Attorney General for the State of Rhode Island, *Gregory S. Schultz*, Special Assistant Attorney General, *Thomas J. Donovan, Jr.*, Attorney General, Office of the Attorney General for the State of Vermont, *Nicholas F. Persampieri*, Assistant Attorney General, *Mark Herring*, Attorney General, Office of the Attorney General for the Commonwealth of Virginia, *Donald D. Anderson*, Deputy Attorney General, *Paul Kugelman, Jr.*, Senior Assistant Attorney General and Chief, Environmental Section, *Caitlin Colleen Graham O'Dwyer*, Assistant Attorney General, *Robert W. Ferguson*, Attorney General, Office of the Attorney General for the State of Washington, *Christopher H. Reitz* and *Emily C. Nelson*, Assistant Attorneys General, *Joshua L. Kaul*, Attorney General, Office of the Attorney General for the State of Wisconsin, *Gabe Johnson-Karp*, Assistant Attorney General, *Karl A. Racine*, Attorney General, Office of the Attorney General for the District of Columbia, *Loren L. AliKhan*, Solicitor General, *Tom Carr*, City Attorney, Office of the City

Attorney for the City of Boulder, *Debra S. Kalish*, Senior Counsel, *Mark A. Flessner*, Corporation Counsel, Office of the Corporation Counsel for the City of Chicago, *Benna Ruth Solomon*, Deputy Corporation Counsel, *Jared Policicchio*, Supervising Assistant Corporation Counsel, *Kristin M. Bronson*, City Attorney, Office of the City Attorney for the City and County of Denver, *Lindsay S. Carder* and *Edward J. Gorman*, Assistant City Attorneys, *Michael N. Feuer*, City Attorney, Office of the City Attorney for the City of Los Angeles, *Michael J. Bostrom*, Assistant City Attorney, *James E. Johnson*, Corporation Counsel, New York City Law Department, *Christopher G. King*, Senior Counsel, *Marcel S. Pratt*, City Solicitor, City of Philadelphia Law Department, *Scott J. Schwarz* and *Patrick K. O'Neill*, Divisional Deputy City Solicitors, and *Thomas F. Pepe*, City Attorney, City of South Miami. *Morgan A. Costello* and *Brian M. Lusignan*, Assistant Attorneys General, Office of the Attorney General for the State of New York, *Gavin G. McGabe*, Deputy Attorney General, *Anne Minard*, Special Assistant Attorney General, Office of the Attorney General for the State of New Mexico, *Cynthia M. Weisz*, Assistant Attorney General, Office of the Attorney General for the State of Maryland, entered appearances.

Kevin Poloncarz argued the cause for Power Company Petitioners. With him on the briefs were *Donald L. Ristow* and *Jake Levine.*

Mark W. DeLaquil argued the cause for Coal Industry Petitioners. With him on the briefs were *Shay Dvoretzky*, *Charles T. Wehland*, *Jeffery D. Ubersax*, *Robert D. Cheren*, and *Andrew Grossman.*

Theodore Hadzi-Antich argued the cause for Robinson Enterprises Petitioners. With him on the briefs were *Robert Henneke* and *Ryan D. Walters*.

Sean H. Donahue and Michael J. Myers argued the causes for Public Health and Environmental Petitioners. On the briefs were *Ann Brewster Weeks*, *James P. Duffy*, *Susannah L. Weaver*, *Joanne Spalding*, *Andres Restrepo*, *Vera Pardee*, *Clare Lakewood*, *Howard M. Crystal*, *Elizabeth Jones*, *Brittany E. Wright*, *Jon A. Mueller*, *David Doniger*, *Benjamin Longstreth*, *Melissa J. Lynch*, *Lucas May*, *Vickie L. Patton*, *Tomas Carbonell*, *Benjamin Levitan*, *Howard Learner*, and *Scott Strand*. *Alejandra Nunez* entered an appearance.

David M. Williamson argued the cause and filed the briefs for Biogenic Petitioners.

Gene Grace, *Jeff Dennis*, and *Rick Umoff* were on the brief for petitioners American Wind Energy Association, et al.

Theodore E. Lamm and *Sean B. Hecht* were on the brief for *amicus curiae* Thomas C. Jorling in support of petitioners.

Gabriel Pacyniak, *Brent Chapman*, and *Graciela Esquivel* were on the brief for *amici curiae* the Coalition to Protect America's National Parks and the National Parks Conservation Association in support of petitioners.

Deborah A. Sivas and *Matthew J. Sanders* were on the brief for *amici curiae* Administrative Law Professors in support of petitioners.

Hope M. Babcock was on the brief for *amici curiae* the American Thoracic Society, et al. in support of petitioners.

Richard L. Revesz and *Jack Lienke* were on the brief for *amicus curiae* the Institute for Policy Integrity at New York University School of Law in support of petitioners.

Steph Tai was on the brief for *amici curiae* Climate Scientists in support of petitioners.

Michael Burger and *Collyn Peddie* were on the brief for *amici curiae* the National League of Cities, et al. in support of petitioners.

Keri R. Steffes was on the brief for *amici curiae* Faith Organizations in support of petitioners.

Shaun A. Goho was on the brief for *amici curiae* Maximilian Auffhammer, et al. in support of petitioners.

Ethan G. Shenkman and *Stephen K. Wirth* were on the brief for *amici curiae* Patagonia Works and Columbia Sportswear Company in support of petitioners.

Mark Norman Templeton, *Robert Adam Weinstock*, *Alexander Valdes*, and *Benjamin Nickerson* were on the brief for *amicus curiae* Professor Michael Greenstone in support of petitioners.

Nicole G. Berner and *Renee M. Gerni* were on the brief for *amicus curiae* the Service Employees International Union in support of petitioners.

Elizabeth B. Wydra, and *Brianne J. Gorod* were on the brief for *amici curiae* Members of Congress in support of petitioners.

Jonas J. Monast was on the brief for *amici curiae* Energy Modelers in support of petitioners.

Katherine Konschnik was on the brief for *amici curiae* Former Commissioners of the Federal Energy Regulatory Commission in support of petitioners.

Michael Landis, *Elizabeth S. Merritt*, and *Wyatt G. Sassman* were on the brief for *amici curiae* Environment America and National Trust for Historic Preservation in support of petitioners.

Cara A. Horowitz was on the brief for *amici curiae* Grid Experts in support of petitioners.

Eric Alan Isaacson was on the brief for *amici curiae* U.S. Senators in support of petitioners.

Jonathan D. Brightbill, Principal Deputy Assistant Attorney General, U.S. Department of Justice, and *Meghan E. Greenfield* and *Benjamin Carlisle*, Attorneys, argued the causes for respondents. With them on the brief was *Jeffrey Bossert Clark*, Assistant Attorney General.

Lindsay S. See, Solicitor General, Office of the Attorney General for the State of West Virginia, argued the cause for State and Industry intervenors in support of respondents regarding Affordable Clean Energy Rule. With her on the brief were *Patrick Morrisey*, Attorney General, *Thomas T. Lampman*, Assistant Solicitors General, *Thomas A. Lorenzen*, *Elizabeth B. Dawson*, *Rae Cronmiller*, *Kevin G. Clarkson*, Attorney General at the time the brief was filed, Office of the Attorney General for the State of Alaska, *Clyde Sniffen Jr.*, Attorney General, *Leslie Rutledge*, Attorney General, Office of the Attorney General for the State of Arkansas, *Nicholas J.*

Bronni, Solicitor General, *Vincent M. Wagner*, Deputy Solicitor General, *Dylan L. Jacobs*, Assistant Solicitor General, *Steve Marshall*, Attorney General, Office of the Attorney General for the State of Alabama, *Edmund G. LaCour, Jr.*, Solicitor General, *Christopher M. Carr*, Attorney General, Office of the Attorney General for the State of Georgia, *Andrew A. Pinson*, Solicitor General, *Derek Schmidt*, Attorney General, Office of the Attorney General for the State of Kansas, *Jeffrey A. Chanay*, Chief Deputy Attorney General, *Curtis T. Hill, Jr.*, Attorney General, Office of the Attorney General of Indiana, *Thomas M. Fisher*, Solicitor General, *Andrew Beshear*, Governor, Office of the Governor for the Commonwealth of Kentucky, *S. Travis Mayo*, Chief Deputy General Counsel, *Taylor Payne*, Deputy General Counsel, *Joseph A. Newberg*, Deputy General Counsel and Deputy Executive Director, *Jeff Landry*, Attorney General, Office of the Attorney General for the State of Louisiana, *Elizabeth B. Murrill*, Solicitor General, *Harry J. Vorhoff*, Assistant Attorney General, *Eric S. Schmitt*, Attorney General, Office of the Attorney General for the State of Missouri, *D. John Sauer*, Solicitor General, *Julie Marie Blake*, Deputy Solicitor General, *Timothy C. Fox*, Attorney General at the time the brief was filed, Office of the Attorney General for the State of Montana, *Matthew T. Cochenour*, Deputy Solicitor General, *Wayne Stenehjem*, Attorney General, Office of the Attorney General for the State of North Dakota, *Paul M. Seby*, Special Assistant Attorney General, *Douglas J. Peterson*, Attorney General, Office of the Attorney General for the State of Nebraska, *Justin D. Lavene*, Assistant Attorney General, *Dave Yost*, Attorney General, Office of the Attorney General of the State of Ohio, *Benjamin M. Flowers*, Solicitor General, *Cameron F. Simmons*, Principal Assistant Attorney General, *Mike Hunter*, Attorney General, Office of the Attorney General for the State of Oklahoma, *Mithun Mansinghani*, Solicitor General, *Jason R. Ravnsborg*, Attorney General, Office of the Attorney

General for the State of South Dakota, *Steven R. Blair*, Assistant Attorney General, *Alan Wilson*, Attorney General, Office of the Attorney General for the State of South Carolina, *James Emory Smith, Jr.*, Deputy Solicitor General, *Ken Paxton*, Attorney General, Office of the Attorney General for the State of Texas, *Kyle D. Hawkins*, Solicitor General, *Sean Reyes*, Attorney General, Office of the Attorney General for the State of Utah, *Tyler R. Green*, Solicitor General, *Bridget Hill*, Attorney General, Office of the Attorney General for the State of Wyoming, *James Kaste*, Deputy Attorney General, *Todd E. Palmer*, *William D. Booth*, *Obianuju Okasi*, *Carroll W. McGuffey, III*, *Misha Tseytlin*, *C. Grady Moore, III*, *Julia Barber*, *F. William Brownell*, *Elbert Lin*, *Allison D. Wood*, *Scott A. Keller*, *Jeffrey H. Wood*, *Jeremy Evan Maltz*, *Steven P. Lehotsky*, *Michael B. Schon*, *Emily Church Schilling*, *Kristina R. Van Bockern*, *David M. Flannery*, *Kathy G. Beckett*, *Edward L. Kropp*, *Amy M. Smith*, *Janet J. Henry*, *Melissa Horne*, *Angela Jean Levin*, *Eugene M. Trisko*, *John A. Rego*, *Reed W. Sirak*, *Michael A. Zody*, *Jacob Santini*, *Robert D. Cheren*, *Mark W. DeLaquil*, and *Andrew M. Grossman. C. Frederick Beckner, III*, *James R. Bedell*, *Margaret C. Campbell*, *Erik D. Lange*, and *John D. Lazzaretti* entered an appearance.

James P. Duffy argued the cause for Public Health and Environmental Intervenors in support of respondents. With him on the brief were *Ann Brewster Weeks*, *Sean H. Donahue*, *Susannah L. Weaver*, *Joanne Spalding*, *Andres Restrepo*, *Vera Pardee*, *Clare Lakewood*, *Elizabeth Jones*, *Brittany E. Wright*, *Jon A. Mueller*, *David Doniger*, *Benjamin Longstreth*, *Melissa J. Lynch*, *Lucas May*, *Vickie L. Patton*, *Tomas Carbonell*, *Benjamin Levitan*, *Howard Learner*, and *Scott Strand*.

Letitia James, Attorney General, Office of the Attorney General for the State of New York, *Michael J. Myers*, Senior Counsel, *Brian Lusignan*, Assistant Attorney General of

Counsel, *Barbara D. Underwood*, Solicitor General, *Steven C. Wu*, Deputy Solicitor General, *Matthew W. Grieco*, Assistant Solicitor General, *Xavier Becerra*, Attorney General, Office of the Attorney General for the State of California, *Robert W. Byrne*, Senior Assistant Attorney General, *David A. Zonana*, Supervising Deputy Attorney General, *Jonathan A. Wiener*, *M. Elaine Meckenstock*, *Timothy E. Sullivan*, *Elizabeth B. Rumsey*, and *Theodore A.B. McCombs*, Deputy Attorneys General, *William Tong*, Attorney General, Office of the Attorney General for the State of Connecticut, *Matthew I. Levine* and *Scott N. Koschwitz*, Assistant Attorneys General, *Kathleen Jennings*, Attorney General, Office of the Attorney General for the State of Delaware, *Valerie S. Edge*, Deputy Attorney General, *Philip J. Weiser*, Attorney General, Office of the Attorney General for the State of Colorado, *Eric R. Olson*, Solicitor General, *Robyn L. Wille*, Senior Assistant Attorney General, *Clare E. Connors*, Attorney General, Office of the Attorney General for the State of Hawaii, *William F. Cooper*, Deputy Attorney General, *Aaron M. Frey*, Attorney General, Office of the Attorney General for the State of Maine, *Laura E. Jensen*, Assistant Attorney General, *Brian E. Frosh*, Attorney General, Office of the Attorney General for the State of Maryland, *John B. Howard, Jr.*, *Joshua M. Segal*, and *Steven J. Goldstein*, Special Assistant Attorneys General, *Maura Healey*, Attorney General, Office of the Attorney General for the Commonwealth of Massachusetts, *Melissa A. Hoffer* and *Christophe Courchesne*, Assistant Attorneys General, *Megan M. Herzog* and *David S. Frankel*, Special Assistant Attorneys General, *Dana Nessel*, Attorney General, Office of the Attorney General for the State of Michigan, *Gillian E. Wener*, Assistant Attorney General, *Keith Ellison*, Attorney General, Office of the Attorney General for the State of Minnesota, *Peter N. Surdo*, Special Assistant Attorney General, *Aaron D. Ford*, Attorney General, Office of the Attorney General for the State of Nevada, *Heidi Parry Stern*, Solicitor General, *Gurbir*

S. Grewal, Attorney General, Office of the Attorney General for the State of New Jersey, *Lisa J. Morelli*, Deputy Attorney General, *Hector Balderas*, Attorney General, Office of the Attorney General for the State of New Mexico, *Tania Maestas*, Chief Deputy Attorney General, *Joshua H. Stein*, Attorney General, Office of the Attorney General for the State of North Carolina, *Asher Spiller*, Assistant Attorney General, *Ellen F. Rosenblum*, Attorney General, Office of the Attorney General for the State of Oregon, *Paul Garrahan*, Attorney-in-Charge, *Steve Novick*, Special Assistant Attorney General, *Josh Shapiro*, Attorney General, Office of the Attorney General for the Commonwealth of Pennsylvania, *Ann R. Johnston*, Senior Deputy Attorney General, *Aimee D. Thomson*, Deputy Attorney General, *Peter F. Neronha*, Attorney General, Office of the Attorney General for the State of Rhode Island, *Gregory S. Schultz*, Special Assistant Attorney General, *Thomas J. Donovan, Jr.*, Attorney General, Office of the Attorney General for the State of Vermont, *Nicholas F. Persampieri*, Assistant Attorney General, *Mark Herring*, Attorney General, Office of the Attorney General for the Commonwealth of Virginia, *Donald D. Anderson*, Deputy Attorney General, *Paul Kugelman, Jr.*, Senior Assistant Attorney General and Chief, Environmental Section, *Caitlin Colleen Graham O'Dwyer*, Assistant Attorney General, *Robert W. Ferguson*, Attorney General, Office of the Attorney General for the State of Washington, *Christopher H. Reitz* and *Emily C. Nelson*, Assistant Attorneys General, *Karl A. Racine*, Attorney General, Office of the Attorney General for the District of Columbia, *Loren L. AliKhan*, Solicitor General, *Tom Carr*, City Attorney, Office of the City Attorney for the City of Boulder, *Debra S. Kalish*, Senior Counsel, *Mark A. Flessner*, Corporation Counsel, Office of the Corporation Counsel for the City of Chicago, *Benna Ruth Solomon*, Deputy Corporation Counsel, *Jared Policicchio*, Supervising Assistant Corporation Counsel, *Kristin M. Bronson*, City Attorney, Office of the City

Attorney for the City and County of Denver, *Lindsay S. Carder* and *Edward J. Gorman*, Assistant City Attorneys, *Michael N. Feuer*, City Attorney, Office of the City Attorney for the City of Los Angeles, *Michael J. Bostrom*, Assistant City Attorney, *James E. Johnson*, Corporation Counsel, New York City Law Department, *Christopher G. King*, Senior Counsel, *Marcel S. Pratt*, City Solicitor, City of Philadelphia Law Department, *Scott J. Schwarz* and *Patrick K. O'Neill*, Divisional Deputy City Solicitors, and *Thomas F. Pepe*, City Attorney, City of South Miami were on the brief for the State and Municipal Intervenors in support of respondents. *Jeremiah Langston*, Assistant Attorney General, Office of the Attorney General for the State of Montana, *Stephen C. Meredith*, Solicitor, Office of the Attorney General for the Commonwealth of Kentucky, *Margaret I. Olson*, Assistant Attorney General, Office of the Attorney General for the State of North Dakota, and *Erik E. Petersen*, Assistant Attorney General, Office of the Attorney General for the State of Wyoming, and *Robert A. Wolf* entered appearances.

Patrick Morrisey, Attorney General, Office of the Attorney General for the State of West Virginia, *Lindsay S. See*, Solicitor General, *Thomas T. Lampman*, Assistant Solicitor General, *Scott A. Keller*, *Jeffrey H. Wood*, *Jeremy Evan Maltz*, *Steven P. Lehotsky*, *Michael B. Schon*, *Thomas A. Lorenzen*, *Elizabeth B. Dawson*, *Rae Cronmiller*, *Steve Marshall*, Attorney General, Office of the Attorney General for the State of Alabama, *Edmund G. LaCour, Jr.*, Solicitor General, *Kevin G. Clarkson*, Attorney General, Office of the Attorney General for the State of Alaska at the time the brief was filed, *Clyde Sniffen, Jr.*, Attorney General, *Leslie Rutledge*, Attorney General, Office of the Attorney General for the State of Arkansas, *Nicholas J. Bronni*, Solicitor General, *Vincent M. Wagner*, Deputy Solicitor General, *Dylan L. Jacobs*, Assistant Solicitor General, *Christopher M. Carr*, Attorney General,

Office of the Attorney General for the State of Georgia, *Andrew A. Pinson*, Solicitor General, *Derek Schmidt*, Attorney General, Office of the Attorney General for the State of Kansas, *Jeffrey A. Chanay*, Chief Deputy Attorney General, *Curtis T. Hill, Jr.*, Attorney General, Office of the Attorney General of Indiana, *Thomas M. Fisher*, Solicitor General, *Andrew Beshear*, Governor, Office of the Governor for the Commonwealth of Kentucky, *S. Travis Mayo*, Chief Deputy General Counsel, *Taylor Payne*, Deputy General Counsel, *Joseph A. Newberg*, Deputy General Counsel and Deputy Executive Director, *Jeff Landry*, Attorney General, Office of the Attorney General for the State of Louisiana, *Elizabeth B. Murrill*, Solicitor General, *Harry J. Vorhoff*, Assistant Attorney General, *Eric S. Schmitt*, Attorney General, Office of the Attorney General for the State of Missouri, *D. John Sauer*, Solicitor General, *Julie Marie Blake*, Deputy Solicitor General, *Timothy C. Fox*, Attorney General at the time the brief was filed, Office of the Attorney General for the State of Montana, *Matthew T. Cochenour*, Deputy Solicitor General, *Wayne Stenehjem*, Attorney General, Office of the Attorney General for the State of North Dakota, *Paul M. Seby*, Special Assistant Attorney General, *Douglas J. Peterson*, Attorney General, Office of the Attorney General for the State of Nebraska, *Justin D. Lavene*, Assistant Attorney General, *Dave Yost*, Attorney General, Office of the Attorney General of the State of Ohio, *Benjamin M. Flowers*, Solicitor General, *Cameron F. Simmons*, Principal Assistant Attorney General, *Mike Hunter*, Attorney General, Office of the Attorney General for the State of Oklahoma, *Mithun Mansinghani*, Solicitor General, *Jason R. Ravnsborg*, Attorney General, Office of the Attorney General for the State of South Dakota, *Steven R. Blair*, Assistant Attorney General, *Alan Wilson*, Attorney General, Office of the Attorney General for the State of South Carolina, *James Emory Smith, Jr.*, Deputy Solicitor General, *Ken Paxton*, Attorney General, Office of the Attorney General for

the State of Texas, *Kyle D. Hawkins*, Solicitor General, *Sean Reyes*, Attorney General, Office of the Attorney General for the State of Utah, *Tyler R. Green*, Solicitor General, *Bridget Hill*, Attorney General, Office of the Attorney General for the State of Wyoming, *James Kaste*, Deputy Attorney General, *Todd E. Palmer*, *William D. Booth*, *Obianuju Okasi*, *Carroll W. McGuffey, III*, *Misha Tseytlin*, *C. Grady Moore, III*, *Julia Barber*, *F. William Brownell*, *Elbert Lin*, *Allison D. Wood*, *Emily Church Schilling*, *Kristina R. Van Bockern*, *David M. Flannery*, *Kathy G. Beckett*, *Edward L. Kropp*, *Amy M. Smith*, *Janet J. Henry*, *Melissa Horne*, *Angela Jean Levin*, *Eugene M. Trisko*, *John A. Rego*, *Reed W. Sirak*, *Michael A. Zody*, *Jacob Santini*, *Robert D. Cheren*, *Mark W. DeLaquil*, and *Andrew M. Grossman* were on the brief for State and Industry Intervenors in support of respondents regarding Clean Power Plan Repeal.

Wayne Stenehjem, Attorney General, Office of the Attorney General for the State of North Dakota, and *Paul M. Seby*, Special Assistant Attorney General, were on the brief for intervenor State of North Dakota in support of the respondents. *Jerry Stouck* entered an appearance.

Thomas J. Ward, *Megan H. Berge*, and *Jared R. Wigginton* were on the brief for *amicus curiae* National Association of Builders in support of respondents.

Before: MILLETT, PILLARD, and WALKER, *Circuit Judges*.

Opinion for the Court filed PER CURIAM.

Opinion concurring in part, concurring in the judgment in part, and dissenting in part filed by *Circuit Judge* WALKER.

TABLE OF CONTENTS

I. Background 17
A. The Clean Air Act 17
B. Electricity and Climate Change 21
1. Electricity 21
2. Climate Change and the Federal Government 24
C. The Clean Power Plan 29
D. The ACE Rule 32
1. Repeal of the Clean Power Plan 32
2. Best System of Emission Reduction 33
3. Degree of Emission Limitation Achievable 36
4. Implementing Regulations 38
E. Petitions for Review 38
F. Jurisdiction and Standard of Review 39
II. Section 7411 40
A. Statutory Context 40
1. Text 46
2. Statutory History, Structure, and Purpose 59
3. Compliance Measures 71
B. The Major Questions Doctrine 74
1. The EPA's Regulatory Mandate 75
2. Best System of Emission Reduction 80
C. Federalism 92
III. The EPA's Authority to Regulate Carbon Dioxide Emissions Under Section 7411 98
A. The Coal Petitioners' Challenges 98
1. Endangerment Finding 99
2. Section 7411 and Section 7412's Parallel Operation 111
B. The Robinson Petitioners' Challenges 132
IV. Amendments to the Implementing Regulations 138
V. Vacatur and Remand 146
VI. Conclusion 147

As the Supreme Court recognized nearly fourteen years ago, climate change has been called "the most pressing environmental challenge of our time." *Massachusetts v. EPA*, 549 U.S. 497, 505 (2007) (formatting modified). Soon thereafter, the United States government determined that greenhouse gas emissions are polluting our atmosphere and causing significant and harmful effects on the human environment. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act (2009 Endangerment Finding), 74 Fed. Reg. 66,496, 66,497–66,499 (Dec. 15, 2009). And both Republican and Democratic administrations have agreed: Power plants burning fossil fuels like coal "are far and away" the largest stationary source of greenhouse gases and, indeed, their role in greenhouse gas emissions "dwarf[s] other categories[.]" EPA Br. 169; *see also* Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (New Source Rule), 80 Fed. Reg. 64,510, 64,522 (Oct. 23, 2015) (fossil-fuel-fired power plants are "by far the largest emitters" of greenhouse gases).

The question in this case is whether the Environmental Protection Agency (EPA) acted lawfully in adopting the 2019 Affordable Clean Energy Rule (ACE Rule), 84 Fed. Reg. 32,520 (July 8, 2019), as a means of regulating power plants' emissions of greenhouse gases. It did not. Although the EPA has the legal authority to adopt rules regulating those emissions, the central operative terms of the ACE Rule and the repeal of its predecessor rule, the Clean Power Plan, 80 Fed. Reg. 64,662 (Oct. 23, 2015), hinged on a fundamental misconstruction of Section 7411(d) of the Clean Air Act. In addition, the ACE Rule's amendment of the regulatory framework to slow the process for reduction of emissions is arbitrary and capricious. For those reasons, the ACE Rule is

vacated, and the record is remanded to the EPA for further proceedings consistent with this opinion.

I. BACKGROUND

A. THE CLEAN AIR ACT

In 1963, Congress passed the Clean Air Act, 42 U.S.C. § 7401 *et seq*., "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population[,]" *id*. § 7401(b)(1). Animating the Act was Congress' finding that "growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles[] has resulted in mounting dangers to the public health and welfare[.]" *Id*. § 7401(a)(2).

Section 111 of the Clean Air Act, which was added in 1970 and codified at 42 U.S.C. § 7411, directs the EPA to regulate any new and existing stationary sources of air pollutants that "cause[], or contribute[] significantly to, air pollution" and that "may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7411(b)(1)(A); *see id*. § 7411(d), (f) (providing that the EPA Administrator "shall" regulate existing and new sources of air pollution). A "stationary source" is a source of air pollution that cannot move, such as a power plant. *See id.* § 7411(a)(3) (defining "stationary source" as "any building, structure, facility, or installation which emits or may emit any air pollutant[]"). An example of a common non-stationary source of air pollution is a gas-powered motor vehicle. *See Utility Air Regulatory Group v. EPA* (*UARG*), 573 U.S. 302, 308 (2014).

Within 90 days of the enactment of Section 7411, the EPA Administrator was to promulgate a list of stationary source categories that "cause[], or contribute[] significantly to, air

pollution[.]" 42 U.S.C. § 7411(b)(1)(A). In 1971, the Administrator included fossil-fuel-fired steam-generating power plants on that list. Air Pollution Prevention and Control: List of Categories of Stationary Sources, 36 Fed. Reg. 5,931 (March 31, 1971); *see also* New Source Rule, 80 Fed. Reg. at 64,527–64,528. Today's power plants fall in that same category. ACE Rule, 84 Fed. Reg. at 32,557 n.250.

Once a stationary source category is listed, the Administrator must promulgate federal "standards of performance" for all newly constructed sources in the category. 42 U.S.C. § 7411(b)(1)(B). The Act defines a "standard of performance" as

> a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

Id. § 7411(a)(1).

Once such a new source regulation is promulgated, the Administrator also must issue emission guidelines for already-existing stationary sources within that same source category. 42 U.S.C. § 7411(d)(1)(A)(ii); *see also American Elec. Power Co., Inc. v. Connecticut* (*AEP*), 564 U.S. 410, 424 (2011).

While the new source standards are promulgated and enforced entirely by the EPA, the Clean Air Act prescribes a process of cooperative federalism for the regulation of existing sources. Under that structure, the statute delineates three distinct regulatory steps involving three sets of actors—the

EPA, the States, and regulated industry—each of which has a flexible role in choosing how to comply. *See* 42 U.S.C. § 7411(a)(1), (d). This allows each State to work with the stationary sources within its jurisdiction to devise a plan for meeting the federally promulgated quantitative guideline for emissions. *See id.* § 7411(d).

The process starts with the EPA first applying its expertise to determine "the degree of emission limitation achievable through the application of the best system of emission reduction" that "has been adequately demonstrated." 42 U.S.C. § 7411(a)(1); *see* 40 C.F.R. § 60.22a. That system must "tak[e] into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements[.]" 42 U.S.C. § 7411(a)(1). Once the Administrator identifies the best system of emission reduction, she then determines the amount of emission reduction that existing sources should be able to achieve based on the application of that system and adopts corresponding emission guidelines. *Id.*; *see also, e.g.*, ACE Rule, 84 Fed. Reg. at 32,523; Clean Power Plan, 80 Fed. Reg. at 64,719.

Each State then submits to the EPA a plan that (i) establishes standards of performance for that State's existing stationary sources' air pollutants (excepting pollutants already subject to separate federal emissions standards), and (ii) "provides for the implementation and enforcement of such standards of performance[]" by the State. 42 U.S.C. § 7411(d)(1); *see* 40 C.F.R. § 60.23a. The standards of performance must "reflect[]" the emission targets that the EPA has determined are achievable. 42 U.S.C. § 7411(a)(1). In this context, a state standard need not adopt the best system identified by the EPA to "reflect[]" it. *Id.*; *see* 40 C.F.R. § 60.24a(c). Instead, the Clean Air Act affords States significant flexibility in designing and enforcing standards that

employ other approaches so long as they meet the emission guidelines prescribed by the Agency.

If a State fails to submit a satisfactory plan, the EPA may prescribe a plan for that State. 42 U.S.C. § 7411(d)(2)(A); *see* 40 C.F.R. § 60.27a(c)-(e). Similarly, if the State submits a plan but fails to enforce it, the EPA itself may enforce the plan's terms. *Id*. § 7411(d)(2)(B).

The third and final set of relevant actors are the regulated entities themselves, to which, under the Act, the States may afford leeway in crafting compliance measures. *See* Clean Power Plan, 80 Fed. Reg. at 64,666; ACE Rule, 84 Fed. Reg. at 32,555.

The EPA has exercised its authority under Section 7411 over the years to set emission limitations for different types of air pollution from various categories of existing sources. *See* 42 Fed. Reg. 12,022 (March 1, 1977) (fluorides from phosphate fertilizer plants); 42 Fed. Reg. 55,796 (Oct. 18, 1977) (acid mist from sulfuric acid plants); 44 Fed. Reg. 29,828 (May 22, 1979) (total reduced sulfur from kraft pulp plants); 45 Fed. Reg. 26,294 (April 17, 1980) (fluorides from primary aluminum plants); 60 Fed. Reg. 65,387 (Dec. 19, 1995) (various pollutants from municipal waste combustors); 61 Fed. Reg. 9905 (March 12, 1996) (landfill gases from municipal solid waste landfills); 70 Fed. Reg. 28,606 (May 18, 2005) (mercury from coal-fired power plants).

The Clean Air Act is a comprehensive statute that includes a variety of regulatory programs for tackling air pollution in addition to Section 7411. Regulated parties may be subject to one or more programs. As relevant here, the National Ambient Air Quality Standards (NAAQS) provisions, 42 U.S.C. §§ 7408–7410, govern the levels of specified air pollutants that may be present in the atmosphere to protect air quality and the

public health and welfare. The Hazardous Air Pollutants program, *id.* § 7412, directs the EPA to establish strict emission limitations for the most dangerous air pollutants emitted from major sources. Section 7411's cooperative federalism program for existing sources operates as a gap-filler, requiring the EPA to regulate harmful emissions not controlled under those other two programs. *Id.* § 7411(d)(1)(i).

B. ELECTRICITY AND CLIMATE CHANGE

1. Electricity

Electricity powers the world. Chances are that you are reading this opinion on a device that consumes electricity. Yet two distinct characteristics of electricity make its production and delivery in the massive quantities demanded by consumers an exceptionally complex process. First, unlike most products, electricity is a perfectly fungible commodity. Grid Experts Amicus Br. 6. A watt of electricity is a watt of electricity, no matter who makes it, how they make it, or where it is purchased. Second, at least as of now, this highly demanded product cannot be effectively stored at scale after it is created. Paul L. Joskow, *Creating a Smarter U.S. Electricity Grid*, 26 J. ECON. PERSP. 29, 31–33 (2012).[1] Instead, electricity must

[1] Change in storage capacity is picking up speed. *See generally* Richard L. Revesz & Burcin Unel, *Managing the Future of the Electricity Grid: Energy Storage and Greenhouse Gas Emissions*, 42 HARV. ENV'T L. REV. 139, 140–141 (2018) (describing ongoing declines in cost of storage); LAZARD, LAZARD'S LEVELIZED COST OF STORAGE ANALYSIS—VERSION 6.0 (2020) (noting "storage costs have declined across most use cases and technologies, particularly for shorter-duration applications, in part driven by evolving preferences in the industry"). Nevertheless, the grid's production capacity still far exceeds its present storage capacity. Univ. of Mich.

constantly be produced, and is almost instantaneously consumed. *See* Clean Power Plan, 80 Fed. Reg. at 64,677, 64,692; Grid Experts Amicus Br. 8.

Those unique attributes led to the creation of the American electrical grid.[2] The grid has been called the "supreme engineering achievement of the 20th century," MASS. INST. OF TECH., THE FUTURE OF THE ELECTRIC GRID 1 (2011) (formatting modified), and it is an exceptionally complex, interconnected system. "[A]ny electricity that enters the grid immediately becomes a part of a vast pool of energy that is constantly moving[.]" *New York v. FERC*, 535 U.S. 1, 7 (2002). That means that units of electricity as delivered to the user are identical, no matter their source. On the grid, there is no coal-generated electricity or renewable-generated electricity; there is just electricity. *See* Clean Power Plan, 80 Fed. Reg. at 64,692; Grid Experts Amicus Br. 7–8. Also, because storing electricity for any length of time remains technically challenging and often costly, the components of the grid must operate as a perfectly calibrated machine to deliver the amount of electricity that all consumers across the United States need at the moment they need it. Grid Experts Amicus

---

Ctr. for Sustainable Sys., U.S. GRID ENERGY STORAGE (Sept. 2020), http://css.umich.edu/sites/default/files/US%20Grid%20Energy%20Storage_CSS15-17_e2020.pdf (last visited Jan. 11, 2021) (United States has 1,100 gigawatts of installed generation capacity and just 23 gigawatts of storage capacity).

[2] Technically, "grids." There are three regional grids in the contiguous United States: Eastern, Western, and Texas. Grid Experts Amicus Br. 9; *see also* United States Dep't of Energy, *North American Electric Reliability Corporation Interconnections*, https://www.energy.gov/oe/downloads/north-american-electric-reliability-corporation-interconnections (last visited Jan. 11, 2021).

Br. 8, 10–11; *see also* 80 Fed. Reg. at 64,677. "If [someone] in Atlanta on the Georgia [leg of the] system turns on a light, every generator on Florida's system almost instantly is caused to produce some quantity of additional electric energy which serves to maintain the balance in the interconnected system[.]" *Federal Power Comm'n v. Florida Power & Light Co.*, 404 U.S. 453, 460 (1972) (citation omitted). "Like orchestra conductors signaling entrances and cut-offs, grid operators use automated systems to signal particular generators to dispatch more or less power to the grid as needed over the course of the day, thus ensuring that power pooled on the grid rises and falls to meet changing demand." Grid Experts Amicus Br. 11.

Most generators of electricity on the American grid create power by burning fossil fuels like coal, oil, and natural gas. *See* United States Energy Information Administration (EIA), *Frequently Asked Questions: What Is U.S. Electricity Generation by Energy Source?* (Nov. 2, 2020), https://www.eia.gov/tools/faqs/faq.php?id=427&t=3 (last visited Jan. 11, 2021) (fossil fuels represented 62.6 percent of electricity generation in 2019). Some of those power plants take a fossil fuel (usually coal) and burn it in a water boiler to make steam. Other power plants take a different fossil fuel (usually natural gas), mix it with highly compressed air, and ignite it to release a combination of super-hot gases. Either way, that steam or superheated mixture is piped into giant turbines that catch the gases and rotate at extreme speeds. Those turbines turn generators, which spin magnets within wire coils to produce electricity. EIA, *Electricity Explained* (Nov. 9, 2020), https://www.eia.gov/energyexplained/electricity/how-electricity-is-generated.php (last visited Jan 11, 2021).

2. Climate Change and the Federal Government

Electrical power has become virtually as indispensable to modern life as air itself. But electricity generation has come into conflict with air quality in ways that threaten human health and well-being when power generated by burning fossil fuels emits carbon dioxide and other polluting greenhouse gases into the air.

Since the late 1970s, the federal government has focused "serious attention" on the effects of carbon dioxide pollution on the climate. *Massachusetts v. EPA*, 549 U.S. at 507. In 1978, Congress adopted the National Climate Program Act, Pub. L. No. 95-367, 92 Stat. 601, which directed the President to study and devise an appropriate response to "man-induced climate processes and their implications[,]" *id*. § 3; *see Massachusetts v. EPA*, 549 U.S. at 507–508. In response, the National Academy of Sciences' National Research Council reported "no reason to doubt that climate changes will result" if "carbon dioxide continues to increase," and "[a] wait-and-see policy may mean waiting until it is too late." *Massachusetts v. EPA*, 549 U.S. at 508 (quoting CLIMATE RESEARCH BOARD, CARBON DIOXIDE & CLIMATE: A SCIENTIFIC ASSESSMENT, at viii (1979)).

In 1987, Congress passed the Global Climate Protection Act, which found that "manmade pollution[,]" including "the release of carbon dioxide, * * * may be producing a long-term and substantial increase in the average temperature on Earth[.]" Pub. L. No. 100-204, Title XI, §1102(1), 101 Stat. 1407, 1408 (codified at 15 U.S.C. § 2901 note). The Climate Protection Act directed the EPA to formulate a "coordinated national policy on global climate change." *Id*. § 1103(b), 101 Stat. at 1408; *see Massachusetts v. EPA*, 549 U.S. at 508.

It was not until the Supreme Court's 2007 decision in *Massachusetts v. EPA*, however, that the Court confirmed that carbon dioxide and other greenhouse gas emissions constituted "air pollutant[s]" covered by the Clean Air Act. *See* 549 U.S. at 528. The Supreme Court explained that the Clean Air Act's "sweeping definition of 'air pollutant' includes '*any* air pollution agent or combination of such agents, including *any* physical, chemical . . . substance or matter which is emitted into or otherwise enters the ambient air[.]'" *Id.* at 528–529 (quoting 42 U.S.C. § 7602(g)). The Act, the Supreme Court held, "is unambiguous" in that regard. *Id*. at 529. "On its face, the definition embraces all airborne compounds of whatever stripe, and underscores that intent through the repeated use of the word 'any.'" *Id*. And "[c]arbon dioxide" and other common greenhouse gases are "without a doubt" chemical substances that are "emitted into . . . the ambient air." *Id*. (quoting 42 U.S.C. § 7602(g)).

Given that statutory command, the Supreme Court ruled that the EPA "can avoid taking further action" to regulate such pollution "only if it determines that greenhouse gases do not contribute to climate change" or offers some reasonable explanation for not resolving that question. *Massachusetts v. EPA*, 549 U.S. at 533.

Taking up the mantle, the EPA in 2009 found "compelling[]" evidence that emissions of greenhouse gases are polluting the atmosphere and are endangering human health and welfare by causing significant damage to the environment. 2009 Endangerment Finding, 74 Fed. Reg. at 66,497; *see id*. ("[T]he Administrator finds that greenhouse gases in the atmosphere may reasonably be anticipated both to endanger public health and to endanger public welfare. * * * The Administrator has determined that the body of scientific evidence compellingly supports this finding."); *id*. at 66,497–

66,499. The EPA concluded that "'compelling' evidence supported the 'attribution of observed climate change to anthropogenic' [that is, human-influenced] emissions of greenhouse gases[.]" *AEP*, 564 U.S. at 417 (quoting 74 Fed. Reg. at 66,518). The "[c]onsequent dangers of greenhouse gas emissions," the EPA determined, include

> increases in heat-related deaths; coastal inundation and erosion caused by melting icecaps and rising sea levels; more frequent and intense hurricanes, floods, and other "extreme weather events" that cause death and destroy infrastructure; drought due to reductions in mountain snowpack and shifting precipitation patterns; destruction of ecosystems supporting animals and plants; and potentially "significant disruptions" of food production.

Id. (quoting 74 Fed. Reg. at 66,524–66,535).

Not long thereafter, the Supreme Court ruled that the significant greenhouse gas pollution caused by fossil-fuel-fired power plants is subject to regulation under Section 7411 of the Clean Air Act. *AEP*, 564 U.S. at 424 (holding that Section 7411 "speaks directly to emissions of carbon dioxide from [fossil-fuel-fired] plants[]") (internal quotation marks omitted). The Court concluded that the EPA's expertise made it "best suited to serve as primary regulator of greenhouse gas emissions." *Id*. at 428.

In 2015, with the 2009 carbon dioxide endangerment finding continuing in effect, the EPA reaffirmed that greenhouse gases "endanger public health, now and in the future." New Source Rule, 80 Fed. Reg. at 64,518. The EPA explained that, "[b]y raising average temperatures, climate change increases the likelihood of heat waves, which are associated with increased deaths and illnesses[,]" particularly

among "[c]hildren, the elderly, and the poor[.]" *Id.* at 64,517. In addition, the EPA found that "[c]limate change impacts touch nearly every aspect of public welfare." *Id*. Among the "multiple threats caused by human emissions of [greenhouse gases]," the EPA pointed to climate changes that "are expected to place large areas of the country at serious risk of reduced water supplies, increased water pollution, and increased occurrence of extreme events such as floods and droughts." *Id.* The EPA "emphasize[d] the urgency of reducing [greenhouse gas] emissions due to * * * projections that show [greenhouse gas] concentrations climbing to ever-increasing levels in the absence of mitigation[,]" citing independent assessments finding that, "without a reduction in emissions, CO_2 concentrations by the end of the century would increase to levels that the Earth has not experienced for more than 30 million years." *Id.* at 64,518.

The federal government's consistent recognition of the danger to public health and welfare caused by climate change, and the signal contribution of greenhouse gas emissions from power plants to global warming, continues to the present. In 2018, President Trump's administration concluded that "Earth's climate is now changing faster than at any point in the history of modern civilization, primarily as a result of human activities." U.S. GLOBAL CHANGE RESEARCH PROGRAM, FOURTH NATIONAL CLIMATE ASSESSMENT, VOLUME II: IMPACTS, RISKS, AND ADAPTATION IN THE UNITED STATES (REPORT-IN-BRIEF) 24 (2018). The administration added that "the evidence of human-caused climate change is overwhelming and continues to strengthen," and "the impacts of climate change are intensifying across the country[.]" *Id.* at 26 (emphasis omitted). "Climate-related changes in weather patterns and associated changes in air, water, food, and the environment are affecting the health and well-being of the American people, causing injuries, illnesses, and death." *Id.* at

102. The administration's report concluded that urgent action is needed to mitigate these dangers because "[f]uture risks from climate change depend primarily on decisions made today." *Id.* at 13.

In preparing the ACE Rule, the EPA expressly acknowledged its continued adherence to the 2015 endangerment finding. 84 Fed. Reg. at 32,533 (The 2015 New Source Rule "continues to provide the requisite predicate for applicability of [Clean Air Act] section 111(d)."); *id*. at 32,557 n.250; *see also* Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program: Proposed Rule, 83 Fed. Reg. 44,746, 44,751 (Aug. 31, 2018) (confirming that the 2015 New Source Rule "remains on the books[]"); EPA Br. 217.

That endangerment finding provided the essential factual foundation—and triggered a statutory mandate—for the EPA to regulate greenhouse gas emissions from both new and existing power plants. *See* New Source Rule, 80 Fed. Reg. at 64,527, 64,529–64,532; Clean Power Plan, 80 Fed. Reg. at 64,683–64,690; *see also* 42 U.S.C. §§ 7411(b)(1)(A)–(B) (duty to regulate new stationary sources that contribute significantly to dangerous pollution identified in endangerment finding), 7411(d)(1)(A)(ii) (duty to regulate existing stationary sources that would be regulated under § 7411(b) if they were new stationary sources). Recall, Section 7411(b)(1)(A) provides that the EPA Administrator "shall" regulate any category of sources that, "in his judgment * * * causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." The EPA endangerment findings reflect such well-established risks.

C. THE CLEAN POWER PLAN

In the last decade, the EPA has heavily focused its regulation of greenhouse gases on the power sector because "power plants are far and away the largest stationary-category source of greenhouse gases[,]" and "power plants' contributions to CO_2 pollution * * * dwarf[] other categories[.]" EPA Br. 169.

In October 2015, the EPA issued greenhouse gas emission standards for new and modified power plants. *See* New Source Rule, 80 Fed. Reg. at 64,510. In so doing, the EPA found that, "[a]ll told, these fossil fuel-fired [power plants] emit almost one-third of all U.S. [greenhouse gas] emissions, and are responsible for almost three times as much as the emissions from the next ten stationary source categories combined." *Id.* at 64,531. That rule and finding remain in effect and are not challenged in this litigation.

The EPA then turned to the regulation of existing power plants. The EPA began, as the Clean Air Act requires, by determining the best system of emission reduction that has been adequately demonstrated for existing fossil-fuel-fired power plants. *See* 42 U.S.C. § 7411(a)(1); Clean Power Plan, 80 Fed. Reg. at 64,718. In identifying that system, the EPA chose to build on the established grid system and methods of operation already adopted by and familiar to the power sector. *See* 80 Fed. Reg. at 64,725, 64,727–64,728. The regulations and standards that the EPA formulated came to be known as the Clean Power Plan. *Id.* at 64,663.

In the Clean Power Plan, the EPA determined that a combination of three existing methods of emission reduction—which the Plan referred to as building blocks, 80 Fed. Reg. at 64,667—formed the "best system of emission reduction," 42 U.S.C. § 7411(a)(1).

First, the system incorporated heat-rate improvements—that is, technological measures that improve efficiency at coal-fired steam power plants and, in that way, reduce the amount of coal that must be burned to produce each watt of electricity to the grid. 80 Fed. Reg. at 64,667.

Second, the system added the "substitut[ion of] increased generation from lower-emitting existing natural gas combined cycle units for generation from higher-emitting affected steam generating" power plants, which are mostly coal-fired. 80 Fed. Reg. at 64,667.

Third, the system prioritized the use of electricity generated from zero-emitting renewable-energy sources over electricity from the heavily greenhouse-gas-polluting fossil-fuel-fired power plants. 80 Fed. Reg. at 64,667.

Those second and third methods of emission control are often referred to as "generation shifting" because the reductions occur when the source of power generation shifts from higher-emission power plants to less-polluting sources of energy. *See* Clean Power Plan, 80 Fed. Reg. at 64,728–64,729. As the EPA observed, such shifts in generation already occur all the time as a matter of grid mechanics. That is, within the grid's "Constrained Least-Cost Dispatch" system, production from "generators with the lowest variable costs" will be dispatched "first, as system operational limits allow, until all demand is satisfied." Grid Experts Amicus Br. 12. "[R]enewable energy generators typically receive dispatch priority because they have lower variable costs than fossil-fuel-fired generators, which must purchase fuel." *Id.* at 13 (citing 80 Fed. Reg. at 64,693). The EPA found that most electricity is generated by diversified utilities that could achieve most or all of the shift to lower- or no-emission generation by

reassessing the dispatch priority of their own assets. *See* 80 Fed. Reg. at 64,796, 64,804.

As required by Section 7411(a)(1), the EPA then quantified the degree of emission reduction achievable under that three-tier best system for the relevant fossil-fuel-fired power plants and translated it into state-specific emissions goals for 2030. Clean Power Plan, 80 Fed. Reg. at 64,824–64,825. To permit additional flexibility, the Plan actually provided two alternative types of targets: rate-based goals, reflecting the rate of emission per certain amount of generation, and mass-based goals, reflecting the total emission from a State's sources. *Id.* at 64,820, 64,824–64,825 Tables 12, 13. The alternative metrics were an added source of flexibility for States in choosing how they would meet the federal limits.

Under the Clean Air Act, States could then propose plans that set standards of performance for their existing power plants that would meet those emission goals. Clean Power Plan, 80 Fed. Reg. at 64,664. In doing so, the States and their power plants were under no obligation to use the three specific methods that the EPA had identified in determining the best system of emission reduction. Rather, consistent with Section 7411(d)'s cooperative federalism approach, States were free to choose any measures, approaches, or technologies that they deemed appropriate to meet the federal guidelines. For example, they could adopt technological controls already in use by some power plants like carbon capture and sequestration (by which carbon dioxide is captured from the plant's flue gas before it is emitted and then securely stored so it cannot reach the atmosphere) or co-firing (where fuels that release less carbon dioxide are burned alongside fuels that release more to reduce the amount of the latter used). *See id.* at 64,883. The EPA also suggested that States might rely on emissions-trading

programs (often referred to as cap-and-trade) and other potential compliance strategies. *Id.* at 64,887.

The EPA found that its proposed approach was "consistent with, and in some ways mirrors, the interconnected, interdependent and highly regulated nature of the utility power sector[]" and its grid, as well as "the daily operation of affected [power plants] within this framework, and the critical role of utilities in providing reliable, affordable electricity at all times and in all places within this complex, regulated system." Clean Power Plan, 80 Fed. Reg. at 64,678.

The Clean Power Plan was challenged in this court. *West Virginia* v. *EPA,* No. 15-1363 (and consolidated cases) (D.C. Cir. Oct. 23, 2015). After we heard argument *en banc*, but before we issued a decision, that litigation was held in abeyance and ultimately dismissed as the EPA reassessed its position. No. 15-1363, Docs. 1673071, 1806952.

D. THE ACE RULE

In 2019, the EPA issued a new rule that repealed and replaced the Clean Power Plan: The Affordable Clean Energy (ACE) Rule. *See* Repeal of the Clean Power Plan; Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guidelines Implementing Regulations, 84 Fed. Reg. 32,520 (July 8, 2019). That Rule is the subject of this litigation.

1. Repeal of the Clean Power Plan

At the outset, the ACE Rule repealed the Clean Power Plan. The EPA explained that it felt itself statutorily compelled to do so because, in its view, "the plain meaning" of Section 7411(d) "unambiguously" limits the best system of emission reduction to only those measures "that can be put into operation

at a building, structure, facility, or installation." ACE Rule, 84 Fed. Reg. at 32,523–32,524. Because the Clean Power Plan's best system was determined by using some emission control measures that the EPA characterized as physically operating off the site of coal-fired power plants—such as some forms of generation shifting and emissions trading—the EPA concluded that it had no choice but to repeal the Plan. *Id.* The EPA emphasized "that [its] action is based on the only permissible reading of the statute and [it] would reach that conclusion even without consideration of the major question doctrine," while adding that application of that latter doctrine "confirms the unambiguously expressed intent" of Section 7411. *Id.* at 32,529.

2. Best System of Emission Reduction

Considering its authority under Section 7411 to be confined to physical changes to the power plants themselves, the EPA's ACE Rule determined a new best system of emission reduction for coal-fired power plants only. The EPA left unaddressed in this rulemaking (or elsewhere) greenhouse gas emissions from other types of fossil-fuel-fired power plants, such as those fired by natural gas or oil. ACE Rule, 84 Fed. Reg. at 32,533.

The EPA's proposed system relied solely on heat-rate improvement technologies and practices that could be applied at and to existing coal-fired power plants. ACE Rule, 84 Fed. Reg. at 32,525, 32,537. The EPA selected only seven heat-rate improvement techniques as components of its best system. *Id.* at 32,537. Six of those measures were new-to-the-plant technologies or "equipment upgrades." *Id.* at 32,536–32,537 (naming as part of the best system (1) adding or upgrading neural networks and intelligent sootblowers; (2) upgrading boiler feed pumps; (3) replacing or upgrading air heater and

duct leakage control devices; (4) adding variable frequency drives in feed pumps and induced-draft fans; (5) blade path upgrades; and (6) redesigning or replacing economizers). The seventh measure was the use of "best operating and maintenance practices" implementing heat-rate improvement techniques. *Id.* at 32,537, 32,540. The EPA limited itself to techniques that could be "applied broadly" to the Nation's coal-fired plants, which primarily amounted to upgrades to existing equipment. *Id.* at 32,536.

The EPA explained that only five of the seven listed techniques directly reduce the heat rate of power plants. *See* ACE Rule, 84 Fed. Reg. at 32,538–32,540. The other two techniques—replacing or upgrading the boiler feed pump and installing variable frequency drives—serve to reduce the amount of energy that a power plant must use to run its own general operations. *Id.* at 32,538–32,539.[3] So those two techniques do not make a power plant more efficient in turning coal into power, but instead allow power plants to dispatch more of the power they produce to the grid rather than using it internally. *Id.*

[3] The boiler feed pump is a device that is used to pump water into the boiler. 84 Fed. Reg. at 32,538. It consumes a "large fraction" of the power used to run the plant. *Id.* Because the boiler feed pump requires so much energy, the EPA suggested that "maintenance on these pumps should be rigorous to ensure both reliability and high-efficiency operation." *Id.* Variable frequency drives "enable[] very precise and accurate speed control" of both boiler feed pumps and "induced draft (ID) fans," which "maintain proper flue gas flow through downstream air pollutant control equipment[.]" *Id.* at 32,539. This precise control would reduce the excess use of fans and pumps, requiring less energy. *See id.*

The EPA identified two of its other chosen techniques—blade path and economizer upgrades—as the measures that, of all the considered technologies, were "expected to offer some of the largest [heat-rate] improvements." ACE Rule, 84 Fed. Reg. at 32,537 (showing table predicting highest heat-rate improvement range in economizer redesign or replacements and blade path upgrades).[4]

But the EPA then stated that it expected some power plants would not adopt those two technologies because their use could trigger additional regulation that the companies would find burdensome. 84 Fed. Reg. at 32,537 ("[B]ased on public comments * * *, [blade path upgrades and economizer redesign or replacement] are [heat-rate improvement] technologies that have the most potential to trigger [New Source Review] requirements."). In fact, the EPA did not model those two techniques in its regulatory impact analysis precisely because it was unlikely that they would be adopted. J.A. 1656–1657.

Finally, the EPA acknowledged that the proposed technologies could create a "rebound effect." ACE Rule, 84 Fed. Reg. at 32,542. A rebound effect means that net carbon dioxide emissions actually *increase* as a result of the efficiency improvements made by power plants. *Id.* This happens because, as the efficiency upgrades make coal-based energy cheaper to produce, coal-fired power plants will have an incentive to run more often, thereby increasing their overall emissions. *Id.* The EPA found that risk of increased emissions irrelevant because its best system of emission reduction "is aimed at improving a source's emissions *rate* performance at

[4] "Blade path upgrades" consist of upgrades to the steam turbine. Economizers are heat-exchange devices that "capture waste heat from boiler flue gas" and use that captured heat to help heat the boiler feedwater. *Id.* at 32,540.

the unit-level," rather than reducing the overall volume of emissions by individual sources. *Id.* at 32,543.

In choosing its seven proposed power-plant-based heat-rate improvement technologies, the EPA excluded from its best system several other suggested methods of reducing emissions, including (1) natural gas co-firing, repowering, and refueling; (2) biomass co-firing; and (3) carbon capture and storage technologies. ACE Rule, 84 Fed. Reg. at 32,543–32,547. The EPA rejected biomass co-firing primarily because "any potential net reductions in emissions from biomass use occur outside of the regulated source," and so do not fall within the EPA's reading of Section 7411(d) as confined to emission limits imposed at and to individual plants. *Id.* at 32,546. The EPA excluded natural gas co-firing and carbon capture and storage from its own best system, citing cost, geographical, and operational concerns. *Id.* at 32,544–32,545, 32,547–32,548. The EPA provided that sources could choose to use natural gas co-firing or carbon capture—but not biomass co-firing—to meet state-established standards of performance. *Id.* at 32,555.

3. Degree of Emission Limitation Achievable

Having determined its best system of emission reduction, the EPA then purported to prescribe the "degree of emission limitation achievable," which States could use to create their own standards of performance. 42 U.S.C. § 7411(a)(1). What the EPA produced as its emission guidelines was a chart that prescribed heat-rate improvement "ranges" for each of the EPA's chosen heat-rate improvement technologies, organized by power plants of differing sizes. ACE Rule, 84 Fed. Reg. at 32,537. The ranges show how much heat-rate improvement can be "expected" from use of each of the identified technologies. *Id.*

The EPA was explicit, though, that the "potential" range of heat-rate reduction was only illustrative and that the actual reduction for each of the EPA's chosen technologies would be "unit-specific" and would "depend upon a range of unit-specific factors." ACE Rule, 84 Fed. Reg. at 32,537–32,538. In that way, the ACE Rule made States responsible for evaluating "[heat-rate improvement] potential, technical feasibility, and applicability for each of the [best system of emission reduction] candidate technologies" on a power-plant–by–power-plant basis. *Id.* at 32,538. The ACE Rule expressly left States free to establish their own standards of performance for their power plants that "reflect a value of [heat-rate improvement] that falls *outside*" the ranges provided in the EPA's chart. *Id.* (emphasis added). In other words, the minimums listed in the EPA's emission-reduction chart were only suggestions.

The EPA explained that its non-mandatory ranges of efficiency reduction were valid because the applicability of the heat-rate improvement techniques to different plants and the effectiveness of each power plant's existing technology may vary. *See* ACE Rule, 84 Fed. Reg. at 32,538 (stating that "not all" of the technologies would be "applicable or warranted at the level of a particular facility due to source-specific factors such as the site-specific operational and maintenance history, the design and configuration, [or] the expected operating plans").

The EPA predicted that its ACE Rule would reduce carbon dioxide emissions by less than 1% from baseline emission projections by 2035. J.A. 1651. That calculation did not reflect emission *increases* that could result from the rebound effect.

4. Implementing Regulations

The ACE Rule included some new regulations under Section 7411(d). ACE Rule, 84 Fed. Reg. at 32,575-32,584 (codified at 40 C.F.R. pt. 60, subpart Ba). As relevant here, the regulations significantly extend the States' deadlines for the development and submittal of their plans for emission reduction from nine months to three years. *See* 40 C.F.R. § 60.23a(a)(1). Similarly, the new regulations extend the EPA's deadline to act on those plans from four months to one year. 40 C.F.R. § 60.27a(b). The new regulations also extend the EPA's deadline to substitute its own plan for a non-compliant State's plan from six months after the submission deadline to two years after a finding that the plan was incomplete, disapproved, or unsubmitted. *See* 40 C.F.R. § 60.27a(c). Finally, the requirement that States demonstrate compliance progress is now triggered only where a State's compliance schedule stretches more than two years from when its plan was originally due, as opposed to the one-year period in the prior regulations. *See* 40 C.F.R. § 60.24a(d).

E. PETITIONS FOR REVIEW

Twelve petitions for review of the ACE Rule were timely filed in this court and consolidated in this case. Nos. 19-1140 (lead case), 19-1165, 19-1166, 19-1173, 19-1175, 19-1176, 19-1177, 19-1179, 19-1185, 19-1186, 19-1187, 19-1188. The petitioners fall into three groups.

The first grouping consists of petitioners who seek review of the ACE Rule's conclusion that Section 7411 only permits emission reduction measures that can be implemented at and applied to the source. Those petitioners include (i) a coalition of State and municipal governments; (ii) power utilities;

(iii) trade associations from the renewable energy industry; and (iv) several public health and environmental advocacy groups.[5]

The second grouping is petitioners who challenge the ACE Rule's imposition of any emission limits as unlawful because, in their view, (i) the EPA failed to make a specific endangerment finding for carbon dioxide emitted from existing power plants; (ii) the EPA's regulation of mercury emissions from coal-fired power plants under Section 7412 precludes the regulation of greenhouse gas emissions under Section 7411; and (iii) the EPA should have regulated carbon dioxide from stationary sources, including power plants, under the NAAQS program, 42 U.S.C. §§ 7408–7410.

The third petitioner group is the Biogenic CO_2 Coalition. They object only to the ACE Rule's determination that States may not count biomass co-firing as a method of complying with numerical emission limits.

F. JURISDICTION AND STANDARD OF REVIEW

This court has jurisdiction to review these petitions under the Clean Air Act. 42 U.S.C. § 7607(b)(1); *see also Sierra Club v. EPA*, 955 F.3d 56, 61 (D.C. Cir. 2020).

We may set aside the ACE Rule if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 42 U.S.C. § 7607(d)(1)(C), (d)(9)(A); *see also Maryland v. EPA*, 958 F.3d 1185, 1196 (D.C. Cir. 2020) ("[W]e apply the same standard of review under the Clean Air Act as we do under the Administrative

[5] The public health and environmental advocacy groups also challenge the third prong of the ACE Rule—the new implementing regulations—as arbitrary and capricious.

Procedure Act.") (quoting *Allied Local & Reg'l Mfrs. Caucus v. EPA*, 215 F.3d 61, 68 (D.C. Cir. 2000)).

II. SECTION 7411

A. STATUTORY CONTEXT

In enacting the Clean Air Act, "Congress delegated to EPA the decision whether and how to regulate carbon-dioxide emissions from powerplants." *American Elec. Power Co. v. Connecticut* (*AEP*), 564 U.S. 410, 426 (2011). As the Supreme Court has observed, 42 U.S.C. § 7411 "speaks directly to" and outlines the framework for that regulation. *Id.* at 424 (internal quotation marks omitted). Specifically, Section 7411 marks out a pair of distinct regulatory tracks for stationary sources of air pollutants. *See* 42 U.S.C. § 7411(a)(2), (6). The first track applies to new sources, *id.* § 7411(b), and the second to existing sources, *id.* § 7411(d). The statute calls for federal-state cooperation in regulating existing sources, affording distinct roles to the federal and state agencies in arriving at what Section 7411 calls "standards of performance" for the emission of air pollutants. *Id.* § 7411(a)(1), (c), (d)(1).

The regulatory regimes for new and existing sources differ in the process by which such standards are established—and the roles played by the respective regulatory actors. The Act assigns the EPA the main regulatory role in specifying the new-source pollution controls: After the EPA determines that a particular "category of sources * * * causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare," it publishes regulations establishing standards of performance for new sources in that category. *Id.* § 7411(b)(1).

The process for regulating existing sources—which raise distinct concerns about sunk costs and the health and

environmental effects of older processes—involves more actors and steps. Regulation of a given category of existing sources is triggered by the same EPA air-pollution determination as for new sources. But for existing sources the Act adopts a cooperative-federalism approach that leaves the States discretion in determining how their State and industry can best meet quantitative emissions guidelines established by the EPA. *See AEP*, 564 U.S. at 424. Under Section 7411(d), the EPA and the States thus have distinct but complementary roles subject to different procedures and limitations. *See* 42 U.S.C. § 7411 (a)(1), (d)(1). This case concerns the mechanics of that cooperative framework for existing sources and, specifically, restrictions the Agency now claims the statute imposes on regulation of the air pollutants those sources emit.

Two provisions of Section 7411 shape the existing-source framework. Subsection (a)(1) defines a standard of performance, by reference to the "degree of emission limitation" that the EPA determines is "achievable," as:

> a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

42 U.S.C. § 7411(a)(1).

Subsection (d)(1), in turn, requires the Secretary to set up a system by which willing States can submit to the EPA "a plan which [] establishes standards of performance for any existing source." *Id.* § 7411(d)(1). Only "where [a] State fails to submit a satisfactory plan" may the EPA step in and directly

promulgate standards of performance for existing sources. *Id.* § 7411(d)(2).

Putting these two provisions together results in what are best understood as three distinct steps involving three sets of actors, each exercising a degree of leeway in choice of control measures. *See* ACE Rule, 84 Fed. Reg. at 32,533, 32,549–32,550; Clean Power Plan, 80 Fed. Reg. at 64,665–64,666.

First, under subsection (a)(1), the EPA determines the "best system of emission reduction" that is "adequately demonstrated, consideration certain cost, any nonair quality health and environmental impacts, and energy requirements.

quantify the "degree of emission limitation achievable through the application of the best system" it has identified. *Id.*; 40 C.F.R. § 60.22a; *see AEP*, 564 U.S. at 424; EPA Br. 21–22; ACE Rule, 84 Fed. Reg. at 32,523, 32,551.

Second, under subsection (d)(1), States issue standards of performance for existing sources that comply with the EPA's emission guidelines and "reflect" the achievable degree of emission limitation set in those guidelines. *AEP*, 564 U.S. at 424; 42 U.S.C. § 7411(d)(1); 40 C.F.R. § 60.23a; *see also* Clean Power Plan, 80 Fed. Reg. at 64,666. That the standards must "reflect" the emission guidelines does not mean that they must embody the methods EPA contemplated in identifying the best system; rather, the States have flexibility in determining the specifics of the standards they issue so long as they accomplish the "degree of emission limitation" the EPA calculated based on its "best system."

Third, the operators of regulated stationary sources implement measures to ensure they will in practice comply with the standards of performance their state agency has

established for them. *See* ACE Rule, 84 Fed. Reg. at 32,555. States often grant regulated entities some discretion in how they meet those standards. *See, e.g.*, N.Y. COMP. CODES R. & REGS. Tit. 6 § 201-6.4(f) (2013) (describing the "operational flexibility" afforded to Title V facility owners in New York State to "propose a range of operating conditions that will allow flexibility [for a facility] to operate under more than one operating scenario").

The issue before us arises at the first step—the EPA's determination of the best system of emission reduction. In the Clean Power Plan, the Agency determined that the best system was one that both improved the heat rate at power plants and prioritized generation from lower-emitting plants ahead of high-emitting plants. Clean Power Plan, 80 Fed. Reg. at 64,707. The EPA then calculated specific emission reductions achievable through application of that best system that it published as emission guidelines for States. *Id.* Had the Clean Power Plan gone into effect, States would then have submitted to the EPA plans based on the Agency's guidelines that established standards of performance for sources in their jurisdictions, as provided for in subsection (d)(1). The Clean Power Plan left States flexibility in the measures they included in their plans, so long as they achieved a reduction in emissions at least as great as that achieved by EPA-established quantitative guidelines. *See, e.g.*, *id.* at 64,665, 64,756–64,757, 64,734–64,737, 64,832–64,837. And it further allowed States, at their option, to give leeway to sources to select alternate compliance measures to make the requisite reductions. *See id.* at 64,834–64,835.

Based on what it now perceives to be an express and unambiguous textual limitation in Section 7411 that it says the Clean Power Plan overlooked, the EPA repealed that Plan and replaced it with the ACE Rule. The EPA's new reading of the

statute requires the Agency, in modeling its "best system of emission reduction," to consider only emission-reduction measures that "can be applied at and to a stationary source." ACE Rule, 84 Fed. Reg. at 32,534; *see also id.* at 32,526–32,532.

We address below the EPA's arguments regarding how the text and structure of Section 7411 purportedly support this limitation. That discussion is necessarily somewhat abstract and technical. So, for starters, it is worth bringing the matter more concretely into view.

Consider the effect the EPA's new statutory interpretation had on its resulting Rule. First, because generation shifting is not, in the EPA's view, a measure that can be applied "at and to" any one individual source, the ACE Rule limits the best system of emission reduction to heat-rate improvements alone. 84 Fed. Reg. at 32,534–32,535. Then, instead of publishing emission guidelines quantifying emission reductions achievable through application of the best system, the ACE Rule identifies what the Agency has determined are the most effective heat-rate technologies available and a potential range of heat-rate improvements achievable through application of each of those technologies. *Id*. 32,535–32,537.

As under the Clean Power Plan, the ACE Rule grants States flexibility in establishing standards of performance for sources pursuant to the Agency's emission guidelines. Unlike the Clean Power Plan, however, the ACE Rule does not require that the States reach any specified minimum emission reduction. Instead, States must merely "evaluate the applicability of each of the candidate technologies" to sources within their jurisdiction and report their conclusions back to the Agency. ACE Rule, 84 Fed. Reg. at 32,550, 32,538–32,561.

The Rule recites that regulated entities have "broad

discretion" in meeting state-established standards, ACE Rule, 84 Fed. Reg. at 32,555, yet at the same time the Rule deems impermissible any compliance measure that cannot be applied at and to the source, *id.* The ACE Rule thereby disqualifies compliance by, for example, burning biofuel, *id.* at 32,557–32,558, which emits recently captured carbon dioxide, in contrast to fossil fuels' release of carbon dioxide stored away millions of years ago. *See generally Center for Biological Diversity v. EPA*, 722 F.3d 401, 405–406 (D.C. Cir. 2013).

The question here is a relatively discrete one. We are not called upon to decide whether the approach of the ACE Rule is a permissible reading of the statute as a matter of agency discretion. Instead, the sole ground on which the EPA defends its abandonment of the Clean Power Plan in favor of the ACE Rule is that the text of Section 7411 is clear and unambiguous in constraining the EPA to use only improvements at and to existing sources in its best system of emission reduction.

The EPA contends that its current interpretation is

. Our task is to assess whether Section 7411 in fact compels the EPA's new interpretation. And because "deference to an agency's interpretation of a statute is not appropriate when the agency wrongly believes that interpretation is compelled by Congress," *Peter Pan Bus Lines, Inc. v. Fed. Motor Carrier Safety Admin.*, 471 F.3d 1350, 1354 (D.C. Cir. 2006) (quoting *PDK Labs., Inc. v. DEA*, 362 F.3d 786, 798 (D.C. Cir. 2004) (internal quotation marks omitted)), we may not defer to the EPA's reading if it is but one of several permissible interpretations of the statutory language, *see Negusie v. Holder*, 555 U.S. 511, 521 (2009). That is, the "regulation must be declared invalid, even though the agency might be able to adopt the regulation in the exercise of its discretion, if it 'was not

based on the agency's own judgment but rather on the unjustified assumption that it was Congress' judgment that such a regulation is desirable" or required. *Prill v. NLRB*, 755 F.2d 941, 948 (D.C. Cir. 1985) (quoting *FCC v. RCA Commc'ns*, 346 U.S. 86, 96 (1953) (formatting modified)); *accord Arizona v. Thompson*, 281 F.3d 248, 259 (D.C. Cir. 2002) (quoting *Prill*, 755 F.2d at 948).

For the reasons explained below, Section 7411 does not, as the EPA claims, constrain the Agency to identifying a best system of emission reduction consisting only of controls "that can be applied at and to a stationary source." ACE Rule, 84 Fed. Reg. at 32,534. The EPA here "failed to rely on its own judgment and expertise, and instead based its decision on an erroneous view of the law." *Prill*, 755 F.2d at 956. We accordingly must vacate and remand to the Agency "to interpret the statutory language anew." *Peter Pan Bus Lines*, 471 F.3d at 1354.

1. Text

As just noted, Section 7411 contemplates distinct roles for the EPA and the States in regulating existing stationary sources. *See* 42 U.S.C. § 7411(a)(1) (granting authority to the EPA to designate the best system and determine achievable degree of emissions reduction); *id.* § 7411(d)(1) (outlining the States' role in setting standards of performance for their sources). Nevertheless, the EPA now contends that language in Section 7411(a)(1) and (d)(1) "unambiguously limits the [best system of emission reduction] to those systems that can be put into operation *at* a building, structure, facility, or installation." ACE Rule, 84 Fed. Reg. at 32,524 (emphasis in original); *see id*. at 32,528; EPA Br. 70.

In the Agency's current view, the only pollution-control methods the Administrator can consider in selecting the "best

system of emission reduction" within the meaning of Section 7411(a) are add-ons or retrofits confined to the level of the individual fossil-fuel-fired power plant. ACE Rule,

That is so even though the record before the EPA shows that generation shifting to prioritize use of the cleanest sources of power is one of the most cost-effective means of reducing emissions that plants have already adopted and that have been demonstrated to work, and that generation shifting is capable of achieving far more emission reduction than controls physically confined to the source. *See, e.g.*, Clean Power Plan, 80 Fed. Reg. at 64,693, 64,728–64,729; 2 J.A. 598; Grid Experts Amicus Br. 13–16. In other words, the EPA reads the statute to require the Agency to turn its back on major elements of the systems that the power sector is actually and successfully using to efficiently and cost-effectively achieve the greatest emission reductions. *See* Grid Experts Amicus Br. 22 (observing that the ACE Rule "imposes greater abatement costs on industry than other approaches would to achieve the same effect").

The Clean Power Plan could not stand, the EPA now concludes, because its consideration of generation shifting exceeded the Agency's narrow authority under Section 7411's plain text. ACE Rule, 84 Fed. Reg. at

read "system of emission reduction" to mean "a set of measures that work together to reduce emissions and that are implementable by the sources themselves." Clean Power Plan, 80 Fed. Reg. at 64,762. And it concluded that both heat-rate improvements and generation shifting "are components of a best system of emission reduction for the affected [electricity generating units] because they entail actions that the affected [units] may themselves undertake that have the effect of reducing their emissions." *Id.* at 64,709 (internal quotation marks omitted).

All of that is wrong, the EPA has since decided. "[T]he Agency now recognizes that Congress 'spoke to the precise question' of the scope of [42 U.S.C. § 7411](a)(1) and clearly precluded the unsupportable reading of that provision asserted in the [Clean Power Plan]." ACE Rule, 84 Fed. Reg. at 32,527. The EPA insists that its current reading is mandated by the statutory text.

It is the EPA's current position that is wrong. Nothing in Section 7411(a)(1) itself dictates the "at and to the source" constraint on permissible ingredients of a "best system" that the Agency now endorses. For the EPA to prevail, its reading must be required by the statutory text. *Peter Pan Bus Lines*, 471 F.3d at 1354. It fails for at least three reasons, any of which is alone fatal.

First, the plain language of Section 7411(a)(1), the root of the EPA's authority to determine the best system, announces its own limitations. Those limitations simply do not include the source-specific caveat that the EPA now interposes and casts as unambiguous.

Second, there is no basis—grammatical, contextual, or otherwise—for the EPA's assertion that the source-specific language of subsection (d)(1) must be read upstream into subsection (a)(1) to equate the EPA's "application of the best system" with the controls States eventually will apply "at and to" an individual source. As the EPA at times acknowledges, the two subsections address distinct steps in the regulatory process, one focused on the EPA's role and the other focused on the States'. Any question as to which limitations pertain to each regulatory actor cannot reasonably be said to have been resolved by Congress in favor of the unambiguous meaning the EPA now advocates.

Third, even if subsections (a)(1) and (d)(1) were read

together in the way the EPA proposes, they would not confine the EPA to designating a best system consisting of at-the-source controls. The EPA's entire theory hinges on the Agency's unexplained replacement of the preposition "for" in "standards of performance for any existing source" with the prepositions "at" and "to." Yet the statutory text calls for standards of performance "for" existing sources. Emission-reduction measures "for" sources may readily be understood to go beyond those that apply physically "at" and "to" the individual source. Emissions trading, for example, might be a way "for" a source to meet a standard of performance.

The shortcomings of its statutory interpretation are more than enough to doom the Agency's claim that Section 7411 announces an unambiguous limit on the best system of emission reduction. The issue is not whether the EPA's counterarguments to each of these points might show its interpretation to be permissible as an exercise of discretion. Again, the EPA has not claimed to be exercising any such discretion here. It insists instead that the unambiguous terms of the statute tie its hands.

After reviewing what Section 7411 clearly says about the nature and limits of the "best system of emission reduction" that Congress called on the EPA to determine, we take up each of the EPA's arguments to show why Section 7411 does not unambiguously support its at-the-source restriction.

a. Section 7411(a) Defines the Best System

The EPA acknowledges, as it must, that Section 7411(a) is the source of the EPA's authority and responsibility to determine the best system of emission reduction for existing sources and set corresponding emission guidelines. *See, e.g.*, ACE Rule, 84 Fed Reg. at 32,534. Indeed, that is the only subsection in which the term "best system of emission

reduction" appears. But the EPA offers no reading of subsection (a)(1) itself.

Section 7411(a)(1) expresses Congress' expectation that the EPA will study all "adequately demonstrated" means of emission reduction. And it directs the EPA to draw on "adequately demonstrated" methods to determine the "best" system to reduce emissions. Congress imposed no limits on the types of measures the EPA may consider beyond three additional criteria: cost, any nonair quality health and environmental impacts, and energy requirements. 42 U.S.C. § 7411(a)(1). Congress largely called on the expert judgment of the EPA to determine for a particular source category and pollutant which already-demonstrated methods compose the "best system."

Because it did not set out separate definitions for either "system" or "best," those words take their ordinary meanings. *See Sandifer v. United States Steel Corp.*, 571 U.S. 220, 227 (2014). Webster's Dictionary offers a representative definition of "system" contemporaneous with the Act's adoption: "[A] complex unity formed of many often diverse parts subject to a common plan or serving a common purpose." *System*, WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY OF THE ENGLISH LANGUAGE UNABRIDGED 2322 (2d ed. 1968). The superlative "best" as applied to a "system of emission reduction" plainly places a high priority on efficiently and effectively reducing emissions. *See Best*, Merriam-Webster, https://www.merriam-webster.com/dictionary/best (last visited Jan. 11, 2021) ("excelling all others," "offering or producing the greatest advantage, utility, or satisfaction").

The ordinary meanings of these terms "reflect[] an intentional effort to confer the flexibility necessary" for effective regulation appropriate to the context. *Massachusetts*

v. EPA, 549 U.S. 497, 532 (2007). As the Supreme Court has acknowledged, "the degree of agency discretion that is acceptable varies according to the scope of the power congressionally conferred." *Whitman v. American Trucking Ass'n*, 531 U.S. 457, 475 (2001); *see Gaughf Props., L.P. v. Commissioner*, 738 F.3d 415, 424–425 (D.C. Cir. 2013); *Sabre, Inc. v. Department of Transp.*, 429 F.3d 1113, 1122, 1124–1125 (D.C. Cir. 2005). Congress in Section 7411 deliberately charged the EPA with identifying the best system of emission reduction to keep pace with escalating threats to air quality, and, within expressed limits, empowered it to make the judgments how best to do so.

The Agency simply ignores how the statutory text defines the "best system of emission reduction," asserting instead that definitional language does not confer regulatory authority. *See, e.g.*, EPA Br. 58–59 ("[I]t is not Section 7411(a) ('Definitions') that grants the agency authority to act."). Section 7411(a)(1)'s designation as a definitional provision deprives it of standalone meaning, the EPA contends. The EPA instead reads it as "subsidiary" to Section 7411(d), regarding state standards of performance for existing sources. EPA Br. 58. But Congress does indeed use definitional provisions to confer regulatory authority. *See, e.g.*, *Weinberger v. Bentex Pharm, Inc.*, 412 U.S. 645, 652–653 (1973) (holding that the statutory definition of "new drug" confers authority upon the FDA). That is precisely what it did in Section 7411(a)(1). *See Sierra Club v. Costle*, 657 F.2d 298, 321 (D.C. Cir. 1981) (describing Section 7411(a)(1) as authorizing the EPA to determine the best system of emission reduction and regulate accordingly); 40 C.F.R. 60.22a.

The EPA offers no support—apart from its own new-found version of "statutory interpretation 101," EPA Br. 65—for ignoring how the Act itself defines and limits the "best

system" determination. Nor does it offer any sound justification for importing language from a different provision governing States' "standards of performance." The EPA's "at and to the source" limitation on "best system" finds no footing in the text of Section 7411(a)(1).

b. Section 7411(d)(1) Does Not Change the Definition

Even taking the EPA's argument on its own terms does not work because Section 7411(d)(1)'s text and statutory context get it no further. To support its narrow reading of the EPA's authority to determine the "best system," the Agency focuses on the phrase "through the application of" in Section 7411(a)(1). That provision defines a "standard of performance" as an emission standard that "reflects the degree of emission limitation achievable through the application of the best system of emission reduction[.]" The EPA says the "application" phrase "requires both a direct object and an indirect object." ACE Rule, 84 Fed. Reg. at 32,524; *accord* EPA Br. 66–68. And, it continues, Congress cannot have meant to leave its indirect object undefined. The EPA says that, grammatically speaking, someone must apply something (the direct object) to something else (the indirect object). EPA Br. 115–116, 118–119. It then picks its preferred, narrow indirect object from a different statutory subsection and casts that object as the only statutorily permissible choice. *See* 84 Fed Reg. at 32,524.

The EPA locates an indirect object in Section 7411(d). Unlike subsection (a)(1), subsection (d)—entitled "Standards of performance for existing sources"—explicates an indirect object. 42 U.S.C. § 7411(d). Borrowing from subsection (d), then, the EPA imports into subsection (a)(1) a limitation of the "best system of emission reduction" to measures that can be applied "to and at *an individual existing source*—i.e., any

building or facility subject to regulation." EPA Br. 58 (emphasis added); *see also* ACE Rule, 84 Fed. Reg. at 32,534.

But the language to which the EPA points supplies the indirect object only of "standards of performance" adopted by States pursuant to Section 7411(d)(1), not of the EPA's "best system of emission reduction" determined pursuant to Section 7411(a)(1). The latter phrase does not even appear in Section 7411(d)(1). To reach its preferred result, the Agency invokes surmise rather than statutory text. It insists that the limitations on States' standards of performance in Section 7411(d)(1)—the second step in the regulatory process—must be read upstream to limit the EPA's "best system of emission reduction" in subsection (a)(1). Nothing in the statute so requires.

In the text, States' standards of performance need only "reflect" the emission guidelines (or "degree of emission limitation achievable") the EPA calculates based on the "best system of emission reduction" it determines. As laid out in the statute and explained above, those state-developed "standards of performance" follow on but are legally and functionally distinct from the "best system" that the EPA develops. The EPA is simply wrong that the statute clearly and unambiguously requires that the unstated indirect object of "application of the best system of emission reduction" under Section 7411(a)(1) must be the same as the indirect object of States' standards of performance as stated in Section 7411(d)(1).

Neither does the grammatical rule the EPA invokes to bridge the gap between these subsections hold up. The crux of the EPA's textual argument is that "the verb 'to apply,' requires both a direct object and an indirect object." ACE Rule, 84 Fed. Reg. at 32,524; EPA Br. 66–68. The first obvious problem is

that, in the relevant passage of Section 7411(a)(1), Congress did not use the verb "apply," but rather the noun "application." The EPA acknowledges this distinction in passing in the ACE Rule, but dismisses it without discussion, offering only that "'application' is derived from the verb 'to apply[.]'" 84 Fed. Reg. at 32,524. That is, of course, true, as far as it goes. The phrase "application of the best system of emission reduction" is what is called a nominalization, a "result of forming a noun or noun phrase from a clause or a verb." *Nominalization*, Merriam-Webster Dictionary https://www.merriam-webster.com/dictionary/nominalization (last visited Jan. 11, 2021). Grammar assigns direct or indirect objects only to verbs—not nouns. No objects are needed to grammatically complete the actual statutory phrase. So much for the grammatical imperative.

Even if we were to take the EPA's leap to the verb "apply" from the noun "application" that actually appears in the statute, the Agency comes up short. The EPA is incorrect to insist that the verb "apply" requires an indirect object. There is nothing ungrammatical about the sentence "In its effort to reduce emissions, the EPA applied the best system of emission reduction." The verb "apply," like its nominalization, may properly be used in a sentence with or without an explicit indirect object. *See Apply*, THOMAS HERBST ET AL., A VALENCY DICTIONARY OF ENGLISH 41–42 (Ian F. Roe et al. eds., 2004) (listing examples of grammatically correct uses with and without direct and indirect objects).[6]

[6] Take, for instance, the following sentences: "It appears to violate GATT regulations, but the rules for applying the regulations are vague and the Netherlands has so far escaped censure"; "This information may not apply in Scotland, which has a different legal system." *Apply*, THOMAS HERBST ET AL., A VALENCY DICTIONARY

The EPA's shift from nominalization to verb does not, in any event, accomplish much. Either way, the lack of an explicit indirect object in Section 7411(a)(1) does not require that one be borrowed from Section 7411(d)(1). Equally logical indirect objects include, for example, the entire category of stationary sources, or the air pollutant to be limited. In any event, the best system cannot reasonably be said to be unambiguously applicable only to the indirect object the EPA suggests.

The EPA faults the Clean Power Plan for reading "application of" to be functionally equivalent to "implementation of," because "implement" "does not require an indirect object." EPA Br. 73. But neither does "application." So "application" textually supports adoption of the Clean Power Plan just as well as "implementation." Again, so much for grammar mandating the EPA's result.

The argument fails either way, but the fact is that Congress used the nominalization "application of" the best system of emission reduction. A nominalization enables the drafter to leave certain information unspecified—namely, who is acting and where their action is directed. *See, e.g.*, George D. Gopen, *Who Done It? Controlling Agency in Legal Writing, Part II*, 39 LITIG. 12, 12–13 (Spring 2013) (describing how nominalizations create ambiguity). Legal writers, including Congress, employ nominalizations all the time. And they do so with the full awareness that their use preserves flexibility.

Congress reasonably built in leeway for the EPA to

OF ENGLISH 41–42 (examples from sections D1 and D5). Additional examples abound. *See, e.g.*, *Apply*, OXFORD ENGLISH DICTIONARY (3d ed. 2008) (def. I.9) ("Crest bought the firm[,] and, by applying its marketing and distribution muscle, has turned it into a $200 million category killer.").

exercise technical expertise in applying Section 7411, given the variety of pollution problems that it covers and the importance of allowing States maneuvering room under the cooperative federalism scheme. Congress may avoid specifying subjects, objects, or other grammatical information because a degree of adaptability suits the statutory role and purpose. One way Congress can denote that it has delegated to an agency's judgment the task of filling in the on-the-ground details of a statutorily defined program is by declining to dictate grammatically optional information, *see Lehrfeld v. Richardson*, 132 F.3d 1463, 1465–1466 (D.C. Cir. 1998); *Appalachian Power Co. v. EPA*, 135 F.3d 791, 808–810 (D.C. Cir. 1998), including an indirect object that the rules of grammar do not require be explicitly stated, *see, e.g.*, *Peter Pan Bus Lines*, 471 F.3d at 1353–1354.

Even if an implicit indirect object can be surmised, there is more than one plausible candidate here, and the statute does not unambiguously dictate the object. There certainly is no rule—grammatical or otherwise—that the specific indirect object must be the one to which the EPA now points. At the least, other contextually appropriate indirect objects of the "best system" include the source category or the emissions. The EPA has failed to establish that the sole and unambiguous indirect object must be the individual source. The EPA, of course, "may fill the gap[s] the Congress left," and any such "regulation is entitled to deference." *Gaughf Props.*, 738 F.3d at 424; *see also Appalachian Power*, 135 F.3d at 811–812. But in the ACE Rule and in its briefing here, the EPA has assiduously denied the existence of any gap at all. That was error.

c. EPA's Reading Itself Falls Short

The third and equally fatal flaw in the EPA's textual

analysis is its unexplained substitution of the prepositions "at" and "to" where the text it would have us borrow from subsection (d)(1) actually says "for" in referencing "standards of performance for any existing source." *See, e.g.*, ACE Rule, 84 Fed. Reg. at 32,534. As we do with any words enacted by Congress, we must give effect to the preposition it chose. *Cf. Telecommunications Res. & Action Ctr. v. FCC*, 801 F.2d 501, 517–518 (D.C. Cir. 1986) (finding decisive Congress' use of the preposition "under" instead of "by"). The word Congress actually used—"for" the source—lacks the site-specific connotation on which the EPA's case depends.

In its brief, the EPA presents the compound construction it says inexorably follows from reading text from subsection (a)(1) together with text from subsection (d)(1), and says it is restricted to determining a "best system of emission reduction *for* any building, structure, facility, or installation." EPA Br. 56 (formatting modified) (quoting 42 U.S.C. § 7411(a)(1), (a)(3), (a)(6), (d)(1)). The Agency then asserts that "the natural reading" of its proffered construction is that "the methods planned would be 'for' *and act at* the level of the singular, individual source." *Id.* at 62 (emphasis added).

In the preamble to the ACE Rule, the EPA went further, fully substituting the prepositions "at" and "to" in place of the preposition "for" that actually appears in the text the Agency says must be borrowed from subsection (d)(1). ACE Rule, 84 Fed. Reg. at 32,534. It relies on that further substitution to insist that the best system of emission reduction designated by the EPA must be limited to controls "that can be applied at and to," not "for," "a stationary source." *Id.*; *see also id.* at 32,524 ("at"); *id.* at 32,532, 32,534, 32,556 ("at and to"); *id.* at 32,555, 32,529 ("to and at"); *id.* at 32,543 ("at or to"); *id.* at 32,526 n.65 ("to or at"); EPA Br. 4, 58, 74. But nowhere in the ACE Rule does the EPA explain this swap of one preposition for two

meaningfully more restrictive ones. *See, e.g.*, 84 Fed. Reg. at 32,523–32,524, 32,534–32,535.

The EPA rewrites rather than reads the plain statutory text. Section 7411(a)(1), even if cross-referenced to subsection (d)(1) in the way the EPA says it must be, calls for the Agency to determine "the degree of emission limitation achievable through the application of the best system of emission reduction *for* any existing source"—not the application of the best system "at" and "to" such a source. And the word "for" lacks the physical on-site connotation that is so critical to the EPA's reading of the statutory text. Indeed, a standard of performance or system of emission reduction "for" a source just means that the system is "with regard or respect to" or "concerning" the source. *See For*, OXFORD ENGLISH DICTIONARY (2d ed. 1989) (def. 26). In contrast, "at" and "to" tend to connote direct physical proximity or contact. *See At*, OXFORD ENGLISH DICTIONARY (3d ed. 2008) (def. 1.a) ("usually determining a point or object with which a thing or attribute is practically in contact"); *To*, OXFORD ENGLISH DICTIONARY (3d. ed 2008) (def. 5.a) ("Into (or in) contact with; on, against"). A best system "for" a source thus might entail a broader array of controls that concern but are not immediately physically proximate to the source—such as, for instance, generation shifting.

* * *

In sum, the straitened vision of the EPA's best system that the Agency espies in Section 7411 is simply not supported by the text, let alone plainly and unambiguously required by it. The Act calls on the EPA to determine the degree of emission limitation achievable through "application of the best system of emission reduction" without specifying the system's indirect object, and uses the preposition "for" when it calls on the States

to develop "standards of performance for existing sources." 42 U.S.C. § 7411(a), (d). It simply does not unambiguously bar a system of emission reduction that includes generation shifting.

The EPA's position depends critically on words that are not there. It erroneously treats a nominalization of a verb as requiring an indirect object, collapses two separate functions and provisions of the Act in order to supply a borrowed indirect object, does so without any evidence that the borrowed indirect object was what Congress necessarily intended, and narrowly focuses the Agency's authority on that indirect object by using a different preposition from the one that actually appears in the borrowed text. Each of those interpretive moves was a misstep. Read faithfully, Section 7411(a)(1) lacks the straitjacket that the EPA imposes.

Policy priorities may change from one administration to the next, but statutory text changes only when it is amended. The EPA's tortured series of misreadings of Section 7411 cannot unambiguously foreclose the authority Congress conferred. The EPA has ample discretion in carrying out its mandate. But it may not shirk its responsibility by imagining new limitations that the plain language of the statute does not clearly require.

2. Statutory History, Structure, and Purpose

Even looking beyond the text does nothing to substantiate the EPA's proposed reading of Section 7411. *See Kiewit Power Constructors Co. v. Secretary of Labor*, 959 F.3d 381, 395 (D.C. Cir. 2020) (Henderson, J.) ("To discern the Congress's intent, we generally examine the statutory text, structure, purpose and its legislative history.") (quoting *Lindeen v. SEC*, 825 F.3d 646, 653 (D.C. Cir. 2016)). These other tools of statutory interpretation underscore the flexibility

of Section 7411(a)'s text, not the cabined reading the EPA proposes.

We begin by acknowledging Section 7411's role within the Clean Air Act. It is a catch-all, intended to ensure that the Act achieves comprehensive pollution control by guaranteeing that there are "no gaps in control activities pertaining to stationary source emissions that pose any significant danger to public health or welfare." S. REP. NO. 91-1196, at 20 (1970). In other words, Section 7411 is intended to reach pollutants that do not fit squarely within the ambit of the Act's other regulatory provisions. It authorizes regulation of pollutants not controlled by the other programs under the Act. The EPA does not contest that greenhouse gases emitted by powerplants fit that description.

The Agency points to statutory structure and history for evidence that Congress restricted the "best system of emission reduction" under Section 7411(a) to physical controls that are applied "at and to" an existing source. But the history and structure only confirm what the text shows: Nothing the EPA has identified suggests that Congress in Section 7411 meant to so constrict what might be part of a "best system of emission reduction."

The Congress that enacted Section 7411 was well aware that what a "best system" might comprise is necessarily dynamic and evolving. Congress' main limitation was that the "best system" selected by the EPA must be "adequately demonstrated." 42 U.S.C. § 7411(a)(1). And it stated three other key criteria—cost, nonair quality health and environmental impact, and energy requirements—as factors the EPA must take into account. *See id.* With those parameters in place, Congress largely left the identification of the best

system of emission reduction to the Agency's expert scientific judgment.

Consider cues from the Clean Air Act as a whole. In contrast to other systemic benchmarks in the Act, Section 7411(a)(1)'s prescription of the "best system of emission reduction" is striking for its paucity of restrictive language. References to more specific categories of emission-reduction tools appear elsewhere in the Act. A provision governing the Nitrogen Oxides Emissions Reduction Program, for example, directs the Administrator to establish limits based on the "degree of reduction achievable through the *retrofit application* of the best system of continuous emission reduction, taking into account *available technology*[.]" 42 U.S.C. § 7651f(b)(2) (emphasis added). The Act's regional haze program is likewise specific in its call for use of the "best available *retrofit technology*." *Id.* § 7491(b)(2)(A), (g)(2). The specificity of those other provisions highlights the comparative generality of Section 7411(a)'s reference to the "best system of emission reduction."

The sole provision the EPA highlights to shore up its at-the-source theory only further undermines it. The EPA points to the Act's Prevention of Significant Deterioration (PSD) program, 42 U.S.C. § 7475, and its requirement of controls at least as stringent as limits set under Section 7411, *see id.* § 7479(3), to argue that that "the interrelationship between the two types of standards"—the best system of emission reduction and the best available control technology—"is only intelligible if the standards are *in pari materia*." EPA Br. 85. But the distinct roles of the two provisions make clear that the limits in Section 7475 have no place in Section 7411(a)(1).

To qualify for a permit under the PSD program before a source may be built or modified, an applicant must affirm that

it will apply to each source the "best available control technology," or BACT, to limit its emissions. 42 U.S.C. § 7475(a)(4). The statute defines BACT as the degree of control that the permitting agency "determines is achievable for such [major emitting] facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques[.]" *Id*. § 7479(3). The statute further provides that BACT cannot "result in emissions of any pollutants which will exceed the emissions allowed by any applicable standard established pursuant to [S]ection 7411 or 7412 of this title." *Id*. § 7479(3). The listed BACT options, EPA observes, are all physically applicable to the source unit. EPA Br. 85.

But the EPA ignores a critical detail: The BACT requirement applies only to newly constructed or modified sources. *See Alaska Dep't of Env't Conservation v. EPA*, 540 U.S. 461, 472 (2004) (describing 42 U.S.C. § 7475). Any standard established under Section 7411 and also "applicable," per the statutory cross-reference, to a facility regulated for prevention of significant deterioration under Section 7475 would be a standard for new or modified sources established pursuant to Section 7411(b). The BACT requirement does not apply to the existing sources covered by the provision at issue here, Section 7411(d). *See New York v. EPA*, 413 F.3d 3, 13 (D.C. Cir. 2005). Even if Section 7475 tracks Section 7411(b), there is simply no conflict between, on one hand, requiring new source construction to employ the newest and best at-the-source control technologies and, on the other, empowering the EPA to look to a wider range of ways to reduce emissions when it regulates older, existing sources.

The anomaly of looking to Section 7475(a)(4) to confine Section 7411 is highlighted by the fact that BACT permits are

required only in so-called "non-attainment" areas of the country. *See* 42 U.S.C. §§ 7407, 7472, 7474. We are unpersuaded that Congress buried a limit on the EPA's Section 7411 authority to address pollution from existing sources throughout the Nation by making reference to a floor for certain new facilities in certain parts of the country.

The statutory history of the BACT requirement further demonstrates that Congress did not intend that it weaken Section 7411(d). Sections 7475 and 7479 were enacted in the 1977 Clean Air Amendments, Pub. L. No. 95-95, §§ 165, 169, 91 Stat. 685, 735–742 (Aug. 7, 1977). In the very same legislation, Congress restricted the best system of emission reduction for *new* sources to technological methods while explicitly allowing the best system for *existing* sources to include non-technological methods. § 109(c)(1)(A), 91 Stat. at 700. If Congress wanted to confine Section 7411 to at-the-source technologies, it would have done so directly rather than hiding such a substantial limitation in an implicit inference from a more remote statutory provision.

The Clean Air Act's legislative history, including the history of the 1970 enactment of Section 7411 and the 1977 and 1990 amendments, further shows that Congress never imposed on the "best system of emissions reduction" the constraints the EPA now advocates. Before Congress settled on the best-system language it enacted in 1970, the Senate bill proposed to authorize the EPA to set standards for stationary sources "reflect[ing] the greatest degree of emission control" achievable through "the latest available control technology, processes, operating methods, or other alternatives." S. 4358, 91st Cong. § 6 (1970). The phrase "other alternatives" was understood to encompass "[t]he maximum use of available means of preventing and controlling air pollution"—without limitation to technological or at-the-source means. S. REP. NO.

91-1196, at 16. The Senate believed that was "essential" to limit emissions from both new and existing sources. *Id.* The House, for its part, proposed an initial version of Section 7411 that would have "require[d] new sources to 'prevent and control [their] emissions to the fullest extent compatible with the available technology and economic feasibility,'" H.R. 17255, 91st Cong. § 5 (1970), but included no provision regarding the regulation of existing sources.

As enacted, Section 7411 simply requires that the EPA identify as its benchmark for existing sources the "best system of emission reduction." 42 U.S.C. § 7411(a)(1). Nothing that the EPA identifies or that we discern in the relevant history shows the enacting Congress myopically "focused on steps that can be taken at and by individual sources to reduce emissions." EPA Br. 69. And of course, even if Congress at that time was only thinking of at-the-source controls, the EPA was well aware that environmental problems and their solutions rapidly evolve. At the end of the day, it is the statutory text that governs. *See Bostock v. Clayton County*, 140 S. Ct. 1731, 1738 (2020).

Congress has consistently relied on the EPA's expert judgment in identifying the "best system" for existing sources. Its action in making, and then undoing, a limiting amendment to Section 7411's "best system of emission reduction" just for new and modified sources—not existing sources—underscores the point. First, Congress in 1977 amended the standard for new sources to require use of "the best technological system of continuous emission reduction," but did not make any parallel change to the standard for existing sources to add those "technological" and "continuous" limitations. Clean Air Amendments Act of 1977, Pub. L. No. 95-95, § 109(c)(1)(A), 91 Stat. 685; *see also id.* at 700 (adding Section 7411(a)(1)(C)). Then, in 1990, Congress again amended Section 7411, this time

to remove those additional limitations, reverting for new sources to the "best system of emission reduction" that had applied all along to existing sources. Clean Air Act Amendments of 1990, Pub. L. No. 101-549, § 403(a), 104 Stat. 2399, 2631 (1990).

The amendment and re-amendment of the new-source "best system" language emphasizes that Congress consistently avoided imposing any such technological, at-the-source limitation on the measures that EPA might include in the "best system" for reducing emissions from existing-source categories. And it shows that Congress had always understood the existing-source "best system" language to go beyond the technological restrictions that it briefly imposed on the parallel new source provision.

The ACE Rule is the first EPA rule to read the statute as so strictly boxing in the Agency. Although agency practice cannot directly show whether Congress had a specific intent on the matter in question, it is notable that the regulators closest to the issue never before saw what the EPA now insists is obvious on the face of Section 7411.

Over the last half century, no prior Administrator read the Act to foreclose from consideration in the "best system" all but at-the-source means of emission control. Rather, the EPA has exercised latitude to consider any adequately demonstrated approach to reducing harmful pollutants from existing source categories that it believed met the cost, grid-reliability and other statutory criteria. 42 U.S.C. § 7411(a)(1). Where the characteristics of the source category and the pollutant at issue point to emissions trading programs or production shifts from higher- to lower-emitting sources as components of the "best system," the EPA has in the past consistently concluded that it had the authority to consider them.

During the administration of President George W. Bush, for example, the EPA adopted the Clean Air Mercury Rule, 70 Fed. Reg. 28,606 (May 18, 2005), which included a mercury cap-and-trade program as a component of its best system of emissions reduction for existing coal-fired power plants, *see id.* at 28,619–28,620; *id.* at 28,617 ("EPA has determined that a cap-and-trade program based on control technology available in the relevant timeframe is the best system for reducing [mercury] emissions from existing coal-fired Utility Units.").[7]

The EPA's Clinton-era regulation of nitrogen oxide emissions from municipal solid waste combustors likewise relied on Section 7411(d), together with the EPA's waste-management authority under Section 7429, to authorize States to include emissions-trading programs in their State Plans. 40 C.F.R. § 60.33b(d)(2). Under state standards of performance designed to meet guidelines the EPA derived from its "best system," regulated entities were permitted to average the emission rates of multiple units within a single plant as well as trade emission credits with other plants. Municipal Waste Combustors Rule, 60 Fed. Reg. 65,387, 65,402 (Dec. 19, 1995).

The EPA's efforts to distinguish those other Section 7411(d)(1) programs do not work. The EPA claims that the Mercury Rule did not primarily rely on a cap-and-trade

[7] We vacated the Mercury Rule for unlawfully delisting mercury-emitting electric utility steam generating units from the Section 7412 Hazardous Air Pollutants list. *See New Jersey v. EPA*, 517 F.3d 574, 582–584 (D.C. Cir. 2008). Because we held those mercury sources must be listed, and because Section 7411 cannot be used to regulate air pollutants listed under Section 7412, the existing-source rule the EPA had adopted under Section 7411(d) to control those same mercury emissions from power plants failed as well.

or dispatch shifting program, but rather that the best system rested on a "combination of a cap-and-trade mechanism and * * * the technology needed to achieve the chosen cap level." EPA Br. 72 n.20 (quoting ACE Rule, 84 Fed. Reg. at 32,526). To be clear, that sort of hybrid best system, involving both on-site and system-wide elements, is precisely what the EPA now insists is unprecedented and expressly barred by the statute's text.

Lest there be any doubt that the Mercury Rule's best system rested in significant part on the cap-and-trade mechanism, we note that the EPA in fact approved state implementation plans that adopted *none* of the on-site controls included in the best system and instead relied *entirely* on implementation of the best system's cap-and-trade program. *See, e.g.*, Notice of Intent, 32 La. Reg. 869, 870 (May 20, 2006) (proposing an implementation plan solely reliant on cap-and-trade); Approval and Promulgation of State Plan for Designated Facilities and Pollutants: Louisiana, 72 Fed. Reg. 46,188, 46,188 (Aug. 17, 2007) (approving Louisiana's proposal on the basis that it "would meet [Clean Air Mercury Rule] requirements by participating in the EPA administered cap-and-trade program addressing [mercury] emissions"). Contrary to the EPA's assertions, *e.g.* EPA Br. 4, the Agency plainly has previously embraced beyond-the-source measures of emission reduction as authorized by the statutory text.

The EPA's invocation of its own past practice under Section 7411 falls wide of the mark. It errs in insisting that "the *more than seventy* Section 7411 rules" promulgated for "roughly forty-five years" somehow reflect a consistent adherence to the Agency's new view. EPA Br. 4, 88; *see id.* at 37–38, 88–89; ACE Rule, 84 Fed. Reg. at 32,526. Almost all of the rules to which it refers are irrelevant to the issue at hand. They were for new sources, subject to Section 7411(b), not

existing sources under Section 7411(d). *See* 84 Fed. Reg. at 32,526.

Older facilities that may be capable only of outdated, more polluting methods of generation present different regulatory challenges than new sources. As discussed above in connection with the EPA's reference to BACT requirements for new-source permitting under the PSD program, a requirement that owners and operators constructing new facilities apply state-of-the-art, lowest-emitting equipment and methods "at and to the source" might well be the best available means of reducing emissions for that source category. The same cannot be said for existing sources. A central error of the ACE Rule is that it fails to appreciate that difference. It identifies a handful of measures applicable to and at the source that the EPA suggests may achieve slight reductions. But industry practice demonstrates that better, lower-emitting, reliable, and cost-effective systems for reducing emissions from existing power plants typically also shift generation away from higher-emitting, fossil-fuel-fired capacity when renewable or lower- or zero-emitting generation is an available substitute.

Because the best, most efficient and effective systems for controlling emissions from existing sources ordinarily differ from the best systems for new sources, they are regulated via a distinct statutory track. Only the Section 7411(d) rules are relevant to the EPA's prior understanding of its authority to regulate existing sources. Those prior EPA rules contradict the EPA's position here. Before its about-face in the ACE Rule, all three of the Agency's most recent Section 7411(d) rules included emissions trading or generation shifting to lower-emitting sources. *See* Clean Power Plan, 80 Fed. Reg. at 64,755–64,756; Clean Air Mercury Rule, 70 Fed. Reg. at

28,606, 28,617, 28,619–28,620; Municipal Waste Combustors Rule, 60 Fed. Reg. 65,387, 65,402 (Dec. 19, 1995).

To put the EPA's mistaken reading of Section 7411 in perspective, consider how it effectively relegates federal regulators back to the sidelines where they stood before Congress overhauled the Clean Air Act in 1970. The federal government had until then done little more than provide information and guidance to cheer on States' air-quality regulators. *See Train v. NRDC*, 421 U.S. 60, 64 (1975) (noting that the States' response to earlier iterations of the Act focused on information and incentives had been "disappointing").

With the 1970 amendments, a virtually unanimous Congress dramatically strengthened the federal government's hand in combatting air pollution. *See Train*, 421 U.S. at 64 ("These Amendments sharply increased federal authority and responsibility. * * * The difference * * * was that the States were no longer given any choice as to whether they would meet th[eir statutory] responsibility."); *cf. EPA v. EME Homer City Generation, LP*, 572 U.S. 489, 497 (2014) (noting this progression toward "increasing[ly] rigor[ous]" federal regulation of interstate air pollution). Congress did so "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population[.]" 42 U.S.C. § 7401(b)(1). The EPA's newly enhanced authority was "designed to provide the basis" for "a massive attack on air pollution." S. REP. NO. 91-1196, at 1. Section 7411(d) ensured that there would be "no gaps in control activities pertaining to stationary source emissions that pose any significant danger to public health or welfare." *Id.* at 20.

Describing the Act shortly before its passage, Republican Senator John Cooper explained that the "philosophy of the bill

abandons the old assumption of requiring the use of only whatever technology is already proven and at hand" and instead "set[s] out what is to be achieved." 116 CONG. REC. 32,919 (1970). To that end, the Act did not finely detail specific approaches to enumerated sources or types of air pollution. *See* 116 CONG. REC. 32,901–32,902 (1970) (statement of Sen. Muskie). Congress chose instead to entrust the EPA with flexible powers to craft effective solutions. Only by doing so could air quality regulation hope to reflect developing understandings of escalating problems and bring to bear as-yet-unseen solutions.

American air quality is the proof of that approach. The EPA has worked closely with industry, States, and the public to develop the world's most nimble, responsive, and effective regime of air pollution regulation. For example, in the half-century since the 1970 Act, "the combined emissions of * * * six key pollutants regulated under the National Ambient Air Quality Standards dropped by 73 percent" between 1970 and 2017. *EPA Releases 2018 Power Plant Emissions Demonstrating Continued Progress*, EPA (Feb. 20, 2019), https://www.epa.gov/newsreleases/epa-releases-2018-power-plant-emissions-demonstrating-continued-progress (last visited Jan. 11, 2021).

The EPA's new reading of Section 7411 would atrophy the muscle that Congress deliberately built up. The EPA asserts it lacks authority to curb a pollutant that the Agency itself has repeatedly deemed a grave danger to health and welfare but that eludes effective control under other provisions of the Act. We do not believe that Congress drafted such an enfeebled gap-filling authority in Section 7411.

* * *

In sum, traditional tools of statutory interpretation reveal nothing in the text, structure, history, or purpose of Section 7411 that compels the reading the EPA adopted in the ACE Rule.

3. Compliance Measures

In the ACE Rule, the EPA also limited the measures that sources may use to comply with the States' standards of performance set under Section 7411(d). Recognizing that sources generally have "broad discretion" in how they comply with state standards, 84 Fed. Reg. at 32,555, the EPA nonetheless categorically excluded two specific measures from the States' consideration: averaging and trading, and biomass co-firing. It did so on the ground that these measures do not meet two criteria it determined were required of compliance measures: that they be (1) "capable of being applied to and at the source" and (2) "measurable at the source using data, emissions monitoring equipment or other methods to demonstrate compliance[.]" *Id.* The EPA identified these criteria on account of "both legal and practical concerns[.]" *Id.*

The Agency's legal concern was that non-source-specific compliance measures "would be inconsistent with the EPA's interpretation of the" best system of emission reduction as itself plant-specific. ACE Rule, 84 Fed. Reg. at 32,555–32,556. In that way, the EPA extended to States' compliance measures the same incorrect textual interpretation of the Clean Air Act that underlay its determination of what best systems may include—namely, that the system must be one that can be applied to and at the individual source. The EPA reasoned that "implementation and enforcement of such standards should correspond with the approach used to set the standard in the first place." *Id.* at 32,556.

The Agency's practical concern was that compliance measures that are not source-specific could result in "asymmetrical regulation[,]" meaning the stringency of standards could vary across sources. ACE Rule, 84 Fed. Reg. at 32,556. It argues here that such regulation "could have significant localized adverse consequences" in the case of many pollutants regulated under Section 7411(d). EPA Br. 240.

Because we hold that the EPA erred in concluding Section 7411 unambiguously requires that the best system of emission reduction be source specific, we necessarily reject the ACE Rule's exclusion from Section 7411(d) of compliance measures it characterizes as non-source-specific. The Agency tied that exclusion to its flawed interpretation of the statute as unambiguously confined to measures taken "at" individual plants, so it falls with that decision. ACE Rule, 84 Fed. Reg. at 32,555–32,556.

The statute says nothing about the measures that sources may use to comply with the standards States establish under Section 7411(d), and the EPA cites no separate authority that would require compliance measures to be source-specific, or that Congress meant to so hogtie the States in devising standards of performance. Regardless of any policy-based reasons the EPA offers for limiting compliance measures, then, its decision to exclude averaging and trading and biomass co-firing is foreclosed by its legally erroneous starting point.

Neither can the EPA's policy-based reasons sustain its decision to exclude its disfavored non-source-specific compliance measures in the context of carbon dioxide emissions. Apart from its statutory interpretation, the EPA's only ground for excluding those compliance measures is the Agency's stated concern to avoid asymmetrical regulation.

ACE Rule, 84 Fed. Reg. at 32,556. It argues that asymmetrical regulation "could have significant localized adverse consequences for public health and the environment." EPA Br. 240. The Agency points to the case of fluoride—another pollutant regulated under Section 7411(d)—to note that allowing sources to meet state standards of performance by averaging emissions across units or between facilities "could cause serious environmental impacts on local communities where pollution was under-controlled, causing localized damage." *Id.* In light of such considerations, the EPA worried that a system of averaging and trading "would undermine the EPA's determination" of the best system of emission reduction, leading to the sort of localized consequences the system is designed to guard against. ACE Rule, 84 Fed. Reg. at 32,557.

But that point does not support the EPA's categorical rule, let alone prove that the statute unambiguously compels the Agency's reading. Unlike pollutants such as fluoride, carbon dioxide emissions do not pose localized concerns at the site of emission. Whereas the EPA might determine that the best system for reducing fluoride emissions is one that can be applied to and at the source, and it would be reasonable for the EPA in turn to limit compliance measures to correspond with such a "best system," the same cannot be said of carbon dioxide. Indeed, the EPA recognizes that "CO_2 is a global pollutant with global effects[,]" meaning "there may be few direct and area public health consequences from asymmetrical regulation of carbon dioxide within a State." EPA Br. 239.

The Agency defends its concern about asymmetrical regulation in the context of carbon dioxide emissions with the unsupported contention that an interpretation of Section 7411(d) that allowed non-source-specific compliance measures "would not be limited to carbon dioxide alone." EPA Br. 240. But there is no reason to conclude, and petitioners do not argue,

that the statute requires the EPA to permit non-source-specific compliance measures for every pollutant it regulates under Section 7411. The statute is not so rigid as EPA supposes. In fact, Section 7411 itself does not textually restrict the States' choice of compliance measures for their sources at all. *See also* Power Cos. Pet'rs Br. 25–26; Biogenic Pet'r Br. 16–17. Even if the EPA might reasonably limit compliance measures in specific situations based on its determination of the best system for reducing particular types of emissions with localized consequences, the statute imposes no requirement that such limitations be uniform across the regulation of different pollutants.

In sum, the EPA's conclusion on compliance by sources rises and falls with its legally flawed interpretation of the statute. The Agency's practical concern about asymmetrical regulation could not, in any event, support the exclusion of biomass co-firing or averaging and trading in the particular context of carbon dioxide emission regulation.

B. THE MAJOR QUESTIONS DOCTRINE

The EPA also references the so-called "major questions" doctrine in defense of its statutory interpretation and the ACE Rule. 84 Fed. Reg. at 32,529. But that doctrine does not confine the EPA to adopting solely emission standards that can be implemented physically to and at the individual plant.

The Supreme Court has said in a few cases that sometimes an agency's exercise of regulatory authority can be of such "extraordinary" significance that a court should hesitate before concluding that Congress intended to house such sweeping authority in an ambiguous statutory provision. *See King v. Burwell*, 576 U.S. 473, 485–486 (2015); *Gonzales v. Oregon*, 546 U.S. 243, 262, 266–267 (2006); *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 159 (2000); *accord*

Utility Air Regulatory Group v. EPA (*UARG*), 573 U.S. 302, 324 (2014); *see also MCI Telecommc'ns v. AT&T*, 512 U.S. 218, 231 (1994). Where there are special reasons for doubt, the doctrine asks whether it is implausible in light of the statute and subject matter in question that Congress authorized such unusual agency action. *See, e.g.*, *UARG*, 573 U.S. at 324 (considering whether the challenged rule would "bring about an enormous and transformative expansion in EPA's regulatory authority without clear congressional authorization"); *Brown & Williamson*, 529 U.S. at 161 (holding that the FDA could not regulate tobacco because it was "plain that Congress ha[d] not given the FDA the authority that it s[ought] to exercis

In the ACE Rule, the EPA stated that, while its interpretation of Section 7411 did not depend on the "major question[s] doctrine[,]" the Agency believed that "that doctrine should apply here[.]" 84 Fed. Reg. at 32,529. The Agency reasoned that the Clean Power Plan would have had "billions of dollars of impact on regulated parties and the economy," would have "affected every electricity customer[,]" was "subject to litigation involving almost every State," and would have upset the balance of regulatory authority between federal agencies and the States. *Id.* For those reasons, the Agency concluded that the "interpretive question raised"—whether the "best system of emission reduction" can include measures other than improvements to and at the physical source—"must be supported by a clear[]statement from Congress." *Id.* That was incorrect.

1. The EPA's Regulatory Mandate

Unlike cases that have triggered the major questions doctrine, each critical element of the Agency's regulatory

authority on this very subject has long been recognized by Congress and judicial precedent.

Most importantly, there is no question that the regulation of greenhouse gas emissions by power plants across the Nation falls squarely within the EPA's wheelhouse. The Supreme Court has ruled specifically that greenhouse gases are "air pollutants" covered by the Clean Air Act. *Massachusetts v. EPA*, 549 U.S. at 532. More to the point, the Court has told the EPA directly that it is the Agency's job to regulate power plants' emissions of greenhouse gases under Section 7411. "Congress delegated to EPA the decision whether and how to regulate carbon-dioxide emissions from powerplants" through a "§ 7411 rulemaking[.]" *AEP*, 564 U.S. at 426–427. The separate opinion agrees. *See* Separate Op. at 14 ("Does the Clean Air Act direct the EPA to make our air cleaner? Clearly yes. Does it require at least some carbon reduction? According to *Massachusetts v. EPA*, again yes.").

On top of that, the issuance of regulations addressing greenhouse gas pollution is mandatory under the statute because of longstanding endangerment findings. In *Massachusetts v. EPA*, the Supreme Court directed the EPA either to make an endangerment finding under the statute for greenhouse gas pollution, or to explain why it would not do so. 549 U.S. at 532–535. The EPA complied. For now more than a decade—from 2009 to the present day in the ACE Rule itself—the EPA has consistently and repeatedly recognized the serious danger that greenhouse gas pollution poses to human health and welfare. *See* ACE Rule, 84 Fed. Reg. at 32,533; New Source Rule, 80 Fed. Reg. at 64,530–64,531; 2009 Endangerment Finding, 74 Fed. Reg. at 66,496–66,497. By statute, that finding triggers a *mandatory* duty on the EPA to regulate greenhouse gas pollution. 42 U.S.C. § 7521(a)(1) (motor vehicle emissions); 42 U.S.C. § 7411(b) (stationary

sources that contribute significantly to such dangerous pollution).[8]

So the EPA has not just the authority, but a statutory duty, to regulate greenhouse gas pollution, including specifically from power plants.

In that way, the pollution measures in the Clean Power Plan do not fit the major-question mold of prior cases. For example, in *Brown & Williamson*, the major question was whether the agency had authority to regulate tobacco at all. There, the Supreme Court ruled that there was "reason to hesitate" before concluding that the provisions of the Food, Drug, and Cosmetic Act covering restricted devices, *Brown & Williamson*, 529 U.S. at 134 (citing 21 U.S.C. § 360j(e)), gave the Food and Drug Administration the authority to regulate

[8] As discussed below with respect to the challenge brought by the Coal Petitioners (*infra* at III.A.1), the legal basis for the EPA's regulation of greenhouse gas emissions from existing power plants in both the Clean Power Plan and the ACE Rule was the Agency's prior 2015 decision to issue standards of performance for carbon dioxide emitted from new power plants. That decision, in turn, was based on the Agency's recognition (since the 1970s) that fossil-fuel-fired power plants contribute significantly to air pollution, which "may reasonably be anticipated to endanger the public health or welfare." 42 U.S.C. § 7411(b)(1)(A); *see* Air Pollution Prevention and Control: List of Categories of Stationary Sources, 36 Fed. Reg. 5931, 5931 (March 31, 1971); Air Pollution Prevention and Control: Addition to the List of Categories of Stationary Sources, 42 Fed. Reg. 53,657, 53,657 (Oct. 3, 1977). The EPA also determined in 2015 that power plants contribute significantly to greenhouse gas pollution in particular. *See* New Source Rule, 80 Fed. Reg. at 64,531. That determination, combined with the determination that greenhouse gases are dangerous to public health and welfare, triggers a mandatory duty to regulate under Section 7411(b)(1)(A).

tobacco given its "unique political history" and its role as a "significant portion of the American economy." *Id.* at 159. The Court reasoned based on the overall drug-regulatory scheme, as well as Congress having "created a distinct regulatory scheme for tobacco products," that Congress "could not have intended to delegate a decision of such economic and political significance to an agency in so cryptic a fashion." *Id.* at 159–160.

That question of agency authority to regulate the matter in question was absent for the Clean Power Plan. In fact, the Supreme Court in *Massachusetts v. EPA* rejected the analogy between regulation of greenhouse gases as a pollutant under the Clean Air Act and regulation of tobacco as a drug under the Food, Drug, and Cosmetic Act. 549 U.S. at 530–531. Treating tobacco as a drug would have been wholly novel, requiring the agency to ban virtually all tobacco products—a result the Court suspected Congress did not intend. *Id.* at 531; *Brown & Williamson*, 529 U.S. at 143. By contrast, the Supreme Court explained, greenhouse gases are air pollutants that fall squarely within the Clean Air Act's coverage, and the Act would subject such pollutants, if the agency makes the necessary findings, only to regulation, not prohibition. *Massachusetts v. EPA*, 549 U.S. at 531.

The Clean Air Act also contains its own limits on regulation, like mandating that the EPA take into account such factors as available technology and the cost of compliance. *Id.* (citing 42 U.S.C. § 7521(a)(2)); *see also* 42 U.S.C. § 7411(a)(1) (requiring consideration of health and environmental impacts, energy requirements, and cost). In that way, Congress designed the Clean Air Act's processes for regulating air pollution to adapt to "changing circumstances and scientific developments" without imposing unreasonable technological or financial burdens on industry. *Massachusetts*

v. EPA, 549 U.S. at 532. So, unlike the major question of tobacco regulation in *Brown & Williamson*, there is "nothing counterintuitive" about the EPA's reasonable regulation of dangerous airborne substances like greenhouse gases. *Id.* at 531–532.

Similarly, the major question in *UARG* was whom the EPA was attempting to regulate. In that case, the Supreme Court held that the EPA's statutory permitting authority for the construction and modification of stationary sources was "designed to apply to, and cannot rationally be extended beyond, a relative handful of large sources capable of shouldering heavy substantive and procedural burdens"—sources like power plants. 573 U.S. at 322. The Court held that, without clear statutory grounding, the EPA's effort to extend permitting requirements to literally millions of small sources of greenhouse gas pollution but of no other regulated pollutants—sources like schools, hospitals, churches, and shopping malls—overshot its statutory authority. *Id*. at 324, 328.

The Clean Power Plan, by contrast, regulated the very entities the EPA was told by the Supreme Court in *AEP* and *UARG* to regulate—fossil-fuel-fired power plants. And it employed statutory tools that were "suitable" for application to the long-regulated power industry. *See UARG*, 573 U.S. at 323, 324 n.7. *American Electric Power* pointed the Agency to regulation under Section 7411 specifically, explaining that "Congress delegated to EPA the decision whether and how to regulate carbon-dioxide emissions from [new, modified, and existing] powerplants" using the regulatory tools laid out in Section 7411. 564 U.S. at 424–426.

That is no doubt a significant task for the EPA. But that is not because of any agency overreach. It is the product of

Congress' charge that the EPA regulate air pollution nationwide. And with respect to regulating greenhouse gas pollution in particular, it reflects the fact that fossil-fuel-fired power plants predominate the power industry and are spread across the Nation. *See* United States Energy Information Administration (EIA), *Frequently Asked Questions: What is U.S. Electricity Generation by Source?* (Nov. 2, 2020), https://www.eia.gov/tools/faqs/faq.php?id=427&t=2 (last visited Jan. 11, 2021); EIA, *U.S. Energy Mapping System*, https://www.eia.gov/state/maps.php (last visited Jan. 11, 2021). So much so that they "are by far" the greatest stationary contributor to greenhouse gas pollution and the significant dangers it causes for the public health and welfare. New Source Rule, 80 Fed. Reg. at 64,522.

2. Best System of Emission Reduction

So *what* the EPA may regulate (greenhouse gas pollution), and *whom* it may target (power plants), and *how* (under Section 7411) have all been resolved and so do not trigger the major questions doctrine.

That leaves the EPA no place to house its major-question objection other than in the interpretation of the statutory term "best system of emission reduction," 42 U.S.C. § 7411(a)(1). More specifically, the EPA says the use of any emission-control measures that do not operate at the individual physical plant level requires an express statement from Congress, and that federal standards that might encourage generation-shifting are therefore categorically forbidden under Section 7411.

But the major questions doctrine does not apply there either for a number of reasons.

a. Statutory Design

For starters, the "best system of emission reduction" plays a cabined role in the statutory scheme. The determination of the best system of emission reduction is entirely internal to the EPA. The EPA itself evaluates relevant scientific, technological, and economic evidence to identify, in its judgment, the "best system of emission reduction" available, and the "degree of emission limitation achievable" through it. 42 U.S.C. § 7411(a)(1).

In making that determination, the statute significantly reins in the EPA's judgment by requiring the Agency to (1) "tak[e] into account the cost of achieving such reduction," (2) factor in "any nonair quality health and environmental impact," (3) balance the effect on "energy requirements," and (4) ensure that the system has been "adequately demonstrated[.]" 42 U.S.C. § 7411(a)(1). To be "adequately demonstrated[,]" we have explained, the system must be shown to be reasonably "reliable," "efficient," and "expected to serve the interests of pollution control without becoming exorbitantly costly[.]" *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433 (D.C. Cir. 1973), *cert. denied*, 416 U.S. 969 (1974); *see also Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 391 (D.C. Cir. 1973) (whether a system is adequately demonstrated "cannot be based on 'crystal ball' inquiry").[9]

[9] In addition to these statutory constraints, the EPA has tied its own hands by requiring that the best system include only actions touching three bases: (i) they reduce emissions (rather than, for example, capturing emissions after they are released into the air by planting trees), (ii) sources themselves can implement them, and (iii) they target supply-side activities. *See* Clean Power Plan, 80 Fed. Reg. at 64,776, 64,778–64,779.

Once the EPA identifies a best system that meets those requirements and calculates the degree of emission limitation it allows, the Clean Air Act leaves it to the States to set their own standards of performance for their existing pollution sources. 42 U.S.C. § 7411(d). The cooperative-federalism design of Section 7411(d) gives the States broad discretion in achieving those emission limitations. *See AEP*, 564 U.S. at 428 ("The Act envisions extensive cooperation between federal and state authorities, generally permitting each State to take the first cut at determining how best to achieve EPA emissions standards within its domain[.]") (internal citations omitted). In addition, Section 7411(d) expressly allows States, in setting their emission standards, to "take into consideration, among other factors, the remaining useful life" of its existing sources. 42 U.S.C. § 7411(d).

So the EPA's scientific and technological identification of the best system of emission reduction cannot bear the major-question label. Determining the system is a task expressly and indisputably assigned by Congress to the EPA and requiring specialized agency expertise. That system serves only as the basis for the EPA to set the emission-reduction targets in its quantitative guidelines. The States retain the choice of how to meet those guidelines through standards of performance tailored to their various sources. Neither exercise entails resolution of a major question.

The EPA argues that its own best-system process raised a major question by "impos[ing] 'generation shifting[.]'" EPA Br. 99. But under Section 7411(d), the EPA does not impose the "best system of emission reduction" on anyone. Instead, each State decides for itself what measures to employ to meet the emission limits, and in so doing may elect to consider the "remaining useful life" of its plants and "other factors." 42 U.S.C. § 7411(d). *See* Clean Power Plan, 80 Fed. Reg. at

64,709–64,710, 64,783. The Clean Power Plan, in fact, afforded States considerable flexibility in choosing how to calculate and meet their emissions targets. *See, e.g.*, *id.* at 64,665, 64,756–64,757, 64,834–64,837.[10]

Congress already focused on the issue and made the decision to rope the EPA's selection of a best system of emission reduction about with all of those substantive and structural limitations. So the major questions doctrine does not provide any basis for concluding that the Clean Air Act *categorically* forecloses the EPA's consideration of even those generation-shifting measures that are already widely in use by States and power plants and have been demonstrated to be reasonable, reliable, effective, and not unduly disruptive to the regulated industry. *See* Clean Power Plan, 80 Fed. Reg. at 64,735, 64,769.

---

[10] The Clean Power Plan expressly contemplated that States and sources might choose to meet their emissions targets by using measures other than the specific heat-rate improvements and generation shifting that the EPA had identified in its best system. *See* 80 Fed. Reg. at 64,755–64,758. The EPA offered a list of alternative available technologies that reduced power plants' carbon dioxide emissions per megawatt, including carbon capture and storage, heat-rate improvements at non-coal plants, fuel switching to gas, fuel switching to biomass, and waste heat-to-energy conversion. *Id*. at 64,756. In certain situations, for example, modifying coal-fired plants to burn natural gas could "help achieve emission limits consistent with the [best system]." *Id.* The Agency also identified a list of alternative measures that States could implement to lower overall emissions from fossil-fuel-fired plants. Those measures included, for example, demand-side energy efficiency—a policy tool that the EPA expected some States to use because "the potential emission reductions from demand-side [energy efficiency] rival those from [generation shifting] in magnitude[.]" *Id.*

In that respect, the EPA's argument sounds much like a second argument rejected by the Supreme Court in *UARG*. In addition to the scope question discussed above, the Court addressed whether the EPA could require facilities that emit conventional pollutants also to implement the "best available control technology" for greenhouse gases. *UARG*, 573 U.S. at 329–333 (citing 42 U.S.C. § 7475(a)(4)). Like the EPA here, the industry petitioners argued that the "best available control technology" standard was "fundamentally unsuited" to greenhouse gas emissions because it had "traditionally" focused on "end-of-stack controls." *Id*. at 329–330. "[A]pplying it to greenhouse gases," the industry petitioners insisted, would make the "best available control technology" standard "more about regulating energy use, which will enable regulators to control every aspect of a facility's operation and design[.]" *Id.* at 330 (internal quotation marks omitted).

The Supreme Court rejected that challenge. The Court explained that the EPA's guidance contemplated both "end-of-stack"–type controls *and* energy efficiency measures. *UARG*, 573 U.S. at 330. And, critically, the Court emphasized that the statute and regulations already imposed "important limitations on [best available control technology] that may work to mitigate petitioners' concerns about 'unbounded' regulatory authority." *Id.* at 331. Among those limitations was the EPA's longstanding statutory interpretation that the best available control technology was required "only for pollutants that the source itself emits," and the EPA's existing guidance that permitting authorities should "consider whether a proposed regulatory burden outweighs any reduction in emissions to be achieved." *Id.* The statute also required the EPA to determine the best available control technology with reference to "energy, environmental, and economic impacts and other costs." 42 U.S.C. § 7479(3); *see also UARG*, 573 U.S. at 333 n.9.

So too here: The numerous substantial and explicit constraints on the EPA's selection of a best system of emission reduction foreclose using the major questions doctrine to write additional, extratextual, and inflexibly categorical limitations into a statute whose "broad language * * * reflects an intentional effort to confer the flexibility necessary to forestall * * * obsolescence." *Massachusetts v. EPA*, 549 U.S. at 532; *see also Transmission Access Policy Study Group v. FERC*, 225 F.3d 667, 711 (D.C. Cir. 2000) (where Congress has spoken, court upholds as within agency authority an order that "fundamentally change[d] the regulatory environment in which utilities operate" and "introduc[ed] meaningful competition into an industry that since its inception has been highly regulated and affecting all utilities in a similar way"), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

The EPA points to the Supreme Court's statement in *UARG* that "[w]hen an agency claims to discover in a long-extant statute an unheralded power to regulate 'a significant portion of the American economy,' we typically greet its announcement with a measure of skepticism." 573 U.S. at 324 (quoting *Brown & Williamson*, 529 U.S. at 159).

True. But, as already explained, the EPA made no new discovery of regulatory power with the Clean Power Plan. While power plants are significant players in the American economy, they have been subject to regulation under Section 7411 for nearly half a century. *See, e.g.*, *Costle*, 657 F.2d at 318; *Oljato Chapter of Navajo Tribe v. Train*, 515 F.2d 654, 656–57 (D.C. Cir. 1975). Their emission of massive amounts of carbon dioxide has long been known. And the source of the EPA's duty to regulate that greenhouse gas pollution from power plants was the plain statutory text and Supreme Court precedent, not something the EPA pulled out of a hat. *See AEP*, 564 U.S. at 425; *Massachusetts v. EPA*, 549 U.S. at 532.

In sum, the Clean Air Act expressly confers regulatory authority on the EPA to set standards for reducing greenhouse gas emissions from fossil-fuel-fired power plants nationwide. Congress knew both the scope and importance of what it was doing. And it cabined the EPA's authority with concrete and judicially enforceable statutory limitations. The major questions doctrine is meant to discern, not override, such statutory judgments. Doubly so when the regulatory authority and its reach have been affirmed and enforced by the Supreme Court.

b. Regulatory Consequences

The problems with the EPA's approach to the major-question analysis do not stop there. The Agency also conflates the significance of greenhouse gas regulation of power plants generally with any significance attributable solely to the EPA's choice of a "best system of emission reduction"—the statutory provision where the EPA tried to anchor its major-question objection. Remember, the EPA concluded that the major questions doctrine was triggered centrally by (i) the Clean Power Plan's "billions of dollars of impact" on the economy; (ii) its effect on "every electricity customer"; (iii) the number of litigation challenges it spawned, "involving almost every State"; and (iv) its perceived shifting of regulatory authority between federal agencies and the States. ACE Rule, 84 Fed. Reg. at 32,529.

Taking the characterizations as true, those consequences are a product of the greenhouse gas *problem*, not of the best-system's role in the solution. Given the number and dispersion of fossil-fuel-fired power plants, any nationwide regulation of their greenhouse gas pollution that meaningfully addresses emissions will necessarily affect a broad swath of the Nation's electricity customers. Under the EPA's grave endangerment

finding, so too would a *failure* to regulate those greenhouse gas emissions. *See* 2009 Endangerment Finding, 74 Fed. Reg. at 66,496.

As for the "billions of dollars of impact[,]" the EPA has offered no evidence tying that cost to generation shifting rather than physical plant adjustments or a variety of other means States might choose for complying with emission limits. As the EPA itself previously acknowledged, generation shifting can be cheaper than other demonstrated methods of reducing greenhouse gas emissions, like carbon capture and storage, that take place "at" the source (and thus fall within the EPA's current statutory vision). *See* Clean Power Plan, 80 Fed. Reg. at 64,727.[11] Moreover, the Clean Power Plan's significant projected economic impact was not atypical for Clean Air Act rulemakings by the EPA. *See, e.g.*, *Costle*, 657 F.2d at 314 (upholding 1979 new source performance standards governing emission control by coal-burning power plants that imposed "tens of billions of dollars" of costs on the power sector).

Even assuming that the EPA's federalism concerns could trigger the major questions doctrine (rather than the federalism clear-statement canon), they carry no material weight here. That is because the statutory role of the best system of emission reduction under Section 7411(d) textually preserves and enforces the States' independent role in choosing from among the broadest range of options to set standards of performance appropriate to sources within their jurisdiction. In fact, it is the

[11] The EPA now takes the position that natural gas co-firing is not adequately demonstrated and that neither co-firing nor carbon capture and storage is part of the best system of emission reduction. *See* ACE Rule, 84 Fed. Reg. at 32,544–32,545, 32,549. But those methods are amenable to implementation "to" and "at" the source, in keeping with the EPA's statutory view.

ACE Rule's unreasoned barriers to certain compliance measures, like generation shifting and biomass co-firing, that hamstring the States. *See supra* Part II.A.3 (analyzing ACE Rule, 84 Fed. Reg. at 32,555–32,556).

Finally, it seems doubtful that the volume of litigation aimed at a regulation can reasonably bear on its major-question status. The Supreme Court has certainly never embraced that idea. For good reason. A doctrine at the mercy of litigation stratagems, or the mere existence of disagreements over which parties find advantage in filing suit, cannot be an elucidating or even logically relevant tool of statutory interpretation.

In any event, the EPA offers no basis for concluding that the best-system determination is what lit the litigation fire. After all, the ACE Rule too has been "subject to litigation" involving 43 States and all manner of other interested parties, despite the Rule's jettisoning of generation shifting as part of the best system of emission reduction. *See* Opinion Caption, *supra*.

c. Regulating in the Electricity Sector

The ACE Rule's last attempt to wrap the best-system determination in the major-question mantle asserts that including generation shifting as part of the best system of emission reduction lacks a "valid limiting principle," and that, by "shifting focus to the entire grid[,]" it would "empower" the Agency "to order the wholesale restructuring of any industrial sector[.]" ACE Rule, 84 Fed. Reg. at 32,529. But that is entirely wrong. The Clean Power Plan was aimed not at regulating the grid, but squarely and solely at controlling air pollution—a task at the heart of the EPA's mandate. Indeed, the EPA's reasoning in the ACE Rule defeats its own argument.

The EPA suggests that counting generation shifting among the tools for emission reduction risks expanding the Agency's regulatory sights too far, because "*any* action affecting a generator's operating costs could impact its order of dispatch and lead to generation shifting." ACE Rule, 84 Fed. Reg. at 32,529 (emphasis added). That is exactly right: *Any* regulation of power plants—even the most conventional, at-the-source controls—may cause a relative increase in the cost of doing business for particular plants but not others, with some generation-shifting effect. That is how pollution regulation in the electricity sector has always worked. Regulators—including, for example, Congress in the Clean Air Act's acid rain cap-and-trade program, 42 U.S.C. §§ 7651–7651o—have long facilitated those generation-shifting effects to serve the goal of pollution reduction. *See* Grid Experts Amicus Br. 13–15.

So the EPA's contention that it cannot consider measures resulting in generation shifting as part of its best system proves far too much: If that were so, the EPA would be limited to considering only measures that power plants could adopt at zero cost, so as to maintain their relative-dispatch position. That is, of course, incompatible with Congress' instruction that the best system take cost into account as only one factor among several, *see* 42 U.S.C. § 7411(a)(1), and contrary to the very nature of environmental law, which requires the regulation of polluters and material changes in their pollution emissions.

The EPA's argument also ignores, again, the critical statutory limitations that the Clean Air Act imposes on the selection of a best system of emission reduction and its function in state plans. Under Section 7411(d), the EPA lacks the authority to "order the wholesale restructuring" of anything. All it can do is identify the best system of emission reduction that has been adequately demonstrated within the cost, energy-

requirement, and other substantive constraints set by Congress, and then calculate achievable emission goals by reference to that system. 42 U.S.C. § 7411(a)(1). States, in turn, set standards of performance only "for" any "*existing source*[,]" and need not implement any aspect of the EPA's "best system[.]" *Id.* § 7411(d)(1) (emphasis added). And the EPA's determination about how best to combat air pollution is, of course, subject to judicial review, including on questions like whether a system has been adequately demonstrated and whether the Agency adequately considered costs. 42 U.S.C. § 7607(b); *cf. AEP*, 564 U.S. at 427; *UARG*, 573 U.S. at 333 n.9. Congress' carefully calibrated system—involving scientific and technological evidence-gathering, close study of existing industry practice, constrained discretion, divided regulatory authority, collaboration with States, and judicial review—leaves no room for the unauthorized agency overreach that the EPA fears.

A group of States and industry groups intervened with other major-question challenges, but their salvos all fall short. They argue that the major questions doctrine is implicated because the EPA has "'no expertise' in electricity generation, transmission, and reliability." State & Industry Intervenors Repeal Br. 30 (quoting *King*, 576 U.S. at 474); *see also Gonzales*, 546 U.S. at 267 (rejecting interpretive rule of the Attorney General that was "both beyond his expertise and incongruous with the statutory purposes and design"). But Section 7411 not only foresees, but *demands* that the EPA consider "energy requirements" when assessing the best system of emission reduction. 42 U.S.C. § 7411(a)(1). The Supreme Court in *AEP* recognized the EPA's signal role in regulating greenhouse gases under Section 7411 notwithstanding that the EPA must consider energy requirements and ensure a reliable energy supply when it does so. 564 U.S. at 427. The Court explained that, when the EPA

is formulating greenhouse gas regulations, it must consider not only "the environmental benefit potentially achievable," but also "our Nation's energy needs and the possibility of economic disruption[.]" *Id.* The Clean Air Act "entrusts such complex balancing to EPA in the first instance, in combination with state regulators." *Id.*; *see* 42 U.S.C. § 7411(a)(1). That definitive reading of the statute by the Supreme Court cannot suddenly become a forbidden major question when the EPA regulates as it was told to do.

The statutory scheme simply gives no quarter to the proposition that, in following Congress' directive to regulate electricity-producing power plants, the EPA is categorically forbidden to consider emission-reduction measures that take into account the nature of the electricity grid in which those power plants operate day in and day out. Nor is it sensible to categorically put off-limits the generation-shifting measures that power plants are already actually using to meet emission requirements. *See* Clean Power Plan, 80 Fed. Reg. at 64,784–64,785.

The State and Industry Intervenors also overlook that the EPA developed the Clean Power Plan with input from other agencies with relevant expertise. *See* Clean Power Plan, 80 Fed. Reg. at 64,672–64,673 (explaining that "[i]nput and assistance from FERC [the Federal Energy Regulatory Commission] and DOE [the Department of Energy] have been particularly important in shaping" aspects of the Clean Power Plan); *id.* at 64,671 (noting "extensive consultation with key agencies responsible for [electric system] reliability[,]" as well as reliance on the "EPA's longstanding principles in setting emission standards for the utility power sector"). *Contrast Delaware Dep't of Nat. Res. & Env't Control v. EPA*, 785 F.3d 1, 14, 18 (D.C. Cir. 2015) (invalidating rule in part because the EPA had failed to consult with other expert agencies on grid

reliability issues). EPA could hardly do its job without substantively engaging with the on-the-ground facts about the electricity system that power plants support. Quite the opposite: An agency's wooden refusal to factor in reality and such on-point considerations would ordinarily render its decisionmaking arbitrary and capricious. *See Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983).

All told, the EPA's consideration of already-in-use generation shifting as part of the "best system of emission reduction" does nothing to enlarge the Agency's regulatory domain. "We are not talking about extending EPA jurisdiction over millions of previously unregulated entities," but about a familiar process of cooperative federalism applied to "entities already subject to * * * regulation" to address a recognized form of air pollution that repeatedly has been found to endanger public health and welfare. *See UARG*, 573 U.S. at 332. The major questions doctrine cannot rescue the ACE Rule's mistaken interpretation of Section 7411(d) as categorically confining the best system of emission reduction to physical adjustments made only "at" and "to" the power plant.

C. FEDERALISM

The federalism canon lends no support to the ACE Rule's decision to confine the best system of emission reduction to measures that apply exclusively at and to the source. That canon recognizes that "the States retain substantial sovereign powers under our constitutional scheme, powers with which Congress does not readily interfere." *Gregory v. Ashcroft*, 501 U.S. 452, 460–461 (1991). So as a matter of constitutional avoidance, courts require Congress to "enact exceedingly clear language if it wishes to significantly alter the balance between federal and state power." *United States Forest Serv. v.*

Cowpasture River Pres. Ass'n, 140 S. Ct. 1837, 1849–1850 (2020).

The federalism clear-statement rule prevents direct federal intrusion into areas of traditional state responsibility unless Congress has made its intent to cross that line explicit. For example, courts will not assume that Congress meant to preempt a State's mandatory retirement age for state judges through the passage of a generic age discrimination law, unless it has clearly expressed its intent to police the qualifications of such high-level state officials. *See Gregory*, 501 U.S. at 463–464. Nor will courts lightly assume that Congress intended to claim state-owned land as part of the National Park System, *see Cowpasture River*, 140 S. Ct. at 1849–1850, to transform simple state-law assaults into breaches of international chemical weapons compacts, *see Bond v. United States*, 572 U.S. 844, 862–863 (2014), or to displace the States' traditional authority to regulate the practice of law, *see American Bar Ass'n v. FTC*, 430 F.3d 457, 466, 471–472 (D.C. Cir. 2005). Only when such conflicts between federal and state regulatory domains are plainly joined by Congress itself will the court confront the sensitive constitutional implications of such measures.

That doctrine does not support the EPA's cramped reading of Section 7411. Interstate air pollution is not an area of traditional state regulation. And federalism concerns do not bar the United States government from addressing areas of *federal* concern just because its actions have incidental effects on areas of state power. *Cf. FERC v. Electric Power Supply Ass'n*, 136 S. Ct. 760, 775–778 (2016) (federal regulation of wholesale electricity market did not intrude on traditional state authority over the retail electricity market, even though wholesale market regulation created an incentive for retail consumers to change their behavior in state-regulated markets).

What is more, the Supreme Court has suggested that the federalism clear-statement rule is of limited applicability when a federal regulatory regime is enforced through a statutory cooperative-federalism framework, as Section 7411(d) is. *See AT&T Corp. v. Iowa Util. Board*, 525 U.S. 366, 378 n.6 (1999) (noting appeals to States' rights as "most peculiar" in the context of "a federal program administered by 50 independent state agencies"); *see also Alaska Dep't of Env't Conservation v. EPA*, 540 U.S. 461 (2004) (declining to adopt dissent's proposed clear-statement rule for federal constraints on state implementation decisions in cooperative-federalism program). *See generally* Abbe Gluck, *Intrastatutory Federalism and Statutory Interpretation: State Implementation of Federal Law in Health Reform and Beyond*, 121 YALE L.J. 534, 555–556 (2011).

In any case, the Clean Power Plan's incorporation of generation shifting into its best system of emission reduction fell squarely within an area of the federal government's constitutional competence. The EPA does not dispute the government's authority or its statutory mandate to reduce the emission of pollutants that endanger public health and welfare. 42 U.S.C. § 7411(b)(1)(A), (d)(1). The EPA also agrees that greenhouse gases are among the pollutants properly regulated by the federal government. *See AEP*, 564 U.S. at 416–417, 424; *see also supra* Part I.B.2.

The Clean Power Plan directly regulated only the *amount* of greenhouse gas pollutants that may be emitted into the atmosphere. 80 Fed. Reg. at 64,663–64,664. That is an area of unique federal concern. After all, "[a]ir pollution is transient, heedless of state boundaries," *EME Homer City Generation*, 572 U.S. at 496, particularly where the pollutants are greenhouse gases, which have little if any localized effect but great cumulative impact. The inability of individual States

to redress the problem of interstate air pollution, in fact, was among the very reasons for the enactment of the Clean Air Act. *See* 42 U.S.C. § 7401(a)(1), (4); S. REP. NO. 88-638, at 3 (1963) ("Polluted air is not contained in a specific area but is carried from one political jurisdiction to another. It does not know State lines or city limits. Providing air of good quality * * * is a challenge and an obligation for Government operations on all levels."); *id.* at 5 ("The nationwide character of the air pollution problem requires an adequate Federal program to lend assistance, support, and stimulus to State and community programs.").

To be sure, the federal government's regulation of such an interstate problem can have indirect effects on State energy production and utility regulation decisions. But even when those effects are the fully anticipated "natural consequences" of an agency's policy choice, *Electric Power Supply Ass'n*, 136 S. Ct. at 776, that does not transform a fundamentally federal action in a core federal area of concern into a restriction on state action that triggers the federalism canon.[12]

The EPA protests that the Clean Power Plan breached that divide because it expressly considered generation shifting to

[12] In the ACE Rule, the EPA suggested that the Clean Power Plan's best system of emission reduction was also impermissible as an encroachment on "measures and subjects exclusively left to FERC[.]" 84 Fed. Reg at 32,530. The EPA has not pressed that argument here. For good reason. The effects of environmental regulations on the power grid do not amount to power regulation statutorily reserved to FERC. And, in any event, the constitutional concerns that require us to patrol the boundaries between federal and state authority with vigilance do not support any similar clear-statement requirement regarding turf battles between federal agencies.

determine the best system of emission reduction and, in so doing, stepped on the States' power to regulate electrical utilities' mix of electricity generation. Reg.

But that argument has nothing to do with the narrow construction of Section 7411 that the EPA adopted. After all, the EPA could have set the same emission guidelines predicated on a best system of emission reduction that exclusively employed technological controls applicable at and to the source, like carbon capture and sequestration. And the EPA must agree that the federalism canon would play no role in determining the appropriateness of that system, since on the Agency's own reading, measures applicable at and to the source are precisely what Section 7411 allows.[13]

Nowhere does the EPA explain why reference to a different mechanism—generation shifting—in its calculation of the best system would raise materially different federalism

[13] While the EPA did not select carbon capture and sequestration as the best system of emission reduction in the ACE Rule, it excluded that process because of cost and feasibility concerns, not federalism interests. *See* 84 Fed. Reg. at 32,547–32,549. That exclusion was a change of position from the Clean Power Plan, where the EPA found that the process was "technically feasible and within price ranges that the EPA has found to be cost effective[.]" 80 Fed. Reg. at 64,727. Carbon capture and sequestration ultimately was not selected as the best system of emission reduction in the Clean Power Plan solely because generation shifting was even more cost-effective. *Id.* at 64,727–64,728. What matters here is that the EPA did not express any concern in either the ACE Rule or the Clean Power Plan that such a system would intrude upon traditional areas of State authority. In the ACE Rule, the EPA permits the use of such technological controls to meet its emission standards, 84 Fed. Reg. at 32,549, 32,555, as it did in the Clean Power Plan, 80 Fed. Reg. at 64,883–64,884.

concerns. Under either system, the only direct obligation imposed on States is the same: a federally set emissions guideline. In both scenarios, the States remain equally free to choose the compliance measures that best fit the needs of their State and industry. And as a practical matter, many if not most States would likely opt for generation shifting over carbon capture and sequestration under *either* rule because the former is cheaper for existing plants. *See* Clean Power Plan, 80 Fed. Reg. at 64,727–64,728; ACE Rule, 84 Fed. Reg. at 32,532 ("Market-based forces have already led to significant generation shifting in the power sector.").

The EPA also suggests that the clear-statement rule operates with particular force here because the Plan imposed uneven regulatory burdens weighted toward States with more high-emitting power plants. But that argument tries to twist principles of federalism into a command of regulatory homogenization that defies on-the-ground reality. Regulations under the Clean Air Act or any environmental law will commonly affect States differently depending on the States' activities. The regulation of pollutants associated with automotive manufacturing affects States with production facilities more than those without. *See, e.g.*, *General Motors Corp. v. United States*, 496 U.S. 530, 534–535 (1990). The regulation of mining-related pollutants imposes greater costs on States with more plentiful mineral resources. *See, e.g.*, *Alaska Dep't of Env't Conservation*, 540 U.S. at 469–470, 474; *Hodel v. Virginia Surface Mining & Reclamation Ass'n*, 452 U.S. 264, 289–290 (1981). The same point applies to industries like petroleum refining, which are concentrated near navigable waters. *See generally* EIA, *U.S. Energy Mapping System* https://www.eia.gov/state/maps.php (last visited Jan. 11, 2021). Indeed, some regulations impose additional regulatory burdens based literally on the direction the wind blows. *See EME Homer City Generation*, 572 U.S. at 520. Likewise,

States with more navigable water necessarily carry more burdens under the Clean Water Act than those with less.

Affected States, of course, could raise statutory challenges to enforce the Clean Air Act's express constraints, such as required consideration of cost, non-air quality health and environmental impact, or energy requirements under Section 7411(a). And they could always challenge any unreasoned or unwarranted distinctions in regulatory coverage as arbitrary or capricious. But in the absence of such an objection, it does not offend—or even implicate—principles of federalism to observe that States whose industries pollute the Nation's air and so harm the public's health more will, in turn, be affected more by emission controls.

For all of those reasons, nothing in the federalism canon supports the EPA's effort to categorically constrict the best system of emission reduction to measures physically applied at and to the individual plant.

III. THE EPA'S AUTHORITY TO REGULATE CARBON DIOXIDE EMISSIONS UNDER SECTION 7411

A. THE COAL PETITIONERS' CHALLENGES

The North American Coal Corporation and Westmoreland Mining Holdings LLC, both coal mine operators (the Coal Petitioners), bring two challenges to the ACE Rule. Both question the EPA's legal authority to enact the rule. First, the Coal Petitioners argue that the EPA failed to make the required endangerment finding—that carbon dioxide emissions from power plants cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare—before regulating those emissions. *See* 42 U.S.C. § 7411(b)(1)(A). Second, they claim that the EPA's previous regulation of a different air pollutant (mercury) from power

plants under the Hazardous Air Pollutants provision, 42 U.S.C. § 7412, precludes the EPA from now regulating power plants' emission of greenhouse gases under Section 7411(d).

Both arguments fail. The EPA made the requisite endangerment finding in 2015, and the ACE Rule expressly retained that finding. As for the Section 7412 challenge, the EPA has correctly and consistently read the statute to allow the regulation both of a source's emission of hazardous substances under Section 7412 and of other pollutants emitted by the same source under Section 7411(d). The Coal Petitioners' argument rests not on the enacted statutory language, but instead on their own favored reading of one statutory amendment inserted by codifiers. Reading the statutory text as a whole—that is, all of the relevant language enacted by Congress, including two duly enacted amendments—the Clean Air Act authorizes the EPA to regulate both power plants' emissions of greenhouse gases under Section 7411(d) and hazardous air pollutants under Section 7412. That reading is reinforced by the statutory structure, purpose, and history.

1. Endangerment Finding

a. The Record of Endangerment

The Coal Petitioners argue that the ACE Rule was unlawful right out of the box because the EPA failed to make a statutorily required finding that greenhouse gas emissions from power plants cause air pollution that endangers the public health and welfare. That is wrong.

As a reminder, before the EPA can regulate a category of stationary sources like electricity-generating power plants under Section 7411, the EPA Administrator must first find that the source category "in his judgment * * * causes, or contributes, significantly to, air pollution which may

reasonably be anticipated to endanger the public health or welfare." 42 U.S.C. § 7411(b)(1)(A). A formal pronouncement meeting those criteria is known as an "endangerment finding." New Source Rule, 80 Fed. Reg. at 64,529. And once it is made, the EPA is not just empowered, but obligated, to regulate. *See* 42 U.S.C. § 7411(b)(1)(A); *see also supra* note 8.

After the Administrator makes an endangerment finding, the source category is added to the EPA's Section 7411 list, 42 U.S.C. § 7411(b)(1)(A), and the Administrator must promulgate emissions standards (called "standards of performance") for *new* sources in the category, *id.* § 7411(b)(1)(B). As relevant here, unless those dangerous emissions are regulated under another relevant provision of the Clean Air Act, the Administrator must also set an achievable emission guideline based on the "best system of emission reduction" and provide a process for States to submit a plan setting out standards of performance for *existing* stationary sources in that same category. *Id.* § 7411(d)(1)(A)(ii).

The EPA has for decades been regulating emissions other than carbon dioxide from electricity-generating power plants. In 1971, the EPA listed fossil-fuel-fired electricity-generating units with steam-generating boilers as a new source category under Section 7411(b) and promptly established standards of performance for them. *See* Air Pollution Prevention and Control: List of Categories of Stationary Sources, 36 Fed. Reg. 5931 (March 31, 1971); Standards of Performance for New Stationary Sources, 36 Fed. Reg. 24,876, 24,878–24,880 (Dec. 23, 1971). Then, in 1977, the EPA listed fossil-fuel-fired combustion turbines as a new source category under Section 7411 and set performance standards for them. *See* Air Pollution Prevention and Control: Addition to the List of Categories of Stationary Sources, 42 Fed. Reg. 53,657 (Oct. 3,

1977); New Stationary Sources Performance Standards; Electric Utility Steam Generating Units, 44 Fed. Reg. 33,580 (June 11, 1979). These categories cover the power plants at issue today. *See* New Source Rule, 80 Fed. Reg. at 64,531.

Through the 2015 New Source Rule, the EPA began regulating carbon dioxide emissions from electricity-generating power plants. *See* New Source Rule, 80 Fed. Reg. 64,510. Because power plants had already been listed as a regulated source category, the New Source Rule did not need to take any action to add those plants to the Section 7411 list of regulated sources. It just issued, for the first time, standards of performance for carbon dioxide emitted from new power plants. In so doing, the New Source Rule provided the statutory predicate and corresponding duty for the EPA to establish carbon dioxide emission standards for existing power plants as well. Clean Power Plan, 80 Fed. Reg. at 64,715; *see* 42 U.S.C. § 7411(d)(1). The New Source Rule now serves that same function for the ACE Rule, 84 Fed. Reg. at 32,533.

Because the New Source Rule did not add a new category of pollution sources to the Section 7411 list, the EPA concluded that no new endangerment finding was needed. New Source Rule, 80 Fed. Reg. at 64,529–64,530. The EPA nevertheless went on to explain that it chose to regulate carbon dioxide emissions from electricity-generating plants specifically because greenhouse gas pollution endangers public health and welfare and contributes significantly to air pollution. *See id.* at 64,530–64,531. The EPA found in particular that increased atmospheric levels of greenhouse gases, including carbon dioxide, could lead to, among other things, more frequent extreme weather events and wildfires; threats to mental and physical health, especially for children and the elderly; reduced access to food and safe water; and mass

migrations and displacements as a result of rising sea levels. *Id.* at 64,517–64,520.

b. Timeliness

At the outset, the EPA argues that we must disregard the Coal Petitioners' challenge concerning the endangerment finding because it was not timely filed. This is a close question, but we ultimately conclude that the petition is timely.

The Clean Air Act requires that petitions for review challenging an EPA regulation—including any Section 7411 standard of performance—generally must be filed within 60 days of the regulation's publication in the Federal Register. 42 U.S.C. § 7607(b)(1). The Clean Air Act's timeliness bar is "jurisdictional in nature[.]" *Motor & Equip. Mfrs. Ass'n v. Nichols*, 142 F.3d 449, 460 (D.C. Cir. 1998) (quoting *Edison Elec. Inst. v. EPA*, 996 F.2d 326, 331 (D.C. Cir. 1993)).

Importantly, Congress carved out an exception to that 60-day time limit if the petition "is based solely on grounds arising after [the] sixtieth day[.]" 42 U.S.C. § 7607(b)(1). In that situation, the clock resets, and the petitioner must file within 60 days of the occurrence of the new event that "ripens [the] claim" and thereby triggers the basis for a challenge. *Coalition for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 129 (D.C. Cir. 2012), *rev'd in part on other grounds sub nom. Utility Air Regulatory Group v. EPA* (*UARG*), 573 U.S. 302 (2014); *see also Alon Refining Krotz Springs, Inc. v. EPA*, 936 F.3d 628, 646 (D.C. Cir. 2019); *Honeywell Int'l, Inc. v. EPA*, 705 F.3d 470, 472–473 (D.C. Cir. 2013); *Sierra Club de Puerto Rico v. EPA*, 815 F.3d 22, 26 (D.C. Cir. 2016). A claim "ripens" for purposes of the Clean Air Act when "subsequent factual or legal development creat[es] new legal consequences" for the party seeking review. *Sierra Club de Puerto Rico*, 815

F.3d at 28. This type of delayed challenge is commonly referred to as an "after arising" claim.

We agree with the Coal Petitioners that the ACE Rule is an after-arising event that ripened their challenge to the New Source Rule's endangerment finding.

When the EPA promulgated the New Source Rule in 2015, the Coal Petitioners did not challenge that rule's endangerment finding.[14] That is because they did not plan "to build any new facilities affected by the New Source Rule," and so were not directly affected by it. Coal Pet'rs Reply Br. 3. But when the ACE Rule used the New Source Rule as the predicate for regulating existing coal-fired power plants, ACE Rule, 84 Fed. Reg. at 32,533, the Coal Petitioners became concretely aggrieved by the finding.

Under those circumstances, the Coal Petitioners' challenge to the New Source Rule as an insufficient predicate for the ACE Rule is timely. If the Coal Petitioners had filed suit when the New Source Rule was first promulgated in 2015, their standing would have been in doubt because they did not have any, or intend to build any, new power plants. An asserted injury arising from how the New Source Rule might come to

[14] The Coal Petitioners claim that there is no timeliness problem because two trade associations with which the Coal Petitioners are affiliated—the National Mining Association and the United States Chamber of Commerce—challenged the New Source Rule. Coal Pet'rs Reply Br. 3 & n.2. There is no evidence or declaration regarding that relationship in the record, aside from counsel's representation at oral argument. Oral Argument Tr. 131:13–17. Because we hold that the after-arising exception makes the Coal Petitioners' own challenge timely, we do not address the relevance, if any, of a prior trade association challenge.

affect the regulation of their existing plants in the future might well have been too speculative to support judicial review. *See Coalition for Responsible Regulation*, 684 F.3d at 115–116, 129–131 (challenge to preexisting regulations was timely, where regulations first affected petitioners due to the recent promulgation of rule targeting motor vehicle emissions); *see also Sierra Club de Puerto Rico*, 815 F.3d at 27; *Honeywell, Int'l*, 705 F.3d at 473. That is why "this court has assured petitioners with unripe claims that 'they will not be foreclosed from judicial review when the appropriate time comes,' * * * and that they 'need not fear preclusion by reason of the 60-day stipulation barring judicial review,'" as long as they file a petition within 60 days of the injury that ripened their claim. *Coalition for Responsible Regulation*, 684 F.3d at 131 (formatting modified).

The EPA urges that the Coal Petitioners could have pressed a challenge to the New Source Rule in 2015 at the latest, as other coal-related entities did, once the EPA promulgated the Clean Power Plan in reliance on the New Source Rule's endangerment finding. *See North Dakota v. EPA*, No. 15-1381 (and consolidated cases).

Perhaps. *See North American Coal Corp. v. EPA*, No. 15-1451 (D.C. Cir.) (consolidated with *West Virginia v. EPA*, No. 15-1363 (D.C. Cir.)). But that would argue over spilled milk. The Clean Power Plan litigation came to a halt when the EPA reconsidered that rule, and the case was ultimately dismissed as moot after the ACE Rule withdrew the Clean Power Plan. Per Curiam Order, *West Virginia v. EPA*, No. 15-1363 (D.C. Cir. Sept. 17, 2019), ECF No. 1806952. The Coal Petitioners have raised their claim in the ACE Rule litigation, and it would

seem perverse to say they instead should have litigated the matter in a case that will never be decided.[15]

c. Adequacy of the Endangerment Finding

On the merits, the Coal Petitioners press a two-fold challenge to the EPA's compliance with the endangerment-finding requirement. First, they argue that Section 7411(b) requires the EPA to make a pollutant-specific endangerment finding for each stationary source category newly regulated under that provision. In their view, even though the EPA had already found that carbon dioxide emissions significantly cause or contribute to greenhouse gas air pollution that endanger the public health or welfare, the EPA also separately had to find that carbon dioxide specifically from coal-fired power plants is a significant source of that danger. 2009 Endangerment Finding, 74 Fed. Reg. at 66,499, 66,542 (for motor vehicles). Second, the Coal Petitioners claim that the EPA did not make such a finding, leaving it without authority to enact the ACE Rule.

We need not address the Coal Petitioners' first argument. Even assuming that Section 7411(b) requires a source-specific

[15] There is a second exception to the timeliness bar known as the "reopening rule." *See, e.g.*, *Environmental Def. v. EPA*, 467 F.3d 1329, 1333 (D.C. Cir. 2006). The gist of that rule is that the 60-day jurisdictional review window restarts when an agency, either explicitly or implicitly, reconsiders its former action. *See National Ass'n of Reversionary Prop. Owners v. Surface Transp. Bd.*, 158 F.3d 135, 141 (D.C. Cir. 1998); *National Mining Ass'n v. United States Dep't of Interior*, 70 F.3d 1345, 1351 (D.C. Cir. 1995). Because the after-arising ripeness exception preserves the Coal Petitioners' claim, we need not address the reopening doctrine.

endangerment finding for each pollutant, the EPA made a sufficient finding in the New Source Rule.

i. The New Source Rule

Before making the New Source Rule's endangerment finding keyed to carbon dioxide from new fossil-fuel-fired power plants, the EPA explained its "rational basis" for regulating those sources' emissions of that pollutant under Section 7411. New Source Rule, 80 Fed. Reg. at 64,530. The EPA first outlined why greenhouse gas emissions pose a danger to the public health and welfare, and then explained why it should regulate those emissions from power plants specifically.

For evidence of the harms posed by greenhouse gas air pollution, the EPA first pointed to its 2009 Endangerment Finding, made in connection with the motor vehicle emissions regulation at issue in *Coalition for Responsible Regulation*. New Source Rule, 80 Fed. Reg. at 64,530. There, this court upheld as reasonable the EPA's finding that greenhouse gas emissions threaten public health and welfare. *Id.*; *see also Coalition for Responsible Regulation*, 684 F.3d at 119–126.

In the 2015 New Source Rule, the Agency reviewed substantial scientific evidence, including contemporary studies from the National Research Council, the Intergovernmental Panel on Climate Change, and others that post-dated the record from the 2009 motor vehicle emissions regulation. 80 Fed. Reg. at 64,530–64,531; *see also id.* at 64,517–64,520 (detailing updated developments in scientific evidence). The EPA found that the new studies "len[t] further credence to the validity of the [2009] Endangerment Finding." *Id.* at 64,530. The EPA added that "[n]o information that commentators have presented or that the EPA has reviewed provides a basis for reaching a different conclusion," and that the science at the time had

reaffirmed its understanding of the effects of greenhouse gases on the public health and welfare. *Id.* "The facts," the EPA concluded, "unfortunately, have only grown stronger and the potential adverse consequences to public health and the environment more dire in the interim." *Id.* at 64,531.

The EPA next explained its reasons for regulating greenhouse gases from fossil-fuel-fired power plants specifically, pointing to the exceptionally high levels of emissions from those power plants. *See* New Source Rule, 80 Fed. Reg. at 64,522–64,523, 64,530. To that end, the EPA found that fossil-fuel-fired power plants are the largest stationary sources of greenhouse gas emissions in the United States, accounting for nearly one-third of the United States' greenhouse gas emissions and as much as three times the emissions from the next ten categories of stationary sources combined. *Id.* at 64,530. Coal-fired power plants in particular, the EPA added, are the largest of those large emitters, with just one coal-fired power plant emitting potentially millions of tons of carbon dioxide annually. *Id.* at 64,531. In that way, power plant emissions "far exceed[ed] in magnitude the emissions from motor vehicles," which had been the subject of the endangerment finding upheld in *Coalition for Responsible Regulation*. *Id.*

ii. All Required Findings Were Made

The Coal Petitioners acknowledge the EPA's findings, but argue that Section 7411 requires a two-part endangerment finding—that carbon dioxide from fossil-fuel-fired power plants (1) endangers the public health and welfare, and (2) causes or contributes significantly to greenhouse gas air pollution. *See* 42 U.S.C. § 7411(b)(1)(A) (findings must be for the "category of sources"). The Coal Petitioners do not contest

that carbon dioxide endangers the public health and welfare. *See* Oral Argument Tr. 129:21–22.

Instead, they train their arguments on the second prong, arguing that the New Source Rule did not properly make a finding that fossil-fuel-fired power plants "contribute[] significantly" to greenhouse gas pollution. First, they fault the EPA for relying on the New Source Rule, which provided a rational basis for regulation to support a significant-contribution finding.[16] Second, they argue that the EPA arbitrarily and capriciously failed to define the threshold measure of a "significant" contribution.

To survive those challenges, the EPA needed only to "articulate a satisfactory explanation" for the New Source Rule's endangerment finding, making a "rational connection between the facts found and the choice made." *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.* (*State Farm*), 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)). For an endangerment

[16] The Coal Petitioners also argue that the EPA was wrong to rely on the 2009 Endangerment Finding because it used the lower "more than a *de minimis or* trivial" contribution standard. Coal Pet'rs Br. (quoting 2009 Endangerment Finding, 74 Fed. Reg. at 66,542). But the New Source Rule relies on the 2009 Endangerment Finding only for part one of the endangerment finding test—that greenhouse gas pollution may reasonably be anticipated to endanger the public health and welfare—which the Coal Petitioners do not contest. *See* New Source Rule, 80 Fed. Reg. at 64,530–64,531. The EPA separately considered the volume of greenhouse gas emissions that motor vehicles contribute to the problem and found it significant. *See* 2009 Endangerment Finding, 74 Fed. Reg. at 66,499, 66,543; *Coalition for Responsible Regulation*, 684 F.3d at 128.

finding, that choice need not include a "precise numerical value" that defines the threshold at which air pollution endangers the public health and welfare. *Coalition for Responsible Regulation*, 684 F.3d at 326. Instead, a "'more qualitative' approach," employing reasoned predictions based on "empirical data and scientific evidence," may suffice. *Id.* at 327 (quoting *Ethyl Corp. v. EPA*, 541 F.2d 1, 56 (D.C. Cir. 1976)). Such an approach "is a function of the precautionary thrust of the [Clean Air Act] and the multivariate and sometimes uncertain nature of climate science, not a sign of arbitrary or capricious decision-making." *Id.* By that measure, both of the Coal Petitioners' objections fail.

For starters, it is perfectly permissible, and commendably efficient, for an agency to re-confirm and build consistently upon such formally made factual determinations. It makes eminent sense, for example, for the EPA to take what it learned in regulating automobiles' greenhouse gas emissions and apply that in evaluating the need for regulation of another source of the same pollutant—fossil-fuel-fired power plants. What matters here is that the EPA did not simply conclude that power plants' greenhouse gas emissions significantly contribute to air pollution and stop there. Instead, the EPA went on to explain *why* that significant-contribution finding was warranted. *See* New Source Rule, 80 Fed. Reg. at 64,530–64,531 (explaining that power plants are the largest stationary sources of domestic greenhouse gas emissions and that each coal-fired plant may emit millions of tons of carbon dioxide per year).

The Coal Petitioners' argument that the EPA failed to articulate a specific threshold measurement for significance fares no better. While the failure to identify the trigger point for significance might prove problematic in cases at the margins, the EPA sensibly found that this one is not even close. Because of their substantial contribution of greenhouse gases,

"under any reasonable threshold or definition," carbon dioxide from fossil-fuel-fired power plants represents "a significant contribution" to air pollution. New Source Rule, 80 Fed. Reg. at 64,531; *cf. Massachusetts v. EPA*, 549 U.S. at 525 (While domestic automobile emissions accounted for less than one-third of the United States' domestic emissions, "[j]udged by any standard, U.S. motor-vehicle emissions make a meaningful contribution to greenhouse gas concentrations and * * * to global warming.").

In that regard, we have already held that nothing in the Clean Air Act "require[s] that [the] EPA set a precise numerical value as part of" a contribution endangerment finding. *Coalition for Responsible Regulation*, 684 F.3d at 122 (applying Section 7521(a)(1) of the Clean Air Act). So the "EPA need not establish a minimum threshold of risk or harm before determining whether an air pollutant endangers." *Id.* at 123.

Nevertheless, the Coal Petitioners insist that, before finding significance, the EPA had to decide whether its inquiry would (1) address domestic or global emissions, (2) be measured by a "simple percentage criterion" or another metric, (3) factor in historical trends and/or future projections, and (4) involve a different process for greenhouse gases than other pollutants. *See* Coal Pet'rs Br. 17. Whether the EPA could reasonably decide to factor in such considerations is not before us. What matters here is that nothing in the Clean Air Act or precedent mandates determinations on each of those factors—at least not in a case in which there is no showing that any of them would have made any difference. Given that the United States, at the time of the endangerment finding, was the second-largest emitter of greenhouse gases in the world, *see* 2009 Endangerment Finding, 74 Fed. Reg. at 66,538, it was not arbitrary or capricious for the EPA to conclude that the source

of close to one-third of those emissions is a significant contributor to air pollution by any measure. The global nature of the air pollution problem means that "[a] country or a source may be a large contributor, in comparison to other countries or sources, even though its percentage contribution may appear relatively small" in the context of total emissions worldwide. *Id.* Looking just at the Coal Petitioners' calculations, power plants contributed a hefty 4.5 percent to global greenhouse gas emissions in 2013. *See* Coal Pet'rs Br. 18. More to the point, a holding that greenhouse gas emissions by fossil-fuel-fired power plants are not significant would make it nigh impossible for any source of greenhouse gas pollution to cross that statutory threshold.[17]

For those reasons, we hold that the New Source Rule's endangerment finding provided a sufficient basis for the EPA's promulgation of the ACE Rule.

2. Section 7411 and Section 7412's Parallel Operation

a. Background on the 1990 Amendments

The Coal Petitioners next argue that the Clean Air Act expressly and unambiguously prohibits the EPA from

[17] The EPA recently solicited public comment through a proposed rule on the appropriateness of considering such factors when making a significant-contribution finding. *See* Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review, 84 Fed. Reg. 50,244, 50,269 (Sept. 24, 2019). But the EPA explained that the comments on the proposed rule are meant only "to inform the EPA's actions in future rules," *id.* at 50,267, and explicitly declined to consider the merits of the comments or adopt any of the factors in that final rule, *see* Oil and Natural Gas Sector: Emission Standards for New, Reconstructed,

regulating coal-fired power plants' carbon dioxide emissions under Section 7411(d) because those same power plants' mercury emissions are regulated under Section 7412's Hazardous Air Pollutants provision. The relevant statutory text says otherwise.

To set the stage, as relevant here, the Clean Air Act regulates pollutants emitted by stationary sources like power plants under three distinct programs: (1) the National Ambient Air Quality Standards (NAAQS) program that applies to emissions of six common air pollutants, 42 U.S.C. §§ 7408–7410; (2) the regulation of certain specified pollutants under the Hazardous Air Pollutants program, 42 U.S.C. § 7412; and (3) the regulation of all other dangerous pollutants from new and existing sources under Section 7411.

Congress designed the existing source provision in Section 7411(d) to ensure that there were "no gaps in control activities pertaining to stationary source emissions that pose any significant danger to public health or welfare." S. REP. NO. 91-1196, at 20 (1970). So Section 7411(d), in its gap-filling capacity, covers all dangerous pollutants except those already regulated by NAAQS or the Hazardous Air Pollutants provision. *See* Clean Air Act Amendments of 1990 ("1990 Amendments"), Pub. L. No. 101-549, § 108(g), § 302(a), 104 Stat. 2399, 2467, 2574.

From the passage of the Clean Air Act until its amendment in 1990, Congress had left substantially to the EPA the task of building a program to effectively identify and regulate hazardous air pollutants under Section 7412. Specifically, Section 7412(b)(1)(A)—Section 112(b)(1)(A) of the 1970

---

and Modified Sources Review, 84 Fed. Reg. 57,018, 57,058 (Sept. 14, 2020).

Public Law—had instructed the EPA to publish a list of hazardous air pollutants that it would then regulate under Section 7412's terms. *See* Clean Air Act Amendments of 1970 ("1970 Amendments"), Pub. L. No. 91-604, sec. 4(a), § 112(b)(1)(A), 84 Stat. 1676, 1685. Section 7411(d), for its part, covered "any air pollutant * * * for which air quality criteria have not been issued or which is not included on a list published under section * * * 112(b)(1)(A)" by the EPA. *Id.*, sec. 4(a), § 111(d)(1)(A), 84 Stat. at 1684.

After two decades, Congress found that Section 7412 had "worked poorly" in that the EPA had regulated only eight hazardous pollutants under Section 7412. S. REP. NO. 102-228, at 128 (1989); *see id.* at 131. Through the 1990 Amendments to Section 7412, Congress forced the EPA's hand by statutorily designating 191 hazardous pollutants that Congress required the EPA to regulate. *See* 1990 Amendments, sec. 301, § 112(b)(1), 104 Stat. at 2532–2535 (codified at 42 U.S.C. § 7412(b)(1)); *see also* S. REP. NO. 102-228, at 133. Congress also called on the EPA to add to the list. 1990 Amendments, sec. 301, § 112(b)(2)–(3), 104 Stat. at 2535–2537 (codified at 42 U.S.C. § 7412(b)(2)–(3)). Neither greenhouse gases in general nor carbon dioxide in particular were on Congress' statutory list. Nor have they ever been added by the EPA.

That change to Section 7412(b) necessitated a corresponding technical change to Section 7411(d)'s carve-out of pollutants already regulated under the Hazardous Air Pollutants program, since the cross-referenced "list published under section * * * 112(b)(1)(A)" no longer existed. Congress' update of the statutory cross-reference is the root of the present dispute. That is because each chamber of Congress articulated

the technical correction differently, and yet both were enacted into law.

The Senate—in a section entitled "Conforming Amendments"—passed a straightforward amendment that struck "112(b)(1)(A)" from the Section 7411(d) exclusion, and replaced it with "112(b)"—which is the provision containing the new statutory list of hazardous pollutants to which the EPA could later add. 1990 Amendments, § 302(a), 104 Stat. at 2574. Just as before the 1990 Amendments, under the Senate Amendment, only hazardous pollutants on the Section 7412 list were excluded from Section 7411(d)'s regulation of existing sources' emissions, while dangerous pollutants not addressed by the Hazardous Air Pollutants or NAAQS programs remained in Section 7411(d)'s domain.

The House, for its part, called its technical amendment of the cross-reference "Miscellaneous Guidance," and it similarly deleted "112(a)(1)(B)[,]" and then excluded any air pollutant that is "emitted from a source category which is regulated under section 112." 1990 Amendments, § 108, 108(g), 104 Stat. at 2465, 2467.

Both of those amendments made it into the Conference Report, H.R. REP. NO. 101-952, at 73, 183 (1990) (Conf. Rep.), and, after being passed by both chambers of Congress and signed by the President, they both became part of the Public Law.

Congress' Office of the Legal Revision Counsel is tasked with compiling and codifying the public law and publishing it in the United States Code. The Counsel, of course, has no authority to alter the substance of the Statutes at Large. *See Ganem v. Heckler*, 746 F.2d 844, 851 (D.C. Cir. 1984) ("[T]he changes made by the codifiers, whose 'choice, made * * * without approval of Congress * * * should be given no weight,'

are of no substantive moment.") (internal quotation marks omitted) (quoting *North Dakota v. United States*, 460 U.S. 300, 310 n.13 (1983)); *see also Positive Law Codification*, OFFICE OF THE LAW REVISION COUNSEL, https://uscode.house.gov/codification/legislation.shtml (last visited Jan. 11, 2021) (For non-positive law titles, such as Title 42, "there are certain technical, although non-substantive, changes made to the text for purposes of inclusion in the Code.").

When faced with the Senate and House Amendments' differing articulations of the cross-reference update, the Counsel chose to publish only the House Amendment in the United States Code.

b. Interpreting the House and Senate Amendments

The Coal Petitioners argue that the House Amendment's technical update of the cross-reference actually worked a major substantive change in the law by categorically and unambiguously excluding from Section 7411 not the hazardous *pollutants* already regulated under Section 7412, but any *stationary sources* of hazardous pollutants regulated under Section 7412. In their view, once a source is subject to regulation under Section 7412 for any single listed hazardous pollutant, all of its other pollution emissions are off limits for regulation under Section 7411(d). More specifically, the Coal Petitioners' position is that, because the EPA regulates one hazardous air pollutant—mercury—emitted from coal-fired power plants, the EPA is powerless to regulate under Section 7411(d) every other non-"hazardous," but still

significantly dangerous, pollutant those same power plants emit, including greenhouse gases.[18]

On the other hand, for thirty years—from the enactment of the 1990 Amendments to the present day—the EPA has read the House's "Miscellaneous Guidance" as just that—a miscellaneous technical amendment that, like the Senate Amendment, simply updated the Section 7411(d) cross-reference to exclude the regulation of a stationary source's emission of pollutants that are already regulated under Section 7412.

For the Coal Petitioners' challenge to succeed, we would have to agree with their ambitious reading of the House Amendment as *precluding* regulation under Section 7411 of even those pollutants that are not covered by Section 7412. We also would have to ignore the duly enacted Senate Amendment entirely. And we would have to reject out of hand the EPA's three-decade-old harmonizing reading of the statutory amendments, the text of Section 7411(d), and the statutory structure. We decline the invitation because that is not how statutory interpretation works.

At the outset, the EPA seeks deference under *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984). If this were an ordinary EPA interpretation of a Clean Air Act provision, we would apply exactly that framework. *See UARG*, 573 U.S. at 315 ("We review EPA's

[18] *See* National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units, 77 Fed. Reg. 9304 (Feb. 16, 2012) (regulating mercury).

interpretations of the Clean Air Act using the standard set forth in *Chevron*[.]").

But this is no ordinary case. Here, the way in which the codifiers assembled the U.S. Code version of Section 7411(d) by omitting the Senate Amendment conflicts with the Statutes at Large, which is the definitive legal evidence of what the law is. 1 U.S.C. § 112; *see id*. § 204(a) (United States Code provides only *prima facie* evidence of the federal law). So any ambiguity arises from our duty to textually harmonize two duly enacted but differently articulated statutory provisions. In undertaking that task, we need not decide whether *Chevron* supplies the appropriate framework for reconciling conflicting statutory provisions. *Compare Scialabba v. Cuellar de Osorio*, 573 U.S. 41, 64 (2014) (Kagan, J.) (plurality opinion), *with id.* at 76 (Roberts, C.J.) (concurring in the judgment). Instead, we independently reach the same conclusion as the EPA, harmonizing the House and Senate Amendments by giving "full effect" to both. *Id.* at 64.

i. The Consistent Meaning of Both Amendments

In reconciling the Senate and House Amendments, we start with what the mission of the amendments was. The plain purpose of each amendment was to update Section 7411(d)'s outdated cross-reference to a list created by the EPA under Section 7412*(b)(1)(A)*, in light of Congress' publication of its new statutory list under Section 7412*(b)*. That is why the Senate labeled its provision a "[c]onforming [a]mendment," and the House called its version "[m]iscellaneous [g]uidance." *See* 1990 Amendments, § 302(a), 104 Stat. at 2574 (Senate Amendment); *id.* § 108(g), 104 Stat. at 2465, 2467 (House Amendment). Neither amendment was meant to work a major substantive change in the law.

The Senate took the most direct textual path to updating Section 7411(d)'s cross-reference. Using the Public Law section number for Section 7412 (that is, Section 112), the Senate Amendment simply substituted "section 112(b)" for the outdated reference to "section 112(b)(1)(A)." *See* 1990 Amendments, § 302(a), 104 Stat. at 2574. That way, the Senate Amendment maintains the parallelism of the two exclusions in Section 7411(d) for already-regulated pollutants that are either "included on a list published under section 108(a) [NAAQS] or 112(b) [the Hazardous Air Pollutants provision.]" *Id.* § 302(a), 104 Stat. at 2574 (incorporating Senate Amendment into the preexisting 1970 text, *see* 1970 Amendments, sec. 4(a), § 111(d)(1)(A), 84 Stat. at 1684). Both exclusionary clauses continue, as they had before the 1990 Amendments, to refer directly to specific air pollutants listed for regulation under other statutory provisions, and so to prevent duplicate regulation of the same harmful emissions.

The House Amendment was less efficient, but ended up in the same place. It substituted for "section 112(b)(1)(A)" the phrase an air pollutant that is "emitted from a source category which is regulated under section 112[.]" 1990 Amendments, § 108(g), 104 Stat. at 2467 (codified at 42 U.S.C. § 7411(d)(1)(A)(i)). So, with the House Amendment's phrasing, Section 7411(d)'s exclusion reads, as relevant here, that each State shall

> establish[] standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title [the NAAQS program] or emitted from a source category which is regulated under section 7412 of this title [the Hazardous Air Pollutant program] but (ii) to which a standard of performance under this section

> would apply if such existing source were a new source[.]

42 U.S.C. § 7411(d)(1)(A).

Reading the House Amendment within Section 7411(d)(1) "in [its] context and with a view to [its] place in the overall statutory scheme" shows that the House Amendment, like the Senate Amendment, just updated the cross-reference to exclude pollutant emissions already regulated for stationary sources under the Hazardous Air Pollutant program. *King v. Burwell*, 576 U.S. 473, 486 (2015) (quoting *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 132, 133 (2000)).

First, the entire point of the text that follows (i)—that is, romanette one—is to modify the phrase "air pollutant." "Air pollutant" is, in fact, the last antecedent to which all of the language in romanette one speaks. And grammatically, the last-antecedent rule means that a limiting phrase is generally read to "modify[] only the noun or phrase that it immediately follows." *Lockhart v. United States*, 136 S. Ct. 958, 962 (2016) (quoting *Barnhart v. Thomas*, 540 U.S. 20, 26 (2003)). In other words, the whole point of romanette one, including the House Amendment language, is to define which "air pollutant[s]" cannot be regulated under Section 7411(d) because those same pollutants are already regulated under the NAAQS or Hazardous Air Pollutants programs.

Second, reading the entirety of romanette one to modify "air pollutant" gives the updated cross-reference to Section 7412 full meaning.[19] *See UARG*, 573 U.S. at 317 (The

[19] Contrary to the separate opinion's view, *see* Separate Op. 34, use of the term "source category" (rather than "list") leaves open whether the EPA might regulate, in its Section 7411(d) gap-filling

phrase "any air pollutant" in Section 7411 must be given "a reasonable, context-appropriate meaning[.]"). The EPA has regulated over 140 source categories under Section 7412. EPA Br. 180. But it regulates only their emission of hazardous pollutants. In other words, Section 7412's regulatory scheme operates not broadly on the source category, but only on its emissions of the specified air pollutants. So Section 7412 does not and cannot police a source category's every emission, only its emission of "hazardous" air pollutants. That is why it is called the Hazardous Air Pollutants program, not the Hazardous Sources program. Reading Section 7411(d) as excluding only those air pollutants already governed by Section 7412's emissions regulations maps exactly onto romanette one's parallel exclusion of pollutants (not sources) already regulated under NAAQS. *See* 42 U.S.C. § 7411(d)(1)(A)(i). And it fits with Section 7411's gap-filling purpose, which is to capture those dangerous air pollutants not covered by NAAQS or the Hazardous Air Pollutants program. *See* S. REP. NO. 91-1196, at 20.

Third, at the same time that Congress amended Section 7411(d), it also added a savings clause,

---

capacity, the emission even of hazardous air pollutants listed under Section 7412 when emitted by sources that Section 7412 does not reach, but to which Section 7411 does apply, *see* 42 U.S.C. § 7412(c)(1), (3)–(6); *see also* Clean Power Plan, 80 Fed. Reg. at 64,714–64,715 (stating that "both the House and Senate amendments should be read individually as having the same meaning in the context presented in this rule," but that "it is reasonable to interpret the House amendment of the Section [7412] Exclusion as only excluding the regulation of [hazardous air pollutant] emissions under [Clean Air Act] section [7411(d)] *and only when that source category is regulated under* [*Clean Air Act*] *section* [*7412.*]") (emphasis added).

Section 7412(d)(7), to the Hazardous Air Pollutants provision. That provision says that "[n]o emission standard or other requirement promulgated under this section shall be interpreted, construed, or applied to diminish or replace * * * applicable requirements established pursuant to section [7411], part C or D[.]" 1990 Amendments, sec. 301, § 112(d)(7), 104 Stat. at 2540–2541 (codified at 42 U.S.C. § 7412(d)(7)). That language requires reading Section 7411(d)'s simultaneously enacted cross-reference to regulation under Section 7412 narrowly and consistently with Section 7411(d)'s complementary role in the statutory scheme. It certainly does not allow courts to read the cross-reference as the major amputation of authority to regulate that the Coal Petitioners propose.

ii. The House Amendment Is Not a Trojan Horse

The Coal Petitioners and the separate opinion eschew reading the House and Senate updates of the cross-reference harmoniously. They prefer to pit the House Amendment against the Senate Amendment and espy in the former a major change in the law that—without a word of warning or explanation—would have significantly curtailed the regulation of air pollutants and broadly insulated stationary sources from regulatory oversight for their non-hazardous but still-dangerously polluting emissions.

There is a litany of problems with that approach.

For starters, recall that the House and Senate Amendments were meant to address an outdated statutory cross-reference. It is not the function of a single chamber's miscellaneous guidance or conforming amendment of a cross-reference to materially overhaul or truncate a statutory provision's operative reach. Instead, reading both amendments together as serving the same purpose of cross-referencing a new statutory

list of air pollutants fits with their legislative purpose and text. To be sure, the Clean Air Act "is far from a *chef d'oeuvre* of legislative draftsmanship," but "we, and EPA, must do our best, bearing in mind the 'fundamental canon of statutory construction that the words of a statute must be read in their context and with a view to their place in the overall statutory scheme.'" *UARG*, 573 U.S. at 320 (quoting *Brown & Williamson*, 529 U.S. at 133).

More to the point, neither the House nor Senate Amendment said anything about changing the EPA's affirmative regulatory obligation under Section 7411(d) to promulgate emissions guidelines for all air pollutants, except those already regulated under the NAAQS or Section 7412. Yet reading the House Amendment as abruptly withdrawing from Section 7411(d)'s reach entire source categories and all of the otherwise-unregulated emissions they spew would put the House Amendment in direct conflict with not only the unambiguous language of the Senate Amendment, but also with the Clean Air Act's gap-filling structure and purpose, as well as with EPA's overarching regulatory obligation. And it would supposedly do all of that contrary to the statutory history, in defiance of the technical and updating nature of the two Amendments, and without a whisper of warning by a single House or Senate member that the miscellaneous guidance would cripple Section 7411's correlative function in the statutory scheme.

At best, the Coal Petitioners' and separate opinion's vision of the House Amendment would have the EPA's regulatory authority under Section 7411(d) turn on a fluke of timing. The Section 7412(d)(7) savings clause mentioned above, by its terms, protects the operation of Section 7411 regulations already in effect. So, too, does the House Amendment, which only excises what already "is regulated" under Section 7412.

Under the Coal Petitioners' approach, then, the Clean Air Act would allow the EPA to regulate sources under both Section 7411(d) and Section 7412 if, and only if, the EPA adopted its Section 7411(d) regulation *before* the Section 7412 regulation. No rational explanation is offered as to why Congress would want the mere sequencing of regulations to render them either lawful or invalid.

More to the point, the Coal Petitioners and the separate opinion point to nothing in the legislative record even *hinting* at a rationale for removing Section 7412 sources entirely from Section 7411's reach. Nothing suggests that Congress intended to veer off in that substantive legislative direction. The Senate certainly had no such intention.

The Coal Petitioners suggest that the EPA could instead regulate carbon dioxide under Section 7412. But they do not really mean it, as they say in the same breath that carbon dioxide would be a "poor fit" for Section 7412. Coal Pet'rs Br. 33 n.8. That is because Section 7412 strictly regulates all sources that emit ten tons per year or more of hazardous pollutants. 42 U.S.C. § 7412(a)(1). Adding carbon dioxide to that list would lead to a massive regulatory expansion of EPA authority to include everything from schools to hospitals and apartment buildings. *Cf. UARG*, 573 U.S. at 328. It would make no sense to conclude that Congress intended an unheralded string of words in a "Miscellaneous Guidance" amendment to hobble the gap-filling function of Section 7411(d) and to disable the EPA from addressing the source of one-third of this country's greenhouse gas emissions.

Nor can the Coal Petitioners hang their hats on the inclusion of the House Amendment in the codified version of Section 7411(d). Putting aside that the two amendments readily can, and so must, be read harmoniously as just updating

the exclusion of already-regulated air pollutants, it is settled that "the Code cannot prevail over the Statutes at Large when the two are inconsistent." *Stephan v. United States*, 319 U.S. 423, 426 (1943); *see also Five Flags Pipe Line Co. v. Department of Transp.*, 854 F.2d 1438, 1440 (D.C. Cir. 1988) ("[W]here the language of the Statutes at Large conflicts with the language in the United States Code that has not been enacted into positive law, the language of the Statutes at Large controls.").

The Coal Petitioners' and the separate opinion's other efforts to cast aside the Senate Amendment all fail.

First, the Coal Petitioners and the separate opinion point to the Chafee-Baucus Statement of Senate Managers, in which Senators Chafee and Baucus addressed the negotiations surrounding the "Miscellaneous Guidance" in the 1990 Amendments. Using this statement, the Coal Petitioners and the separate opinion try to brush off the duly enacted Senate Amendment as a scrivener's or drafter's error. To that end, they stress the Managers' statement that, in the "Conference agreement," the "Senate recedes to the House except * * * with respect to the requirement regarding judicial review of reports * * * and with respect to transportation planning[.]" 136 CONG. REC. 36,007, 36,067 (Oct. 27, 1990).

That argument does not even get out of the starting gate. It should go without saying that two Managers' description of what a report said does not override the Conference Report itself. And it surely cannot erase the Senate Amendment text that was enacted by both the House and the Senate, and signed into law by the President.

In fact, the Managers were wrong about what the Conference Report said. What the Conference Report actually says is that "the Senate recede[s] from its disagreement to the

amendment of the House to the text of the bill and agree to the same *with an amendment as follows*." H.R. REP. NO. 101-952, at 1 (Conf. Rep.) (emphasis added). The "amendment [that] follow[ed]" included the text of the Senate Amendment as well as the House Amendment. *See id.* at 73, 183. So the agreement retained the Senate Amendment language; the Senate plainly did not withdraw it. The accompanying joint explanatory statement of the Conference Committee confirms that the Senate receded to the House subject to this amendment, "which [was] a substitute for the Senate bill and the House amendment" and contained both the House and Senate Amendments at issue here. *See id.* at 335.

Beyond that, the Chafee-Baucus statement cannot bear the weight the Coal Petitioners and the separate opinion need it to carry. At most, as a "statement of managers," it purports to summarize the more than 800-page Conference Report. 136 CONG. REC. at 36,065. We generally do not view such statements as persuasive evidence of congressional intent, let alone an excuse for unceremoniously discarding unambiguous statutory text as a "drafter's error." *See* Separate Op. at 25 *cf. Weyerhaeuser Co. v. Costle*, 590 F.2d 1011, 1052 n.67 (D.C. Cir. 1978). Not to mention that we have specifically ruled that this very same floor statement carries little weight. *Environmental Def. Fund, Inc. v. EPA*, 82 F.3d 451, 460 n.11 (D.C. Cir. 1996). Simply put, the statement's purpose was to explain the report, not to change the content of the law, to resolve substantive conflicts, or to effect sweeping change in the statute's reach. *See Glossary Term: Statement of Managers*, U.S. SENATE, https://www.senate.gov/reference/glossary_term/statement_of_managers.htm (last visited Jan. 11, 2021).

Second, the Coal Petitioners argue that we should disregard the Senate Amendment because it is a "[c]onforming

[a]mendment." *See* 1990 Amendments, § 302, 104 Stat. at 2574. A conforming amendment can serve to harmonize statutory provisions, which is exactly what the Senate Amendment did by updating the cross-reference. *See Burgess v. United States*, 553 U.S. 124, 135 (2008).

That does not mean that the statutory provision can be ignored. *See Burgess*, 553 U.S. at 135. The Senate Amendment's careful maintenance of the status quo through a cross-reference update evidences a deliberate preservation of the prior regulatory scope of Section 7411.

By the way, if labels were what matters, the House's "Miscellaneous *Guidance*" provides no platform for the major legislative surgery on Section 7411 that the Coal Petitioners and the separate opinion envision.

Third, the Coal Petitioners ask us to defer to the Office of the Law Revision Counsel's decision to codify the House Amendment rather than the Senate Amendment. The separate opinion reasons as well that the Office of Law Revision Counsel is "the leading candidate" for deference. Separate Op. 23.

No such deference is due. While the Office of the Law Revision Counsel has expertise in the technical aspects of the codification process, it has no license, without Congress' approval, to change the substantive meaning of enacted law or to throw away an entire statutory provision. *See Ganem*, 746 F.2d at 851. That is why the Public Law prevails over the United States Code in case of conflict. *See* 1 U.S.C. § 112; *Stephan*, 319 U.S. at 426; *United States v. Welden*, 377 U.S. 95, 98 n.4 (1964).

Fourth, the Coal Petitioners point to Congress' drafting manuals, which suggest that a first-in-time amendment, such as

the House Amendment, supersedes a later-in-the-legislative-process amendment like the Senate Amendment. *See* U.S. SENATE, OFFICE OF LEGISLATIVE COUNSEL, LEGISLATIVE DRAFTING MANUAL ("SENATE MANUAL") § 126(d) (1997) ("If, after a first amendment to a provision is made * * * , the provision is again amended, the assumption is that the earlier (preceding) amendments have been executed."); U.S. HOUSE OF REPRESENTATIVES, OFFICE OF LEGISLATIVE COUNSEL, HOUSE LEGISLATIVE COUNSEL'S MANUAL ON DRAFTING STYLE ("HOUSE MANUAL") § 332(d) (1995) ("The assumption is that the earlier (preceding) amendments have been executed.").

One problem is that the Coal Petitioners provide no evidence that those manuals or their provisions were in place at the time of the 1990 Amendments.

A bigger problem is that it is doubtful that the cited manual provisions even apply in this scenario. These provisions are located in sections for "Cumulative Amendments," in which an amended provision is added onto by later provisions. *See* SENATE MANUAL § 126(d); HOUSE MANUAL § 332(d). Both manuals suggest that language should be added to such a provision to "alert the reader" to the later amendments. SENATE MANUAL § 126(d); *see also, e.g.*, HOUSE MANUAL § 332(d)(1) (suggesting the following language for a cumulative amendment: "Title XX is amended by adding after section 123 (as added by section 802 of this Act) the following new section:"). That alert did not happen here. The House Amendment in Section 108 includes no reference to the Senate Amendment in Section 302, and there is no evidence that Congress believed it was adopting contradictory amendments in the final law.

The biggest problem of all is that nothing in the manuals says that a later but duly enacted amendment that has been signed into law can be cast aside as meaningless. Nor would it make any sense to do so here, when Congress placed the Senate Amendment in the logical statutory position to update a cross-reference to Section 7412. That amendment is located in the Public Law title addressing Hazardous Air Pollutants and is the very first provision (in Section 302 of the Public Law) that follows the many changes to Section 7412's Hazardous Air Pollutants program (in Section 301 of the Public Law). *See* 1990 Amendments, title III, sec. 301, § 112, 104 Stat. at 2531; *id.* sec. § 302(s), 104 Stat. at 2574. The House Amendment, on the other hand, appears as "[m]iscellaneous [g]uidance" in the title of the Public Law pertaining to the NAAQS program, not the Hazardous Air Pollutants program. *See* 1990 Amendments, title I, § 108(g), 104 Stat. at 2467.

Finally, the Coal Petitioners and the separate opinion insist that, by subsuming the Senate Amendment's targeted focus within their much broader reading of the House Amendment, they are somehow giving effect to both. *See* Coal Pet'rs Br. 29–30; Separate Op. 28–30. The separate opinion sees it as no different than if a father did not want to name a child after a president from Virginia, and a mother did not want to name the child after any president. There is no conflict there, as the separate opinion sees it, because the mother's sweeping prohibition includes "every name excluded by the father (and then some)." Separate Op. 29–30.

But, of course, it is the "and then some" that is the problem. By vastly overshooting the technical task of correcting a cross-reference, the separate opinion's and Coal Petitioners' proposed reading of the House Amendment is not "supplement[ing]" the Senate Amendment's exclusion of duplicate regulation. Separate Op. 30. It is supplanting it by

destroying the Senate Amendment's express preservation of Section 7411(d)'s pre-existing regulatory directive. To borrow the analogy, the separate opinion's vision of parental harmony is likely to be entirely lost on the father whose heart was set on naming his child Abraham, Theodore, or Harry.

The Coal Petitioners' and separate opinion's fundamental mistake in claiming to give effect to both Amendments is that the statute cannot mean both what the Senate Amendment says and what they think the House Amendment says: Section 7411(d) as amended in the 1990 Act cannot have simultaneously preserved and eliminated Section 7411(d)'s preexisting reach. As this case shows, the difference is quite material: It determines whether Section 7411(d) allows any regulation of power plants' greenhouse gas emissions or not. Given that, it blinks reality to claim that absorbing the Senate Amendment into the House Amendment in the manner the Coal Petitioners and the separate opinion propose somehow retains the Senate Amendment's independent effect. A mouse swallowed by a snake, while still present in some metaphysical way, hardly feels equally preserved.

At bottom, when confronted with two competing and duly enacted statutory provisions, a court's job is not to pick a winner and a loser. The judicial duty is to read statutory text as a harmonized whole, not to foment irreconcilability. *See Bell Atl. Tel. Cos. v. FCC*, 131 F.3d 1044, 1047 (D.C. Cir. 1997) ("Where, as here, we are charged with understanding the relationship between two different provisions within the same statute, we must analyze the language of each to make sense of the whole."). Reading both amendments consistently "pursue[s] a middle course" that "vitiates neither provision but implements to the fullest extent possible the directives of each[.]" *Citizens to Save Spencer Cnty. v. EPA*, 600 F.2d 844, 871 (D.C. Cir. 1979). Said another way, the better and quite

natural reading of all of the relevant enacted statutory text, structure, context, purpose, and history is one that harmonizes the House and Senate Amendments, avoids determining that one chamber of Congress smuggled dramatic and unlikely changes to the Agency's regulatory authority into the Act through miscellaneous "guidance," and instead faithfully accomplishes the legislative adjustment needed to respond to the changes to Section 7412.

iii. The Harmonized Reading Stands the Test of Time

Reading the two provisions consistently as successfully performing their "conforming" and "miscellaneous" task of updating Section 7411(d)'s cross-reference to continue to exclude air pollutants already regulated under Section 7412 also maps onto the EPA's consistent interpretation of the statute. And that reading has stood the test of time, without congressional correction. The EPA first announced its interpretation of Section 7411(d) as excluding Section 7412's hazardous pollutants, rather than source categories, in the immediate wake of the 1990 Amendments. *See* Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills, 56 Fed. Reg. 24,468, 24,469 (May 30, 1991) (explaining that Section 7411(d) requires States to submit plans for standards of performance for pollutants that endanger the public health or welfare but are "not 'hazardous' within the meaning of section 112 of the CAA and [are] not controlled under sections 108 through 110 of the CAA"). The EPA has not deviated from that interpretation in the ensuing decades. Oral Argument Tr. 174:19–22. The EPA's view also gives effect to Section 7411(d)'s gap-filling purpose, *see* S. REP. NO. 91-1196, at 20, by allowing it to continue to regulate dangerous pollutants that are not policed by Section 7412 or NAAQS.

The EPA's interpretation also dovetails with the development of judicial precedent. The Supreme Court has specifically addressed Section 7411(d)'s regulation of carbon dioxide emissions from fossil-fuel-fired power plants. In *American Electric Power Co. v. Connecticut* (*AEP*), the Supreme Court held that the Clean Air Act foreclosed any federal common law right to challenge the regulation (or lack thereof) of carbon dioxide emissions from power plants. 564 U.S. 410, 424–425 (2011). In so ruling, the Supreme Court relied on the displacing force of Section 7411, and specifically Section 7411(d). *Id*. In ruling that "the Clean Air Act and the EPA actions it authorizes displace any federal common-law right to seek abatement of carbon-dioxide emissions from fossil-fuel fired powerplants," the Supreme Court pointed directly to the Section 7411 regulatory scheme, including, "most relevant here, § 7411(d)." *Id*. at 424. The Supreme Court even noted that the "EPA is currently engaged in a § 7411 rulemaking to set standards for greenhouse gas emissions from fossil-fuel fired powerplants." *Id.* at 425. As the Supreme Court explained, Section 7411 "'speaks directly' to emissions of carbon dioxide from * * * [power] plants." *Id.* at 424.

The Coal Petitioners and the separate opinion put all their eggs in a footnote in *AEP* that notes Section 7411(d)'s exclusions. The footnote states that the "EPA may not employ § 7411(d) if existing sources of the pollutant in question are regulated under the national ambient air quality standard program, §§ 7408–7410, or the 'hazardous air pollutants' program, § 7412." *AEP*, 564 U.S. at 424 n.7. That footnote comports with the EPA's harmonized reading of the House and Senate Amendments because it says that Section 7411(d) does not apply when "the pollutant in question" is already regulated under one of the other two programs. *See* EPA Br. 189 (pointing out that the footnote's "use of the phrase 'of the

pollutant in question' suggests that [the Court] understood the regulatory bar to be pollutant-specific, consistent with EPA's interpretation").

The footnote could not mean otherwise. At the time of *AEP*, electricity-generating power plants as sources of different pollutants were already regulated under the NAAQS provisions. *See*, *e.g.*, *American Trucking Ass'ns, Inc. v. EPA*, 283 F.3d 355, 359 (D.C. Cir. 2002) (considering NAAQS for particulate matter and ozone). So if the footnote did anything more than generally flag a statutory exclusion for already-regulated emissions—if it instead embraced the Coal Petitioners' and separate opinion's claim that Section 7411(d) excludes sources, rather than already-regulated emissions—then the Court could not have ruled as it did. Specifically, it could not have relied on Section 7411(d) to hold that the Clean Air Act displaced the common law by "speak[ing] directly" to the EPA's authority to regulate power plants' emission of greenhouse gases. *See AEP*, 564 U.S. at 424. The footnote certainly did not purport to unravel the central rationale for *AEP*'s holding.

* * *

For all of those reasons, we hold that Section 7411(d) allows the EPA to regulate carbon dioxide emissions from power plants, even though mercury emitted from those same power plants is regulated as a hazardous air pollutant under Section 7412.

B. THE ROBINSON PETITIONERS' CHALLENGES

Another group of petitioners—including the Texas Public Policy Foundation, the Competitive Enterprise Institute, and various businesses that petitioned jointly with a forest-services firm named Robinson Enterprises, Inc. (together, the Robinson

Petitioners)—challenge the ACE Rule as overstepping the EPA's authority. The Robinson Petitioners are the only parties that claim that the ACE Rule impermissibly regulates carbon dioxide emissions using Section 7411 of the Clean Air Act rather than Sections 7408 through 7410, under which the EPA sets NAAQS. Our ability to consider that claim fails due to the Robinson Petitioners' lack of standing.

The Robinson Petitioners assert the organizational standing of the Texas Public Policy Foundation and the Competitive Enterprise Institute, both nonprofit, nonpartisan organizations. Because the Foundation and the Institute seek the same relief on the same claim, only one needs to demonstrate standing. *See American Anti-Vivisection Soc'y v. United States Dep't of Agric.*, 946 F.3d 615, 619–620 (D.C. Cir. 2020). The two organizations argue standing based on harm to their own activities; neither appears to be a membership organization, and they claim no associational, or representational, standing based on harm to members.

To establish standing, an organization, like an individual, must show an actual or imminent injury in fact that is fairly traceable to the challenged action and likely to be redressed by a favorable decision. *See Havens Realty Corp. v. Coleman*, 455 U.S. 363, 378–379 (1982); *see also American Anti-Vivisection Soc'y*, 946 F.3d at 618. Because neither organization is directly subject to the challenged rule, their "standing is 'substantially more difficult to establish[.]'" *Public Citizen, Inc. v. National Highway Traffic Safety Admin.*, 489 F.3d 1279, 1289 (D.C. Cir. 2007) (Kavanaugh, J.) (quoting *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 562 (1992)).

Each organization proffers a distinct ground and theory of standing, so we analyze them in turn. The standing of both the Texas Public Policy Foundation and the Competitive

Enterprise Institute falters on the first factor, injury in fact, so we need not consider the remaining two factors.

The Texas Public Policy Foundation states that its mission is to provide legal counseling and services on a broad swath of matters, including promoting "a balanced approach to environmental regulation" by providing "legal counseling, referral, and advocacy services to individuals and businesses injured by federal, state, or local government overreach[.]" Decl. of Greg Sindelar ¶¶ 5, 7 ("[Its] mission is to promote, defend, and ensure liberty, personal responsibility, property rights, criminal justice reform, greater educational opportunities for all, a balanced approach to environmental regulation, free speech, state's rights under the 10th Amendment, energy sufficiency, and free enterprise[.]"). The Foundation's attorneys litigate cases on a wide range of issues on behalf of clients and refer clients to private counsel when necessary. *Id.* ¶ 8. The Foundation claims that the challenged rule has "caused a drain on [its] resources because [it] has had to divert significant time, effort, and resources from [its] activities in the area of property rights and wetlands regulation, for example," in order to represent clients "who are forced to deal with" the federal regulation of greenhouse gases. *Id.* ¶ 9.

It is well established that injury to an organization's advocacy activities does not establish standing. *See, e.g.*, *Center for Law & Educ. v. Department of Educ.*, 396 F.3d 1152, 1162 n.4 (D.C. Cir. 2005) (citing *Sierra Club v. Morton*, 405 U.S. 727, 739–740 (1972)). That is because "the expenditure of resources on advocacy is not a cognizable Article III injury." *Turlock Irrigation Dist. v. FERC*, 786 F.3d 18, 24 (D.C. Cir. 2015). To hold otherwise "would eviscerate standing doctrine's actual injury requirement" by permitting an interest group to generate its own standing merely by putting an issue in its lawyers' crosshairs. *Id.* (quoting *Center for Law*

& Educ., 396 F.3d at 1162 n.4); *see also National Taxpayers Union, Inc. v. United States*, 68 F.3d 1428, 1434 (D.C. Cir. 1995). The Texas Public Policy Foundation declares only that, since the EPA issued the ACE Rule, it has increased its legal counseling, referral, and advocacy on behalf of clients affected by the regulation of greenhouse gases rather than other clients. That is precisely the kind of injury to advocacy—and expenditure of resources on such efforts—that we have held does not amount to injury in fact.

The Foundation does not show the kind of perceptible impairment to its mission that sufficed for standing in a case like *American Anti-Vivisection Society*. There, we found injury because the agency's inaction—specifically, its failure to promulgate standards regarding the humane treatment of birds—deprived the organization of key information on which its public educational activities depended. *See* 946 F.3d at 619. That inaction compelled the organization to develop guidance for the public that otherwise would have been provided by the agency's standards. *Id*. By contrast, the Foundation fails to allege impairment of any similarly "discrete programmatic concerns" aside from its non-cognizable advocacy activities. *National Taxpayers Union*, 68 F.3d at 1433 (quoting *American Legal Found. v. FCC*, 808 F.2d 84, 92 (D.C. Cir. 1987)).

The Foundation points to *Abigail Alliance for Better Access to Developmental Drugs v. Eschenbach*, 469 F.3d 129 (D.C. Cir. 2006), in arguing that the cost associated with more legal counseling, referral, and advocacy services is a source of injury. But the "counseling, referral, advocacy, and educational services" at issue in *Abigail Alliance* were *medical* services, not legal services, and they directly furthered the plaintiff's mission of providing access to potentially life-saving medical drugs and treatments. *See id*. at 132–133. The Foundation's transplantation of *Abigail Alliance*'s words into

the context of legal representation and counseling cannot change the outcome: the costs of litigation are not a cognizable Article III organizational injury. *See Turlock*, 786 F.3d at 24.

The Competitive Enterprise Institute claims a different injury, which also falls short: the risk that it will face higher electricity bills. The Institute works to counter "economic overregulation in areas ranging from technology and finance to energy and the environment," Decl. of Kent Lassman ¶ 3, and avers that it relies on electricity to power its headquarters in Washington, D.C., *id.* ¶¶ 2, 4. It says that the Regulatory Impact Analysis for the ACE Rule shows that the Rule could increase its electricity costs. That analysis estimated a 0.0% to 0.1% increase in average retail electricity prices nationwide attributable to the Rule between 2025 and 2035. *See* S.A. 220 (projecting baseline prices, in cents per kilowatt-hour, of 10.49 and 10.71 in 2025 and 2030, respectively, as compared to 10.50 and 10.72 under the ACE Rule, and estimating no increase attributable to the ACE Rule by 2035).

The Regulatory Impact Analysis that the Institute cites modeled one "illustrative policy scenario on retail electricity prices[,]" S.A. 220, and included the caveat that the estimates were based on "inadequate and incomplete information[,]" meaning that "costs could be lower[,]" S.A. 222. The analysis acknowledged that "the EPA has not analyzed or modeled a specific standard of performance," and recognized that costs could vary depending on "how states might apply the [best system of emission reduction] taking account of source-specific factors in setting standards of performance, and how sources might comply with those standards." S.A. 221–222. It also identified "several key areas of uncertainty related to the electric power sector[,]" including electricity demand, natural gas supply and demand, and longer-term planning by utilities. S.A. 222.

Even a small injury may suffice to support standing, *see, e.g.*, *Competitive Enter. Inst. v. FCC* (*CEI*), 970 F.3d 372, 384 (D.C. Cir. 2020), but it must be "concrete and particularized and actual or imminent, not conjectural or hypothetical," *id.* at 381 (quoting *Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1548 (2016)). "Were all purely speculative increased risks deemed injurious, the entire requirement of actual or imminent injury would be rendered moot, because all hypothesized, nonimminent injuries could be dressed up as increased risk of future injury." *Public Citizen*, 489 F.3d at 1294 (quoting *Natural Res. Def. Council v. EPA*, 464 F.3d 1, 6 (D.C. Cir. 2006)).

In recognition that standing must rest on a concrete injury that is at least imminent, "we have repeatedly held that litigants cannot establish an Article III injury based on the independent actions of some third party not before this court." *Turlock*, 786 F.3d at 25 (formatting modified) (quoting *Florida Audubon Soc'y v. Bentsen*, 94 F.3d 658, 670 (D.C. Cir. 1996) (en banc)). "This is because 'predictions of future events (especially future actions taken by third parties)' are too speculative to support a claim of standing." *Id.* (quoting *United Transp. Union v. ICC*, 891 F.2d 908, 912 (D.C. Cir. 1989)).

The remoteness and contingency of the prospect that the Competitive Enterprise Institute will in the future actually face even the tiny rate increase *tentatively* projected as possibly arising from the challenged ACE Rule renders its claimed injury speculative and thus defeats its standing. In particular, the effect the Institute anticipates on its future electricity rates depends on how third parties—such as electricity generators, electricity providers, public utility commissions, and state pollution control agencies—might react to the ACE Rule. *See* EPA Br. 192. It also turns on the nature of standards that States decide to set, and on the compliance choices of regulated

sources. *Id*. It remains entirely unclear what standards States would develop in response to the "best system of emission reduction," how and whether those standards would have any effect on the costs of generation and transmission of energy, and whether rates will be affected by any offsetting savings through state or federal support for different generation mixes. A theory that "stacks speculation upon hypothetical upon speculation * * * does not establish an 'actual or imminent' injury." *Turlock*, 786 F.3d at 24 (quoting *New York Reg'l Interconnect, Inc. v. FERC*, 634 F.3d 581, 587 (D.C. Cir. 2011)); *see Arpaio v. Obama*, 797 F.3d 11, 20–23 (D.C. Cir. 2015). In asking us to anticipate the future actions of various third parties that are not before us, the Institute does just that.

At oral argument, the Competitive Enterprise Institute identified as its strongest support our decision in *Competitive Enterprise Institute v. FCC*. But the concrete and actual injury claimed there was traceable through "a relatively simple causal chain[,]" 970 F.3d at 383, unlike the harm asserted here, which is based on "inadequate and incomplete information[,]" S.A. 222, and dependent on third parties' unpredictable responses to the ACE Rule. Critically, the plaintiffs there demonstrated that their internet prices in fact had increased since the agency took its challenged action. *CEI*, 970 F.3d at 382–383. This record lacks any such evidence.

Because neither the Texas Public Policy Foundation nor the Competitive Enterprise Institute shows injury in fact to support the Robinson Petitioners' standing, we cannot address the merits of their NAAQS-related challenge to the ACE Rule.

IV. AMENDMENTS TO THE IMPLEMENTING REGULATIONS

When the EPA repealed the Clean Power Plan and finalized the ACE Rule, it also changed the longstanding implementing regulations generally applicable to emission

guidelines promulgated under Section 7411(d) of the Clean Air Act. *See* ACE Rule, 84 Fed. Reg. at 32,564–32,571. The Public Health and Environmental Organization Petitioners (the Public Health Petitioners) challenge the implementing regulations insofar as they adopt new timing requirements that substantially extend the preexisting schedules for state and federal actions and sources' compliance under Section 7411(d). *See* 40 C.F.R. §§ 60.23a(a)(1), 60.27a(b), 60.27a(c), 60.24a(d); *see also* ACE Rule, 84 Fed. Reg. at 32,567. Because the challenged regulations lack reasoned support, they cannot stand.

The new implementing regulations extend the time allowed for States to submit their plans, for the EPA to review those plans, for the Agency to promulgate federal plans where state plans fall short, and for legally enforceable consequences to attach to sources that are slow to comply. Those extended timeframes apply unless the EPA otherwise specifies with respect to particular emission guidelines. *See* ACE Rule, 84 Fed. Reg. at 32,568. The Public Health Petitioners argue that the amendments are arbitrary and capricious because the Agency altogether failed to address the urgency of controlling harmful emissions—especially the greenhouse gas emissions accelerating climate change.

At the threshold, the EPA asserts that the Public Health Petitioners forfeited any challenge to the amended implementing regulations, but we conclude the claim was preserved. The EPA contends that Petitioners "barely mention" this claim in their opening brief, EPA Br. 268–269 (citing *CTS Corp. v. EPA*, 759 F.3d 52, 60 (D.C. Cir. 2014)), but it was adequately, if concisely, set forth, *see* Pub. Health & Env't Orgs. Br. 11–13. The issue is neither particularly complex nor as momentous as others in the case; Petitioners nonetheless clearly stated and supported the claim with

citations to the record and sources of legal authority. *Id*. That relatively abbreviated treatment suffices. *See, e.g.*, *Tribune Co. v. FCC*, 133 F.3d 61, 69 n.8 (D.C. Cir. 1998) (noting one paragraph in a fifty-eight-page brief arguing that the agency's action was arbitrary and capricious sufficed to preserve the claim).

Petitioners' joint comment on this amendment as the EPA proposed it in the rulemaking process, which Petitioners cite in their brief, provides more detail. *See* Pub. Health & Env't Orgs. Br. 13 (citing Comments of Environmental and Public Health Organizations on Proposed Revisions to Emission Guideline Implementing Regulations 26–27, J.A. 973–974). The EPA well understands the nature of the claim, *see* EPA Br. 268–269, and there is no indication the brevity of the discussion in Petitioners' opening brief prejudiced the Agency at all. *Cf. Avia Dynamics, Inc. v. Federal Aviation Admin.*, 641 F.3d 515, 521 (D.C. Cir. 2011) (forfeiture excused where federal agency was placed on notice of arguments by extensive substantive motion practice).

On the merits, the EPA failed to justify substantially extending established compliance timeframes, including deadlines that it has had in place since 1975. *See* State Plans for the Control of Certain Pollutants from Existing Facilities, 40 Fed. Reg. 53,340, 53,345, 53,346–53,348 (Nov. 17, 1975). Before we can sustain agency action as nonarbitrary under the APA, "the agency must * * * articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'" *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)). Petitioners' comments took issue with the tepid justifications the Agency offered, but the heart of their challenge is the EPA's complete failure to say

anything at all about the public health and welfare implications of the extended timeframes.

The Agency principally relied on reviving an argument it had considered and rejected when it first adopted the schedule it now displaces: that timeframes for the regulation of existing sources under Section 7411(d) should necessarily mimic or exceed timeframes for adoption of National Ambient Air Quality Standards (NAAQS) under Section 7410 of the Clean Air Act. *Compare* ACE Rule, 84 Fed. Reg. at 32,568, *with* State Plans for the Control of Certain Pollutants from Existing Facilities, 40 Fed. Reg. at 53,345. Section 7411(d) calls for regulations that "establish a procedure similar to that provided by [S]ection 7410[,]" which, like Section 7411, requires States to submit plans for the EPA's approval and, if those plans are either not submitted or fall short, requires the EPA to itself prescribe a plan. *See* 42 U.S.C. § 7410(a)(1), (c)(1); *id.* § 7411(d)(1)–(2). The two sets of rules accordingly reflect generally similar state-federal interactions.

But it is not evident that the statement that Section 7411(d) would use "a procedure similar" to that employed under Section 7410 even speaks to timing rules. As the Agency recognized when it promulgated the 1975 rule, faster compliance was appropriate under Section 7411(d) because plans under this provision are far simpler. They apply only to a single category of source, whereas state plans for NAAQS under Section 7410 cover multiple types of sources. *See* 40 Fed. Reg. at 53,345 (commenting that "Section [7411](d) plans will be much less complex than the [state implementation plans]" required under Section 7410). The Public Health Petitioners' comment on the 2018 proposed amendments to the implementing regulations explained that "a section [7410 state implementation plan] must ensure that ambient air concentrations of a given pollutant in the state will stay below

the EPA-designated standard." J.A. 971. That goal is "far more complicated to both achieve and demonstrate" than limiting source emissions under Section 7411(d), because "meeting the ambient air quality standards involves air quality monitoring, complex modeling procedures, close attention to such factors as topography, wind patterns, cross-[border] transport of air pollution, and many other considerations." J.A. 971. By the same token, Petitioners commented that the EPA failed to justify giving itself as much time to review the simpler Section 7411(d) plans as it has to review state plans under Section 7410. J.A. 971–972. The EPA failed to engage meaningfully with the different scale of the two types of plans, dismissing Petitioners' comment with the conclusory assertion that Section 7411(d) plans "have their own complexities and realities that take time to address." ACE Rule, 84 Fed. Reg. at 32,568.

The EPA's proposed rule also relied on more general claims that the amended timelines are appropriate because of the amount of work involved in States' plan development and in the EPA's review of those plans. *See* Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program: Proposed Rule, 83 Fed. Reg. 44,746, 44,771 (Aug. 31, 2018). In response, Petitioners commented that the EPA did not document any problems during the decades that the existing timelines had been in place. J.A. 972 ("If the agency is truly concerned that the timing provision[s] in the framework regulations are unworkable, it must provide actual evidence of this—which it has not done thus far—and must propose amended provisions that correspond to the actual workload involved in section [7411(d)] rulemakings[.]"). The Final Rule failed to fill that gap. *See, e.g.*, ACE Rule, 84 Fed. Reg. at 32,568. Indeed, the Agency at one point seemed to forget that

it even had a burden of justification under the APA, going so far as to suggest that the obligation was somehow on the *commenters* to show that the various actors do *not* need any additional time. *Id.*

It might be a close call whether, viewed in isolation, the analogy to Section 7410 and the general claim of need for more processing time could supply the "rational connection" the APA requires. *State Farm*, 463 U.S. at 43. But we do not view those reasons in isolation.

The EPA's weak grounds for routinizing additional compliance delays in the amended implementing regulations are overwhelmed by its total disregard of the added environmental and public health damage likely to result from slowing down the entire Section 7411(d) regulatory process. "Normally, an agency rule would be arbitrary and capricious if the agency * * * entirely failed to consider an important aspect of the problem[.]" *State Farm*, 463 U.S. at 43. The extensions of implementation deadlines here give no consideration to the need for speed. Control of emissions from existing sources before they harm people and the environment is the central purpose of Section 7411(d) of the Clean Air Act. Yet when it deferred the compliance deadlines, the EPA did not even mention the need for prompt reduction of those emissions or the human and environmental costs of its substantial new delay.

In their comments, Petitioners emphasized the gravity and urgency of impending harms from unlawfully uncontrolled emissions as a reason the EPA must retain the tighter timeframes in the existing rule, not promulgate a new rule to build in additional years of delay. *See* Comments of Environmental and Public Health Organizations on Proposed Revisions to Emission Guideline Implementing Regulations 26–27, J.A. 973–974. They stressed in particular the broad and

longstanding scientific consensus on the role of carbon dioxide emissions in accelerating climate change, and insisted that "deep emission reductions are needed immediately" in order to avoid "the worst effects of climate change," making time "of the utmost essence." *Id*. They explained how the timing amendments stymie effective control of carbon dioxide emissions:

> [T]he amendments in question would permit up to 60 months to elapse between the time an EPA emission guideline is finalized and the time that affected sources must, at a minimum, begin reducing their emissions through enforceable increments of progress. Assuming EPA issues a final emission guideline for power plant [carbon dioxide] emissions in mid-2019, designated sources can be expected to start reducing emissions in mid-2024. * * * [T]he world has surpassed not only the 350 ppm threshold—that atmospheric concentration of [carbon dioxide] that is considered the maximum safe level—but the 400 ppm threshold as well. If we are to avoid the worst effects of climate change, deep emission reductions are needed immediately: time is simply of the utmost essence. For EPA to inject even *further* delay into the process * * * flouts the agency's Clean Air Act obligation to require emission reductions to prevent this endangerment to public health and welfare.

Comments of Environmental and Public Health Organizations 27, J.A. 974.

Not all source categories or types of emissions subject to Section 7411(d) present problems of the magnitude and urgency of those posed by unregulated carbon dioxide

emissions from power plants. But the Public Health Petitioners' comments on the Agency's proposed amendments to the implementing regulations squarely called on the EPA to explain how slowing the regulatory timeframe with respect to *any* covered emissions or source category might be justified and consistent with the Act's objective. *See* Comments of Environmental and Public Health Organizations 23, J.A. 970.

In response to Petitioners' concrete objections, the final rule neither changed nor better justified the timing provisions. In fact, upon reading the rule's explanation of the deadline extensions, one would have no idea that the EPA actually recognized that greenhouse gas pollution was causing a global climate crisis requiring urgent remediation. In finalizing the proposed extensions to key deadlines, the EPA tersely reiterated its stated interest in giving itself, States, and regulated parties more time to comply—despite no showing of need—and, contrary to its explanation of the rule it displaced, stated that it was important after all to align the timing of the Section 7411(d) state-plan process with the compliance schedule under Section 7410. *See* ACE Rule, 84 Fed. Reg. at 32,564, 32,568.

The EPA did not even hint at how or whether it determined that prolonging public exposure to ongoing harms from pollutants emitted by existing source categories could be justified consistent with the core objectives of the Clean Air Act. That failure is irrational, especially in the face of the EPA's continued adherence to its 2015 finding of an urgent need to counteract the threats posed by unregulated carbon dioxide emissions from coal-fired power plants. The EPA made no mention whatsoever of the harms that Petitioners warned would result if the Agency slackened the pace of state and federal action to mitigate the harms Section 7411(d) targets. In relation to the timing amendments, pollution

control—whether in the context of carbon dioxide and the ACE Rule or air pollution more generally—was simply not on the EPA's agenda. In short, Petitioners called the EPA's attention to an important aspect of the regulatory problem, and the EPA looked away.

The EPA offered what is at best a radically incomplete explanation for extending the compliance timeline. It offered undeveloped reasons of administrative convenience and regulatory symmetry, even as it ignored the environmental and public health effects of the Rule's compliance slowdown. The EPA thus "failed to consider an important aspect of the problem," *State Farm*, 463 U.S. at 43—indeed, arguably the most important aspect. We accordingly vacate the implementing regulations' extensions of the Section 7411(d) compliance periods.

V. VACATUR AND REMAND

The ACE Rule expressly rests on the incorrect conclusion that the plain statutory text clearly foreclosed the Clean Power Plan, so that complete repeal was "the only permissible interpretation of the scope of the EPA's authority under [Section 7411]." ACE Rule, 84 Fed. Reg. at 32,534; *see also id.* at 32,532. "[T]hat error prevented it from a full consideration of the statutory question here presented." *Negusie v. Holder*, 555 U.S. 511, 521 (2009). "Where a statute grants an agency discretion but the agency erroneously believes it is bound to a specific decision, we [cannot] uphold the result as an exercise of the discretion that the agency disavows," *United States v. Ross*, 848 F.3d 1129, 1134 (D.C. Cir. 2017), and the "regulation must be declared invalid, even though the agency might be able to adopt the regulation in the exercise of its discretion," *Prill v. NLRB*, 755 F.2d 941, 948 (D.C. Cir. 1985) (quoting *Planned Parenthood Federation of America,*

Inc. v. Heckler, 712 F.2d 650, 666 (D.C. Cir. 1983) (Bork, J., concurring in part and dissenting in part)); *accord Arizona v. Thompson*, 281 F.3d 248, 259 (D.C. Cir. 2002) (quoting *Prill*, 755 F.2d at 948).

Because the ACE Rule rests squarely on the erroneous legal premise that the statutory text expressly foreclosed consideration of measures other than those that apply at and to the individual source, we conclude that the EPA fundamentally "has misconceived the law," such that its conclusion "may not stand." *SEC v. Chenery Corp.*, 318 U.S. 80, 94 (1943). Accordingly, we hold that the ACE Rule must be vacated and remanded to the EPA so that the Agency may "consider the question afresh in light of the ambiguity we see." *Negusie*, 555 U.S. at 523 (quoting *Cajun Elec. Power Coop., Inc. v. FERC*, 924 F.2d 1132, 1136 (D.C. Cir. 1991)); *accord Peter Pan Bus Lines, Inc. v. Federal Motor Carrier Safety Admin.*, 471 F.3d 1350, 1354 (D.C. Cir. 2006); *Prill*, 755 F.2d at 948.

VI. CONCLUSION

Because promulgation of the ACE Rule and its embedded repeal of the Clean Power Plan rested critically on a mistaken reading of the Clean Air Act, we vacate the ACE Rule and remand to the Agency. We also vacate the amendments to the implementing regulations that extend the compliance timeline. Because the objections of the Coal Petitioners are without merit, we deny their petitions. And because the Robinson Petitioners lack standing, their petition is dismissed.

So Ordered.

WALKER, *Circuit Judge*, concurring in part, concurring in the judgment in part, and dissenting in part: This case concerns two rules related to climate change. The EPA promulgated both rules under § 111 of the Clean Air Act.[1]

A major milestone in climate regulation, the first rule set caps for carbon emissions. Those caps would have likely forced shifts in power generation from higher-polluting energy sources (such as coal-fired power plants) to lower-emitting

---

[1] When this opinion refers to § 111, it is specifically referring to § 111(d). The codified version of § 111(d) is titled "Standards of performance for existing sources; remaining useful life of source." 42 U.S.C. § 7411(d). The first part reads:

> (1) The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or emitted from a source category which is regulated under section 7412 of this title but (ii) to which a standard of performance under this section would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such standards of performance. Regulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies.

Id.

sources (such as natural gas or renewable energy sources).[2] That policy is called generation shifting.

Hardly any party in this case makes a serious and sustained argument that § 111 includes a clear statement unambiguously authorizing the EPA to consider off-site solutions like generation shifting. And because the rule implicates "decisions of vast economic and political significance," Congress's failure to clearly authorize the rule means the EPA lacked the authority to promulgate it.[3]

The second rule repealed the first and partially replaced it with different regulations of coal-fired power plants. Dozens of parties have challenged both the repeal and the provisions replacing it.

In my view, the EPA was required to repeal the first rule and wrong to replace it with provisions promulgated under § 111. That's because coal-fired power plants are already regulated under § 112, and § 111 excludes from its scope any power plants regulated under § 112. Thus, the EPA has no authority to regulate coal-fired power plants under § 111.

I.

When the Constitution's ratifiers empowered Congress to legislate on certain matters of national importance,[4] they understood that federal regulation came with risks. For example, Congress might impose widely disbursed costs to

---

[2] For ease of reading, this opinion refers to the technical term "coal-fired electric utility generating units" by the slightly less precise but lay-friendlier term "coal-fired power plants."

[3] *Utility Air Regulatory Group v. EPA*, 573 U.S. 302, 324 (2014) (quoting *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 160 (2000)).

[4] U.S. CONST. art. I, § 8.

benefit insular groups in a nation of diverse economic and political interests. The framers called those groups factions.[5]

To guard against factions, legislation requires something approaching a national consensus. While a single state's simple majority can often subject that state to "novel social and economic experiments,"[6] federal legislation must survive bicameralism and presentment.[7] Only through that process can ideologically aligned states use federal power to impose their will on the unwilling.[8] So too for ideologically aligned environmentalists. Or polluters. Or big tech. Or big labor. Or free traders. Or fair traders. Or farmers. Or fishers. Or butchers. Or bakers.

In that process, each political institution probes legislative proposals from the perspective of different constituencies.[9] The House speaks for the people. The Senate, among other roles, guards the interests of small states. The Electoral College, with representation just short of proportional, strikes a balance between the two. And by staggering elections over two-, four-, and six-year cycles, we further impede fleeting factions from ganging up on small states and unpopular political minorities. The point is: It's difficult to pass laws — on purpose.

---

[5] *See* The FEDERALIST No. 10, at 56-65 (J. Madison) (J. Cooke ed., 1961).

[6] *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting).

[7] U.S. CONST. art. I, §§ 1, 7; *see INS v. Chadha*, 462 U.S. 919, 951 (1983).

[8] Of course, even then, a legislative coalition cannot regulate outside Congress's enumerated powers. *See* U.S. CONST. art. I, § 8.

[9] *See Department of Transportation v. Association of American Railroads*, 575 U.S. 43, 61 (2015) (Alito, J., concurring) ("Our Constitution, by careful design, prescribes a process for making law, and within that process there are many accountability checkpoints.").

This legislative gauntlet sometimes produces unfortunate, even tragic, consequences. Between the 1870s and 1960s, it foreclosed desperately needed civil rights laws. For budget hawks who predict a fiscal crisis, it has blocked entitlement reform. And for those who fear a climate crisis, it has prevented clear congressional guidance on how to cool the planet and who will foot the bill.[10]

That, however, is the price we pay for bicameralism and presentment. Major regulations and reforms either reflect a broad political consensus, or they do not become law.

In its clearest provisions, the Clean Air Act evinces a political consensus. For example, according to *Massachusetts v. EPA*, carbon dioxide is clearly a pollutant, and the Act's § 202 unambiguously directs the EPA to curb pollution from new cars.[11]

But for every carbon question answered in that case, many more were not even presented.[12] For example, does the Clean Air Act force the electric-power industry to shift from fossil fuels to renewable resources? If so, by how much? And who will pay for it? Even if Congress could delegate those decisions, *Massachusetts v. EPA* does not say where in the Clean Air Act Congress clearly did so.

In 2009, Congress tried to supply that clarity through new legislation.

---

[10] *Cf. Bowsher v. Synar*, 478 U.S. 714, 722 (1986) ("That this system of division and separation of powers produces conflicts, confusion, and discordance at times is inherent, but it was deliberately so structured to assure full, vigorous, and open debate on the great issues affecting the people and to provide avenues for the operation of checks on the exercise of governmental power.").

[11] 549 U.S. 497, 532-35 (2007).

[12] In this opinion, "carbon" is used as shorthand for carbon dioxide and other greenhouse gases.

The House succeeded.[13]

The President supported it.[14]

But that effort stalled in the Senate.[15]

Since climate change is real, man-made, and important, Congress's failure to act was, to many, a disappointment. But the *process* worked as it was designed.[16] In general, Senators from small states blocked legislation they viewed as adverse to their voters.[17] And because small states have outsized influence in the Senate,[18] no bill arrived on the President's

---

[13] American Clean Energy and Security Act, H.R. 2454, 111th Cong. (2009).

[14] *See Interview with President Obama on Climate Bill*, N.Y. TIMES (June 28, 2009), https://www.nytimes.com/2009/06/29/us/politics/29climate-text.html.

[15] *See* Richard Cowan & Thomas Ferraro, *Senator Graham Calls Cap-and-Trade Plan Dead*, REUTERS (Mar. 2, 2010, 2:26 PM), https://www.reuters.com/article/us-climate-usa-congress/senator-graham-calls-cap-and-trade-plan-dead-idUKTRE62142T20100302.

[16] *Cf. Association of American Railroads*, 575 U.S. at 61 (Alito, J., concurring) ("Bicameralism and presentment make lawmaking difficult *by design*[.]") (cleaned up).

[17] Due to opposition to the 2009 climate bill, it never received a Senate vote. The closest analogue is the 2008 climate bill, which received a cloture vote. And of the states with no Senator voting for the 2008 bill, most of those states have populations smaller than 1/50 of the nation. *Roll Call Vote 110th Congress – 2nd Session,* U.S. SENATE, https://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=110&session=2&vote=00145#state (all internet materials last visited Jan. 10, 2021).

[18] In 2008, *see supra*, for twenty-four state delegations, there was no Senate opposition to the climate bill. That's short of a majority of state delegations, and well short of the 3/5 necessary to break a

desk. Nor have dozens of other climate-related bills introduced since then.[19]

So President Obama ordered the EPA to do what Congress wouldn't.[20] In 2015, after "years of unprecedented outreach

---

filibuster. But those twenty-four states equal 60% of the population. So the Senate's equal-state representation was critical. If representation were proportional to population, the climate bill would have been more likely to pass. *Roll Call Vote 110th Congress – 2nd Session,* U.S. SENATE, https://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=110&session=2&vote=00145#state.

[19] *See, e.g.*, American Clean Energy and Security Act, H.R. 2454, 111th Cong. (2009); Integrated Energy Systems Act, S. 2702, 116th Cong. (2019); Clean Industrial Technology Act, S. 2300, 116th Cong. (2019); Advancing Grid Storage Act, H.R. 7313, 115th Cong. (2018); Climate Risk Disclosure Act, S. 3481, 115th Cong. (2018); American Energy and Conservation Act, S. 3110, 114th Cong. (2016); Climate Solutions Commission Act, H.R. 6240, 114th Cong. (2016); Super Pollutants Act, S. 2911, 113th Cong. (2014); American Renewable Energy and Efficiency Act, H.R. 5301, 113th Cong. (2014); End Polluter Welfare Act, S. 3080, 112th Cong. (2012); Save Our Climate Act, H.R. 3242, 112th Cong. (2011); Carbon Dioxide Capture Technology Prize Act, S. 757, 112th Cong. (2011); Clean Energy Standard Act, S. 20, 111th Cong. (2010).

[20] Evan Lehmann & Nathanael Massey, *Obama Warns Congress to Act on Climate Change, or He Will*, SCIENTIFIC AMERICAN (Feb. 13, 2013), https://www.scientificamerican.com/article/obama-warns-congress-to-act-on-climate-change-or-he-will/ ("'But if Congress won't act soon to protect future generations, I will,' Obama said. 'I will direct my Cabinet to come up with executive actions we can take, now and in the future, to reduce pollution, prepare our communities for the consequences of climate change, and speed the transition to more sustainable sources of energy.'").

and public engagement"[21] — including 4.3 million public comments[22] (about 4.25 million more than in *Massachusetts v. EPA*)[23] — the EPA promulgated a rule aimed at "leading global efforts to address climate change."[24]

Entitled the Clean Power Plan, the EPA's rule used the Clean Air Act's § 111 to set limits for carbon emissions that would likely be impossible to achieve at individual coal-fired power plants because of costs, unavailable technologies, or a need to severely reduce usage.[25] In that sense, the limits required generation shifting: shifting production from coal-fired power plants to facilities that use natural gas or renewable resources.

To be clear, the 2015 Rule did not expressly say, "Power plants must adopt off-site solutions." But it did set strict emission limits in part by considering off-site solutions. And those emission limits would likely have been unachievable or too costly to meet if off-site solutions were off the table.

A political faction opposed generation shifting. It challenged the 2015 Rule in this Court, arguing that § 111 does not allow the EPA to consider off-site solutions when determining the best system of emission reduction. The faction included about twenty-four states, represented by many

---

[21] *FACT SHEET: Overview of the Clean Power Plan*, EPA, https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html.
[22] *Id.*
[23] 549 U.S. at 511.
[24] *FACT SHEET: Overview of the Clean Power Plan*, EPA, https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html.
[25] Respondents' Br. at 32-37. For the codified text of § 111(d), see the first footnote of this opinion.

Senators who opposed the 2009 legislation.[26] Conversely, a political faction of about eighteen states defended the rule. Many of their Senators had supported the stymied legislation.[27]

At that litigation's outset, our Court refused to stay the rule's implementation.[28] But in an unprecedented intervention, the Supreme Court did what this Court would not.[29] And through its stay, the Supreme Court implied that the challengers would likely succeed on the case's merits.[30]

Taking the Supreme Court's not-so-subtle hint, in 2019 President Trump's EPA repealed the 2015 Rule and issued the Affordable Clean Energy Rule. Like the rule it replaced, the 2019 Rule relies on the Clean Air Act's § 111 to reduce carbon emissions. But unlike its predecessor, the 2019 Rule did not include generation shifting in its final determination of the best system of emission reduction.

A new faction then challenged the 2019 Rule. It looked a lot like the faction that had defended the 2015 Rule. Arrayed against that faction were many states and groups that had opposed the old rule. And so once again, politically diverse

---

[26] *See* Legislative Hearing on S. 1733, Clean Energy Jobs and American Power Act Before the Committee on Environment and Public Works, 111th Cong. (2009) (For example, Senators from Oklahoma, Ohio, Wyoming, and Louisiana expressed opposition or concern about the legislation.).

[27] *See id.* (For example, Senators from California, Massachusetts, Minnesota, New Mexico, Oregon, Rhode Island, Vermont, and Maryland expressed support for the legislation.).

[28] *West Virginia v. EPA*, No. 15-1363 (D.C. Cir. Jan. 21, 2016) (per curiam) (order).

[29] *West Virginia v. EPA*, 136 S. Ct. 1000 (2016) (mem.).

[30] *See Winter v. Natural Resources Defense Council*, 555 U.S. 7, 20 (2008).

states and politically adverse special interest groups brought their political brawl into a judiciary designed to be apolitical.

In this latest round, the briefing's word count exceeded a quarter of a million words. The oral argument lasted roughly nine hours. The case's caption alone runs beyond a dozen pages. And yet, in all that analysis, hardly any of the dozens of petitioners or intervenors defending the 2015 Rule make a serious and sustained argument that § 111 includes a clear statement unambiguously authorizing the EPA to consider a system of emission reduction that includes off-site solutions or that § 111 otherwise satisfies the major-rules doctrine's clear-statement requirement. Neither does the EPA.

In light of that,[31] I doubt § 111 authorizes the 2015 Rule — arguably one of the most consequential rules ever proposed by an administrative agency:

- It required a "more aggressive transformation in the domestic energy industry," marking for President Obama a "major milestone for his presidency."[32]
- It aspired to reduce that industry's carbon emissions by 32 percent — "equal to the annual emissions from more than 166 million cars."[33]

---

[31] *Cf.* ARTHUR CONAN DOYLE, *Silver Blaze*, *in* THE COMPLETE SHERLOCK HOLMES 312, 325 (2009) ("Before deciding that question I had grasped the significance of the silence of the dog, for one true inference invariably suggests others.").

[32] J.A. 2076 (White House Fact Sheet).

[33] *FACT SHEET: Clean Power Plan By The Numbers*, EPA, https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-clean-power-plan-numbers.html; *What Is the Clean Power Plan?*, NATIONAL RESOURCES DEFENSE COUNCIL, INC. (Sept. 29, 2017), https://www.nrdc.org/stories/how-clean-power-plan-works-and-why-it-

- Leaders of the environmental movement considered the rule "groundbreaking,"[34] called its announcement "historic,"[35] and labeled it a "critically important catalyst."[36]

The potential costs and benefits of the 2015 Rule are almost unfathomable. Industry analysts expected wholesale electricity's cost to rise by $214 billion.[37] The cost to replace shuttered capacity? Another $64 billion.[38] ("A billion here, a billion there, and pretty soon you're talking real money."[39])

---

matters#:~:text=According%20to%20EPA%20projections%2C%20by,nationally%2C%20relative%20to%202005%20levels.&text=The%20shift%20to%20energy%20efficiency,its%20electricity%20bills%20in%202030 ("According to EPA projections, by 2030, the Clean Power Plan would cut the electric sector's carbon pollution by 32 percent nationally, relative to 2005 levels.").

[34] *Save the Clean Power Plan*, NATIONAL RESOURCES DEFENSE COUNCIL, INC., https://www.nrdc.org/save-clean-power-plan.

[35] *The Clean Power Plan*, ENVIRONMENTAL DEFENSE FUND, https://www.edf.org/clean-power-plan-resources.

[36] Press Release, Michael Brune, Sierra Club Executive Director, *Repealing the Clean Power Plan Will Threaten Thousands of Lives* (Oct. 9, 2017), https://www.sierraclub.org/press-releases/2017/10/repealing-clean-power-plan-will-threaten-thousands-lives.

[37] *EPA's Clean Power Plan An Economic Impact Analysis*, NMA, 2, http://nma.org/attachments/article/2368/11.13.15%20NMA_EPAs%20Clean%20Power%20Plan%20%20An%20Economic%20Impact%20Analysis.pdf.

[38] *Id.*

[39] *Senator Everett McKinley Dirksen Dies*, U.S. SENATE (Sept. 7, 1969), https://www.senate.gov/artandhistory/history/minute/Senator_Everett_Mckinley_Dirksen_Dies.htm; *cf. id.* ("Researchers have been unable to track down the quotation most commonly associated with

True, you can dismiss that research as industry-funded. But the EPA itself predicted its rule would cost billions of dollars and eliminate thousands of jobs.[40]

On the benefits side of the ledger, the White House labeled the 2015 Rule a "Landmark,"[41] and the President called it "the single most important step America has ever taken in the fight against global climate change."[42] With that in mind, calculating the rule's benefits requires a sober appraisal of that fight's high stakes. According to the rule's advocates, victory over climate change will lower ocean levels; preserve glaciers; reduce asthma; make hearts healthier; slow tropical diseases; abate hurricanes; temper wildfires; reduce droughts; stop many floods; rescue whole ecosystems; and save from extinction up to "half the species on earth."[43]

Dirksen. Perhaps he never said it, but the comment would have been entirely in character.").

[40] J.A. 336; *see, e.g.*, *Regulatory Impact Analysis for the Clean Power Plan Final Rule*, EPA, 6-25 (Oct. 23, 2015), https://19january2017snapshot.epa.gov/sites/production/files/2015-08/documents/cpp-final-rule-ria.pdf.

[41] Fact Sheet: President Obama to Announce Historic Carbon Pollution Standards for Power Plants, THE WHITE HOUSE (Aug. 3, 2015), https://obamawhitehouse.archives.gov/the-press-office/2015/08/03/fact-sheet-president-obama-announce-historic-carbon-pollution-standards.

[42] Andrew Rafferty, *Obama Unveils Ambitious Plan to Combat Climate Change*, NBC NEWS (Aug. 3, 2015, 3:05 PM), https://www.nbcnews.com/politics/barack-obama/obama-unveils-ambitious-plan-combat-climate-change-n403296.

[43] *FACT SHEET: Overview of the Clean Power Plan*, EPA, https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html; Al Gore, *Al Gore: The Climate Crisis Is the Battle of Our Time, and We Can Win*, N.Y. TIMES (Sept. 20, 2019), https://www.nytimes.com/2019/09/20/opinion/al-gore-

These are, to put it mildly, serious issues. Lives are at stake. And even though it's hard to put a dollar figure on the net value on what many understandably consider invaluable, the EPA tried: $36 billion, it said, give or take about a $10-billion margin of error.[44]

So say what you will about the cost-benefit analysis behind generation shifting, it's hardly a minor question. Minor questions do not forestall consequences comparable to "the extinction event that wiped out the dinosaurs 65 million years ago."[45] Minor questions are not analogous to "Thermopylae, Agincourt, Trafalgar, Lexington and Concord, Dunkirk, Pearl Harbor, the Battle of the Bulge, Midway and Sept. 11."[46] Minor rules do not inspire "years of unprecedented outreach and public engagement."[47] Minor rules are not "the single most

---

climate-change.html; *Effects of Climate Change*, WORLD WILDLIFE FUND, https://www.worldwildlife.org/threats/effects-of-climate-change.

[44] *FACT SHEET: Overview of the Clean Power Plan*, EPA, https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html.

[45] AN INCONVENIENT TRUTH (Lawrence Bender Productions, 2006) ("Global warming, along with the cutting and burning of forests and other critical habitats, is causing the loss of living species at a level comparable to the extinction event that wiped out the dinosaurs 65 million years ago. That event was believed to have been caused by a giant asteroid. This time it is not an asteroid colliding with the Earth and wreaking havoc: it is us.").

[46] Al Gore, *Al Gore: The Climate Crisis Is the Battle of Our Time, and We Can Win*, N.Y. TIMES (Sept. 20, 2019), https://www.nytimes.com/2019/09/20/opinion/al-gore-climate-change.html; *see id.* ("This is our generation's life-or-death challenge.").

[47] *FACT SHEET: Overview of the Clean Power Plan*, EPA, https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html.

important step America has ever taken in the fight against global climate change."[48] Minor rules do not put thousands of men and women out of work.[49] And minor rules do not calculate $10 billion in net benefits as their margin of error.[50]

Rather, the question of how to make this "the moment when the rise of the oceans began to slow and our planet began to heal"[51] — and who should pay for it — requires a "decision[] of vast economic and political significance."[52] That standard is not mine. It is the Supreme Court's. And no cocktail of factors informing the major-rules doctrine can obscure its ultimate inquiry: Does the rule implicate a "decision[] of vast economic and political significance"?

---

[48] Andrew Rafferty, *Obama Unveils Ambitious Plan to Combat Climate Change*, NBC NEWS (Aug. 3, 2015, 3:05 PM), https://www.nbcnews.com/politics/barack-obama/obama-unveils-ambitious-plan-combat-climate-change-n403296.

[49] *See, e.g.*, *Regulatory Impact Analysis for the Clean Power Plan Final Rule*, EPA, 6-25 (Oct. 23, 2015), https://19january2017snapshot.epa.gov/sites/production/files/2015-08/documents/cpp-final-rule-ria.pdf.

[50] *FACT SHEET: Overview of the Clean Power Plan*, EPA, https://archive.epa.gov/epa/cleanpowerplan/fact-sheet-overview-clean-power-plan.html.

[51] Barack Obama, *Barack Obama's Remarks in St. Paul*, N.Y. TIMES (June 3, 2008), https://www.nytimes.com/2008/06/03/us/politics/03text-obama.html.

[52] *Utility Air Regulatory Group*, 573 U.S. at 324 (quoting *Brown & Williamson Tobacco*, 529 U.S. at 160) (cleaned up); *see Gonzales v. Oregon*, 546 U.S. 243, 267 (2006) (quoting *Brown & Williamson Tobacco*, 529 U.S. at 160) (cleaned up).

Proponents of the 2015 Rule say it doesn't.[53] They have to. If it did, it's invalid — because a clear statement is missing.[54] And according to the Supreme Court, that is exactly what a major rule requires.

To be sure, if we frame a question broadly enough, Congress will have always answered it. Does the Clean Air Act direct the EPA to make our air cleaner? Clearly yes. Does it require at least some carbon reduction? According to *Massachusetts v. EPA*, again yes.

But *how* should the EPA reduce carbon emissions from power plants? And *who* should pay for it? To those major questions, the Clean Air Act's answers are far from clear.

I admit the Supreme Court has proceeded with baby steps toward a standard for its major-rules doctrine. But "big things have small beginnings."[55] And even though its guidance has been neither sweeping nor precise, the Supreme Court has at least drawn this line in the sand: Either a statute clearly endorses a major rule, or there can be no major rule.[56]

Moreover, if Congress merely *allowed* generation shifting (it didn't), but did not clearly *require* it, I doubt doing so was constitutional. For example, imagine a Congress that says, "The EPA *may* choose to consider off-site solutions for its best system of emission reduction, but the EPA may choose *not* to consider off-site solutions." In that instance, Congress has

---

[53] *See* Oral Arg. Tr. at 23 (Counsel for State and Municipal Petitioners on the 2015 Rule: "We do not think it implicates the Major Questions Doctrine here for a couple of reasons.").

[54] *See supra* p. 9.

[55] LAWRENCE OF ARABIA (Columbia Pictures, 1962).

[56] *MCI Telecommunications Corp. v. American Telephone & Telegraph Co.*, 512 U.S. 218, 230-31 (1994); *Brown & Williamson Tobacco*, 529 U.S. at 126-27, 133; *Gonzales*, 546 U.S. at 267; *Utility Air Regulatory Group*, 573 U.S. at 322-25.

clearly delegated to the EPA its legislative power to determine whether generation shifting should be part of the best system of emission reduction — a "decision[] of vast economic and political significance."[57]

Such delegation might pass muster under a constitution amended by "moments" rather than the "reflection and choice" prescribed by Article V.[58] But if ever there was an era when an agency's good sense was alone enough to make its rules good law, that era is over.[59]

Congress decides what major rules make good sense. The Constitution's First Article begins, "All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives."[60] And every "law" must "pass[] the House of Representatives and the Senate" and "be presented to the President."[61] Thus, whatever multi-billion-dollar regulatory

---

[57] *Utility Air Regulatory Group*, 573 U.S. at 324 (2014) (quoting *Brown & Williamson Tobacco*, 529 U.S. at 160) (cleaned up); *see also Gonzales*, 546 U.S. at 267 (quoting *Brown & Williamson Tobacco*, 529 U.S. at 160).

[58] *See* U.S. CONST. art. V; *compare* BRUCE ACKERMAN, *We the People: Foundations* 22 (1991) ("moments") *with* MICHAEL S. GREVE, *The Upside-Down Constitution* 13 (2012) ("reflection and choice") (quoting The FEDERALIST No. 1, at 3-7 (A. Hamilton) (J. Cooke ed., 1961)).

[59] *See, e.g.*, *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348, 1358-59 (2018) ("The Director may (today) think his approach makes for better policy, but policy considerations cannot create an ambiguity when the words on the page are clear. Neither may we defer to an agency official's preferences because we imagine some hypothetical reasonable legislator would have favored that approach. Our duty is to give effect to the text that *actual* legislators (plus one President) enacted into law.") (cleaned up).

[60] U.S. CONST. art. I, § 1.

[61] *Id.* § 7.

power the federal government might enjoy, it's found on the open floor of an accountable Congress, not in the impenetrable halls of an administrative agency — even if that agency is an overflowing font of good sense.[62]

Over time, the Supreme Court will further illuminate the nature of major questions and the limits of delegation. And under that caselaw, federal regulation will undoubtedly endure. So will federal regulators. Administrative agencies are constitutional, and they're here to stay.[63]

Beyond that, I leave it for others to predict what the Supreme Court's emerging jurisprudence may imply for those agencies' profiles. Here, regardless of deference and delegation doctrines, the regulation of coal-fired power plants under § 111 is invalid for a more mundane reason: A 1990 amendment to the Clean Air Act forbids it.

---

[62] *See id.*; *id.* § 1; *A.L.A. Schechter Poultry Corp. v. United States*, 295 U.S. 495 (1935); *Marshall Field & Co. v. Clark*, 143 U.S. 649, 692 (1892); *Gundy v. United States*, 139 S. Ct. 2116, 2130-31 (2019) (Alito, J., concurring in the judgment); *see generally* MIKE LEE, *Our Lost Constitution* (2015); PHILIP HAMBURGER, *Is Administrative Law Unlawful?* (2014); Cody Ray Milner, Comment, *Into the Multiverse: Replacing the Intelligible Principle Standard With a Modern Multi-Theory of Nondelegation*, 28 GEO. MASON L. REV. 395 (2020); *cf. Talk America, Inc. v. Michigan Bell Telephone Co.*, 564 U.S. 50, 68 (2011) (Scalia, J., concurring) ("When the legislative and executive powers are united in the same person, or in the same body of magistrates, there can be no liberty . . . .") (quoting MONTESQUIEU, *Spirit of the Laws* bk. XI, ch. 6, pp. 151-52 (O. Piest ed., T. Nugent transl. 1949)); *In re Aiken County*, 725 F.3d 255, 264 (D.C. Cir. 2013) (same).

[63] *Gundy*, 139 S. Ct. at 2145 (Gorsuch, J., dissenting) ("Nor would enforcing the Constitution's demands spell doom for what some call the administrative state.") (cleaned up).

II.

The Clean Air Act Amendments of 1990 prohibit the EPA from subjecting power plants to regulation under § 111 if they are already regulated under § 112. The 2015 Rule and the 2019 Rule rely on § 111 for the authority to regulate coal-fired power plants. Because the EPA already regulates those coal-fired power plants under § 112, the rules are invalid.

A.

Before 1990, the Clean Air Act's § 112 told the EPA to create a list of hazardous air pollutants. Section 112 directed the EPA to regulate the pollutants on that list. And § 111 provided authorization to regulate pollutants *not* on that list.

Carbon is not on the § 112 list. So, under the pre-1990 scheme, the EPA could regulate carbon under § 111.

But Congress amended § 112 in 1990. Rather than just telling the EPA to make a § 112 list of pollutants, Congress created its own § 112 list.

That same year, Congress also amended § 111. As a result, the codified version of § 111 prohibits the regulation of pollutants "emitted from a *source category* which is regulated under [§ 112]."[64]

Coal-fired power plants are a source regulated under § 112.[65] Therefore, under the codified version of the Clean Air Act, coal plants cannot be regulated under § 111. And since the 2015 Rule and the 2019 Rule use § 111 to regulate carbon emitted from coal plants, those rules purport to do what the codified version of § 111 says the EPA cannot.

But that is not the whole story. Congress's Office of the Law Revision Counsel codifies statutes. And when it

---

[64] 42 U.S.C. § 7411(d) (emphasis added).

[65] Their mercury emissions are regulated under § 112.

mistakenly codifies text different from the Statutes at Large, the Statutes at Large controls.[66] And the Statutes at Large differs from the codified text here.

The question concerns two amendments, one from each house of Congress, which both ended up in the final bill.[67]

Under the House Amendment:

> *The Administrator shall prescribe regulations . . . under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or* ***emitted from a source category which is regulated under section 112*** *[of the Clean Air Act.]*[68]

---

[66] *Cheney Railroad Co. v. Railroad Retirement Board*, 50 F.3d 1071, 1076 (D.C. Cir. 1995); *see also United States National Bank of Oregon v. Independent Insurance Agents of America, Inc.*, 508 U.S. 439, 448 & n.3 (1993).

[67] The section, before the 1990 Amendments, read:

> The Administrator shall prescribe regulations which shall establish a procedure . . . under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) or *7412(b)(1)(A) of this title* . . . .

42 U.S.C. § 7411(d)(1) (1988) (emphasis added).

[68] Pub. L. No. 101-549, § 108(g), 104 Stat. 2399, 2467 (1990) (emphasis added); 42 U.S.C. § 7411(d)(1).

Under the Senate Amendment:

> *The Administrator shall prescribe regulations . . . under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or* ***112(b)*** *[of the Clean Air Act.]*[69]

Let's compare those two versions with the most relevant text bolded, the divergent text underlined, and the other text struck through.

House Version:

> ***The Administrator shall prescribe regulations*** *~~. . . under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source~~* ***for any air pollutant*** *~~(i) for which air quality criteria have not been issued or~~* ***which is not*** *~~included on a list published under section 7408(a) of this title or~~* ***emitted from a source category which is regulated under section 112*** . . . .

Senate Version:

> ***The Administrator shall prescribe regulations*** *~~. . . under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source~~* ***for any air pollutant*** *~~(i) for~~*

[69] Pub. L. No. 101-549, § 302(a), 104 Stat. 2399, 2574 (1990) (emphasis added).

> ~~*which air quality criteria have not been issued or*~~ ***which is not included on a list published under*** ~~*section 7408(a) of this title or*~~ ***112(b)*** . . . .

Finally, let's look at only the most relevant text.

House:

> ***The Administrator shall prescribe regulations for any air pollutant which is not emitted from a source category which is regulated under section 112.***

Senate:

> ***The Administrator shall prescribe regulations for any air pollutant which is not included on a list published under 112(b).***

To sum up so far, in my view:

- **The House** said the EPA can't use § 111 to regulate pollutants emitted from a source category regulated under § 112.[70]
  - **Coal-fired power plants** are a source category regulated under § 112.
- **The Senate** said the EPA can't use § 111 to regulate pollutants published under § 112.
  - **Carbon** is not a pollutant published under § 112.

Some parties argue the House and Senate Amendments conflict with each other or otherwise produce an absurd result. Others say they don't. In my view, it doesn't matter. If there's

[70] The EPA adopts a different interpretation of the House Amendment. That interpretation is addressed below in Part II.C.

a conflict, the House Amendment controls. And if there's no conflict, the Senate Amendment takes nothing away from the House Amendment. In *either* scenario — conflict or no conflict — regulation of coal-fired power plants under § 111 is invalid.

B.

Let's start with the first scenario: Assume the two amendments conflict.[71] If that creates an absurd result, "a mistake of expression (rather than of legislative wisdom) [may have] been made."[72] Such a mistake of expression — a "scrivener's error" — is typically viewed as a typo.[73] Where the reading "makes entire sense grammatically but produces a disposition that makes no substantive sense," a "drafter's error" may exist.[74] That said, the distinction between a scrivener's error and a drafter's error "is generally not a principled one."[75] Here, the Senate and House Amendments do not have obvious typos or mistakes, but some may think that including both in the statute "makes no substantive sense" — in the same way

---

[71] *Cf.* 70 Fed. Reg. 15,994, 16,030-32 (Mar. 29, 2005) ("EPA is therefore confronted with the highly unusual situation of an enacted bill signed by the President that contains two different and inconsistent amendments to the same statutory provision.").

[72] Antonin Scalia, *Common-Law Courts in a Civil-Law System: The Role of United States Federal Courts in Interpreting the Constitution and Laws, in* A MATTER OF INTERPRETATION: FEDERAL COURTS AND THE LAW 3, 20 (Amy Gutmann ed., 1997); *see also West Virginia v. EPA*, No. 15-1363, Oral Arg. Tr. at 111 (Kavanaugh, J.) ("When [a conflict] happens[,] you [may] have a scrivener's error.").

[73] *See* ANTONIN SCALIA & BRYAN A. GARNER, *Reading Law: The Interpretation of Legal Texts* 234 (2012) (quoting Daniel A. Farber, *Statutory Interpretation and Legislative Supremacy*, 78 Geo. L.J. 281, 289 (1989)).

[74] *Id.* at 235.

[75] *Id.*

that a single order to "always drive fast" and "never drive fast" makes no substantive sense.

In these rare circumstances, judges may read the text in a way that accounts for these errors. In doing so, "we are not revising the apparent meaning of the text."[76] Instead, we give the text "the meaning that it would convey to a reasonable person, who would understand that misprints had occurred."[77] But the "meaning genuinely intended but inadequately expressed must be absolutely clear; otherwise we might be rewriting the statute rather than correcting a technical mistake."[78]

How then to discover the "meaning genuinely intended"?

Some might say "defer to the EPA" because of the text's ambiguity. But unintentional ambiguity from a drafter's error is nothing like the intentional ambiguity that typically receives *Chevron* deference. *Chevron* applies to deliberate gaps for an

---

[76] *Id.*; *see also id.* at 234 (quoting *Grey v. Pearson*, [1857] 6 H.L. Cas. 61, 106 (per Lord Wensleydale)) (cleaned up).
[77] *Id.* at 235.
[78] *United States v. X-Citement Video, Inc.*, 513 U.S. 64, 82 (1994) (Scalia, J., dissenting).

agency to fill.[79] So deference is arguably faithful to a statute's meaning — at least in theory.[80]

In contrast, drafter's errors are accidents. So there's no reason to believe deference was "genuinely intended." And to the extent an office or agency with expertise is entitled to deference here — none is[81] — Congress's Office of the Law Revision Counsel is the leading candidate. Its whole job is to produce the United States Code, and it dismissed the Senate Amendment as a drafter's error.

Others might say the default should be freedom from regulation when a drafter's error creates ambiguity over an agency's authority to promulgate a major rule. After all, if Congress doesn't clearly endorse a major regulation, there can be no major regulation.[82]

---

[79] *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 862 (1984); *cf. Pereira v. Sessions*, 138 S. Ct. 2105, 2121 (2018) (Kennedy, J., concurring) ("Given the concerns raised by some Members of this Court it seems necessary and appropriate to reconsider, in an appropriate case, the premises that underlie *Chevron* and how courts have implemented that decision. The proper rules for interpreting statutes and determining agency jurisdiction and substantive agency powers should accord with constitutional separation-of-powers principles and the function and province of the Judiciary.") (cleaned up).

[80] *But see Gutierrez-Brizuela v. Lynch*, 834 F.3d 1142, 1153 (10th Cir. 2016) (Gorsuch, J., concurring) ("The fact is, *Chevron*'s claim about legislative intentions is no more than a fiction — and one that requires a pretty hefty suspension of disbelief at that.").

[81] *Ganem v. Heckler*, 746 F.2d 844, 851 (D.C. Cir. 1984) ("[T]he changes made by the codifiers, whose choice, made without the approval of Congress[,] should be given no weight, are of no substantive moment.") (cleaned up).

[82] *See MCI Telecommunications*, 512 U.S. at 230-31; *Brown & Williamson Tobacco*, 529 U.S. at 126-27, 133; *Gonzales*, 546 U.S. at 267; *Utility Air Regulatory Group*, 573 U.S. at 322-25.

But as with *Chevron*, the major-rules doctrine draws *meaning* from ambiguity: Because Congress does not hide elephants in mouseholes, we presume the absence of clarity means Congress intentionally chose not to endorse a major regulation. So as with *Chevron*'s premise, the premise of the major-rules doctrine is inapplicable to a drafter's error. Here, to the extent an elephant's in a mousehole, we don't know whether the misprint is the mousehole or the elephant.

That leaves us with a third option: inquiring into legislative history. True, as a general matter, courts should reject any significant reliance on legislative history. Hamilton did.[83] So did Marshall.[84] And Madison.[85] And Story.[86] "From the beginnings of the republic, American law followed what is known as the 'no-recourse doctrine' — that in the interpretation of a text, no recourse may be had to legislative history."[87] And although many judges abandoned the no-recourse doctrine by the second half of the twentieth century,[88] leading textualists like Justice Scalia have made important progress in reviving it.

But "[w]hen you have a scrivener's error[,] everyone, including Justice Scalia, would look at the legislative history."[89] Indeed, he "believed that the *only* time it was

---

[83] ANTONIN SCALIA & BRYAN A. GARNER, *Reading Law: The Interpretation of Legal Texts* 370 (2012).
[84] *Id.* at 370-71.
[85] *Id.* at 371.
[86] *Id.* at 371-72.
[87] *Id.* at 369.
[88] *Id.* at 388.
[89] *West Virginia v. EPA*, No. 15-1363, Oral Arg. Tr. at 111 (Kavanaugh, J.); *see also* John Copeland Nagle, *CERCLA's Mistakes*, 38 WM. & MARY L. REV. 1405, 1414 (1997) ("[E]ven textualists like Justice Scalia acknowledge that the courts can remedy a 'scrivener's error' notwithstanding plain statutory language.").

appropriate for a court to use legislative history was when there was a credible claim of scrivener's error."[90] For example, concurring in the judgment in *Green v. Bock Laundry Machine Co.*, Justice Scalia considered "it entirely appropriate to consult . . . legislative history . . . to verify that what seems . . . an unthinkable disposition . . . was indeed unthought of, and thus to justify a departure from the ordinary meaning of the word" at issue.[91]

So, to recap: (1) The House and Senate Amendments may conflict; (2) if they do, there may have been a drafter's error; and (3) legislative history can illuminate a drafter's error.

What then, if anything, does the legislative history tell us? (Buckle up.)

In 1990, the House passed a bill with many amendments to the Clean Air Act. The Senate passed a different bill. A Conference Committee reconciled them. But it made (at least) *two* drafter's errors — assuming again our two amendments conflict.

First, the Conference Committee put both the House and Senate Amendments in the Conference Report, which became the final bill.[92]

---

[90] Megan McDermott, *Justice Scalia's Bankruptcy Jurisprudence: The Right Judicial Philosophy for the Modern Bankruptcy Code?*, 2017 UTAH L. REV. 939, 974 (2017) (emphasis added).

[91] 490 U.S. 504, 527 (1989) (Scalia, J., concurring in the judgment).

[92] The Conference Report says "[t]hat the Senate recede[s] from its disagreement to the amendment of the House to the text of the bill and agree[s] to the same with an amendment as follows: In lieu of the matter proposed to be inserted by the House amendment insert the following: . . . Sec. 108. Miscellaneous provisions." H.R. Rep. No. 101-952, 101st Cong., at 1 (1990) (cleaned up). Section 108(g) under "Miscellaneous provisions" was the House Amendment that

Second, the Conference Committee botched the "Joint Explanatory Statement of the Committee of Conference."[93]

The Joint Statement said, "The House amendment to the text of the bill struck out all of the Senate bill after the enacting clause and inserted a substitute text."[94] That "amendment" refers to the House's entire set of amendments to the Clean Air Act. Clear enough so far.

The Joint Statement then said, "The Senate recedes from its disagreement to the amendment of the House . . . ."[95] Again, that seems straightforward.

But the Joint Statement didn't stop there. The full sentence excerpted just above says:

> *The Senate recedes from its disagreement to the amendment of the House with an amendment which is a substitute for the Senate bill and the House amendment.*[96]

That is drivel. The Senate recedes with an amendment? What amendment? And how is that receding? And did the House recede to the Senate's amendment to the House's amendment that the Senate receded to?

The next day, the bill's Senate Managers issued a statement attempting to clarify the previous day's materials.

---

struck "or 112(b)(1)(A)" and inserted "or emitted from a source category which is regulated under section 112." *Id.* at 73. But later in the report we find the Senate's original proposed amendment — replacing "112(b)(1)(A)" with "112(b)." *Id.* at 183. So the Senate says it receded to the House, and yet we still see the Senate's original language in the document.

[93] *Id.* at 335-55.

[94] *Id.* at 335.

[95] *Id.*

[96] *Id.*

The statement notes that for two unrelated portions of the § 111 amendments, the House receded to the Senate.[97] But it said the Senate receded to the House regarding all other § 111 changes, including the change at issue in this case.[98]

To the extent a statement by Senate Managers can ever clear up a question of statutory meaning — count me skeptical[99] — theirs did.

Here's where that leaves me. I'm frankly *not* convinced the House and Senate Amendments are the product of a drafter's error. But *if* they are, the most lucid piece of legislative history says the Senate intended to recede to the House.

That would leave the House Amendment as the last man standing. And under the House Amendment, the EPA can't regulate air pollutants from coal-fired power plants under § 111 when the plants are already regulated under § 112. Therefore, if the House and Senate Amendments conflict, the 2015 Rule and the 2019 Rule are invalid.[100]

---

[97] *Chafee-Baucus Statement of Senate Managers, S. 1630, the Clean Air Act Amendments of 1990*, 136 Cong. Rec. 36007, 36067 (Oct. 27, 1990).

[98] *Id.* The full sentence about the two amendments at issue here reads: "*Conference agreement*. The Senate recedes to the House except that with respect to the requirement regarding judicial review of reports, the House recedes to the Senate and with respect to transportation planning, the House recedes to the Senate with certain modifications." In other words, except for judicial review of reports (immaterial here) and transportation planning (immaterial here), the Senate receded to the House.

[99] *Environmental Defense Fund, Inc. v. EPA*, 82 F.3d 451, 460 n.11 (D.C. Cir. 1996).

[100] The EPA doesn't like that result. For thirty years it has either ignored or misconstrued the House Amendment. But the EPA's

C.

As for the second (and more likely) of the two scenarios: Assume the House and Senate Amendments do *not* conflict. In that case, we don't strike the Senate Amendment as a drafter's error.[101] But even then, the House Amendment retains its full effect.

Recall that each amendment does two things. First, it creates a category of air pollutants. And second, it excludes that category from regulations authorized under § 111.

For the House Amendment, that category covers any pollutant "emitted from a source category which is regulated under section 112." And for the Senate Amendment, that category covers any pollutant "published under section . . . 112(b)."

So to see what's in the House Amendment's category, you'd start by making a list of every source regulated under § 112. As far as § 111 regulation goes, any air pollutants from those sources — including coal-fired power plants — are forbidden fruit under the House Amendment.

To create the Senate Amendment's list, you'd simply pull the 180 or so pollutants from § 112(b), as modified by the EPA since 1990. As far as § 111 regulation goes, those pollutants

---

long-running error is no reason to ignore plain text. To the extent I glean anything from the EPA's thirty-year mistake, it's that the EPA might be entitled to less deference than it thinks it deserves.

[101] For the reader's convenience, here again is the codified version of § 111(d): "The Administrator shall prescribe regulations which shall establish a procedure . . . under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for **any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under [§ 108(a)] or emitted from a source category which is regulated under [§ 112]** . . . ." (emphasis added).

— mercury compounds, asbestos, and more than 180 others — are forbidden fruit under the Senate Amendment.[102]

In general, the House Amendment sweeps more broadly than the Senate Amendment. For example, the House Amendment's list includes pollution from coal-fired power plants, since they are regulated for mercury. So under the House Amendment, § 111 cannot be used to regulate coal-fired power plants at all.

In contrast, the Senate Amendment's list includes mercury, but it does not include *all* other pollution from sources that emit mercury. So under the Senate Amendment, § 111 cannot be used to regulate coal-fired power plants' emissions of mercury. But the Senate Amendment does not by itself stop the EPA from using § 111 to regulate coal-fired power plants' emissions of pollutants like carbon, since carbon isn't on the Senate Amendment's list.

That the House Amendment generally sweeps more broadly than the Senate Amendment, however, does not mean that fidelity to the House Amendment fails to give full effect to the Senate Amendment. For example, imagine two parents choosing a name for their child. The father says, "There's no way we're naming our baby after a president from Virginia." And the mother says, "There's no way we're naming our baby after *any* president."

Just like the House and the Senate each took certain regulations off § 111's table, the mother and father have each taken certain names off the table. And just as the House Amendment excludes from § 111 every regulation excluded by

---

[102] *Initial List of Hazardous Air Pollutants with Modifications*, EPA, https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications.

the Senate Amendment (and then some), the mother has said no way to every name excluded by the father (and then some).

When you give full effect to the mother's no-way list, you are not ignoring the father's no-way list — because the father's list only *excludes* names and thus does not require the *inclusion* of any names. And for the same reason, when you give full effect to the father's list, you are not ignoring the mother's — because the mother's no-way list does not require the inclusion of names excluded by the father.

Like the father's list, the Senate Amendment has a lot to say about what's *excluded* from § 111. But like the father's list, the Senate Amendment says nothing about what's *included*. So when the House Amendment excludes coal-fired power plants from § 111's scope, it doesn't ignore the Senate Amendment. It supplements it — by excluding from § 111's scope a category of regulations not already excluded by the Senate Amendment.

That's the situation that will occur most often — air pollutants excluded from § 111 regulation because they're on the Senate Amendment's list will also be excluded from § 111 regulation because they're on the House Amendment's list.

But there may exist situations, at least in theory, when only the Senate Amendment does any work.

For example, consider a hazardous air pollutant listed under § 112 but "emitted by sources that Section [112] does not reach."[103] That pollutant is barred from § 111 regulation by the Senate Amendment (because it's a *pollutant* listed under § 112), but it is arguably not barred by the House Amendment (because it's emitted from a *source* not regulated under § 112).

---

[103] Majority Op. at 119-20 n.19.

In that scenario, it's possible only the Senate Amendment would bar § 111 regulation.[104]

In other words, these § 111 exclusions might form a Venn diagram: Some air pollutants are excluded from § 111 regulation only because of the House Amendment (like carbon from coal-fired power plants), some pollutants are only excluded because of the Senate Amendment (as in the hypothetical I just described), and some pollutants are excluded because of both amendments (like mercury from coal-fired power plants). Recognizing *both* amendments as operative gives "maximum possible effect" to each.[105]

The EPA says *Chevron* applies to this question. Even so, the outcome is the same. At *Chevron* step one, the plain text of the Senate Amendment takes nothing away from the plain text of the House Amendment and vice versa. And because the House Amendment expressly precludes the regulation of coal-fired power plants under § 111, the plain text precludes the 2015 Rule and the 2019 Rule — both of which depended on § 111 to regulate coal-fired power plants.

In *American Electric Power Co. v. Connecticut*, the Supreme Court agreed with this reading. It said the "EPA may not employ § [111(d)] if existing stationary sources of the pollutant in question are regulated under the national ambient

---

[104] As another theoretical example, consider a source that emits a pollutant on § 112's list and assume the EPA is *required* to regulate that source based on § 112's parameters. But now imagine that, notwithstanding that requirement, the EPA has not *yet* regulated the source. After all, sometimes these things take time. In that situation too, the Senate Amendment might exclude from § 111 regulation pollutants that the House Amendment might not (yet).

[105] *Citizens to Save Spencer County v. EPA*, 600 F.2d 844, 870 (D.C. Cir. 1979).

air quality standard program . . . or the 'hazardous air pollutants' program, § [112]."[106]

The EPA adopts a different approach to the House Amendment. In "any air pollutant . . . emitted from a source category which is regulated under section 112," the EPA reads the phrase "which is regulated under section 112" to modify "air pollutant," rather than "source category." So it would exclude from § 111's scope only an "air pollutant . . . which is regulated under § 112":

---

[106] *American Electric Power Co. v. Connecticut*, 564 U.S. 410, 424 n.7 (2011) (citing § 7411(d)(1)). The EPA notes that this footnote was dicta and that it conflicted with national ambient air quality standard regulations at the time. But the EPA can't have it both ways: It can't dismiss an inconvenient part of *American Electric Power* that is directly on point and then *rely* on other parts of that case where the precise meaning and contours of § 111(d) were not at issue.

As for *American Electric Power*'s holding, it depended on the Supreme Court's understanding that § 111(d) "speaks directly" to carbon emissions from fossil-fuel plants. *Id.* at 424. I agree that § 111(d) "speaks directly" to whether the EPA can or cannot regulate carbon from coal-fired power plants: The provision directly says that the EPA can regulate pollutants from existing sources *unless* the EPA already regulates those sources under § 112. *Compare id. with id.* at 424 n.7.

> ***The Administrator shall prescribe regulations*** ~~*. . . under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source*~~ ***for any air pollutant*** ~~*(i) for which air quality criteria have not been issued or which is not included on a list published under section 108(a) or emitted from a source category*~~ ***which is regulated under section 112*** *. . . .*

To get to the EPA's preferred reading — to make "which is regulated by section 112" modify "air pollutant" — the EPA needs to read into § 111(d)(1)(A)(i) a triplet of three whiches:[107]

> *The Administrator shall prescribe regulations . . . under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant [1]* ***for which*** *air quality criteria have not been issued* ***or*** *[2]* ***which*** *is not included on a list published under § 108(a) or emitted from a source category [3]* ***which*** *is [not] regulated under § 112 . . . .*

My alterations — including [1], [2], [3], and [not] — reflect the tripartite division implied by the EPA. But of course the alterations were not in the original. If they were, the EPA's grammatically unconventional reading might work. They're not, so it doesn't.

For four reasons, the EPA's approach is not persuasive.

---

[107] *Cf.* WILLIAM SHAKESPEARE, MACBETH act 1, sc. 1.

First, "ordinarily, and within reason, modifiers and qualifying phrases attach to the terms that are nearest."[108] Under that canon, a modifying phrase, such as "which is regulated under section 112," should apply to the closest noun possible — "source category," not "air pollutant."

Second, the EPA all but reads out of § 111 the following words: "emitted from a source category." To be sure, Congress will sometimes "include words that add nothing of substance," so the canon against surplusage has limits.[109] That's why "a court may well prefer ordinary meaning to an unusual meaning that will avoid surplusage."[110] But amputating the words "emitted from a source category" does not clarify § 111's "ordinary meaning." Instead, doing so transforms that meaning.

Third, and most importantly, Congress put a conjunction (**"or"**) between parts one and two of the imagined triplet, but not between parts two and three. If the EPA's triplet exists, Congress's approach to English was, to put it kindly, novel.

In formal English, you usually separate a triplet with a conjunction between the second and third parts. (Life, liberty, **or** property.) Informal English sometimes puts a conjunction between the first and second, *and* between the second and third. (Life **or** liberty **or** property.) Sometimes you see a triplet with no conjunction. (Life, liberty, property.) But you rarely if ever see a triplet's conjunction separate the first and second parts

---

[108] *Grecian Magnesite Mining, Industrial & Shipping Co., SA v. Commissioner*, 926 F.3d 819, 824 (D.C. Cir. 2019); *see also Lockhart v. United States*, 136 S. Ct. 958, 962 (2016); ANTONIN SCALIA & BRYAN A. GARNER, *Reading Law: The Interpretation of Legal Texts* 144-46 (2012).

[109] ANTONIN SCALIA & BRYAN A. GARNER, *Reading Law: The Interpretation of Legal Texts* 176 (2012).

[110] *Id.*

without also separating the second and third parts. (Life **or** liberty property). That's why it's not:

- Stop and drop roll; or
- Red and white blue; or
- Reduce and reuse recycle; or
- Blood and sweat tears; or
- Huey and Dewey Louie.

Thus, the EPA would require us to read into § 111 a triplet written in a way no one writes.[111]

Fourth and finally, the EPA says a plain-text reading of the House Amendment would leave § 111 almost no work to do.

---

[111] Whatever else the savings clause in § 112(d)(7) might save, it can't save *that*. *Cf.* 42 U.S.C. § 7412(d)(7) ("No emission standard or other requirement promulgated under this section shall be interpreted, construed or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established pursuant to section 7411 of this title, part C or D, or other authority of this chapter or a standard issued under State authority.").

Note that § 112(d)(7) applies only to requirements "established pursuant to" § 111. And even the EPA says regulations cannot be established pursuant to § 111 if they target pollutants already regulated under § 112. *See also American Electric Power*, 564 U.S. at 424 n.7. So everyone agrees the § 111 amendments exclude *something* from § 111 based on § 112. And § 112(d)(7) does not cover whatever is excluded.

What's more, § 111(d)'s exclusion is more specific than § 112(d)(7)'s generalities, and the specific usually controls the general. *See* ANTONIN SCALIA & BRYAN A. GARNER, *Reading Law: The Interpretation of Legal Texts* 183 (2012).

But if so, that was a choice for Congress. After all, the 1990 Clean Air Act Amendments added more than one hundred pollutants to § 112's scope, with a mechanism for the EPA to add even more later.[112] Maybe Congress thought § 111(d) shouldn't be much more than a rarely used gap-filler in light of a beefed up § 112 — at least until Congress passed another law saying otherwise.

Of course, in the end, it doesn't matter what Congress was *thinking*.[113] "It is the *law* that governs, not the intent of the lawgiver."[114] That's because, among other reasons, "it is simply incompatible with democratic government, or indeed, even with fair government, to have the meaning of a law determined by what the lawgiver meant, rather than by what the lawgiver promulgated."[115]

Thus, an oddity of timing doesn't trigger *Chevron* deference.[116] Nor does ambiguity arise every time an agency wishes a statutory provision did more work than it does. When statutory text informed by structure and context is clear, "that is the end of the matter."[117]

---

[112] Pub. L. No. 101-549, § 301, 104 Stat. 2399, 2532-37 (1990).

[113] *Cf. Gutierrez-Brizuela*, 834 F.3d at 1153 (Gorsuch, J., concurring) ("Trying to infer the intentions of an institution composed of 535 members is a notoriously doubtful business under the best of circumstances.").

[114] Antonin Scalia, *Common-Law Courts in a Civil-Law System: The Role of United States Federal Courts in Interpreting the Constitution and Laws, in* A MATTER OF INTERPRETATION: FEDERAL COURTS AND THE LAW 3, 17 (Amy Gutmann ed., 1997).

[115] *Id.*

[116] *Cf.* Public Health & Environmental Respondent-Intervenors' Br. at 10-11.

[117] *Chevron*, 467 U.S. at 842.

* * *

This case touches on some of administrative law's most consequential, unresolved issues. What is the reach of *Massachusetts v. EPA*? What is the meaning of a major question? What are the limits of congressional delegation?

Each of those issues — and a dozen or two more — might have mattered if the EPA had relied on a section of the Clean Air Act other than § 111 to promulgate both rules at issue in this case. But a 1990 amendment to § 111 excluded a category of regulations from § 111's scope. And because that category covers the regulations challenged today, those other legal questions are academic.

Both houses of Congress voted that amendment — the House Amendment — into law. And as explained above, if it conflicts with the Senate-proposed amendment to § 111, the Senate Amendment was a drafter's error.

On the other hand, if the House and Senate Amendments can coexist, the House Amendment simply excludes from § 111's scope a category of regulations in addition to the regulations excluded by the Senate Amendment.

Either way, the law precludes what the House Amendment precludes. And the House Amendment precludes § 111 regulations of coal-fired power plants already covered by § 112.

Therefore, the EPA correctly repealed the 2015 Rule, but its replacement rule improperly applied § 111 to coal-fired power plants already regulated under § 112.

Those conclusions lead to this respectful concurrence in part, concurrence in the judgment in part, and dissent in part.[118]

[118] The majority's thoughtful opinion (I) describes this case's regulatory and procedural history; (II) vacates the 2019 Rule; (III.A) rejects most of the Coal Petitioners' arguments, including their contention that the EPA cannot use § 111 to regulate carbon emissions from power plants already regulated under § 112; (III.B) dismisses the Robinson Petitioners' challenge for lack of standing; (IV) vacates the EPA's implementing regulations for emission guidelines promulgated under § 111(d); (V) describes the remedy; and (VI) concludes. I concur in part of the judgment with respect to Part II, concur with respect to Part III.B, and concur in the judgment with respect to Part IV.