Comments of the Attorneys General of New York, Arizona, California, Colorado, Connecticut, Delaware, Hawai‘i, Illinois, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New Mexico, North Carolina, Oregon, Rhode Island, Vermont, Virginia, Washington, Wisconsin, and the District of Columbia; and the Chief Legal Officers of the City of Chicago, Illinois; the City and County of Denver, Colorado; the City of New York, New York; and the Bay Area Air Quality Management District

on

the U.S. Environmental Protection Agency's Supplemental Proposal "Rescission of the Greenhouse Gas Findings for Fossil Fuel-Fired Power Plants and Repeal of Regulations for Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111"

91 Fed. Reg. 59002 (Sep. 17, 2026)
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TABLE OF CONTENTS

INTRODUCTION 1

I. BACKGROUND 3

A. Climate Change Harms to States and Local Governments 4

B. Adverse Impacts to Communities with Environmental Justice Concerns 8

C. Power Plant Greenhouse Gas Emissions 15

1. State and municipal advocacy for federal standards to limit power plant greenhouse gas emissions 15

2. State efforts to reduce power plant greenhouse gas emissions while maintaining grid reliability and promoting affordable electricity 16

D. EPA's Rescission of the 2009 Endangerment Finding 18

E. EPA's Recent Actions to Deregulate Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111 21

II. EPA'S SUPPLEMENTAL PROPOSAL IS UNLAWFUL 25

A. The Clean Air Act plainly authorizes EPA to regulate emissions of greenhouse gases from fossil fuel-fired power plants under section 111, and the Supreme Court and D.C. Circuit have already interpreted section 111 to effectuate this plain meaning. 26

B. EPA cannot re-write the Clean Air Act to overrule Congress's clear direction and the definitive rulings of the Supreme Court, and EPA's arguments for doing so all fail. 29

1. EPA's argument that section 111(b)(1)(A) only regulates pollution that endangers public health or welfare through local or regional exposure is wrong. 29

a. The local or regional exposure distinction made by EPA has already been considered and rejected..... 30

b. EPA's global/local distinction is unsupported by the statutory text..... 32

i. EPA's "pollution" vs. "pollutant" distinction is incoherent. 32

ii. EPA reads limitations into the statutory text that Congress did not include. 33

iii. EPA misapplies the definition of the term "welfare." 35

iv. EPA's proposed reinterpretation of the terms "cause," "contribute," and "reasonably anticipated to endanger" is untenable. 40

v. The term "significantly" does not support EPA's interpretation. 44

c. EPA's proposed statutory interpretation depends on incorrect scientific claims……..….45

i. EPA's claim that greenhouse gas emissions do not have a close connection to climate change harms is incorrect and contradicted by the scientific record. 49

ii. Other pollutants highlighted by EPA as quintessentially "local or regional" pollutants harm public health and welfare through long, complex, attenuated, and indirect pathways. 50

iii. Greenhouse gases have "direct" effects and cause harm through shorter causal pathways than pollutants EPA describes as central to the Act. 56

iv. Direct local and regional health benefits are commensurate with the amount of greenhouse gas pollution reduced, and greenhouse gases need not be "well-mixed" in the atmosphere to cause harm. 68

v. The "mechanism of harm" for greenhouse gases does not depend on global concentrations or centuries-long time horizons, and annual emissions are readily measurable against total annual concentrations in areas of concern. 70

vi. EPA's proposed interpretation of "air pollution" as limited to anthropogenic contamination and toxicity would exclude most of the pollutants regulated under the Act. 74

d. The history and context of section 111 do not support EPA's interpretation. ……. 75

i. Climate change was understood and acknowledged as a concern prior to the passage of the Clean Air Act. 75

ii. EPA's interpretation is not supported by the contextual and structural relationship of Title I provisions. 79

iii. Nothing in section 111 limits EPA's authority to regulate pollutants that are also emitted outside the United States. 81

iv. Failed legislation does not undermine EPA's section 111 authority, and Congress ratified the Supreme Court's interpretation of EPA's authority in the Inflation Reduction Act. 82

v. EPA errs in contending that the 2015 NSPS Rule marked a significant change in course. 86

2. EPA misapplies precedent. 88

3. The nondelegation and constitutional avoidance doctrines are inapposite. 92

C. EPA's findings in the 2015 NSPS Rule are valid, and EPA's Endangerment Finding Rescission does not provide a basis for withdrawing those findings 94

1. The best reading of section 111 is that it directs EPA to list source categories that significantly contribute to dangerous pollution and then to regulate—within defined limits—on a pollutant-by-pollutant basis 95

2. The D.C. Circuit has already upheld the legality of the findings in the 2015 NSPS Rule and any perceived procedural listing errors do not relate to EPA's underlying authority to regulate greenhouse gas emissions. 96

3. EPA's Endangerment Finding Rescission does not provide a basis for withdrawing the findings in the 2015 NSPS Rule. 96

D. The major questions doctrine does not apply. 97

1. *Massachusetts* and *AEP* foreclose EPA's application of the major questions doctrine. 97

2. Even if its application were not foreclosed by Supreme Court precedent, the major questions doctrine does not apply. 99

3. Even if the major question doctrine applies, EPA's authority is clear. 103

E. The efficacy of regulation is not a permissible basis for withdrawing a valid endangerment finding, and EPA's futility determinations are irrational. 104

1. An endangerment determination must be premised on scientific judgments unrelated to the efficacy of potential standards. 104

2. EPA's futility analysis is arbitrary and irrational. 105

III. EPA'S SUPPLEMENTAL PROPOSAL IS ARBITRARY AND CAPRICIOUS.....123

A. EPA has arbitrarily and unlawfully predetermined the outcome of the rulemaking and its rationales for the Supplemental Proposal are pretextual. 124

B. EPA failed to adequately explain its change in position or to consider serious reliance interests.....134

C. EPA failed to consider the Supplemental Proposal's effects on the regulation of existing power plants. 137

D. EPA failed to consider impacts of the proposal on grid reliability or electricity affordability.....139

IV. EPA'S SUPPLEMENTAL PROPOSAL IS PROCEDURALLY FLAWED.....145

A. EPA did not provide a meaningful opportunity to comment. 145

B. EPA failed to comply with statutory requirements concerning the National Academy of Sciences. 148

C. The Supplemental Proposal fails to disclose how Artificial Intelligence was used. .149

V. EPA'S ECONOMIC IMPACT ANALYSIS CONTAINS SERIOUS FLAWS THAT MAKE THE SUPPLEMENTAL PROPOSAL UNREASONABLE AND ARBITRARY AND CAPRICIOUS.....151

VI. THE SUPPLEMENTAL PROPOSAL'S DISCUSSION OF PREEMPTION AND DISPLACEMENT IS MISGUIDED. 158

CONCLUSION.....165

Introduction

The Attorneys General of New York, Arizona, California, Colorado, Connecticut, Delaware, Hawai‘i, Illinois, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New Mexico, North Carolina, Oregon, Rhode Island, Vermont, Virginia, Washington, Wisconsin, and the District of Columbia; and the Chief Legal Officers of the City of Chicago, Illinois; the City and County of Denver, Colorado; the City of New York, New York; and the Bay Area Air Quality Management District (together, States and Local Governments) submit these comments on the Environmental Protection Agency's supplemental proposal Rescission of the Greenhouse Gas Findings for Fossil Fuel-Fired Power Plants and Repeal of Regulations for Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111, 91 Fed. Reg. 59002 (Sep. 17, 2026) (Supplemental Proposal).

Nearly two decades ago, the Supreme Court unequivocally held that greenhouse gases fit well within the Clean Air Act's (CAA or Act) "capacious definition of 'air pollutant.'" *Massachusetts v. EPA*, 549 U.S. 497, 529, 532 (2007). Subsequently, the Supreme Court found that section 111 of the Act "speaks directly" to the regulation of greenhouse gas emissions from power plants. *Am. Elec. Power Co. v. Connecticut (AEP)*, 564 U.S. 410, 424 (2011). Four years later, the U.S. Environmental Protection Agency (EPA) issued a final rule, bolstered by a voluminous scientific record, determining that greenhouse gas emissions from fossil fuel-fired power plants contribute significantly to air pollution that endangers public health and welfare. Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64510, 64531 (Oct. 23, 2015) (2015 NSPS Rule). This determination was not a close call. Fossil fuel-fired power plants in the United States are one of the largest sources of greenhouse gas emissions in the world—and if these power plants were a country, they would be the *sixth-highest emitter on the planet*. Indeed, EPA found in 2024 that because of these power plants' "outsized contributions to overall emissions, reducing emissions from the power sector is essential to addressing the challenge of climate change." New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule, 89 Fed. Reg. 39798, 39800 (May 9, 2024) (Carbon Pollution Standards).

Yet, with the Supplemental Proposal, EPA advances an impermissible and judicially foreclosed interpretation of the Clean Air Act to eliminate all greenhouse gas standards for fossil fuel-fired power plants, turning its back on the overwhelming scientific consensus and abdicating its statutory obligation under section 111. As discussed below, the Supplemental Proposal flouts settled law, Supreme Court precedent, and climate science and will inflict tremendous environmental, public health, and economic harms across the United States. It must be withdrawn.

Section I of these comments describes the climate-related harms that the States and Local Governments are already experiencing and that will be exacerbated if EPA finalizes the Supplemental Proposal. This Section also documents how these harms disproportionately fall on communities that are already overburdened with environmental and public health harms, among other stressors. This Section further explains how many of the States and Local Governments have sought to address climate change harms by reducing greenhouse gas pollution from power plants and demonstrates how these actions have resulted in substantial carbon dioxide (CO_2) emission reductions while maintaining grid reliability and promoting affordable electricity. Section I concludes with an overview of EPA's fundamentally flawed rescission of the 2009 Endangerment Finding, Recission of the Greenhouse Gas Endangerment Finding and Motor Vehicle Greenhouse Gas Emission Standards Under the Clean Air Act, 91 Fed. Reg. 7686 (Feb. 18, 2026) (Endangerment Finding Rescission), and explains how, rather than correct course, EPA has doubled down on its incoherent and unsupportable statutory interpretations and scientific findings in the Supplemental Proposal.

Section II explains that the Supplemental Proposal—which proposes to conclude that section 111 of the Act does not authorize EPA to regulate emissions from fossil fuel-fired power plants "in response to global climate change concerns," 91 Fed. Reg. at 59004—is unlawful. As Section II explains, the Supreme Court and the D.C. Circuit have definitively interpreted the Clean Air Act's plain text, confirming that section 111 authorizes EPA to regulate greenhouse gases under the Act for the purpose of addressing climate change impacts. EPA's attempts to rewrite the Clean Air Act and overrule binding precedent have no basis in fact or law and must fail. Section 111 plainly is not limited to regulating air pollution that itself endangers public health or welfare through local or regional exposure; EPA misconstrues precedent; the major questions, nondelegation, and constitutional avoidance doctrines are inapposite; and EPA's findings in the 2015 NSPS Rule, reaffirmed in the Carbon Pollution Standards, are valid. Section II also details how EPA's futility analysis is scientifically flawed and irrational, and in any event, would not justify EPA's failure to regulate.

Section III demonstrates that EPA's Supplemental Proposal is arbitrary and capricious in myriad ways. For one, EPA Administrator Zeldin's intemperate, unequivocal statements opposing any greenhouse gas regulations for power plants indicate a prejudged, political outcome, rendering EPA's proffered rationales for the Supplemental Proposal wholly pretextual. Moreover, EPA neglects to meaningfully assess the Supplemental Proposal's real-world impacts, including the emissions impacts in the United States of failing to regulate existing power plants indefinitely into the future. EPA also fails to evaluate how the Supplemental Proposal would impact energy reliability and affordability—and a proper assessment would have revealed that the Supplemental Proposal would adversely impact both.

Section IV explains that the Supplemental Proposal is procedurally flawed in multiple respects. Specifically, EPA failed to provide a meaningful opportunity for comment; explain if

and how it plans to employ artificial intelligence in the decisionmaking process; or explain its deviation from pertinent findings of the National Academy of Sciences.

Section V shows how the Economic Impact Analysis accompanying the Supplemental Proposal is seriously flawed. Fundamentally, the Economic Impact Analysis fails to consider the actual impacts of the Supplemental Proposal, as it assesses only the limited impact of removing existing greenhouse gas emission regulations. As Section V explains, the Supplemental Proposal, if finalized, would preclude *all* future greenhouse gas emission standards for fossil fuel-fired power plants, a far more consequential deregulatory action. Moreover, EPA has assigned a value of zero to emission reductions of CO_2, ozone precursors, and particulate matter, expressing vague concerns regarding the purported uncertainty of valuation methodologies, but failing to demonstrate that a value of "zero" is more accurate than the use of the robust methodologies that both EPA and independent researchers have developed. These flaws in the Economic Impact Analysis render the Supplemental Proposal unreasonable and arbitrary and capricious.

Finally, **Section VI** explains that EPA's analysis of preemption and displacement is woefully misguided, and EPA's position that it lacks legal authority to regulate greenhouse gas emissions from power plants is patently inconsistent with the United States's assurances to courts across the country, including the U.S. Supreme Court, that EPA alone has authority to regulate such emissions. If EPA finalizes the Supplemental Proposal, the States and Local Governments are prepared to use all available means to protect public health and welfare from greenhouse gas emissions from fossil fuel-fired power plants.

For these reasons, described in detail herein, EPA must abandon its unlawful and misguided Supplemental Proposal.

I. Background

As the National Academies of Science, Engineering, and Medicine (NASEM) concluded in a September 2025 consensus study report, it is unequivocal that human-caused greenhouse gas emissions are warming the Earth's surface and changing the Earth's climate, resulting in harm to the health and welfare of the people of the United States.[1] In that same report, NASEM warned that "[c]ontinued emissions of greenhouse gases from human activities will lead to more climate changes in the United States, with the severity of expected change increasing with every ton of greenhouse gases emitted."[2] As total global greenhouse gas emissions continue to rise, "additional warming is certain . . . increas[ing] the likelihood of passing thresholds in Earth

[1] NASEM, Effects of Human-Caused Greenhouse Gas Emissions on U.S. Climate, Health, and Welfare 1–2 (2025), https://www.nationalacademies.org/projects/NRCEO-CCX-25-02/about [hereinafter NASEM 2025 Climate Report].

[2] *Id.* at 2.

systems that could trigger tipping points of other high-impact climate surprises."[3] Crucially, NASEM concluded that "EPA's 2009 finding that the human-caused emissions of greenhouse gases threaten human health and welfare was accurate, has stood the test of time, and is now reinforced by even stronger evidence."[4]

Despite this unequivocal evidence, and the increasingly devastating climate harms experienced by the States and Local Governments, EPA intends to respond to the worsening climate crisis by *eliminating* all greenhouse gas limits on fossil fuel-fired power plants under section 111 of the Clean Air Act. EPA posits that section 111 does not authorize the Agency to regulate emissions from fossil fuel-fired power plants in response to global climate change concerns, citing rationales that are largely copied and pasted from EPA's fundamentally flawed rescission of the 2009 Endangerment Finding. EPA's Supplemental Proposal has no basis in fact or law, would result in large-scale emission increases that will harm the States and Local Governments, and is an unlawful abdication of EPA's responsibility under the Clean Air Act to protect public health and welfare.

A. Climate Change Harms to States and Local Governments

As detailed in comments on EPA's 2025 proposed rule to eliminate, or in the alternative, roll back, greenhouse gas emission limits for new and existing power plants, Repeal of Greenhouse Gas Emission Standards for Fossil Fuel-Fired Electric Generating Units, 90 Fed. Reg. 25752 (June 17, 2025) (2025 Proposal), the States and Local Governments are already experiencing climate change harms—ranging from torrential rainfall in Western North Carolina from Hurricane Helene to catastrophic fires in Southern California—that will only be exacerbated by EPA's Supplemental Proposal.[5] Since submitting those comments in August 2025, the States and Local Governments have continued to endure unprecedented extreme weather events:

- From March 10 through March 24, 2026, back-to-back severe low-pressure storms (known as Kona Low storms) produced widespread flooding, landslides, and power outages to homes and critical infrastructure across the Hawaiian Islands, resulting in at least $1 billion dollars in damages.[6] On Oahu's North Shore, thousands of residents were evacuated when the island experienced its

[3] *Id.*

[4] *Id.* at 1.

[5] *See* Comments of Att'ys Gen. of N.Y. et al., Doc. ID No. EPA-HQ-OAR-2025-0124-2389, at 5–10 (Aug. 7, 2025) (attached hereto as Exhibit 1) [hereinafter States' 2025 Comments]; *see also id.*, app. 1 (attached hereto as Exhibit 2) (detailing the climate change-related harms experienced by the States and Local Governments).

[6] *See Back-To-Back Kona Low Storms*, CIRA Satellite Libr., https://perma.cc/KD6N-FTWZ (last visited Oct. 29, 2026).

worst flooding in 20 years, and officials feared that a 120-year-old dam was at risk of failing.[7] A few months later, from August 27 through September 1, 2026, warmer ocean temperatures—made over 60 times more likely because of human-caused climate change—fueled Hurricane Lowell, which brought over 16 inches of rain to Kauai and prompted the first-ever tornado watch issued for Hawai'i.[8]

- In the winter and spring of 2026, Colorado set historic monthly lows for statewide snowpack, with snowpack at 16% of its historic median in late May.[9] Coupled with Colorado's ongoing drought, this reduction in snowpack could imperil the state's water supply, as Colorado relies on melting snowpack for both daily water consumption and agriculture.[10]

- In Oregon, wildfires have burned over 2.1 million acres so far in 2026, a record high, and firefighting costs topped $235 million, also a record, all following record low statewide snowpack last winter.[11]

- During the summer of 2026, New York City experienced several extreme rainfall events resulting in flash flooding, with these "fast and furious deluges" overwhelming the City's subway system.[12] Just this summer, Central Park recorded 16.92 inches of rain from June to August, according to the National Weather Service—about 3.5 inches above normal, with heavy rainfall contributing to repeated flooding in neighborhoods across the city.[13]

- New Jersey also experienced devastating storms and floods, along with life-threatening extreme heat events, in the summer of 2026. Over the last 30 years, New Jersey has averaged 41 severe thunderstorm warnings each July, but in July

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[7] *Id.*; Jennifer Sinco Kelleher & Audrey McAvoy, *230 People Are Rescued as Flash Flooding Hits Hawaii and Officials Warn 120-Year-Old Dam Could Fail*, AP News (Mar. 21, 2026, at 12:40 AM), https://perma.cc/CS42-34XE.

[8] *Climate Shift Index Alert: Hurricane Lowell's Torrential Hawaii Rainfall Linked to Climate Change Boosted Pacific Warmth*, ClimateCentral (Sep. 8, 2026), https://perma.cc/MF5Y-WLFR.

[9] *Colorado Snowpack Products*, USDA Nat. Res. Conserv. Serv. & Nat'l Water & Climate Ctr., https://perma.cc/S3CV-7H59 (last visited Oct. 29, 2026).

[10] *National Conditions: Colorado*, NOAA Nat'l Integrated Drought Info. Sys., https://perma.cc/N22M-W6BY (last visited Oct. 29, 2026).

[11] Casey Frizzell, *Fewer Fires, Record Damage: Oregon's 2026 Wildfire Season by the Numbers*, Ore. Pub. Radio (Oct. 26, 2026, at 11:35 AM), https://perma.cc/PK62-KWBW.

[12] Hilary Howard, *New York Is Expecting Soaking Rain Again. Here's What to Know*, N.Y. Times (Sep. 25, 2026), https://perma.cc/EUL6-V9MC.

[13] *New York City Just Saw Its Wettest Summer in 5 Years*, NY1 Spectrum News (Sep. 1, 2026, 11:30 AM), https://perma.cc/UTU3-DHBK.

2026, the National Weather Service issued 105 severe thunderstorm warnings across New Jersey—nearly triple the average.[14] New Jersey also experienced a substantial increase in flash flood warnings this summer, including 13 in June, 57 in July, and 56 in August.[15] By the end of July, the National Weather Service had confirmed a total of five tornadoes in New Jersey—a considerable increase from the annual average of two per year.[16] And in mid-July 2026, temperatures reached as high as 108°F across the state during a multiday heatwave, leading to at least 29 weather-related deaths.[17]

- On July 7, 2026, wildfires erupted in Minnesota's northern forests in and near the Boundary Waters Canoe Area Wilderness, with fire activity expanding rapidly in the following days as high temperatures blanketed the region.[18] On July 16, 2026, an air quality monitor in Duluth, Minnesota recorded a daily air quality index of 934—over three times greater than the previous record in Minnesota and more than three times the threshold considered "hazardous" by the EPA.[19] Within the 10-day period when air quality levels were at their worst during the wildfires, the Minnesota Department of Health reported that emergency department visits related to respiratory concerns increased 28% in northeast Minnesota.[20]

- In July 2026, wildfire smoke again blanketed the Midwest and Northeast, with the City of Chicago experiencing the worst air quality in the world on July 16, 2026, reaching an air quality index of 402.[21] During that same wildfire smoke event, a

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[14] Len Melisurgo, *N.J. Sees Big Surge in Severe Thunderstorm Warmings, Flood Alerts This Summer. Here's Why.*, NJ.com (Aug. 19, 2026, 11:11 AM), https://perma.cc/B7UT-QHTR.

[15] *Id*. August 2026 data confirmed via October 23, 2026, email correspondence between the New Jersey Department of Environmental Protection with Mathieu Gerbush, Assistant State Climatologist, New Jersey State Climate Office, Rutgers University.

[16] Jennifer Millman & Tom Shea, *EF What? National Weather Service Confirms 5 Tornadoes Touched Down in NJ, NY*, NBC News 4: N.Y. (July 23, 2026, 05:59 AM), https://perma.cc/6MJU-EAXH; *see also Tornadoes in New Jersey: 1950 to Present*, Off. of the N.J. State Climatologist, Rutgers N.J. Agric. Experiment Station, https://perma.cc/75UG-MU4Y (last visited Oct. 29, 2026).

[17] Joanna Gagis & Katie Crist, *Heat-Related Deaths Spike in NJ During Record Temperatures*, NJ Spotlight News (July 15, 2026), https://perma.cc/WJ4P-3J3K.

[18] *Dangerous Smoke Outbreak, July 14-17, 2026*, Minn. Dep't of Nat. Res. (July 16, 2026), https://perma.cc/LAW9-G4AT.

[19] Jeff Masters, *Dangerous and Historic Wildfire Smoke Pollution Event Engulfs the U.S. and Canada*, Yale Climate Connections (July 17, 2026), https://perma.cc/RZY7-CTU7.

[20] Jeremy Olson, *Hospitals Saw Big Increases in ER Visits During Worst of Wildfires this Month*, Minn. Star Trib. (July 29, 2026), https://perma.cc/F9TD-NGNW.

[21] James Neveau, *Chicago Air Quality the Worst in the World due to Wildfire Smoke, Data Shows*, NBC Chi. (July 16, 2026, 04:34 PM), https://perma.cc/5KC6-GVLW.

private air quality monitor in Detroit, Michigan registered an air quality index of 600, twice the level considered "hazardous" by EPA.[22]

Indeed, after extreme heat, wildfire smoke is rapidly becoming one of the most pernicious climate-related public health harms affecting the nation. As noted in our comments on EPA's 2025 Proposal, fine particulate pollution ($PM_{2.5}$) from wildfires caused approximately 15,000 premature deaths in the United States from 2006 to 2020, disproportionately impacting communities in the West and Midwest.[23] A subsequent study found that $PM_{2.5}$ from wildfire smoke could result in 71,420 excess deaths per year in the United States by 2050—a 73% increase in average annual excess deaths relative to the average annual deaths from 2011 to 2020—with cumulative excess deaths potentially reaching 1.9 million between 2026 and 2055.[24] The study also found that mortality from $PM_{2.5}$ from wildfire smoke could occur up to three years after exposure, suggesting that the public health impacts of wildfire smoke could be among the most significant consequences of a warming climate in the United States.[25]

Not only do climate-related disasters harm human health and welfare, but they also impose tremendous costs on the States and Local Governments. In a dataset beginning in 1980, the years 2023, 2024, and 2025 have seen the highest number of billion-dollar weather and climate disaster events, including droughts, fires, tornado outbreaks, and floods.[26] The United States experienced 23 billion-dollar weather and climate disasters in 2025,[27] the same year that the National Weather Service issued a record number of flash flood warnings.[28] In 2026, from January through September, the United States saw 21 separate billion-dollar weather and climate

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[22] Joseph Ax & Eric Cox, *Canada Wildfire Smoke Blankets US Midwest, Northeast with Hazardous Air*, Reuters (July 17, 2026), https://perma.cc/99ZS-J3SB.

[23] Beverly E. Law et al., *Anthropogenic Climate Change Contributes to Wildfire Particulate Matter and Related Mortality in the United States*, 6 Commc'ns Earth & Env't, 1, 2 (2025).

[24] Minghao Qiu et al., *Wildfire Smoke Exposure and Mortality Burden in the USA Under Climate Change*, 647 Nature 935 (2025).

[25] *Id.*

[26] *Time Series: U.S. Billion-Dollar Weather and Climate Disasters*, Climate Cent., https://www.climatecentral.org/climate-services/billion-dollar-disasters/time-series (last visited Oct. 29, 2026). From 1980 to June 2026, the United States experienced 438 extreme weather events in which overall damages reached or exceeded $1 billion (including CPI adjustment to 2024). In total, these 438 events caused over $3.2 trillion in damages. *Id*.

[27] *Id.*

[28] Carly Cassady, *2025 Is Now the Most Flash Flood-Warned Year to Date*, Baron Weather (Aug. 1, 2025), https://perma.cc/29ZR-WHEX.

disasters, including extreme flooding from storms in Hawai‘i, tornado outbreaks and severe storms throughout the eastern Great Plains and Midwest, and a winter freeze affecting Florida.[29]

Increasingly robust attribution science makes clear that climate change is affecting the intensity, frequency, and impact of extreme weather events impacting the States and Local Governments. A March 2026 analysis of over 900 peer-reviewed studies covering almost 1,000 extreme weather events and trends across the world, found that 85% of the specific events and trends were influenced by human-caused climate change and 77% were made more likely or severe.[30] Likewise, 90 out of 124 (73%) peer-reviewed attribution studies of specific extreme weather events in the United States found that climate change increased the likelihood or severity of the event in question.[31]

Peer-reviewed studies monetizing the impacts of climate change have also proliferated in recent years. One such study, published in 2026, sought to link past and future emissions from specific sources to monetized, location-specific damages.[32] The study found that one metric ton of CO_2 emitted in 1990 caused an estimated $180 in discounted global damages by 2020 and will cause an additional $1,840 in damages through 2100.[33] Likewise, a 2025 study estimated that localized temperature shifts caused by climate change reduced the annual U.S. income by 0.32% from 2000 to 2019, with losses concentrated in the Great Plains and Midwest.[34] Taking a broader view, that same study found that, in total, climate change could have already reduced the annual U.S. income by 12%.[35]

B. Adverse Impacts to Communities with Environmental Justice Concerns

The innumerable adverse climate, environmental, and public health impacts resulting from increased greenhouse gas emissions and co-pollutants from fossil fuel-fired power plants will be especially pronounced in communities with environmental justice concerns.[36] In the 2015 NSPS

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[29] *U.S. Billion-Dollar Weather and Climate Disasters*, Climate Cent., https://perma.cc/Y4SN-5TSR (last visited Oct. 29, 2026).

[30] Robert McSweeney & Ayesha Tandon, *Mapped: How Climate Change Affects Extreme Weather Around the World*, CarbonBrief (Mar. 19, 2026), https://interactive.carbonbrief.org/attribution-studies/index.html.

[31] *United States of America*, CarbonBrief, https://perma.cc/U65V-7X5K (last visited Oct. 29, 2026).

[32] Marshall Burke et al., *Quantifying Climate Loss and Damage Consistent with a Social Cost of Carbon*, 651 Nature 959 (2026).

[33] *Id.*

[34] Derek Lemoine, *Climate Change Has Already Made the United States Poorer*, 122 PNAS 1, 2 (2025).

[35] *Id.*

[36] Yuqiang Zhang et al., *Co-benefits of Global, Domestic, and Sectoral Greenhouse Gas Mitigation for US Air Quality and Human Health in 2050*, 12 Env't Rsch. Letters 1, 1–2 (2017) ("Many studies have

Rule, EPA pointed to the record for the 2009 Endangerment Finding, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66496, 66506 (Dec. 15, 2009) (2009 Endangerment Finding), as "summariz[ing] the strong scientific evidence . . . that the potential impacts of climate change raise environmental justice issues," 80 Fed. Reg. at 64647. EPA's consideration of greenhouse gas emissions' effects on public health and welfare in the 2009 Endangerment Finding included analysis of risks to "vulnerable subpopulations," such as low-income communities, children and older adults, people with disabilities, and Indigenous communities, who "face serious health risks as a result of climate change." 74 Fed. Reg. at 66506.[37] In the 2015 NSPS Rule, EPA found that the "most recent assessments continue to strengthen scientific understanding of climate change risks to minority and low-income populations in the United States" for whom "[e]xisting health disparities and other inequities . . . increase their vulnerability to the health effects of climate change." 80 Fed. Reg. at 64647. In that rule, EPA once again affirmed that "climate change poses particular threats to health, wellbeing, and ways of life of indigenous peoples in the United States." *Id.*

Evidence-based studies and lived experiences continue to demonstrate that certain populations and communities most commonly and acutely experience both environmental injustice and the harms associated with climate change. These populations include communities of color;[38] Indigenous people and Tribal nations;[39] low-income,[40] rural, [41] and unincorporated

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also investigated the co-benefits of greenhouse gas (GHG) mitigation for air quality and avoided premature mortality, as actions to reduce GHG emissions also tend to reduce co-emitted air pollutants." (citations omitted)); *see also* N.Y.C. Mayor's Off. of Climate & Env't Just., EJNYC: A Study of Environmental Justice Issues in New York City 81–83 (2024), https://perma.cc/KXM5-K5S8.

[37] *See also* EPA, Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act 129–30 (Dec. 2009), https://perma.cc/B7W5-XNRJ.

[38] Christopher W. Tessum et al., *$PM_{2.5}$ Polluters Disproportionately and Systemically Affect People of Color in the United States*, 7 Sci. Advances 1 (2021); *see also* United Church of Christ Comm'n for Racial Just., Toxic Wastes and Race in the United States: A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites (1987), https://perma.cc/MN2L-RCUT; United Church of Christ Just. & Witness Ministries, Toxic Wastes and Race at Twenty, 1987–2007 (2007), https://perma.cc/MG5T-FRHH.

[39] U.N. Special Rapporteur, End of Mission Statement by the United Nations Special Rapporteur on the Rights of Indigenous Peoples, Victoria Tauli-Corpuz of Her Visit to the United States of America (2017), https://perma.cc/XSW8-6E38.

[40] Ihab Mikati et al., *Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status*, 108 Am. J. Pub. Health 1 (2018); Qian Di et al., *Air Pollution and Mortality in the Medicare Population*, 376 New Eng. J. Med. 1 (2017).

[41] Monica Sanders, *Understanding Environmental Justice in Rural Communities*, Forbes (Aug. 26, 2024, 09:30 AM), https://perma.cc/QZ4R-3YXL.

communities;[42] unhoused people,[43] communities in which a high proportion of residents speak a language other than English;[44] people with disabilities;[45] and LGBTQ+ people,[46] as well as children and older adults.[47] Many of these groups are more likely to face cumulative burdens as a result of historic and ongoing disproportionate siting of pollution sources,[48] underinvestment,[49] and lack of access to essential utilities, goods, and services, including access to food,[50] clean

[42] Cristina Gomez-Vidal & Anu Manchikanti Gomez, *Invisible and Unequal: Unincorporated Community Status as a Structural Determinant of Health*, 285 Soc. Sci. & Med. 1 (2021).

[43] Kayla Minton Kaufman, *Dual Hazards of Homelessness and Climate Change*, Geo. Env't L. Rev. Blog (Mar. 7, 2024), https://perma.cc/WQR7-EA5D.

[44] Kelvin C. Fong et al., *The Intersection of Immigrant and Environmental Health: A Scoping Review of Observational Population Exposure and Epidemiologic Studies*, 130 Env't Health Persps. 1 (2022).

[45] Jayajit Chakraborty, *Disparities in Exposure to Fine Particulate Air Pollution for People with Disabilities in the US*, 842 Sci. Total Env't 1 (2022); NASEM, Constructing Valid Geospatial Tools for Environmental Justice, 38–39 (NASEM Press 2024); Cadeyrn J. Gaskin et al., *Factors Associated with the Climate Change Vulnerability and the Adaptive Capacity of People with Disability: A Systematic Review*, 9 Weather, Climate & Soc'y 801 (2017).

[46] Samuel Mann et al., *Climate Change-Related Disasters & the Health of LGBTQ+ Populations*, 18 J. Climate Change & Health 1 (2024) (pointing to geographic proximity and structural inequalities as exacerbating risk from climate impacts for LGBTQ+ people).

[47] Marina Romanello et al., *The 2024 Report of the Lancet Countdown on Health and Climate Change: Facing Record-Breaking Threats from Delayed Action*, 404 Lancet 1847 (2024).

[48] *See* Ana Isabel Baptista et al., Tishman Env't & Design Ctr. at the New Sch., U.S. Municipal Solid Waste Incinerators: An Industry in Decline 13–16 (May 2019), https://perma.cc/DY7T-ZLQL; Jill Johnston & Lara Cushing, *Chemical Exposures, Health, and Environmental Justice in Communities Living on the Fenceline of Industry*, 7 Current Env't Health Rep. 48 (2020); *see also* Ctr. for Sustainable Sys., Univ. of Mich., Pub. No. CSS17-16, U.S. Environmental Justice Factsheet 1 (2024), https://perma.cc/53XA-G395.

[49] *See* David J. Novak et al., *The Disparity in Tree Cover and Ecosystem Service Values Among Redlining Classes in the United States*, 221 Landscape & Urb. Plan. 1 (2022); *see also* Ctr. for Sustainable Sys., U.S. Environmental Justice Factsheet, *supra* note 48, at 1.

[50] *See* Mari Gallagher Rsch. & Consulting Grp., Good Food: Examining the Impact of Food Deserts on Public Health in Chicago; Executive Summary 2, 4 (2006), https://perma.cc/8QR5-QT7K; Philip J. Landrigan et al., *Environmental Justice and the Health of Children*, 77 Mt. Sinai J. Med. 178, 179 (2010).

water,[51] energy,[52] healthcare,[53] and transportation,[54] all of which impede a community's ability to respond to and recover from extreme weather events caused by climate change.

Climate change continues to increase the frequency and severity of extreme temperature events,[55] and EPA has projected that heat-related mortality will increase even more in communities with environmental justice concerns.[56] For example, climate researchers have identified links between past federal housing policies and present day climate stressors, finding surface temperatures in formerly redlined communities across the country to be an average of 2.6 degrees Celsius (°C) (4.7 degrees Fahrenheit (°F)) warmer than in non-redlined areas due to less tree canopy, more impervious surfaces, and other features of urban built environments.[57] Low-income and Native households and households of color are more likely to face challenges with weatherization[58] and energy affordability,[59] resulting in forgoing necessities such as food

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[51] DigDeep Right to Water Project & U.S. Water All., Closing the Water Access Gap in the United States: A National Action Plan 20–25 (2019), https://perma.cc/QF2Q-U5CW.

[52] Am. Council for an Energy-Efficient Econ. (ACEEE), Toward Affordable Energy Access: Approaches to Reducing Energy Unaffordability, Arrearages, and Shutoff 1–2 (Oct. 2023), https://perma.cc/7QT9-549R.

[53] Michael Gochfeld & Joanna Burger, *Disproportionate Exposures in Environmental Justice and Other Populations: The Importance of Outliers*, 101 Am. J. Pub. Health S53 (2011); Philip J. Landrigan et al., *supra* note 50, at 179.

[54] Robert D. Bullard, *Addressing Urban Transportation Equity in the United States*, 31 Fordham Urb. L. J. 1183, 1183–84 (2003).

[55] Intergovernmental Panel on Climate Change (IPCC), *2023: Summary for Policymakers, in* Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change 12, 14 (2023), https://perma.cc/TR5X-BCLZ [hereinafter 2023 IPCC Synthesis Report]; IPCC, *2022: Summary for Policymakers*, *in* Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change at 9, 13 (2022), https://perma.cc/E3HL-9B2Q.

[56] EPA, Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts 35 (Sep. 2021), https://perma.cc/W4EY-VBK2 [hereinafter Climate Change and Social Vulnerability] ("In the cities analyzed, minorities and those with low income are more likely than non-minorities and those with higher income to currently live in areas with the highest projected increases in temperature mortality from climate-driven changes in extreme temperatures.").

[57] Thomas Matte et al., *NPCC4: Climate Change and New York City's Health Risk*, 1539 Annals N.Y. Acad. Scis. 185, 192–93 (2024); *see also* Jeremy Hoffman et al., *The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas*, 8 Climate 1, 2, 9–11 (2020).

[58] *See* Luling Huang et al., *Inequalities Across Cooling and Heating in Households: Energy Equity Gaps*, 182 Energy Pol'y 1, 10 (2023).

[59] *See* Claire McKenna et al., *Heating with Justice: Barriers and Solutions to a Just Energy Transition in Cold Climates*, 208 Res., Conserv. & Recycling 1 (2024); Marilyn Ann Brown et al., Oak Ridge Nat'l Lab'y, U.S. Dep't of Energy, ORNL/TM-2019/1150, Low-Income Energy Affordability: Conclusions

and healthcare to afford their energy bills[60] and keeping homes at unsafe temperatures,[61] with a range of adverse health outcomes.[62] People with disabilities and seniors are also more likely to experience energy insecurity, as they may lack the resources to address greater risks from extreme temperatures and a lack of electricity.[63] The increasing frequency and intensity of extreme temperatures are also projected to cause labor disruptions in sectors where people work outdoors or in indoor environments without air conditioning, leading to lost wages for already low-income populations and forcing workers to choose between losing essential pay and working in unsafe conditions.[64] Those same workers (and their families) are less likely to have access to quality healthcare, rendering them even more vulnerable to health risks from heat exposure.[65]

Communities with environmental justice concerns—such as communities of color, low-income and Indigenous communities, and people with disabilities—are also disproportionately vulnerable to extreme weather events. Climate change will continue to cause an increase in the frequency and severity of extreme weather events and natural disasters in every region of the United States.[66] Longstanding inequities continue to shape risk as decades of disinvestment in historically redlined communities have led to both greater flood risk and fewer federal and local

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from a Literature Review (2020), https://perma.cc/4982-5GQL; Ariel Drehobl et al., ACEEE, How High are Household Energy Burdens?: An Assessment of National and Metropolitan Energy Burden Across the United States, at iii–iv (2020), https://perma.cc/3WTY-6X8G.

[60] Dominic J. Bednar & Tony G. Reames, *Recognition of and Response to Energy Poverty in the United States*, 5 Nat. Energy 432, 432 (2020); N.Y.C. Mayor's Off. of Sustainability & N.Y.C. Mayor's Off. for Econ. Opportunity, Understanding and Alleviating Energy Cost Burden in New York City (Aug. 2019), https://perma.cc/2MU5-FLQM.

[61] Shuchen Cong et al., *Unveiling Hidden Energy Poverty Using the Energy Equity Gap*, 13 Nature Commc'ns 1, 2 (2022) ("As the effects of climate change manifest themselves in heatwaves and deep freezes, communities will need to adapt (i.e., reduce their risk of illness and death) by creating comfortable indoor temperatures within their homes. However . . . many vulnerable households who limit their energy consumption, potentially putting themselves at risk of heatstroke or hypothermia, may not qualify for energy poverty alleviation under current programs." (citations omitted)).

[62] *See, e.g.*, Sally Ann Iverson et al., *Heat-Associated Mortality in a Hot Climate: Maricopa County, Arizona, 2006-2016*, 135 Pub. Health Reps. 631, 631–39 (2020); Alan Barreca et al., *Adapting to Climate Change: The Remarkable Decline in the US Temperature-Mortality Relationship over the Twentieth Century*, 124 J. Pol. Econ. 1 (2016).

[63] Carli Friedman, *Unsafe Temperatures, Going Without Necessities, and Unpayable Bills: Energy Insecurity of People with Disabilities in the United States During the COVID-19 Pandemic*, 92 Energy Rsch. & Soc. Sci. 1 (2022); Marquisha Johns et al., *Protecting Older Adults from the Growing Threats of Extreme Heat*, Ctr. for Am. Progress (Aug. 22, 2024), https://perma.cc/874F-ETUW.

[64] Climate Change and Social Vulnerability, *supra* note 56, at 38.

[65] *Id.*

[66] 2023 IPCC Synthesis Report, *supra* note 55, at 5, 13–17 ("Between 2010 and 2020, human mortality from floods, droughts and storms was 15 times higher in highly vulnerable regions, compared to regions with very low vulnerability.").

funds allocated for flood protection.[67] Communities with environmental justice concerns also have access to fewer resources necessary for recovery, both due to income inequality and disparities in access to post-disaster resources.[68]

Climate change also increases threats from infectious diseases[69] and threatens food and water safety and security for Indigenous populations, many of whom rely "on the environment for sustenance or [] live in geographically isolated or impoverished communities" and so will "experience greater exposure and lower resilience to climate related health effects."[70] The impacts of climate change are particularly stark for people with disabilities, who face disproportionate health risks,[71] are often not fully considered in disaster planning, and are far more likely to be displaced by extreme weather events.[72] The climate change-fueled increase in extreme precipitation events will lead to increased exposure to water-borne pollutants and illnesses,[73] to which communities with environmental justice concerns are also particularly vulnerable.[74]

In addition to emitting the greenhouse gas emissions that exacerbate climate change, power plants emit particulate matter (PM), carbon monoxide, mercury, sulfur dioxide (SO_2), and

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[67] *See* Sheila Foster et al., *NPCC4: Advancing Climate Justice in Climate Adaptation Strategies for New York City*, 1539 Annals N.Y. Acad. Scis. 77, 94 (2024).

[68] *See, e.g.*, Christopher Flavelle, *Why Does Disaster Aid Often Favor White People?*, N.Y. Times (Oct. 27, 2021), https://perma.cc/BN2A-X9E5; Nat'l Council on Disability, The Impacts of Extreme Weather Events on People with Disabilities 9–11 (2023), https://perma.cc/C9DK-D624/.

[69] 2023 IPCC Synthesis Report, *supra* note 55, at 6–7, 15; Janet Gamble et al., U.S. Glob. Change Rsch. Program, The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment, Ch. 9: Populations of Concern 253 (2016), https://perma.cc/K67Q-CEFW (describing the impacts of climate change on vector-borne diseases and water-related illness).

[70] Gamble et al., *supra* note 69, at 253.

[71] Nakyung Rhim et al., *Adverse Health Effects of Climate Change and Air Pollution in People with Disabilities: A Systematic Review*, 46 Epidemiology & Health (2024).

[72] Ash Reynolds, *Disability Amid Disaster: People with Disabilities Are Disproportionately Impacted by Natural Disasters*, NBC News (Feb. 23, 2025, 3:10 PM), https://perma.cc/ZXQ7-EVXK.

[73] Juli Trtanj et al., U.S. Glob. Change Rsch. Program, The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment; Chapter 6: Climate Impacts on Water-Related Illnesses 158 (2016), https://perma.cc/KN87-6HF7.

[74] *Id.* at 170 ("Climate change impacts on the drinking water exposure pathway . . . will act as an additional stressor on top of existing exposure disparities in the United States. Lack of consistent access to potable drinking water . . . disproportionately affects the following populations: tribes and Alaska Natives . . . , residents of low-income rural subdivisions known as colonias along the U.S.-Mexico border; migrant farm workers; the homeless; and low-income communities not served by public water utilities . . . some of which are predominantly Hispanic or Latino and Black or African American communities in certain regions of the country." (citations omitted)).

nitrogen oxides (NO_x).[75] NO_x and SO_2 also contribute to the formation of acid rain and fine particulate matter, while NO_x contributes to the formation of ground-level ozone.[76] Power plant emissions are also associated with particularly significant adverse health consequences for nearby communities, including respiratory and cardiovascular diseases.[77] And the communities living in close proximity to power plants are disproportionately communities with environmental justice concerns,[78] many of whom also experience disparities in health care access.[79]

These harmful effects are mitigated when actions are taken to cut greenhouse gas emissions.[80] The failure to reduce greenhouse gas emissions and associated co-pollutants therefore perpetuates the disproportionate impact that these pollutants have on communities with environmental justice concerns. The adverse health consequences associated with these emissions will increase in severity as the warming climate functions as a threat multiplier to

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[75] *Power Plants and Neighboring Communities*, EPA (Feb. 19, 2026), https://perma.cc/N6QL-W5BS; Juan Declet-Barreto & Andrew A. Rosenberg, *Environmental Justice and Power Plant Emissions in the Regional Greenhouse Gas Initiative States*, 17 PLoS ONE 2 (2022) ("Electricity generation constitutes 64 percent of SO_2 emissions, 14 percent of NO_x emissions, 3.4 percent of $PM_{2.5}$ emissions, and 1.4 percent of PM_{10} emissions in the U.S.").

[76] *Electric Power Sector Basics*, EPA (Feb. 26, 2026), https://perma.cc/GYG6-3M2T.

[77] *Id.*; *see also* Gamble et al., *supra* note 69, at 253; Emanuele Massetti et al., Oak Ridge Nat'l Lab'y, U.S. Dep't of Energy, Environmental Quality and the U.S. Power Sector: Air Quality, Water Quality, Land Use and Environmental Justice 84 (2017), https://perma.cc/X5PA-JCRB ("Power plants are the largest U.S. source of several harmful pollutants. . . . At sufficient levels of exposure, these pollutants can cause a range of health effects including cancer; irritation of the lungs, skin, and mucous membranes; effects on the central nervous system such as memory and IQ loss and learning disabilities; damage to the kidneys; and other acute health disorders. Additionally, power plants are significant sources of criteria air pollutants, which cause premature mortality for adults, chronic and acute bronchitis, childhood asthma attacks, and exacerbate other respiratory and cardiovascular diseases." (citations omitted)).

[78] Massetti et al., *supra* note 77, at 84 ("The minority share of the population living within a three-mile buffer is higher than the national average by 12 percentage points, or 37%. In these same areas, the percent of the population below the poverty line is also higher than the national average by 4 percentage points, or 17%.") (citations omitted)); Declet-Barreto & Rosenberg, *supra* note 75, at 1 ("We find that in RGGI states the percentage of people of color that live within 0–6.2 miles from power plants is up to 23.5 percent higher than the percent of the white population that lives within those same distance bands, and the percentage of people living in poverty that live within 0–5 miles from power plants is up to 15.3 percent higher than the percent of the population not living in poverty within those same distance bands.").

[79] Gochfeld & Burger, *supra* note 53, at S53 ("Disparities in access to health information and health care are important aspects of the disproportionate burden faced by environmental justice communities. . . . . Limited access to medical care . . . adds to their already disproportionate risk of exposure to chemicals." (citations omitted)).

[80] Zhang et al., *supra* note 36, at 2; Sarah Whitmee et al., *Pathways to a Healthy Net-Zero Future: Report of the Lancet Pathfinder Commission*, 403 Lancet 67 (2024).

exacerbate both environmental risk[81] and economic inequality.[82] The combined increases in both greenhouse gas emissions and co-pollutants resulting from EPA's failure to regulate power plants would therefore result in substantial harms to a wide range of communities with environmental justice concerns.

C. Power Plant Greenhouse Gas Emissions

As discussed in the States' 2025 Comments, the States and Local Governments have for decades advocated for federal standards limiting emissions of greenhouse gases from power plants to protect their residents, infrastructure, and natural resources. *See* States' 2025 Comments, *supra* note 5, at 19–22. Likewise, because they are on the front lines of the climate crisis, the States and Local Governments have also been at the forefront of developing practical solutions to reduce emissions from the largest stationary sources within their borders, demonstrating that it is possible to achieve meaningful reductions in power sector carbon pollution while maintaining grid reliability, lowering costs, and supporting economic growth.

1. State and municipal advocacy for federal standards to limit power plant greenhouse gas emissions

The States and Local Governments rely on robust federal regulation of greenhouse gas pollution from power plants, the largest domestic category of stationary-source emissions, to help protect against climate harms. Although the States and Local Governments have taken significant steps to limit these emissions, national emission standards are necessary to address climate change. In ruling that the significant greenhouse gas pollution caused by fossil fuel-fired power plants is subject to regulation under section 111 of the Clean Air Act, the Supreme Court determined EPA to be "best suited to serve as primary regulator of greenhouse gas emissions." *AEP*, 564 U.S. at 428.

Many of the same States and Local Governments sued EPA two decades ago for failing to establish emission standards and guidelines for carbon dioxide from new and existing power plants under section 111 of the Act. *See New York v. EPA*, No. 06-1322 (D.C. Cir. Sep. 13, 2006). After the Supreme Court decided *Massachusetts v. EPA*, the D.C. Circuit remanded *New York* to the agency for further proceedings in light of that case. Per Curiam Order, *New York v. EPA*, No. 06-1322 (D.C. Cir. Sep. 24, 2007), Dkt. No. 1068502. In 2010, the parties settled *New York* after EPA agreed to proceed with rulemaking under section 111 by May 2012. Proposed Settlement Agreement, Clean Air Act Citizen Suit, 75 Fed. Reg. 82392, 82393 (Dec. 30, 2010). Five years later, EPA promulgated the 2015 NSPS Rule. 80 Fed. Reg. at 65410. The

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[81] Hans Orru et al., *The Interplay of Climate Change and Air Pollution on Health*, 4 Current Env't Health Rep. 504 (2017); *see also* Haley M. Lane et al., *Historical Redlining Is Associated with Present-Day Air Pollution Disparities in U.S. Cities*, 9 Env't Sci. & Tech. Letters 345 (2022).

[82] Avery Ellfeldt & E&E News, *Climate Disasters Threaten to Widen U.S. Wealth Gap*, Sci. Am. (Oct. 2, 2023), https://perma.cc/SDC2-DP9T.

Supplemental Proposal would scuttle these long-fought efforts, leaving the second-largest source of domestic greenhouse gas emissions unregulated under the Clean Air Act.

In addition to the advocacy for federal greenhouse gas emission limits discussed in the States' 2025 Comments, the States and Local Governments have filed a petition for review in the D.C. Circuit challenging EPA's Carbon Pollution Standards Repeal. *See* Partial Repeal of the Carbon Pollution Standards for Fossil Fuel-Fired Electric Generating Units, 91 Fed. Reg. 58954 (Sep. 17, 2026) (Carbon Pollution Standards Repeal); Pet. for Rev., *New York v. EPA*, No. 26-1259 (D.C. Cir. Oct. 1, 2026), Dkt. No. 2195824 (consolidated with *Am. Lung Ass'n v. EPA*, No. 26-1238 (D.C. Cir. Sep. 17, 2026)).

2. State efforts to reduce power plant greenhouse gas emissions while maintaining grid reliability and promoting affordable electricity

Our comments on the 2025 Proposal detailed the approaches that the States and Local Governments have taken to address climate change harms to our residents by reducing power plant carbon pollution. The States and Local Governments provide the following updates on those comments:

- *Colorado*. As one of the state's strategies to meet its greenhouse gas reduction targets, including reducing emissions by 65% from 2005 levels by 2035, Colorado is successfully working with its electric utilities to increase the use of clean energy resources. In 2010, 68% of Colorado's electricity came from coal-fired generation; in 2025, renewable energy was the leading source, providing 45% of the state's generation.[83] Colorado uses electric resource plans and clean energy plans to facilitate the orderly transition to clean energy resources while maintaining energy affordability and reliability. For residential customers, Colorado has lower energy costs than the national average.[84] Further, with respect to reliability, the region encompassing the state stayed above the reference reserve margin in 2025[85] and was anticipated to stay above the reserve margin in winter 2025/2026 and summer 2026.[86]

[83] *Colorado Energy Profile, 2024*, U.S. Energy Info. Admin. (Aug. 20, 2026), https://perma.cc/5UU4-2RWK.

[84] Esteban L. Hernandez & Alex Fitzpatrick, *Colorado's Electricity Bills Are Lower Than the National Average*, Axios Denv. (Apr. 14, 2026), https://perma.cc/SP2R-2XSM.

[85] N. Am. Elec. Reliability Corp. (NERC), 2026 State of Reliability: Technical Assessment of 2025 Bulk Power System Performance 23 & fig. 3.1 (2026), https://perma.cc/K7WB-7Y2Q.

[86] *See* States' 2025 Comments, *supra* note 5, app. 2, at 10–12; NERC, 2025-2026 Winter Reliability Assessment 38 (2025), https://perma.cc/L3P8-6465; NERC, 2026 Summer Reliability Assessment 37 (2026), https://perma.cc/5K2F-U73Z.

- *Maine.* In 2025, Governor Mills signed L.D. 1868, which accelerates the State's clean energy goals, advancing the target to achieve 100% clean electricity from 2050 to 2040. 2025 Me. Legis. Serv., ch. 386, § 2 (codified at Me. Rev. Stat. Ann. tit. 35-A § 3210(1-A)). The law requires that 90% of the electricity consumed in the state comes from renewable sources by 2040—up from 80% by 2030—and creates a requirement under the new Clean Energy Standard of an additional 10% by 2040 that may come from a broader range of clean energy technologies.

- *New Jersey.* Through the Regional Greenhouse Gas Initiative (RGGI) and complementary policies and programs, New Jersey is delivering emission reductions, consumer savings, clean energy deployment, and workforce growth, all while promoting equity and resilience. Since rejoining the interstate collaborative program in 2020, New Jersey has directed over $389 million in auction proceeds into clean energy, transportation, and energy efficiency initiatives.[87] Additionally, 81% of proceeds are targeted to overburdened communities, with 773 projects currently underway throughout the state. These investments are expected to reduce 1.45 million metric tons of CO_2-equivalent emissions over the lifetime of the projects and deliver about $88 million in residential electricity bill credits. Complementing these market-based reductions, the state's Protecting Against Climate Threats initiative (NJ PACT) implements stringent regulatory reforms to curb greenhouse gas emissions from fossil fuel-fired electric generating units, including phased CO_2 limits that tighten over time.[88] NJ PACT also established a statewide ban on No. 4 and No. 6 heavy fuel oils to cut the highest-emitting sources.[89] Additional NJ PACT rules set CO_2 caps of 860 lb/MWh for new power plants. Through these regulations and evolving clean energy compliance pathways, New Jersey aligns its power sector with its Energy Master Plan modeling that targets carbon-neutral electricity by 2050 and integrates large-scale growth of solar and storage resources. Combined with rapid deployment of distributed solar, these policies collectively drive down emissions while strengthening grid reliability, affordability, environmental justice, and long-term climate resilience across New Jersey.

- *Washington*. Washington has passed multiple laws aimed at transitioning its power sector away from fossil fuels, including a renewable portfolio standard that requires all retail electric power sold in Washington to be 100% renewable by

[87] *See Regional Greenhouse Gas Initiative: RGGI Success in New Jersey*, N.J. Dep't of Env't Prot. (Oct. 19, 2026), https://perma.cc/MZH5-YR4K.

[88] *See NJ PACT: Protecting Against Climate Threats: Climate Pollutant Reduction–NJ PACT,* N.J. Dep't of Env't Prot. (June 26, 2026), https://perma.cc/67TB-GGL5; N.J. Admin. Code § 7.27F-2.5(b).

[89] N.J. Admin. Code § 7:27F-3.2.

> 2045. Washington is third in the nation in the percentage of utility-scale electricity generation from renewable resources, with hydroelectric power accounting for 63% of Washington's electricity generation in 2025. Almost 3,400 megawatts of installed capacity make wind energy the second largest contributor to the state's renewable generation. Overall, renewable resources accounted for 80% of Washington's total overall energy production in 2023.[90] Washington's one coal-fired power plant is scheduled to phase out the use of coal, with one boiler already retired in 2020.[91]

As discussed in the States' 2025 Comments, the States and Local Governments have succeeded in reducing greenhouse gas emissions from the power sector. And contrary to EPA's contentions in the Supplemental Proposal and 2025 Proposal, states can—and have—reduced power plant greenhouse gas emissions while maintaining grid reliability and promoting affordable electricity. *See* Section III.D *infra*.

D. EPA's Rescission of the 2009 Endangerment Finding

In early 2025, EPA Administrator Lee Zeldin announced that, as part of the "biggest day of deregulation in history," he was "driving a dagger through the heart of climate change religion" and "overhauling" EPA's 2009 finding that U.S. motor vehicle emissions contribute to greenhouse gas pollution that endangers public health and welfare.[92] 74 Fed. Reg. at 66496. That summer, EPA proposed to conclude that the Clean Air Act "does not authorize the EPA to prescribe standards for [greenhouse gas] emissions based on global climate change concerns" and to repeal all greenhouse gas standards for motor vehicles. Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards, 90 Fed. Reg. 36288, 36298 (Aug. 1, 2025) (Proposed Endangerment Rescission). As alternative bases, EPA claimed that the 2009 Endangerment Finding had "papered over substantial uncertainties in the scientific record," *id*. at 36299, and that greenhouse gas emission standards "may harm, rather than advance, public welfare" by imposing compliance costs, further claiming that motor vehicle greenhouse gas emission regulation would be futile, *id*. at 36311–13.

Throughout the Proposed Endangerment Rescission, EPA extensively cited a draft report by the Climate Working Group, a committee of five climate skeptics handpicked by the Secretary of Energy. The Climate Working Group had a mandate "to course correct" from the

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[90] *Washington Energy Profile 2024*, U.S. Energy Info. Admin. (June 18, 2026), https://perma.cc/UBN5-4PYP.

[91] *See* States' 2025 Comments, *supra* note 5, app. 2, at 46–50.

[92] Lee Zeldin, *Lee Zeldin: EPA Ends the 'Green New Deal,'* Wall St. J. (Mar. 12, 2025, 01:31 PM ET), https://perma.cc/G6G4-KEA9.

purportedly "exaggerated" consensus climate science.[93] EPA relied on the draft Climate Working Group report as purported support for each of its arguments for its Proposed Endangerment Rescission, including its claim that EPA lacks authority to regulate motor vehicle greenhouse gas emissions and its assertions that climate science does not support the 2009 Endangerment Finding. *See* 90 Fed. Reg. at 36307–11. EPA also relied on the Climate Working Group draft report to argue that regulating vehicle greenhouse gas emissions would be "futile." *See id*. at 36305, 36311–12. Even though the Climate Working Group's draft report pervaded EPA's Proposed Endangerment Rescission, the Group was convened and carried out its work in secret; indeed, its existence was not even announced until a version of the draft report became public alongside EPA's Proposed Endangerment Rescission.

Following this reveal, environmental groups promptly filed suit in the U.S. District Court for the District of Massachusetts, claiming that the clandestine establishment and use of the Climate Working Group violated the Federal Advisory Committee Act. *See* Compl., *Env't Def. Fund* (*EDF*) *v. Wright*, No. 25-cv-12249 (D. Mass. Aug. 12, 2025), Dkt. No. 1. On the eve of its deadline to respond to the suit, the Department of Energy declared that the Climate Working Group was dissolved and all work on the Group's report had ceased. *See* Defs.' Mem. in Opp'n at 1, 5–7, *EDF v. Wright* (Sep. 4, 2025), Dkt. No. 47. The Department of Energy never finalized the Climate Working Group report. With the comment deadline looming on the Proposed Endangerment Rescission, plaintiffs sought a preliminary injunction ordering disclosure of the Climate Working Group's records under the Federal Advisory Committee Act. The district court denied preliminary relief, but in December 2025, it ultimately ordered the federal defendants to disclose Climate Working Group records to plaintiffs. *See* Defs.' Not. of Compliance at 1–2, *EDF v. Wright* (Jan. 28, 2026), Dkt. No. 98. On January 22, 2026, one of the plaintiffs in the case, the Environmental Defense Fund, sent EPA a supplemental comment opposing rescission of the 2009 Endangerment Finding, synthesizing thousands of pages of now-disgorged Climate Working Group materials and appending a subset of those records to the supplemental comment.[94]

Nonetheless, on February 18, 2026, EPA finalized its rescission of the 2009 Endangerment Finding and all greenhouse gas emission standards for light-duty, medium-duty, and heavy-duty vehicles and engines manufactured or imported into the United States for model years 2012 to 2027 and beyond. 91 Fed. Reg. 7686. In the Endangerment Finding Rescission, EPA asserted that it lacks, and has always lacked, the statutory authority to regulate greenhouse gases under section 202(a) of the Clean Air Act and that, in any event, such regulation is

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[93] Climate Working Grp., Impacts of Carbon Dioxide Emissions on the U.S. Climate, Doc. ID No. EPA-HQ-OAR-2025-0194-0060, at vii (May 27, 2025), https://www.regulations.gov/document/EPA-HQ-OAR-2025-0194-0060.

[94] *See* Supp. Comments of Env't Def. Fund, Doc. ID No. EPA-HQ-OAR-2025-0194-31028, at 1 (Jan. 21, 2026), https://www.regulations.gov/comment/EPA-HQ-OAR-2025-0194-31028.

unreasonable. *Id*. at 7688. EPA justified the Endangerment Finding Rescission on three purportedly "independent grounds." *Id*. at 7692. First, EPA asserted that the 2009 Endangerment Finding and subsequent regulations exceeded EPA's statutory authority because section 202 is best read as defining air pollution as pollution that threatens public health or welfare through local or regional exposure; because an endangerment finding cannot be made independently of the issuance of emission standards; and because an endangerment finding cannot be made without also making findings on contribution or causation. *Id*. at 7690. Second, EPA invoked the major questions doctrine, claiming that Congress did not clearly authorize EPA to prescribe this kind of emission standard under section 202(a)(1). *Id*. Third, EPA contended that regulating greenhouse gas emissions under section 202(a)(1) would be futile. *Id*. at 7691.

Even though EPA largely maintained the rationales from its proposal, the Endangerment Finding Rescission disclaimed any reliance on the illegal draft report by the Climate Working Group—the key support for EPA's proposed "futility" rationale, among others. *Id*. at 7691 n.8. Instead, EPA relied on a previously undisclosed methodology and assumptions to estimate the effects of one projection of future emissions from the U.S. motor vehicle sector on global mean surface temperature and global sea level rise and compared those effects against purported "range[s] of measurability" for those metrics. *Id*. at 7691, 7732–33. EPA then used its futility argument and the unexamined methodology and assumptions as further support for its arguments regarding statutory authority, and as the sole basis for deeming regulations under section 202(a) "unreasonable." *Id*. at 7691.

On March 19, 2026, the States and Local Governments filed a petition for review of EPA's Endangerment Finding Rescission in the D.C. Circuit, *see* Pet. for Rev., *Massachusetts v. EPA*, No. 26-1061, Dkt. No. 2164582 (consolidated with *Am. Pub. Health Ass'n v. EPA*, No. 26-1037 (D.C. Cir. Feb. 18, 2026)), and subsequently filed an administrative petition for reconsideration with EPA.[95] In its petition for reconsideration, the States and Local Governments asserted that EPA's new methodology was a hasty substitute for the Climate Working Group's draft report and includes several fundamental assumptions and inputs, all of which were announced for the first time in the prepublication version of the Endangerment Finding Rescission and none of which were subject to public comment. *Id*. at 1–2, 4. By introducing and relying upon that new methodology for the first time in the final rule, EPA deprived the States and Local Governments and the public of the opportunity to comment on the evidence cited by EPA as undergirding multiple independent justifications for the Endangerment Finding Rescission. Even though these objections were impracticable to raise during the comment period and are of central relevance to the outcome of the rule, EPA has failed to act on the petition. On June 12, 2026, the States and Local Governments sent EPA a notice of intent to sue for the

[95] *See* Mass. et al. Pet. for Recon. of Rescission of the Greenhouse Gas Endangerment Finding and Motor Vehicle Greenhouse Gas Emission Standards Under the Clean Air Act, 91 Fed. Reg. 7686 (Feb. 18, 2026) (Apr. 1, 2026) (attached hereto as Exhibit 3).

Agency's unreasonable delay in acting on the petition.[96] The petition for reconsideration has now been pending for over eight months.

E. EPA's Recent Actions to Deregulate Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111

In June 2025, as part of Administrator Zeldin's continued crusade against the "Green New Scam,"[97] EPA announced its 2025 Proposal, which sought to repeal all greenhouse gas emission standards for fossil fuel-fired power plants under section 111 of the Clean Air Act, including both the 2015 NSPS Rule and the Carbon Pollution Standards. 90 Fed. Reg. at 25752. In the 2025 Proposal, EPA argued that section 111 is best read to require, or at least authorize EPA to require, a pollutant-specific finding that "an air pollutant emitted by a source category causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare" before EPA can establish emission standards for that pollutant. 90 Fed. Reg. at 25755, 25762. EPA also proposed to find that greenhouse gas emissions from fossil fuel-fired power plants "do not contribute significantly to dangerous air pollution" and thus do not warrant regulation. *Id*. at 25762. As an alternative to this primary proposal, EPA also proposed to repeal the bulk of the Carbon Pollution Standards, based largely on EPA's assertion that carbon capture and sequestration/storage (CCS) and natural gas co-firing were not adequately demonstrated and would not result in achievable emission limits. *Id*. at 25755, 25768.

Many of the States and Local Governments submitted comments in opposition to EPA's 2025 Proposal,[98] urging the Agency to withdraw the Proposal for a multitude of reasons. Among other things, the States' 2025 Comments argued that EPA's primary proposal—to conclude that fossil fuel-fired power plants "do not contribute significantly to dangerous air pollution," 90 Fed. Reg. at 25762—was an unlawful departure from its decades-long interpretation that section 111 of the Clean Air Act is triggered by a source category-specific contribution finding, not a pollutant-specific contribution finding. *See* States' 2025 Comments, *supra* note 5, at 27–34. Rather, as the States and Local Governments still contend, the best reading of section 111 is EPA's longstanding one: EPA first determines which source categories to list, and the Agency then has discretion, within defined statutory limits, to determine which pollutants from the source categories to regulate. *Id*. In addition, the States and Local Governments argued that

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[96] *See* Letter from the Commonwealth of Mass. et al., to Lee Zeldin, Admin., et al. (June 12, 2026), Notice of Intent to Sue to Compel Agency Action on Petitions for Reconsideration of the Rescission of the Greenhouse Gas Endangerment Finding and Motor Vehicle Greenhouse Gas Emission Standards Under the Clean Air Act.

[97] EPA, *EPA Proposes Repeal of Biden-Harris EPA Regulations for Power Plants* (YouTube, June 11, 2025, 2:00 PM), https://www.youtube.com/watch?v=BO2vpKZJGqQ [hereinafter June 2025 Zeldin Carbon Pollution Standards Repeal Speech].

[98] *See* States' 2025 Comments, *supra* note 5.

EPA's alternative proposal—a narrower repeal of the Carbon Pollution Standards—was unlawful because, among other flaws, it failed to consider alternatives to full recission and ignored the substantial record demonstrating the viability of best systems of emission reduction (BSER) in the Carbon Pollution Standards. *Id*. at 58–70.

On September 17, 2026, EPA continued its deregulatory agenda by publishing both a final rule repealing most provisions of the 2024 Carbon Pollution Standards based on a reevaluation of the BSER for relevant source subcategories, 91 Fed. Reg. at 58954 , and a supplemental proposal to repeal all greenhouse gas emission standards for fossil fuel-fired power plants, adopting much of its reasoning from the Endangerment Finding Rescission, *id.* at 59002. With respect to the Carbon Pollution Standards Repeal, many of the States and Local Governments filed a petition for review in the D.C. Circuit. Pet. for Rev., *New York v. EPA*, No. 26-1259 (D.C. Cir. Oct. 1, 2026), Dkt. No. 2195824 (consolidated with *Am. Lung Ass'n v. EPA,* No. 26-1238 (D.C. Cir. Sep. 17, 2026)).

Many of the States and Local Governments simultaneously sent EPA and Administrator Zeldin a notice of intent to sue for EPA's unreasonable delay in regulating greenhouse gas emissions from existing fossil fuel-fired stationary combustion turbines under section 111(d) of the Clean Air Act—a duty that remains unless and until EPA repeals the 2015 NSPS Rule in a final, effective rule.[99] By EPA's own account, it is "vital" for the Agency to regulate stationary combustion turbines, 89 Fed. Reg. at 39806, which include "peaker" plants that are often located in urban environments, have the highest hourly rates of pollution in the power sector, and are commonly sited in overburdened and disadvantaged communities.[100] Once the Carbon Pollution Standards Repeal takes effect, many of the States and Local Governments intend to send EPA a second notice of intent to sue for the Agency's patently unreasonable delay in promulgating emission guidelines for existing fossil fuel-fired steam generating units, including those burning coal and natural gas. After the 180-day notice window passes, many of the States and Local Governments intend to bring suit pursuant to 42 U.S.C. § 7604(a) to compel EPA to regulate greenhouse gas emissions from all existing fossil fuel-fired power plants.

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[99] *See* Letter from the State of New York et al. to Lee Zeldin, Admin., et al. (Oct. 1, 2026), Notice of Intent to Sue for Failure to Regulate Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Stationary Combustion Turbines Under Clean Air Act Section 111(d), https://ag.ny.gov/sites/default/files/court-filings/notice-of-intent-to-sue-for-failure-to-regulate-greenhouse-gas-emissions-2026.pdf.

[100] *See* Qian Luo & Jesse D. Jenkins, *US EPA's Power Plant Rules Reduce CO_2 Emissions but Can Achieve More Cost-Efficient and Deeper Reduction by Regulating Existing Gas-Fired Plants*, 8 One Earth 1, 4 (Apr. 18, 2025). This same study estimates that implementation of the Carbon Pollution Standards for existing coal and natural gas plants would have resulted in a 51% reduction from 2022 levels, meaning that regulating all existing power plants in the source category would amount to an emission reduction of 81–87%.

With the Supplemental Proposal, EPA does not seek further public comment on its 2025 Proposal but instead sets forth additional bases for finding that EPA lacks statutory authority to regulate greenhouse gas emissions from fossil fuel-fired power plants under section 111, "in light of the Agency's intervening [Endangerment Finding Rescission]." 91 Fed. Reg. at 59004. Specifically, EPA contends that section 111 does not authorize the Agency to regulate emissions from fossil fuel-fired power plants "in response to global climate change concerns" for three overarching and purportedly independent reasons that largely recycle EPA's arguments in the Endangerment Finding Rescission. *Id*. Because EPA is proposing that it lacks statutory authority, it is also proposing to repeal all regulations relating to greenhouse gas emissions from fossil fuel-fired power plants, which are codified at 40 C.F.R. part 60, subparts TTTT and TTTTa. *Id*. at 59019.

First, EPA proposes that based on the text, structure, and history of the Clean Air Act, section 111(b)(1)(A) is best read as authorizing EPA to regulate emissions that contribute significantly to air pollution that itself endangers public health or welfare through local or regional exposure. *Id*. at 59021. Within this argument, EPA claims that its new interpretation is supported by dictionary definitions of "pollute," "welfare," "weather," and "climate" and by common usage of these terms at the time the Clean Air Act was passed. *Id*. at 59021–22. EPA further contends that greenhouse gases do not endanger public health or welfare through local or regional exposure, but instead by becoming well mixed in the upper atmosphere, which in turn, causes a variety of phenomena that endanger public health and welfare; EPA argues that this connection between the regulated pollutant and the resulting harms is too attenuated for the Agency to regulate under section 111. *Id.* at 59023. EPA also argues that background principles of causation and proximate cause support this interpretation, asserting that the terms "cause," "contribute," and "reasonably be anticipated to endanger" must be read consistently with these background principles. *Id*. at 59023. EPA then points to other regulatory programs under Title I of the Clean Air Act to support its "best reading" argument, stating that Congress designed section 111 to complement sections 107–110 (the national ambient air quality standards (NAAQS) program) and section 112 (the national emission standards for hazardous air pollutants (NESHAP) program), which according to EPA, only regulate pollutants that adversely impact human health or welfare through local or regional exposure. *Id*. at 59025–26. EPA further contends that interpreting section 111 to allow regulation "based on global climate change concerns" could violate the nondelegation doctrine by allowing EPA to regulate without an intelligible principle to guide its exercise of authority. *Id*. at 59027–28. EPA also argues that the purported futility of regulating greenhouse gas emissions from fossil fuel-fired power plants supports interpreting section 111(b)(1)(A) as not encompassing global climate change concerns, *id*. at 59028, and that its new statutory interpretation is consistent with all relevant caselaw—including *AEP v. Connecticut*—despite the Supreme Court's holding that section 111 "speaks directly" to the regulation of greenhouse gas emissions from power plants. *Id*. at 59029; *AEP*, 564 U.S. at 424.

Within its first overarching rationale, EPA also includes a caveat that regardless of whether section 111 of the Act authorizes the regulation of greenhouse gas emissions from power plants in response to global climate change concerns, the Agency did not properly exercise its authority in promulgating the 2015 NSPS Rule, which is rendered unlawful by two flaws. 91 Fed. Reg. at 59030. EPA first claims that it erred in 2015 by combining two existing source categories, steam generators and combustion turbines, without finding that greenhouse gases emitted from the combined source category cause or contribute significantly to dangerous air pollution under section 111(b)(1)(A). *Id*. Even though EPA made this determination in the alternative in the 2015 NSPS Rule, EPA now argues that the 2015 significant contribution and endangerment findings underlying that Rule were flawed because they were based on climate change concerns as analyzed for section 202(a)(1) purposes, not for section 111. *Id*. EPA also claims that the Endangerment Finding Rescission abrogates the legal foundation for the 2015 NSPS Rule because the Rule did not independently interpret and apply section 111(b)(1)(A). *Id*. According to EPA, these flaws, both independently and collectively, render the greenhouse gas regulations at 40 C.F.R. Part 60, subparts TTTT and TTTTA, unlawful. *Id*.

Second, EPA proposes that it lacks the clear congressional authorization required under the major questions doctrine to regulate greenhouse gas emissions from fossil fuel-fired power plants under section 111. *Id*. at 59032. EPA states that even if section 111(b)(1)(A) could plausibly be read as authorizing EPA to regulate power plants based on global climate change concerns, Congress has not given the Agency clear authorization to exercise this sweeping authority and decide the nation's response to global climate change. *Id*.

Third, EPA proposes a standalone futility rationale for its rescission, arguing that the Agency cannot, or should not, exercise its regulatory authority under section 111 when that exercise would have no meaningful impact on identified dangers to public health or welfare. *Id*. at 59035. To support this rationale, EPA states that background legal principles suggest that, unless a statute specifies otherwise, agencies have implied authority to exempt *de minimis* concerns when the burdens of regulation would yield trivial gains. *Id*. at 59036. EPA then cites its own modeling of the effects of completely eliminating greenhouse gas emissions from fossil fuel-fired power plants, finding that doing so would have only a *de minimis* impact on global mean surface temperature and global mean sea level rise, which the Agency uses as proxies for the public health and welfare impacts of climate change. *Id*. at 59036. Notably, EPA used this same modeling in the Endangerment Finding Rescission, when it hastily swapped in new modeling to replace the ill-fated Climate Working Group's draft report. *See supra* Part I.D.

EPA concludes the Supplemental Proposal with a discussion of the impacts of its proposed deregulatory action. Accounting for the Carbon Pollution Standards Repeal, the Supplemental Proposal, if finalized, would repeal the remaining regulations in 40 C.F.R part 60, subparts TTTT and TTTTa, on the basis that the Agency lacks the authority to promulgate those regulations under Clean Air Action section 111. 91 Fed. Reg. at 59041–42. EPA contends that this repeal would increase flexibility for regulated entities but would not disrupt prior NSPS or

emission guidelines for the emission of air pollutants from power plants, such as standards for PM, NO_x, and SO_2, nor would it impact existing regulations for source categories other than fossil fuel-fired power plants under section 111. *Id*. at 59043. EPA also contends that, even though it lacks statutory authority to regulate greenhouse gas emissions from fossil fuel-fired power plants, the Clean Air Act will continue to displace any federal common law claims that might otherwise be available to regulate greenhouse gas emissions from power plants, and preempt state common law claims, statutes, or regulations that seek to regulate out-of-state greenhouse gas emissions. *Id*.

Along with the Supplemental Proposal, EPA published an Economic Impact Analysis that evaluates the economic effects of EPA's proposed deregulatory action.[101] As the baseline, EPA assumes that the bulk of the Carbon Pollution Standards have already been repealed, but the 2015 NSPS Rule and the Phase 1 NSPS requirements under the Carbon Pollution Standards remain in effect. *Id*. at 2. Under this baseline scenario, the Economic Impact Analysis assumes that a small percentage of sources would comply with Phase I NSPS requirements by building more new simple cycle combustion turbine capacity, which would increase capital costs and fixed operations and maintenance (O&M) costs but would not result in changes to generation, emissions, or variable O&M costs. *Id*. at 3. Thus, EPA estimates that repealing the 2015 NSPS Rule and Phase 1 of the 2024 Carbon Pollution Standards would lead to cost savings and "no resulting change in generation, fuel use, fuel prices, nor emissions." *Id*. at 12–18. Even though the Supplemental Proposal seeks to rescind the Agency's authority to regulate greenhouse gas emissions from fossil fuel-fired power plants going forward, the Economic Impact Analysis does not grapple with the universe of these future unregulated emissions.

II. EPA's Supplemental Proposal Is Unlawful

EPA's Supplemental Proposal advances an impermissible and judicially foreclosed interpretation of the Clean Air Act. Section 111 of the Act broadly directs EPA to regulate emissions from source categories that cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare. As the statutory language and Supreme Court and D.C. Circuit precedent make clear, the best and only permissible construction of that directive is that it encompasses the authority to regulate the voluminous greenhouse gas emissions from domestic fossil fuel-fired power plants that contribute significantly to climate change pollution impacting the United States. The Executive Branch cannot rewrite Congress's legislation or ignore binding Supreme Court precedent because it prefers its own policy goals to the law.

[101] EPA Memorandum, Economic Impact Analysis for the Supplemental Proposed Rule, Rescission of the Greenhouse Gas Findings for Fossil Fuel-Fired Power Plants and Repeal of Regulations for Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111, Doc. ID No. EPA-HQ-OAR-2025-0124-2922 (Sep. 11, 2026), https://perma.cc/P2U7-ADU8 [hereinafter Economic Impact Analysis].

A. The Clean Air Act plainly authorizes EPA to regulate emissions of greenhouse gases from fossil fuel-fired power plants under section 111, and the Supreme Court and D.C. Circuit have already interpreted section 111 to effectuate this plain meaning.

The Clean Air Act is unambiguous and forecloses EPA's interpretation. The section 111 standard of performance program "speaks directly" to greenhouse gas emissions from power plants and "provides a means to seek limits" of such emissions. *AEP*, 564 U.S. at 424–25.

The purpose of the Clean Air Act is to protect public health and welfare by addressing air pollution. The "standard of performance" program in section 111 is one of three principal programs addressing stationary sources, programs which together constitute a comprehensive framework to regulate air pollutants with "no gaps in control activities pertaining to stationary source emissions that pose any significant danger to public health of welfare." S. Rep. No. 91-1196, at 20 (1970).[102]

Section 111 of the Clean Air Act provides, in relevant part:

> The Administrator shall, within 90 days after December 31, 1970, publish (and from time to time thereafter shall revise) a list of categories of stationary sources. He shall include a category of sources in such list if in his judgment it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.

42 U.S.C. § 7411(b)(1)(A). For each listed source category, EPA must prescribe federal "standards of performance" for emissions of pollutants from new or modified sources. *Id.* § 7411(b)(1)(B). In addition, EPA must "prescribe regulations" under section 111(d) with respect to existing sources for pollutants not covered under the NAAQS or NESHAP programs. *Id*. § 7411(d). These regulations guide "each State" in submitting to EPA a plan that establishes "standards of performance" for any existing source of the relevant pollutant. *Id.*

The term "standard of performance" means "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).

The term "stationary source" is defined as "any building, structure, facility, or installation which emits or may emit *any* air pollutant." *Id.* § 7411(a)(3) (emphasis added). The term "air pollutant," in turn, is expansively defined as "*any* air pollution agent or combination of such

[102] The other two programs are the National Ambient Air Quality Standards (NAAQS) program, *see* 42 U.S.C. §§ 7408–7410 and the National Emission Standards for Hazardous Air Pollutants (NESHAP) program, *see id.* § 7412.

agents, including *any* physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air." *Id*. § 7602(g) (emphasis added). Effects on "welfare" are expansively defined in the Act to include "effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, *and climate*, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants." *Id.* § 7602(h) (emphasis added).

Putting this language together, the section 111 standard of performance program "speaks directly" to greenhouse gas emissions from power plants and "provides a means to seek limits" of such emissions. *AEP*, 564 U.S. at 424–25. Greenhouse gases fit well within the Clean Air Act's capacious definition of "air pollutant." *Massachusetts*, 549 U.S. at 529, 532. Greenhouse gases are "without a doubt" physical and chemical substances that are emitted into the ambient air by power plants, and "[o]n its face," the statutory definition of "air pollutant" "embraces all airborne compounds of whatever stripe, and underscores that intent through the repeated use of the word 'any.'" *Id.* at 529. Further, by defining "welfare" expansively to include "effects on . . . weather . . . and climate," Congress made clear its intent to bring effects on weather and climate within the coverage of the Act. 42 U.S.C. § 7602(h). The statute in this respect is "unambiguous." *Massachusetts*, 549 U.S. at 529. Moreover, the phrase "ambient air" does not distinguish between atmospheric layers, and it is not a plausible reading of the phrase "ambient air" to restrict it to a limited area near the Earth's surface. *Id*. at 529 n.26. Nor is there anything "counterintuitive to the notion that EPA can curtail the emission of substances that are putting the global climate out of kilter." *Id*. at 531.

The Supreme Court has definitively interpreted the statute's plain text, confirming that section 111 provides authority to regulate greenhouse gases under the Act for the purpose of addressing global climate change effects impacting the United States. *Id.* at 528–32; *AEP*, 564 U.S. at 424–45; *Util. Air Regul. Grp.* (*UARG*) *v. EPA*, 573 U.S. 302, 331–32 (2014). In *Massachusetts*, the Court held that greenhouse gases fit well within the Clean Air Act's capacious definition of "air pollutant" such that EPA has the statutory authority to regulate the emission of such gases from new motor vehicles. 549 U.S. at 532. In *AEP*, the Court affirmed that holding and concluded that section 111 likewise "speaks directly" to power plant greenhouse gas emissions. 564 U.S. at 424. In *AEP*, plaintiffs sought to maintain federal common law public nuisance claims against power companies based on power plant greenhouse gas emissions. Rejecting plaintiffs' federal common law nuisance claims, the Court reiterated its holding in *Massachusetts* that the "Clean Air Act . . . authorizes federal regulation of emissions of carbon dioxide and other greenhouse gases" that "trap . . . heat that would otherwise escape from the Earth's atmosphere" and thus form a "greenhouse effect." *Id.* at 415–16 (citation omitted). Noting that EPA had already commenced a rulemaking under section 111 to set limits on greenhouse gas emissions from power plants, *id.* at 417, the Court held 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," *id.* at 424. The Court explained that "*Massachusetts* made plain that emissions of carbon dioxide qualify as *air pollution* subject to regulation under the Act," and "we think it equally plain that the Act speaks directly to emissions of carbon dioxide from the defendants' plants." *Id.* (emphasis added) (cleaned up). In *UARG*, Justice Scalia, writing for the Court, held that "EPA . . . may [] continue to treat greenhouse gases as a 'pollutant subject to regulation under this chapter' for the purposes of requiring" technological standards for stationary sources already subject the Act's Prevention of Significant Deterioration program and further explained that in *Massachusetts*, the Court had concluded that "nothing in the Act suggested that regulating greenhouse gases under [Title II] would conflict with the statutory design." 573 U.S. at 318–19, 333–34. Thus, the Court has definitively interpreted section 111's application as to the very sources and pollutants that are the subject of the Supplemental Proposal.

D.C. Circuit precedent likewise confirms EPA's authority to regulate greenhouse gases from power plants. *Coal. for Responsible Regul., Inc.* (*CRR*) *v. EPA*, 684 F.3d 102 (D.C. Cir. 2012), *aff'd in part, rev'd in part sub nom. UARG*, 573 U.S. 302; *Am. Lung Ass'n v. EPA*, 985 F.3d 914 (D.C. Cir. 2021), *rev'd in part sub nom. West Virginia v. EPA*, 597 U.S. 697 (2022).

In *CRR*, industry petitioners challenged EPA's 2009 Endangerment Finding for motor vehicles, asserting that EPA was required to consider certain policy concerns, including the effectiveness of emission regulation triggered by the Endangerment Finding. 684 F.3d at 117. The D.C. Circuit rejected such "effectiveness" arguments as "foreclosed by the language of the statute and the Supreme Court's decision in *Massachusetts v. EPA*." *Id.* at 321. The court explained that, at bottom, the endangerment determination contemplated by section 202(a)(1) "requires EPA to answer only two questions: whether particular 'air pollution'—here, greenhouse gases—'may reasonably be anticipated to endanger public health or welfare[,]'" and whether motor vehicle emissions "cause, or contribute to" that endangerment. *Id.* (quoting 42 U.S.C. § 7521(a)(1)). The court explained that these questions require a "'scientific judgment' about the potential risks greenhouse gas emissions pose to public health or welfare," not "policy discussions." *Id*. at 117–18 (citation omitted). As stated in *Massachusetts*, policy judgments "have nothing to do with whether greenhouse gas emissions contribute to climate change. Still less do they amount to a reasoned justification for declining to form a scientific judgment." 549 U.S. at 533–34.[103] The D.C. Circuit's reasoning in *CRR* fully applies to the closely analogous endangerment language in section 111. EPA cannot decline to regulate greenhouse gas emissions from power plants based on policy judgments masquerading as legal interpretations or based on concerns about the effectiveness of regulations.

In *American Lung Association v. EPA*, the D.C. Circuit upheld EPA's 2015 determination that greenhouse gas emissions from fossil fuel-fired power plants contribute significantly to air

[103] The Supreme Court declined *certiorari* on the portion of *CRR* that upheld EPA's 2009 Endangerment Finding.

pollution that endangers public health and welfare. 985 F.3d at 974–77 (citing 80 Fed. Reg. at 64531). The court concluded that "under any reasonable threshold or definition," such emissions "represent[] a significant contribution to air pollution," where fossil fuel-fired power plants are the "largest stationary sources of greenhouse gas emissions in the United States." *Id.* (quotation marks omitted).[104] The 2015 NSPS Rule findings create an ongoing duty for EPA to promulgate regulations unless and until EPA lacks any valid *scientific* basis for reversing them via a negative finding.

In short, binding Supreme Court and D.C. Circuit precedent leaves no room for doubt that EPA has the authority to regulate greenhouse gas emissions from power plants under section 111 and must do so unless it makes a *scientific* judgment that greenhouse gases from power plants do not endanger public health or welfare. Under *Loper Bright Enterprises v. Raimondo*, 603 U.S. 369, 400 (2024), and principles of statutory *stare decisis*, that ends the matter.

B. EPA cannot re-write the Clean Air Act to overrule Congress's clear direction and the definitive rulings of the Supreme Court, and EPA's arguments for doing so all fail.

Ignoring both the plain meaning of the statutory text and binding precedent confirming that meaning, EPA proposes to unilaterally reinterpret the Clean Air Act as "not authoriz[ing] the EPA to regulate emissions from power plants in response to global climate change concerns." 91 Fed. Reg. at 59002. But EPA has no power to ignore the law Congress enacted or authoritative judicial decisions to suit its policy preferences. Moreover, even if this were a situation where the statute was ambiguous (and it is not), the reasons EPA offers for its new interpretation are internally inconsistent, logically incoherent, and contradicted by the record, rendering EPA's Supplemental Proposal arbitrary and capricious and untenable on its own terms.

1. EPA's argument that section 111(b)(1)(A) only regulates pollution that endangers public health or welfare through local or regional exposure is wrong.

EPA centers its Supplemental Proposal on its newfound view that section 111(b)(1)(A) of the Clean Air Act is "best read as authorizing the Agency to regulate emissions that contribute significantly to air pollution that itself endangers public health or welfare through local or regional exposure," a test that in EPA's view would exclude regulation "based on global climate change concerns." 91 Fed. Reg. at 59021. This proposed interpretation fails on every front. It is precluded by *Massachusetts* and *AEP*, among other cases. It is unsupported by the ordinary meaning of the statutory text. It is internally inconsistent. It ignores entire bodies of scientific evidence and rests on incorrect scientific claims. And it is discordant with contextual considerations and relevant statutory history.

[104] The Supreme Court did not grant *certiorari* on the portion of the *American Lung* that upheld EPA's findings in the 2015 NSPS Rule.

EPA's proposed new statutory interpretation is not due any deference nor even the respect that an agency interpretation that was "issued roughly contemporaneously with the enactment of the statute and remained consistent over time" would get under *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944). *Loper Bright*, 603 U.S. at 370, 387. EPA's proposed interpretation is not in line with "the longstanding practice of the government." *Id.* at 386 (citation omitted). And while there are circumstances where a court may resort to the interpretations of an agency for guidance, those "depend upon the thoroughness evident in [the agency's] consideration, the validity of its reasoning, [and] its consistency with earlier and later pronouncements." *Id.* at 388 (quoting *Skidmore*, 323 U.S. at 140). All the hallmarks that might lead a court to give respect to an agency interpretation are conspicuously absent here. The Supplemental Proposal's interpretation is being issued a half-century after the enactment of the Clean Air Act and is inconsistent with almost two decades of agency interpretation. Nor is there any "thoroughness evident in [EPA's] consideration." *Id.* As explained in detail below, the Supplemental Proposal's reasoning is both nonsensical and inconsistent with binding precedent.

a. The local or regional exposure distinction made by EPA has already been considered and rejected.

EPA put forward the same local/regional distinction in *Massachusetts*, and the Supreme Court squarely rejected it. In 2003, when EPA denied a petition to regulate greenhouse gas emissions from motor vehicles, the Agency relied on a similar theory, explaining:

> EPA's prior use of the CAA's general regulatory provisions provides an important context. Since the inception of the Act, EPA has used these provisions to address air pollution problems that occur primarily at ground level or near the surface of the earth. For example, national ambient air quality standards (NAAQS) established under CAA section 109 address concentrations of substances in the ambient air and the related public health and welfare problems. This has meant setting NAAQS for concentrations of ozone, carbon monoxide, particulate matter and other substances in the air near the surface of the earth, not higher in the atmosphere. Concentrations of these substances generally vary from place to place as a result of differences in local or regional emissions and other factors (*e.g.*, topography), although long range transport may also contribute to local concentrations in some cases. CO_2, by contrast, is fairly consistent in concentration throughout the *world's* atmosphere up to approximately the lower stratosphere. Problems associated with atmospheric concentrations of CO_2 are much more like the kind of global problem Congress addressed through adoption of the specific provisions of Title VI.

Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52922, 52926–27 (Sep. 8, 2003) (emphasis in original). Thus, EPA's 2003 denial rested on an interpretation that "Congress designed the original Clean Air Act to address local air pollutants rather than a

substance that 'is fairly consistent in [its] concentration throughout the *world's* atmosphere.'" *Massachusetts*, 549 U.S. at 512 (quoting 68 Fed. Reg. at 52927).

The Supreme Court in *Massachusetts* explicitly rejected EPA's attempt to distinguish between local and global pollution problems. The Court concluded that, notwithstanding any differences between previously regulated "criteria" pollutants and greenhouse gas pollutants, both were air pollutants that EPA must regulate under section 202 following a positive endangerment finding. *Id.* at 528–32. As the Court explained, EPA's distinction between greenhouse gases that permeate the world's atmosphere rather than a limited area near the Earth's surface "finds no support in the text of the statute, which uses the phrase 'the ambient air' without distinguishing between atmospheric layers." *Id.* at 529 n.26. The Court further explained that EPA's local/global distinction reflected "a plainly unreasonable reading of a sweeping statutory provision designed to capture 'any physical, chemical . . . substance or matter which is emitted into or otherwise enters the ambient air.'" *Id*. (quoting 42 U.S.C. § 7602(g)).[105]

Following *Massachusetts*, the Court then confirmed in *AEP* that EPA has authority to regulate greenhouse gases from power plants under section 111 specifically, holding that Congress's grant of authority in section 111 displaced any federal common law right to seek abatement of carbon dioxide emissions from those plants. 564 U.S. at 424. In so holding, the Court confirmed that its reasoning in *Massachusetts* fully extended to section 111, explaining: "*Massachusetts* made plain that emissions of carbon dioxide qualify as air pollution under the Act," and "we think it equally plain that the Act 'speaks directly' to emissions of carbon dioxide from the defendants' plants." *Id.* Moreover, the Supreme Court's rationale in *AEP* is irreconcilable with EPA's limiting statutory interpretation. If Clean Air Act section 111 only concerns air pollution that harms public welfare through local or regional exposure, then it could

[105] The local/global distinction featured prominently in the briefing before the Supreme Court. *See, e.g.*, Br. for Resp'ts All. for Auto. Mfrs. et al. at 24–28, *Massachusetts*, 549 U.S. 497 (No. 05-1120) ("All of the substances that Congress (and in one instance EPA) has listed as criteria pollutants—lead, sulfur dioxide, oxides of nitrogen, carbon monoxide, particulate matter, and ozone—present local ambient air pollution problems that can reasonably be addressed on a *local* or *state* level, or at most a regional level." (emphasis in original)); Br. of Resp't CO_2 Litig. Grp. at 38, *Massachusetts*, 549 U.S. 497 (No. 05-1120) ("There is no indication that Congress expected EPA to address global climate change using an ill matched set of regulatory programs intended to deal with local and regional impacts of air pollutant emissions on ambient air quality."); Br. of Amici Curiae Ernest L. Daman et al. Supp. Resp'ts at 18, *Massachusetts*, 549 U.S. 497 (No. 05-1120) ("The toxic pollutants presently regulated under the Clean Air Act create a *local*, or in a few cases *regional*, hazard. In contrast emissions of CO_2 add to the *global* average CO_2 concentrations." (emphasis in original)); Br. of Amici Curiae Cato Inst. et al. Supp. Resp'ts at 22–23, *Massachusetts*, 549 U.S. 497 (No. 05-1120) ("The clear intent of the Act . . . is to control local and regional air pollution, such as soot and smog, not emissions such as carbon dioxide that disperse throughout the global atmosphere.").

not "speak[] directly to" carbon dioxide emissions and displace federal common law concerning global climate change.

b. EPA's global/local distinction is unsupported by the statutory text.

Even if EPA's proposed interpretation were not already foreclosed by binding precedent, it is not a tenable reading of the statutory text, much less the "best" reading, as required by *Loper Bright*.

i. EPA's "pollution" vs. "pollutant" distinction is incoherent.

To begin, EPA's proposed interpretation rests on an incoherent and contradictory application of the central statutory terms "air pollutant" and "air pollution." EPA acknowledges, as it must, the Supreme Court's holding in *Massachusetts* that greenhouse gases are "air pollutants" under the Clean Air Act. 91 Fed. Reg. at 59029. Yet EPA maintains that this holding leaves open the question whether elevated concentrations of greenhouse gases in the atmosphere can constitute "air pollution." *Id.* (asserting that "*Massachusetts* did not address the question of whether 'air *pollution*' can be interpreted to include elevated concentrations of [greenhouse gases] in the atmosphere" (emphasis in original)). This premise—that a substance can be an "air pollutant" yet be incapable of causing "air pollution"—serves as the foundation of EPA's proposed statutory interpretation. It is a completely indefensible premise. By statutory definition, an "air pollutant" is an "air pollution agent." 42 U.S.C. § 7602(g). And an "agent" is "something that produces or is capable of producing a certain effect," "an active or efficient cause," and "a force effecting or facilitating a certain result." Webster's Third New International Dictionary of the English Language Unabridged 40 (Encyclopaedia Britannica 1966); *see also* The American Heritage Dictionary of the English Language 24 (Dell Publ'g Co. 1969) ("A means of doing something; instrument"); The Random House Dictionary of the English Language: The Unabridged Edition 27 (Random House 1966) ("a natural force or object producing or used for obtaining specific results;" "an active cause; an efficient cause"). Therefore, an "air pollutant," by definition, causes "air pollution," full stop.

In this respect, the statutory definition simply tracks the ordinary, widely understood meaning of the words "pollutant" and "pollution." "Pollutant" and "pollution" are not merely similar terms; they are two nouns derived from, and defined by reference to, the same verb. A pollutant is the thing that pollutes; pollution is the result of polluting. The very dictionary that EPA relies on confirms this point, defining "pollutant" as "something that pollutes" and "pollution" as "the state of being polluted." *See* 91 Fed. Reg. at 59022 nn.127–28 (citing *Pollutant* and *Pollution*, 3 Webster's Third New International Dictionary 1756 (1966)).

In short, EPA cannot accept that greenhouse gases are "air pollutants"—per the Supreme Court's holding in *Massachusetts*—while denying that they cause the very "air pollution" that makes them pollutants in the first place. The statutory text forecloses that contradiction, and with it, the foundation of EPA's interpretation. Furthermore, the Supreme Court in *AEP* made clear

that *Massachusetts does* resolve the question of whether greenhouse gas emissions qualify as "air pollution," stating that "*Massachusetts* made plain that emission of carbon dioxide qualify as *air pollution* subject to regulation under the Act." *AEP*, 564 U.S. at 424 (emphasis added) (citing *Massachusetts*, 549 U.S. at 528–29).

ii. EPA reads limitations into the statutory text that Congress did not include.

EPA's Supplemental Proposal ignores the Clean Air Act's plain text in multiple other ways. Statutory interpretation starts with the "assumption that the legislative purpose is expressed by the ordinary meaning of the words used." *Sec. Indus. Ass'n v. Bd. of Governors of the Fed. Rsrv. Sys.*, 468 U.S. 137, 149 (1984) (cleaned up) (citations omitted). Here, section 111 broadly authorizes standards of performance applicable to the emission of "air pollutants" from source categories judged to contribute significantly to "air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7411(a)(1), (b)(1)(A). The Supplemental Proposal, however, attempts to insert words into the statute that Congress did not write, essentially proposing to add the additional phrase "through local or regional exposure" to the end of the second sentence of section 111(b)(1)(A). *See Biden v. Texas*, 597 U.S. 785, 803 (2022) ("We do not lightly assume that Congress has omitted from its adopted text requirements that it nonetheless intends to apply" (quoting *Jama v. Immigr. & Customs Enf't*, 543 U.S. 335, 341 (2005))).

As discussed above, section 302 defines "air pollutant" as "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air." 42 U.S.C. § 7602(g). Notwithstanding that "capacious" definition, *Massachusetts*, 549 U.S. at 532, EPA asserts that the Act covers only "air pollutants that impact health or welfare through local or regional exposure," 91 Fed. Reg. at 59025. But because the data submitted to the Agency demonstrate the important role of international transport of many non-greenhouse gas air pollutants, including mercury, ozone precursors (including methane), and particulate matter,[106] EPA must concoct a further interpretive gloss. EPA suggests that "local or regional exposure" does not in fact exclude pollutants that cause harm far from where they were emitted. *Id.* at 59026. Instead, EPA argues that "local or regional" pollution refers to a specific subset of air pollutants and air pollution concerns addressed in the 1970s, which EPA claims involved "[e]missions of . . . regulated air pollutants [which] result in air pollution that directly affects public health or welfare through exposure to those emissions, or to air pollution created through the reaction of those emissions

[106] *See* Comments of Att'ys Gen. of Mass. et al., Doc. ID. No. EPA-HQ-OAR-2025-0194-13587, at 44–45 (Sep. 22, 2025), https://www.regulations.gov/comment/EPA-HQ-OAR-2025-0194-13587; *see also* Comments of Nathan Sweet et al., Doc. ID No. EPA-HQ-OAR-2025-0194-1461, at 2 (Sep. 29, 2025), https://www.regulations.gov/comment/EPA-HQ-OAR-2025-0194-1461 [hereinafter Comments of Nathan Sweet et al.].

with other airborne chemicals or conditions, at the local or regional scale." *Id.* at 59024. EPA asserts that these characteristics "distinguish" the pollution covered by the Act from greenhouse gas pollution that "impacts public health and welfare only indirectly and not by exposure to its presence in the ambient air." *Id.* at 59025. This definition, EPA further asserts, does not encompass greenhouse gases, which EPA claims "need [to] become globally well-mixed in the atmosphere to adversely impact human health or welfare through a chain of subsequent effects." *Id.* at 59026.

EPA's invented interpretation and accompanying gloss find no purchase in the statute or, as discussed in Section II.B.1.c. *infra*, in scientific principles or the massive scientific record before the Agency. Nothing in the words "pollutant" and "pollution" support the local and regional exposure limitation EPA proposes. *See* 91 Fed. Reg. at 59021–22, 59022 nn.127–28 (citations omitted). As the dictionary definitions EPA relies on provide, *see id.* at 59022 nn.127–28 (citations omitted), the term "pollutant" is defined capaciously as encompassing "*anything* that pollutes" (emphasis added), and the term "pollution" is likewise defined broadly to encompass "the contamination of soil, water, or *the atmosphere*" (emphasis added), *see also Massachusetts*, 549 U.S. at 529, 532 (holding the Act's definition of "air pollutant" "embraces all airborne compounds of whatever stripe" and greenhouse gases fit "well within" the "Act's capacious definition of 'air pollutant.'"). Contrary to EPA's suggestion, nothing in these dictionary definitions conveys that these terms must be cabined by a local or regional effect limitation. EPA argues that it is appropriate to imply a local and regional limitation because the root word "pollute" has a "relationship" to the concept of "dangerousness." 91 Fed. Reg. at 59022. But that logic is nonsensical; threats can be global in nature and still be dangerous—indeed, climate change effects *are* quite dangerous. *See* Sections I.A–B *supra* & II.B.1.c *infra*. Thus, EPA identifies nothing in the scope of the words "pollutant" or "pollution" that would suggest that greenhouse gases cannot be deemed pollutants.

Furthermore, EPA ignores that the Clean Air Act itself defines the term "air pollutant" expansively, *see* 42 U.S.C. § 7602(g), and EPA must apply *that* statutory definition, not some narrower definition that EPA would prefer to apply because it suits EPA's policy preferences, *see, e.g.*, *Meese v. Keene*, 481 U.S. 465, 484 (1987) ("It is axiomatic that the statutory definition of the term excludes unstated meanings of that term."); *Colautti v. Franklin*, 439 U.S. 379, 392 n.10, 393 (1979) ("As a rule, a definition which declares what a term 'means' . . . excludes any meaning that is not stated." (cleaned up) (citation omitted)). As the Supreme Court stated in *Massachusetts*, "[o]n its face, the definition embraces all airborne compounds of whatever stripe, and underscores that intent through the repeated use of the word 'any.'" 549 U.S. at 529. There can be no question that greenhouse gases are physical and chemical substances emitted into the ambient air. Thus, they are "air pollutants" which can cause "air pollution" within the meaning of section 111—full stop.

Further, EPA's "local or regional exposure" position cannot be squared with arguments recently advanced by the U.S. Department of Justice (DOJ) in an uninvited amicus brief in

Suncor Energy (U.S.A.) Inc. v. County Commissioners of Boulder County, S. Ct. No. 25-170. There, DOJ maintains that the Clean Air Act prevents state and local governments from pursuing state-law causes of action against emitters of greenhouse gases (and their suppliers) where the emissions do not occur within the State. Br. for U.S. as Amicus Curiae Supp. Pet'rs at 16–19, *Suncor*, No. 25-170 (S. Ct. Sep. 11, 2025). Per DOJ, "the Clean Air Act's decisionmaking scheme . . . reserves to EPA and the source States the authority to determine the extent of appropriate regulation" of these emissions. *Id.* at 17 (citations omitted). Neither DOJ nor EPA reconciles the brief's assertion that EPA is assigned the "judgment about the degree of acceptable out-of-state greenhouse-gas emissions," *id.* at 18, with the Supplemental Proposal's claim that EPA lacks authority to make that judgment in the first place, *see infra* Section VI. Even EPA's Supplemental Proposal is incoherent on this question, citing *AEP* for the proposition that "CAA section 111 delegates to the Agency the decision 'whether and how' to regulate GHG emissions from power plants," 91 Fed. Reg. at 59029; *see also id.* at 59035, 59043, while simultaneously claiming that the Agency does not get to decide whether (or how) to regulate greenhouse gas emissions from power plants because "CAA section 111 does not authorize the EPA to regulate emissions from power plants in response to global climate change concerns," *id.* at 59002.

iii. EPA misapplies the definition of the term "welfare."

In addition, the local/global exposure distinction the Supplemental Proposal advances conflicts with the Clean Air Act's express definition of the term "welfare." To regulate, EPA must conclude that a category of stationary sources "causes, or contributes significantly, to air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7411(b)(1)(A). Under the Act, the term "welfare" is defined to extend well beyond health harms or environmental damage from direct local exposures. Specifically, the Act provides that "[a]ll language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants." *Id*. § 7602(h). Thus, the sort of climate change effects caused by greenhouse gases are directly incorporated into the Act's definition of the term "welfare." Nor was Congress unaware of the potential risk that greenhouse gas emissions posed to the climate at the time it enacted section 111; to the contrary, Congress and the President specifically acknowledged these risks at the time. *See* discussion *infra* Section II.B.1.d.i.[107]

[107] *See, e.g*., H.R. Rep. No. 95-294, at 138 (1977) (citing (1) a National Academy of Sciences Report entitled "Understanding Climate Change: A Program for Action," published September 1974, and expressing concern about "persistent changes of the temperature and rainfall in areas committed to agriculture use"; and (2) a National Oceanic and Atmospheric Administration (NOAA) study, Weik-mann and Peuschel, Atmospheric Aerosols: Residence Times, Retainment Factor and Climatic Effects at 113

Moreover, the overarching purpose of the Clean Air Act is to "promote the public health and welfare and the productive capacity of its population." 42 U.S.C. § 7401(b)(1). Reading the Act, which specifically references climate effects, to preclude addressing the harms that climate change—the most urgent environmental threat of our time—imposes on Americans thwarts this fundamental statutory objective. *See, e.g.*, *County of Maui v. Haw. Wildlife Fund*, 590 U.S. 165, 184 (2020) ("The object in a given scenario will be to advance, in a manner consistent with the statute's language, the statutory purposes that Congress sought to achieve.").

EPA argues that, although the Act—by its terms—encompasses endangerment via "effects on" "weather" and "climate," it nonetheless does not encompass greenhouse gases and their effects on weather and climate. 91 Fed. Reg. at 59022. EPA cites the American Heritage Dictionary of 1970 as defining climate to mean "[t]he prevailing weather in a particular region" or "[a] region manifesting particular meteorological conditions." *Id.* n.134. Weather—per EPA, citing the same dictionary—means "[t]he state of the atmosphere at a given time and place, described by temperature, moisture, wind velocity, and pressure." *Id.* n.135. In other words, weather describes the state of the atmosphere at a given moment—and climate describes the state of the atmosphere, including meteorological conditions, that prevails over the longer term in a specific area.

EPA argues that both these definitions, and the nature of the other terms in the definition of welfare (soils, water, crops, vegetation, manmade materials, animals, wildlife, and visibility), "refers to things and mechanisms of action that occur in a particular place or under regionally bounded conditions"—and so limits "climate" effects to effects from local and regional pollutants—which EPA argues excludes greenhouse gas emissions. EPA's argument is self-defeating and flawed.

First, even applying, solely for sake of argument, EPA's position that "climate" and "weather" refer only to the climate or weather in a particular region, EPA ignores that greenhouse gases *do* produce effects on the prevailing climate and weather in particular regions (*e.g.*, heat waves, altered precipitation, and drought). Climate change produced by elevated concentrations of greenhouse gases changes the weather and climate of regions such as the Southwest, the mid-Atlantic, and the Gulf Coast. Thus, even applying EPA's proposed limiting

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(Jan. 1973), warning that "[i]f we consider that the energy demand has increased with time drastically in the past with no limit in sight, then there can be little doubt that inadvertent weather modification on a scale large enough to affect man's well-being might soon become a reality"); President Lyndon B. Johnson, Special Message to the Congress on Conservation and Restoration of Natural Beauty (Feb. 8, 1965), https://perma.cc/DMC3-MD93 (President Johnson gave a special message to Congress, six months before section 202 was enacted, decrying "a steady increase in carbon dioxide from the burning of fossil fuels" and stating that "[a]ir pollution . . . has altered the composition of the atmosphere on a global scale."); *see also infra* Section II.B.1.d.i.

construction, the sort of adverse effects that EPA posits remain covered by the "welfare" definition would still fall within the scope of effects caused by greenhouse gases.

Second, EPA does not explain what "mechanisms of action" are, or how they are limited to "regionally bounded conditions." Nor does EPA explain how it derived these constraints on "mechanisms of action," as the Act does not provide any. The statutory definition of "welfare" upon which EPA relies for this argument only lists *things that are not humans* that can be *affected by* air pollutants in ways that *cause public endangerment*—it does not say anything about *how* such harm occurs. Greenhouse gases, as discussed *infra,* affect soils (increased aridity and increased soil emissions), water (precipitation, drought, flooding, sea level rise, and salinity intrusion into groundwater), crops (fertilization, reduction in nutrients, increase in toxins, reduced yields, and changing pests), vegetation (aridity, fertilization, and forest dieback and expansion), manmade materials (heat-driven and flooding-driven infrastructure impacts), and animals and wildlife (shifts in availability of food and water sources, heat-stress, ocean acidification, livestock productivity, and disease vector prevalence). Greenhouse gases fundamentally transform climates, and thereby weather. The massive scientific record before EPA and its own prior findings, none of which EPA is proposing to disturb in this or any other rulemaking, documents that greenhouse gases are endangering welfare as defined by the Act—and that these effects to welfare are occurring locally and regionally. Further, EPA's "local or regional" pollutant examples are hardly "regionally bounded." As discussed in Section II.B.1.c.ii *infra,* many non-greenhouse gas air pollutants travel vast distances, including globally, and can cause harm via mechanisms that are not limited to a region. Take, for example, the accumulation of methylmercury in tuna and other pelagic fish—mercury itself cycles globally, and skipjack tuna migrate over a thousand nautical miles, accumulating mercury via the organisms they eat.[108]

Third, EPA fails to explain how *either* climate or weather could be affected by air pollution in a manner that satisfies EPA's local/regional limitation while excluding greenhouse gases. Pollutants that affect both weather and climate cause impacts that affect people locally and regionally—but neither the impacts nor the "mechanisms of harm" are locally or regionally limited. Climate (and weather) are affected by both long-lived and short-lived "climate forcers." The former are greenhouse gases. The latter include aerosols (which cause cooling by reflecting away incoming sunlight and by altering the properties of clouds, and also change precipitation patterns), black carbon (which absorbs radiation and causes warming), and ozone (which is a greenhouse gas).[109]

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[108] Bambang Semedi et al., *Seasonal Migration Zone of Skipjack Tuna (Katsuwonus pelamis) in the South Java Sea Using Multisensor Satellite Remote Sensing*, 2023 J. Mar. Sci. 1 (2023); Roxanne Karimi et al., *A Quantitative Synthesis of Mercury in Commercial Seafood and Implications for Exposure in the United States*, 120 Env't Health Persps. 1512 (2012).

[109] IPCC, Climate Change 2021: The Physical Science Basis: Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change 819, 823, 853–54 (Valérie

Aerosols can travel thousands of miles—the National Aeronautics and Space Administration (NASA) tracked dust from the Sahara to the Caribbean and its effects on air quality in Texas and Florida in the summer of 2024, and smoke from 2024 fires in Canada traveling to northern Europe.[110] "What happens in one region . . . can affect weather patterns and air quality thousands of miles away."[111] Emissions of aerosols are geographically heterogeneous, and so too are their effects on effective radiative forcing (the change in the radiative balance of the Earth).[112] Even though aerosols are not long-lived and therefore not well-mixed in the atmosphere, they affect both local and remote temperatures and have caused cooling over almost all areas of the globe.[113] The atmospheric cooling has caused large-scale water-cycle changes—reducing global precipitation and altering atmospheric circulation patterns.[114] The asymmetry in radiative forcing (due to the uneven levels of aerosols in different areas) has caused a southern shift in the tropical rain belt and affected monsoons via hemispheric-scale changes in atmospheric circulation.[115] Changes in aerosol emissions in the mid-latitudes of North America have had significant effects on the temperature in the Arctic, including by enhancing poleward heat transport.[116]

Masson-Delmotte et al., eds. 2021), https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_FullReport.pdf [hereinafter Climate Change 2021: The Physical Science Basis].

[110] *GEOS Aerosols*, NASA Sci. Visualization Studio (Apr. 15, 2026, 02:50 PM), https://svs.gsfc.nasa.gov/5572.

[111] *Id.*

[112] "In a stable climate, the amount of energy that Earth receives from the Sun is approximately in balance with the amount of energy that is lost to space in the form of reflected sunlight and thermal radiation. 'Climate drivers', such as an increase in greenhouse gases or aerosols, interfere with this balance, causing the system to either gain or lose energy. The strength of a climate driver is quantified by its effective radiative forcing (ERF), measured in W m–2. Positive ERF leads to warming, and negative ERF leads to cooling." Climate Change 2021: The Physical Science Basis, *supra* note 109, at 39.

[113] *Id.* at 819, 823, 855–56.

[114] *Id.* at 855.

[115] *Id.* at 856.

[116] *Id.*

Similarly, black carbon,[117] by increasing solar absorption (both in the air and on land),[118] and ozone,[119] by acting as a greenhouse gas, alter effective radiative forcing, and thereby the global energy balance, and thereby climate and weather.

Even though short-lived climate forcers, unlike long-lived greenhouse gases, are "short-lived," they still affect the energy balance of the planet through their effects on effective radiative forcing. Because short-lived climate forcers alter the total amount of energy in the climate system, their effects continue for decades or centuries before they fully resolve because of the inertia in the climate system, even though the climate forcers themselves can have atmospheric lifetimes of days to a year.[120] And as discussed further in the Section 8 of the Science of Non-Greenhouse Gas Air Pollutants Appendix, because changing the total amount of energy in the climate system creates changes across the entirety of that system, the effects of short-lived climate forcers are not regionally constrained.[121]

In other words, the pollutants that affect weather and climate—both the short-lived and the long-lived—have effects and mechanisms of harm that are not locally and regionally constrained. By directly affecting radiation (*e.g.*, increasing absorption or reflection) or by affecting clouds (which also interfere with radiation pathways), these pollutants alter effective radiative forcing, which changes the energy balance of the entire climate system and creates global and long-lasting impacts. EPA has provided no explanation for how Congress could have explicitly *included* pollutants with effects on weather and climate and at the same time (silently) *excluded* from regulation those very pollutants because the pollution dynamics affecting weather and climate—by their nature—are not locally or regionally bounded.

Further, the potential effects of aerosols (and greenhouse gases) on global weather and climate were understood in 1970, including by those amending the Clean Air Act to encompass

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[117] Similarly, the melting caused by black carbon deposited on snow or ice happens locally, but black carbon emissions can travel far distances before being deposited and having those local effects. For example, the increase in black carbon over Greenland in the 20th century primarily resulted from emissions from North America. *Id.* at 308.

[118] *Id.* at 893.

[119] The inhalation harms from ozone occur locally, but as discussed in the Greenhouse Gas Emission Harms Appendix, the processes by which ozone is created and retained involve global dynamics.

[120] Climate Change 2021: The Physical Science Basis, *supra* note 109, at 865.

[121] *Id.* at 819 ("Radiative forcings induced by aerosol changes lead to both local and remote temperature responses (*high confidence*)." (emphasis in original)); *see also* Geeta G. Persad & Ken Caldeira, *Divergent Global-Scale Temperature Effects from Identical Aerosols Emitted in Different Regions*, 9 Nature Commc'ns 1 (2018). Figure 2 shows aerosol emissions from individual regions having global climate impacts. *See also Climate and Earth's Energy Budget*, NASA (Jan. 14, 2009), https://perma.cc/MLT4-QXMW.

effects on "weather" and "climate" as potential sources of endangerment. *See* Section II.B.1.d.i *infra.*

There is also zero indication in the legislative history—or, more importantly, in the statute—that Congress was trying to address air pollutant harms caused by emissions from U.S. sources affecting health and welfare in the United States *that only affected health and welfare within the United States.* EPA has not offered any theory as to why such an intent would even make any sense. In a situation where emissions in the United States lead to harms that befall Americans, and that can be mitigated by mitigating those emissions, why would Congress not want to address those harms if they also happened to affect non-Americans?

Fourth, the definition of welfare effects explicitly includes both climate *and* weather—but EPA's proffered interpretation collapses these separate concepts into one, which would make one of the terms surplusage. It is a "cardinal principle of statutory construction" that a statute ought to be construed such that "no clause, sentence, or word shall be superfluous, void, or insignificant." *TRW Inc. v. Andrews*, 534 U.S. 19, 31 (2001) (quoting *Duncan v. Walker,* 533 U.S. 167, 174 (2001)); *see Harris County v. EPA*, No. 25-cv-3646, 2026 WL 2837849, at *7 (D.D.C. Sep. 22, 2026); A. Scalia & B. Garner, Reading Law: The Interpretation of Legal Texts 176 (Thomson West 2012) ("Put to a choice, however, a court may well prefer ordinary meaning to an unusual meaning that will avoid surplusage."). If "climate" only meant regional weather conditions already covered by the term "weather," it would add nothing.

iv. EPA's proposed reinterpretation of the terms "cause," "contribute," and "reasonably anticipated to endanger" is untenable.

EPA additionally errs in proposing that greenhouse gas emissions from fossil fuel-fired power plants in the United States do not have a sufficiently close connection to the harms identified in 2015 NSPS Rule to fit within the legal meaning of "cause," "contribute," or "reasonably anticipated to endanger." 91 Fed. Reg. at 59023. Invoking principles of proximate causation, the Supplemental Proposal advances the astonishing position that no matter how large the volume of greenhouse gas emissions from power plants, and no matter how overwhelming the evidence showing that such pollution threatens public health and welfare, EPA does not believe it can legally maintain its longstanding scientific judgment that such emissions "contribute significantly" to greenhouse gas pollution that threatens public health and welfare. *See id.* EPA explains that, in its view, "global climate change concerns involve causal relationships that are too uncertain, conjectural, remote, and convoluted by intervening and confounding factors to fit within the terms 'cause,' 'contribute' and 'reasonably be anticipated to endanger' as used in CAA section 111(b)(1)(A)." *Id.* But, with this claim, EPA has not made a negative endangerment finding with respect to fossil fuel-fired power plants under section 111.

EPA's proposed reinterpretation of section 111(b)(1)(A) in this respect is both wrong and precluded by precedent. To start, EPA's proposition that section 111 was not intended to address

greenhouse gases or climate change impacts that endanger Americans—and therefore the terms "cause," "contribute" and "reasonably anticipated to endanger" can be narrowed to preclude consideration of such impacts—has already been definitively rejected by the Supreme Court. *See supra* Section II.B.1.a. The Court had "little trouble concluding" in *Massachusetts* that EPA has the legal authority to regulate greenhouse gas emissions if it forms a judgment, as it did in 2009, that greenhouse gas emissions contribute to climate change. 549 U.S. at 528.

Regardless, EPA's proposed interpretation does not reflect a plausible statutory reading, much less the best reading. Applying its plain meaning, "'contribute' means simply 'to have a share in any act or effect,' . . . or 'to have a part of share in producing.'" *Bluewater Network v. EPA*, 370 F.3d 1, 13 (D.C. Cir. 2004) (citing Webster's Third New International Dictionary 496 (1993) and 3 Oxford English Dictionary 849 (2d ed. 1989)). The term has no inherent connotation to proximate causation principles. And as relevant here, it is beyond dispute that the enormous quantity of greenhouse gas emissions from power plants is substantially contributing to driving destructive changes in our climate that pose grave threats to public health and welfare. *See, e.g.*, Greenhouse Gas Emission Harms Appendix. As the D.C. Circuit noted in *American Lung*, "this one is not even close. . . . '[U]nder any reasonable threshold or definition,' carbon dioxide from fossil-fuel-fired power plants represents a 'significant contribution' to air pollution." 985 F.3d at 976 (citing 80 Fed. Reg. at 64531).

EPA's proposed reinterpretation of "contribute" fails for an additional reason: it does not give any independent meaning to the two separate statutory triggers—"causes or contributes." 42 U.S.C. § 7411(b)(1)(A). Instead, EPA proposes to imbue both with the same gloss of proximate causation that is absent from the statutory text. "Causes, or contributes," is not a redundant phrase; by setting off the second verb phrase with commas, Congress made clear that "contributes" and "causes" mean different things. *See United States v. Atilla*, 966 F.3d 118, 126 (2d Cir. 2020). Thus, it cannot be that these separate and disjunctive triggers embody the same proximate causality standard. *Cf. Catawba County v. EPA*, 571 F.3d 20, 39 (D.C. Cir. 2009) (noting, in the context of a different Clean Air Act provision, that where the word "contribute" is used, then "contribution may simply exacerbate a problem rather than cause it").

EPA's proposed reinterpretation also entirely ignores legislative context. At their heart, principles of proximate causation are equitable legal limitations applied in tort (and sometimes criminal) cases to confine liability for an individual's conduct when the consequences are too remote or attenuated for that individual to be fairly assigned legal liability. *See, e.g.*, *CSX Transp., Inc. v. McBride*, 564 U.S. 685, 692 (2011). Thus, in the tort context, a limiting test of some sort might be applied to determine who is legally responsible for an injury to achieve a "rough sense of justice." *Id.* at 692–93 (citing *Palsgraf v. Long Island R.R. Co.*, 162 N.E. 99, 103 (N.Y. 1928) (Andrews, J., dissenting)). But EPA is not charged in section 111 with apportioning tort liability; it is charged with determining how to protect public health and welfare from air pollution threats. The latter is an entirely different inquiry, rooted in precautionary principles.

Precautionary principles undergird the Clean Air Act—including section 111—and prioritize preventive measures to mitigate risks to the broad population, even in the absence of definitive causation findings. *See United States v. Ameren Missouri*, 421 F. Supp. 3d 729, 818 (E.D. Mo. 2019) ("[T]he Clean Air Act curbs harm borne by a population, not a single person. By enacting the Clean Air Act, Congress sought 'to protect public health and welfare from any actual or potential adverse effects' from air pollution. . . . Public health regulation evaluates and communicates risk, not diagnoses or proximate causes of any one individual's health problems or death." (quoting 42 U.S.C. § 7470(1)), *aff'd in part*, *rev'd in part & remanded*, 9 F.4th 989 (8th Cir. 2021). Congress directed EPA to regulate where air pollution "may reasonably be anticipated to"—not "will"— endanger public health or welfare. 42 U.S.C. § 7411(b)(1)(A). Congress's choice to use "endanger," as opposed to "harm," adds yet another layer of precaution. The term "endanger" means only that someone or something is put in a position of danger, not that such danger be actually present or measurable. *See Endangerment*, Black's Law Dictionary (12th ed. 2024) (defining "endangerment" as "[t]he act or an instance of putting someone or something in danger; exposure to peril or harm"). Congress's use of the mandatory "shall" and its threshold of "may reasonably be anticipated" further underscore that precautionary thrust. *See* 42 U.S.C. § 7411(b)(1)(A). Congress wanted EPA to err on the side of protection, not to look for ways to avoid regulation.

Consistent with that precautionary purpose, courts have routinely applied the plain meaning of "contribute" without applying or even considering the potential application of proximate causation principles. *See, e.g.*, *Massachusetts*, 549 U.S. at 528 (finding that the statutory text forecloses EPA's position that "Congress did not intend it to regulate substances that contribute to climate change"); *Am. Lung*, 985 F.3d at 976 (citing 80 Fed. Reg. at 64531) (holding that under any reasonable threshold or definition of endangerment, "carbon dioxide from fossil fuel-fired power plants represents a 'significant contribution' to air pollution"). Even in the context of a provision requiring a finding that emissions "*will* endanger the public health or welfare," the statute does not "demand rigorous step-by-step proof of cause and effect," which "may be impossible to obtain if the precautionary purpose of the statute is to be served." *Ethyl Corp. v. EPA*, 541 F.2d 1, 28–29 (D.C. Cir. 1976) (emphasis added) (citation omitted), *cert. denied*, 426 U.S. 941 (1976).

Pertinent legislative history—ignored by the Supplemental Proposal—confirms Congress's intent to adopt a precautionary regulatory framework in section 111. Prior to 1977, section 111 directed EPA to list "categories of stationary sources" for regulation and "include a category of sources in such list if [the Administrator] determines it may contribute significantly to air pollution which causes or contributes to the endangerment of public health or welfare." Clean Air Amendments of 1970, Pub. L. No. 91-604, § 4(a), 84 Stat. 1676, 1683–84 (codified at 42 U.S.C. § 7411). Reacting to the D.C. Circuit's decision in *Ethyl Corp.*, Congress in 1977 amended section 111 and similar Act provisions to incorporate the "may reasonably be anticipated to endanger" phrase, thereby making clear that EPA need not wait for conclusive

proof of harm before acting. Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 401, 91 Stat. 685, 791 (codified at 42 U.S.C. §§ 7408, 7411, 7521, 7545, 7571). Thus, the 1977 amendments lowered the bar for regulation, rather than raising it. The House Committee Report explains that the revised endangerment standard is intended, among other things, to "emphasize the preventive or precautionary nature of the act," to "reflect awareness of the uncertainties and limitations in the data which will be available to the Administrator in the foreseeable future," and to "assure consideration of the cumulative impact of all sources of a pollutant in setting ambient and emission standards, not just the extent of the risk from the emissions from a single source or class of sources of the pollutant." H.R. Rep. No. 95-294, at 49–50 (1977).

The Supplemental Proposal further errs in asserting that regulating greenhouse gas emissions based on the endangerment of Americans caused by climate change would require revising section 111(b)(1)(A) to include the phrase "causes, or contributes" a second time. *See* 91 Fed. Reg. at 59023 (citation omitted).[122] The language that Congress enacted in section 111 plainly provides the requisite authorization to regulate greenhouse gases based on their climate change effects; a second "causes or contributes" is unnecessary where Congress employed the precautionary term "endanger," the precautionary phrase "may be reasonably anticipated to," and, as described above, the broad term "welfare." It is beyond dispute that greenhouse gas air pollution may be reasonably anticipated to endanger public health and welfare. Indeed, the Supreme Court has repeatedly made this clear. *See, e.g.*, *Massachusetts*, 549 U.S. at 532 ("we hold that EPA has the statutory authority to regulate the emission of [greenhouse gases] from new motor vehicles" based on global warming concerns); *AEP*, 564 U.S. at 424 ("*Massachusetts* made plain that emissions of carbon dioxide qualify as air pollution subject to regulation under the Act." (citation omitted)). And it is likewise beyond dispute that power plants—the largest domestic stationary source of greenhouse gas emissions—significantly contribute to that pollution.

In addition, EPA's position would foreclose regulation of many other pollutants that EPA regulates. Take, for example, emissions of NO_x, SO_2, and volatile organic compounds (VOCs), which "cause[], or contribute[] to" endangerment through multiple channels, in interaction with multiple pollutants, substances, and atmospheric conditions. *See infra* Section II.B.1.c.ii; Science of Non-Greenhouse Gas Air Pollutants Pollutant Appendix §§ 1–5. EPA's position that an additional "cause or contribute" is needed would lead to the absurd result of precluding regulation of numerous common pollutants, including the very pollutants EPA claims are central to the Act, that cause harm through indirect mechanisms. That result is especially untenable

[122] More specifically, EPA incorrectly proposes that reading Clean Air Act section 111 to authorize the regulation of greenhouse gas emissions based on global climate change concerns would "require reading section 111(b)(1)(A) as encompassing the 'emission of air pollutants that cause, or contribute significantly to, air pollution that causes, or contributes to, endangerment of public health or welfare.'" *Id.*

because, again, the statute expressly defines welfare to include a vast range of indirect effects, including effects on weather and climate, "whether caused by transformation, conversion, or combination with other air pollutants." 42 U.S.C. § 7602(h).

v. The term "significantly" does not support EPA's interpretation.

EPA proposes that Congress's inclusion of the qualifier "significantly" in section 111(b)(1)(A) requires that a source category be responsible for a "meaningfully large portion" of the "anticipated adverse public health or welfare impacts" caused by air pollution and that because climate change results from global greenhouse gas concentrations, no single category's emissions can meet that threshold. 91 Fed. Reg. at 59024–25. This proposed interpretation would rewrite the statutory text to contain limitations Congress did not enact, disregard binding precedent, and replace a required scientific judgment with a legal conclusion.[123]

First, EPA misreads the text. Section 111(b)(1)(A) asks whether a source category "causes, or contributes *significantly to, air pollution* which may reasonably be anticipated to endanger public health or welfare" (emphasis added). The adverb "significantly" modifies the source category's contribution to air pollution. The endangerment clause describes the air pollution; it does not establish the yardstick against which a source category's contribution is measured. *Cf. Am. Lung*, 985 F.3d at 976 (upholding EPA's 2015 finding that power plant CO_2 emissions contribute significantly to air pollution). The best reading of "contributes significantly," and the one that EPA has consistently maintained until now, focuses on the amount of a source category's emissions of air pollution that may reasonably be anticipated to endanger public health and welfare.[124] EPA's proposal to measure contribution against the endangerment, rather than the air pollution itself, rewrites the statute. An agency "has no power to 'tailor' legislation to bureaucratic policy goals by rewriting unambiguous statutory terms." *UARG*, 573 U.S. at 325. Nor does EPA receive deference with respect to the meaning of the term "significantly." It must implement the best reading of the term as discerned through traditional tools of statutory interpretation, not its policy preferences. *Loper Bright*, 603 U.S. at 403–04.

[123] The States and Local Governments previously submitted extensive comments to the docket for this rulemaking addressing why the 2025 Proposal's construction of the phrase "contributes significantly" is foreclosed by precedent and inconsistent with the Clean Air Act and administrative precedent. *See* States' 2025 Comments, *supra* note 5, at 34–53. We incorporate by reference and resubmit those comments in full.

[124] Over the last 50 years, under both Republican and Democratic administrations, EPA has issued dozens of New Source Performance Standards under section 111. When assessing significance under section 111, EPA has considered the total amount of dangerous air pollution emitted by the source category as well as the percentage of nationwide or sector emissions that amount of pollution represents. EPA has consistently found that even modest contributions (expressed as a percentage) are significant. *See* States' 2025 Comments, *supra* note 5, at 45–53.

Second, the contribution and endangerment findings required under section 111, like the analogous findings required under section 202, are scientific ones, not a policy or legal conclusion. *See Massachusetts*, 549 U.S. at 532–33; *CRR*, 684 F.3d at 117–18. The addition of the word "significantly" in section 111 does not change that. It speaks to the amount or degree of a source category's contribution to air pollution, which remains a scientific question, and it does not legally foreclose EPA from making a "significant contribution" finding for any particular air pollutant. *See Am. Lung*, 985 F.3d at 976. Indeed, in *AEP*, the Supreme Court held that section 111 "speaks directly" to carbon dioxide emissions from power plants, 564 U.S. at 424, and emphasized that Congress designated EPA as the "primary regulator of greenhouse gas emissions," 564 U.S. at 428. The Court's displacement holding rested on that authority, and its extended discussion of how EPA may balance competing interests in deciding how much to regulate would make no sense if, as EPA now suggests, it lacks authority to regulate at all. *AEP* is binding precedent, and principles of *stare decisis* foreclose EPA's attempt to reinterpret section 111 differently. *See Loper Bright*, 603 U.S. at 412.

Third, to the extent EPA is now making scientific claims in purported support of its legal conclusions, *i.e.*, that power plant greenhouse gas emissions cannot contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare, EPA is embedding incorrect scientific judgments in its legal conclusions without meaningfully engaging with the substantial body of evidence that contradicts those claims, and without providing any empirical support for those claims, or allowing for public examination of any such support. EPA also offers no reasoned explanation for ignoring contrary factual determinations that it has made in the past. *See FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515–16 (2009). It would additionally be a clear abuse of EPA's discretion, contrary to decades of administrative precedent, for EPA to conclude that power plants fail the significant contribution test. Power plants represent a whopping 58% of stationary source greenhouse gas emissions and 25% of total greenhouse gas emissions in the United States. *See* States' 2025 Comments, *supra* note 5, at 39. The D.C. Circuit, presented with this precise question in *American Lung*, concluded that even if a pollutant-specific finding was necessary, EPA had "sensibly" found the question "not even close," reasoning that "[b]ecause 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." 985 F.3d at 975–77 (citation omitted). Against this backdrop of precedent and longstanding agency interpretation, including EPA's prior consistent conclusion that power plant greenhouse gas emissions significantly contribute to dangerous air pollution, EPA's legal arguments fail.

c. EPA's proposed statutory interpretation depends on incorrect scientific claims.

EPA's proffered interpretation is also untenable because it depends upon incorrect scientific claims embedded within it. EPA employs an erroneous and foreclosed statutory interpretation as a pretext for failing to meaningfully engage with the vast universe of evidence

supporting its prior scientific judgments or with those judgments themselves. EPA's "statutory" interpretation, in fact, rests upon EPA's (unsupported) assumptions and claims about the science of air pollutants, climate change, and climate change impacts. But regulation under section 111 demands *reasoned* scientific judgment, not legal maneuvering and policy-driven evasion of the actual scientific record. *Cf. CRR*, 684 F.3d at 117 (explaining that an endangerment determination under section 202 requires EPA to answer only whether air pollution may reasonably be anticipated to endanger public health or welfare and whether the relevant emissions cause or contribute to that endangerment). And because EPA does not purport to base the Supplemental Proposal on scientific evidence, but instead on its own statutory interpretation, *see* 91 Fed. Reg. at 59008, 59019, its factual arguments embedded in that statutory interpretation are not entitled to any deference, *see Loper Bright*, 603 U.S. at 387–88. Furthermore, even if any deference were owed to EPA's factual arguments, those arguments, discussed below, are undermined by EPA's prior climate change findings, which the Agency has not overturned. The Agency fails to overcome its heightened burden under *Fox*, 556 U.S. at 515–16, to adequately explain its change in position given that its prior (and undisturbed) factual findings undermine its new "statutory" interpretation.

In 2015, EPA concluded, based on a substantial record of empirical data and scientific evidence, that greenhouse gas emissions from fossil fuel-fired power plants contribute significantly to air pollution that endangers public health or welfare. 80 Fed. Reg. at 64531. The D.C. Circuit upheld this finding in *American Lung*, concluding that "under any reasonable threshold or definition," such emissions "represent[] a significant contribution to air pollution," given that fossil fuel-fired power plants are the "largest stationary sources of greenhouse gas emissions in the United States." 985 F.3d at 975–76 (cleaned up) (citation omitted). The Supreme Court did not grant *certiorari* on this issue. Similarly, in *CRR*, the D.C. Circuit upheld EPA's 2009 Endangerment Finding, concluding that "substantial scientific evidence" supports EPA's determination that anthropogenically induced climate change threatens both public health and welfare, 684 F.3d at 119–22, and the Supreme Court declined to grant *certiorari*.

In now asserting that greenhouse gas emissions from fossil fuel-fired power plants do not have a "sufficiently close connection" to the harms identified in the 2015 NSPS Rule to fit within the legal meaning of "cause," "contribute," or "may reasonably anticipated to endanger," 91 Fed. Reg. at 59023, EPA embeds scientific claims in its legal conclusions without meaningfully engaging with the substantial body of scientific evidence before the Agency that squarely refutes those claims, and without providing the public with an opportunity to comment on whatever data, or lack thereof, supports EPA's assertions. EPA's attempt to rewrite the law by relying on pseudoscience is incorrect and unlawful and further undermines the legal interpretations EPA proposes.

A vast body of scientific evidence bears directly on the question whether greenhouse gas emissions from power plants significantly contribute to air pollution that may be reasonably anticipated to endanger public health or welfare and demonstrates that they do. *See infra* Section

II.C; *see also* Greenhouse Gas Emission Harms Appendix. EPA altogether fails to grapple with the scientific record—including major assessments of the U.S. Global Climate Research Program (USGCRP), the Intergovernmental Panel on Climate Change (the IPCC), the National Research Council, and NASEM and extensive evidence relating to power sector emissions.[125] EPA dismisses all of the scientific evidence before it with the back of its hand, incorrectly claiming—without any supporting explanation or analysis—that "information released by NAS[EM]" does "not differ in any material respect from or conflict with the legal rationales set forth in this supplemental notice." 91 Fed. Reg. at 59019.

EPA has found repeatedly that greenhouse gases, including CO_2, endanger public health and welfare by causing, among other things, more intense, frequent, and long-lasting heat waves; worse smog in cities; longer and more severe droughts; more intense storms, hurricanes and floods; the spread of disease; and a dramatic rise in sea levels. *See*, *e.g.*, 74 Fed. Reg. at 66496–99, 66524–26, 66532–33. In 2015, EPA determined that power plants "are by far the largest emitters" of greenhouse gases among stationary sources in the United States and significantly contribute to climate change endangerment. 80 Fed. Reg. at 64522. Against this overwhelming volume of evidence reaffirming the soundness of its prior findings, the Supplemental Proposal identifies no new scientific evidence calling into question any of the adverse public health or welfare impacts EPA previously identified—nor could it.

These incorrect claims also render the proposal arbitrary. EPA's complete failure to examine relevant scientific data—and to confront evidence that directly contradicts the Agency's position—is precisely the kind of arbitrary and capricious decisionmaking that *State Farm* prohibits. *Motor Vehicle Ass'n v. State Farm Mut. Auto. Ins. Co*., 463 U.S. 29, 43 (1983). To the extent EPA briefly acknowledges that there is a vast body of relevant scientific information bearing on climate change and power plants' contribution thereto, EPA falls far short of providing any satisfactory explanation for withdrawing or ignoring its prior, longstanding, scientific judgments. *See Fox*, 556 U.S. at 515–16. Nor has EPA provided the public with an opportunity to examine and comment on any explanation it might put forth.

EPA's failure to engage with the scientific record, and to explain its departures from prior scientific judgments, cannot be cured by EPA's adoption of new statutory interpretations, particularly where those statutory interpretations themselves rest on unsupported and contested scientific premises. An agency may not evade its obligation to provide a reasoned, record-based explanation for its scientific judgments by recasting them as matters of statutory interpretation; nor does EPA get any deference for pseudoscientific, unsupported, and unsupportable claims mustered in purported support of legal interpretations, while EPA specifically disclaims that it is making the scientific judgment demanded by the statute. Indeed, EPA's proposed interpretation that it lacks authority to regulate greenhouse gases under section 111 is far from a pure

[125] *See generally* States' 2025 Comments, *supra* note 5, at 49–52.

conclusion of law. It depends upon a series of embedded, plainly incorrect scientific claims, which include:

> (1) EPA's assertion that power plant greenhouse gas emissions "do not have a sufficiently close connection to the harms identified in the 2015 [NSPS Rule] to fit within the legal meaning of 'cause' or 'contribute,'" 91 Fed. Reg. at 59023;
>
> (2) EPA's assertion that other pollutants regulated under section 111 do not harm public health or welfare through "indirect[]" pathways and long, "complex causal chains," *id.* at 59026, 59036;
>
> (3) EPA's assertion that "[g]lobal climate change concerns involve causal relationships that are too uncertain, conjectural, remote, and convoluted by intervening and confounding factors to fit within the terms 'cause,' 'contribute,' and 'reasonably be anticipated to endanger' as used in CAA section 111(b)(1)(A)," *id*. at 59023;
>
> (4) EPA's assertion that "[f]or global climate change, . . . harm reductions do not occur directly as [a] result of emission reductions," and "the linkage between the emission [of greenhouse gases] and the harms to public health and welfare depends on the intermediate diffusion of GHGs into the global atmosphere," *id.* at 59041;
>
> (5) EPA's assertion that the "mechanism of harm" for greenhouse gases "depend[s] on global concentrations or centuries-long time horizons" and that annual emissions of greenhouse gases are not "readily measurable against [] total annual concentrations," *id.* at 59031; and
>
> (6) EPA's assertion that other pollutants regulated under section 111 are not "omnipresent, naturally occurring, and essentially component[s] of the natural air," *id.* at 59032.

Each of these embedded claims, which comprise EPA's attempt to read the Clean Air Act to apply only to what it deems "local or regional pollutants," is scientifically incorrect. Each fails to consider important aspects of the problem, and each rests on explanations that run counter to the overwhelming evidence before the Agency. And because each embedded scientific claim is incorrect and arbitrary, the statutory interpretations that are dependent upon them cannot be sustained as plausible interpretations, much less the "best" ones available. In the five subsections that follow, and in the Science of Non-Greenhouse Gas Air Pollutants Appendix, we more fully demonstrate how EPA's newly invented definition of "local" or "regional" "air pollution" is factually contradicted by EPA's own examples and regulatory history and does not successfully distinguish between greenhouse gases and other pollutants regulated under the Act. To the extent EPA claims in a conclusory fashion that the scientific evidence before it does "not differ in any material respect from or conflict with the legal rationales set forth in this supplemental notice," *id*. at 59019, that assertion is wrong and unsupported. The scientific record demonstrates that

EPA's proposed definition of "local or regional pollutants" would exclude from Clean Air Act coverage the very pollutants EPA cites as central to the Act. At the same time, EPA's proposed definition would *not* exclude greenhouse gases from coverage, because they do cause harm to public health and welfare through what EPA describes as "local" or "regional" exposure.

i. EPA's claim that greenhouse gas emissions do not have a close connection to climate change harms is incorrect and contradicted by the scientific record.

EPA is wrong that power plant greenhouse gas emissions "do not have a sufficiently close connection" to the harms identified in its prior endangerment findings and involve "causal relationships that are too uncertain, conjectural, remote and convoluted by intervening and confounding factors" to enable an affirmative endangerment determination. 91 Fed. Reg. at 59023. In reaching this conclusion, EPA does not even attempt to grapple with any of the scientific evidence before it, and that body of scientific evidence overwhelmingly contradicts the Agency's claim.

The evidence that power plant greenhouse gas emissions have a close connection to the harms identified in EPA's prior endangerment findings is unassailable.[126] Indeed, NASEM's recent report emphasized "that the evidence for current and future harm to human health and welfare created by human-caused GHGs is beyond scientific dispute."[127] Thus, "EPA's 2009 finding that the human-caused emissions of greenhouse gases threaten human health and welfare was accurate, has stood the test of time, and is now reinforced by even stronger evidence."[128] NASEM also concluded, among other things:

- "Continued emissions of greenhouse gases from human activities will lead to more climate changes in the United States, with the severity of expected change increasing with every ton of greenhouse gases emitted."[129]
- "Improved observations confirm unequivocally that greenhouse gas emissions are warming Earth's surface and changing Earth's climate. . . . All climate models—regardless of assumptions about future emissions scenarios or estimates of climate sensitivity—consistently project continued warming in response to future atmospheric [greenhouse gas] increases."[130]

[126] *See, e.g.*, 74 Fed. Reg. at 66497–545; 80 Fed. Reg. at 64517–24; U.S. Glob. Change Rsch. Program, Fifth National Climate Assessment (Allison R. Crimmins et al., eds. 2023), https://perma.cc/23QF-7YEE [hereinafter Fifth National Climate Assessment]; NASEM 2025 Climate Report, *supra* note 1.

[127] NASEM 2025 Climate Report, *supra* note 1, at 2.

[128] *Id.* at 1.

[129] *Id*. at 2.

[130] *Id.*

- "Human-caused emissions of greenhouse gases and resulting climate change harm the health of people in the United States."[131] Greenhouse gas emissions will intensify "risks to human health from exposures to extreme heat, ground-level ozone, and other airborne particulate matter, extreme weather events, and airborne allergens, affecting incidence of cardiovascular, respiratory, and other diseases."[132]
- "Changes in climate resulting from human-caused emissions of greenhouse gases harm the welfare of people in the United States."[133] Greenhouse gas emissions will lead "to negative impacts on agricultural crops and livestock," decrease the quality of streams and rivers, and increase the risk of fire and drought.[134]

In short, scientific experts have reached a broad consensus that there is a sufficiently close connection between greenhouse gas emissions and harms to public health and welfare to enable an affirmative endangerment determination. In the face of that evidence, EPA is not free to simply assume the opposite for purposes of crafting a new legal interpretation.

ii. Other pollutants highlighted by EPA as quintessentially "local or regional" pollutants harm public health and welfare through long, complex, attenuated, and indirect pathways.

EPA's various efforts to categorize the local/regional pollutants that it contends are covered by the Act repeatedly echo the concept of "directness" of harm, describing them as harming directly through "exposure" or as "ingredients" in pollution that harms directly through exposure. *See*, *e.g.*, 91 Fed. Reg. at 59025–26 (claiming that "local or regional" pollutants "are ingredients that create the air pollution that endangers public health or welfare in combination through local or regional exposure"). To distinguish greenhouse gases, EPA alleges that greenhouse gases cause harm "only indirectly" and "not by [their] presence in the ambient air." 91 Fed. Reg. 59025; *see also, e.g.*, *id.* at 59026 (claiming that greenhouse gases "need [to] become globally well-mixed in the atmosphere to adversely impact human health or welfare through a chain of subsequent effects"). But the relationship between greenhouse gases and climate change harms to health and welfare is as direct—if not more direct—than the harms caused by many air pollutants regulated by EPA since the Clean Air Act was first enacted, and that EPA asserts motivated the passage of the Act in the first place.

In the Supplemental Proposal, EPA argues that the regulated criteria pollutants carbon monoxide, lead, ground-level ozone, NO_x, PM, and SO_2 "adversely impact public health or welfare through exposure to emissions of the pollutant itself, through interaction with other

[131] *Id.*

[132] *Id*.

[133] *Id.*

[134] *Id*. at 2, 35, 65–67.

chemical constituents or environmental factors to create air pollution that then threatens harm on a local or regional scale, or both." 91 Fed. Reg. at 59026. EPA similarly argues that hazardous air pollutants "endanger health and welfare by virtue of their emission into and existence in the air." *Id.* EPA cites the regional haze program and section 202 as similarly focused on "local and regional" pollutants. *Id.* at 59014.

Not only are these alleged indicia of "local and regional" pollutants missing from the Clean Air Act, but they also do not distinguish between greenhouse gas emissions and other air pollutants. Many of the "local and regional" pollutants EPA identifies, such as acid rain and ozone precursors, cause harm "indirectly," and not as a result of local or regional exposure, in the ambient air, to those pollutants or the air pollution they help form or indirectly facilitate. In addition, other regulated pollutants (such as PM) cause harm through the same mechanism as greenhouse gases, *i.e.*, by modifying radiative transfer and/or sunlight transmission.[135] Greenhouse gas emissions not only have direct effects that harm health and welfare, but they also interact with "environmental factors" to cause direct harm on a "local and regional scale."

The attached Science of Non-Greenhouse Gas Air Pollutants Appendix details how other pollutants highlighted by EPA as quintessential "local or regional" pollutants also have harm pathways that can be long, global, complex, attenuated, and indirect—the same characteristics that EPA now finds objectionable when it comes to greenhouse gases.

Take, for example, ozone and its precursors. EPA asserts that ground-level ozone "adversely impact[s] public health or welfare through exposure to emissions of the pollutant itself, through interaction with other chemical constituents or environmental factors to create air pollution that then threatens harm on a local or regional scale, or both." 91 Fed. Reg. at 59024–26. The Agency specifically identifies sunlight as an example of an environmental factor. *Id.* at 59025. However, ozone is not emitted directly by stationary or mobile sources, but is rather a secondary pollutant formed and retained in the atmosphere through complex reactions—including through the indirect effects of regulated ozone precursors.

[135] Comments of Jana B. Milford, Doc. ID No. EPA-HQ-OAR-2025-0194-0093, at 4–5 (Sep. 11, 2025), https://www.regulations.gov/comment/EPA-HQ-OAR-2025-0194-0784 [hereinafter Comments of Jana B. Milford].

Ground-level ozone[136] negatively affects health and welfare;[137] those with asthma, children, older adults, and people who are active outdoors, especially outdoor workers, are particularly vulnerable.[138]

The two regulated ozone "precursors" are NO_x and VOCs.[139] NO_x includes nitric oxide (NO) and nitrogen dioxide (NO_2).[140] All VOCs contain carbon. They are volatile because they can evaporate from a liquid or solid into a gas under normal atmospheric conditions.[141] Two examples are benzene (C_6H_6) and octane (C_8H_{18}).[142] There are both natural and anthropogenic

[136] Future references to "ozone" in this comment are references to ground-level ozone, as distinguished from stratospheric ozone, which occurs in the Earth's upper atmosphere and provides protection from ultraviolet radiation from the sun. *Ground-Level Ozone Basics*, EPA (last updated Feb. 18, 2026), https://perma.cc/T2BK-UCHK.

[137] Health impacts include asthma exacerbation, chronic obstructive pulmonary disease exacerbation, respiratory infection, and hospital admissions and emergency department visits for combined respiratory disease. Welfare impacts include visible foliar injury effects on vegetation, reduced vegetation growth, reduced plant reproduction, reduced productivity in terrestrial ecosystems, reduced yield and quality of agricultural crops, alteration of below-ground biogeochemical cycles, and altered terrestrial community. *See* EPA, EPA/600/R-20/012, Integrated Science Assessment for Ozone and Related Photochemical Oxidants, at ES-5 to ES-15 (Apr. 2020), https://perma.cc/6XA8-ZZCM [hereinafter 2020 Ozone ISA].

[138] *Id.* at IS-51.

[139] EPA, EPA 600/R-05/004aF, Air Quality Criteria for Ozone and Related Photochemical Oxidants: Volume I of III, at E-3 to E-5 (Feb. 2006), https://perma.cc/QK6E-8V6H [hereinafter I Air Quality Criteria for Ozone]. EPA has found that vegetation damage was "the only direct effect attributable to ambient levels of hydrocarbons," National Primary and Secondary Ambient Air Quality Standards: Notice of Proposed Standards for Sulfur Oxides, Particulate Matter, Carbon Monoxide, Photochemical Oxidants, Hydrocarbons, and Nitrogen Oxides, 36 Fed. Reg. 1502, 1502 (Jan. 30, 1971), and explained that "the sole purpose of prescribing a hydrocarbon standard is to control photochemical oxidants" (or ozone), National Primary and Secondary Ambient Air Quality Standards, 36 Fed. Reg. 8186, 8186 (Apr. 30, 1971). VOCs include the tailpipe emissions that Congress and EPA have variously called "hydrocarbons," "non-methane hydrocarbons," or "non-methane organic gases" when regulating or directing regulation to reduce ozone.

[140] EPA, EPA 600/R-10/076F, Integrated Science Assessment for Ozone and Related Photochemical Oxidants 3-1 n.1 (Feb. 2013), https://perma.cc/Z4SW-8RWH [hereinafter 2013 Ozone ISA]; I Air Quality Criteria for Ozone, *supra* note 139, at 2-2.

[141] *Technical Overview of Volatile Organic Compounds*, EPA (last updated Aug. 17, 2026), https://perma.cc/HK57-CJ8S [hereinafter *Technical Overview of VOCs*].

[142] EPA, EPA-450/3-78-119, Volatile Organic Compound (VOC) Species Data Manual (Dec. 1978), https://perma.cc/2MNN-NP5G.

sources of NO_x and VOCs.[143] The formation and accumulation of ozone due to these precursors is a complex nonlinear function with many factors.[144]

Ozone formation

In the absence of VOCs, NO_2 reacts with ultraviolet light (hv), which forms NO and a ground-state oxygen atom $O(^3P)$.[145] The free reactive $O(^3P)$ atom can react with O_2 to form ozone (O_3), resulting in NO and ozone.[146] That reaction may or may not satisfy EPA's newfound "ingredient" test—most regulated NO_x emissions are NO.[147] NO secures an additional oxygen atom in the atmosphere to form NO_2, which, as described above, reacts with light to form NO + O, creating a free reactive O atom to react with O_2 to form ozone.[148] That O atom may have been in the original, regulated NO emission, or it may not have. Therefore, an ozone molecule may have an "ingredient" ozone molecule from the original NO emission, or it may not. NO may simply have been the temporary carrier for the oxygen molecule already in the atmosphere that subsequently becomes an ingredient for ozone. In other words, EPA's local/regional definition would encompass NO_x in its role as an ozone precursor only for the direct emissions of NO_2, as opposed to NO; for stationary sources, NO_2 may account for less than half of emissions.[149] Thus, using EPA's local/regional definition, NO_x could not be regulated, despite its critical role in ozone formation.

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[143] Elena David & Violeta-Carolina Niculescu, *Volatile Organic Compounds (VOCs) as Environmental Pollutants: Occurrence and Mitigation Using Nanomaterials*, 18 Int'l J. Env't Rsch. & Pub. Health 1 (2021); *Atmospheric Monitoring of Volatile Organic Compounds*, Nature, https://perma.cc/AJ2M-4YCH (last visited Oct. 30, 2026).

[144] Factors include "(1) the intensity and spectral distribution of sunlight; (2) atmospheric mixing; (3) concentrations of precursors in the ambient air and the rates of chemical reactions of these precursors; and (4) processing on cloud and aerosol particles." 2013 Ozone ISA, *supra* note 140, at 3-2; I Air Quality Criteria for Ozone, *supra* note 139, at E-3 to E-5, 2-1, 2-25.

[145] EPA, EPA 600/R-05/004bF, Air Quality Criteria for Ozone and Related Photochemical Oxidants: Volume II of III, at AX2-4 to -5 (Feb. 2006), https://perma.cc/8P85-EVE9 [hereinafter II Air Quality Criteria for Ozone].

[146] *Id.*

[147] EPA, EPA/600/P-93/004aF, Air Quality Criteria for Ozone and Related Photochemical Oxidants: Volume I of III, at 1-5 (1996), https://perma.cc/7CDD-N5BK [hereinafter I 1996 Air Quality Criteria for Ozone]. In 1971, while regulating NO due to the chain of effects and subsequent harm that could originate with NO emissions, EPA noted that there was "[n]o evidence . . . that NO produces significant adverse health effects at the ambient atmospheric concentrations thus far measured." EPA, Air Pollution Control Off. Publ'n No. AP-84, Air Quality Criteria for Nitrogen Oxides 11-9 to 11-10 (1971), https://perma.cc/V4RX-K27U.

[148] II Air Quality Criteria for Ozone, *supra* note 145, at AX2-4 to AX2-5.

[149] Elec. Power Rsch. Inst., Assessment of NO2/NOx Ratios at Fossil Fuel Power Plants (Apr. 2019), https://perma.cc/QRM3-SZVU.

Ozone destruction or preservation

At this stage in the atmospheric chemistry, an ozone molecule has been formed. However, without VOCs, the O_3 molecule is then destroyed, as O_3 reacts with NO to form NO_2 and O_2, preventing any net ozone accumulation.[150] This cycle is illustrated as follows:

$NO_2 + hv \rightarrow NO + O(^3P)$,

$O(^3P) + O_2 + M \rightarrow O_3 + M$

$NO + O_3 \rightarrow NO_2 + O_2$

In this equation M represents an air molecule.[151]

In the presence of VOCs, however, ozone can accumulate.[152] When VOCs oxidize in the atmosphere, they form organic peroxy (RO_2) or hydroperoxyl (HO_2) radicals that then react with NO to create NO_2 without the participation of O_3, as illustrated in figure 1.[153]

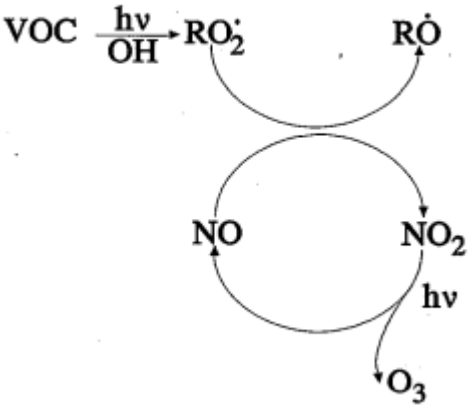


Figure 1. NO_x and VOC cycle.[154]

[150] II Air Quality Criteria for Ozone, *supra* note 145, at AX2-4 to AX2-5.

[151] *Id*.; I Air Quality Criteria for Ozone, *supra* note 139, at 2-2; I 1996 Air Quality Criteria for Ozone, *supra* note 147, at 3-30 to 3-31.

[152] II Air Quality Criteria for Ozone, *supra* note 145, at AX2-4 to AX2-5; I Air Quality Criteria for Ozone, *supra* note 139, at 2-2 to 2-4.

[153] II Air Quality Criteria for Ozone, *supra* note 145, at AX2-4 to AX2-5; I Air Quality Criteria for Ozone, *supra* note 139, at 2-2.

[154] I 1996 Air Quality Criteria for Ozone, *supra* note 147, at 3-30 to 3-31, fig. 3-4.

Hydrocarbons and other VOCs[155] do not themselves create ozone and are not ingredients *in* ozone.[156] The ozone would form with or without VOCs; it is the accumulation of ozone that they enable. The oxidation of reactive VOCs in the atmosphere—most of which do not even contain oxygen when emitted—leads to the formation of reactive radical species. Those radical species are what allow the conversion of NO to NO_2 without the participation of O_3.[157] This has two effects. First, it slows the rate of ozone *destruction* because NO molecules would otherwise react with the ozone to reform NO_2 and prevent any net ozone accumulation.[158] Second, it creates additional NO_2 molecules, which can then react with ultraviolet light to form ozone.[159] In other words, the role of VOCs in ozone formation is "indirect"—they reduce the availability of molecules that destroy ozone and increase the availability of molecules that create ozone.

Butane (C_4H_{10}), a common VOC, provides an illustrative example. Butane itself is not hazardous at atmospheric concentrations.[160] But when butane is released into the atmosphere, it can react with the O_2 in the air around it, forming a new carbon, hydrogen, and oxygen compound. As described above, NO_2 in the atmosphere reacts with ultraviolet light and forms NO and O; the O can react with an O_2 molecule and form ozone. Acting as an oxygen carrier, the new carbon, hydrogen, and oxygen compound (the oxidized butane VOC molecule) can react with NO—preventing the NO from reacting with ozone to reform O_2 and NO_2 molecules. This both avoids destruction of the ozone molecule and creates a new NO_2 molecule that can react with ultraviolet light to enable formation of additional ozone. The role of butane in ozone formation is critical, but entirely "indirect."

The accumulation of ozone not only requires both NO_x and VOCs, but it can also be limited by their relative concentrations in the atmosphere. There is a point at which additional NO_x will no longer increase ozone formation without the addition of VOCs (*i.e.*, NO_x-saturation). However, the concentration levels at which NO_x-saturation occurs depends on VOC concentrations and spatial and temporal factors.[161] Reducing VOCs or NO_x, while holding the other constant, does not linearly decrease the formation of ozone, and depending on relative

[155] Of the "example" VOCs EPA lists, only 6 of 15 have an oxygen molecule—formaldehyde, acetone, ethanol, 2-propanol, hexanol, and phthalates. *Technical Overview of VOCs*, *supra* note 141.

[156] A hydrocarbon contains only hydrogen and carbon—by definition, it cannot contain an "ingredient" for an ozone molecule, which contains only three oxygen molecules. Many other VOCs also do not contain oxygen molecules.

[157] II Air Quality Criteria for Ozone, *supra* note 145, at AX2-4 to AX2-5.

[158] *Id.*

[159] I 1996 Air Quality Criteria for Ozone, *supra* note 147, at 3-30 to 3-31.

[160] *Butane Results—AEGL Program*, EPA (last updated May 14, 2026), https://perma.cc/4RMQ-ASMA.

[161] I Air Quality Criteria for Ozone, *supra* note 139, at 2-16.

concentration levels, total ozone may actually increase before it ultimately decreases.[162] During the night and wintertime, NO acts as a scavenger of O_3, reducing ozone accumulation.[163] In other words, unlike CO_2, for which an increase in emissions always results in an increase in harms, more emissions of VOCs or NO_x do not always result in an increase in ozone, and can result in increases in one geographic area and decreases in another nearby area.

Environmental conditions complicate the rate at which emissions of ozone precursors result in ozone accumulation. As is evident from the above discussion, the presence (or absence) of sunlight is critical to ozone formation. Warmer temperatures drive several processes with the potential to accelerate ozone formation.[164] Further, when air becomes stable near the surface and does not mix vertically, ozone precursors can accumulate. The combination of these factors results in ideal conditions for ozone formation and accumulation. Major episodes of high ozone concentrations and exposure, sometimes lasting several days, have been associated with high pressure systems during the warmer seasons, as these conditions result in warm, stable air and cloudless conditions.[165] These dynamics are further complicated by the international transport of ozone through stratospheric exchange, the transport of its precursors, and the role of methane, a VOC, which is well-mixed globally.[166] Thus, some of the atmospheric dynamics that drive ozone creation and retention are global in scale.

iii. Greenhouse gases have "direct" effects and cause harm through shorter causal pathways than pollutants EPA describes as central to the Act.

EPA incorrectly asserts that greenhouse gas emissions may impact health or welfare only indirectly through the "various causal steps involved in global climate change." 91 Fed. Reg. at 59026. But CO_2 molecules in the atmosphere are directly absorbed into the ocean and cause ocean acidification, which adversely affects food production from shellfish aquaculture and fisheries.[167] This is entirely analogous to, and as "direct" or "indirect" as, the role of NO_x and

[162] T.R. Oke et al., *Chapter 11: Air Pollution*, *in* Urban Climates 294, 321–22 (2017).

[163] *Id.*

[164] II Air Quality Criteria for Ozone, *supra* note 145, at AX2-92 to AX2-94.

[165] *Id.* at AX2-61.

[166] 2020 Ozone ISA, *supra* note 137; *Meteorological Process Overview*, EPA (last updated Apr. 20, 2026), https://perma.cc/JM3E-XNKX; Comments of Att'ys Gen. of Mass. et al., *supra* note 106, at 44–45.

[167] *Ocean Acidification*, NOAA (last updated Oct. 7, 2026), https://perma.cc/K2BW-6F5W; Sarah R. Cooley et al., *Chapter 3: Oceans and Coastal Ecosystems and their Services*, *in* IPCC, Climate Change 2022: Impacts, Adaptation and Vulnerability 379, 395–96 (Hans-Otto Portner et al., eds., 2023); O. Hoegh-Guldberg et al., *Coral Reefs Under Rapid Climate Change and Ocean Acidification*, 318 Science 1737 (2007); 2023 IPCC Synthesis Report, *supra* note 55, at 6.

SO_2 in forming acidic precipitation.[168] And direct exposure to greater-than-17% concentrations of CO_2 can cause "loss of controlled and purposeful activity, unconsciousness, convulsions, coma, and death . . . within 1 minute of initial inhalation."[169] Early evidence indicates more frequent and prolonged "direct" exposure to increasing CO_2 concentrations in indoor air cause adverse health impacts.[170] Ambient CO_2 levels—like levels of many other pollutants—are usually too low to cause inhalation harms, but this does not distinguish CO_2 from other regulated pollutants. Further, in crops, "direct" exposure to higher CO_2 concentrations increases carbohydrate content while decreasing protein and micronutrient (*e.g.*, B-vitamins, iron, and zinc) concentrations.[171]

Greenhouse gases in the atmosphere—directly, without combining with any other molecules—trap infrared radiation, and it is that radiation that heats the planet and causes harms to human health and welfare.[172] EPA describes sunlight (radiation) as an "environmental factor" that can be involved in the formation of air pollution. 91 Fed. Reg. at 59025. The sun emits shortwave radiation. Infrared radiation is long-wave radiation, emitted by any surface that has absorbed heat (usually from sunlight).[173] Greenhouse gases are more effective at absorbing

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[168] *See* Science of Non-Greenhouse Gas Air Pollutants Appendix § 1. And of course, methane (a greenhouse gas) in the atmosphere facilitates ozone accumulation the same way that other hydrocarbons do. I Air Quality Criteria for Ozone, *supra* note 139, at 2-2 to 2-4.

[169] EPA, EPA430-R-00-002, Carbon Dioxide as a Fire Suppressant: Examining the Risks 5 (Feb. 2000), https://perma.cc/695B-TRU7.

[170] Tyler A. Jacobson et al., *Direct Human Health Risks of Increased Atmospheric Carbon Dioxide*, 2 Nature Sustainability 691 (2019).

[171] Kristie L. Ebi et al., N*utritional Quality of Crops in a High CO_2 World: An Agenda for Research and Technology Development*, 16 Env't Rsch. Letters 1 (2021); Daniel R. Taub et al., *Effects of Elevated CO_2 on the Protein Concentration of Food Crops: A Meta-Analysis*, 14 Glob. Change Biology 565 (2008); Samuel S. Myers et al., *Research Letter: Rising Concentration of Atmospheric CO_2 Threatens Human Nutrition*, 510 Nature 1 (2014); Samuel S. Myers et al., *Effect of Increased Concentrations of Atmospheric Carbon Dioxide on the Global Threat of Zinc Deficiency: A Modelling Study*, 3 Lancet Glob. Health e639 (2015); Chunwu Zhu et al., *Rising Temperatures Can Negate CO_2 Fertilization Effects on Global Staple Crop Yields: A Meta-Regression Analysis*, 342 Agric. & Forest Meteorology 1 (2023); Irakli Loladze et al., *Rising Atmospheric CO_2 Lowers Concentrations of Plant Carotenoids Essential to Human Health: A Meta-Analysis*, 63 Molecular Nutrition & Food Rsch. 1 (2019); Robert H. Beach et al., *Combining the Effects of Increased Atmospheric Carbon Dioxide on Protein, Iron, and Zinc Availability and Projected Climate Change on Global Diets: A Modelling Study*, 3 Lancet Planetary Health e307 (2019).

[172] *Basics of the Carbon Cycle and the Greenhouse Effect*, NOAA, https://perma.cc/EH3B-J8TX (last visited Oct. 15, 2026).

[173] *Measuring & Analyzing Greenhouse Gases: Behind the Scenes*, NOAA, https://perma.cc/2PLL-BCQR (last visited Oct. 15, 2026).

Earth's infrared radiation than sunlight, but they interact with both kinds of radiation.[174] The causal pathway is short and simple. A greenhouse gas molecule is emitted. In the atmosphere, the molecule traps infrared radiation that would otherwise escape to space. The Earth's atmosphere now contains more heat energy.[175] Greenhouse gases *directly trap heat in the Earth's atmosphere*, which endangers human health and welfare. Thus, greenhouse gases fit squarely within EPA's proposed definition of a local or regional pollutant.

EPA asserts that greenhouse gases are distinctive because they must become well-mixed in the atmosphere to cause harm. 91 Fed. Reg. at 59022, 59024. This is false. Greenhouse gas molecules start absorbing infrared radiation *immediately* after emission into the atmosphere. Moreover, greenhouse gas concentrations are elevated nearest to the point of emission because the pollutant has not yet had time to disperse. One study of California and the Los Angeles basin suggests that the locally elevated concentration of greenhouse gases in regions with high emissions, such as large cities with substantial transportation emissions, cause localized warming and increased ozone and particulate matter concentrations.[176] Greenhouse gases eventually become well-mixed because of their long lifetime in the atmosphere. The fact that they become well-mixed does not decrease local and immediate harm—increasing the amount of heat trapped in the Earth's atmosphere has local effects. Rather, the fact that greenhouse gases change the energy balance of the entire planet and that those effects persist for a long time *adds* a global and multigenerational component to the harm they cause—and *increases* the local harms they cause. Americans are harmed via impacts occurring in the near-term within the borders of the United States and also via harms to critical supply chains, economic investments, and national security impacts in distant locations, and Americans not yet born will be harmed from future climate impacts occurring within U.S. borders and elsewhere.[177]

Heat itself harms human health and welfare. Extreme heat resulting from rising greenhouse gas concentrations is leading to increased rates of heat-related illness and death, particularly among vulnerable populations, including children, the elderly, low-income individuals, and outdoor workers.[178] Presently, heat is the deadliest natural disaster in the United

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[174] M. Etminan et al., *Radiative Forcing of Carbon Dioxide, Methane, and Nitrous Oxide: A Significant Revision of the Methane Radiative Forcing,* 43 Geophysical Rsch. Letters 12,614 (2016).

[175] Karina von Schuckmann et al., *Heat Stored in the Earth System: Where Does the Energy Go?*, 12 Earth Sys. Sci. Data 2013 (2020).

[176] Mark Z. Jacobson, *Enhancement of Local Air Pollution by Urban CO_2 Domes*, 44 Env't Sci. & Tech. 2497 (2010).

[177] Alexa K. Jay et al., *Chapter 1: Overview: Understanding Risks, Impacts, and Responses*, *in* Fifth National Climate Assessment, *supra* note 126, at 1-32; Molly E. Helmuth et al., *Chapter 17: Climate Effects on U.S. International Interests*, *in* Fifth National Climate Assessment, *supra* note 126, at 17-11.

[178] Romanello et al., *supra* note 47; Luke A. Parsons et al., *Global Labor Loss Due to Humid Heat Exposure Underestimated for Outdoor Workers*, 17 Env't Rsch. Letters 1 (2022); Mary H. Hayden et al.,

States.[179] Hotter air reduces productivity for outdoor workers and livestock production;[180] impairs learning and general cognitive ability in children and advances the onset of dementia;[181] increases the efficiency of ozone formation;[182] increases emissions of VOCs from soils and vegetation;[183] expands allergy-inducing pollen seasons;[184] allows disease vectors (and diseases) to expand into

Chapter 15: Human Health, *in* Fifth National Climate Assessment, *supra* note 126, at 15-6, 15-18; Aaron S. Bernstein et al., *Warm Season and Emergency Department Visits to U.S. Children's Hospitals*, 130 Env't Health Persps. 017001-1 (2022); Robert D. Meade et al., *Physiological Factors Characterizing Heat-Vulnerable Older Adults: A Narrative Review*, 144 Env't Int'l 1 (2020); Cassandra R. O'Lenick et al., *A Case-Crossover Analysis of Indoor Heat Exposure on Mortality and Hospitalizations among the Elderly in Houston, Texas*, 128 Env't Health Persps. 127007-1 (2020).

[179] Terri Adams-Fuller, *Extreme Heat Is Deadlier Than Hurricanes, Floods and Tornadoes Combined*, Sci. Am. (July 1, 2023).

[180] Jay et al., Fifth National Climate Assessment, *supra* note 126, at ch. 1, 1-32.

[181] Shervin Assari & Hossein Zare, *Extreme Heat Exposure Is Associated with Lower Learning, General Cognitive Ability, and Memory Among US Children*, 3 Open J. Neuroscience 1, 10 (2025); Ayako Morita et al., *Effects of Extreme Heat on the Onset of Dementia and All-Cause Mortality: A 3-Year Follow-Up Study in a Large Population-Based Cohort in Japan*, 22 Alzheimer's & Dementia 11 (2026).

[182] J. Jason West et al., *Chapter 14: Air Quality, in* Fifth National Climate Assessment, *supra* note 126, at 14-6; Sanford Sillman, *The Relation Between Ozone, NO_x and Hydrocarbons in Urban and Polluted Rural Environments*, 33 Atmospheric Env't 1821 (1999); *Trends in Ozone Adjusted for Weather Conditions*, EPA (last updated Sep. 30, 2026), https://perma.cc/X86A-GX2W; EPA, Overview of Ozone (O_3) Air Quality in the United States (last updated Aug. 9, 2024), https://perma.cc/XM6D-G7AS; ; Christopher G. Nolte et al., *Regional Temperature-Ozone Relationships Across the U.S. Under Multiple Climate and Emissions Scenarios*, 71 J. Air & Waste Mgmt. Ass'n 1251 (2021); *see also* Neal L. Fann et al., *Associations Between Simulated Future Changes in Climate, Air Quality, and Human Health*, 4 JAMA Network Open 1 (2021).

[183] West et al., Fifth National Climate Assessment, *supra* note 126, at ch. 14, 14-6; Yiming Yang et al., *Impact of Temperature on the Biogenic Volatile Organic Compound (BVOC) Emissions in China: A Review*, 159 J. Env't Scis. 649 (2026).

[184] P.J. Schramm et al., *A Systematic Review of the Effects of Temperature and Precipitation on Pollen Concentrations and Season Timing, and Implications for Human Health*, 65 Int'l J. Biometeorology (forthcoming 2021) (author manuscript) (on file with HHS Public Access).

new areas;[185] reduces and melts snowpacks;[186] and thaws permafrost, creating land instability and in some areas releasing methane and CO_2.[187] Hotter oceans cause coral reef bleaching, leading to coral death; shifts in species and prey distributions; significant population mortality and decline in some species; harmful algal blooms; changes to fishing seasons and decreased fishing revenue; and tourism disruptions.[188] Hotter oceans cannot absorb as much anthropogenic CO_2.[189] Hotter oceans and hotter air cause ocean expansion and glacier melt, which raises sea levels, putting coastal infrastructure at risk of flooding and causing saltwater intrusion into groundwater aquifers used for water supplies.[190]

Hotter oceans fuel more intense hurricanes, which cause more damage. Hotter air holds more water, which is causing more intense precipitation events across the country[191] and

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[185] Hayden et al., Fifth National Climate Assessment, *supra* note 126, at ch. 15, 15-8 to 15-9; Hongyan Liao et al., *Climate Change, Its Impact on Emerging Infectious Diseases and New Technologies to Combat the Challenge*, 13 Emerging Microbes & Infections 1 (2024); Andrew Paul Gutierrez & Luigi Ponti, *The New World Screwworm: Prospective Distribution and Role of Weather in Eradication*, 16 Agric. & Forest Entomology 158, fig. S8 (2014); Lisa I. Couper et al., *Impact of Prior and Projected Climate Change on US Lyme Disease Incidence*, 27 Glob. Change Biology (forthcoming 2021) (author manuscript) (on file with HHS Public Access); Aaron B. Wilson et al., *Chapter 24: Midwest*, *in* Fifth National Climate Assessment, *supra* note 126, at 24-19; Jeremy S. Hoffman et al., *Chapter 22: Southeast*, *in* Fifth National Climate Assessment, *supra* note 126, at 22-22.

[186] Jay et al., Fifth National Climate Assessment, *supra* note 126, at ch. 1, 1-21; *Snow, Ice, and Permafrost*, U.S. Geological Surv., https://perma.cc/4C4J-Q395 (last visited Oct. 30, 2026); Philip W. Mote et al., *Dramatic Declines in Snowpack in the Western US*, 1 NPJ Climate & Atmospheric Sci. 1 (2018); Alexander R. Gottlieb & Justin S. Mankin, *Evidence of Human Influence on Northern Hemisphere Snow Loss*, 625 Nature 293 (2024); Mohammad Safeeq et al., *Influence of Winter Season Climate Variability on Snow-Precipitation Ratio in the Western United States*, 36 Int'l J. Climatology 3175 (2015).

[187] David I. Armstrong McKay et al., *Exceeding 1.5°C Global Warming Could Trigger Multiple Climate Tipping Points*, 377 Science 1, 5 (2022).

[188] Katherine E. Mills et al., *Chapter 10: Ocean Ecosystems and Marine Resources*, *in* Fifth National Climate Assessment, *supra* note 126, at 10-7, 10-15, 10-21; *Threats to Coral Reefs*, EPA (Oct. 20, 2026), https://perma.cc/5BZZ-BCUC; Ryan M. McCabe et al., *An Unprecedented Coastwide Toxic Algal Bloom Linked to Anomalous Ocean Conditions*, 43 Geophysical Rsch. Letters 10,366 (2016); Roberto M. Venegas et al., *Three Decades of Ocean Warming Impacts on Marine Ecosystems: A Review and Perspective*, 212 Deep Sea Rsch. Pt. II 1 (2023).

[189] Corinne Le Quéré et al., *Impact of Climate Change and Variability on the Global Oceanic Sink of CO_2*, 24 Glob. Biogeochem. Cycles 1 (2010).

[190] Kate Marvel et al., *Chapter 2: Climate Trends*, *in* Fifth National Climate Assessment, *supra* note 126, at 2-15, 2-27; Hilary F. Stockdon et al., *Chapter 9: Coastal Effects*, *in* Fifth National Climate Assessment, *supra* note 126, at 9-14; William V. Sweet et al., NOAA, NOAA Technical Report NOS 01, Global and Regional Sea Level Rise Scenarios for the United States: Updated Mean Projections and Extreme Water Level Probabilities Along U.S. Coastlines (2022), https://perma.cc/BBF5-M2S7.

[191] Elizabeth A. Payton et al., *Chapter 4: Water*, *in* Fifth National Climate Assessment, *supra* note 126, at 4-6; *The Water Cycle*, NOAA (last updated Aug. 25, 2026), https://perma.cc/6M5M-DV8P.

associated flooding and damages.[192] Hotter air also dries out vegetation and soils, which in water-constrained regions leads to drought[193] and more frequent, larger, and more intense wildfires.[194] Wildfires are not only destructive where they are burning, but also produce smoke laden with PM, carbon monoxide, NO_x, and VOCs, as well as, in some circumstances, heavy metals and toxic carcinogens.[195] Wildfire smoke exposure has been associated with increases in all-cause mortality, declines in lung function, asthma exacerbation, increased respiratory infections, hospitalizations for asthma, bronchitis, chronic obstructive pulmonary disease, and cardiovascular disease (ischemic heart disease, congestive heart failure, cardiac arrest, and acute myocardial infarction), adverse pregnancy and birth outcomes, and impairment of cognitive function and mental health.[196] Wildfire smoke endangers health for both local communities and

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[192] Payton et al., Fifth National Climate Assessment, *supra* note 126, at ch. 4, 4-17; Frances V. Davenport et al., *Contribution of Historical Precipitation Change to US Flood Damages*, 118 PNAS 1 (2021); Kenneth E. Kunkel et al., *Precipitation Extremes: Trends and Relationships with Average Precipitation and Precipitable Water in the Contiguous United States*, 59 J. Applied Meteorology & Climatology 125 (2020).

[193] Payton et al, Fifth National Climate Assessment, *supra* note 126, at ch. 4, 4-13, 4-18; Jeremy L. Weiss et al., *Distinguishing Pronounced Droughts in the Southwestern United States: Seasonality and Effects of Warmer Temperatures*, 22 J. Climate 5918 (2009); Emily L. Williams & John T. Abatzoglou, *Climate Change Increases Evaporative and Crop Irrigation Demand in North America,* 13 Earth's Future 1 (2025).

[194] John T. Abatzoglou & A. Park Williams, *Impact of Anthropogenic Climate Change on Wildfire Across Western US Forests*, 113 PNAS 11,770 (2016).

[195] Luke P. Naeher et al., *Woodsmoke Health Effects: A Review*, 19 Inhalation Toxicology 67 (2007); Colleen E. Reid et al., *Critical Review of Health Impacts of Wildfire Smoke Exposure*, 124 Env't Health Persps. 1334 (2016); Carolyn Black et al., *Wildfire Smoke Exposure and Human Health: Significant Gaps in Research for a Growing Public Health Issue*, 55 Env't Toxicology & Pharmacology 186 (2017); Luke Montrose et al., *Chapter 11: Wildfire Smoke Toxicology and Health*, *in* Geophysical Monograph 280: Landscape Fire, Smoke, and Health: Linking Biomass Burning Emissions to Human Well-Being (Tatiana V. Loboda et al. eds., Am. Geophysical Union & John Wiley and Sons 2023); Katie Boaggio et al., *Beyond Particulate Matter Mass: Heightened Levels of Lead and Other Pollutants Associated with Destructive Fire Events in California*, 56 Env't Sci. & Tech. (forthcoming 2022) (author manuscript) (on file with HHS Public Access).

[196] Nicolas Borchers Arriagada et al., *Association Between Fire Smoke Fine Particulate Matter and Asthma-Related Outcomes: Systematic Review and Meta-Analysis*, 179 Env't Rsch. 108777 (2019); Xiaodan Zhou et al., *Excess of COVID-19 Cases and Deaths Due to Fine Particulate Matter Exposure During the 2020 Wildfires in the United States*, 7 Sci. Advances 1 (2021); Breanna L. Alman et al., *The Association of Wildfire Smoke with Respiratory and Cardiovascular Emergency Department Visits in Colorado in 2012: A Case Crossover Study*, 15 Env't Health 1 (2016); Stephanie DeFlorio-Barker et al., *Cardiopulmonary Effects of Fine Particulate Matter Exposure Among Older Adults, During Wildfire and Non-Wildfire Periods, in the United States 2008–2010*, 127 Env't Health Persps. 037006-1 (2019); Stephanie E. Cleland et al., *Short-Term Exposure to Wildfire Smoke and $PM_{2.5}$ and Cognitive Performance in a Brain-Training Game: A Longitudinal Study of U.S. Adults*, 130 Env't Health Persps. 067005-1 (2022); David P. Eisenman & Lindsay P. Galway, *The Mental Health and Well-Being Effects of Wildfire Smoke: A Scoping Review*, 22 BMC Pub. Health 1 (2022); David M. Holstius et al., *Birth Weight*

communities hundreds of miles downwind. One recent study found that PM from wildfires is five times more toxic (in its effects on mortality) than PM from other sources.[197] A 2025 study found that $PM_{2.5}$ from the climate change-related exacerbation of wildfires caused approximately 15,000 premature deaths in the United States from 2006 to 2020 (out of 164,000 total wildfire smoke deaths during that period), disproportionately impacting communities in the West and Midwest.[198]

Hotter air makes energy generation less efficient. Heat damages roadways and airport runways, causing asphalt to age faster, soften, and crack.[199] Hot air reduces the integrity of bridges;[200] increases rail buckling in train tracks;[201] reduces the capacity and efficiency of thermoelectric power plants (*e.g.*, coal, gas, and nuclear power plants), solar, wind, and battery

Following Pregnancy During the 2003 Southern California Wildfires, 120 Env't Health Persps. 1340 (2012); Sam Heft-Neal et al., *Associations between Wildfire Smoke Exposure during Pregnancy and Risk of Preterm Birth in California*, 203 Env't Rsch. 1 (2022); Jo Evans et al., *Birth Outcomes, Health, and Health Care Needs of Childbearing Women Following Wildfire Disasters: An Integrative, State-of-the-Science Review*, 130 Env't Health Persps. 086001-1 (2022); Weeberb J. Requia et al., *Birth Weight Following Pregnancy Wildfire Smoke Exposure in More than 1.5 Million Newborns in Brazil: A Nationwide Case-Control Study*, 11 Lancet 1 (2022); Helen Crabbe, *Risk of Respiratory and Cardiovascular Hospitalization with Exposure to Bushfire Particulates: New Evidence from Darwin, Australia*, 34 Env't Geochemistry & Health 697 (2012); Fay H. Johnston et al., *Air Pollution Events from Forest Fires and Emergency Department Attendances in Sydney, Australia 1996–2007: A Case-Crossover Analysis*, 13 Env't Health 1 (2014).

[197] Min Zhang et al., *Wildfire smoke $PM_{2.5}$ and Mortality Rate in the Contiguous United States: A Causal Modeling Study*, 12 Sci. Advances 1, 7 (2026); *see also* Rosana Aguilera et al., *Wildfire Smoke Impacts Respiratory Health More than Fine Particles from Other Sources: Observational Evidence from Southern California*, 12 Nature Commc'ns 1, 2 (2021).

[198] Beverly E. Law et al., *supra* note 23.

[199] Jo E. Sias et al., *Climate Change Impacts on Roadways*, 6 Nature Revs. Earth & Env't 555 (2025); Rachel Burbidge, *Adapting Aviation to a Changing Climate: Key Priorities for Action*, 71 J. Air Transp. Mgmt. 167 (2018).

[200] Susan Palu & Hussam Mahmoud, *Impact of Climate Change on the Integrity of the Superstructure of Deteriorated U.S. Bridges*, 14 PLoS One 1 (2019).

[201] James E. Neumann et al., *Climate Effects on US Infrastructure: The Economics of Adaptation for Rail, Roads, and Coastal Development*, 167 Climatic Change 44 (2021).

storage;[202] and reduces the efficiency and lifetime of transformers, increases transmission and distribution line losses, and reduces capacity.[203]

The causal pathways discussed above—from emission to harm—are short and straightforward. They are shorter and more straightforward than many of the emission-to-harm pathways for non-greenhouse gas pollutants that EPA differentiates as properly regulated under the Act, 91 Fed. Reg. at 59,025–27, discussed above and in the accompanying Science of Non-Greenhouse Gas Air Pollutants Appendix, including the pathway from NO_x and SO_2 emission to eutrophication harms, aluminum exposure, soil nutrient loss and effects on vegetation, waterbody acidification harms, and methylmercury production and bioaccumulation. They are much more straightforward—and the role of greenhouse gases is more "direct" —than the complexities of ozone formation and accumulation in the presence of VOCs or of cancer development following benzene exposure. While the pathway by which greenhouse gases trap heat and the pathway by which NO_x and VOCs create ozone are analogous in that they both involve an "interaction[] with other chemical constitutions or environmental factors" to create harm (namely, in both cases, radiation), for ozone the rate of formation is dependent on the relative concentrations of NO_x, VOCs, the abundance of other pollutants, and an array of environmental factors. In contrast, the pathway from greenhouse gases to heat and ocean acidification involves one step and no other molecules. In many ways, greenhouse gases fit EPA's invented "local/regional" pollutant category better than the pollutants EPA cites as examples of this category.

The majority of the impacts discussed above cause harm "through local and regional exposure" to heat, the effects of heat, and ocean acidification. The States' 2025 Comments included an entire appendix detailing the local climate impacts felt by States and Cities across the United States and the billions of dollars in damages and losses of life these individual communities have incurred from climate change impacts, spanning floods, wildfires, extreme heat, and droughts.[204]

To be sure, some climate harms to health and welfare involve more complex or attenuated causal pathways and the dynamic interaction of multiple climate impacts—just as some impacts from non-greenhouse gas air pollutants do, too. Agricultural losses in the Midwest, for example, are linked to rapid shifts between wet and dry conditions and stresses from climate-

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[202] Melissa R. Allen-Dumas et al., Oak Ridge Nat'l Lab'y, U.S. Dep't of Energy, ORNL/TM-2019/1252, Extreme Weather and Climate Vulnerabilities of the Electric Grid: A Summary of Environmental Sensitivity Quantification Methods (2019), https://perma.cc/QBN9-VBGV; *see generally* Rolf Kehlhofer et al., Combined-Cycle Gas & Steam Turbine Power Plants (3d ed. 2019); Sandra Meier et al., *New York State Climate Impacts Assessment Chapter 6: Energy*, 1542 Annals N.Y. Acad. Scis. 341 (2024).

[203] Matthew Bartos et al., *Impacts of Rising Air Temperatures on Electric Transmission Ampacity and Peak Electricity Load in the United States*, 11 Env't Rsch. Letters 1 (2016); Allen-Dumas et al., *supra* note 202, at 12.

[204] States' 2025 Comments, *supra* note 5, app. 1.

exacerbated increases in pests and pathogens.[205] And most of the climate endangerment pathways discussed above can lead to additional harms. For example, extreme climate events can lead to migration and increase economic vulnerability.[206] Climate impacts in other countries can disrupt trade, amplify costs across global supply chains, and affect domestic markets.[207] But the fact that some greenhouse gas emission-to-harm pathways are longer or more complex does not change the fact that many greenhouse gas emission-to-harm pathways are simple and short—and certainly as short and simple as many harm pathways involving the pollutants EPA asserts the Act was designed to address.

The fact that harms to crops and fisheries from heat and ocean acidification can be more geographically distant from some of the individuals affected—because crop and fish harvests are transported from the point of harvest to consumers—has never precluded their consideration under the Act. The biogeochemical cycle of mercury, for example, is global. Mercury is emitted in its elemental form and can travel long distances—including around the globe—before being oxidized into a form that deposits to ecosystems. The atmospheric lifetime of elemental mercury is approximately one year, sufficiently long that atmospheric mercury is transported on hemispheric and global scales.[208] In marine and freshwater environments, it can be further transformed into methylmercury, a potent neurotoxin, which bioaccumulates in the food chain (continuing to travel with those species, sometimes thousands of miles), before it ultimately affects humans.[209] It is of course true that greenhouse gases emitted in the United States cause *both* local and distant harms, but that is also true of other pollutants regulated under the Act, including but not limited to, mercury. Reductions in VOCs, NO_x, and carbon monoxide on one continent have been shown to reduce tropospheric ozone over other continents.[210] Methane emissions enhance ozone accumulation globally.[211] Ozone, PM, and VOCs can be transported

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[205] Jay et al., Fifth National Climate Assessment, *supra* note 126, at ch. 1, 1-32.

[206] *Id.* at ch. 1, 1-26.

[207] *Id.* at 1-32.

[208] Noelle E. Selin & Daniel J. Jacob, *Seasonal and Spatial Patterns of Mercury Wet Deposition in the United States: Constraints on the Contribution from North American Anthropogenic Sources*, 42 Atmospheric Env't 5193 (2008).

[209] Noelle E. Selin, *Global Biogeochemical Cycling of Mercury: A Review*, 34 Ann. Rev. Env't & Res. 43 (2009).

[210] Susan Casper Anenberg et al., *Intercontinental Impacts of Ozone Pollution on Human Mortality*, 43 Env't Sci. & Tech. 6482, 6483–84 (2009).

[211] EPA, Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances 93 (Nov. 2023), https://perma.cc/S2DN-U4AW [hereafter SC-GHG Report]; Erin E. McDuffie et al., *The Social Cost of Ozone-Related Mortality Impacts from Methane Emissions,* 11 Earth's Future 1, 2 (2023).

internationally across vast distances.[212] Peroxyacetyl nitrate, produced together with O_3, provides a reservoir for the long-range transport of NO_x, including through pathways such as East Asia to North America.[213] EPA's own regulatory history—dating back to the 1970s—documents the routine role of international and inter-hemisphere pollutant and pollution transport in affecting pollution conditions within U.S. borders and affecting compliance with Clean Air Act requirements for carbon monoxide, PM, and ozone.[214]

Like many regulated pollutants (including carbon monoxide, NO,[215] and mercury[216]) "direct exposure" via inhalation or direct contact to greenhouse gases in the ambient air only causes harms to health or welfare at concentrations higher than commonly observed. 91 Fed. Reg. at 59026. NO_x and SO_2 do cause some "direct exposure" harms, but acid rain regulations target their indirect harms. As discussed in the Science of Non-Greenhouse Gas Air Pollutants Appendix, critical harms from acidic deposition follow indirectly (and without involvement of SO_2 or NO_x) when acidic deposition releases hydrogen ions and nitrate and sulfate anions, which mobilize aluminum and displace key nutrient cations, and the hydrogen ions acidify waterbodies. The "direct exposure" to aluminum and the loss of "direct exposure" to cations damages plants. The "direct exposure" to a lower pH environment and to aluminum in a waterbody hurts aquatic species. Similarly, the harm from VOCs follows only after VOCs are oxidized and then interact with other molecules to prevent those molecules from breaking down ozone and re-form NO_2 without involving an ozone molecule—indirectly facilitating ozone accumulation. The "direct exposure" to nitrogen leads to elevated algal production in waterbodies—but the harm follows indirectly, and without involvement of nitrogen, when the algae produce toxins and block light from reaching plants below and from the deoxygenation that occurs when an algal bloom dies

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[212] 86 Fed. Reg. at 23063; Anenberg et al., *supra* note 210; Comments of Att'ys Gen. of Mass. et al., *supra* note 106, at 44–45; Comments of Env't L. & Pol'y Ctr. et al., Doc. ID No. EPA-HQ-OAR-2025-0194-3056, at 34–35 (Sep 22. 2025), https://www.regulations.gov/comment/EPA-HQ-OAR-2025-0194-3056; Env't & Climate Change Canada, Canada-United States Transboundary Particulate Matter: Science Assessment 2013 (Aug. 2016), https://perma.cc/HK4E-EGTJ.

[213] Shixian Zhai et al., *Transpacific Transport of Asian Peroxyacetyl Nitrate (PAN) Observed from Satellite: Implications for Ozone*, 58 Env't Sci. & Tech. 9760 (2024).

[214] *See* Science of Non-Greenhouse Gas Air Pollutants Appendix § 7.

[215] "Nitrogen oxides result from the fixation of nitrogen and oxygen at high temperatures and are typically associated with combustion processes. They are also related to certain chemical processes. The principal nitrogen oxide formed in the combustion process is nitric oxide. This compound has not been shown to have health or welfare effects at present or anticipated ambient concentrations." 36 Fed. Reg. at 1502.

[216] "Information currently available suggests that an ambient concentration level in the air of one (1) microgram per cubic meter is sufficient to protect the public health from illness due to inhalation of mercury. . . . The only industries known to be emitting mercury in quantities and in a fashion such that these facilities, assuming a negligible background level, may cause the ambient concentration level to exceed 1 [microgram]/m3 are the facilities producing mercury from ore and the mercury cell chlor-alkali plants." National Emission Standards for Hazardous Air Pollutants: Proposed Standards for Asbestos, Beryllium, Mercury, 36 Fed. Reg. 23239, 23239 (Dec. 7, 1971).

and decomposes. And as discussed above, greenhouse gases in the ambient air *directly add heat to the atmosphere,* which directly harms human health and welfare—including through direct exposure in the ambient air.

EPA dismisses climate harms, describing them as "second- and third-order phenomena attributed to global climate change," *id.* at 59020, as "adversely impact[ing] human health or welfare through a further chain of subsequent effects," *id.* at 59026, as involving "various causal steps," *id.*, as causing harms that are "speculative, multi-faceted, and multi-causal," *id.* at 59036, and as "entail[ing] a very different and much longer causal chain," *id.* at 59022, than other pollutants regulated under the Act. As documented above and in the Science of Non-Greenhouse Gas Air Pollutants Appendix, greenhouse gases cause harm through causal chains that are as short—or shorter—than the causal chains for many of the other pollutants regulated under the Act. For many impacts, the causal chain is as simple as "greenhouse gas emission → trapped heat → harm," or "greenhouse gas emission → ocean acidification → harm." Further, as documented above and in the Science of Non-Greenhouse Gas Air Pollutants Appendix, many of the harms caused by EPA's proffered examples of "local/regional" pollutants involve "second- and third-order phenomena," "further chain[s] of subsequent effects," and "multi-faceted, and multi-causal" harms. *See* the discussion of acidic deposition, nitrogen deposition, and mercury, benzene, and lead harms in the Science of Non-Greenhouse Gas Air Pollutants Appendix §§ 1–6.

EPA further asserts that "[g]lobal climate change concerns involve causal relationships that are too uncertain, conjectural, remote, and convoluted by intervening and confounding factors to fit within the terms 'cause,' 'contribute,' and 'reasonably be anticipated to endanger' as used in section 111(b)(1)(A)." 91 Fed. Reg. at 59023. As discussed above, this is false; greenhouse gases cause harms through short and simple causal pathways that are understood with high degrees of scientific certainty.[217] Further, EPA has abandoned its attacks on climate science and on EPA's own prior findings on climate change impacts, which document the falseness of these claims.[218] In this proposal, EPA dismisses this research as irrelevant*, id.* at 59019—when it is in fact central to (and fatal to) EPA's statutory interpretations.

Even the Supplemental Proposal's oft-repeated stalking horse—water vapor—does not conform to the distinction the Supplemental Proposal attempts to draw. If there were a source releasing significant quantities of steam into the ambient air and that steam were burning nearby

[217] For example, the IPCC concludes that it would be "*extremely unlikely*" that hot extremes over the last decade would have occurred without human influence on climate. The IPCC is "*virtually certain*" that hot extremes (including heatwaves) have become more frequent and more intense with "*high confidence*" that human-induced climate change is the main driver. *See* Climate Change 2021: The Physical Science Basis, *supra* note 109, at 8.

[218] As discussed *infra* Section II.E.2, EPA eschewed reliance on the Climate Working Group draft report in the Endangerment Finding Rescission and asserts that the reasoning underlying the Endangerment Finding Rescission and the Supplemental Proposal are not based on any critique or reassessment of existing climate science.

persons or wildlife or destroying nearby habitat or crops, that would be an example of direct, local exposure that the Supplemental Proposal would suggest could be regulated under section 111. It is not at all unusual that a substance can be both necessary and, when emitted in large quantities anthropogenically, a dangerous pollutant that should be regulated. For example, nitrogen makes up 78% of the atmosphere surrounding the Earth,[219] but excess, human-created forms of nitrogen like ammonia, NO_x, and nitrous oxide are pollutants that harm public health. And the Supplemental Proposal gets it wrong when it suggests equivalency between CO_2 emissions and water vapor emissions in driving climate change. As NASA explains: "Some people mistakenly believe water vapor is the main driver of Earth's current warming. But increased water vapor doesn't cause global warming. Instead, it's a consequence of it."[220] Specifically, as "greenhouse gases like carbon dioxide and methane increase, Earth's temperature rises in response. This increases evaporation from both water and land areas. Because warmer air holds more moisture, its concentration of water vapor increases."[221] This has the effect of exacerbating the warming caused by greenhouse gases, but it is a symptom, not a cause.[222]

The water vapor hypothetical is also not new: it, too, was raised in *Massachusetts*.[223] And EPA squarely addressed it in the 2009 Endangerment Finding, but the Supplemental Proposal

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[219] *The Atmosphere*, NOAA (last updated July 2, 2024), https://perma.cc/Y63Y-WPX8.

[220] *Steamy Relationships: How Atmospheric Water Vapor Amplifies Earth's Greenhouse Effect*, NASA (last updated Feb. 8, 2022), https://perma.cc/G9L5-2PGH; *see also* IPCC, IPCC Fourth Assessment Report: Climate Change 2007, FAQ 2.1 How Do Human Activities Contribute to Climate Change and How Do They Compare with Natural Influences? (2007), https://perma.cc/SY9V-V495.

[221] *Steamy Relationships*, *supra* note 220.

[222] EPA has previously declined to regulate aircraft contrails, which are composed of water vapor, carbon dioxide, and other emissions, concluding that, unlike with respect to the six well-mixed greenhouse gases, which have materially different properties from water vapor, there was too much uncertainty about the net effect of clouds formed by aircraft contrails, and that the magnitude and direction of the climate impact "will differ depending on the location of the emission due to the local atmospheric conditions." Finding that Greenhouse Gas Emissions from Aircraft Cause or Contribute to Air Pollution that May Reasonably be Anticipated to Endanger Public Health and Welfare, 81 Fed. Reg. 54422, 54447 (Aug. 15, 2016). But EPA in the past has indicated contrails warrant further evaluation, 2009 Endangerment Finding, 74 Fed. Reg. at 66520, and EPA's current website states that "[c]urrent models indicate that persistent contrail clouds could have a small net warming effect," but "more research is needed," *Information on Contrails from Aircraft*, EPA (last updated July 1, 2026), https://perma.cc/7VMQ-DBPV. If the EPA Administrator concluded that aircraft contrails were contributing to air pollution that may be reasonably anticipated to endanger public health and welfare, there would not be anything absurd about regulating them. *See* EPA, *Administrator Zeldin Announces New Online Resources on Contrails and Geoengineering* (YouTube, July 10, 2025), https://www.youtube.com/watch?v=QPIP_TdBeOY.

[223] *See* Br. of Resp't CO_2 Litig. Grp., *supra* note 105, at 9 & n.7 ("If *anything* entering the ambient air is considered an air pollutant, then even a substance that is beneficial to humans, like oxygen or water

does not acknowledge, much less refute, EPA's prior findings. 74 Fed. Reg. at 66520 ("Direct anthropogenic emissions of water vapor, in general, have a negligible effect and are thus not considered a primary driver of human-induced climate change.").[224]

iv. Direct local and regional health benefits are commensurate with the amount of greenhouse gas pollution reduced, and greenhouse gases need not be "well-mixed" in the atmosphere to cause harm.

The Supplemental Proposal attempts to exclude greenhouse gases from the Clean Air Act by asserting that the Act targets air pollutants for which reductions "provide direct local and regional health benefits commensurate with the amount of pollution reduced." 91 Fed. Reg. at 59041. EPA asserts that "[f]or global climate change, however, harm reductions do not occur directly as [a] result of emission reductions. There, the linkage between the emission of the air pollutant and the harms to public health and welfare depends on the intermediate diffusion of GHGs into the global atmosphere and then on additional causal chains that eventually lead to the asserted impacts." *Id.* EPA further argues that "because the EPA can only regulate a source category with respect to air pollution that endangers through local or regional exposure, the emission reductions obtained through standards of performance will rightly be directed towards achieving the purpose of mitigating the harm that results or may result from that local or regional exposure." *Id.* at 59027.

EPA misunderstands the nature of climate harms. EPA is, of course, correct that the effects of greenhouse gas emissions are global. Emissions from the United States cause harm both in the United States and globally. But EPA is incorrect that reductions in greenhouse gas emissions in the United States do not provide domestic benefits commensurate with the amount reduced—they do. Climate change is a problem that is made worse by additional accumulation of greenhouse gases. Every ton abated in a given year reduces ocean acidification and warming by approximately the same amount and thereby abates climate harms affecting Americans by roughly the same amount (especially as averaged across types of impacts and on the scale of the United States). This is extensively documented by climate impact and social cost of carbon research and modeling, which produce a damage estimate that is constant for every ton that is

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vapor, is treated as if it were contaminating the air." (emphasis in original)); *see also* Br. for Resp'ts All. of Auto. Mfrs. et al. at 21–22, 31, 43, 47, *Massachusetts*, 549 U.S. 497 (No. 05-1120) ("Greenhouse gases such as carbon dioxide and water vapor do not contaminate the air we breathe.").

[224] *See also* Steven C. Sherwood et al., *The Global Warming Potential of Near-Surface Emitted Water Vapour*, 13 Env't Rsch. Letters 1 (2018) ("Increases in water vapour greenhouse effect are small because additional vapour cannot reach the upper troposphere, and greenhouse-gas warming is outweighed by increases in reflectance from humidity-induced low cloud cover, leading to a near-zero or small cooling effect. Near-surface temperature decreases over land are implied even without evaporative cooling at the surface, due to cooling by low clouds and vapour-induced changes to the moist lapse rate. These results indicate that even large increases in anthropogenic water vapour emissions would have negligible warming effects on climate, but that possible negative RF may deserve more attention.").

emitted in a specific year.[225] Of course, greenhouse gas emissions can also produce non-linear damages as thresholds in the climate system and in human systems are crossed—at one of those thresholds, which are not well characterized in climate damage assessments, abatement could produce significantly greater benefits than would occur on average.[226] But the potential for greater benefits when a threshold is avoided does not alter the fact that on average, every ton abated will produce roughly the same amount of benefits to the United States. Research shows a nearly linear relationship between temperature change and cumulative emissions.[227] And every ton abated "will rightly be directed towards achieving the purpose of mitigating the harm that results or may result from that local or regional exposure" to greenhouse gas harms, and "harm reductions" will "occur directly as result of emission reductions." *Contra* 91 Fed. Reg. at 59027, 59041.

Note that this is not true of many other air pollutants. Consider, for example, ozone precursors, which EPA describes as central to the Act's purpose. *See id.* at 59023–26. As described above, ozone formation is highly complex and affected by environmental factors including stagnation, sunlight, heat, and atmospheric chemistry.[228] At any given time an area can also be NO_x-limited or NO_x-saturated, and depending upon which is occurring, additional emissions of VOCs or NO_x, respectively, can actually reduce ozone formation and retention.[229] Similarly, the harms caused by PM emissions and wildfire smoke can be heavily abated by rainfall.[230] As discussed in the Science of Non-Greenhouse Gas Air Pollutants Appendix, the relationship between nitrogen deposition and environmental impacts may vary over geographic areas and depends on an array of environmental factors, making it difficult to quantify the relationship between nitrogen deposition rates and observed environmental effect and its concentration in surface water.[231] EPA's entire Cross-State Air Pollution program is designed to respond to the different levels of harm caused by criteria emissions emitted in different locations

[225] SC-GHG Report, *supra* note 211, at 78. This is further illustrated by quantification of economic damages from greenhouse gas emissions. *See* Corinne Hartin et al., *Advancing the Estimation of Future Climate Impacts Within the United States,* 14 Earth Sys. Dynamics 1015 (2023); Kevin Rennert et al., *Comprehensive Evidence Implies a Higher Social Cost of CO_2*, 610 Nature 687 (2022).

[226] Robert E. Kopp et al., *Tipping Elements and Climate–Economic Shocks: Pathways Toward Integrated Assessment*, 4 Earth's Future 346 (2016).

[227] H. Damon Matthews et al., *The Proportionality of Global Warming to Cumulative Carbon Emissions*, 459 Nature 829, 830 (2009).

[228] West et al., Fifth National Climate Assessment, *supra* note 126, at ch. 14, 14-6; 2020 Ozone ISA, *supra* note 137.

[229] I Air Quality Criteria for Ozone, *supra* note 139, at 2-16.

[230] West et al., Fifth National Climate Assessment, *supra* note 126, at ch. 14, 14-6.

[231] 60 Fed. Reg. at 52881.

and their effects on downwind monitors, which is of course determined by atmospheric transport, and subsequent impairment of attainment with the ozone NAAQS for downwind localities.[232]

EPA's focus on greenhouse gas diffusion is similarly misplaced. All air pollutants undergo "diffusion"—which is simply the process resulting from the random motion of molecules by which there is a net flow of matter from a region of high concentration to a region of lower concentration—although in the troposphere, mixing is primarily driven by convection and advection.[233] All stationary source emissions begin at higher concentrations when they are emitted and undergo mixing, leading to lower concentrations in the ambient air.[234] No one outside of a plant's boundary would be harmed by air pollution if it did not travel. As discussed above and in the Science of Non-Greenhouse Gas Air Pollutants Appendix, for some pollutants regulated under the Act, like NO_x, SO_2, mercury, and particulates, the amount and type of harm they cause depends on their diffusion patterns, what other molecules and atmospheric conditions they encounter, and the chemical transformations they undergo.

CO_2 molecules always cause the same harm—trapping heat in the atmosphere, acidification in the ocean. The rate at which CO_2 causes harm is much more consistent than for many other pollutants. It does not need to undergo chemical transformation before heating the atmosphere, unlike ozone precursors. It will not be rained out the way that particulates would be. Other greenhouse gases similarly cause warming without needing chemical transformation and are similarly much less sensitive to weather conditions than other pollutants.[235] And as described above, many of the harms to health and welfare caused by greenhouse gases involve short and simple causal pathways.

v. The "mechanism of harm" for greenhouse gases does not depend on global concentrations or centuries-long time horizons, and annual emissions are readily measurable against total annual concentrations in areas of concern.

EPA proposes that its findings in the 2015 NSPS Rule contained a "conceptual mismatch—a fundamental disconnect—between the 'air pollution' that the EPA found to endanger and the annual streams of emissions that were said to contribute to that air pollution." 91 Fed. Reg. at 59031. EPA further argues that other air pollutants regulated under section 111 lack this "mismatch" because "the mechanism of harm . . . does not depend on global

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[232] *Cross-State Air Pollution*, EPA (last updated Sep. 21, 2026), https://perma.cc/UF5X-GSEE.

[233] *Diffusion*, Encyclopaedia Britannica (last updated Sep. 15, 2026), https://perma.cc/M5SN-K5Y7; *Meteorological Process Overview*, EPA (last updated Apr. 20, 2026), https://perma.cc/KA6B-P869; *see also Overview of Science Processes in CMAQ*, EPA (last updated May 13, 2026), https://perma.cc/ZH2A-9GNM.

[234] EPA, EPA-453-K-04-001A, Air Toxics Risk Assessment Reference Library, Volume 1: Technical Resource Manual 8-7 (Apr. 2004), https://perma.cc/JHY8-SS27.

[235] John H. Seinfeld & Spyros N. Pandis, *Part V: Dry and Wet Deposition*, *in* Atmospheric Chemistry and Physics: From Air Pollution to Climate Change 829 (3d ed. 2016).

concentrations or centuries-long time horizons. Annual emissions of airborne lead, for example, are readily measurable against the total annual concentrations of airborne lead in areas of concern, and the health and welfare impacts of air pollution in the form of airborne lead can be analyzed on the same scale." *Id.*

However, as previously explained, the mechanism of harm for greenhouse gases does not depend on their global concentration. Cumulative emissions determine the total amount of warming and acidification, but the mechanism of harm is that each additional ton generates more warming and more acidification. In this way, greenhouse gas harm pathways are identical to—but much simpler than—those of ozone precursors. The total amount of ozone formation and accumulation is determined by total "local and regional" precursor emissions—as well as additional complications including transport of precursors and ozone from international sources, stagnations, sunlight, temperature, stratospheric ozone incursions, global methane concentrations, carbon monoxide, and whether an area is NO_x-limited or -saturated.[236] But on average, over time, the mechanism of harm is that more precursor emissions (the NO_x-limited versus saturated complication aside) will lead to more ozone formation or retention and *greater* ozone harms. Similarly, the total amount of haze-related visual impairment is determined by the total quantity of particulates in the air—some of which are from local or regional anthropogenic sources, some of which are from natural sources, and some of which are from international sources.[237] But each additional ton of emissions causes *greater* visual impairment (provided they are not removed from the air via precipitation, a complexity irrelevant for greenhouse gases). Similarly, each additional ton of greenhouse gases causes *greater* climate harms.

And although EPA is correct that many greenhouse gases are long-lived in the atmosphere and can cause harm for centuries, that hardly distinguishes them from other pollutants regulated under the Act. As an initial matter, the maximum radiative forcing of greenhouse gas emissions actually occurs shortly after emission, before any of the molecules have been absorbed (by the ocean or land sinks, in the case of CO_2) or reacted (with other molecules in the atmosphere, in the case of greenhouse gases more generally). The peak warming resulting from that emission occurs about a decade later due to the inertia of the oceans' heat absorption coming into equilibrium with the atmosphere.[238] Then, for CO_2, the subsequent warming is nearly constant on a multi-century scale.[239]

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[236] 2020 Ozone ISA, *supra* note 212; SC-GHG Report, *supra* note 211, at 93; Anenberg et al., *supra* note 210.

[237] *Basic Information about Visibility*, EPA (last updated May 18, 2026), https://perma.cc/8HPK-K3UP.

[238] Katharine L. Ricke & Ken Caldeira, *Maximum Warming Occurs About One Decade After a Carbon Dioxide Emission*, 9 Env't Rsch. Letters 1, 6 (2014).

[239] Susan Solomon et al., *Irreversible Climate Change Due to Carbon Dioxide Emissions,* 106 PNAS 1704, 1705 (2009).

Mercury, like greenhouse gases, is naturally present in the environment, but human activities have increased the amount of mercury cycling among the land, ocean, and atmosphere by a factor of three to five—and mercury will continue to circulate across these systems for centuries or millennia before returning to deep-ocean sediments.[240] Mercury in the atmosphere can be transported over a range of distances—anywhere from a few feet from its source, to halfway around the globe—before it is deposited into soil or water. Mercury that remains in the air for prolonged periods of time and travels across continents is said to be in the "global cycle."[241] And the main way that "people are exposed to mercury" is not through direct exposure to the pollutant in the air, but "by eating fish and shellfish" (often transported to consumers around the globe) "that have high levels of methylmercury . . . in their tissues."[242] In addition, the important role of oceans and marine animals in mercury cycling make its pollution impacts inherently global. The health and welfare impacts of mercury only occur after a number of transformations. *See* Section II.B.1.c.iii *supra*; Science of Non-Greenhouse Gas Air Pollutants Appendix § 1. The elemental mercury emitted from burning coal, oil, or wood is oxidized in the atmosphere, deposited, and then transformed into methylmercury by sulfur-reducing bacteria before it can start the bioaccumulation process that ultimately results in its toxicity.[243] There is a significant lag in the realization of benefits from reducing mercury emissions. Reducing emissions will immediately change the amount of mercury that is deposited, but methylmercury concentrations in fish tissue, which ultimately causes harm to humans, take longer to adjust. It can take freshwater ecosystems 5 to 30 years to reach a new steady state after emissions rates change.[244] In addition, because of legacy mercury emissions, even if emissions are held constant through 2050, atmospheric deposition will increase.[245]

Further, EPA is wrong that emissions of non-greenhouse gas section 111 pollutants "are readily measurable against the total annual [airborne] concentrations . . . and the health and welfare impacts of air pollution in the form of [the] airborne [pollutant] can be analyzed on the same scale." 91 Fed. Reg. at 59031. As discussed above and in the Science of Non-Greenhouse Gas Air Pollutants Appendix, the relationship between emissions and harm for some pollutants is non-linear and complex, so atmospheric concentrations would not directly correlate with harm. Further, many air pollutants undergo chemical transformations or are deposited onto the Earth's

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[240] Selin, *supra* note 209; Aryeh Feinberg & Alfonso Saiz-Lopez, *Climate Change Reshapes the Global Mercury Cycle*, 394 Science 168 (2026).

[241] *Basic Information About Mercury*, EPA (last updated Nov. 21, 2025), https://perma.cc/2LMA-WKCY.

[242] *Id.*

[243] Selin, *supra* note 209, at 52–53.

[244] EPA, Publ'n No. 460R05003, Technical Support Document: Methodology Used to Generate Deposition, Fish Tissue Methylmercury Concentrations, and Exposure for Determining Effectiveness of Utility Emission Controls 19 (2005), https://perma.cc/7UNS-8WB4.

[245] Helen M. Amos et al., *Legacy Impacts of All-Time Anthropogenic Emissions on the Global Mercury Cycle*, 27 Glob. Biogeochemical Cycles 410, 418 (2013).

surface, complicating the relationship between emissions, atmospheric concentrations, the amount in the ecosystem, and the harm that results.[246] Lead, mercury, and other bioaccumulating air pollutants, for example, harm human health through complex routes of exposure including deposition, transformation, uptake, and ingestion of contaminated soil, food, and water and "not by [their] mere presence in the ambient air."[247]

EPA cites lead as an example of a local or regional pollutant for which emissions are "readily measurable against the total annual concentrations of airborne lead in areas of concern, and the health and welfare impacts of air pollution in the form of airborne lead can be analyzed on the same scale." 91 Fed. Reg. at 59031. But lead's atmospheric lifetime and ability to travel depend on molecule size, and lead molecules greater than 10 μm are quickly removed from the atmosphere by deposition.[248] Once deposited in soils, humans can ingest or breathe in lead by gardening and playing in their yards, tracking soil into the home, or eating produce grown in contaminated soil.[249] Understanding lead concentrations in all of these contexts—as well as other avenues of lead exposure and variables independent of lead exposure, as discussed further in the Science of Non-Greenhouse Gas Air Pollutants Appendix—is necessary to understand the risk to humans.

Additionally, many pollutants have both natural and anthropogenic sources and can be created or destroyed through natural chemical processes or reactions driven by other pollutants and environmental conditions, so again, their concentration in the atmosphere would not directly correlate with anthropogenic emissions or harm. For example, some PM is emitted directly from anthropogenic sources such as coal plants, while some is derived from natural sources like dust, and still more is formed in the atmosphere—NO_x and VOCs both play a role.[250] Ozone formation contributes to PM formation and can accelerate the conversion of elemental mercury into more harmful forms.[251]

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[246] Comments of Jana B. Milford, *supra* note 135, at 4.

[247] *Id.* (quoting 90 Fed. Reg. at 36300).

[248] EPA, EPA/600/R-23/375, Integrated Science Assessment for Lead, Appendix 1: Lead Source to Concentration 1-23 (2024), https://perma.cc/F5D5-G89M.

[249] *Lead in Soil*, EPA (last updated Oct. 8, 2026), https://perma.cc/AM47-QLWW.

[250] Memorandum from Acting Dir. Scott Mathias, EPA Air Quality Pol'y Div., & Dir. Richard Wayland, EPA Air Quality Assessment Div., to EPA Reg'l Air Div. Dirs., Regions 1–10 (May 30, 2019), and $PM_{2.5}$ Precursor Demonstration Guidance, EPA-454/R-19-004, at 22 (2019), https://perma.cc/S4BT-WQM8; *Particulate Matter (PM) Basics*, EPA (last updated Sep. 18, 2026), https://perma.cc/Z6K5-EFJH.

[251] *Ground-Level Ozone Basics*, *supra* note 136; Åke Iverfeldt & Oliver Lindqvist, *Atmospheric Oxidation of Elemental Mercury by Ozone in the Aqueous Phase*, 20 Atmospheric Env't 1567 (1986); EPA, EPA-452/R-97-005, Mercury Study Report to Congress, Volume III: Fate and Transport of Mercury in the Environment (Dec. 1997), https://perma.cc/29UM-8P3T.

SO_2 and NO_x also do not remain stable in the atmosphere and can form many different compounds—including different oxides, acids, and particulates. Harms from air pollution are usually complicated and cannot be "readily measured" simply by looking at emissions as a percentage of atmospheric concentrations. Gas-phase sulfuric acid, for example, is challenging to measure due to its low ambient concentrations.[252]

In contrast, greenhouse gas emissions are readily measured—and readily compared against atmospheric concentrations, which is the parameter of concern.[253] Greenhouse gases are relatively stable and do not react as readily as other air pollutants, meaning they have longer atmospheric residence times.[254] Measuring atmospheric concentrations of greenhouse gases and understanding the impact that additional emissions will have is far simpler than for many other pollutants.

vi. EPA's proposed interpretation of "air pollution" as limited to anthropogenic contamination and toxicity would exclude most of the pollutants regulated under the Act.

EPA proposes that greenhouse gases and greenhouse gas harms do not align with the ordinary meaning of the terms "air pollutant" and "air pollution" at the time of enactment. Citing contemporaneous definitions of pollutant ("[a]nything that pollutes; especially, any gaseous, chemical, or organic waste that contaminates air, soil, or water") and pollution ("[t]he contamination of soil, water or the atmosphere by the discharge of noxious substances"), 91 Fed. Reg. at 59021–22 (citations omitted), EPA concludes that the "central concept is the addition of a contaminant, something that 'make[s] impure by contact or mixture'" *id.* at 59022 (citations omitted).

This, however, is not the mechanism by which most regulated pollutants cause harm. Like greenhouse gases, most other regulated pollutants have anthropogenic and natural sources (*e.g.*, PM can come from dust, VOCs are naturally produced by forests), and many are part of natural environmental cycles (*e.g.*, NO_x is part of the nitrogen cycle, mercury is part of the

[252] Comments of Nathan Sweet et al., *supra* note 106, at 4 (citing Lisa J. Beck et al., *Estimation of Sulfuric Acid Concentration Using Ambient Ion Composition and Concentration Data Obtained with Atmospheric Pressure Interface Time-of-Flight Ion Mass Spectrometer*, 15 Atmospheric Measurement Techs. 1957 (2022)).

[253] X. Lan et al., *Trends in Globally-Averaged CO_2 Determined from NOAA Global Monitoring Laboratory Measurements,* NOAA Glob. Monitoring Lab'y (Version Fri., Oct. 9, 2026, 13:23:07 MDT), https://perma.cc/B73L-WYF6.

[254] IPCC, Climate Change 2007: The Physical Science Basis: Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, at TS.2.1, 23–24 (Susan Solomon et al. eds., 2007), https://perma.cc/23FM-B68Q.

mercury cycle).[255] For these pollutants, like with greenhouse gases, air is not being made "impure" through their introduction—they are already there. Rather, anthropogenic sources lead to an increase in pollutant concentration, which causes harms to health and welfare. For example, eutrophication is the result of an accumulation of nitrogen in a waterbody.[256] Soil acidification and the displacement of nutrients and mobilization of harmful metals such as aluminum is the result of an accumulation of hydrogen ions (H^+) and nitrate and sulfate anions released by nitric and sulfuric acids deposited in soils via acidic deposition.[257] Haze is the result of the accumulation of PM. It is rare for an air pollution problem to involve a substance that only exists due to anthropogenic sources.

d. The history and context of section 111 do not support EPA's interpretation.

EPA's proposed counter-textual interpretation is not bolstered by its invocation of contextual considerations. Nothing in the statutory history or surrounding Clean Air Act provisions supports EPA's interpretation. To the contrary, contextual considerations only further underscore the degree to which EPA's proposed interpretation departs from Congress's intent.

i. Climate change was understood and acknowledged as a concern prior to the passage of the Clean Air Act.

EPA claims that its counter-textual construction of "air pollution" is supported because the "contemporaneous usage of the term" in the 1960s and 1970s was limited to issues other than climate change. 91 Fed. Reg. at 59022. This assertion reflects an incorrect assumption of when climate change concerns became well-understood. As recounted in recent scholarship, when Congress enacted the Clean Air Act of 1970, it was both aware of and concerned about the adverse impact of greenhouse gases, and that "awareness of and concern about climate change appear extensively in the legislative history accompanying the statute's enactment, including in statements by congressional leaders and other members; testimony by high-ranking administration officials and prominent scientific experts; and excerpts from reports submitted to

[255] *Basic Information About Visibility*, *supra* note 237; Reinhold A. Rasmussen & F.W. Went, *Volatile Organic Material of Plant Origin in the Atmosphere*, 53 PNAS 215 (1965); Amit Kumar et al., *Mercury in the Natural Environment: Biogeochemical Cycles and Associated Health Risks*, 267 J. Geochemical Exploration 1 (2024); *Nitrous Oxide Emissions*, EPA (last updated March 2, 2026), https://perma.cc/3ACK-DU8Z.

[256] EPA, EPA 452/R-97-002, Nitrogen Oxides: Impacts on Public Health and the Environment 78 (1997), https://perma.cc/2YR9-KLGS.

[257] EPA, EPA/600/R-20/278, Integrated Science Assessment for Oxides of Nitrogen, Oxides of Sulfur and Particulate Matter—Ecological Criteria, at IS-41 to IS-45 (2020), https://perma.cc/QM5Y-AE9R.

the record by legislators and witnesses."[258] It is simply not the case that Congress was not aware of, and not concerned with, the effects pollution could have on the global climate.

For example, during the debate of the Senate bill that would eventually become the Clean Air Act of 1970, S. 4358, 91st Cong. (1970), Senator Edmund Muskie, manager of the bill and chair of the subcommittee that was considering the bill, stated that ever year, air contaminants would "destroy more plant and animal life, and threaten irreversible atmospheric and climactic changes." 116 Cong. Rec. 32901 (1970). Following those remarks, Senator Caleb Boggs, ranking minority member of the subcommittee, entered into the record a portion of the First Annual Report of the Council on Environmental Quality, which stated that "air pollution alters climate and may produce global change in temperature." *Id*. at 32901, 32907, 32914.[259] He also submitted a statement on behalf of Senate Minority Leader Hugh D. Scott urging the control of pollution and arguing that unless pollution is controlled, "scientists tell us we may very well experience irreversible atmospheric and climatic changes capable of producing a snowballing adverse effect to the health and safety of our citizens." *Id.* at 33101–02.

In the hearings leading up to passage of the Clean Air Act Amendments of 1970s, witnesses and congressional representatives alike discussed the potential for air pollutants, including greenhouse gases, to impact the global climate.[260] For example, during hearings on predecessor bills, Thomas C. Mann, then President of the Automobile Manufacturers Association, elaborated on scientific speculation about climate change, including citing a report that "theorized that air pollution could, by trapping energy from the sun, cause the polar ice cap to melt and bring on earthquakes, volcanic eruptions, flooding, and other calamities."[261] Similarly, Charles Johnson, Administrator of the Department of Health, Education, and Welfare's Environmental Health Service, testified before a House subcommittee considering a

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[258] Richard L. Revesz, Bostock *and the End of the Climate Change Double Standard*, 46 Colum. J. Env't L. 1, 28 (2020); *see also* Naomi Oreskes et al., *Climate Change and the Clean Air Act of 1970 Part I: The Scientific Basis*, 50 Ecology L.Q. 811, 816–18 (2024); Colleen Lanier-Christensen et al., *Climate Change and the Clean Air Act of 1970 Part II: Congress* (Feb. 2, 2026) (unpublished manuscript) (on file with author).

[259] About six months before President Nixon signed the Clean Air Act of 1970 into law, his aide John C. Whitaker received a set of documents from the newly created Council on Environmental Quality, including a document entitled "Man's Inadvertent Modification of Weather and Climate" that described the capacity for humans to alter the long-term trajectory of the Earth's climate. *See* Oreskes, *supra* note 258, at 813 (citing Correspondence from John C. Whitaker to William M. Magruder (July 20, 1970) (on file at the Richard Nixon Presidential Library, John C. Whitaker papers (White House Central Files: Starr Member & Office Files, b. 43, f. Annual Report-CEQ 1 of 2))); *see also* Presidential Council on Env't Quality, *Man's Inadvertent Modification of Weather and Climate*, 51 Bull. Am. Meteorological Soc'y 1043 (1970), https://perma.cc/2NLV-GM9Z.

[260] *See* Revesz, *supra* note 258, at 28–44.

[261] *Hearings Before the Subcomm. on Air & Water Pollution of the S. Comm. on Pub. Works on S. 3229, S. 3466, S. 3546*, 91st Cong. 1 (1970) (statement of Thomas C. Mann).

predecessor bill that "the carbon dioxide balance might result in the heating up of the atmosphere," while "the reduction of the radiant energy through particulate matter released to the atmosphere might cause reduction in radiation that reaches the earth."[262]

Accordingly, at the time of the debate over the Clean Air Act Amendments of 1970, the Cabinet department with principal responsibility over air pollution control was aware of, and concerned about, the potential for CO_2 emissions to result in rising atmospheric temperatures. Moreover, scientists, government officials, and popular educational media of the 1950s, 1960s, and 1970s (when the relevant language in the Clean Air Act was adopted and amended) all used the terms "air pollution" and "pollutant" to refer to problems that harmed the public locally, regionally, and globally, including climate change.[263] These are just a few of the numerous examples catalogued in the above-cited scholarship demonstrating that the effects of air pollution on the global climate system in general, and the particular impacts of greenhouse gases on planetary warming, were very much part of the debates over passage of the Clean Air Act Amendments of 1970. To the extent EPA's proposal is premised on the assumption that the term "air pollution" was not understood in 1970 to encompass global climate change effects, that assumption is wrong.

The legislative history also demonstrates that Congress did not view air pollution as only an issue of local or regional exposure. For example, Senator Jennings Randolph, cosponsor of two of the predecessor bills and Chairman of the Senate Committee on Public Works, entered into the record a study about pollution from the combustion of fossil fuels.[264] That article explains that "fine particulates tend to remain in suspension in the upper atmosphere," where their continued buildup could reduce visibility, inhibit global solar radiation, and "produce unacceptable worldwide climate changes."[265] Senator Caleb Boggs entered into the record a portion of the First Annual Report from the Council of Environmental Quality, which stated that "Air pollution alters climate and may produce global changes in temperature . . . ."[266] Russell Train, then Chairman of the Council of Environmental Quality (and later EPA Administrator) testified that the "international dimensions of the air pollution problem should not be overlooked. . . [as] discharge of particulate and carbon dioxide to the atmosphere could have

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[262] *Air Pollution Control and Solid Wastes Recycling: Hearing on H.R. 12934 and H.R. 14960 Before H. Subcomm. on Pub. Health & Welfare of the H. Comm. on Interstate & Foreign Commerce*, 91st Cong. 1 (1969) (statement of Charles C. Johnson); *see also* Revesz, *supra* note 258, at 35–38.

[263] Lanier-Christensen, *supra* note 258, at 67–73; Oreskes, *supra* note 258, at 845–54; *see, e.g.*, Sec'y of Health, Educ., & Welfare, 91st Cong., National Emissions Standards Study xiv (Comm. Print 1970) ("Large stationary sources are significant contributors to atmospheric levels of pollutants that may have deleterious long-term effects on the global biosphere.").

[264] *Hearing Before the Subcomm. on Air & Water Pollution of the S. Comm. on Pub. Works on S. 3229, S. 3466, S. 3546*, 91st Cong. 1 (1970) (statement of Sen. Jennings Randolph).

[265] *Id.*

[266] Revesz, *supra* note 258, at 30 n.183 (citation omitted); *see also id.* at 33–37.

dramatic and long-term effects on the world's temperature with many major consequences."[267] Dr. Fredrick Sargent II, member of the Air Quality Criteria Advisory Committee, testified about particulate matter pollution and stated that "[r]eflection of incoming solar radiation could lead to cooling of the earth's atmosphere. Since 1940, the mean global temperature has been falling. Some authorities suggest that manufactured dust and other particles are the main factors responsible for this thermal decline."[268] And during the hearings, Dr. Vincent Schaefer, Director of the Atmospheric Sciences Research Center at the State University of New York in Albany, suggested that "leaded gasoline could lead us to problems, I mean, serious problems in terms of climate" and expressed his concern that "we are already in a situation that might be producing atmospheric change."[269] On the House side, Representative Paul Rogers, one of the sponsors of the Clean Air Act Amendments of 1970, expressed concern on the House floor that "the layers of smog are creating a wall between the Sun and the Earth so that sunlight may be blocked, in whole or in part, thus affecting the temperature of the Earth and the growth patterns of our vegetation."[270]

The point is not whether these congressional representatives, witnesses, and scientists were correct in the late 1960s and in 1970; the point is that they clearly saw the pollution problems they were addressing as ones that might be global in scope.

In the 1977 Amendments, Congress continued to express concerns about "worldwide climate modification" and "major modifications to weather and climate" and corresponding impacts on agriculture, citing the 1974 NASEM report "Understanding Climate Change: A Program for Action."[271] The 1977 Amendments added new provisions related to protecting stratospheric ozone. Notably, the House Committee Report accompanying the bill explicitly expresses the view that EPA already had authority to address pollutants affecting the stratosphere in the existing Act, prior to the 1977 Amendments, explaining that, "for example, the Administrator would be authorized to prescribe NO_x emission standards for aircraft in order to protect the stratospheric ozone layer and, in turn, the public health under section 231 of the act [governing aircraft emissions], notwithstanding" the new provisions.[272] Thus, "the Committee disagree[d] with the Justice Department memorandum of June 10, 1975, concerning the extent of

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[267] *Report of the Council on Environmental Quality: Hearing Before the S. Subcomm. on Air & Water Pollution of the S. Comm. on Public* Works, 91st Cong. 5 (1970) (statement of Russell Train).

[268] *Hearing Before the Subcomm. on Air & Water Pollution of the S. Comm. on Pub. Works on Air Quality Criteria*, 90th Cong. 2, 797–803 (1968) (statement of Dr. Fredrick Sargent II).

[269] *Id.* at 95.

[270] 116 Cong. Rec. 19210 (daily ed. June 10, 1970) (statement of Rep. Paul Rogers).

[271] Clean Air Act Amendments of 1977, H.R. Rep. No. 95-294 to accompany H.R. 6161, 95th Cong. 49–50 (1977).

[272] *Id.* at 102 & n.92.

the authority under the existing Act to deal with pollution which affects the stratosphere and which may thereby endanger public health or environment, including climate."[273]

ii. EPA's interpretation is not supported by the contextual and structural relationship of Title I provisions.

EPA emphasizes that section 111 is one part of a three-pronged Title I regime addressing air pollution from stationary sources, designed to work in concert with sections 107–110 (establishing the NAAQS program) and section 112 (establishing the NESHAP program, governing hazardous air pollutants). 91 Fed. Reg. at 59025–27. But nothing in that three-pronged framework suggests that EPA may regulate only air pollution that causes harm through "local or regional exposure."

First, as detailed above, EPA identifies nothing in the text of section 111, or of the NAAQS and hazardous air pollutants provisions, that confines the Act to harms from "local or regional exposure." Nor could it, as that limitation has no foundation in the statutory text; it appears that EPA invented the limitation out of whole cloth for purposes of this rulemaking.

Second, to the extent EPA's structural argument rests on the premise that the NAAQS and hazardous air pollutants programs do not address globally transported pollution, and that section 111 therefore should not either, that premise is wrong. For example, mercury, a hazardous air pollutant regulated under section 112, is a global pollutant. As EPA itself has explained, mercury emitted into the air can travel thousands of miles in the atmosphere before being deposited through rain or dry deposition, and emissions from activities such as mining and fossil fuel combustion have produced mercury pollution worldwide.[274] Further, by the time of the 1990 Clean Air Act amendments, when Congress included mercury compounds within the list of hazardous air pollutants to be regulated under the overhauled section 112 program, the global nature of mercury pollution was well understood.[275] Congress thus listed mercury compounds against a well-developed scientific record showing that atmospheric mercury was

[273] *Id.*

[274] *Mercury Emissions: The Global Context*, EPA (last updated Jan. 7, 2026), https://perma.cc/2WPA-3H4W.

[275] *See generally* Oliver Lindqvist & Henning Rodhe, *Atmospheric Mercury—A Review*, 37B Tellus 136 (1985), https://perma.cc/EZ5J-2G7Q (finding that the dominant fraction of atmospheric mercury is a volatile gaseous form with a residence time of several months to two years, rather uniformly distributed throughout the troposphere, and that less than 10%of mercury emitted from an individual source is deposited locally, with the remainder dispersed regionally or globally); F. Slemr et al., *Distribution, Speciation and Budget of Atmospheric Mercury*, 3 J. Atmospheric Chemistry 407 (1985), https://perma.cc/P5ZM-RQCE (confirming that gaseous mercury is mixed in the troposphere and persists there for approximately one year, and observing that "[i]t is now generally accepted that atmospheric transport is of major importance in the worldwide distribution of mercury in the environment").

predominantly gaseous, had a tropospheric lifetime long enough for intercontinental and global dispersion, and was distributed worldwide through atmospheric transport.

Congress's awareness that airborne hazardous air pollutants travel far from their sources is further confirmed by section 112(m), 42 U.S.C. § 7412(m), enacted in the same 1990 amendments. That provision directs EPA to assess "atmospheric deposition of hazardous air pollutants" to the Great Lakes, Chesapeake Bay, Lake Champlain, and coastal waters. Congress thus clearly understood that hazardous air pollutants emitted into the air can be transported through the atmosphere, deposited in distant aquatic systems, and cause adverse effects through environmental pathways.

The NAAQS program likewise addresses pollution that crosses international boundaries. Congress expressly recognized as much in section 179B, which addresses nonattainment caused by emissions originating outside the United States. 42 U.S.C. § 7509a. EPA recently relied on that provision to propose relief for a Utah nonattainment area based on an analysis finding that pollution from Asia was carried thousands of miles into the state.[276]

Having failed to show that *any* of the three principal Title I stationary source programs is limited to "local or regional exposure" problems, EPA next claims that section 111 was intended to "address the same types of air pollution regulated under" the NAAQS program and the hazardous air pollutants program. That assertion contradicts the statute. Section 111(d), which governs existing sources, applies only to pollutants that are not listed as criteria pollutants under section 108(a) and are not emitted from a source category regulated under section 112. Congress thus designed section 111(d) specifically to reach pollutants *outside* the other two programs, which is why it is understood to function as a "gap filler." *West Virginia*, 597 U.S. at 700.

EPA also points to legislative history indicating that one purpose of section 111 is to prevent new sources from avoiding nonattainment restrictions by locating in attainment areas. *See* 91 Fed. Reg. at 59025. It cannot, of course, have been a purpose of section 111(d), which applies only to existing sources that are, by definition, stationary. And although section 111(b) was enacted in part for this purpose, nothing in the legislative history suggests that section 111(b) standards may address *only* NAAQS pollutants—a position EPA has never taken. And the Supreme Court has already resolved the question EPA now seeks to reopen: section 111 speaks directly to greenhouse gas emissions from power plants. *AEP*, 564 U.S. at 424.

[276] *See* Utah; Northern Wasatch Front; 2015 8-Hour Ozone National Ambient Air Quality Standards; Reconsideration and Repeal of Finding of Failure to Attain and Reclassification to a Serious Nonattainment Area; Determination of Attainment by the Moderate Attainment Date but for International Emissions, 91 Fed. Reg. 23209 (Apr. 30, 2026); *see also* Hiroko Tabuchi, *Smog in Phoenix and Salt Lake City? The E.P.A. is Blaming Asia*, N.Y. Times (Apr. 30, 2026), https://perma.cc/FH85-HVRF.

iii. Nothing in section 111 limits EPA's authority to regulate pollutants that are also emitted outside the United States.

EPA also errs in contending that its authority under section 111 is more constrained for pollutants emitted predominantly abroad. *See* 91 Fed. Reg. at 59024 (contending that regulation is contrary to section 111 "when most of the endangerment stems from international sources"). Once again, EPA identifies nothing in the statutory text that supports its proposed limitation. Section 111(b)(1)(A) asks whether a source category "causes, *or contributes significantly to*, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7411(b)(1)(A) (emphasis added). The contribution language presupposes that endangering air pollution may have many sources, of which the regulated category is only one. Nothing in section 111 requires that domestic sources account for most of that pollution. And an agency "has no power to 'tailor' legislation to bureaucratic policy goals by rewriting unambiguous statutory terms." *UARG*, 573 U.S. at 325.

EPA's reasoning also fails on its own terms. Other pollutants affecting the United States originate predominantly abroad. For example, one study estimated that only about 20% of mercury deposited in the United States comes from North American anthropogenic sources.[277] Yet EPA has long regulated mercury emissions from U.S. power plants under section 112, notwithstanding that most mercury deposited in the United States originates outside North America. EPA does not explain why the Act would permit that regulation but forbid regulation of greenhouse gas emissions from the very same plants.

Furthermore, EPA's reliance on Clean Air Act section 115 is misplaced. *See* 91 Fed. Reg. at 59024 (citing section 115 as an example of when "Congress has specifically provided . . . when and how the EPA may consider international emissions"). That provision authorizes EPA to require controls on domestic emissions that endanger public health or welfare in another country when, among other things, that country provides reciprocal protections to the United States. 42 U.S.C. § 7415. Section 111, however, serves a different function: it addresses air pollution that endangers public health or welfare *here*. In its findings in the 2015 NSPS Rule, EPA appropriately concluded that U.S. fossil fuel-fired power plants contribute significantly to greenhouse gas air pollution that may reasonably be anticipated to endanger public health and welfare in the United States. 80 Fed. Reg. at 64532. When EPA sets standards of performance for those plants, it regulates domestic sources to protect this country; it does not regulate international emissions. If anything, section 115 shows that Congress knew how to condition EPA's authority on reciprocity and chose not to do so in section 111.

Section 179B likewise provides no support. *See* 91 Fed. Reg. at 59024 (citing section 179B as another example of Congress explicitly providing for the consideration of international emissions). It authorizes EPA to account for the impact of international emissions in evaluating

[277] Selin & Jacob, *supra* note 208, at 5201.

NAAQS attainment, but it does not limit EPA's authority to regulate domestic sources. 42 U.S.C. § 7509a. The NAAQS themselves, and the obligations of domestic sources contributing to nonattainment, remain in place. Section 179B thus confirms that Congress expected domestic regulation to continue alongside substantial foreign contributions, which is the opposite of EPA's inference. Further, section 179B is important in the context of a program—like the NAAQS—where regulated entities and states are trying to get below a specific ambient concentration of pollution. It is unnecessary in the context of section 111, which applies emission standards to specific sources to reduce their contributions to ambient concentrations.

Nor does Title VI support the Supplemental Proposal. *See* 91 Fed. Reg. at 59024 (citing Title VI, which implements the United States' Montreal Protocol commitment to phase out ozone-depleting substances, for the proposition that "Congress does not presume that general authorities in the CAA encompass international emissions"). That Congress created a specialized program for stratospheric ozone protection in 1990 does not implicitly narrow EPA's preexisting general authority under section 111. Indeed, the Supreme Court decided *Massachusetts* when Title VI was already in place and still held that greenhouse gases fall within the Act's general authority.

Finally, the Supreme Court has already rejected the argument that the predominance of foreign emissions limits EPA's authority. *See id.* at 59024 (arguing that the use of "significantly" in section 111 reflects Congress's intent that EPA can regulate "only when a source category is responsible for a meaningfully large portion of the anticipated adverse public health or welfare impacts caused by the air pollution"). In *Massachusetts*, EPA contended that domestic reductions would be offset by rising emissions abroad and that regulating under section 202 could impair the President's ability to negotiate reductions with other nations. The Court rejected both arguments. It explained that a "reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere," 549 U.S. at 526, and that the President's broad authority in foreign affairs "does not extend to the refusal to execute domestic laws," *id.* at 534. EPA's authority, the Court held, turns on the scientific determination mandated by the statute, not on policy considerations the statute does not make relevant. *Id*. at 533–34.

iv. Failed legislation does not undermine EPA's section 111 authority, and Congress ratified the Supreme Court's interpretation of EPA's authority in the Inflation Reduction Act.

EPA suggests that Congress's failure to adopt the American Clean Energy and Security Act of 2009, which would have instituted a cap-and-trade system featuring renewable energy credits to reduce greenhouse gas emissions, including from fossil fuel-fired power plants, bears on the correct interpretation of section 111. *See* 91 Fed. Reg. at 59025. EPA claims that this failed legislation shows that Congress "understood that addressing global climate change concerns would have required a novel legislative approach" and that the "contrast" of this legislation with section 111 "confirms our proposed conclusion that Congress did not intend

CAA section 111 to apply to [greenhouse gas] emissions from fossil fuel-fired EGUs based on global climate change concerns." *Id.*

EPA's reliance on this failed 2009 legislation is badly misplaced. As an initial matter, the Supreme Court has repeatedly cautioned that "failed legislative proposals are a particularly dangerous ground on which to rest an interpretation of a prior statute." *Cent. Bank of Denv., N.A. v. First Interstate Bank of Denv.*, 511 U.S. 164, 187 (1994) (cleaned up); *see also Bostock v. Clayton County*, 590 U.S. 644, 670 (2020). A bill can fail for countless reasons, including the belief that existing law already suffices. *See Pension Benefit Guar. Corp. v. LTV Corp.*, 496 U.S. 633, 650 (1990). And the Supreme Court has already rejected an analogous argument. In *Massachusetts*, the Court found that nothing in Congress's subsequent climate-related actions suggested an intent to curtail EPA's existing authority over greenhouse gases. 549 U.S. at 529–30 (emphasizing that "[e]ven if [] postenactment legislative history could shed light on the meaning of an otherwise-unambiguous statute, EPA never identifies any action remotely suggesting that Congress meant to curtail its power to treat greenhouse gases as air pollutants," and noting "[t]hat subsequent Congresses have eschewed enacting binding emissions limitations to combat global warming tells us nothing about what Congress meant when it amended § 202(a)(1) in 1970 and 1977"). And in *AEP*, which was decided *after* the American Clean Energy and Security Act failed, the Court held that section 111 "speaks directly" to carbon dioxide emissions from power plants. 564 U.S. at 424.[278]

Moreover, the failed 2009 legislation was negotiated and designed against the background understanding that EPA already had authority to regulate greenhouse gases under the Clean Air Act (something the Supreme Court had recently held in *Massachusetts*). The bill that was introduced in the House imposed deadlines on EPA for promulgating vehicle greenhouse gas emissions standards for various types of mobile sources using "statutory authorities in effect on the day before the date of enactment of this section." American Clean Energy and Security Act, H.R. 2454, 111th Cong. § 221 (introduced May 15, 2009). The legislation that passed the House would have amended the Clean Air Act to preclude greenhouse gas emission standards from triggering Title V permit applicability or from being listed as a hazardous or criteria air pollutant or triggering New Source Review based on climate effects. *Id*. §§ 331, 831–35 (as passed by House, June 26, 2009). These provisions were drafted to work with (and do not make sense without) EPA's existing Clean Air Act authority over greenhouse gases.

While EPA inappropriately attempts to rely on *failed* legislation, it fails to give appropriate weight to *enacted* legislation confirming EPA's authority under section 111. In

[278] In *West Virginia*, the Supreme Court pointed to Congress's rejection of proposals to amend the Clean Air Act to adopt a cap-and-trading program for carbon emissions in concluding that section 111 did not authorize a cap-and-trade scheme. 597 U.S. at 731. But the issue in *West Virginia* was the particular *manner* of regulation authorized by section 111; the Supreme Court did not question that EPA could regulate greenhouse gases under section 111 through traditional technology-based approaches.

several provisions of the 2022 Inflation Reduction Act (IRA), Pub. L. No. 117-169, 136 Stat. 1818 (2022), Congress recognized EPA's authority to regulate greenhouse gases under section 111. *See, e.g.*, *id*. §§ 60107, 60113. These provisions refute EPA's proposed interpretation and reflect Congress's decision to build on existing Clean Air Act authority rather than create a new regulatory scheme. Unlike a failed bill, whose defeat may reflect any number of considerations, enacted legislation reflects the considered judgment of Congress expressed through bicameralism and presentment. And "the meaning of one statute may be affected by other Acts, particularly where Congress has spoken subsequently and more specifically to the topic at hand." *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000) (citation omitted).

First, Congress in the IRA directed EPA to impose a "waste emissions charge" on methane pollution from the oil and gas sector, subject to three exemptions. 42 U.S.C. § 7436(c). One exemption allows facilities to avoid the charge if they are "subject to and in compliance with methane emission requirements pursuant to subsections (b) and (d) of section 7411 of this title." *Id.* § 7436(f)(6)(A). And compliance with those methane emission requirements must "result in equivalent or greater emissions reductions as would be achieved by" a proposed EPA regulation setting out methane emission standards for oil and gas sources under Clean Air Act section 111 to address the role of those emissions in causing warming. *Id.* § 7436(f)(6)(A)(ii). That provision not only explicitly recognizes EPA's authority to regulate greenhouse gases under the regulatory provisions of section 111, but also specifically incorporates a proposed rule setting out such standards (and explaining the legal authority for those standards) into its regulatory scheme. *See* Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 86 Fed. Reg. 63110 (Nov. 15, 2021). The proposed EPA rule that is referenced in section 7436 makes clear that its purpose is to address "the grave and growing threat of climate change . . . already causing dire health, environmental, and economic impacts in communities across the United States." *Id.* at 63148. In short, the section 7436 waste emissions charge exemption reflects Congress's understanding that section 111 provides EPA with authority to regulate greenhouse gases and confirms Congress's continued approval of that authority.

Second, Congress in the IRA added a new section 135 to the Clean Air Act, the Low Emissions Electricity Program. 42 U.S.C. § 7435. Among other things, this provision appropriated $18 million to EPA "to ensure that reductions in greenhouse gas emissions are achieved through use of the existing authorities of [the Clean Air] Act." *Id.* § 7435(a)(6). This provision would be pointless if EPA were not already authorized, through existing authorities in the Clean Air Act, to regulate greenhouse gas emissions. This $18 million appropriation comes in a section of the Act titled "Low emissions electricity program," and after a series of appropriations related to "reductions in greenhouse gas emissions that result from domestic electricity generation and use." *Id*. § 7435(a)(1)–(a)(4). And it specifically references an "assess[ment]" of "the reductions in greenhouse gas emissions that result from changes in domestic electricity generation and use that are anticipated to occur . . . ." *Id.* § 7435(a)(5). Thus,

the $18 million appropriation is plainly aimed at using existing authorities related to greenhouse gas reductions from domestic energy generation and use—*i.e.*, Congress presumed EPA's ability to use its regulatory authority to reduce greenhouse gases. House Committee on Energy and Commerce Chairman Pallone confirmed Congress's relevant intent, explaining in a floor statement during debate on the legislation that Clean Air Act Section 111 is "one of the 'existing authorities' funded by" section 135, and further explaining that "since its enactment, [section 111] has provided EPA extensive authority to promulgate impactful regulations that reduce GHGs from, but not limited to, the electric power sector." 168 Cong. Rec. E868 (daily ed. Aug. 23, 2022) (statement of Rep. Frank Pallone, Jr.).

Third, throughout the IRA, Congress amended the Clean Air Act to add a definition of greenhouse gases. Specifically, the Clean Air Act states that "[t]he term 'greenhouse gas' means the air pollutants carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride." *E.g.*, 42 U.S.C. §§ 7432(d)(4), 7433(d)(2), 7435(c). In each of these provisions, Congress made clear that it considers greenhouse gases, including CO_2, to be "air pollutants" under the Act. It would defy credulity to contend that Congress was unaware of the Act-wide definition of "air pollutant" when it specifically used the same term "air pollutant" to describe greenhouse gases in the IRA. Congress is assumed to be aware of the legal landscape against which it regulates—and particularly the provisions of the statute it is amending. *See Miles v. Apex Marine Corp*., 498 U.S. 19, 32 (1990) ("We assume that Congress is aware of existing law when it passes legislation."); *see also United States v. Alaska*, 151 F.4th 1124, 1141 (9th Cir. 2025) ("Congress is presumed to be aware of an administrative or judicial interpretation of a statute and to adopt that interpretation when it re-enacts a statute without change." (citation omitted)); *Lorillard v. Pons*, 434 U.S. 575, 580 (1975).[279] Notably, Congress used that definition in provisions whose entire purpose was to reduce greenhouse gas emissions because of their effect on climate, which forecloses any suggestion that Congress viewed climate-motivated regulation of these "air pollutants" as falling outside the Clean Air Act's existing framework.

Fourth, Congress unambiguously recognized EPA's authority to establish greenhouse gas emission standards for new motor vehicles in section 141 of the Energy Independence and Security Act of 2007 (EISA), Pub. L. No. 110-140, 121 Stat. 1492 (codified at 42 U.S.C. § 13212(f)), shortly after *Massachusetts* was decided. EISA section 141 instructs EPA to identify models of "low greenhouse gas emitting vehicle[s]" to prioritize for federal procurement after "tak[ing] into account the most stringent standards for vehicle greenhouse gas emissions applicable to and enforceable against motor vehicle manufacturers for vehicles sold anywhere in the United States." 42 U.S.C. § 13212(f)(2)(A), (3)(B). The reference to the "most stringent standards" would be meaningless if EPA could not prescribe such standards. At the time EISA

[279] A reconciliation act commonly referred to as the "One Big Beautiful Bill Act," Pub. L. No. 119-21, 139 Stat. 72 (2025), repealed or rescinded certain unobligated funding for a number of greenhouse gas-related programs established by the IRA, but nothing in that Act amended section 111 or otherwise withdrew EPA's authority to regulate greenhouse gas emissions thereunder.

was passed, the only standards in place for vehicle greenhouse gas emissions were California's standards, and so Congress must have contemplated that, at least until federal standards were promulgated, California's standards would be the most stringent standards governing this procurement provision. The Clean Air Act contemplates both EPA and California standards for emissions from new motor vehicles, but it specifically rules out a "third vehicle." *Id*. § 7507. Thus, the best (and only permissible) way to interpret this EISA provision—which contemplates more than one suite of vehicle greenhouse gas emission standards—is to conclude that Congress expected EPA to choose the more stringent between California's vehicle greenhouse gas emission standards and (once they came into existence) EPA's own vehicle greenhouse gas emission standards. EISA thus provides additional evidence that Congress contemplated regulation of greenhouse gases under the Clean Air Act. Indeed, during consideration of EISA, Congress rejected attempts by some of its members and the White House, urged by industry, to repeal both EPA's and California's authority to set greenhouse gas standards for motor vehicles, instead choosing to explicitly protect those authorities.[280]

In sum, Congress has consistently affirmed EPA's regulation of greenhouse gases under section 111 (*e.g.*, through the IRA's methane fee program and EISA) and specifically defined greenhouse gases as pollutants under the Act without altering the Act's definition of "air pollutant." These enactments simply make no sense in a world where the Clean Air Act did not authorize EPA to regulate greenhouse gas emissions, and courts must strive to "give effect to" all statutes that address the same subject matter and not "pick and choose among congressional enactments." *Epic Sys. Corp. v. Lewis*, 584 U.S. 497, 510 (2018) (quoting *Morton v. Mancari*, 417 U.S. 535, 551 (1974)).

v. EPA errs in contending that the 2015 NSPS Rule marked a significant change in course.

EPA's claim that its findings in the 2015 NSPS Rule deviated from "over forty years of precedent" and "longstanding practice" is also wrong. 91 Fed. Reg. at 59006, 59024.

In fact, EPA regulated greenhouse gases under section 111 as early as 1996, when it promulgated standards for municipal solid waste landfills that required substantial methane reductions, in part because methane emissions "contribute to global climate change." Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills, 61 Fed. Reg. 9905 (Mar. 12, 1996). EPA made clear in the final 1996 landfill rule that one "purpose" of those standards was to address "health and welfare effects" stemming from methane's contribution, as a major greenhouse gas, to global climate

[280] *See* Greg Dotson, *State Authority to Regulate Mobile Source Greenhouse Gas Emissions, Part 2: A Legislative and Statutory History Assessment*, 32 Geo. Env't L. Rev. 625, 650–74 (2020); *see also* Letter from Am. Forest & Paper Ass'n et al., to Members of the Senate (Dec. 7, 2007).

change. *Id.* at 9906. EPA therefore treated climate change effects in that rule as "health and welfare" effects properly addressed through section 111 regulation. *Id.*

EPA also made clear that it required gas collection systems for large landfills in part because of the climate benefits, explaining that it would reduce "methane emissions by 39 percent," because the "Climate Change Action Plan, signed by the President in October, 1993, calls for the EPA to promulgate a 'tough' landfill gas rule as soon as possible," because "methane is a major greenhouse gas" that, because of its heat-trapping properties, is "20 to 30 times more potent than CO_2 on a molecule-per-molecule basis," and because there "is a general concern within the scientific community that the increasing emissions of greenhouse gases could lead to climate change." *Id*. at 9911, 9917. In other words, climate benefits were an important part of EPA's decisionmaking calculus in identifying a best system of emission reduction under section 111. EPA's Supplemental Proposal emphasizes that the Agency had other justifications, including safety risks, for regulating methane emissions, and describes the landfill rule's discussion of climate benefits as "ancillary," 91 Fed. Reg. at 59012, 59024, but securing climate benefits was clearly among the justifications for the landfill rule's requirements, and it is misleading to suggest otherwise, *see* 61 Fed. Reg. at 9911, 9917. The 1996 rule thus shows that, nearly two decades before the 2015 NSPS Rule, EPA had already treated climate change effects as falling within section 111's concern for public health and welfare.

Consistent with EPA's earlier methane rule, EPA's General Counsel Jonathan Cannon then prepared a legal opinion in 1998 concluding that "CO_2 emissions are within the scope of EPA's authority to regulate." *Massachusetts*, 549 U.S. at 510–11. Cannon's successor, Gary Guzy, later confirmed that interpretation in remarks to Congress. *Id.*[281]

EPA's suggestion that its regulation of greenhouse gas emissions from new power plants in the 2015 NSPS Rule was an abrupt departure from prior practice also overlooks that *Massachusetts* and *AEP* were decided before 2015, and EPA had already started regulating the same air pollutants emitted from vehicles pursuant to its 2009 Endangerment Finding. Thus, EPA in 2015 was not applying some new interpretation, but was rather applying the interpretation the Supreme Court had already confirmed to be correct, and that EPA had already been applying for many years. This contrasts with EPA's approach here, where it is proposing to apply an interpretation that the Supreme Court has already rejected, and that is inconsistent with decades of prior EPA practice.

In any event, it should not be surprising that, over time, EPA might regulate under section 111 a pollutant that it had not previously regulated. After all, the broad language in the Act

[281] While the subsequent Administration later withdrew the Cannon opinion, that Administration's position that it lacked regulatory authority over greenhouse gases was then rejected in *Massachusetts.*

"reflects an intentional effort to confer the flexibility necessary" to accommodate "changing circumstances and scientific developments" to "forestall [the Act's] obsolescence." *Id*. at 532.

2. EPA misapplies precedent.

The Supplemental Proposal contends that EPA has previously misconstrued *Massachusetts* and *AEP*, characterizing those opinions as holding only that greenhouse gases fit the definition of "air pollutant" under section 302(g), but not addressing whether greenhouse gases can form "air pollution" or whether EPA has authority to regulate greenhouse gases under section 111. 91 Fed. Reg. at 59020–21, 59029. As explained at length, *supra* Sections II.A & II.B.1.a–b, the Court's holding in *Massachusetts* that greenhouse gases are "air pollutants" forecloses EPA's position that greenhouse gases cannot cause "air pollution," and the Court's holding in *AEP* makes clear that EPA's authority to regulate greenhouse gases to address climate change harms extends to section 111 of the Act. 564 U.S. at 424 ("[W]e think it . . . plain that the Act 'speaks directly' to emissions of carbon dioxide from the defendants' plants.").

EPA in 2006 understood what was at stake in the case, and it was much broader than EPA now asserts. *See* Br. for Fed. Resp't at *I, *Massachusetts*, 549 U.S. 497 (No. 05-1120) (describing the second question presented as: "Whether the Environmental Protection Agency [] reasonably determined that it lacks authority under the Clean Air Act [] to regulate greenhouse gas emissions for the purpose of addressing global climate change."). Indeed, EPA understood this as recently as February 19, 2025, when EPA Administrator Lee Zeldin penned a memo to OMB Director Russell Vought explaining that the Court in *Massachusetts* "held that the CAA-wide definition of 'air pollutant' at section 302(g) is broad enough to encompass these emissions, that nothing in CAA 202(a) contradicted this first holding, and that the non-statutory reasons EPA gave in the 2003 denial were policy considerations not relevant to EPA's determination whether to issue an endangerment finding under 202(a)."[282] And in a recent court filing, DOJ emphasized the import of *Massachusetts* for EPA's authority to regulate greenhouse gases: "[T]he proposed rules do not—and could not—alter *Massachusetts v. EPA*'s holding that four greenhouse gases, including carbon dioxide and methane, are 'air pollutant[s]' under the Clean Air Act, [] which puts 'the decision whether and how to regulate' greenhouse gas emissions 'within EPA's regulatory ken.'").[283] The Agency cannot credibly diminish the stakes of *Massachusetts* eighteen years after it was decided.

[282] Memorandum from Lee Zeldin, Adm'r., EPA, to Russell Vought, Dir., Off. Mgmt. & Budget, Doc. ID No. EPA-HQ-OAR-2025-0194-0059, at 2 (Feb. 19, 2025), https://www.regulations.gov/document/EPA-HQ-OAR-2025-0194-0059.

[283] Pls.' Consolidated Resp. Opp'n Mots. to Dismiss & Mem. Supp. Mot. Summ. J. at 39, *United States v. Vermont*, No. 25-cv-4463-mkl (D. Vt. Sep. 15, 2025), Dkt. No. 50-1 (internal citation omitted) (quoting *Massachusetts*, 549 U.S. at 528–29, and *AEP*, 564 U.S. at 416, 426).

The Supplemental Proposal suggests that that *Massachusetts* has no application here because the Supreme Court was assessing a petition for rulemaking under section 202(a)(1), which differs from standard setting under section 111(b)(1)(A) in certain respects. 91 Fed. Reg. at 59029. EPA notes, for example, that under section 202(a)(1), EPA makes endangerment and contribution findings to regulate air pollutants emitted from new motor vehicles or new motor vehicles engines, whereas under section 111(b)(1)(A), EPA makes endangerment and contribution findings for purposes of including a stationary source category on a list that subjects sources in the category to regulation. EPA further notes that section 111(b)(1)(A) requires a finding that a source category contributes "significantly" to air pollution. But EPA makes no coherent argument as to why any of these distinctions between section 111 and section 202 are material with respect to EPA's authority to regulate greenhouse gases; to the contrary, its legal authority arguments largely repeat those it employed in the Endangerment Finding Rescission. And both sections 111 and 202 apply the very same expansive Act-wide definition of "air pollutant" construed by the Court in *Massachusetts*, and thus, the key terms "air pollutant" and "air pollution" have the same scope under both sections. *See supra* Section II.B.1.b.i. Further, to the extent section 111(b)(1) requires a finding that a source category contributes "significantly" to dangerous air pollution, that does not deprive EPA of the authority to conclude that power plants *do* contribute "significantly" to such pollution. In any event, the Supreme Court in *AEP* confirmed EPA's authority to regulate greenhouse gases under section 111.

The Supplemental Proposal cites *UARG* as a basis for not regulating greenhouse gases under section 111. 91 Fed. Reg. at 59029. But *UARG* supports, rather than undermines, EPA's authority to regulate large sources of greenhouse gases such as power plants. The *UARG* Court's reasoning for rejecting application of the Act-wide definition of "air pollutant" to greenhouse gases in the context of the Prevention of Significant Deterioration (PSD) and Title V program permitting triggers was based on the fact that the application of that permitting trigger to greenhouse gases would have compelled the new, unintended regulation of vast numbers of small sources for the first time under the Act—sources such as retail stores, schools and churches. 573 U.S. at 322–28. But that concern about the unintended regulation of vast numbers of small sources had nothing to do with any concern that the Act's regulatory provisions should not be understood to encompass pollutants driving global climate change.

Importantly, in the most salient portion of *UARG*, which EPA ignores, the Court *upheld* EPA's regulation of greenhouse gases under the PSD program from large "anyway" sources such as power plants, sources already subject to PSD permitting because of their emissions of non-greenhouse gas pollutants. *Id.* at 331–32. With respect to those sources, the Court concluded that "EPA reasonably interpreted the Act to require [sources that would need permits based on their emission of non-greenhouse gas pollutants] to comply with 'best available control technology' emissions standards for greenhouse gases." *Id*. at 329. In this regard, the Court read the Best Available Control Technology (BACT) provision—which requires BACT "for each pollutant subject to regulation under this chapter," 42 U.S.C. § 7475(a)(4)—as "far less open-ended" than

the phrase at issue in the permitting triggers that would have brought vast numbers of small sources under regulation. 573 U.S. at 331. Looking at that plain language of the BACT provision, the Court concluded: "There is no indication that the Act elsewhere uses, or that EPA has interpreted, 'each pollutant subject to regulation under this chapter' to mean anything other than what it says." *Id.* at 332; *see also id.* (describing the text as "clear"). The Court thus described its holding as follows: "nothing in the statute categorically prohibits EPA from interpreting the BACT provision to apply to greenhouse gases emitted by 'anyway' sources" that already required permits. *Id*. In other words, *UARG*'s holding with respect to large "anyway" sources such as power plants presupposes that greenhouse gases are pollutants that EPA may regulate under the Act's other source-specific provisions.

In short, *UARG* treats the regulation of greenhouse gases from large sources such as power plants as unremarkable. The transformative expansion that concerned the Court was the new regulation of vast numbers of small sources, not the regulation of greenhouse gases from the large, already-regulated sources that section 111 addresses. Nothing in *UARG* suggests that the global character of greenhouse gas pollution places it beyond the Act's regulatory reach. Moreover, fossil fuel-fired power plants regulated under section 111 are extremely large sources of pollution that routinely require permits under the PSD program. There is no coherent basis for concluding that although the Supreme Court found that EPA may permissibly require BACT standards for greenhouse gases from "anyway" sources such as power plants under the PSD program, EPA is foreclosed from regulating the same pollutant from the same sources under the section 111 program. Indeed, BACT standards are directly linked to section 111 standards; by definition, a BACT standard cannot "result in emissions of any air pollutants which will exceed the emissions allowed by any applicable standards established pursuant to [section 111]." 42 U.S.C. § 7479(3).

EPA also cites to the Supreme Court's decision in *West Virginia* and characterizes that decision as supposedly (1) "disagreeing" with the D.C. Circuit's holding in *American Lung* that the *AEP* court spoke definitively to the question of whether EPA may regulate GHG emissions from power plants under section 111 and (2) "clarifying" that *AEP* provides solely that the Clean Air Act speaks directly to power plants "for the purpose of analyzing whether the Act displaces Federal common-law claims," but without resolving the question of whether EPA may regulate greenhouse gas emissions under section 111(d). 91 Fed. Reg. at 59029. These characterizations of *West Virginia*, *American Lung*, and *AEP* are plainly erroneous.

First, in the portion of *American Lung* cited by EPA, the D.C. Circuit addressed industry petitioners' argument that EPA's regulation of coal-fired power plants' mercury emissions under the section 112 hazardous air pollutants program precludes any regulation of power plants' carbon dioxide emissions under section 111. The D.C. Circuit rejected petitioners' position that the relevant statutory text in section 111(d) prohibits EPA from regulating power plants under both section 111 and section 112. As part of that holding, the court observed that EPA's interpretation that it had authority to regulate greenhouse gases was supported by *AEP*, which

held that section 111 "speaks directly" to power plant greenhouse gas emissions. 985 F.3d at 987–88 (quoting *AEP*, 564 U.S. at 424). In this respect, the D.C. Circuit accurately recited the holding of *AEP*. EPA's assertion that the Supreme Court then somehow "disagreed" with this portion of the D.C. Circuit's opinion in *West Virginia* is wrong. The Supreme Court in *West Virginia* did not even grant *certiorari* on this aspect of the D.C. Circuit's opinion. Nor does the *West Virginia* opinion purport to comment on how the D.C. Circuit characterized *AEP*, much less purport to "disagree" with the D.C. Circuit's characterizations in the decision.

Further, the *West Virginia* Court did not in any respect modify *AEP* or "clarify" that the question of EPA's authority to regulate greenhouse gas emissions under section 111 remains open. The passage of *West Virginia* quoted by EPA explains that, per *AEP*, the existence of EPA's authority under section 111(d) means that federal common law claims are displaced, but *AEP* says nothing "about the ways in which Congress intended EPA to exercise its power under that provision." 597 U.S. at 730. In other words, the quoted passage fully reinforces that, per *AEP*, EPA has the power to regulate greenhouse gases emitted from power plants under section 111(d). The question unresolved by *AEP* is the *way in which* EPA can exercise that acknowledged power, not *whether* EPA has any such power.

EPA further cites to the Supreme Court's decision in *Sackett v. EPA*, 598 U.S. 651 (2023), for the proposition that the agency can interpret air pollution and air pollutant differently depending on statutory context. 91 Fed. Reg. at 59029. But that decision did not assess the regulation of greenhouse gas emissions under the Clean Air Act and has no bearing here. And nothing in *Sackett*'s discussion of principles of statutory interpretation undermines the Supreme Court's holdings in *Massachusetts* or *AEP* that resolve the precise interpretive questions presented in those cases.

Finally, perhaps recognizing that there is no way to harmonize the Supplemental Proposal's statutory interpretation with the Court's decisions in *Massachusetts* and *AEP*, EPA asserts that its findings in the 2015 NSPS Rule were issued during "a transitional period regarding the standards for statutory interpretation and understandings of agency authority," citing *Loper Bright* and *West Virginia*. *Id.* at 59020. This invocation of *Loper Bright* and *West Virginia* is misplaced. With respect to statutory interpretation, the *Massachusetts* Court did not accord *Chevron* deference to the Agency but rather played the role that *Loper Bright* later instructed courts to play in statutory interpretation, using the traditional tools of statutory interpretation that *Loper Bright* affirms. And regarding *West Virginia* and the major questions doctrine, as explained *infra* Section II.D, *Massachusetts* directly addressed and rejected the arguments that this doctrine, as described in *Brown & Williamson*, applied to the regulation of greenhouse gases under the Clean Air Act. *Massachusetts*, 549 U.S. at 531.

Fatal flaws also infect EPA's assertion that the results of the 2024 presidential election provide an "independent and sufficient basis" to justify the Agency's radical departure from its prior interpretations of section 111. 91 Fed. Reg. at 59019. As *Loper Bright* made clear, a

presidential transition is not an independent and sufficient basis for changing a *legal* interpretation. That state of affairs would, the Supreme Court reasoned, allow the law to "change erratically" rather than "develop in a principled and intelligible fashion." 603 U.S. at 411–12 (quoting *Vasquez v. Hillery*, 474 U.S. 254, 265 (1986)). Irrespective of any electoral outcome, "[t]he statute still has a best meaning, necessarily discernible by a court deploying its full interpretive toolkit." *Id.* at 408–09; *see also id.* at 403. The election of a new President is an independent and sufficient basis for changing *policy* within the boundaries set by the Clean Air Act. But a presidential election does not and cannot have any effect on the "single, best meaning" of a statute, which is "fixed at the time of enactment." *Id.* at 400 (citation omitted).

3. The nondelegation and constitutional avoidance doctrines are inapposite.

The Supplemental Proposal also errs by invoking the nondelegation and constitutional avoidance doctrines to support its proffered interpretation of section 111. 91 Fed. Reg. at 59027–28. Far from avoiding constitutional concerns, the Supplemental Proposal's approach itself would offend the separation of powers.

As an initial matter, the Clean Air Act is not susceptible to the Supplemental Proposal's reading, *see supra* Section II.A, so the avoidance doctrine cannot support it. *See Clark v. Martinez*, 543 U.S. 371, 385 (2005) (emphasis omitted) ("The canon of constitutional avoidance comes into play only when, after the application of ordinary textual analysis, the statute is found to be susceptible of more than one construction; and the canon functions as a means of choosing between them."). Because the text is unambiguous, there is no second construction for the canon to choose between.

Nor does the nondelegation doctrine assist EPA. The Supreme Court "set out the 'intelligible principle' standard as the universal method for assessing [statutory] delegations" of Congress's Article I powers to make law to the Executive Branch. *FCC v. Consumers' Rsch.*, 606 U.S. 656, 674 (2025) (quoting *J.W. Hampton, Jr. & Co. v. United States*, 276 U.S. 394, 409 (1928)). That standard requires only that a statute "impose[] ascertainable and meaningful guideposts for the [agency] to follow when carrying out its delegated function." *Id.* at 681. The guideposts need only include "the 'general policy' the [agency] must pursue" and "the 'boundaries' it cannot cross." *Id*. (quoting *Am. Power & Light Co. v. SEC*, 329 U.S. 90, 105 (1946)). To find an intelligible principle, courts "d[o] not examine . . . statutory phrases in isolation but instead look[] to the broader statutory context[]." *Id.* at 684.

The Supplemental Proposal asserts in a conclusory fashion that section 111 would lack a readily discernible intelligible principle if it authorized standards for emissions of pollutants that may reasonably be anticipated to endanger public health and welfare by means other than "local or regional exposure." 91 Fed. Reg. at 59028. But EPA offers no coherent explanation as to why this is the case or how its proposed limitation would supply an appropriate intelligible principle that is otherwise missing. Section 111 already supplies intelligible principles, and they apply to

greenhouse gas standards just as they do to standards for other pollutants. First, the regulated source category must cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. 42 U.S.C. § 7411(b)(1)(A). Second, a "standard of performance" must be one that "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 health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated." *Id.* § 7411(a)(1).

EPA is thus incorrect that, absent adoption of its preferred interpretation, it would be "permitted to promulgate standards of performance under CAA section 111 for any purpose and to meet any policy objective, so long as those standards also have the effect of reducing emissions." 91 Fed. Reg. at 59027. Under the plain statutory text, for example, EPA lacks authority to promulgate standards where they are premised on emission reduction systems that are not adequately demonstrated or where they are not cost-reasonable—regardless of EPA's policy objectives. *See* 42 U.S.C. § 7411(a)(1). Using these intelligible principles, EPA has been addressing greenhouse gas emissions from various source categories since 1996.

EPA's additional rationales also do not withstand scrutiny. First, EPA reasons that "because the EPA can only regulate a source category with respect to air pollution that endangers through local or regional exposure, the emission reductions obtained through standards of performance will rightly be directed towards achieving the purpose of mitigating the harm that results or may result from that local or regional exposure." 91 Fed. Reg. at 59027. But that logic is circular and assumes the limitation exists to prove the limitation is needed. Further, as discussed *supra* Section II.B.1.c.iii, regulation of greenhouse gas emissions *is* directed toward mitigating the local and regional harm that results or may result from greenhouse gas emissions.

Second, EPA reasons that "[w]ithout a limiting interpretation of the air pollution addressed by CAA section 111, the EPA could decide to regulate a source category based on a global concern when there is little or no connection between a source category's emissions and the identified harm." *Id.* But Congress has already supplied the applicable limiting principle with respect to the threshold for regulating a source category: EPA may list and regulate a source category if "it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7411(b)(1)(A). That standard by its plain terms encompasses a connection between a source category's emissions and the identified harm. That EPA would evidently prefer a higher statutory threshold for regulation does not enable EPA to fail to apply the statute that Congress enacted.

EPA's reliance on the D.C. Circuit's opinion in *IGas Holdings, Inc. v.* EPA, 146 F.4th 1126 (D.C. Cir. 2025), is likewise misplaced. 91 Fed. Reg. at 59028, 59028 n.179. As with EPA's allocation of hydrofluorocarbon allowances under the American Innovation and Manufacturing (AIM) Act, section 111 provides intelligible principles to guide EPA's exercise of discretion. The specific criteria in sections 111(a)(1) and 111(b)(1)(A) plainly constrain EPA's

discretion. Section 111 leaves no statutory ambiguity to be resolved and presents no risk of a "limitless construction." *Id.* at 59028.

EPA's citation to *Louisiana v. Callais*, 146 S. Ct. 1131 (2026), adds nothing. *Id.* That case neither applied the nondelegation doctrine nor addressed the relevant provisions of the Clean Air Act. And even if EPA cites *Callais* only for the general proposition that statutory terms should be read in their broader statutory and legislative context, EPA has not applied that approach correctly here. *See supra* Section II.B.1.

Finally, EPA's invocation of *Loper Bright* also misses the mark. As *Loper Bright* explained, statutes have a single best meaning, fixed at the time of enactment. 603 U.S. at 400 (citation omitted). EPA correctly acknowledges that its "discretion does not extend to redefining statutory terms in a manner inconsistent with ordinary meaning" and that there is an absence of any express delegation in section 111(b)(1)(A) to give meaning to statutory terms. 91 Fed. Reg. at 59027 (citing *Loper Bright*, 603 U.S. at 394–95). Yet EPA does exactly that in the Supplemental Proposal, redefining statutory terms to depart from their plain meaning. It is therefore EPA's approach in the Supplemental Proposal that is in tension with the separation of powers principles that animate the nondelegation doctrine. By declining to apply the statute that Congress enacted, EPA undermines Article I's vesting of legislative power in Congress. And by disregarding the binding judicial opinions issued by the Supreme Court and D.C. Circuit, EPA undermines Article III's vesting of judicial power in the federal judiciary.

C. EPA's findings in the 2015 NSPS Rule are valid, and EPA's Endangerment Finding Rescission does not provide a basis for withdrawing those findings.

Separate and apart from its proposed reinterpretation of section 111(b)(1)(A), EPA proposes to rescind its findings in the 2015 NSPS Rule and associated regulations on the basis that those findings were flawed and that the Endangerment Finding Rescission abrogates the basis for the findings in the 2015 NSPS Rule. 91 Fed. Reg. at 59030–32. More specifically, EPA claims that by combining parts of two already listed source categories—electricity generating fossil fuel-fired steam generating units and electricity generating fossil fuel-fired stationary combustion turbines—for the purpose of regulating greenhouse gas emissions in 2015, EPA "created a new source category that should have been listed pursuant to CAA section 111(b)(1)(A), which would have required the Agency to determine that GHGs emitted from the source category cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." *Id.* at 59030. EPA acknowledges that it made just such a determination with respect to greenhouse gases in 2015, but claims that determination was insufficient because EPA relied on findings that were made for purposes of the 2009 Endangerment Finding, and the 2009 Endangerment Finding has now been rescinded. *Id.*

As discussed below, all aspects of this portion of EPA's Supplemental Proposal are badly flawed.

1. The best reading of section 111 is that it directs EPA to list source categories that significantly contribute to dangerous pollution and then to regulate—within defined limits—on a pollutant-by-pollutant basis.

As an initial matter, EPA's premise that it was required to make a greenhouse gas-specific endangerment finding under section 111(b)(1)(A) prior to regulating greenhouse gases is incorrect. Because EPA had already listed the source category in question prior to 2015, EPA just needed a rational basis to regulate an additional pollutant—greenhouse gases—from that source category. We previously addressed this issue in our August 7, 2025, comments on EPA's 2025 Proposal. *See* States' 2025 Comments, *supra* note 5, at 28–34. As set forth in our prior comments, the best reading of section 111 is EPA's longstanding one: the finding supporting listing must be made on a source category basis, not a pollutant-specific basis.

Section 111 provides in relevant part:

> The Administrator shall, within 90 days after December 31, 1970, publish (and from time to time thereafter shall revise) a list of categories of stationary sources. He shall include a category of sources in such list if in his judgment, *it* causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.

42 U.S.C. § 7411(b)(1)(A) (emphasis added). The grammatically straightforward reading of this statutory text is the one EPA has historically adopted: the "it" that "causes or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health of welfare" is "a category of sources." *See*, *e.g., Barnhart v. Thomas*, 540 U.S. 20, 26–27 (2003) (explaining the rule of the last antecedent). The "category of sources" is the only conceivable reference for "it." And it makes sense that Congress would draft section 111 this way: at the listing stage, the Clean Air Act is focused on capturing the world of categories of sources that significantly contribute to harmful air pollution. Later statutory provisions address regulation for specific pollutants from those categories of sources.

The Supplemental Proposal lacks a credible argument that Congress did not mean what it said in section 111(b)(1)(A). The Supplemental Proposal suggests that EPA erred in combining the combustion and steam generating unit categories in 2015 without making a new significant contribution finding. That contention makes little sense. EPA had already concluded that both steam generating units and combustion turbines significantly contributed to air pollution that may be reasonably anticipated to endanger public health and welfare. *See* Air Pollution Prevention and Control: List of Hazardous Air Pollutants and List of Categories of Stationary Sources, 36 Fed. Reg. 5931 (Mar. 31, 1971); Air Pollution Prevention and Control: Addition to the List of Categories of Stationary Sources, 42 Fed. Reg. 53657 (Oct. 3, 1977). Combining the two source categories for the purposes of regulation would only increase the contribution of these two types of power plants; by definition, the combined emissions of these categories of sources would significantly contribute.

At any rate, EPA did conclude in the 2015 NSPS Rule that the greenhouse gas emissions from this combined source category would significantly contribute to air pollution that may be reasonably anticipated to endanger public health or welfare; so, to the extent that was a requirement, EPA fulfilled it. 80 Fed. Reg. at 64531.

2. The D.C. Circuit has already upheld the legality of the findings in the 2015 NSPS Rule and any perceived procedural listing errors do not relate to EPA's underlying authority to regulate greenhouse gas emissions.

EPA claims that the 2015 NSPS Rule is flawed because it relied in part on judgments made as part of its 2009 Endangerment Finding. EPA ignores that the D.C. Circuit has already reviewed and upheld the legality of the findings in the 2015 NSPS Rule in *American Lung*. As the D.C. Circuit held, "'under any reasonable threshold or definition,' carbon dioxide from fossil fuel-fired power plants represents 'a significant contribution' to air pollution." *Am. Lung*, 985 F.3d at 976 (citing the 2015 NSPS Rule, 80 Fed. Reg. at 64531). As that court further explained, it made "eminent sense" for 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." *Id*. *American Lung* thus establishes the validity of EPA's findings in the 2015 NSPS Rule. For purposes of future regulation, EPA may retain some degree of discretion to revisit the *scientific judgments* underlying the findings that it made in 2015, *i.e.*, to make a negative endangerment finding, but EPA cannot claim that it "failed to properly list" the regulated source category in 2015.

Moreover, any perceived procedural or methodological errors in 2015 would not bear upon whether EPA has the underlying legal authority to regulate greenhouse gas emissions from power plants. Even if EPA were correct that it failed to make proper findings in 2015—and it is not—that would not deprive EPA of the authority to proceed to cure the error by making proper findings now. Indeed, the Act *requires* EPA to list categories of stationary sources that cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health and welfare.

3. EPA's Endangerment Finding Rescission does not provide a basis for withdrawing the findings in the 2015 NSPS Rule.

EPA's Endangerment Finding Rescission also does not provide a valid justification for withdrawing the findings in the 2015 NSPS Rule. EPA's withdrawal of its 2009 Endangerment Finding is unlawful and arbitrary, for many of the same reasons that the Supplemental Proposal is unlawful and arbitrary. The same sorts of defects that apply to the Supplemental Proposal apply to that final action as well. As set forth in comments on the Proposed Endangerment Finding Rescission (*see* Exhibits 4–6), and summarized in State and Local Government Petitioners' Statement of Issues in their case challenging the final Endangerment Finding Rescission (*see* Exhibit 7), EPA's Endangerment Finding Rescission is foreclosed by judicial precedent, unsupported by the ordinary meaning of the statutory text, dependent upon arbitrary

scientific judgments, and discordant with contextual considerations and relevant statutory history. For example, the Endangerment Finding Rescission misapplied the scope of the term "air pollutant" as determined by the Supreme Court in *Massachusetts*; applied an atextual and incorrect "local or regional" exposure limitation on regulation; and applied a flawed construction of the terms "contribute," and "may reasonably be anticipated to endanger." Similarly, in withdrawing the 2009 Endangerment Finding, EPA refused to revise any of its prior scientific findings or make new ones. *See* Endangerment Finding Recission, 91 Fed. Reg. at 7694, 7737. As such, none of those scientific findings have been disturbed.

The States and Local Governments have filed a petition for review contesting EPA's Endangerment Finding Rescission. *See Massachusetts v. EPA*, No. 26-1061 (D.C. Cir. Mar. 19, 2026), Dkt. No. 2164582 (consolidated with *Am. Pub. Health Ass'n v. EPA* (D.C. Cir. No. 26-1037)). A judgment in that action for petitioners will have the effect of further foreclosing the legal interpretations adopted in the Supplemental Proposal.

D. The major questions doctrine does not apply.

The major questions doctrine provides that an "[e]xtraordinary grant[] of regulatory authority" must be supported by "clear congressional authorization." *West Virginia*, 597 U.S. at 723 (quoting *UARG*, 573 U.S. at 324). The doctrine is reserved for those "extraordinary cases" where the anomalousness, scope, and significance of the authority asserted by the agency "provide a 'reason to hesitate before concluding that Congress' meant to confer" [that] authority. *Id*. at 721 (quoting *Brown & Williamson*, 529 U.S. at 159–60). Once a court concludes that an agency's asserted authority implicates the major questions doctrine, the court determines whether there is "clear congressional authorization" for that authority. *Id*. at 724 (citation omitted).

EPA's authority to promulgate power plant greenhouse gas standards under section 111 of the Act and the Agency's exercise of that authority do not implicate the major questions doctrine. EPA's current claim to the contrary is foreclosed by the Supreme Court's decisions in *Massachusetts* and *AEP*, and neither the findings in the 2015 NSPS Rule nor the power plant greenhouse gas standards resemble an extraordinary exercise of regulatory authority under the major questions doctrine. Contrary to the Supplemental Proposal's claims, the Court's decisions in *UARG* and *West Virginia* do not undermine the *Massachusetts* holding but rather lend it additional support. Moreover, even if EPA's section 111 authority to regulate greenhouse gases did implicate the major questions doctrine, as discussed *infra* Section II.D.3, there is clear congressional authorization for such authority.

1. <u>*Massachusetts* and *AEP* foreclose EPA's application of the major questions doctrine.</u>

The Supreme Court's decisions in *Massachusetts* and *AEP* plainly foreclose EPA's proposed conclusion. The *Massachusetts* Court expressly concluded that its decision in *Brown & Williamson*, a foundational case underlying the major questions doctrine, did not undermine

EPA's authority to regulate greenhouse gases under the Clean Air Act. *Massachusetts*, 549 U.S. at 530–31. The Court reached that conclusion based on key major question indicators including (1) the scope of the jurisdictional reach that such authority would afford the agency and (2) subsequent congressional enactments. *See id*. Then, in *AEP*, the Court concluded that section 111 "speaks directly" to power plant greenhouse gas emissions and authorizes EPA to establish standards to control such emissions. 564 U.S. at 424.

In *Massachusetts*, the Court rejected the argument that Congress must "sp[eak] with exacting specificity" to authorize EPA "to address [climate change]." *Id*. at 512; *see id*. at 531. The Court reasoned that EPA's jurisdiction over vehicle greenhouse gas emissions entails "no . . . extreme measures," because section 202 requires EPA merely to "*regulate* emissions, and even then, [the Agency] would have to delay any action 'to permit the development and application of requisite technology, giving appropriate consideration to the cost of compliance.'" *Id*. at 531 (quoting 42 U.S.C. § 7521(a)(2)) (emphasis in original). The Court explained that there is nothing "counterintuitive to the notion that EPA can curtail the emission of substances that are putting the global climate out of kilter." *Id*. at 531.

The Court further emphasized that EPA had identified no "congressional action that conflicts in any way with the regulation of greenhouse gases from new motor vehicles." *Id*. The Court also noted that any such action would not have been "against a regulatory 'backdrop' of disclaimers of regulatory authority," because prior to the present case, "EPA had never disavowed the authority to regulate greenhouse gases" and instead had previously "affirmed that it *had* such authority." *Id.* (emphasis in original).

In *AEP*, the Court extended its logic in *Massachusetts* to section 111*,* concluding that it is "equally plain" that section 111 "'speaks directly' to emission of carbon dioxide" from power plants. 564 U.S. at 424. The Court explained that "Congress delegated to EPA the decision whether and how to regulate carbon-dioxide emissions from powerplants" and deemed it "altogether fitting that Congress designated an expert agency" as "best-suited to serve as primary regulator of greenhouse gas emissions." *Id.* at 426, 428.

The Court then reaffirmed its major questions reasoning in *UARG*. There, the Court concluded that greenhouse gas-inclusive PSD/Title V permitting requirements "would bring about an enormous and transformative expansion in EPA's regulatory authority without clear congressional authorization," not because of concern that global climate change is beyond the Act's reach, but because applying the PSD/Title V permitting triggers to greenhouse gases would have compelled the new, unintended regulation of vast numbers of small sources for the first time under the Act—sources such as retail stores, schools, and churches. 573 U.S. at 322–28. Significantly, the Court explained that its holding was not inconsistent with *Massachusetts* because, as opposed to the greenhouse gas-inclusive PSD/Title V permitting trigger requirements, vehicles greenhouse gas standards could not be described as "'extreme,' 'counterintuitive,' or contrary to 'common sense.'" *Id*. at 318 (quoting *Massachusetts*, 549 U.S.

at 531). At most, the Court reasoned, vehicles greenhouse gas standards would "require EPA to take the modest step of adding greenhouse-gas standards to the roster of new-motor-vehicle emission regulations." *Id*. at 318–19 (citing *Massachusetts*, 549 U.S. at 531). Accordingly, "nothing in the Act suggested that regulating [greenhouse gas emissions] under [section 202] would conflict with the statutory design." *Id*. at 318.

In *West Virginia*, the Court explained that the major questions doctrine is a "body of law that has developed over a series of significant cases," including *Brown & Williamson*. 597 U.S. at 721–24. The Court noted that its decision in *Brown & Williamson* had advanced the key principle underlying the major questions doctrine: "'In extraordinary cases . . . there may be reason to hesitate' before accepting a reading of a statute that would, under more 'ordinary' circumstances, be upheld." *Id*. at 723–24 (quoting *Brown & Williamson*, 529 U.S. at 159). The Court in *Massachusetts* considered that very principle when it characterized vehicle greenhouse gas standards as a "modest" regulatory step that would not require "extreme" measures. *UARG*, 573 U.S. at 318–19 (quoting *Massachusetts*, 549 U.S. at 531).[284] There is thus no question that the *Massachusetts* Court's consideration of *Brown & Willimson*—and the *UARG* Court's reaffirmation thereof—reflect a major questions analysis, even if that moniker had not yet been assigned to the doctrine.

2. Even if its application were not foreclosed by Supreme Court precedent, the major questions doctrine does not apply.

In any event, application of the major questions doctrine's analytical framework refutes EPA's proposed reliance on the doctrine as a basis to disclaim any authority to regulate greenhouse gas emissions from power plants under section 111 of the Act and to repeal the findings and associated regulatory requirements in the 2015 NSPS Rule and the Carbon Pollution Standards.

[284] Even if *Massachusetts* did not apply the principles underlying the major questions doctrine (it did), that doctrine does not constitute the sort of "special justification" needed to overrule a "statutory precedent." *Loper Bright*, 603 U.S. at 412 (citations omitted); *see Halliburton Co. v. Erica P. John Fund, Inc.*, 573 U.S. 258, 266 (2014). That is because the major questions doctrine is essentially an "interpretive methodology," and so it cannot "justify overruling [the] statutory precedent" in *Massachusetts*. *Loper Bright*, 603 U.S. at 412. The D.C. Circuit has characterized the major questions doctrine as "a tool of statutory interpretation" whose "function . . . is simple—to help courts figure out what a statute means." *See Save Jobs USA v. Dep't of Homeland Sec*., 111 F.4th 76, 80 (D.C. Cir. 2024). The Supreme Court similarly has indicated as much. See *West Virginia*, 597 U.S. at 721 (introducing a discussion of the major questions doctrine with: "It is a 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" (quoting *Davis v. Mich. Dep't of Treas.*, 489 U.S. 803, 809 (1989))); *Biden v. Nebraska*, 600 U.S. 477, 511 (2023) (Barrett, J., concurring) (noting that the major questions doctrine is a tool of statutory interpretation).

First, EPA's authority to regulate greenhouse gas emissions from power plants does not constitute a "power [] of vast economic and political significance." *Ala. Ass'n of Realtors v. Dep't of Health & Hum. Servs*., 594 U.S. 758, 764 (2021) (citation omitted); *see Massachusetts*, 549 U.S. at 531 ("EPA would only *regulate* emissions" (emphasis in original)); *UARG*, 573 U.S. at 329–32. In exercising its authority under the Act, EPA has not imposed power plant greenhouse gas standards on "previously unregulated entities," but rather "moderately increased the demands EPA . . . can make of entities already subject to its regulation." *UARG*, 573 U.S. at 332. And the scope of EPA's authority over greenhouse gas emissions is expressly constrained by the text of section 111, which requires EPA to consider factors such as whether technologies are adequately demonstrated and the cost of compliance in setting standards. *See* 42 U.S.C. § 7411(a)(1); *West Virginia*, 597 U.S. at 728. Further, because power plant standards under section 111 are merely performance standards that can be met through adoption of demonstrated control technologies, section 111 does not empower EPA to dictate "how Americans will get their energy." *West Virginia*, 597 U.S. at 729. Accordingly, EPA's power plant greenhouse gas standards cannot be described as "assertions of 'extravagant statutory power over the national economy.'" *Id*. at 724 (*quoting UARG*, 573 U.S. at 324).[285]

Second, EPA's authority to promulgate power plant greenhouse gas standards under section 111 does not represent "an enormous and transformative expansion in EPA's regulatory authority," *UARG*, 573 U.S. at 324, nor does it involve the "discover[y] in a long-extant statute [of] an unheralded power," *West Virginia*, 597 U.S. at 724 (quoting *UARG*, 573 U.S. at 324); *see Biden v. Nebraska*, 600 U.S. at 496–99. Rather, it constitutes a straightforward application of section 111—employing the same regulatory approaches, and the same consideration of all available technologies, that EPA has exercised under that provision for decades. In particular, power plant greenhouse gas standards are imposed on the same class of entities as prior section 111 emission standards, *see UAR*G, 573 U.S. at 324, 332; they involve the same sort of "policy judgment[s]" as previous standards under section 111, *West Virginia*, 597 U.S. at 728; and they need not impose demands "of a significantly different character from those traditionally associated with" section 111 regulations, *UARG*, 573 U.S. at 332; *see Biden v. Missouri*, 595 U.S. 87, 94–95 (2022). Section 111, like section 202, does not contemplate extreme measures, but rather standards of performance that reflect an "achievable" degree of emission limitation 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

[285] Notably, in *West Virginia*, industry amici "urge[d] the Court to proceed with caution in entertaining application of the nondelegation or major questions doctrines in ways that could strip EPA of all authority to regulate [greenhouse gases] under [the Clean Air Act] or otherwise call into question this Court's holdings in *Massachusetts* and *AEP*." Br. of Amici Curiae Edison Elec. Inst. & Nat'l Ass'n of Clean Water Agencies Supp. Resp'ts at 19–20, *West Virginia*, 597 U.S. 697 (Nos. 20-1530, 20-1531, 20-1778, 20-1780).

and energy requirements," the Administrator determines has been "adequately demonstrated." 42 U.S.C. § 7411.

Citing the Clean Power Plan and the Carbon Pollution Standards, EPA further argues that "the only way to meaningfully address GHG emissions from fossil fuel-fired power plants is by shifting the power sector away from fossil fuels." 91 Fed. Reg. at 59033. But this contention is entirely undermined by the two examples EPA cites. While the Clean Power Plan did rely, in part, on shifting generation away from fossil fuel toward cleaner fuels, it also relied on shifting generation from one fossil fuel (coal) toward another (gas), and improving the efficiency of (fossil) plants. Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64662, 64724 (Oct. 23, 2015). The Carbon Pollution Standards identified multiple systems of emission reduction, none of which involved shifting away from fossil fuels: (1) use of lower-emitting (fossil) fuels; (2) efficient (fossil fuel) generation; (3) routine operation and maintenance; (4) co-firing with natural gas at coal-fired power plants; and (5) applying carbon capture and sequestration technologies to fossil fuel-fired power plants. 89 Fed. Reg. at 39840–42. EPA determined that a carbon capture rate of 90% was adequately demonstrated, considering cost, for existing coal-fired power plants and new baseload (gas) combustion turbines. *Id.*; *see also id.* at 39846–74, 39924–39. EPA noted that this would "prevent[] large amounts of CO_2 emissions. . . . [T]he gross and net emissions rates are reduced by 89.3 percent and 88.7 percent respectively." *Id.* at 39937. The coal plant retirement subcategory EPA references was provided at the request of industry to allow coal plants that are no longer economic to avoid investing in pollution control technologies when they were already planning to cease operations in the very near term. *Id.* at 39891. What resources replaced those retiring plants was up to the market and energy regulators.

Moreover, EPA's authority to regulate greenhouse gas emissions under section 111 and other provisions of the Clean Air Act is in no sense a "newfound power." *West Virginia*, 597 U.S. at 724 (citation omitted). EPA has regulated greenhouse gas emissions from power plants under section 111 since 2015, well after *Massachusetts*. 80 Fed. Reg. 64510 (Oct. 23, 2015). And even before *Massachusetts*, EPA had considered the global warming potential of proposed substitutes for ozone-depleting substances when evaluating those substitutes under a provision of the Clean Air Act addressing "requirements for the control and abatement of air pollution." 42 U.S.C. § 7671q; *see* Protection of Stratospheric Ozone, 59 Fed. Reg. 13044, 13049 (Mar. 18, 1994); *see also* Protection of Stratospheric Ozone; Listing of Substitutes for Ozone-Depleting Substances, 64 Fed. Reg. 10374, 10375 (Mar. 3, 1999); Protection of Stratospheric Ozone; Listing of Substances for Ozone-Depleting Substances, 64 Fed. Reg. 22982, 22984 (Apr. 28, 1999). Further, in 1996, EPA regulated methane emissions emanating from landfills, in part, on the basis that methane emissions "contribute to global climate change." 61 Fed. Reg. at 9905. And in 2004, EPA began requiring the monitoring of CO_2 emissions from nonroad equipment pursuant to section 103(a), 42 U.S.C. § 7403(a), which authorizes research into "air pollution." Agency Information Collection Activities; Submission to OMB for Review and Approval;

Comment Request; Mobile Source Emission Factors: Populations, Usage and Emissions of Diesel Nonroad Equipment in EPA Region 7 (Survey), EPA ICR Number 0619.11, OMB Control Number 2060-0078, 69 Fed. Reg. 12151 (Mar. 15, 2004).

Third, EPA's authority to regulate power plant greenhouse gas emissions is not based in a "subtle device," *Brown & Williamson*, 529 U.S. at 160 (citation omitted), that "had rarely been used in the preceding decades," *West Virginia*, 597 U.S. at 724 (citations omitted). Section 111 is one of the primary Clean Air Act provisions to limit pollution, and EPA has issued nearly one hundred standards limiting pollutants for new sources in the past 50 years. *See generally* 40 C.F.R. Part 60, Subparts D–VVVV. Nor does EPA's authority depend upon a "strained understanding" of the statutory text. *Brown & Williamson*, 529 U.S. at 160. EPA's authority to promulgate greenhouse gas standards for power plants is grounded in core provisions of the Clean Air Act that are "written in starkly broad terms," *Bostock*, 590 U.S. at 680, and that speak directly to the agency's mandate to regulate air pollutant emissions from source categories that cause, or contribute significantly, to air pollution which may reasonably be anticipated to endanger public health or welfare, including through effects on "climate." 42 U.S.C. §§ 7411(b)(1)(A), 7602(h); *see Bostock*, 590 U.S. at 683; *Missouri*, 595 U.S. at 89, 94–95.

Fourth, and relatedly, the regulation of greenhouse gas emissions from power plants is squarely within EPA's expertise. "[T]here can be no doubt that addressing [environmental] problems" caused by the emission of airborne compounds is "what [EPA] does," *Missouri*, 595 U.S. at 95, and indeed what the Environmental Protection Agency "was built for," *Nat'l Fed'n of Indep. Bus. v. Dep't of Lab.*, 595 U.S. 109, 119 (2022) (citation omitted); *see also AEP*, 564 U.S. at 428) (emphasizing that Congress designated EPA as the "primary regulator of greenhouse gas emissions"). And, again, there is certainly "nothing counterintuitive to the notion that EPA can curtail the emission of substances that are putting the global climate out of kilter." *Massachusetts*, 549 U.S. at 531.

Fifth, there is no indication that Congress has "considered and rejected" EPA's authority to regulate greenhouse gas emissions under section 111. *West Virginia*, 597 U.S. at 731 (quoting *Brown & Williamson*, 529 U.S. at 144). Quite the contrary. *See supra* Section II.B.1.d. Statutory enactments such as the AIM Act and the IRA, which granted EPA authority to address climate change through non-emission standard means, do not "indicate the [Agency] lacks authority to act under other (earlier enacted) statutory provisions." *Am. Fed'n of Gov't Emps*., *AFL-CIO v. Carmen*, 669 F.2d 815, 824 n.43 (D.C. Cir. 1981) (citation omitted). Further, those enactments postdate the 2009 Endangerment Finding and therefore were not enacted against "a regulatory 'backdrop' of disclaimers of regulatory authority." *Massachusetts*, 549 U.S. at 531; *see Brown & Williamson*, 529 U.S. at 144. Nor does Congress's failure to enact the Safe Climate Act of 2007 or American Clean Energy and Security Act of 2009 shed any light on this question. *Contra* 91 Fed. Reg. at 59033. As explained *supra* Section II.B.1.d.iv, "failed legislative proposals are a particularly dangerous ground on which to rest an interpretation of a prior statute," *Cent. Bank of Denv.*, 511 U.S. at 187 (cleaned up), the Supreme Court has already rejected this argument with

regard to EPA's authority to regulate greenhouse gases, *Massachusetts*, 549 U.S. at 529–30, and *AEP* was decided *after* these legislative efforts foundered and yet still held that section 111 "speaks directly" to carbon dioxide emissions from power plants, 564 U.S. at 424. Indeed, as also explained *supra* Section II.B.1.d.iv, legislation *enacted* since section 111 became law—including legislation specifically citing EPA's section 111 methane standards and defining greenhouse gases as pollutants under the Act—ratifies EPA's (and the Supreme Court's) conclusion that greenhouse gases are regulable pollutants under the Clean Air Act.

In addition, neither the One Big Beautiful Bill Act, nor recent congressional resolutions[286] address EPA's authority to regulate greenhouse gas emissions under section 111. Attempts to revoke EPA's authority to regulate greenhouse gas emissions under the Clean Air Act have consistently failed,[287] and other statutory enactments since 2007 confirm Congress's understanding that greenhouse gases are pollutants under section 111. *See supra* Section II.B.1.d.iv.

Finally, even if the major questions doctrine undermined power plant greenhouse gas standards as they existed prior to the Carbon Pollution Standards Repeal (it does not), the findings in the 2015 NSPS Rule certainly do not implicate the doctrine. Major questions analysis does not ask whether an assertion of authority—such as the 2015 findings—has the "potential . . . to lead to" other actions which are themselves extraordinary, but rather focuses on the asserted authority itself. *UARG*, 573 U.S. at 332; *see West Virginia*, 597 U.S. at 734–35. Thus, the findings in the 2015 NSPS Rule are unlawful only if the major questions doctrine "categorically prohibits EPA" from regulating greenhouse gas emissions of power plants under section 111. *UARG*, 573 U.S. at 332 (refusing to extend major questions analysis to "potential" regulations that could result from the asserted authority, because the asserted authority would not necessarily "lead to an unreasonable and unanticipated degree of regulation"). For the reasons discussed, there is nothing inherently extraordinary about EPA having the authority to promulgate regulations that limit greenhouse gas emissions from power plants.

3. Even if the major question doctrine applies, EPA's authority is clear.

At any rate, even if the major questions doctrine did apply, here EPA has "clear congressional authorization" to regulate greenhouse gases from power plants pursuant to section 111. *West Virginia*, 597 U.S. at 732 (quoting *UARG*, 573 U.S. at 324). Section 111 provides that the Administrator "shall include a category of sources in [the 111 regulatory program] if in his

[286] *See, e.g.*, Pub. L. No. 119-15, 139 Stat. 65 (2025); Pub. L. No. 119-16, 139 Stat. 66 (2025); Pub. L. No. 119-17, 139 Stat. 67 (2025).

[287] *See, e.g.*, American Energy Renaissance Act of 2014, H.R. 4286 § 7002, S. 2170 § 7002, 113th Cong. (2014); S. Amend. 183 to S. 439, 112th Cong. (rejected Apr. 6, 2011); Electricity Security and Affordability Act, H.R. 3826, 113th Cong. (2014); Stop the War on Coal Act of 2012, H.R. 3409 § 330(b), 112th Cong. (2012); Grow America Act of 2012, S. 2199 § 371, 112th Cong. (2012).

judgment it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." Greenhouse gases are plainly air pollutants that cause "air pollution" under the Clean Air Act. *See supra* Section II.A; *Massachusetts*, 549 U.S. at 529; *AEP*, 564 U.S. at 424–25. The Act, in this respect, is "unambiguous." *Massachusetts*, 549 U.S. at 529. The section 111 standard of performance program "speaks directly" to greenhouse gas emissions from power plants and "provides a means to seek limits" of such emissions. *AEP*, 564 U.S. at 424; *see supra* Section II.A. EPA has made a scientific judgment that greenhouse gases from power plants significantly contribute to air pollution which may be reasonably anticipated to endanger public health and welfare, and it has not disturbed that scientific judgment. *See supra* Section II.C. Accordingly, EPA has all the clear congressional approval it could possibly need to regulate greenhouse gas emissions from power plants under section 111, and the statutory text would surmount any applicable major questions hurdle.

E. The efficacy of regulation is not a permissible basis for withdrawing a valid endangerment finding, and EPA's futility determinations are irrational.

EPA proposes that the potential for regulations limiting greenhouse gas emissions from fossil fuel-fired power plants to yield more than *de minimis* gains for public health or welfare informs the appropriate interpretation of section 111(b)(1)(A) and proposes to find that any regulation of greenhouse gas emissions from fossil fuel-fired power plants would be futile. EPA is wrong on both counts. The efficacy of potential regulations is an atextual and impermissible basis for withdrawing a valid endangerment finding, and EPA's proposed findings with respect to potential greenhouse gas emission standards' efficacy are arbitrary and capricious.

1. An endangerment determination must be premised on scientific judgments unrelated to the efficacy of potential standards.

There is no evidence in the statutory text or legislative history that supports the view that an endangerment finding under section 111(b)(1)(A) is contingent upon some threshold of regulatory efficacy. The statutory text related to the listing of a source category does not call for any futility assessment. The Act directs EPA to list categories of stationary sources that cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare. 42 U.S.C. § 7411(b)(1)(A). Nowhere in this text does Congress direct or authorize the Agency to conduct a futility analysis.

At bottom, the endangerment determination required by section 111(b)(1)(A) requires EPA to answer only two questions: (1) whether particular air pollution may reasonably be anticipated to endanger public health or welfare and (2) whether a source category's emissions contribute significantly to that air pollution. These two questions require a scientific judgment about the potential risks air pollution poses to public health or welfare and whether a source category's emissions significantly contribute to such air pollution, not consideration of the efficacy of potential standards. *Cf. CRR*, 684 F.3d at 117–18.

Once EPA makes an endangerment finding under section 111(b)(1)(A), EPA is then directed to establish federal standards of performance for new sources, defined as standards for emissions of air pollutants which reflect the degree of emission limitation achievable through the application of the best adequately demonstrated system of emission reduction, considering cost and any nonair quality health and environmental impact and energy requirements. 42 U.S.C. § 7411(a)–(b). The efficacy of potential standards is a relevant consideration only in crafting appropriate emission standards, where factors such as costs and benefits come into play. *See id.* § 7411(a)(1). Thus, for an individual standard, if the costs associated with certain potential systems of emission reduction are large and the resulting benefits minimal, the Agency has the statutory authority to take those considerations into account and act accordingly. For example, the Agency in that situation might set a standard that is premised on existing methods of operation and maintenance, and which will ensure no backsliding from already-achieved emission levels. EPA's regulatory history demonstrates that the Agency has ample flexibility to appropriately consider costs as part of the standard-setting process.[288] Further, throughout its decades of implementing the Clean Air Act, EPA has never before perceived that a futility analysis was necessary or authorized as part of an endangerment determination—that is, until the Agency developed an identical and identically flawed futility analysis to rescind the 2009 Endangerment Finding for vehicle greenhouse gas emissions earlier this year.

2. EPA's futility analysis is arbitrary and irrational.

In the Supplemental Proposal, instead of following Congress's direction and the Agency's consistent regulatory practice, EPA instead conducts what it describes as a "futility analysis" for purposes of determining the scope of its statutory authority to regulate greenhouse gas emissions from the power sector. Even if the Agency's futility analysis could constitute a permissible basis for determining the scope of its statutory authority—and it cannot—EPA's proffered futility analysis is wholly arbitrary and irrational. EPA makes a plethora of

[288] For example, in the Carbon Pollution Standards, EPA identified the greenhouse gas best system of emission reduction for base load existing natural gas-fired steam generating units and intermediate load existing natural gas-fired steam generating units as "routine methods of operation and maintenance" and identified the emission limitation as "no increase in emission rate." 89 Fed. Reg. at 39841. In the 2012 Oil and Gas Standards of Performance, EPA determined that "there is no BSER for pneumatic controller affected sources in the production segment" during the initial adjustment period. Oil and Natural GasSector: New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews, 77 Fed. Reg. 49490, 49521 (Aug. 16, 2012). In the 2019 Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, EPA did not identify a best system of emission reduction for integrated gasification combined cycle units, oil- and natural gas-fired utility boilers, or fossil fuel-fired stationary combustion turbines. EPA explained that it "currently does not have adequate information to determine a BSER for these EGUs and, if appropriate, the EPA will address GHG emissions from these EGUs in a future rulemaking." Repeal of the Clean Power Plan; Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units (2019 Affordable Clean Energy Rule); Revisions to Emissions Guidelines Implementing Regulations, 84 Fed. Reg. 32520, 32533 (July 8, 2019).

unreasonable analytical choices that it does not and cannot defend, and that are determinative of the results of its analysis. None of EPA's analytical choices are supported by the Clean Air Act. Nor are they logically coherent or internally consistent within the rubric of EPA's own invented futility framework. In short, the analysis is wholly arbitrary and unlawful and must be abandoned. [289]

EPA argues that mitigating greenhouse gas emissions from power plants "would not materially address . . . the health and welfare dangers attributed to global climate change concerns." 91 Fed. Reg. at 59028. EPA supports this assertion with modeling of the effects of U.S. power sector emissions from 2026 to 2100 on global emissions, atmospheric CO_2 concentrations, and projected global mean surface temperatures (GMST) and global sea level rise (GSLR) in 2050 and 2100. EPA argues that these metrics "were the primary drivers of the EPA's causal analysis within the 2009 Endangerment Finding." *Id.* at 59036. EPA notes that U.S. power sector emissions will contribute 3% of the increase in global average temperature and 2% of global average sea level rise by 2100, *id.* at 59037, and argues that this share is small. In the same breath, EPA concedes that "CAA section 111(b)(1)(a) instructs that the appropriate indicator of impact[s] is not emissions or concentrations, but public health and welfare impacts." *Id.* at 59039. Yet EPA refused to do what the statute instructs—what the Agency did in the 2009 Endangerment Finding, and *again* in establishing the predicate for power plant CO_2 regulations under section 111, and *again every time* that the Agency regulated greenhouse gas emissions until this year—which was to look at actual impacts to health and welfare from greenhouse gases.[290]

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[289] EPA's analysis is nearly identical to the futility analysis that EPA relied upon in the Endangerment Finding Rescission, which rescinded the 2009 determination that greenhouse gas emissions from vehicles endanger public health in welfare and all greenhouse gas emission standards. 91 Fed. Reg. at 7686. The vehicles futility analysis was never provided to the public for comment. That methodology was a hasty substitute for the basis of EPA's futility conclusion in the Proposed Endangerment Rescission, 90 Fed. Reg. at 36305, 36311–12. In the Proposed Endangerment Rescission, EPA relied on the 2025 Climate Working Group draft report, which, as discussed *supra* Section I.D, was the unscientific result of an unlawful federal advisory committee that quickly fell apart. In the final Endangerment Finding Rescission, EPA abandoned all citations to the illegally produced Climate Working Group draft report and instead introduced, for the first time, a new futility analysis in a last-ditch effort to substantiate its futility and "*de minimis*" claims and justify its desired outcome. A nearly identical analysis now reappears in this Supplemental Proposal.

[290] *See, e.g.*, the 2009 Endangerment Finding, in which EPA considered impacts to health—including from "direct temperature effects," "air quality effects," "changes in vector-borne diseases" and "the potential for changes in the severity and frequency of extreme weather events," 74 Fed. Reg. at 66524—as well as impacts to public welfare through the effects of climate change on climate-sensitive sectors—including food production and agriculture; forestry; water resources; sea level rise and coastal areas; energy, infrastructure, and settlements; and ecosystems and wildlife, *id.* at 66530–36. As the climate has continued to change and the body of scientific research on the impacts of climate change has grown, EPA has continued to assess new evidence on the health and welfare impacts from greenhouse gases in

Further, the Agency refused to use any of the many tools at its disposal—some developed by EPA, some developed by independent researchers—to quantify the actual effects of these emissions on health and welfare. No human is affected by the global average of any metric. Humans are affected by changes where they live and work and invest, and very large local impacts can and do disappear entirely in a global average calculation.[291] Nor are the impacts of climate change limited to changes in temperature and sea level, or even to impacts in some way related to changes in temperature and sea level. EPA failed to examine how these emissions will affect drought, wildfires and wildfire smoke, smog, flooding, hurricanes, disease spread, fisheries and agriculture, heat-driven morbidity, or any other climate impact. EPA failed to examine how these emissions will affect climate impacts like ocean acidification and changes to

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subsequent rulemakings. The 2015 NSPS Rule affirmed that "recent assessments now have greater confidence that climate change will influence production of pollen that exacerbates asthma and other allergic respiratory diseases," 80 Fed. Reg. at 64518; examined the health impacts for vulnerable populations, including indigenous peoples, children, older people, low-income households, and people with pre-existing conditions, *id.* at 64518; and discussed abrupt impacts that could affect public welfare, including West Antarctic Ice Sheet destabilization (which could cause 3–4 m of potential sea level rise), decreased ocean oxygen content (with attendant threats to aerobic marine life), and abrupt changes to the frequency and intensity of heat waves and extreme precipitation events, *id.* at 64517–22. The 2019 Affordable Clean Energy rule for electric generating units refers to the 2009 Endangerment Finding for "information concerning known or suspected endangerment of public health or welfare." 84 Fed. Reg. at 32534 n.146. The 2024 Carbon Pollution Standards discusses recent evidence on the health and welfare impacts of greenhouse gases. 89 Fed. Reg. at 39807–10. Every greenhouse gas rule for the oil and natural gas sector discusses the impacts to health and welfare, including the 2016 New Source Performance Standards, 81 Fed. Reg. 35824, 35833–37 (June 3, 2016) the 2020 amendments to the New Source Performance Standards, 85 Fed. Reg. 57398, 57402 (Sep. 15, 2020), and the 2024 New Source Performance Standards and Emissions Guidelines for Existing Sources, 89 Fed. Reg. 16820, 16836–41 (Mar. 8, 2024). Similarly, the 2016 Finding That Greenhouse Gas Emissions from Aircraft Cause or Contribute to Air Pollution That May Reasonably Be Anticipated to Endanger Public Health and Welfare examines the health and welfare impacts from climate change that the EPA considered in making its findings, 81 Fed. Reg. at 54451–59, which consequently led to the 2021 Greenhouse Gas Emissions Standards for Airplanes and Airplane Engines, *see* Control of Air Pollution from Airplanes and Airplane Engines: GHG Emission Standards and Test Procedures, 86 Fed. Reg. 2136 (Jan. 11, 2021). All regulations aimed at phasing down hydrofluorocarbons (HFCs) discuss the health and welfare impacts of HFC emissions, including the 2021 HFC Allowance Allocation and Trading Program, 86 Fed. Reg. 55116, 55124–25 (Oct. 5, 2021), the 2023 Restrictions on the Use of Certain HFCs, 88 Fed. Reg. 73098, 73104–05 (Oct. 24, 2023), and the 2024 Management of Certain HFCs and Substitutes Under the AIM Act, 89 Fed. Reg. 82682, 82691–92 (Oct. 11, 2024).

[291] For example, over the past century, average sea level along the continental U.S. coastline has risen by approximately 11 inches, as compared to a global sea level rise of 7 inches. Along the Gulf and Mid-Atlantic Coasts, the rate of relative sea level rise was greater than 2.4 inches per decade between 1993 and 2020, but only 0–1 inch per decade in the Pacific Northwest. Changes in sea level have doubled the frequency of disruptive high tide flooding in the continental United States over the past few decades but led to a fourfold increase in Miami Beach, Florida, over the last 20 years. Marvel et al., Fifth National Climate Assessment, *supra* note 126 at ch. 2, 2-13. Similarly, temperatures in the contiguous United States have risen by 2.5°F since 1970; temperatures in Alaska have risen by 4.2°F; global average temperatures rose by only 1.7°F. *Id.* at 2-11.

crop nutritional and toxin content and fertilization, which are entirely unrelated to changes in temperature and sea level.[292] Because EPA has failed to assess impacts to health and welfare, EPA's futility analysis is arbitrary and unlawful.

EPA asserts that "the nature of [the] specific health risks and welfare effects [considered in the 2009 Endangerment Finding] is speculative, multi-faceted, and multi-causal." 91 Fed. Reg. at 59036. But EPA has abandoned its ill-conceived and wrong-headed attempt to attack climate science, which could not withstand public scrutiny or judicial oversight, scrubbing reliance on the Climate Working Group draft report from the 2009 Endangerment Finding Rescission and asserting that "materials regarding the science of climate change are not pertinent to the bases for this final action." 91 Fed. Reg. at 7694. As EPA explained in the Endangerment Finding Rescission:

> The EPA . . . is not finalizing the alternative climate science rationale and is not finalizing new findings by the Administrator with respect to global climate change concerns under CAA section 202(a)(1). The EPA does not rely on any specific critique of climate science as a necessary justification for this action. . . . [I]t would be unnecessary and inappropriate to resolve such questions in this regulatory context. . . . This discussion does not endorse or reject any particular assessment, study, or comment letter in the docket with respect to assertions regarding global climate change science and has limited its responses to the bases being finalized in this final action. The EPA's conclusion in this final action is limited to the legal determination that CAA section 202(a) does not provide the authority to regulate GHG emissions from new motor vehicles or new motor vehicle engines for the purpose of addressing global climate change concerns.

Id. at 7737.

In the Supplemental Proposal, EPA likewise takes the position that all climate science is irrelevant to its proposal. 91 Fed. Reg. at 59019. EPA's prior findings on the harmful impacts to health and welfare from greenhouse gas emissions stand undisturbed. But EPA cannot ignore those findings, and the extensive record on climate science and climate impacts in the vehicles endangerment record and in this record, and simultaneously make unsupported claims that climate impacts are speculative—in direct conflict with those administrative records and the Agency's own prior findings, not to mention the enormous body of climate science reflected in the peer-reviewed literature and reports by the IPCC, the U.S. Global Change Research Program,

[292] *See* States' 2025 Comments, *supra* note 5, at 95–104 (detailing the Agency's refusal to use any of the existing tools to quantify the impacts of greenhouse gas emissions on health and welfare); *see also id.*, app. 1 (detailing the climate change-related harms to public health and welfare experienced by the States and Local Governments).

and NASEM.[293] This is contrary to law and arbitrary and capricious. *See* 42 U.S.C. § 7607(d)(3) (requiring EPA, when promulgating a rule that differs in any important respect with findings, recommendations, and comments of NASEM, to include in the statement of basis and purpose for that rule an explanation for any such differences); *see also Fox*, 556 U.S. at 515–16.

Specifically, EPA has ignored the massive scientific record before it documenting the critical fact that more greenhouse gas emissions cause more warming, more ocean acidification, and more intense climate impacts to the health and welfare of Americans. There is no uncertainty about the direction of travel; more emissions cause more endangerment. As the IPCC concluded, "[e]very additional increment of global warming" will intensify multiple and concurrent hazards:

> With every additional increment of global warming, changes in extremes continue to become larger. Continued global warming is projected to further intensify the global water cycle, including its variability, global monsoon precipitation, and very wet and very dry weather. . . . The likelihood of abrupt and/or irreversible changes increases with higher global warming levels. Similarly, the probability of low-likelihood outcomes associated with potentially very large adverse impacts increases with higher global warming levels.[294]

The above resources often discuss climate harms qualitatively or only specific impacts quantitatively. But EPA also has ready access to state-of-the-art methodologies that enable the agency to quantitatively assess and monetize the effects of greenhouse gas emissions on human health and welfare across a number of different impacts. In finalizing the 2024 Carbon Pollution Standards, EPA estimated that the abated greenhouse gas emissions—a fraction of the total

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[293] *See* NASEM 2025 Climate Report, *supra* note 1; 2023 IPCC Synthesis Report, *supra* note 55; IPCC 2022 Impacts, Adaptation, and Vulnerability Report, *supra* note 55; Climate Change and Social Vulnerability in the United States, *supra* note 56; Allison Crimmins et al., U.S. Glob. Change Rsch. Program, The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment (2016), https://perma.cc/9PVA-DUU6; Climate Change 2021: The Physical Science Basis, *supra* note 109; Fifth National Climate Assessment, *supra* note 126; M.E. Brown et al., USDA, Univ. Corp. for Atmospheric Rsch., & Nat'l Ctr. Atmospheric Rsch., Climate Change, Global Food Security, and the U.S. Food System (2015), https://perma.cc/R28L-FVPR; David Reidmiller et al., U.S. Glob. Change Rsch. Program, Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II (2018), https://perma.cc/2A35-ACTD; Donald J. Wuebbles et al., U.S. Glob. Change Rsch. Program, Climate Science Special Report: Fourth National Climate Assessment, Volume I (2017), https://perma.cc/75BF-5FBD; Jeremy M. Melillo et al., U.S. Glob. Change Rsch. Program, Climate Change Impacts in the United States: The Third National Climate Assessment (2014), https://perma.cc/EE8Y-T9EC; NASEM, Nat'l Rsch. Council, Comm. on Understanding & Monitoring Abrupt Climate Change & Its Impacts, Abrupt Impacts of Climate Change: Anticipating Surprises, ch. 1, at 19 (2013), https://perma.cc/EZ55-AVBF.

[294] 2023 IPCC Synthesis Report, *supra* note 55, at 12, 18; *see also* IPCC, Climate Change 2021: The Physical Science Basis, *supra* note 109, at 18.

emissions that could in the future be abated—represented $270 billion in climate harms to health and welfare, using the state-of-the-art social cost of carbon methodology that EPA itself developed based on feedback from NASEM and subjected to peer review. 89 Fed. Reg. at 40008. Applying EPA's own social cost of carbon methodology to EPA's projection of power sector emissions indicates that abating U.S. power sector emissions between 2026–2100 (using EPA's own emissions projection) would mitigate $8.5 trillion in harms to health and welfare (2020$, discounting at 2% to 2025).[295] This methodology incorporates global climate impacts. If EPA wanted to consider only climate effects to human health and welfare that accrue within the physical boundaries of the United States, available models indicate that the emissions EPA considered in its futility analysis will cause $2.15–4.94 trillion of net climate damages to health and welfare.[296] If EPA wanted to consider only climate effects to the U.S. economy, excluding effects to human health, available models indicate that the emissions EPA considered in its futility analysis[297] will cause $0.35–3.14 trillion of net climate damages.[298] If EPA wanted to look at specific non-market sectors, climate damages associated with these emissions are estimated at $20 billion (25th to 75th percentile of $10–20 billion) for biodiversity loss, $800 billion ($430–1,030 billion) for wildfire smoke mortality impacts, and $980 billion ($630–1,280 billion) for temperature-related mortality.[299] One analysis indicates that emissions from the power sector in 2022 will cause over 5,000 premature deaths due to heat and wildfire smoke exposure alone.[300] These methodologies reflect the current state-of-the-art in assessing impacts to human health and welfare from greenhouse gas emissions. They are the culmination of more than two decades of work by climate scientists and economists around the world, informed by thousands of peer-reviewed publications.[301] EPA has discretion to apply its expert judgment and provide a rational justification for preferring one or more of these methodologies above others; EPA is not permitted to simply pretend that these harms to human health and welfare do not exist or are *de minimis*. The results presented in the Greenhouse Gas Emission Harms Appendix

[295] Greenhouse Gas Emission Harms Appendix at 5, 23 & n.30. Abating 100% of EPA's projected power plant emissions would mitigate $17.04 trillion in harms to human health and welfare (equivalent to $20.84 trillion in 2025$).

[296] *Id*. at 4, 6.

[297] As discussed elsewhere, *see supra* note 304 & Futility Appendix at 11–16, EPA's analysis is also fundamentally arbitrary in its use of a single emissions scenario, failing to account for any sources of uncertainty in future emissions and the effects that emission standards have already had on vehicle emissions. EPA's futility argument can be dismissed on this basis alone.

[298] Greenhouse Gas Emission Harms Appendix at 4.

[299] *Id*. at 19–20, 22.

[300] Peter H. Howard & Jason A. Schwartz, Inst. for Pol'y Integrity, The Scale of Significance: Power Plants: The U.S. Power Sector's Annual Climate Pollution Causes Thousands of Deaths and Massive Economic Damage 9–10 (2025), https://perma.cc/UTR8-G2CU.

[301] *See generally* Greenhouse Gas Emission Harms Appendix.

demonstrate, conclusively, that emissions from the U.S. power sector have a material, detrimental impact on human health and welfare.

EPA is correct that eliminating U.S. power sector emissions will not "address" all of the dangers caused by a warming climate—temperatures will continue to climb, ocean acidification will continue to worsen, and climate impacts will continue to intensify, until net carbon dioxide emissions reach net zero. But the Act does not condition EPA's authorities or obligations based on whether a pollution problem can be eliminated through EPA action. The emissions from the U.S. power sector (and the broader set of sources regulated under the Clean Air Act)—regardless of the scale of emissions from any other sector or country—will cause more warming and more acidification and worsen the climate harms experienced by Americans. *See supra* Section I.A; *Massachusetts*, 549 U.S. at 524 ("Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop." (citation omitted)). If emissions from U.S. power plants are abated—regardless of the scale emissions from any other sector or country—there will be less warming, less acidification, and less severe climate harms to Americans. EPA has purportedly abandoned the so-called Climate Working Group's misguided, unsupported, and thoroughly refuted attack on climate science.[302] Yet EPA has refused to consider the significant harms to health and welfare, extensively documented in the record, caused by increased greenhouse gas emissions. This is patently arbitrary.

Further, when considering the much larger question of ending climate change—a question that is not before EPA in making an endangerment determination—it is clear that abating U.S. power sector emissions would not be sufficient, but it would be necessary. If such emissions continue unabated, between 2025 and 2050, U.S. power sector emissions will constitute 29.3% of the total global carbon budget remaining to have a 50% likelihood of limiting global warming to 1.5°C. Across temperature rise limitation targets (1.5 to 2.0°C) and associated likelihoods of remaining below those targets (50% to 83%), projected U.S. power sector emissions from 2025–2050 would constitute 3.6% to 127% of the remaining carbon budget.[303] Addressing this very significant share of the overall problem would certainly not be futile.

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[302] 91 Fed. Reg. at 7693 n.8.

[303] Total remaining carbon budget as of the start of 2025 to stabilize at 1.5, 1.7, and 2.0°C are modeled as 130, 490, and 1,050 gigatonnes of CO_2 respectively, at the 50% certainty level; 80, 390, and 870 gigatonnes of CO_2 at the 67% certainty level; and 30, 290, and 690 gigatonnes of CO_2 at the 83% certainty level. Piers M. Forster et al., *Indicators of Global Climate Change 2024: Annual Update of Key Indicators of the State of the Climate System and Human Influence*, 17 Earth Sys. Sci. Data 2641, 2661–64, 2668 (2025). Future projections of U.S. power sector emissions are calculated as 38.1 gigatonnes of CO_2 from EPA's technical memo accompanying the Supplemental Proposal by summing emissions from 2025 through 2050. The projected cumulative U.S. power sector emissions are divided by the global carbon budgets remaining as of 2025 to calculate the fraction of total carbon budgets the U.S. power sector is projected to consume. *See* EPA, Off. of Air & Radiation, Technical Memo: Temperature, CO_2

The question before the agency in setting standards is whether there is an adequately demonstrated best system of emission reduction for power generating units, considering cost and effects on other non-air quality health and environmental impacts and energy requirements. 42 U.S.C. § 7411(a)–(b). The Supreme Court instructs that "[c]onsideration of cost reflects the understanding that reasonable regulation ordinarily requires paying attention to the advantages *and* the disadvantages of agency decisions." *Michigan v. EPA*, 576 U.S. 743, 753 (2015) (emphasis in original). It would therefore be entirely appropriate for EPA to consider the benefits and costs of a specific standard of performance—something, in fact, that the agency has until now consistently done under the auspices of regulatory impact analyses utilizing cost benefit analysis as well as in choosing the appropriate level of emission standards. Here, instead, the agency has entirely ignored the benefits of emissions abatement to Americans—even as it simultaneously alleges that the effects of regulation are of such enormous political and economic significance that they purportedly constitute a major question.

As detailed below, there are numerous fatal flaws with the agency's purported futility analysis. EPA makes a series of analytical choices that dictate the outcome of its analysis. It does not provide any justification for these choices, which makes them arbitrary. Further, these choices are methodologically invalid and inconsistent with EPA's own framework.

First, as discussed above, the use of global mean surface temperature and global mean sea level rise as "proxies" for harms to human health and welfare—proxies the agency itself concedes are inadequate, 91 Fed. Reg. at 7732—is arbitrary. The proxies applied do not, in fact, examine actual harms to human health and welfare.

Second, a related, and equally arbitrary choice, is the Agency's decision to ignore the many well-established, peer-reviewed, state-of-the-art methodologies available to it to quantify and monetize impacts to health and welfare.

Third, the Agency's assertion that the massive scientific record detailing current and future climate harms to Americans is irrelevant to EPA's futility inquiry—when that record is in fact central—is arbitrary. The scientific record enables the Agency to assess harm to health and welfare qualitatively, even if the Agency refuses to use the quantitative tools at its disposal.

Fourth, EPA arbitrarily creates a single emission projection for power sector emissions from 2026 through 2100. This is problematic for three reasons:

Concentration, and Sea Level Rise Impacts of CO_2 Emissions from U.S. Electricity Generating Units 3–5 (Aug. 2026), https://perma.cc/X8DH-2LRS.

(1) It fails to address the many sources of uncertainty in future power sector emissions (electricity demand, fuel costs, technological innovations, and other market conditions).[304] This is demonstrative of EPA's unequal treatment of uncertainty. While asserting that consideration of climate impacts and their quantification are unreliable due to uncertainty, EPA ignores the fundamental uncertainty in future industry behavior, costs, and emissions—and does not use any of the basic tools it has traditionally used, such as sensitivity analyses, to explore the effects of different assumptions and plausible futures. EPA similarly uses one—and only one—projection of future global greenhouse gas emissions from other sources, refusing to grapple with any of the sources of uncertainty inherent in projecting future global emissions.

(2) EPA's assumption that U.S. power sector emissions remain constant from 2050–2100 ignores recent projections that show U.S. power sector emissions rising by the middle of the century. In the U.S. Energy Information Administration's Annual Energy Outlook for 2026, ten of the eleven future energy projections show power sector emissions rising during the period 2040–2050; seven of the scenarios show power sector emissions increasing at an average annual rate of more than 2.5% during the same period.[305]

(3) By arbitrarily assuming that U.S. power sector emissions drop to zero in 2100—without any regulatory drivers—and terminating its analysis at that point, EPA fails to capture the effects of emissions after 2100, or the effects of emissions that occur prior to 2100 on climate change after 2100.[306] EPA's analyses shows U.S. power sector emissions and U.S. motor vehicle emissions becoming a larger and larger share of global emissions (and therefore atmospheric concentrations, global mean surface temperature, global mean sea level rise, and all climate

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[304] In prior rulemakings, EPA has addressed uncertainty by exploring sensitivities using the Integrated Planning Model (IPM). For the 2024 Carbon Pollution Standards, EPA conducted seven sensitivities around 40% co-firing (policy design), lower liquefied natural gas exports, higher levels of electricity demand, greater vehicle electrification, and interactions with other power sector rules (effluent limitations guidelines and mercury and air toxics standards). EPA, IPM Sensitivity Runs Memo, Doc. ID No. EPA-HQ-OAR-2023-0072-8917 (Apr. 24, 2024), https://www.regulations.gov/document/EPA-HQ-OAR-2023-0072-8917. In addition, EPA conducted a resource adequacy analysis with its own IPM runs and external power sector projections from 6 peer-reviewed studies. EPA, Resource Adequacy Analysis: Vehicle Rules, Final 111 EGU Rules, ELG and MATS RTR, Doc. ID. No. EPA-HQ-OAR-2023-0072-8915 (Apr. 24, 2024), https://www.regulations.gov/document/EPA-HQ-OAR-2023-0072-8915.

[305] *Annual Energy Outlook: Counterfactual Baseline and Side Case Tables*, U.S. Energy Info. Admin. (last updated Apr. 8, 2026), https://www.eia.gov/outlooks/aeo/.

[306] Roughly 20–35% of emitted CO_2 remains in the atmosphere after equilibration with the ocean on a timeframe of 200–2,000 years. Neutralization by $CaCO_3$ draws the airborne fraction down further on timescales of 3,000 to 7,000 years. David Archer et al., *Atmospheric Lifetime of Fossil Fuel Carbon Dioxide*, 37 Ann. Rev. Earth & Planetary Scis. 117, 131 (2009). In a widely cited study projecting climate damages through 2300, about two-thirds of the total damages from CO_2 emitted in 2020 occurred after 2100 (using a 2% near-term Ramsey discount rate). Rennert et al., *supra* note 225.

impacts). As such, the exclusion of emissions after 2100 is particularly misleading and problematic.

Fifth, EPA fails to evaluate the effects of greenhouse gas emissions from other emission sources within the purview of the Clean Air Act and other statutory authorities such as the AIM Act. If a futility analysis were appropriate, it would need to incorporate the potential effects of *all* EPA regulatory actions on the endangerment in question to actually assess the question of futility. Yet EPA has ignored greenhouse gas emissions from the transportation sector and other stationary sources, which together with the electric power sector account for approximately 76% of U.S. greenhouse gas emissions, and 81.9% of U.S. CO_2 emissions.[307] All U.S. emission sources within the purview of the Clean Air Act would account for about 7.6% (0.1 °C) of global mean temperature rise and 5.3% (3.9 cm) of global mean sea level rise from 2026–2100.[308] These percentages are much larger than the arbitrary 1% criteria EPA has proposed to assess materiality.

Sixth, EPA inexplicably begins its futility analysis in the current calendar year. If a futility analysis were appropriate to understand the scope of the Agency's statutory authority, it would need to examine the effects of addressing greenhouse gas emissions from the time that the statutory authority began, when the relevant statutory provisions were enacted. EPA's analysis ignores the emission reductions achieved by greenhouse gas emission standards to date[309]—and that could have been achieved by greenhouse gas emission standards over that time—as well as the technological innovations those standards inspired prior to 2026 that enabled deeper reductions.[310] EPA is proposing to eliminate all prior and future greenhouse gas emission

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[307] Mausami Desai & William Irving, *Chapter 2: Trends in Greenhouse Gas Emissions and Removals,* and Vincent Camobreco & Melissa Weitz, *Chapter 3: Energy*, *in* Greenhouse Gas Inventory and Analysis for the United States: 1990–2024 at 2-16, fig. 2-10 ["Transportation," "Electric Power," and "Industry" data for 2024]; 3-2, tbl. 3-1 ["Transportation," "Electricity Generation," and "Industrial" data for 2024]; 2-4, fig. 2-3 ["CO_2" data for 2024] (Mausaumi Desai et al., eds., Ctr. Glob. Sustainability, Univ. Md., College Park 2026), https://perma.cc/N4NA-KDR4.

[308] This back-of-the-envelope calculation assumes U.S. power sector, transportation sector, and other stationary source CO_2 emissions account for the same share of total U.S. CO_2 emissions in 2100.

[309] For example, EPA's greenhouse and conventional pollution vehicle standards have driven significant reductions in greenhouse gas emissions and accompanying technological innovations that will continue to deliver emission reductions going forward. EPA's Automotive Trends report shows a 23% decrease in average light-duty vehicle CO_2 emissions per mile between 2009 and 2024. *See* EPA, EPA-420-R-24-022, The 2024 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology Since 1975, at 14 tbl. 2.1 (2024), https://perma.cc/7VS6-8JQV (showing a decrease in real-world fleet CO_2 emissions from 397g/mi in 2009 to 305g/mi in 2024).

[310] It also ignores the emission reductions outside the United States that U.S. standards enabled by driving technological innovations—all of which reduce harms to the health and welfare of Americans. One estimate finds that the technology diffusion effects of U.S. policies will reduce 2.4 to 2.9 tons of greenhouse gases outside the United States for every ton reduced within the United States. Kate Larsen et

standards for the power sector by determining that it never had authority to issue them, because no set of standards could have been non-futile. The question EPA purports to analyze can only be answered by evaluating what greenhouse gas emission reductions could have been achieved from the onset of the regulatory authority.

Seventh, EPA asserts—without any attempt at an empirically based justification, and citing unidentified "technical and statutory constraints," 91 Fed. Reg. at 59039—that the appropriate analysis is only half of the emissions from the power sector (as it did for vehicle emissions). EPA's only support for this assertion is that no prior power sector emission standard eliminated all power sector emissions. That is certainly true—at least for greenhouse gas emissions—but it does not follow that additional emission reductions and even complete elimination could never be achievable in the future as pollution controls continue to evolve. EPA cannot reasonably project now what emission reductions will become possible due to technological innovation going forward.

In EPA's own words, "[e]stimating the percentage reduction in CO_2 emissions that would or could result from regulation of these sources under any CAA section 111 [sic] is highly uncertain and turns on factors that are difficult to predict, including our regulatory decisions for the power sector, separate regulatory influences, and changes to the underlying economics and power system technologies." *Id.* at 59039. If this were true it would be yet further evidence that the entire futility exercise is, itself, futile and arbitrary.

Eighth, EPA references the "range of measurability" for global mean surface temperature and argues that the impacts of U.S. power sector emissions between 2026 and 2100 are *de minimis* because they are smaller than this range. EPA defines this "range of measurability" as "the uncertainty in reconstructing estimates of historical global mean surface temperature." *Id.* at 59040 n.217. EPA fails to describe how the materiality of the impacts of power sector emissions on future global temperatures is in any way affected by the uncertainty in reconstructing *historical* global mean surface temperatures. As discussed further in the Futility Appendix, EPA is correct that the change in global mean surface temperatures (and global mean sea level rise) in 2050 and 2100 relative to times in the Earth's history before the modern instrument temperature (or sea level) record began cannot be predicted with absolute precision—as is usually the case when predicting the future and reconstructing the distant past. But that lack of precision is wholly irrelevant to understanding the *effect* of U.S. power sector (and other) emissions—which will be to *increase* warming and *increase* sea level rise—and other climate impacts. For simplicity, consider a prediction that global average temperatures in 2100 will be 100 units higher than they were in the year 1500, with a 95% confidence interval of +/- 15 (85–115). With U.S. power sector emissions unabated, that prediction shifts to 103, with a 95% confidence interval of 88–118. The uncertainty in global average temperatures is the same with or without

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al., *Global Emerging Climate Technology Diffusion and the Inflation Reduction Act*, Rhodium Grp. (July 6, 2023), https://perma.cc/R3HR-YFXE.

U.S. power sector emissions—and when comparing a future with those emissions to a future without those emissions, the uncertainty in global average temperatures is irrelevant. The uncertainty in global average temperatures does not change between the two scenarios—but the global average temperatures (and the temperature range, considering uncertainty) go up with the added emissions. We know with certainty that temperature, acidification, and associated harms all increase with greater emissions—and this is unaffected by the question of whether the change in global mean surface temperature in a specific future year relative to a specific past year is X or X+.4 or X-.4 or somewhere within that range. What we know with certainty is that unabated U.S. power sector (and other) emissions will shift that range higher and intensify harms to the health and welfare of Americans.

EPA makes no analogous "measurability" argument about global sea level rise, which also undermines its conclusion that the effect of U.S. power sector emissions is *de minimis.*

Ninth, EPA asserts that global mean surface temperatures' "variability from 2016–2025 was 0.14°C, which is almost four times greater than the [global mean surface temperature] change estimated in 2100 from eliminating all U.S. power plant GHG emissions," and that as such, the impact of power plant emissions is *de minimis.* 91 Fed. Reg. at 59040 (citation omitted). As discussed further in the Futility Appendix, however, this argument shows a fundamental misunderstanding of statistics. A standard deviation shows how much a set of data points vary from the mean. Here, EPA's standard deviation shows how much global mean surface temperature between 2016 and 2025 varied from the average across those years. But EPA seems to be saying that the size of the standard deviation of global mean surface temperatures across those years is somehow relevant to the impact of U.S. power sector emissions on those temperatures in 2100. It is not. EPA does not explain why it believes that there is any connection between these two numbers. Perhaps EPA assumes that global temperatures are constant, and as such, variation from the mean shows measurement uncertainty? But global temperatures are rising because atmospheric greenhouse gas emission concentrations are rising. As shown in the Futility Appendix, calculating the standard deviation isolated from the background warming trend reduces variability to 0.10°C. But this correction does not make annual variability a relevant point of comparison to the change in global mean surface temperatures attributed to the U.S. power sector. EPA estimates the temperature impacts attributed to emissions from the U.S. power sector as the *difference* between the temperature impacts of two simulations using the FaIR climate model: a baseline scenario with and without U.S. power plant emissions. EPA ran both scenarios with the same historical volcanic and solar forcing. Both scenarios would experience the same effects that cause variability in annual average temperatures—such as El Niño and La Niña years. Annual variability shifts both scenarios by the same amount in any given year and cancels out when the scenarios are subtracted. Annual variability has no relevance to the temperature impacts attributable to U.S. power plants.

Tenth, EPA asserts that impacts of 1% (regardless of the context) are *de minimis.* But context matters. The denominator chosen is wholly determinative of numerical significance under EPA's approach. The U.S. power sector contributes 23.6% of U.S. greenhouse gas emissions in 2024 and 29.9% of U.S. CO_2 emissions in 2024.[311] U.S. greenhouse gas emissions from sources in the power, transportation, and industrial sectors that could be regulated under the Clean Air Act represent 8.8% of global emissions.[312] These are all large and material percentages.

The projected compliance costs of the 2024 Carbon Pollution Standards were approximately 1% of the total projected levelized cost to produce electricity over the same timeframe. 89 Fed. Reg. at 40005. Is EPA asserting that such compliance costs are *de minimis* and should be ignored by the Agency? Similarly, projected effects on vehicle sales from the 2024 multipollutant light-duty vehicle emission standards were less than 1% (much less than 1% until after 2030). Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles, 89 Fed. Reg. 27842, 28122, tbl. 227 (Apr. 18, 2024). Is EPA asserting that such impacts are *de minimis* and should be ignored by the Agency? How is this consistent with EPA's assertion that the regulation of greenhouse gas emissions under the Clean Air Act—given such *de minimis* effects on industry—presents a major question?

Further, EPA's own analysis, despite its significant limitations, shows that U.S. power sector emissions are larger than this asserted threshold of significance. EPA reports that emissions from U.S. power plants are projected to contribute 5% of the rise in CO_2 concentrations in the atmosphere by 2050 and 6% by 2100. 91 Fed. Reg. at 59037. EPA also projects that U.S. power sector emission will contribute 2% of the increase in global mean surface temperatures by 2050 and 3% by 2100. *Id.* Similarly, EPA projects that U.S. power sector emissions will contribute 1% of the rise in global mean sea levels by 2050 and 2% by 2100. *Id.* Even after arbitrarily cutting U.S. power sector emissions in half, EPA still projects that such emissions will be responsible for 3% of changes in atmospheric CO_2 concentrations in 2050 and 2100; 1% of changes in global mean surface temperatures relative to 2026 in 2050 and 2100; and 1% of the change in global mean sea levels relative to 2026 in 2100. *Id.* at 59038–39, tbls. 3, 5, 7. But as noted above, if EPA is going to conduct such an analysis, it should not arbitrarily cut emissions in half—and it should incorporate emissions from *all* sources that could be regulated under the Act. As is shown in Table 15 of the Greenhouse Gas Emission Harms Appendix, correcting just some of the flaws in EPA's futility analysis reveals effects on global mean surface temperature and global sea level rise that are far above EPA's 1% threshold: ~6% of global mean

[311] Desai & Irving, *supra* note 307, at 2-4, fig. 2-3; 2-15; 2-16, fig. 2-10; *see also* Camobreco & Weitz, *supra* note 307, at 3-1 tbl. 3-1. Greenhouse gas emissions by sector are reported in Figure 2-10. CO_2 emissions from electricity generation are reported in Table 3.1, and total CO_2 emissions are reported in Figure 2-3.

[312] *Id.*; M. Crippa et al., JRC143227, JRC Science for Policy Report: GHG emissions of All World Countries–2025 Report 268 (Publ'ns Off. of the Eur. Union, L 2025), https://perma.cc/3HGH-6CH3.

surface temperature rise and ~3% of global average sea level rise by 2100 if vehicle emissions are included, and ~9% and ~4.5%, respectively, if other section 111 sources and vehicle emissions are included.

More importantly, as discussed above, setting an arbitrary percentage to delineate *de minimis* effects is itself arbitrary. EPA is directed by the statute to consider impacts on human health and welfare. Quantification of the impacts to human health and welfare from these emissions documents a level of harm that is far from *de minimis*—on the order of $2.15 to $37.52 trillion and 1,600 to 10,100 deaths per year by 2100, depending upon the scope of emissions considered. *See* Greenhouse Gas Emission Harms Appendix tbls. 5, 7.

Eleventh, in asserting that it is the share of global mean surface temperature or global mean sea level rise attributable to U.S. power sector emissions that is an appropriate test for the meaningfulness of EPA emission abatement, EPA ignores the non-linear aspects of climate change and climate change impacts. Every ton of greenhouse gases emitted will cause, on average, the same amount of rise in global mean surface temperature and ocean acidification and other climate harms. Averaged over time and space, every ton of greenhouse gases emitted will cause roughly the same amount of harm to human health and welfare—measured by the climate damages methodologies referenced above—all of which show that the damages these emissions will cause are massive. But the climate system also has non-linear components, and thus, the last increment of additional emissions can lead to very significant damages. Scientists describe abrupt transitions that occur when a small additional forcing of a system, amplified by internal feedbacks, pushes the system across a critical threshold that leads to significant, long-term, and persistent changes in the system as a "tipping transition" or "tipping point."[313] Coral reefs, and the sudden bleaching episodes that are triggered by local ocean temperatures passing a threshold, are a quintessential example of such an effect.[314] Another is an icesheet that is experiencing ice loss, and which can go past an equilibrium point after which total disintegration is inevitable (though it can take a very long time for full ice sheet loss).[315] Tipping transitions can also exist in large-scale ocean circulation patterns, such as the Atlantic meridional overturning circulation (AMOC), which influences temperature, precipitation, and sea level in the North Atlantic, and which is thought to be vulnerable to climate-driven ocean salinity feedbacks that could trigger a

[313] Timothy M. Lenton et al., Univ. of Exeter Glob. Sys. Inst., Global Tipping Points: Summary Report 2023 (2023), https://perma.cc/JY36-Z4BG.

[314] McKay et al., *supra* note 187, at 2, 6–7.

[315] For example, destabilization of the West Antarctic Ice Sheet, which has an "unknown although probably low probability" of occurring this century, could cause 3–4 meter of potential sea level rise. NASEM, Nat'l Rsch. Council, Comm. on Understanding & Monitoring Abrupt Climate Change & Its Impacts, Abrupt Impacts of Climate Change, *supra* note 293, at ch. 2, 63, https://perma.cc/3AEL-C7P9.

large-scale and long-lasting decline in the circulation.[316] Others could include rainforest dieback (in the Amazon), abrupt permafrost thaw and/or collapse, and boreal forest dieback (in southern regions) and/or expansion (in northern regions).[317]

In addition, some types of climate impacts have non-linear dynamics, particularly when they interact with human infrastructure. A floodwall is a certain height. Sea level rise and storm surges below the height of the wall cause little damage. Once the wall is breached, however, damage can be very extensive—and that breaching will be enabled by the last increment of emissions, warming, and sea level rise. As a specific example, researchers attributed 38% of the precipitation caused by Hurricane Harvey to climate change. But that additional precipitation resulted in a doubling of the properties flooded, and approximately 60% of the total property damage.[318]

Climate Central, relying on a peer-reviewed attribution methodology,[319] has documented how climate change- and anthropogenic aerosol-driven changes to ocean temperatures amplified the wind speeds (and therefore the strength) of the 11 Atlantic hurricanes that formed in 2024.[320]

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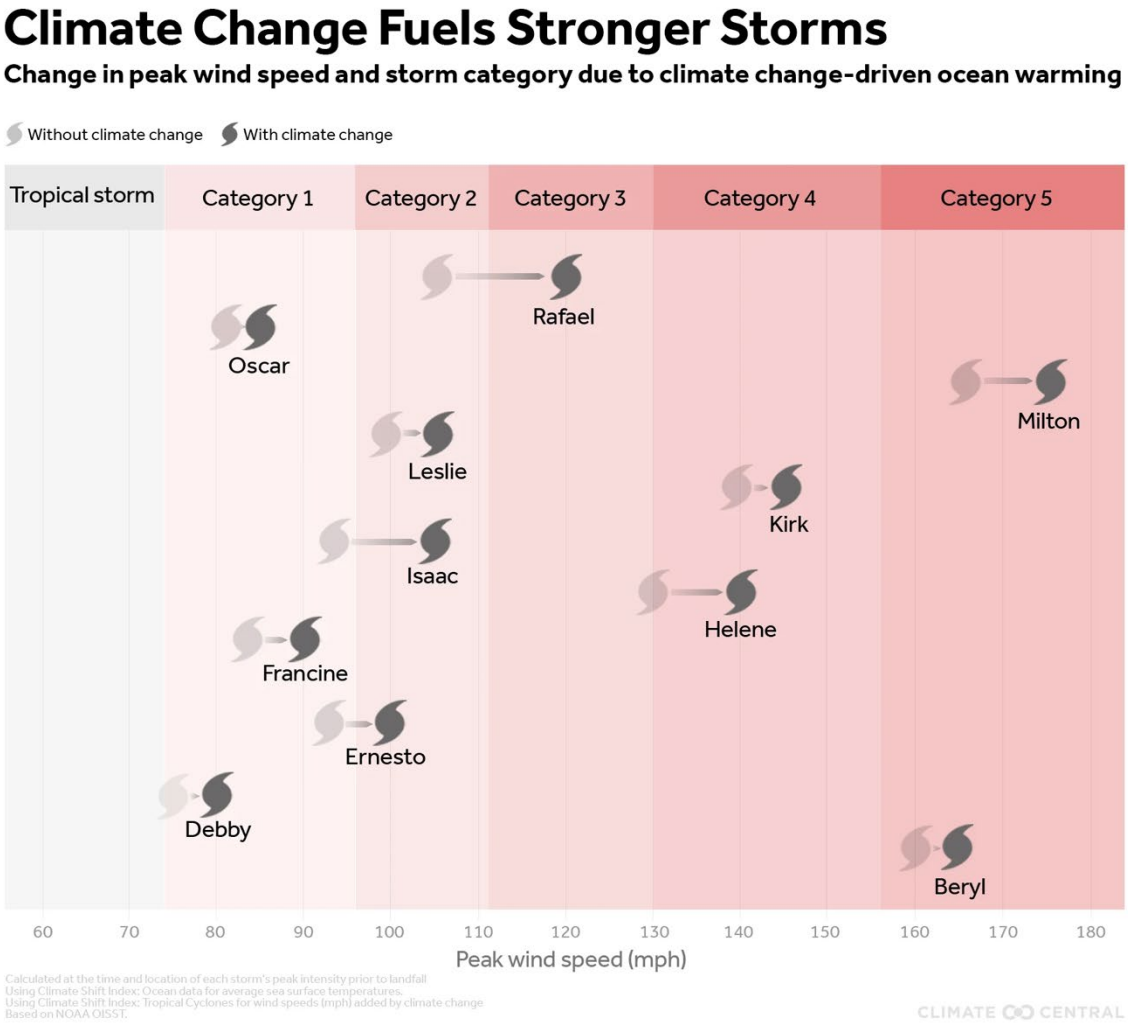
[316] René M. Van Westen et al., *Physics-Based Early Warning Signal Shows That AMOC Is on Tipping Course*, 10 Sci. Advances 1 (2024); Anastasia Romanou et al., *Stochastic Bifurcation of the North Atlantic Circulation under a Midrange Future Climate Scenario with the NASA-GISS ModelE*, 36 J. Climate 6141 (2023); Sybren Drijfhout et al., *Shutdown of Northern Atlantic Overturning after 2100 Following Deep Mixing Collapse in CMIP6 Projections*, 20 Env't Rsch. Letters 1 (2025).

[317] McKay et al., *supra* note 187, at 5–7.

[318] Kevin T. Smiley et al., *Social Inequalities in Climate Change-Attributed Impacts of Hurricane Harvey*, 13 Nature Commc'ns 1, 2 (2022).

[319] Daniel M. Gilford et al., *Human-Caused Ocean Warming Has Intensified Recent Hurricanes*, 3 Env't Rsch.: Climate 045019 (2024).

[320] Daniel Gilford & Joseph Giguere, Climate Cent., Climate Change Increased Wind Speeds for Every 2024 Atlantic Hurricane: Analysis (2025).



Hurricane	Maximum intensity	Increase in maximum intensity
Beryl	165 mph	5 mph
Debby	80 mph	5 mph
Ernesto	100 mph	8 mph
Francine	90 mph	7 mph
Helene	140 mph	10 mph
Isaac	105 mph	12 mph
Kirk	145 mph	6 mph
Leslie	105 mph	6 mph
Milton	175 mph	8 mph
Oscar	80 mph	3 mph
Rafael	120 mph	14 mph

Table 1. Observed hurricane maximum wind speeds (mph) at their lifetime maximum intensities and the increases in wind speed attributed to human-caused climate change for

each storm during the 2024 Atlantic hurricane season. Gilford & Giguere, *supra* note 320, at 2.

As the wind speed of a hurricane increases, damages rise non-linearly and very rapidly. The National Oceanic and Atmospheric Administration (NOAA) estimates that when accounting for the effects of the wind itself and the effects of other hurricane impacts, such as storm surge, rainfall-induced flooding, and tornadoes, damage potential increases as the eighth power of wind speed. *See* Table 2 *infra*. NOAA explains that a doubling of the wind speed from 75 mph to 150 mph does not mean a doubling or quadrupling of potential damage, but a 256 (2^8) times increase in damage potential. A hurricane with 95 mph winds can produce nearly seven times the damage of a hurricane with 75 mph winds, even though wind speed only increases by 20 mph.[321] Relatively small increases in wind strength driven by climate can cause very large increases in damages.

[321] *Hurricane Damage Potential,* NOAA (last updated Sep. 8, 2023), https://perma.cc/S5CE-SX2G.

Category	Wind Speed			Damage Potential Multiplier
	mph	km/h	knots	
1	75	121	65	1x
	80	129	70	1.6x
	85	137	74	2.9x
	90	145	78	4.3x
	95	153	83	6.6x
2	100	161	87	10x
	105	169	91	15x
	110	177	96	21x
3	115	185	100	30x
	120	193	104	43x
	125	201	109	60x
4	130	209	113	82x
	135	217	117	110x
	140	225	122	147x
	145	233	126	195x
	150	241	130	256x
	155	249	135	333x
5	160	257	139	429x
	165	266	143	549x
	170	274	148	697x
	175	281	152	879x
	180	290	156	1101x
	185	298	161	1371x
	190	306	165	1696x

Table 2. Damage multiplier due to changes in hurricane winds compared to a minimal Category 1 hurricane with 75 mph winds. *Hurricane Damage Potential, supra* note 321.

In summary, in attempting to conduct a futility analysis of its authority, EPA has failed to follow Congress's directive to consider environmental efficacy and costs in the context of a specific emission standard. The errors and irrationality that pervade the analysis demonstrate that EPA's futility analysis is fundamentally flawed, providing further evidence that the exercise is arbitrary and beyond EPA's authority. Correcting critical errors demonstrates that mitigating greenhouse gas emissions from the power sector has a material effect on endangerment. EPA has examined impacts of emissions on two global averages, rather than actual impacts to health and welfare—including impacts that are wholly unrelated to temperature and sea level rise. The impacts to health and welfare from these emissions, as quantified by the damage functions that EPA arbitrarily ignored, are massive. Expanding the analysis, as logic demands, to consider more comprehensive emission projections and emissions from other sectors, shows even more massive harms to health and welfare—and significantly larger impacts on EPA's proxies. Regardless, EPA's metrics for significance using those proxies are uniformly irrelevant to the materiality of U.S. power sector emissions. Further, EPA has ignored the potential for non-linear damages which can follow from crossing tipping thresholds in the climate system and in human infrastructure.

III. EPA's Supplemental Proposal Is Arbitrary and Capricious

A final EPA action taken under the Clean Air Act will be vacated if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," or if it was promulgated "without observance of procedure required by law." 42 U.S.C. § 7607(d)(9)(A), (D); *see Util. Air Regul. Grp. v. EPA*, 744 F.3d 741, 747 (D.C. Cir. 2014). As a basic tenet of administrative law, an agency must provide "a satisfactory explanation for its action, including a rational connection between the facts found and the choice made." *State Farm*, 463 U.S. at 43 (internal citation and quotation marks omitted); *see also FCC v. Prometheus Radio Project*, 592 U.S. 414, 423 (2021) (An agency action is arbitrary or capricious where it is not "reasonable and reasonably explained."). This requirement is satisfied when the agency's explanation is clear enough that its "path may reasonably be discerned." *State Farm*, 463 U.S. at 43 (quoting *Bowman Transp., Inc. v. Arkansas-Best Freight Sys., Inc*., 419 U.S. 281, 286 (1974)). "But where the agency has failed to provide even that minimal level of analysis, its action is arbitrary and capricious and so cannot carry the force of law." *Encino Motorcars, LLC v. Navarro*, 579 U.S. 211, 221 (2016) (citations omitted).

In addition to articulating a satisfactory explanation for its action, an agency must also provide a reasoned explanation for changes in existing policies. *See id.* An agency seeking to change an existing policy "must at least display awareness that it is changing position and show that there are good reasons for the new policy." *Id.* (citation omitted). Indeed, "[a]n agency may not . . . depart from a prior policy *sub silentio* or simply disregard rules that are still on the books." *Fox*, 556 U.S. at 515. An agency also must provide a more detailed justification "when its prior policy has engendered serious reliance interests that must be taken into account." *Id*.

(citation omitted). Further, if a new policy rests on factual or legal determinations that contradict those underlying the agency's prior policy, the agency must provide a more detailed explanation for its new policy. *Id.* at 515–16. Thus, an "[u]nexplained inconsistency" in agency policy is "a reason for holding an interpretation to be an arbitrary and capricious change from agency practice." *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 981 (2005) (citation omitted); *see also Encino Motorcars*, 579 U.S. at 222.

EPA's Supplemental Proposal is arbitrary and capricious in multiple respects, in addition to the reasons discussed in Section II *supra*. First, as demonstrated by the EPA Administrator's public statements, the Agency has predetermined the outcome of the rulemaking, and EPA's rationales for the Supplemental Proposal are pretextual. Second, EPA has failed to sufficiently explain reversals of its longstanding positions or consider serious reliance interests of the States and Local Governments in a federal regulatory program for greenhouse gas emissions from power plants. Third, EPA has failed to consider the Supplemental Proposal's effects on existing power plants. Finally, EPA has neglected to consider the Supplemental Proposal's impacts on grid reliability or electricity affordability.

A. EPA has arbitrarily and unlawfully predetermined the outcome of the rulemaking, and its rationales for the Supplemental Proposal are pretextual.

Administrator Zeldin has demonstrated an "unalterably closed mind on matters critical to the disposition of th[is] proceeding," and therefore, EPA must withdraw the Supplemental Proposal and begin a new rulemaking process that is untainted by the Administrator's prejudgment. *Ass'n of Nat'l Advertisers v. FTC*, 627 F.2d 1151, 1170 (D.C. Cir. 1979); *Nehemiah Corp. of Am. v. Jackson*, 546 F. Supp. 2d 830, 847 (E.D. Cal. 2008) (describing appropriate remedies when an agency official has prejudged the outcome of a particular matter).

A showing of prejudgment requires more than "mere discussion of policy or advocacy on a legal question." *Nat'l Advertisers*, 627 F.2d at 1171. An administrator "test[ing] his own views on different audiences" or "express[ing an] opinion prior to the issuance of a proposed rulemaking" does not show he "is unwilling or unable to consider rational[] argument" from affected parties contrary to his position. *Id.* at 1173–74. It is permissible for a regulator to "ma[ke] his intention known so that interested parties can contribute to the debate," provided that the regulator in question remains open to an alternative course of action despite their initial intention. *Hous. Study Group v. Kemp*, 736 F. Supp. 321, 333 (D.D.C. 1990).

Nonetheless, an administrator's statements and actions may show he is "unable to consider meaningfully" the evidence presented in a rulemaking. *Nat'l Advertisers*, 627 F.2d at 1170 (citation omitted). In such cases, "[a]llowing the public to submit comments to an agency that has already made its decision is no different from prohibiting comments altogether." *Nehemiah Corp.*, 546 F. Supp. 2d at 847. Indeed, "[t]here is no doubt that the purpose of [rulemaking proceedings] would be frustrated if [agency officials] had reached an irrevocable

decision on whether a rule should be issued prior to . . . final action." *Nat'l Advertisers*, 627 F.2d at 1170.

Several patterns of behavior or statements may indicate an administrator is indeed unable to meaningfully consider the public's comments: (1) a senior political official's definitive and unequivocal announcement of a "dramatic change" in the agency's position prior to the conclusion of administrative proceeding, *Int'l Snowmobile Mfrs. Ass'n v. Norton*, 340 F. Supp. 2d 1249, 1260–61 (D. Wyo. 2004); (2) an official's statement that the agency "would approve the new rule even in the face of critical comments," *Nehemiah Corp.*, 546 F. Supp. 2d at 847–48 (citation omitted); and (3) a preexisting internal directive to reach a particular result, *Nat'l Advertisers*, 627 F.2d at 1171–72. Administrator Zeldin's conduct, both before and after he announced the Supplemental Proposal, exemplifies each of these disqualifying courses of conduct.

First, Administrator Zeldin's intemperate, unequivocal statements against any greenhouse gas regulations for power plants indicate a prejudged political conclusion. *See Int'l Snowmobile*, 340 F. Supp. 2d at 1260–61 (predetermined political decision to ban snowmobiles shown by statements that "there will be no future for these antiquated polluting vehicles in the National Park System" (cleaned up)). In announcing EPA's reconsideration of several climate change-related rules, including the power plant standards at issue here, Administrator Zeldin consistently characterized the *announcement itself* as marking a dramatic change in course, styling March 11, 2025, the date of that announcement, as "the Greatest Day of Deregulation in American History."[322] In Administrator Zeldin's press release accompanying the announced reconsideration proceedings, he once more asserted, "*today* is the greatest day of deregulation our nation has seen."[323] Multiple press releases reiterate that March 11 is "the greatest and most consequential *day* of deregulation in U.S. history."[324] On March 12, 2025, Administrator Zeldin's *Wall Street Journal* opinion piece declared, "*Yesterday* was the most consequential day of deregulation in American history."[325] As described above, Administrator Zeldin repeatedly identified the announcement of reconsideration proceedings as the operative action. *See, e.g.*, March 2025 EPA "Deregulation Day" Press Release ("As a result of these announcements, the

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[322] EPA, *EPA Administrator Lee Zeldin Launches the Greatest Day of Deregulation in American History* (YouTube, Mar. 12, 2025), https://www.youtube.com/watch?v=qae9bhymH50.

[323] Press Release, EPA, EPA Launches Biggest Deregulatory Action in U.S. History (Mar. 12, 2025), https://perma.cc/EC2K-4H64 (emphasis added) [hereinafter March 2025 EPA "Deregulation Day" Press Release].

[324] *See id*. (emphasis added); *see also* Press Release, EPA, Trump EPA Announces Reconsideration of Biden-Harris Rule, "Clean Power Plan 2.0", That Prioritized Shutting Down Power Plants While Raising Costs on American Families (Mar. 12, 2025), https://perma.cc/DJ73-VBAM [hereinafter March 2025 EPA "Clean Power Plan 2.0" Press Release].

[325] Lee Zeldin, *EPA Ends the 'Green New Deal,'* Wall St. J.: Opinion (Mar. 12, 2025), https://perma.cc/F6WX-K8JK (emphasis added) [hereinafter March 2025 Zeldin WSJ Op-Ed].

cost of living for American families will decrease.").[326] When announcing the 2025 Proposal, Administrator Zeldin stated that the days of climate regulations promulgated by Biden and Obama "are over."[327] This statement, like the Administrator's comment in *Int'l Snowmobile* that snowmobiles have "no future," indicates that prior to receiving any comments, Administrator Zeldin had already made a definitive decision about whether he would repeal Obama- and Biden-era climate change regulations.

Administrator Zeldin's commentary indicates not just a precommitment to *a* change as of March 11, but also a commitment to a particular *type* of regulatory change, prior to receiving any public comments at all. In declaring "the biggest deregulatory announcement in US history," Administrator Zeldin indicated unequivocally that EPA's actions would be *deregulatory*,[328] committing EPA to an extreme scale of deregulation before any consideration of the public's input. And that superlative statement demonstrates a predetermined decision to go further than even the first Trump administration—which relaxed power plant greenhouse gas regulation to virtually meaningless standards—and eliminate standards for power plants altogether, as EPA has now proposed.

Administrator Zeldin included other "gratuitous (but prejudicial)" statements, *Int'l Snowmobile*, 340 F. Supp. 2d at 1260, that confirm extreme contempt for the protective purpose of greenhouse gas regulations and indicating he cannot or will not consider evidence in favor of such regulation. Twice, in both a press release and an op-ed, Administrator Zeldin asserted that EPA was "driving a dagger straight into the heart of the climate change religion."[329] While announcing the proposed rule, he escalated his derogatory language even further, mockingly referring to the "climate change cult," and suggesting previous EPA decisions lacked "sanity."[330] Administrator Zeldin repeatedly characterized climate change prevention efforts as the "Green New Scam," both before and after announcing his proposed rule,[331] and asserted on March 12 that "[t]oday marks the death of the Green New Scam."[332] Administrator Zeldin leveled wild aspersions against the motive behind and nature of climate change regulations, describing the decision to enact greenhouse gas regulations in general as a "quest to destroy the American

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[326] March 2025 EPA "Deregulation Day" Press Release, *supra* note 323.

[327] June 2025 Zeldin Carbon Pollution Standards Repeal Speech, *supra* note 97, at 10:31.

[328] March 2025 "Deregulation Day" Press Release, *supra* note323; *see also* March 2025 EPA "Clean Power Plan 2.0" Press Release, *supra* note 324; March 2025 Zeldin WSJ Op-Ed, *supra* note 325.

[329] March 2025 EPA "Deregulation Day" Press Release, *supra* note 323; March 12 Zeldin WSJ Op-Ed, *supra* note 325.

[330] June 2025 Zeldin Carbon Pollution Standards Repeal Speech, *supra* note 97, at 04:08, 11:44–:50.

[331] March 2025 Zeldin WSJ Op-Ed, *supra* note 325; June 2025 Zeldin Carbon Pollution Standards Repeal Speech, *supra* note 97, at 11:38.

[332] March 2025 Zeldin WSJ Op-Ed, *supra* note 325.

economy in the name of climate change"[333] and describing regulations on power plants in particular of representing a "war" on "US domestic energy supply" that was "enacted seeking to suffocate our economy in order to protect the environment."[334] He asserted that for "over 15 years"—presumably, since the 2009 Endangerment Finding for vehicle greenhouse gas emissions—"the Obama and Biden administrations implemented a war on coal to destroy reliable and affordable energy."[335] He accused the Biden administration of "intend[ing]" to "reduce access to energy" and "decimat[e] communities" with power plant regulations—specifically alleging that "making it harder for Americans to afford to survive" was "not the unintended consequences" of Biden's rule, but rather, the "intended" consequences.[336]

These absolutist and inflammatory statements more than overcome the contemporary, pro forma statements Administrator Zeldin and the EPA made disclaiming any prejudgment of the outcome. Much like so-called "savings clauses" directing agencies to proceed "consistent with applicable law," which courts have found unpersuasive, these statements "are read in their context" and cannot overcome "clear and specific language" that shows exactly the prejudgment these statements disclaim. *See City & Cnty. of San Francisco v. Trump*, 897 F.3d 1225, 1233, 1239 (9th Cir. 2018) (quotation marks & citations omitted); *HIAS, Inc. v. Trump*, 985 F.3d 309, 325 (4th Cir. 2021).

Second, an official's statement that his agency "would approve the new rule even in the face of critical comments" may indicate prejudgment and disqualify him from participating in rulemaking proceedings on remand. *Nehemiah Corp.*, 546 F. Supp. 2d at 847–48. Furthermore, beyond merely indicating prejudgment, agency conduct that creates a public perception that comments will be summarily disregarded may have a "chilling effect that causes the public to refrain from submitting comments as an initial matter." *Id.* at 847.

Here, Administrator Zeldin has made multiple comments similar to those made by the administrator in *Nehemiah Corp*, which evince a serious hostility to criticism and disinterest in genuinely considering public comments in opposition to his proposed rule. In announcing the 2025 Proposal, Administrator Zeldin asserted, "[w]e will continue to unapologetically course correct" and "[w]e will use coal for power generation, to mine for critical minerals, and to export

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[333] Lisa Friedman, *How Lee Zeldin Went from Environmental Moderate to Dismantling the E.P.A.*, N.Y. Times (Mar. 30, 2025), https://perma.cc/275Y-ETPL.

[334] June 2025 Zeldin Carbon Pollution Standards Repeal Speech, *supra* note 97, at 01:05–:17, 02:35.

[335] Press Release, EPA, EPA Finalizes Repeal of 2024 Power Plant Regulations, Delivering $300+ Billion in Savings, Proposes Repeal of All Remaining Greenhouse Gas Emissions Standards for Power Plants (Sep. 14, 2026), https://perma.cc/YF3M-7JBJ [hereinafter September 2026 GHG Findings Repeal Press Release].

[336] June 2025 Zeldin Carbon Pollution Standards Repeal Speech, *supra* note 97, at 40:12–:18, 40:25, 40:32–:38.

to our allies."[337] He characterized greenhouse gas regulations for power plants as a "war on coal to destroy reliable and affordable energy," leaving little room to weigh the benefits of such regulations in agency proceedings.[338] In response to critical questions on the EPA's rationale for the proposed rule, Administrator Zeldin did not respond to the substance of the question, and instead twice, rhetorically, asked "[h]ow do you justify not doing this action?" and "[h]ow do you possibly justify not taking this action?"[339] Such language clearly indicates Administrator Zeldin "is unwilling or unable to consider rationally" contrary evidence and public comment. *Nat'l Advertisers*, 627 F.2d at 1173–74.

Third, a preexisting internal directive to reach a particular result is strong evidence that the official is not "free, both in theory and in reality, to change his mind" in the agency proceedings. *Id.* at 1172; *see Int'l Snowmobile*, 340 F. Supp. 2d at 1260 (citing Assistant Secretary's memorandum, prior to the conclusion of environmental review, "directing the agency to prohibit snowmobile access in national park units" and providing "a sweeping condemnation of all recreational snowmobile use in the National Park System"). Here, the President's executive orders[340] and Administrator Zeldin's commentary on these orders confirm the Administrator has already made up his mind on critical legal and factual issues.

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[337] *Id.* at 09:25, 09:40.

[338] September 2026 GHG Findings Repeal Press Release, *supra* note 335.

[339] June 2025 Zeldin Carbon Pollution Standards Repeal Speech, *supra* note 97, at 40:12, 40:57.

[340] *See, e.g.*, *Beautiful Clean Coal* EO, 90 Fed. Reg. at 15517 (declaring that "[i]t is a national priority to support the domestic coal industry by . . . *encouraging the utilization of coal to meet growing domestic energy demands*" and directing agency heads to support coal mining and coal-powered electricity generation) (emphasis added)); Exec. Order No. 14,262, *Strengthening the Reliability and Security of the United States Electric Grid*, 90 Fed. Reg. 15521, 15521–22 (Apr. 14, 2025) (directing the Secretary of Energy to prevent "critical" generation resources from retiring or converting to a different fuel type, in the context of ongoing coal plant retirements and conversions); *Unleashing* EO, 90 Fed. Reg. at 8353–59 (noting that it is policy of Trump Administration to rescind policies that "function to limit sales of gasoline-powered automobiles," and directing agencies "to identify those agency actions that impose an undue burden on the identification, development, or use of domestic energy resources—with particular attention to oil" and other fossil fuels and favored energy sources and "to suspend, revise, or rescind all [such] actions," revoking prior executive orders addressing climate change mitigation and adaptation, protecting environmental quality, scientific integrity and evidence-based policymaking, and deploying clean energy; directing agencies to eliminate any environmental considerations beyond those required by statute; disbanding the Interagency Working Group on the Social Cost of Greenhouse Gases (and attacking legitimacy of federal social cost of carbon estimates); and pausing disbursements of funds under IRA for consistency with policy of preferencing fossil energy); Exec. Order No. 14,213, *Establishing the National Energy Dominance Council*, 90 Fed. Reg. 9945 (Feb. 14, 2025) (equating the use of fossil fuels, including crude oil and refined petroleum products, with making America energy dominant); Exec. Order No. 14,156, *Declaring a National Energy Emergency*, 90 Fed. Reg. 8433 (Jan. 29, 2025) (directing agencies to facilitate fossil fuel production, including crude oil and refined petroleum products), Exec. Order No. 14,153, *Unleashing Alaska's Extraordinary Resource Potential*, 90 Fed. Reg. 8347 (Jan. 29,

These Executive Orders direct and commit executive agencies to an agenda of facilitating greater use of fossil fuels, while constraining the use of renewable energy, with the intent of reshaping the country's energy sector in favor of the resources the Administration prefers.[341] Although general political or ideological stances are not enough to show prejudgment, *Nat'l*

2025) (directing the Secretary of the Interior to reverse and rescind various policies limiting exploration for and extraction of oil and gas in Alaska, and directing expedition and issuance of permits for exploration, development and production oil and gas from Alaska, including in Arctic National Wildlife Refuge); Presidential Proclamation No. 10,914, *Regulatory Relief for Certain Stationary Sources to Promote American Energy*, 90 Fed. Reg. 16777 (Apr. 21, 2025) (providing coal-fired plants two-year compliance exemptions from Mercury and Air Toxics Standards, claiming that such standards "place severe burdens" on plants and "through [their] indirect effects, on the viability of our Nation's coal sector"); Exec. Order No. 14,260, *Protecting American Energy From State Overreach*, 90 Fed. Reg. 15513, 15513–14 (Apr. 14, 2025) (noting Trump Administration's commitment to "unleashing American energy," "particularly" oil and other fossil fuels, likening State climate change laws that promote use of renewable energy to "extortion," and directing the Attorney General to identify all State and local laws "burdening" production and use of fossil fuels such as oil, particularly those addressing climate change or environmental issues); Exec. Order No. 14,236, *Additional Rescissions of Harmful Executive Orders and Actions*, 90 Fed. Reg. 13037 (Mar. 20, 2025); Exec. Order No. 14,225, *Immediate Expansion of American Timber Production*, 90 Fed. Reg. 11365 (Mar. 6, 2025); Exec. Order No. 14,162, *Putting America First in International Environmental Agreements*, 90 Fed. Reg. 8455 (Jan. 30, 2025); Exec. Order No. 14,386, *Strengthening United States National Defense With America's Beautiful Clean Coal Power Generation Fleet*, 91 Fed. Reg. 7393, 7393 (Feb. 17, 2026) (declaring "it is the policy of the United States that coal is essential to our national and economic security"); Exec. Order No. 14,394, *Removing Regulatory Barriers to Affordable Home Construction*, 91 Fed. Reg. 13207, 13208 (Mar. 18, 2026) (directing the HUD Secretary to "curtail[] mandates that increase housing construction costs, such as green-energy building requirements or other energy-choice restrictions, non-evidence-based building codes, and unreasonable building-code-adoption timelines"); Exec. Order No. 14,408, *Removing Unnecessary and Counterproductive Restrictions on Access to Federal Lands*, 91 Fed. Reg. 33577, 33577 (June 3, 2026) (asserting that restrictions of off-road vehicle use on Federal land "often result in barriers to energy and timber production"); *see also* Presidential Proclamation 11,072, *National Energy Dominance Month, 2026*, 91 Fed. Reg. 65073, 65073 (Oct. 13, 2026) ("We have reversed the disastrous oil, gas, and vehicle regulations that crippled our industries, burdened consumers, and stifled economic growth, including rescinding the Obama-era Endangerment Finding this past February—a ruling that handed Washington bureaucrats sweeping power to over regulate our vehicles and power plants in the name of climate alarmism. Its repeal stands as the single largest deregulatory action in American history. We have unleashed millions of acres of Federal land for oil, gas, and coal production, approving over 6,000 drilling permits—more than in any year in over a decade. We have also committed over $1 billion to the revitalization of America's beautiful, clean coal industry; saved over 100 coal plants; ended the freeze on new natural gas export terminals; secured historic investments in nuclear energy; ended the Green New Scam; and withdrawn from the restrictive international climate agreements crafted by globalist politicians to plunder our wealth and undermine our sovereignty.").

[341] *See* Exec. Order No. 14,315, *Ending Market Distorting Subsidies for Unreliable, Foreign-Controlled Energy Sources*, 90 Fed. Reg. 30821 (July 10, 2025) (directing Treasury Department to strictly enforce termination of renewable energy tax credits and restrict their use); Presidential Memorandum, *Temporary Withdrawal of All Areas on the Outer Continental Shelf from Offshore Wind Leasing and Review of the Federal Government's Leasing and Permitting Practices for Wind Projects*, 90 Fed. Reg. 8363 (Jan. 29, 2025) (precluding wind leasing on the Outer Continental Shelf, pausing all wind approvals, leases, loans, and rights of way, and putting a moratorium on the Lava Ridge Wind Project).

Advertisers, 627 F.2d at 1170, President Trump's executive orders on fossil fuels and coal-powered generation are specific and binding. Thus, Administrator Zeldin's comment that "President Trump is the biggest supporter of clean, beautiful coal" [342] would not, on its own, be enough to show a predetermining internal directive. Yet President Trump's agenda is not merely an interest in permitting additional coal power, but, according to the Administrator, a specific promise to "kill" Biden-era regulations of power plants.[343] President Trump's executive orders and Administrator Zeldin's embrace of those directives reflect an unshakable, predetermined commitment to the specific policy actions Administrator Zeldin proposed here to remove pollution abatement obligations from fossil fuel-fired power plants and thereby advantage them.

Administrator Zeldin tied the power plant Carbon Pollution Standard reconsideration to Executive Order No. 14,154, *Unleashing American Energy*, 90 Fed. Reg. 8353 (Jan. 29, 2025) (*Unleashing* EO)[344] and Executive Order No. 14,261, *Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14,241*, 90 Fed. Reg. 15517 (Apr. 14, 2025) (*Beautiful Clean Coal* EO).[345] These executive orders show that the President has directed EPA to take specific positions that exceed EPA's authority and to predetermine certain key factual or legal matters prior to opening any proposal for public comment. Section 3 of the *Unleashing* EO, for example, directs federal agencies to "suspend, revise, or rescind" existing regulations that "impose an undue burden on the identification, development, or use of domestic energy resources—with particular attention to oil, natural gas, [and] coal . . . resources." 90 Fed. Reg. at 8354. Section 2 of the *Beautiful Clean Coal* EO similarly directs EPA to revise its power plant pollution regulations, including the Carbon Pollution Standards, to encourage the utilization of a specific fuel: coal. 90 Fed. Reg. at 15517 ("It is a national priority to support the domestic coal industry by . . . *encouraging the utilization of coal to meet growing domestic energy demands*.") (emphasis added). Likewise, Administrator Zeldin, in his announcement of the 2025 Proposal, stated that the United States "*will use* coal"—not merely that the United States would be *able* to use coal, or that coal could continue to comprise part of the American energy generating fleet.[346] Enacting policies requiring the nation's generation fleet to shift *toward* coal, oil, or natural gas exceeds EPA's authority as much as any rule that requires it to shift *away from* coal, oil, or natural gas, *West Virginia*, 597 U.S. at 728; but here, the defect is worse, because the generation-

[342] *Id*.

[343] March 12 EPA "Clean Power Plan 2.0" Press Release, *supra* note 324.

[344] *Id*. (citing "President Trump's Day One executive orders"); *see also* 91 Fed. Reg. at 59006–07, 59007 n.9.

[345] Press Release, EPA, Administrator Zeldin Releases Statement on POTUS' New Energy-Related EO Signed Today (Apr. 8, 2025), https://perma.cc/EG62-57K7; *see also* 91 Fed. Reg. at 59007 & n.15.

[346] June 2025 Zeldin Carbon Pollution Standards Repeal Speech, *supra* note 97, at 09:40 (emphasis added).

shifting directive is predetermined by executive fiat. *Cf. id.* at 753 (Gorsuch, J., concurring) (decrying use of "pen-and phone regulations" to substitute for lawmaking).

Similarly, pursuant to preexisting internal directives, Administrator Zeldin has plainly predetermined that the dangers of carbon emissions from power plants either do not exist or are impossible to quantify. President Trump and the White House's Office of Management and Budget (OMB) have plainly mandated that executive agencies should adopt the premise that calculations identifying harms from greenhouse gas emissions are inaccurate and uncertain. President Trump's *Unleashing* EO thus asserts, without evidence, that calculating the costs from a given unit of carbon emissions (the social cost of carbon) "is marked by logical deficiencies" and "a poor basis in empirical science." 90 Fed. Reg. at 8356. OMB subsequently elaborated on the President's order, asserting that agencies "should not monetize the impacts from [carbon] emissions" because, allegedly, "the uncertainties in performing monetized impacts qualifications are too great." [347] The "uncertainties" OMB cited include "[w]hether and to what degree any supposed changes in the climate are actually occurring as a consequence of anthropogenic greenhouse gas emissions" and "[h]ow to assess the relationship between verified anthropogenic changes in climate and the resulting environmental and economic impacts."[348]

Administrator Zeldin adopted precisely the same "uncertainty" rhetoric in proposing to find that greenhouse gas emissions from fossil fuel-fired power plants "do not have a sufficiently close connection to the harms identified in the [2015 NSPS Rule] to fit within the legal meaning of 'cause' or 'contribute.'" 91 Fed. Reg. at 59023. In his June 2025 press release, Administrator Zeldin identified the premises this proposal relies upon: "any potential public health harms [from carbon emissions] have not been accurately attributed to emissions from the U.S. power sector" because the greenhouse gas emissions are "global in nature."[349] The Administrator decided "[i]n light of this [premise]" to propose a finding that "[greenhouse gas emissions] do not contribute significantly to dangerous air pollution within the meaning of the statute."[350] In the Proposal, EPA likewise refers to the alleged "uncertainties" involved in attributing some of the effects of climate change to U.S. emissions. 91 Fed. Reg. at 59023–24, 59036. These Presidential directives and Administrator Zeldin's obedient statements strongly indicate that the Administrator does not have a truly open mind on this underlying premise supporting the Proposal, but rather, is adhering to an internal Executive Branch predetermination.

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[347] OMB, OMB M-25-27, Guidance Implementing Section 6 of Executive Order 14154 Entitled "Unleashing American Energy" (May 5, 2025), https://perma.cc/QB3Q-2DA3 [hereinafter OMB M-25-27].

[348] *Id.*

[349] Press Release, EPA, EPA Proposes Repeal of Biden-Harris EPA Regulations for Power Plants, Which, If Finalized, Would Save Americans More than a Billion Dollars a Year (June 11, 2025), https://perma.cc/8SA2-QXBX.

[350] *Id.*

Finally, these executive directives effectively ordered EPA to use a social cost of carbon of zero, and Administrator Zeldin has done precisely that in the 2025 Proposal and the Supplemental Proposal. President Trump and OMB explicitly instructed EPA to "eliminat[e] the 'social cost of carbon' calculation" where feasible. *Unleashing* EO, 90 Fed. Reg. at 8356; OMB M-25-27. That instruction, read in conjunction with President Trump's unequivocal denunciation of the social cost of carbon, effectively instructs EPA to reach only one conclusion: to discard the social cost of carbon, just as Administrator Zeldin has done in this rulemaking.

For these reasons, it is clear that EPA has prejudged the outcome of this rulemaking. Accordingly, the Agency must withdraw the 2025 Proposal and this current Supplemental Proposal and begin a new rulemaking process that is untainted by the Administrator's prejudgment. *Ass'n of Nat'l Advertisers*, 627 F.2d at 1170; *Nehemiah Corp. of Am.*, 546 F. Supp. 2d at 847.

The above evidence also indicates that the actual motivations for the 2025 Proposal and the Supplemental Proposal have been improperly excluded from the administrative record, and that the reasons in both are pretextual. Indeed, the pretextual nature of the 2025 Proposal and Supplemental Proposal is facially apparent: EPA proposes to abandon the scientific determination that power plants' greenhouse gas emissions endanger public health and welfare, a fact underpinned by arguably the largest body of scientific and economic research ever dedicated to a single topic, by relying on contorted legal reasoning, inaccurate scientific premises, and defective modeling that utterly misaligns with the reasons that EPA publicly touts for repealing this determination. The sheer tortuousness of the proposed readings of Clean Air Act section 111 suggests an Administrator with a closed mind casting about for a viable justification for his predetermined result.

But the broader context confirms the pretext. Perhaps most telling is EPA's stunningly casual disregard of five comprehensive assessments of climate science and climate change impacts compiled by the IPCC and five congressionally mandated and comprehensive National Climate Assessments (NCA) of U.S. climate impacts prepared by expert scientists and economists under the auspices of the USGCRP—reflecting the peer-reviewed work of thousands of scientists and economists. Indeed, the Supplemental Proposal is entirely devoid of discussion of the central findings of the NCA and IPCC reports.

All available evidence shows that, rather than conducting a neutral review of available research, consistent with EPA's statutory obligations, EPA was instead motivated by the Administration's political attacks on the legitimacy of climate change science and climate pollution regulations to benefit the fossil fuel industry. Indeed, the USGCRP has simultaneously been disbanded and federal employees removed from their positions, the website that provided the public with access to the NCAs has been taken offline, and the scientists working on the next

NCA have been dismissed.[351] Thousands of employees at the federal agencies with the greatest expertise in climate change and ongoing research on climate change and climate impacts (including NOAA, NASA, and EPA) have been fired or let go.[352]

As discussed above, numerous Executive Orders also confirm what these actions make clear: the Administration and EPA's true goal is to reshape the country's energy sector in favor of the resources the Administration prefers,[353] misapplying various federal authorities—including the health-protective mandates of the Clean Air Act—in pursuit of this political end. EPA's approach in the 2025 Proposal and Supplemental Proposal is by all indications shaped by the numerous Executive Orders that urge and facilitate greater use of fossil fuels, constrain the use of renewable energy, and remove pollution abatement and even reporting obligations from pollution sources using fossil fuels.[354] Statements by President Trump and agency leaders and officials have likewise evinced a desire to promote fossil fuels, undermine renewable energy, and discourage the use of electric vehicles.[355]

Here, far from a genuine concern over the legal or scientific basis of agency authority, the Agency's actual motivation appears to be—in service of Executive Orders promoting fossil fuels—to remove an inherent market disadvantage from coal- and natural gas-fired power

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[351] Chelsea Harvey & E&E News, *Top Website for Crucial U.S. Climate Information Goes Dark*, Sci. Am. (July 1, 2025), https://perma.cc/PU9F-W4EM.

[352] *Id.*

[353] In signing the first tranche of Executive Orders, President Trump stated: "We're bringing back an industry that was abandoned. . . . All those plants that have been closed are going to be reopened." Adam Burke, *Trump Orders Coal Revival, But Market Favors Natural Gas*, NPR (Apr. 17, 2025, 12:01 AM), https://perma.cc/CB5T-P7VV.

[354] *See supra* note 340.

[355] *See, e.g.*, PBS NewsHour, *Watch: Trump Says 'We Don't Allow Windmills' After Cancelling Nearly Complete Offshore Wind Project*, at 0:00-0:07, 0:19-0:31, 2:02-2:08 (YouTube, Aug. 26, 2025), https://www.youtube.com/watch?v=sp97kSwaBfQ (President Trump: "Coal is back with this country too by the way. …[T]here's a reason they use it, cause it's good. . . . We don't allow windmills. . . . [W]e don't want . . . solar panels. . . . I hope [other countries] get back to fossil fuel. . . . [W]hether we like it or not, fossil fuel is the thing that works."); *'Electric Car Lunacy': A Look at Harsh Things Donald Trump Said About EVs over the Years*, Mint (Mar. 11, 2025, 11:44 PM), https://perma.cc/SRT5-QEP7 (noting that during his presidential campaign, President Trump discussed "All Electric Car Lunacy," described EV promotion as a "hoax" and a project of "Radical Left Fascists, Marxists & Communists," and repeatedly claimed, contrary to fact, that electric vehicles cannot travel long distances); Brad Plumer & Lisa Friedman, *With Little Explanation, Trump Throws Wind Industry into Chaos*, N.Y. Times, (Aug. 26, 2025), https://perma.cc/DPC7-86WR ("'The president is not a fan of wind, the economic impacts, the environmental impacts to fisheries,' Mr. Zeldin said on Fox News, adding that the president believes the nation needs more fossil fuels."); *id*. ("'Americans deserve energy that is affordable, reliable and built to last—not experimental and expensive wind projects that are proven failures,' Aubrie Spady, a spokeswoman for the Interior Department, said. . . ."); *Secretary of Energy Chris Wright Delivers Keynote Remarks at CERAWeek 2025*, U.S. Dep't of Energy (Mar. 10, 2025), https://perma.cc/68X3-R3W3 (alleging that policies promoting the use of EVs had been "wreaking havoc on our auto industry.").

generation resources by eliminating pollution control requirements. In any final agency action, the administrative record—as defined here by 42 U.S.C. § 7607(d)(7)(A)—must be "expanded" to include the genuine justifications underpinning this action. In particular, EPA must include both internal and external agency communications relevant to the action being taken, including communications with the White House and outside political and industry stakeholders. *See Dep't of Com. v. New York*, 588 U.S. 752, 781 (2019).

In sum, EPA has prejudged the outcome of this rulemaking, and its stated reasons for rescinding the findings in the 2015 NSPS Rule and associated power plant standards are pretextual. Accordingly, the Agency must withdraw the Supplemental Proposal and begin a new rulemaking process that is untainted by the Administrator's prejudgment and that clearly discloses the grounds upon which the Agency acted.

B. EPA failed to adequately explain its change in position or to consider serious reliance interests.

As discussed in Section II *supra*, the Supplemental Proposal is a radical departure from EPA's prior positions on both the law and science. Indeed, the Supplemental Proposal is rife with unsupported rationales, brushes aside or ignores huge swaths of scientific evidence, misinterprets both statutes and binding precedent, and ignores longstanding Agency practices. *See generally* Section II *supra*. Because EPA has failed to support its changes in position with reasoned decisionmaking, the Supplemental Proposal is arbitrary and capricious and must be withdrawn.

As the Supreme Court has explained, "[o]ne of the basic procedural requirements of administrative rulemaking is that an agency must give adequate reasons for its decisions." *Encino Motorcars*, 579 U.S. at 221. As explained in Section II *supra*, the Supplemental Proposal represents a reversal of EPA's "former views as to the proper course." *See Pub. Citizen v. Steed*, 733 F.2d 93, 98 (D.C. Cir. 1984) (quotation marks & citation omitted). Accordingly, EPA must "display awareness that it is changing position"; show that "the new policy is permissible under the statute"; "believe[]" the new policy is better; and provide "good reasons for the new policy." *Fox*, 556 U.S. at 515 (emphasis omitted). And an agency must "provide a more detailed justification" when "its new policy rests upon factual findings that contradict those which underlay its prior policy." *Id.* at 515–16. None of EPA's proffered rationales, which rely on factual findings in direct contradiction to its prior findings, supplies any good reasons for its changed interpretations, nor does the Agency show that its new policy is permissible under the statute. Rather, the Supplemental Proposal reads as a post-hoc rationalization of a predetermined result.

Throughout the Supplemental Proposal, EPA fails to adequately explain its change of position. For instance, in prior rulemakings, EPA relied on a robust body of scientific evidence to find that greenhouse gas emissions from power plants endanger public health and welfare, and that these sources cause or contribute significantly to greenhouse gas air pollution. *See*, *e.g.*, 80

Fed. Reg. at 65617–23, 30–31 (reviewing scientific evidence, including studies from the National Research Council and the Intergovernmental Panel on Climate Change). And in its Supplemental Proposal, EPA "acknowledges" that it is proposing action in an area "that has generated scientific and technical literature," including a recent NASEM consensus report "discussing the attribution of extreme weather events to global climate change." 91 Fed. Reg. at 59019. Rather than meaningfully engaging with the science, however, EPA contends that the issues raised by its Supplemental Proposal "are legal in nature and turn on statutory interpretation and the application of judicial precedent" as reasons for why it need not address such scientific evidence. *Id.* As discussed in Section II *supra*, EPA falls far short of providing any adequate reason for ignoring its prior, longstanding scientific determinations. *See also* Section IV.B *infra* (providing reasons why EPA cannot ignore NASEM findings, recommendations, and comments); *see also Inteliquent, Inc. v. FCC*, 35 F.4th 797, 802 (D.C. Cir. 2022) (agency "cannot ignore evidence that undercuts its judgment" (internal quotation marks and citation omitted)).

In other areas, EPA fails to acknowledge its change of position or prior findings that cannot be reconciled with its current claims. *Compare, e.g.*, 91 Fed. Reg. at 59031 (using hypothetical involving water vapor to illustrate "untenable results" of regulating), *with* 2009 Endangerment Finding, 74 Fed. Reg. at 66520 ("Direct anthropogenic emissions of water vapor, in general, have a negligible effect and are thus not considered a primary driver of human-induced climate change"). Or, EPA selectively reads its prior regulations to avoid having to address any change of position. *Compare* 91 Fed Reg. at 59012, 59012 n.77, 59024 (characterizing a reduction in global climate change emissions from EPA's methane emission standards and guidelines for municipal solid waste landfills in the 1990s as an "ancillary benefit"), *with* 61 Fed. Reg. at 9906 (stating that one "purpose" of the municipal solid waste landfill methane standards and guidelines is to address "health and welfare effects" stemming from methane's contribution to climate change). *See also* Section III.D *infra* (discussing EPA's failure to address the anticipated impact on grid reliability of rescinding all greenhouse gas standards, despite a requirement to do so and a discussion of such in prior rulemakings, including New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule, 88 Fed. Reg. 80682, 80684 (Nov. 20, 2023) (Proposed Carbon Pollution Standards–November 2023); 89 Fed. Reg. at 40011–20 (Carbon Pollution Standards)).

EPA's change of position also ignores evidence that undercuts its positions, most notably, the large body of scientific findings that EPA did not disturb. *See* Section II.B.1.c *supra*. And EPA's newfound statutory interpretation ignores statements from congressional members that make clear that modification of the global climate was understood and acknowledged as an air pollution concern prior to and contemporaneous with the passage of the Clean Air Act. *See*

Section II.B.1.d.i *supra*; *see also Inteliquent*, 35 F.4th at 802 (agency "cannot ignore evidence that undercuts its judgment" (internal quotation marks and citation omitted)).

The Supplemental Proposal is further arbitrary and capricious because EPA has failed to adequately explain its inconsistent interpretation of its statutory authority under section 111 to regulate greenhouse gas emissions from different source categories. More specifically, the Supplemental Proposal fails to explain how EPA may retain regulation of greenhouse gases from the oil and natural gas sector, while simultaneously claiming that EPA does not have authority to regulate greenhouse gas emissions from power plants (or any sources) under section 111. EPA's vague and conclusory statement that regulations for the oil and gas source category "have their own regulatory history and relevant considerations," 91 Fed. Reg. at 59043, does nothing to explain how the best reading of the same statutory text can provide EPA authority to regulate greenhouse gas emissions from one source category (oil and gas) and not another (power plants)."

The Supplemental Proposal is also arbitrary and capricious because it fails to consider the States and Local Governments' serious reliance interests. Where, as here, an agency's "'prior policy has engendered serious reliance interests,'" then "the agency 'must' provide 'a more detailed justification' for" its change in policy, including "'a rational connection between the facts found and the choice made.'" *Mingo Logan Coal Co. v. EPA*, 829 F.3d 710, 719 (D.C. Cir. 2016) (quoting *Fox*, 556 U.S. at 515, and *State Farm*, 463 U.S. at 43). The States' 2025 Comments described how the States and Local Governments rely on robust federal regulation of greenhouse gas pollution from power plants to help protect against a litany of climate harms and cited *AEP*, 564 U.S. at 428, as demonstrating that EPA is best suited to serve as primary regulator of greenhouse gas emissions. *See* States' 2025 Comments, *supra* note 5, at 19–22, 71–74.

In the Supplemental Proposal, EPA takes the position that there is a narrow world of potential reliance interests from "certain States, municipalities, and third-party organizations" who "may have relied on the 2015 Findings or associated regulations in developing additional regulatory or voluntary programs." 91 Fed. Reg. at 59109. EPA requests comment on whether "additional rationales in this action could potentially implicate additional reliance interests." *Id.*

Reliance interests, however, are not limited to states developing state regulations or voluntary programs. The States and Local Governments reiterate that the Clean Air Act assigns EPA an indispensable role in reducing greenhouse gas emissions and protecting the public health and welfare against climate change impacts. *See*, *e.g.*, *AEP*, 564 U.S. at 427–28. The States and Local Governments are currently experiencing direct, compounding climate harms, and these harms will only worsen without significant reductions of emissions. *See, e.g.*, States' 2025 Comments at Sections I.A & I.B (outlining climate change harms to the States and Local Governments and their advocacy for federal standards). States rely on EPA, pursuant to the

Clean Air Act, to issue national standards to reduce emissions in all states and stave off the worst of the climate harms discussed in Sections I.A and II.B.1.c *supra*.

The States and Local Governments have pushed EPA to regulate greenhouse gas emissions from power plants for two decades. *See* Section I.B *supra*. They have relied on EPA's promulgation of the 2015 NSPS Rule and the Carbon Pollution Standards, and have continued to press EPA to live up to its obligation to regulate harmful pollutants from these sources.[356] For the reasons discussed above, federal regulation of greenhouse gas emissions from power plants is key to reducing greenhouse gas emissions and to protecting the States and Local Governments from the worst impacts of climate change. *See* Section I.A *supra*. The Supplemental Proposal fails to address such reliance interests, and its suggestion that such serious reliance interests need not be considered in light of EPA's (flawed and incorrect) statutory interpretations, 90 Fed. Reg. at 59109, is arbitrary and capricious. EPA must address these reliance interests, determine their significance, and weigh them against any competing policy concerns. *Dep't of Homeland Sec. v. Regents of Univ. of Cal.*, 591 U.S. 1, 33 (2020) (finding that the Secretary's failure to consider reliance interests was arbitrary and capricious).

C. EPA failed to consider the Supplemental Proposal's effects on the regulation of existing power plants.

Although EPA frames the Supplemental Proposal only as a rescission of greenhouse gas standards for new power plants under Clean Air Act section 111(b), 42 U.S.C. § 7411(b), the rescission would simultaneously abrogate the Agency's statutory obligation to regulate greenhouse gas emissions from existing power plants, which make up the second-largest source of greenhouse gas emissions in the United States.[357] *See id.* § 7411(d) (stating that "[t]he Administrator shall prescribe regulations" for controlling "any existing source for any pollutant" when, among other things, "a standard of performance under this section would apply if such existing source were a new source"); *AEP*, 564 U.S. at 424 (after EPA issues standards for new sources under section 7411(b), "then § 7411(d) [] requires regulation of existing sources within the same category."). EPA's failure to account for this major change in regulatory authority means that it has "entirely failed to consider an important aspect of the problem," rendering the Supplemental Proposal arbitrary and capricious. *State Farm*, 463 U.S. at 43.

As a result of this error, EPA fails to meaningfully assess the Supplemental Proposal's real-world impacts. As discussed *infra* Section V, in its Economic Impact Analysis, EPA estimates the effects associated only with the rescission of the greenhouse gas standards for new power plants and finds that there would be no change in emissions.[358] That brief analysis

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[356] *See, e.g.*, Letter from the State of New York et al., *supra* note 99.

[357] *Sources of Greenhouse Gas Emissions*, EPA (last updated June 9, 2026), https://perma.cc/4WLE-BTZW.

[358] Economic Impact Analysis, *supra* note 101, at 3, 6, 18.

completely ignores the fact that, if EPA finalizes the Supplemental Proposal, it will no longer be required by law to regulate existing power plants. *See* 42 U.S.C. § 7411(d); *AEP*, 564 U.S. at 424. And the effects of failing to regulate existing power plants are large indeed. In 2024, EPA determined that the Carbon Pollution Standards, which regulated greenhouse gas emissions from existing steam generating units (largely powered by coal) and new combustion turbines (largely powered by gas), would have prevented the emission of 1.382 billion metric tons of carbon dioxide between 2028 and 2047 and also reduced emissions of NO_x, SO_2, and fine particulate matter.[359] EPA anticipated these emission reductions would result in $270 billion in climate benefits and $120 billion in benefits stemming from reductions in ozone and fine particulate matter.[360] And these benefits do not include those associated with regulating greenhouse gas emission from existing combustion turbines, which in 2021 accounted for 37% of greenhouse gas emissions from the power sector. New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule, 88 Fed. Reg. 33240, 33362 (May 23, 2023) (Proposed Carbon Pollution Standards–May 2023). In its Proposed Carbon Pollution Standards, EPA estimated $10–$19 billion in climate benefits from reducing emissions almost solely from existing combustion turbines running as baseload generators.[361] EPA also does not account for the fact that, as technology improves and costs decrease, EPA must tighten its emission standards, leading to further emission reductions.

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[359] EPA, EPA-452/R-24-009, Regulatory Impact Analysis for the New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule, Doc. ID No. EPA-HQ-OAR-2023-0072-8913, at ES-5 to ES-6 (Apr. 23, 2024), https://www.regulations.gov/document/EPA-HQ-OAR-2023-0072-8913 [hereinafter Carbon Pollution Standards RIA].

[360] *Id.* at ES-11. These benefits were calculated using a 2% discount rate. EPA now disclaims the use of the various, state-of-the-art methodologies it previously relied on to calculate the benefits associated with reductions in greenhouse gases, ozone, and particulate matter. *E.g.*, 91 Fed. Reg. at 7694 n.29 (explaining, in the Endangerment Finding Rescission, that federal government "is no longer using the [social cost of carbon] methodology for purposes of estimating costs and benefits"); 91 Fed. Reg. at 58994–95 (asserting, in the Carbon Pollution Standards Repeal, that EPA will "refrain[] from providing primary estimates [of monetized benefits] resulting from changes in PM2.5 and ozone exposure" because of the alleged "uncertainty" associated with such monetization). As explained *infra* Section V, this abrupt change in practice, which essentially assigns a value of zero to benefits resulting from emission reductions, is arbitrary and capricious.

[361] EPA, EPA-452/R-23-006, Regulatory Impact Analysis for the Proposed New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule, Doc. ID No. EPA-HQ-OAR-2023-0072-0007, at 8-24 tbl. 8-20 (May 2023), https://perma.cc/D7MA-8CR6.

If EPA finalizes the Supplemental Proposal, these hundreds of billions of dollars in benefits will disappear, as will the numerous benefits that have not yet been monetized, which include benefits from reductions in the emission of hazardous air pollutants, benefits from water quality improvement, ecosystem benefits, reductions in exposure to ambient NO_x and SO_2, and improved visibility from reductions in fine particulate matter.[362] The loss of these benefits should clearly be a key factor in EPA's decisionmaking, yet the Agency does not even reference these benefits in its Supplemental Proposal, essentially ignoring "billions of dollars in economic costs" in return for "a few dollars" in cost-savings to industry. *Michigan v. EPA*, 576 U.S. at 752.

Accordingly, EPA has "entirely failed to consider . . . important aspect[s] of the problem," rendering the Supplemental Proposal arbitrary and capricious. *State Farm*, 463 U.S. at 43; *see Fox*, 556 U.S. at 515–16.

D. EPA failed to consider impacts of the proposal on grid reliability or electricity affordability.

Just as it failed to properly account for what a rescission of all greenhouse gas standards for power plants would mean for emissions, *see* Section III.C *supra* and Section V *infra*, EPA likewise neglected to adequately consider how that rescission would impact energy reliability and affordability. A proper accounting would show that the Supplemental Proposal would adversely impact both.

Reliability. EPA never discusses in any rulemaking documents for the Supplemental Proposal the anticipated impact on grid reliability of rescinding all greenhouse gas emission standards. By contrast, in proposing and finalizing the Carbon Pollution Standards, EPA extensively examined the effect of the rule on grid reliability. *See* Proposed Carbon Pollution Standards–November 2023, 88 Fed. Reg. at 80684; 89 Fed. Reg. at 40011–20 (final). Given that the Act requires EPA to consider impacts on "energy requirements" when establishing standards of performance, 42 U.S.C. § 7411(a)(1), so too must it do so when proposing to rescind those standards. *See Little Sisters of the Poor Saints Peter & Paul Home v. Pennsylvania*, 591 U.S. 657, 682 (2020) (citation omitted) ("requirements" imposed by relevant statutes are an "'important aspect of the problem'" that an agency must consider). And the Supreme Court has recognized as much, affirming in *AEP* that Congress entrusted to EPA the balancing of emission reductions and "our Nation's energy needs." 564 U.S. at 427. EPA's failure to do so is contrary to law. *See Citizens Awareness Network, Inc. v. Nuclear Regul. Comm'n*, 59 F.3d 284, 291 (1st Cir. 1995) (citation omitted) (agency action is contrary to law where "inconsistent with the plain terms of . . . enabling statute")). In addition, the Agency's failure to consider the Supplemental Proposal's impacts on grid reliability is yet another important aspect of the problem the Agency improperly did not assess. *See State Farm*, 463 U.S. at 43.

[362] Carbon Pollution Standards RIA, *supra* note 359, at ES-11.

Had EPA adequately considered the impacts of the Supplemental Proposal on grid reliability, the Agency would have had to confront overwhelming evidence that it would undermine reliability in two ways. First, if finalized, the Supplemental Proposal would result in the continued reliance on old coal-fired plants that are increasingly breaking down, jeopardizing reliability. EPA's statements in the Carbon Pollution Standards Repeal make clear that the agency expects eliminating emission limits on existing coal-fired power plants will result in their continued operation.[363] But given the increasing age of the coal fleet, forced outages are becoming more frequent, straining the grid.[364] In the Carbon Pollution Standards rulemaking, EPA noted that declining utilization of coal-fired power plants was due in part to decreased efficiency as a result of those plants reaching the end of their operational lives. *See* 89 Fed. Reg. at 39817–18, 39822–23.

Moreover, despite EPA's insistence that coal-fired power plants are necessary as base load sources of power, states are increasingly using non-fossil fuel generation resources, like battery storage for this purpose, in place of coal-fired plants. As the Colorado Energy Office's Executive Director explained, "many utilities and grid operators, including Colorado's, are finding that . . . battery storage systems can provide these [reliability] services and often at shorter timescales and with faster response than coal." *See* Decl. of Will Toor ¶ 48, *West Virginia v. EPA*, No. 24-1120 (D.C. Cir. June 11, 2024), Dkt. No. 2059167 (attached hereto as Exhibit 8); *see also* Decl. of D.W. Rickerson ¶ 11, *West Virginia v. EPA*, No. 24-1120 (D.C. Cir. May 13, 2024), Dkt. No. 2054190 (attached hereto as Exhibit 9) (Texas had 6,000 megawatts of battery storage in 2024 and planned to add another 10,000 megawatts by summer 2025). EPA's insistence on coal, to the exclusion of other more reliable resources, undermines reliability.

Nor does EPA's citation to increased demand due to data centers justify the proposed rescission or adequately consider energy requirements. *See* 91 Fed. Reg. at 59007 (citing *Beautiful Clean Coal* EO, 90 Fed. Reg. at 15517). EPA modeled increased demand scenarios in the Carbon Pollution Standards rulemaking and found the rule would *not* jeopardize grid reliability. *See* 89 Fed. Reg. at 40011–13. In addition, EPA considered the testimony of state public utility commissioners "that they are actively engaged in robust planning processes to accommodate load growth spurred on by electrification and data centers." EPA, Response to Comments for Carbon Pollution Standards, ch. 16 at 45 (2023). EPA ignores these facts, and

[363] *See*, *e.g.*, EPA, Greenhouse Gas Standards and Guidelines for Fossil Fuel-Fired Power Plants, General Fact Sheet–Final Action & Supplemental Proposal 1 (Aug. 2026), https://perma.cc/HZU8-LGC4 ("Baseload power is part of the great American story . . . ."); *id.* at 2 (Carbon Pollution Standards' "requirements would have led to premature retirement of many power plants.").

[364] Matthew Zeitlin, *Trump Wants to Prop Up Coal Plants. They Keep Breaking Down*, Heatmap (Nov. 14, 2025), https://perma.cc/T56E-C7DV (forced outage rate of coal-fired plants is double that of wind energy facilities).

musters no data in support of its own claims, in its assumption that coal-fired plants are needed to power data centers.

Second, the resulting increase in greenhouse gas emissions from the Supplemental Proposal, *see* Section III.C *supra* and Section V *infra*, will exacerbate climate change, worsening threats to the grid from extreme weather. The leading cause of power outages is extreme weather events, which are increasing in frequency and intensity because of uncontrolled greenhouse gas emissions—the very harm the Carbon Pollution Standards would have addressed. *See* Comments of Att'ys Gen. of N.Y. et al., Doc. ID No. EPA-HQ-OAR-2023-0072-8203, at 4 (Dec. 20, 2023) (attached hereto as Exhibit 10). In the proposed Carbon Pollution Standards, EPA found that "many regions of the country have experienced a significant increase in the frequency and severity of extreme weather events" and such "events have impacted energy infrastructure and both the demand for and supply of electricity." Proposed Carbon Pollution Standards–May 2023, 88 Fed. Reg. at 33415. Similarly, in a final rule directing transmission providers to describe processes for conducting extreme weather vulnerability assessments, the Federal Energy Regulatory Commission noted that extreme weather "threatens livelihoods, electric system reliability, and the Commission's ability to ensure just and reasonable jurisdictional rates." One-Time Informational Reports on Extreme Weather Vulnerability Assessments Climate Change, Extreme Weather, and Electric System Reliability, 88 Fed. Reg. 41477, 41478 (June 27, 2023). And power outages caused by extreme weather disproportionately affect underserved communities due to circumstances such as a lack of access to backup generators, poorly insulated homes, or an inability to afford temporary shelter elsewhere. *See* Exhibit 10, Comments of Att'ys Gen. of N.Y. et al., at 5. Thus, in the Carbon Pollution Standards, EPA recognized that extreme weather events caused by climate change can affect grid reliability and intended the Standards to help address that problem. *See* EPA, Response to Comments for Carbon Pollution Standards, ch. 16 at 33; *see also id.* at 60 (emphasizing that "climate change itself" is a major threat to grid reliability).

Indeed, states and power companies are already spending significant and growing sums of money to respond to and prevent power outages caused by severe storms and searing heat waves, and to address wildfires. *See*, *e.g.*, Decl. of Jonathan Binder ¶¶ 25–27, *West Virginia v. EPA*, No. 24-1120 (D.C. Cir. June 11, 2024), Dkt. No. 2059167 (attached hereto as Exhibit 11); Decl. of Douglas P. Scott ¶ 6, *West Virginia v. EPA*, No. 24-1120 (D.C. Cir. June 11, 2024), Dkt. No. 2059167 (attached hereto as Exhibit 12); Toor Decl., *supra*, ¶¶ 6–8. These harms are expected to escalate unless immediate steps are taken to address climate change.[365]

Further, even when extreme weather is not an immediate threat to a region, hotter average temperatures still harm reliability by contributing to prolonged periods of high electricity

[365] *See* Fifth National Climate Assessment, *supra* note 126, at 5-4 ("Without mitigation and adaptation, projected increases in the frequency, intensity, duration, and variability of extreme events will amplify effects on energy systems (*virtually certain, very high confidence*)." (emphasis in original)).

demand from cooling needs and decreased generation and transmission capacity.[366] For example, droughts in the Pacific Northwest have already caused significantly decreased output at hydropower units in Washington and Oregon.[367] Thermoelectric plants that rely on water for cooling and other essential operations also face reduced efficiency and capacity as a result of droughts and rising water temperatures.[368] Similarly, extreme weather, hotter temperatures, and drought impact the reliability of nuclear power plants.[369]And warmer temperatures stress powerlines, decreasing transmission capacity, and cause infrastructure like transformers to deteriorate faster.[370]

EPA does not disclaim its prior finding that extreme weather events fueled by climate change have impacted energy infrastructure and both the demand for and supply of electricity or its position that greenhouse gas emissions must be reduced to address this threat (among others). Instead, the Agency simply ignores its previous findings and position. Therefore, in addition to being contrary to law by not considering energy requirements, EPA's failure to consider the Supplemental Proposal's impact on grid reliability is arbitrary and capricious. *See Encino Motorcars*, 579 U.S. at 221; *see also Fox*, 556 U.S. at 515 ("[a]n agency may not . . . depart from a prior policy *sub silentio* or simply disregard rules that are still on the books.").

Affordability. EPA makes no attempt to analyze the impact of the Supplemental Proposal on electricity affordability. Specifically, the Agency fails to calculate the costs that ratepayers would be anticipated to incur (or save) as a result of rescinding all greenhouse gas standards. In its economic analysis accompanying the Supplemental Proposal, EPA only calculates the savings to industry of avoided compliance costs, $370 million over a 20-year period. *See* 91 Fed. Reg. at 59044–45, 59044 tbl. 8.

EPA overlooks the fact that by effectively eliminating greenhouse gas emission limits for existing coal-fired (and gas-fired) power plants, prolonging the lives of those facilities, it is saddling ratepayers with the costs of their increasingly inefficient operation. In the Carbon

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[366] Allen-Dumas et al., *supra* note 202, at 9, 12.

[367] Nathalie Voisin et al., *Impact of Climate Change on Water Availability and Its Propagation Through the Western U.S. Power Grid*, 276 Applied Energy 1 (2020); *Today in Energy: Western U.S. Hydropower Generation Fell to a 22-Year Low Last Year*, U.S. Energy Info. Admin. (Mar. 26, 2024), https://perma.cc/B3WA-JTUU; S.W.D. Turner et al., *Compound Climate Events Transform Electrical Power Shortfall Risk in the Pacific Northwest*, 10 Nature Commc'ns 1, 2 (2019); 88 Fed. Reg. at 41480.

[368] Allen-Dumas et al., *supra* note 202, at 11; Ariel Miara et al., *Climate and Water Resource Change Impacts and Adaptation Potential for US Power Supply*, 7 Nature Climate Change 793 (2017); Sean W.D. Turner et al., *A Multi-Reservoir Model for Projecting Drought Impacts on Thermoelectric Disruption Risk Across the Texas Power Grid*, 231 Energy 1 (2021).

[369] Valerie Arnhold & M.V. Ramana, *Climate Change Is Exposing Nuclear Power's Reliability Problem*, Bull. Atomic Scientists (Sep. 6, 2026), https://perma.cc/KR8E-3AGH.

[370] Allen-Dumas et al., *supra* note 202, at 12.

Pollution Standards, EPA recognized that the nation's aging fleet of coal-fired plants was already struggling to compete economically against newer, cheaper, and more efficient generating technologies—such as natural gas, wind, and solar—and that market forces likely would continue to expand the price gap between coal and renewable technologies. 89 Fed. Reg. at 39817–18, 39822. That is, in part, because coal-fired plants lose efficiency as they age, and they often require more expensive and frequent maintenance, raising the cost of coal-fired electricity on average. *Id.* at 39823.[371] By rescinding the remaining greenhouse gas standards, EPA would effectively be putting its thumb on the economic scale on the side of coal-fired generation, incentivizing their continued operation.

Accordingly, the Supplemental Proposal, if finalized, would result in tremendous costs to ratepayers. Coal-fired power plants that have delayed their scheduled closures are costing ratepayers billions of dollars.[372] For example, the Department of Energy's orders requiring the 63-year old J.H. Campbell coal-fired power plant in Michigan to operate beyond its planned retirement date (recently held unlawful, *see Michigan v. U.S. Dep't of Energy*, No. 25-1159, 2026 WL 2671756, *2, *17–19 (D.C. Cir., Sep. 15, 2026)) is estimated to cost ratepayers between tens of millions of dollars to $100 million, while closing the plant was expected to save customers more than $600 million. Similarly, Ohioans have already paid around $679 million to subsidize two unprofitable coal-fired power plants in their state.[373] Indeed, it is estimated that it would be cheaper to replace every coal-fired power plant in the country with nearby renewable energy sources than it would be to continue operating geriatric coal-fired electric generating units.[374]

Despite this evidence that the Supplemental Proposal would increase the burden on ratepayers, EPA fails to monetize or consider the costs of the Supplemental Proposal on electricity prices. By contrast, in the Carbon Pollution Standards rulemaking, EPA did analyze the cost impacts associated with existing plants (and new plants) complying with the Standards.

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[371] *See also* Dennis Wamsted & Seth Feaster, *Nowhere to Go but Down for U.S. Coal Capacity, Generation*, Inst. for Energy Econ. & Fin. Analysis (Oct. 24, 2024), https://perma.cc/A6VB-73TT; U.S. Energy Info. Admin., Generating Unit Annual Capital and Life Extension Costs Analysis 29, 60–63 (Dec. 2019), https://perma.cc/YM99-H7ZT.

[372] Silvio Marcacci, *Coal Power Costs Soar 28% Since 2021, Rising Faster than Inflation*, Forbes (June 8, 2025, 09:15 AM), https://perma.cc/TL7S-K8VW.

[373] *Id.*; Garret Ellison, *Consumers Energy Agrees to Retire Full Campbell Plant, End Coal by 2025*, Mich. Live (Apr. 20, 2022, 04:36 PM), https://perma.cc/4LCY-CDVW; Ella Nilsen, *The Trump Admin Ordered a Coal Power Plant to Stay on Past Retirement. Customers in 15 States Will Foot the Bill*, CNN (June 6, 2025), https://perma.cc/PA2A-7BR3; Jake Zuckerman, *Ohioans Have Spent $679 Million over a Decade to Bail out Two Coal Plants*, Clev. Plain Dealer (Cleveland.com) (Feb. 19, 2025, 03:12 PM), https://perma.cc/W3T5-8ZR7.

[374] *See* Michelle Solomon et al., Energy Innovation Pol'y & Tech. LLC, Coal Cost Crossover 3.0: Local Renewables Plus Storage Create New Opportunities for Customer Savings and Community Reinvestment 6, 30 (Jan. 2023), https://perma.cc/9YRV-2KKK.

See 89 Fed. Reg. at 40005–06 tbl. 5 (summarizing rule's anticipated impact on retail electricity prices); EPA, EPA-452/R-24-009, Regulatory Impact Analysis for the New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electricity Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule (Apr. 2024), at 3-32–3-37 (presenting results of detailed modeling predicting rule's impact on retail electricity prices). As noted above, here EPA focuses solely on savings to industry in compliance costs. But the Agency is required to consider the advantages and disadvantages of its rule. *See Michigan v. EPA*, 576 U.S. at 752–53. EPA's failure to do so here was arbitrary and capricious. *Id.* at 750–53.

Not only was EPA's failure to consider electricity prices that would result from the Supplemental Proposal arbitrary and capricious, but its constrained approach to costs also stands in stark contrast to its expansive approach it took in the context of repealing the Carbon Pollution Standards. There, in arbitrarily reversing its position that the 45Q tax credit for CCS technology be taken into account when evaluating the costs of the best system of emission reduction for existing coal-fired power plants, EPA construed the phrase "the cost of achieving such [emission] reduction" in section 111(a)(1) to encompass not just costs to the source of implementing CCS, but also broader costs to society. There, EPA stated that the text of section 111(a)(1) "does not, by its terms, limit the costs to those directly incurred by the source." Carbon Pollution Standards Repeal, 91 Fed. Reg. at 58976. And EPA "agree[d] with commenters" that the failure of EPA to consider costs more broadly, *e.g.*, "the burden on the average U.S. taxpayer," "constituted a failure of reasoned decisionmaking." *Id.* at 58976–77. Thus, by EPA's own logic, the Supplemental Proposal's myopic focus on the costs to industry of pollution controls under section 111(a)(1), ignoring the broader costs to ratepayers, was arbitrary and capricious. *See id.*

Ratepayers will also see increasing costs due to the Supplemental Proposal's effect of eliminating EPA's obligation to regulate greenhouse gas emissions from existing sources, by far the largest emitters in the power sector. As discussed above, the significant emission increases from the Supplemental Proposal will exacerbate climate change harms, including threats to the grid from extreme weather that will drive up electricity prices. For example, FERC found "that extreme weather events can also increase electricity prices because grid operators are forced to dispatch higher-priced generators to account for transmission line outages." 88 Fed. Reg. at 41480 (citation omitted). And the Government Accountability Office predicted that more frequent and severe weather associated with climate change could increase the cost of power outages from roughly $55 billion over the 2006-19 period to over approximately $480 billion during the 2080-99 period (in 2019 dollar values).[375] As discussed in the reliability section

[375] *Electricity Grid Resilience: Climate Change is Expected to Have Far-reaching Effects and DOE and FERC Should Take Actions, Testimony Before the S. Comm. on Env't & Pub. Works*, 117th Cong. 3 (Mar.

above, in the Carbon Pollution Standards rulemaking, EPA expressly recognized the link between worsening climate change and compromised grid reliability as a result of extreme weather.

EPA's failure to contend with the contradictory data and findings in the Carbon Pollution Standards rulemaking on affordability further demonstrates that the Supplemental Proposal is arbitrary and capricious. *See Fox*, 556 U.S. at 515–16; *State Farm*, 463 U.S. at 43; *see also* 42 U.S.C. § 7617(g) (inadequacy of assessment of, among other things, consumer costs and energy impacts in a proposed rule under section 111 "may be taken into consideration" by a court deciding whether EPA's final rule is lawful); *cf. Nat'l Ass'n of Mfrs. v. SEC*, 105 F.4th 802, 812 (5th Cir. 2024) (concluding that rule was arbitrary and capricious where findings contradicted previous risk assessment, yet agency "did not engage in any analysis of its prior finding regarding the level of risk or explain *why* it had changed its mind" (emphasis in original)).

In sum, EPA's failure to grapple with reliability and affordability renders the Supplemental Proposal arbitrary and capricious and unlawful.

IV. EPA's Supplemental Proposal Is Procedurally Flawed

Under section 307(d)(9)(D) of the Clean Air Act, a court may reverse a rule if it was promulgated "without observance of procedure required by law." 42 U.S.C. § 7607(d)(9)(D). Reversals predicated on procedural flaws are appropriate where the agency's failure to observe procedure is arbitrary and capricious; such failure was raised during the comment period; and the procedural error was "so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made." *Id.* § 7607(d)(8).

Here, EPA has committed at least three fundamental procedural errors. First, the Agency failed to provide a meaningful opportunity for the public to comment on the Supplemental Proposal. Second, the Agency failed to comply with the statutory requirements concerning the National Academy of Sciences. Third, EPA failed to disclose the use of artificial intelligence in the rulemaking process.

A. EPA did not provide a meaningful opportunity to comment.

The Clean Air Act has several provisions designed to ensure robust public comment, including requiring publication in the Federal Register of a "detailed notice of rulemaking." *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 518 (D.C. Cir. 1983) (citing 42 U.S.C. § 7607(d)(3)). Section 307(d)(5) requires that EPA "give interested persons an opportunity for the oral presentation of data, views, or arguments, in addition to an opportunity

10, 2021) (statement of Frank Rusco, Director, Nat. Res. & Env't, Gov't Accountability Off.), at 4 (citing two government reports and one independent research report), https://perma.cc/27LC-NNEY.

to make written submissions[.]" 42 U.S.C. § 7607(d)(5). EPA must then respond "to each of the significant comments, criticisms, and new data submitted in written or oral presentations during the comment period." *Id*. § 7607(d)(6)(B). The general purposes of such notice-and-comment requirements are "(1) to ensure that agency regulations are tested via exposure to diverse public comment, (2) to ensure fairness to affected parties, and (3) to give affected parties an opportunity to develop evidence in the record to support their objections to the rule and thereby enhance the quality of judicial review." *Prometheus Radio Project v. FCC*, 652 F.3d 431, 449 (3d Cir. 2011) (quoting *Int'l Union, United Mine Workers of Am. v. Mine Safety & Health Admin.*, 407 F.3d 1250, 1259 (D.C. Cir. 2005)); *see also Conn. Light & Power Co. v. Nuclear Regul. Comm'n*, 673 F.2d 525, 530 (D.C. Cir. 1982) ("The purpose of the comment period is to allow interested members of the public to communicate information, concerns, and criticisms to the agency during the rule-making process."). "In cases involving the repeal of regulations, courts have considered the length of the comment period utilized in the prior rulemaking process as . . . well as the number of comments received during that time-period" in determining whether an agency has afforded sufficient time for comment. *California v. U.S. Dep't of the Interior*, 381 F. Supp. 3d 1153, 1177 (N.D. Cal. 2019) (citing *N.C. Growers' Ass'n, Inc. v. United Farm Workers*, 702 F.3d 755, 770 (4th Cir. 2012)).

Even though EPA intends to eliminate an entire regulatory program that has existed since 2015, the Agency provided just 46 days for public comment on the Supplemental Proposal. *See* 91 Fed. Reg. at 59002 (comment period expires November 2, 2026, 30 days after the public hearings on October 1 and 2, 2026). This short period pales in comparison to previous comment periods EPA has provided on other power plant greenhouse gas rules, as explained below, and is inconsistent with longstanding Executive Orders calling for comment periods of *at least* 60 days. *See* Exec. Order No. 13,563, *Improving Regulation and Regulatory Review*, 76 Fed. Reg. 3821, 3821–22 § 2(b) (Jan. 21, 2011); Exec. Order No. 12,866, *Regulatory Planning and Review*, 58 Fed. Reg. 51735, 51740 § 6(a)(1) (Oct. 4, 1993).

In particular, EPA's brief comment period is not commensurate with the years of advocacy and the extensive rulemaking process that preceded the 2015 NSPS Rule and EPA's underlying finding that these emissions contribute significantly to air pollution that may be reasonably anticipated to endanger public health and welfare.

In promulgating the 2015 NSPS Rule, EPA "engaged extensively with a broad range of stakeholders and the general public regarding climate change, carbon pollution from power plants, and carbon pollution reduction opportunities." 80 Fed. Reg. at 64528. That engagement began in February 2011 and involved more than a dozen public listening sessions and hundreds of meetings with individual stakeholder groups. *Id.* EPA received over 2.5 million comments in response to the original April 2012 proposal for newly constructed fossil fuel-fired power plants. *Id.* at 64529. EPA then provided a 60-day public comment period for its revised proposal in January 2014. *Id.* EPA subsequently extended the comment period by 60 days, giving stakeholders over 120 days to comment on the January 2014 proposal, as well as a February

2014 notice of data availability. *Id.* EPA received over 2 million comments on the proposed standards for newly constructed plants. *Id.* EPA also provided a 120-day public comment period for its June 2014 proposed standards for modified and reconstructed fossil fuel-fired power plants. *Id.* EPA held public hearings in four locations in July 2014 during which 1,322 speakers testified. *Id.* Only after that extensive process did EPA finalize the 2015 NSPS Rule, with a lengthy preamble and a multi-chapter response to comments document that thoroughly responded to public comments on a variety of topics. *See*, *e.g.*, 2015 NSPS Rule, RTC for New EGUs, Chapter 4–Endangerment and Climate Science, Docket ID EPA-HQ-OAR-2013-0495-11863.

In contrast to the years of consideration and public engagement leading to the promulgation of the 2015 NSPS Rule, EPA has given the public less than two months to comment on the Supplemental Proposal, despite receiving many requests, including from the States and Local Governments, to extend the comment period.[376] Moreover, EPA has artificially constrained public input in the rulemaking process by holding only a single, virtual public hearing with only four minutes per speaker. This lack of opportunity for meaningful public comment is exacerbated by the fact that EPA also did not give the public sufficient time to comment on the 2025 Proposal and now explicitly "is not seeking additional comment on the [2025 P]roposal," 91 Fed. Reg. at 59008. EPA gave the public just 51 days to comment on the 2025 Proposal, despite receiving numerous requests, including from the States and Local Governments, to extend that period.[377] As a result, EPA received far fewer comments on the 2025 Proposal than it has received on its prior proposals concerning the regulation of greenhouse gas emissions from power plants. Given that EPA has previously provided the public extensive opportunities to comment on power plant greenhouse gas regulations and the demonstrated public interest in this regulatory area, the Supplemental Proposal's 46-day comment period did not provide sufficient opportunity for meaningful public input. *See Prometheus Radio Project*, 652 F.3d at 449.

Finally, if EPA fails to respond to science-related comments on the Supplemental Proposal on the basis that the Agency is not making a scientific finding—despite relying on a series of erroneous scientific claims to support its new statutory interpretation, *see* Section II.B.1.c *supra*—such a failure would constitute an unlawful procedural error, *see* 42 U.S.C. § 7607(d)(6)(B). Just as it did in promulgating the 2015 NSPS Rule, *see supra*, EPA must

[376] *See* Att'y Gen. of N.Y. et al., Request for Extension of Comment Period and Additional Public Hearings Regarding Proposed Rescission of the Greenhouse Gas Findings for Fossil Fuel-Fired Power Plants and Repeal of Regulations for Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111 (Sep. 28, 2026).

[377] *See* Att'y Gen. of N.Y. et al., Request for Extension of Comment Period and Additional Public Hearings Regarding Proposed Repeal of Greenhouse Gas Emission Standards for Fossil Fuel-Fired Electric Generating Units, Doc. ID No. EPA-HQ-OAR-2025-0124 (June 24, 2025).

respond thoroughly to all significant comments and criticisms on the docket, including those regarding EPA's scientific arguments.

B. EPA failed to comply with statutory requirements concerning the National Academy of Sciences.

Section 307(d)(3) of the Clean Air Act requires that a proposed rule be accompanied by a statement of its basis and purpose, including:

> any pertinent findings, recommendations, and comments by the Scientific Review Committee . . . and the National Academy of Sciences, and, if the proposal differs in any important respect from any of these recommendations, an explanation of the reasons for such differences. All data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule.

42 U.S.C. § 7607(d)(3). Established by Congress in 1863, the National Academy of Sciences, which today, works together with other academies as the National Academies of Sciences, Engineering, and Medicine (NASEM), provides independent, objective analysis and advice to the government on complex scientific issues. *Pub. Citizen v. U.S. Dep't of Just.*, 491 U.S. 440, 460 n.11 (1989). Its "[m]embers are elected by their peers for outstanding contributions to research."[378] NASEM's "conclusions deserve special weight because Congress specifically instructed EPA to consider" them. *Small Refineries Lead Phase-Down Task Force*, 705 F.2d at 530 (citation omitted).

Claiming that the issues raised in the Supplemental Proposal are "legal in nature and turn on statutory interpretation," EPA proposes that reports and information released by NASEM "do not differ in any material respect from or conflict with the legal rationales set forth in this supplemental notice." 91 Fed. Reg. at 59019. But, as discussed in Section II *supra*, EPA's "statutory" interpretations, in fact, purport to rest upon EPA's assumptions about the science of climate change and climate change impacts that are not only unsupported, but are also contrary to a substantial body of scientific evidence before the Agency, including findings of NASEM. And, as noted in Section IV.A *supra*, if EPA fails to respond to scientific evidence submitted by commenters on the Supplemental Proposal, that failure would constitute an unlawful procedural error under section 307(d)(6)(B) of the Clean Air Act. *See* 42 U.S.C. § 7607(d)(6)(B).

As discussed *supra* Section II.B.1.c.i, EPA's unsupported claim that power plant greenhouse gas emissions "do not have a sufficiently close connection to the harms identified in the 2015 Findings to fit within the legal meaning of 'cause' or 'contribute,'" 91 Fed. Reg. at 59023, runs counter to the NASEM 2025 Climate Report, which emphasized "that the evidence for current and future harm to human health and welfare created by human-caused GHGs is

[378] *Organization*, Nat'l Acad. of Scis., https://perma.cc/68HE-3LH7.

beyond scientific dispute."[379] EPA fails to mention the NASEM 2025 Climate Report in its Supplemental Proposal, let alone adequately explain the material conflict between EPA's scientific claim disguised as statutory interpretation and the findings in that report.

Relatedly, EPA's unsupported claim that "[g]lobal climate change concerns involve causal relationships that are too uncertain, conjectural, remote, and convoluted by intervening and confounding factors to fit within the terms 'cause,' 'contribute,' and 'reasonably be anticipated to endanger' as used in CAA section 111(b)(1)(A), 91 Fed. Reg. at 59023, is directly contradicted by, among other NASEM findings, the most recent NASEM consensus study report on attribution of extreme weather events to climate change referenced in the Supplemental Proposal. *See id.* at 59019 n.119.[380] In this 2026 report, NASEM concludes that:

> Human-caused changes to the thermodynamics of the climate system have a direct and well-understood impact on extreme temperatures, extreme rainfall, and compound hot-dry events. These links are established with high confidence and are well supported by a robust combination of physical theory, observational data, and model simulations.[381]

These findings of a direct and well-established connection between human-caused greenhouse gas emissions and extreme weather events materially differ from the unsupported scientific premises underlying EPA's purported statutory interpretation that greenhouse gas emissions have uncertain or remote causal connections to climate change harms. EPA has neither included these pertinent findings in the docket for the Supplemental Proposal nor explained its departure from NASEM's findings, in violation of section 307(d)(3) of the Clean Air Act.

C. The Supplemental Proposal fails to disclose how Artificial Intelligence was used.

In agency rulemakings, "the most critical factual material that is used to support the agency's position on review must have been made public *in the proceeding* and exposed to refutation." *Air Transp. Ass'n of Am. v. FAA*, 169 F.3d 1, 7 (D.C. Cir. 1999) (emphasis in original) (citation omitted). Both the substance of EPA's decision and the methods used to reach it must be made available for public comment. Agencies may utilize computer models—including artificial-intelligence models—in the course of decisionmaking, so long as that use is disclosed and subjected to comment. Among other things, "[w]hen an agency uses a computer model, it must explain the assumptions and methodology used in preparing the model and, if the

[379] NASEM 2025 Climate Report, *supra* note 1, at 2.

[380] NASEM, Attribution of Extreme Weather and Climate Events and Their Impacts, at Front Matter (forthcoming 2026), https://www.nationalacademies.org/read/28590/chapter/1.

[381] *Id.* at ch. 1, 3.

methodology is challenged, must provide a complete analytic defense." *U.S. Air Tour Ass'n v. FAA*, 298 F.3d 997, 1008 (D.C. Cir. 2002) (cleaned up).

The Supplemental Proposal and accompanying documents that EPA placed in its rulemaking docket for this rule neither assert nor, insofar as commenters have been able to discern, reveal any role of Artificial Intelligence (AI), "Super Intelligence" (SI),[382] or other similar computer models in the Supplementary Proposal's formulation, or any plans to utilize AI/SI in formulating the final rule, including in reviewing public comment.

In October 2025, the Agency issued memoranda on AI Strategies and an AI Compliance Plan to comply with this administration's executive orders and other memoranda seeking to accelerate the federal use of AI/SI.[383] In a strategy memorandum, EPA reported that as of August 2024, the Agency had 18 publicly reported AI/SI use cases. And the Agency recently announced that it "uses software with AI methods to more efficiently complete resource-intensive tasks like screening literature for relevance and data extraction."[384]

If, at any point during the rulemaking process, EPA has used or will use AI/SI or other computer models, EPA must disclose—and solicit comment on—why a model was used; which model was selected and why, whether, and how the model has been validated; all prompts or inputs to the model (and how and why those prompts or inputs were selected); and how EPA has considered or may consider the model's outputs or other incidents in decisionmaking. If the outputs or other incidents of a computer program play a substantive role in EPA's decision, then the program itself should be disclosed to commenters. In any instance where the program is not made available to commenters, or its results are not reproducible, EPA must explain why the program's public availability or reproducibility is unnecessary to comply with the Clean Air Act, the Information Quality Act, and other pertinent statutes, as well as applicable regulations, policies, and procedures concerning information management, information quality, and peer review. EPA must also disclose any persons and entities not employed by the agency who

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[382] Pursuant to a recent executive order, the executive branch "shall use the terms 'Super Intelligence' and 'SI' in place of 'Artificial Intelligence' and 'AI' and will not acknowledge the usage of 'Artificial Intelligence' and 'AI' in any applicable setting." Exec. Order No. 14,434, *Inaugurating the Era of Super Intelligence*, 91 Fed. Reg. 63129 (Oct. 2, 2026).

[383] Niki Maslin, EPA Off. of Mission Supp., U.S. Environmental Protection Agency Compliance Plan for OMB Memorandum M-25-21 (Oct. 2025), https://perma.cc/J2EG-X6DY; Niki Maslin, EPA Off. of Mission Supp., U.S. Environmental Protection Agency Artificial Intelligence Strategy for OMB Memorandum M-25-21 (Oct. 2025), https://perma.cc/EH2U-WCP7 (referencing Exec. Order No. 14,179, *Removing Barriers to American Leadership in Artificial Intelligence*, 90 Fed. Reg. 8741 (Jan. 31, 2025)); OMB, OMB M-25-21, Memorandum for the Heads of Executive Departments and Agencies from OMB Dir. Russell T. Vought, Accelerating Federal Use of AI through Innovation, Governance, and Public Trust (Apr. 3, 2025), https://perma.cc/ND7S-NVCQ.

[384] *AI Tools Used in EPA's Systematic Review Process*, EPA (last updated Aug. 11, 2025), https://perma.cc/BL44-JYE5.

developed, modified, provided access to, or used a computer program in the course of the decisionmaking process. To do otherwise would violate black-letter law.

V. EPA's Economic Impact Analysis Contains Serious Flaws that Make the Supplemental Proposal Unreasonable and Arbitrary and Capricious

A serious flaw undermining an economic analysis can render the resulting rule unreasonable and arbitrary and capricious. *Nat'l Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1040 (D.C. Cir. 2012); *see also Owner-Operator Indep. Drivers Ass'n v. Fed. Motor Carrier Safety Admin.*, 494 F.3d 188, 206 (D.C. Cir. 2007) (vacating regulatory provisions because the cost-benefit analysis supporting them was based on an unexplained methodology). Likewise, "reasonable regulation ordinarily requires paying attention to the advantages *and* the disadvantages of agency decisions." *Michigan*, 576 U.S. at 753 (emphasis in original). Courts have repeatedly held that agency analyses that ignore or give spurious treatment to important considerations are infirm.[385] Further, "[t]he mere fact that the magnitude of [an effect] is *uncertain* is no justification for *disregarding* the effect entirely." *Pub. Citizen v. Fed. Motor Carrier Safety Admin.*, 374 F.3d 1209, 1219 (D.C. Cir. 2004) (emphasis in original). Indeed, "[a]gencies are often called upon to confront difficult administrative problems armed with imperfect data." *Mont. Wilderness Ass'n v. McAllister*, 666 F.3d 549, 559 (9th Cir. 2011). In such a situation, "the proper response to that problem is for the [agency] to do the best it can with the data it has." *Id.*

Here, EPA's Economic Impact Analysis is seriously flawed because it fails to consider the actual impacts of the Supplemental Proposal—both by failing to consider the full emissions impacts and by failing to appropriately measure those impacts using the robust valuation methodologies EPA has traditionally used. In the Supplemental Proposal, EPA proposes to reinterpret Clean Air Act section 111 as not authorizing EPA to regulate emissions from power plants in response to global climate change concerns. To determine the economic impact of the Supplemental Proposal, EPA assesses only the limited impact of removing current greenhouse gas emission regulations, *i.e.*, the 2015 NSPS Rule and Phase 1 of the Carbon Pollution Standards' standards of performance for new power plants. But the import of EPA's action is not simply in its repeal of those existing emission standards—it is also in the Supplemental Proposal's effect of precluding *all* future greenhouse gas emission standards. EPA's limited analysis fails to reasonably assess the impacts of that more consequential regulatory action and therefore provides a flawed basis for the Supplemental Proposal.

[385] *See*, *e.g.*, *Bus. Roundtable v. SEC*, 647 F.3d 1144, 1148–49 (D.C. Cir. 2011); *Pub. Citizen, Inc. v. Mineta*, 340 F.3d 39, 58 (2d Cir. 2003); *Sierra Club v. Sigler*, 695 F.2d 957, 979 (5th Cir. 1983); *Getty v. Fed. Savs. & Loan Ins. Corp*., 805 F.2d 1050, 1055, 1057 (D.C. Cir. 1986); *Sierra Club v. U.S. Dep't of Interior*, 899 F.3d 260, 293 (4th Cir. 2018).

EPA's own Guidelines for Preparing Economic Analyses state that the baseline for economic analyses should be "defined as the best assessment of the way the world would evolve absent the proposed regulation."[386] In the Economic Impact Analysis, EPA's baseline reflects the continuation of the current greenhouse gas power sector regulations, and the policy scenario assumes that the impact of the Supplemental Proposal is to remove those regulations. This baseline scenario fails to capture the emission reductions that would have been achievable by future EPA regulations had the Supplemental Proposed not proposed to reinterpret section 111 to preclude EPA's ability to regulate any power plant greenhouse gas emissions. Therefore, the baseline needs to be revised to consider not only the power sector greenhouse gas regulations currently in place, but also reasonably foreseeable future actions to regulate power sector greenhouse gases.

The Supplemental Proposal would also preclude EPA from considering future improved technologies as BSER. But as part of the development of a more realistic baseline, EPA should consider it likely that as pollution control technology continues to evolve and improve in performance and cost-effectiveness, EPA will be able to cost-effectively address an increasing proportion of power sector emissions over time. This pattern of improvements in efficacy and reductions in cost has been observed in the context of other EPA regulations. For example, flue gas desulfurization is a technology that can reduce SO_2 pollution from coal-fired power plants. Flue gas desulfurization capital costs fell by 50% from 1976 to 1995 as industry gained experience and deployment increased.[387] Similar trends have been observed for selective catalytic reduction pollution control technology, used to reduce NO_x emissions from power plants, which underwent a more-than-40% reduction in capital costs from 1983 to 1993.[388]

It is likely that future domestic and international development and deployment of greenhouse gas pollution control technologies will similarly lead to improvements in efficacy and reductions in cost over time. Projected costs for coal and natural gas CCS projects in development show a general trend of cost reductions compared to prior projects. *See* Figs. 2–3 *infra*. Hydrogen co-firing with natural gas-fired power plants could also see significant reductions in cost, even absent tax credit incentives, due to similar mechanisms of technology adoption and cost reductions worldwide. *See* Fig. 2 *infra*. While neither cost reductions of known technologies nor development of novel cost-effective greenhouse gas pollution control technologies are *certain* to happen, the baseline for the Supplemental Proposal makes the assumption that all future greenhouse gas pollution control technologies will *not* exist, an illogical conclusion that is not supported by any evidence. To the contrary, it would be

[386] EPA, EPA-240-R-24-001, Guidelines for Preparing Economic Analyses 5-6 (Dec. 2024), https://perma.cc/ME96-5GWY [hereinafter Guidelines for Preparing Economic Analyses].

[387] Edward S. Rubin et al., *Experience Curves for Power Plant Emission Control Technologies,* 2 Int'l J. Energy Tech. & Pol'y 52, 61 & fig. 3 (2004).

[388] *Id.* at 64 & fig. 5.

reasonable for EPA to assume that greenhouse gas pollution control technologies *will* continue to advance globally, especially in countries that require such controls.

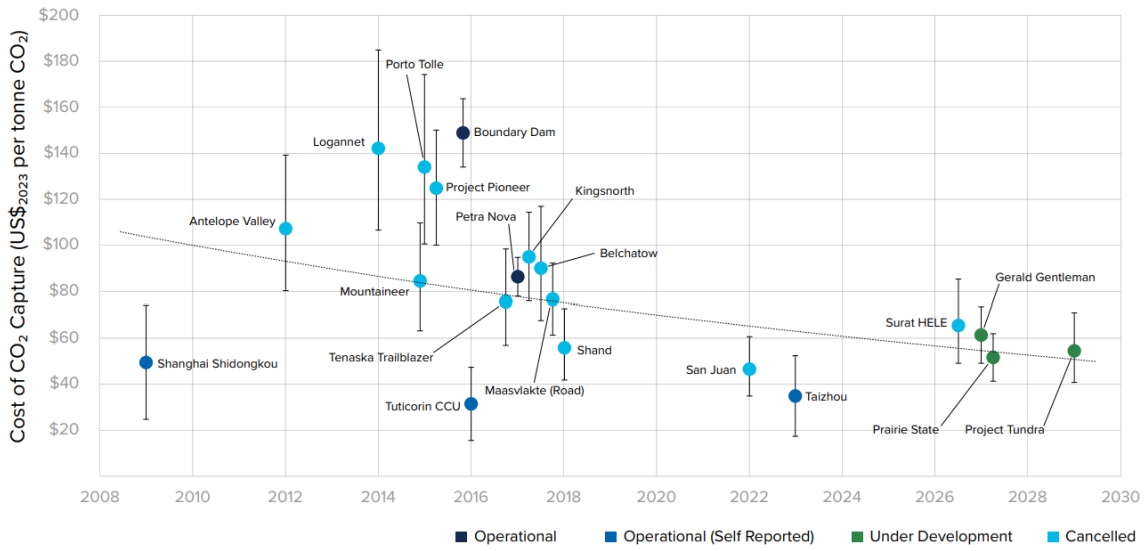


Figure 10 - Cost of capture of CO_2 from coal combustion sources

Figure 2. Cost of capture of CO_2 from coal combustion sources.[389]

[389] Hugh Barlow et al., Glob. CCS Inst., Advancements in CCS Technologies and Costs 19 & fig. 10 (Jan. 2025), https://perma.cc/3KF2-F26U.

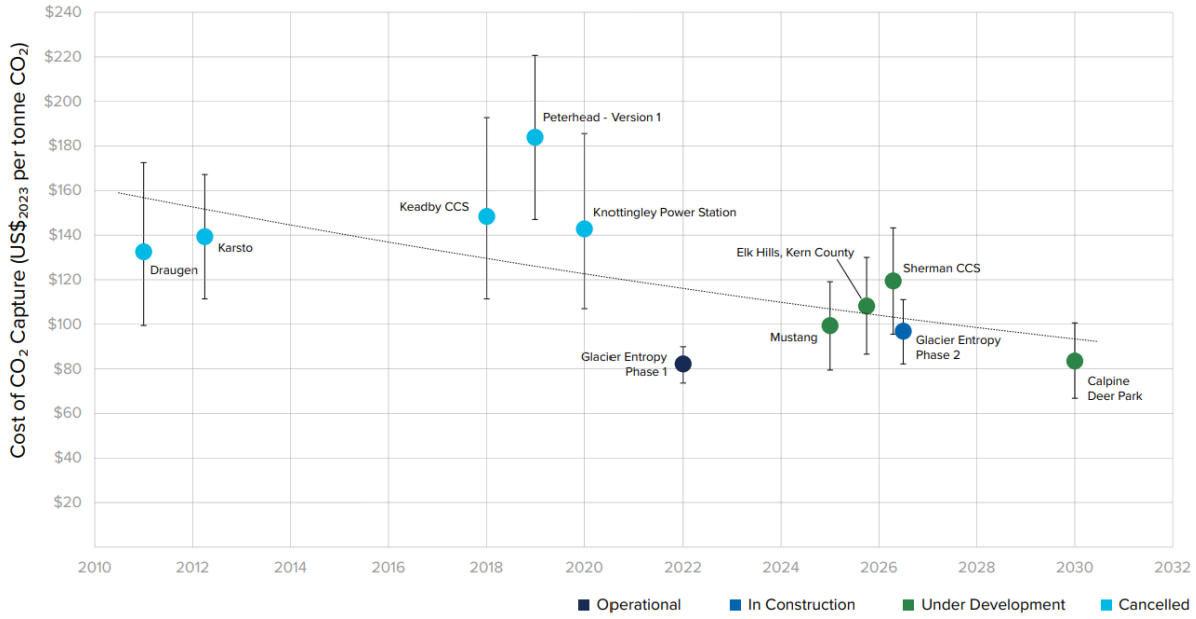


Figure 3. Cost of capture of CO_2 from natural gas-fired plants.[390]

[390] *Id*. at 20 & fig. 11.

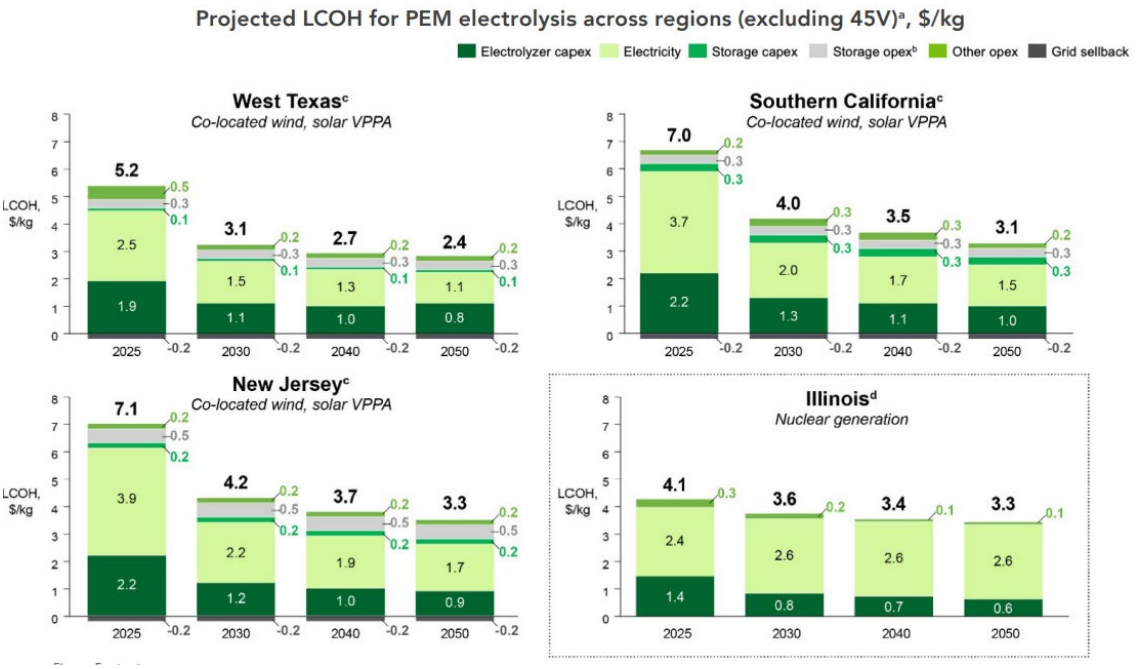


Figure 4. Levelized cost of hydrogen in $/kg for PEM electrolysis in four U.S. regions.[391]

A more rational baseline assessment—or at minimum, a sensitivity—would consider a generic future action from EPA to limit all greenhouse gas pollution from the power sector and compare the costs and benefits of that baseline to the world in which the Supplemental Proposal is finalized and EPA does not have any limits on power sector greenhouse gas pollution. Even EPA's own deeply flawed futility analysis considers the elimination of all power sector emissions, at least for certain scenarios. (As discussed *supra*, EPA's justification for its 50% emission-reduction scenario is insufficient, as EPA failed to consider the likelihood that emission reduction technologies will improve over time.) There are various approaches EPA could take in analyzing a scenario that encompassed all future power sector greenhouse gas emissions, including a simple one that assumes a linearly increasing CO_2 mitigation cost per ton of emissions, combined with sensitivities to address uncertainties in power sector and technology evolution.

At minimum, EPA's analysis must consider the emission reductions achievable under the Carbon Pollution Standards, adjusted for EPA's new—if flawed—findings on timing feasibility, CO_2 capture percentage feasibility, and a lower gas co-firing percentage. For example, even in its Carbon Pollution Standards Repeal, EPA acknowledged evidence of high capture rates. EPA's

[391] Campbell Howe et al., U.S. Dep't of Energy, Update 2024: Pathways to Commercial Liftoff: Clean Hydrogen 15 & fig. 10 (Dec. 2024), https://perma.cc/XK8Z-WPU5.

data demonstrated, for instance, that Boundary Dam Unit 3 consistently achieved over 80% capture rate for each quarter from 2022 Q3 through 2026 Q2.[392]

By narrowly looking at the impact of repealing the current power plant greenhouse gas regulations, the Economic Impact Analysis arbitrarily concludes that EPA's proposed rescission of its authority to regulate power sector greenhouse gas emissions will have almost no real-world impact.

Further, EPA has arbitrarily monetized industry compliance costs while refusing to monetize the value of possible emission reductions, which, as discussed above, could be substantial.[393] For more than three decades, EPA maintained a consistent practice of monetizing public health benefits of reducing emissions of air pollutants when conducting cost-benefit analysis. This practice was consistent with Executive Order No. 12,866 of 1993, which provides that "agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating. *Costs and benefits shall be understood to include both quantifiable measures (to the fullest extent that these can be usefully estimated)* and qualitative measures of costs and benefits that are difficult to quantify, but nevertheless essential to consider." 58 Fed. Reg. at 51735 (emphasis added). It was also consistent with the Supreme Court's holding in *Michigan v. EPA* that "reasonable regulation ordinarily requires paying attention to the advantages *and* the disadvantages of agency decisions." 576 U.S. at 753 (emphasis in original). Over the years, EPA developed considerable expertise in quantifying and monetizing the benefits of emission reductions, which helped to ensure that EPA's rules and regulations for regulating air pollution "maximize net benefits," including "public health benefits," as Executive Order No. 12,866 directs—rather than simply minimizing costs borne by regulated industries.

Despite this longstanding policy and practice, EPA now rejects the use of the state-of-the-art methodologies it once relied on to calculate the benefits associated with reductions in greenhouse gases, ozone, and particulate matter, allegedly because of various "uncertainties" associated with these methodologies. *See, e.g.*, 91 Fed. Reg. at 7694 n.29; *id.* at 58994–95. But EPA's failure to use the available data to quantify the impacts of increased emissions of greenhouse gases and other pollutants effectively sets the cost of these factors at zero, resulting in a wholly insufficient analysis. *See Mont. Wilderness Ass'n*, 666 F.3d at 559; *Ctr. for*

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[392] Calculated from data reported in EPA, Technical Memo: Updated Evaluation of Best System of Emission Reduction Costs of Carbon Capture and Sequestration/Storage at Existing Coal-Fired Electric Generating Units, Doc. ID No. EPA-HQ-OAR-2025-0124-2995, at 8 (Sep. 17, 2026), https://www.regulations.gov/document/EPA-HQ-OAR-2025-0124-2995.

[393] These reductions do not just include reductions in greenhouse gases, but also involve reductions in various co-pollutants; for example, the regulatory impact analysis for the Carbon Pollution Standards reported estimated annual emission reductions in 2045 of 24,000 short tons of NO_x, 2,000 short tons of $PM_{2.5}$, 41,000 short tons of SO_2, and 0.2 tons of mercury. Carbon Pollution Standards RIA, *supra* note 359, at ES-6.

Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1198–1203 (9th Cir. 2008) (holding that it was arbitrary and capricious not to monetize benefits of emission reductions when agency monetized other uncertain factors). Indeed, when the data is uncertain, "the agency's job is to exercise its expertise to make tough choices about which of the competing estimates is most plausible, and to hazard a guess as to which is correct, even if . . . the estimate will be imprecise." *Pub. Citizen*, 374 F.3d at 1221. If EPA suddenly lacks the confidence to make the necessary expert choices, it could still discharge its statutory duties by considering a range of health benefits. *See Chamber of Com. of U.S.A. v. SEC*, 412 F.3d 133, 143 (D.C. Cir. 2005) (finding that although an agency sometimes "can determine only the range" of costs or benefits due to uncertainty, the agency still must conduct an economic analysis under those circumstances). Even if the specific value of health impacts carries uncertainty, there is no colorable argument for setting that value at zero—which effectively reduces the value of human life and welfare to zero. And calculating compliance costs with precision while declining to calculate benefits arbitrarily elevates industry interests over other interests. *See* 91 Fed. Reg. at 59044–45 (calculating compliance costs associated with the Supplemental Proposal); *Ctr. for Biological Diversity*, 538 F.3d at 1198 (holding that an agency "cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards" when conducting cost-benefit analysis).

Additionally, EPA's failure to quantify and monetize public health benefits violates a range of guidance materials. These materials include Circular A-4, the Office of Management and Budget's (OMB) longstanding guidance to federal agencies on the development of regulatory and economic analyses.[394] According to Circular A-4, "[s]ound quantitative estimates of benefits and costs, where feasible, are preferable to qualitative descriptions of benefits and costs, because quantitative estimates succinctly summarize the magnitudes of the effects of alternative actions."[395] When cost and benefit estimates are uncertain, OMB directs agencies to "report estimates of effects that reflect as full a probability distribution of potential consequences as is feasible and appropriate."[396]

EPA's own guidance is consistent with OMB guidance on the topic of monetization. For example, EPA's Guidelines for Preparing Economic Analyses, all of which underwent external peer review, include detailed guidance about how to prepare mortality risk valuation estimates.[397] The Guidelines also describe how to address and account for analytic uncertainty, which is a part of every cost-benefit analysis, and explain that in assessing uncertainty, EPA should present outcomes or conclusions based on the most plausible values and perform

[394] OMB, Circular No. A-4 (Nov. 9, 2023), https://perma.cc/XX8G-YLDC.

[395] *Id.* at 44.

[396] *Id*. at 28.

[397] Guidelines for Preparing Economic Analyses, *supra* note 386, app. B.

sensitivity analysis on key assumptions.[398] As the Guidelines point out, "[e]ven for highly uncertain benefits[,] zero is not usually the best quantitative weight, and available evidence can often be used to produce some estimate that is more accurate than assuming these effects do not occur."[399]

Thus, the Supplemental Proposal's Environmental Impact Analysis fails to provide either EPA or the public with the information needed to evaluate EPA's proposed action. Before it finalizes the Supplemental Proposal, EPA should use its state-of-the-art social cost of greenhouse gases valuation framework[400] to monetize the costs to health and welfare that will accrue if greenhouse gas emissions are not mitigated or, if not that particular framework, at minimum one of the peer-reviewed methodologies available to quantify and monetize the harms to health and welfare from greenhouse gas emissions. As can be seen in the Greenhouse Gas Emission Harms Appendix, these damages are extremely large. EPA should similarly use its robust, longstanding methodologies to monetize the harm from unabated $PM_{2.5}$ and ozone emissions.[401] As such, an updated analysis of the Supplemental Proposal is warranted.

The updated analysis also needs to fully consider the distributional impacts of the lost benefits of future greenhouse gas emission regulations. EPA's current approach limits distributional effects of the Supplemental Proposal to various power sector entities, *e.g.*, investor-owned utilities, municipal utilities, cooperatives, and an assessment of which of these could be considered small business owners. The analysis entirely excludes an assessment of the distributional impact of pollution harms to various groups of populations, ages, geographies, and income classes, among other groups.[402]

Given the deep inadequacies of the Environmental Impact Analysis, EPA must prepare a revised assessment for public comment before taking any final action.

VI. The Supplemental Proposal's Discussion of Preemption and Displacement Is Misguided.

The States and Local Governments, whose laws the Supremacy Clause makes subject to preemption by federal law, have a strong interest in preemption as a general matter. But preemption and displacement are not proper subjects for EPA's consideration. In any event, EPA's analysis of the topics is incoherent and wrong, and EPA's proposal to conclude that it

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[398] *Id.* at 5-29 to 5-34.

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

[400] SC-GHG Report, *supra* note 211.

[401] *See generally* Tom Luben & Jonathan Buonocore, EPA Should Use Established Methods to Quantify and Monetize the Health and Welfare Impacts of Fine Particulate Matter and Ozone (N.Y.U. Inst. Pol'y Integrity Aug. 28, 2026).

[402] *Id*. § VI.

lacks legal authority to regulate power plant greenhouse gas emissions is inconsistent with the United States' assurances to courts around the country that EPA alone has authority to regulate such emissions.[403]

First, EPA has no authority to opine on, and thereby expand or constrict, the scope of the Clean Air Act's preemption of state and local stationary source law and policy or state common law because Congress has not delegated that task to the Agency. *See Wyeth v. Levine*, 555 U.S. 555, 576–77 (2009). The Supremacy Clause ensures precedence of "the Laws of the United States," U.S. Const. art. VI, cl. 2, not the "priorities or preferences of federal officers" like the EPA Administrator, *Kansas v. Garcia*, 589 U.S. 191, 212 (2020). Nothing in the Clean Air Act directs EPA to resolve or enforce preemption under section 111. *See* 42 U.S.C. § 7411. Moreover, construing section 111's preemptive effect is not "necessary to carry out [EPA's] functions." *Id.* § 7601(a)(1). And EPA's decision to opine on this question in the context of a deregulatory action is all the more imprudent given that questions related to the Clean Air Act's preemptive effect are currently pending before the Supreme Court. *See supra* Part II.B.1.b.ii.

Second, EPA's preemption and displacement analysis makes no sense; indeed, it is self-defeating. EPA claims the Clean Air Act preempts state common law because Congress authorized EPA to decide whether and how to regulate power plant greenhouse gas emissions. 91 Fed. Reg. at 59002, 59043. But if EPA gets to *decide* whether and how to regulate power plant greenhouse gas emissions, then *a fortiori*, it has the *discretion* to decide to regulate power plant greenhouse gas emissions (*i.e.*, it has legal authority).

The preamble lays bare the point. EPA states that its approach "would affirm its authority under . . . section 111 to list and regulate source categories that, in the Administrator's judgment, cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare," and, further, that its approach "would not disturb [its] authority to identify and regulate circumstances where emissions, including GHG emissions, satisfy the statutory threshold for listing and regulation." *Id.* at 59002, 59043 But EPA takes the opposite stance in the same paragraph: it "would not list or regulate a source category based on global climate change concerns associated with its GHG emissions because such concerns would not satisfy the statutory standard for regulation." *Id.* at 59043. Indeed, while in reality making

[403] The States and Local Governments do not read the Supplemental Proposal's vague requests for comment or other oblique references to the issue, *e.g.*, 91 Fed. Reg. at 59006, 59044, to contemplate an interpretive rule on any issue of preemption (or displacement), and any such rule would not be a logical outgrowth of the Supplemental Proposal. Nor does EPA's request for comment on reliance interests, which is limited to "additional rationales" not already presented in the 2025 Proposal, mention preemption or displacement. *Id*. at 59044. In any event, EPA's interpretation of the Supplemental Proposal's effect on preemption or displacement of other laws or causes of action could not take the form of an interpretive rule because EPA does not administer the relevant statutory provisions; the Agency's views on the matter would "be nothing more than a general statement of policy." *Nat'l Park Hosp. Ass'n v. Dep't of Interior*, 538 U.S. 803, 809 (2003) (cleaned up).

scientific arguments, EPA *claims* that "[t]he issues raised in [the] [S]upplemental [P]roposal . . . are legal in nature and turn on statutory interpretation." *Id.* at 59019. The entire Supplemental Proposal—and its alleged preemptive effect—thus purports to rest on EPA's legal conclusion that greenhouse gas emissions from power plants cannot, as a matter of law, "endanger" human health or welfare based on global climate change impacts for purposes of the Act. *Id.* That conclusion is deeply flawed, both on the science and on the law. And for present purposes, it defeats EPA's preemption analysis: EPA cannot at once disclaim legal authority to control greenhouse gas emissions, then reclaim it in an attempt to preempt anyone else from controlling emissions.

Nor does EPA's reliance on *AEP* assist it; instead, as discussed *supra* Sections II.A and II.B.4, *AEP* affirms that EPA has authority to regulate power plant greenhouse gas emissions based on those emissions' climate-forcing effect and discretion whether and how to do so based on a scientific judgment, *i.e.*, an endangerment finding—a scientific judgment EPA explicitly declines to make here. 564 U.S. at 424 ("[T]he Act 'speaks directly' to emissions of carbon dioxide from the defendants' plants.").

Third, EPA's preemption analysis is wrong. The Supreme Court has never held that the Clean Air Act has delegated exclusive decisionmaking "authority" to EPA. *Cf. Int'l Paper Co. v. Ouellette*, 479 U.S. 481, 492 (1987) (finding that analogous savings clause in Clean Water Act preserves state authority). Instead, the Supreme Court has plainly stated that "the States and the Federal Government are partners in the struggle against air pollution." *Gen. Motors Corp. v. United States*, 496 U.S. 530, 532 (1990).

EPA's analysis also incorrectly presupposes that the Clean Air Act's displacement of federal common law automatically preempts state law. The Supreme Court has never so held. In claiming preemption, EPA conflates the distinct doctrines of preemption and displacement. The test for displacement of federal common law "is simply whether the statute 'speaks directly to [the] question' at issue." *AEP*, 564 U.S. at 424 (alternation in original) (citations omitted). By contrast, for a federal act to preempt state law, it must either expressly preempt state law with explicit preemptive language or impliedly preempt state law because its structure and purpose implicitly reflect Congress's preemptive intent. *Gade v. Nat'l Solid Wastes Mgmt. Ass'n*, 505 U.S. 88, 98 (1992). Preemption of state law "represents 'a serious intrusion into state sovereignty.'" *Va. Uranium, Inc. v. Warren*, 587 U.S. 761, 773 (2019) (quoting *Medtronic Inc. v. Lohr*, 518 U.S. 470, 488 (1996)). As *AEP* clarified, "[l]egislative displacement of federal common law does not require the 'same sort of evidence of a clear and manifest [congressional] purpose' demanded for preemption of state law." 564 U.S. at 423–24 (alteration in original) (citation omitted). Therefore, even in interstate pollution cases where a statute has displaced federal common law, courts still "start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest

purpose of Congress."[404] It is not enough to simply assume that such a command "must be in there somewhere." *Va. Uranium*, 587 U.S. at 767.

EPA does not even try to argue that the Clean Air Act expressly preempts state law. It gestures toward implied preemption, but fails to provide support for either field preemption or conflict (impossibility or obstacle) preemption. And *AEP* does not support EPA's contention, as it claims. Rather, the *AEP* Court expressly declined to address the question of preemption: after "the Clean Air Act displaces federal common law, the availability *vel non* of a state lawsuit depends, *inter alia*, on the preemptive effect of the federal Act." *AEP*, 564 U.S. at 429 (citation omitted). Thus, while congressional delegation of a decision may "speak directly" to an issue, the Court has never held such delegation is a sufficient basis to preempt state law on its own. *See id.* Here, EPA has plainly failed to identify in the Clean Air Act Congress's "clear and manifest" purpose to preempt those claims. *See P.R. Dep't of Consumer Affs. v. Isla Petroleum Corp*., 485 U.S. 495, 503 (1988).

Finally, the incoherence in EPA's preamble—indeed, its blatant inconsistency—is evident not just in this rulemaking, but also in other EPA rulemakings and in filings and arguments made by the United States before myriad courts around the country, including, most recently, the Supreme Court. And industry and state parties have echoed those inconsistent claims as well.

In this preamble, for example, EPA "propose[s] that the text, structure, and history of CAA section 111, the applicability and implications of the major questions doctrine, and the futility of power plant GHG standards . . . support the conclusion that the EPA lacks authority to impose additional controls on power plants"—the largest domestic stationary source of greenhouse gas emissions—"in response to global climate change concerns." 91 Fed. Reg. at 59005. So, too, did EPA disclaim legal authority to regulate greenhouse gas emissions for motor vehicles and engines, the single largest domestic source of greenhouse gas emissions, "based on the conclusion that the Agency lacks statutory authority under CAA section 202(a)(1) to regulate in response to global climate change concerns." *Id.* at 59004 (describing Endangerment Finding Rescission); *see* 91 Fed. Reg. at 7723 ("[W]e lack the 'clear congressional authorization'

[404] *Ouellette*, 479 U.S. at 491 n.11 (quoting *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947)); *see, e.g.*, *Rice*, 331 U.S. at 230; *see also, e.g.*, *Wyeth*, 555 U.S. at 565 ("[I]n all pre-emption cases, and particularly in those in which Congress has 'legislated . . . in a field which the States have traditionally occupied,' . . . we 'start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress.'" (citations omitted)); *N.Y. State Conf. of Blue Cross & Blue Shield Plans v. Travelers Ins. Co.*, 514 U.S. 645, 654 (1995) (citation omitted) ("[W]e have never assumed lightly that Congress has derogated state regulation, but instead have addressed claims of pre-emption with the starting presumption that Congress does not intend to supplant state law."); *Isla Petroleum*, 485 U.S. at 500 ("As we have repeatedly stated, we start with the assumption that the historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress." (cleaned up)).

required under the major questions doctrine to decide the Nation's response to global climate change concerns.").

This position stands in stark contrast to that taken by EPA and the United States in recent court filings. Specifically, despite insisting in the Supplemental Proposal that a section 111 rescission would not change the Act's displacing or preemptive effect, "[n]or would returning to the pre-2015 status quo alter the CAA's preemptive force with respect to State law," *id.* at 59006, the United States has claimed before numerous courts that only EPA has legal authority to regulate greenhouse gas emissions, to the exclusion of States and local governments. For example, just before EPA published this Supplemental Proposal, the United States asserted in its amicus brief in *Suncor* that EPA's conclusion in its Endangerment Finding Rescission that it lacks authority under section 202(a)(1) to regulate vehicle greenhouse gas emissions does not limit its stationary source authority:

> [T]hat conclusion about Section 7521(a)(1) does not apply to EPA's authority under Section 7411 to regulate emissions from stationary sources—the decisionmaking scheme that *AEP* interpreted in ways that conflict with Boulder's claims.

Br. for U.S. as Amicus Curiae Supp. Pet'rs at 34 n.4, *Suncor*, No. 25-170 (S. Ct. May 21, 2026) (citation omitted) (attached hereto as Exhibit 13).

The oral argument in *Suncor* highlighted the irreconcilable tension in the United States's positions. Justice Barrett asked petitioner's attorney:

> [T]he federal government has now said that it's interpreted [section 202] in the [CAA] to not give EPA the authority to regulate greenhouse-gases from motor vehicles. So, potentially, then . . . a court might say that the EPA does not displace federal common law-making authority as to that. You are saying that even if someone invoked a federal common law nuisance cause of action, that as a matter of federal common law, a district court or, frankly, a state court, if asked to apply federal common law, could say, as a matter of federal common law, such a suit isn't recognized?

Tr. Oral Arg. at 50:15–51:3, *Suncor*, No. 25-170 (S. Ct. Oct. 5, 2026) (attached hereto as Exhibit 14). Later, Justice Gorsuch asked the Principal Deputy Solicitor General, arguing for the United States as amicus curiae in support of petitioner, whether the Clean Air Act leaves anyone able to sue:

> [S]o, before the Clean Air Act, you'd have some federal common law cause of action to decide. But, because of the Clean Air Act and Congress not addressing this issue, nobody can sue at all?

Id. at 68:22–69:2 (cleaned up). To which counsel for the United States responded, "[a]gain, I think that's correct . . . ." *Id.* at 69:3–69:4. And yet here, again, EPA proposes to disclaim legal authority under the Clean Air Act, just as it did under section 202. 91 Fed. Reg. at 7723.

As another example, in its complaint against Vermont's Climate Superfund Act, the United States again maintained:

> The Clean Air Act grants EPA broad authority to promulgate regulations based on its expert judgment, including whether to impose emissions standards for stationary sources under [section 111] and for mobile sources under [section 202].

Compl. ¶ 55, *United States v. Vermont*, No. 25-cv-463 (D. Vt. May 1, 2025), Dkt. No. 1 (attached hereto as Exhibit 15). And, in a later brief, federal plaintiffs argued:

> The Clean Air Act grants EPA authority to set nationwide standards, based on its expert judgment, when it determines that emissions meet applicable statutory standards for regulation. Vermont, through the Superfund Act, wrests that authority from EPA by imposing its own nationwide standard of retroactive strict liability for harms allegedly tied to global emissions, a standard neither Congress nor EPA authorized.

Pls.' Consol. Resp. in Opp'n to Mots. to Dismiss & Mem. in Supp. of Mot. for Summ. J. at 38–39, *Vermont*, No. 25-cv-463 (Sep. 15, 2025), Dkt. No. 50-1 (attached hereto as Exhibit 16).

Other proponents of preemption, including state and industry parties, have mimicked the United States's gambit, arguing, on the one hand that EPA alone has authority to regulate greenhouse gases, while disclaiming such authority in the context of Clean Air Act rulemakings. In preemption litigation, for example, West Virginia's complaint challenging New York's climate superfund law, filed before EPA proposed to repeal the power plant standards, identifies section 111 as the authority under which EPA has placed fossil fuel producers within the Act's reach:

> [T]he Act deems EPA to be 'the best suited [entity] to serve as primary regulator of greenhouse gas emissions.' . . . [T]he Act grants EPA the ability to categorize which entities fall under the Act's regulatory scheme. *See* 42 U.S.C. § 7411(b), (d). Under this authority, EPA has placed coal, oil, and natural gas producers under Clean Air Act jurisdiction.

Compl. ¶¶ 131–32, *West Virginia v. James*, No. 25-cv-168 (N.D.N.Y. Feb. 6, 2025), Dkt. No. 1 (attached hereto as Exhibit 17) (citing *AEP*, 564 U.S. at 427); *Clean Air Act Standards and*

Guidelines for the Oil and Natural Gas Industry, EPA, https://bit.ly/3WhsGrc (last visited Jan. 14, 2025).[405]

At the same time, however, in Clean Air Act rulemakings, West Virginia et al. have taken the position that EPA *lacks* such authority under the Act. For instance, West Virginia and 25 other states submitted comments on EPA's Proposed Endangerment Rescission, further emphasizing EPA's purported lack of regulatory authority under the Act:

> [T]he CAA's statutory text and regulatory history confirm that GHGs are not air pollutants under [section] 202(a) . . . .

Comments of Att'ys Gen. of W.V. et al., Doc. ID No. EPA-HQ-OAR-2025-0194-1487, at 16 (Sep. 22, 2025) (attached hereto as Exhibit 19) [hereinafter Comments of W.V. et al.]; *see id.* at 20 ("[L]egal developments since *Massachusetts* [*v. EPA*] have shown that GHGs like carbon dioxide are not 'air pollutants' under [section] 302(g). . . . [T]he CAA's structure show[s] that the best read of [section] 202(a)(1) precludes the agency from treating carbon dioxide as an 'air pollutant' under [section] 202(a)(1), [or] global warming as 'air pollution.'").[406]

Industry supporters of preemption have taken similarly conflicting positions. The Chamber of Commerce of the United States of America, American Petroleum Institute, National Mining Association, and Business Council of New York State, Inc., made a similar preemption argument in their combined Surreply in Support of their Motion for Summary Judgment in the New York litigation:

> [Congress's] delegation [of regulatory authority via the Clean Air Act] remains intact regardless of *how* EPA exercises its authority at any particular moment.

Chamber Pls.' Surreply in Supp. of Mot. for Summ. J. at 2, *James*, No. 25-cv-168 (Apr. 10, 2026), Dkt. No. 266 (attached hereto as Exhibit 20) (emphasis in original) [hereinafter Chamber Pls.' Surreply]; *id.* at 3; *see id.* at 7 (Congress, through the Clean Air Act, comprehensively

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[405] Similarly, in its sur-surreply brief, West Virginia contended that "the rescission doesn't say EPA *can't* regulate interstate greenhouse gas emissions under any conditions. It just explains that the agency never provided a proper basis for doing so. Pls.' Sur-Surreply Supp. Mot. Summ. J. at 5, *West Virginia v. James*, No. 25-cv-168 (N.D.N.Y. Apr. 10, 2026), Dkt. No. 264 (attached hereto as Exhibit 18) (emphasis in original); *see also id.* at 6 (citations omitted) ("Ultimately, EPA retains 'the power to decide' the endangerment question as to greenhouse gas emissions. In the future, the agency may determine that such emissions do satisfy the Clean Air Act's endangerment requirement. After all, EPA is the one that decides 'whether and how to regulate' interstate emissions."). Again, that claim emphasizes EPA's discretion, assuming the authority that it disclaims here.

[406] *See also* Comments of W.V. et al., *supra*, at 26 ("Even assuming GHGs like carbon dioxide are 'air pollutants' for purposes of [section] 302(g), they aren't the sort of 'air pollutants' [section] 202(a)(1) allows the Administrator to regulate. And of course a substance must meet *both* standards to be regulated under [section] 202(a)(1).").

addressed all air pollutants, including greenhouse gases, but "'delegated to EPA the decision *whether and how to regulate*' them." (quoting *AEP*, 564 U.S. at 426 (emphasis added in Chamber of Commerce brief)).[407]

At the same time, industry actors aligned with EPA have argued in rulemaking comments that EPA has no authority to regulate greenhouse gases under the Clean Air Act. For example, Mountain States Legal Foundation, with the Montana, Panhandle, Permian Basin, and Texas petroleum producer associations, asserted in their comments on the Proposed Endangerment Rescission that EPA, when it promulgated the 2009 Endangerment Finding, "exceeded its statutory authority under Section 202(a), which does not grant the agency power to regulate global climate change." Comments of Mountain States Legal Found. et al., Doc. ID No. EPA-HQ-OAR-2025-0194-1368, at 2 (Sep. 22, 2025) (attached hereto as Exhibit 21).

Thus, the United States and EPA's statements in state law climate litigation regarding the scope of EPA's authority—echoed by certain State and industry supporters—further lay bare the inconsistency in EPA's logic and further undermine the Agency's preemption analysis in the Supplemental Proposal.

In sum, EPA should abandon its flawed preemption analysis because it is an improper subject for EPA's opinion, EPA's analysis is incoherent and wrong, and EPA's position is inconsistent with its assurances to courts around the country.

Conclusion

Twenty years ago, many of the States and Local Governments sued EPA for failing to limit power plant greenhouse gas emissions under section 111 of the Clean Air Act. It took EPA nearly a decade to promulgate standards for new power plants and another nine years to promulgate binding emission limits for existing plants. The Agency, in furtherance of the Administration's fixation on resurrecting the coal industry, wishes to pull up the stakes on all current and any future greenhouse gas limits on power plants. Unsatisfied with repealing its most recent emission limits, EPA now seeks to eliminate *all* greenhouse gas regulation of power plants.

EPA's action comes in the face of escalating climate harms in the form of deadly heat waves, lethal flash floods, and devastating wildfires and despite the fact that U.S. power plant greenhouse gas emissions exceed the entire emissions of all but five *countries*. In a true act of hubris (and prejudgment), EPA proudly trumpets its rescission of these standards as constituting the "greatest and most consequential day of deregulation in U.S. history." But the Agency's Supplemental Proposal is badly flawed in multiple respects: its new statutory interpretation of

[407] *See also* Chamber Pls.' Surreply, *supra*, at 6 ("[T]he Clean Air Act gives EPA authority to regulate greenhouse gas emissions under its general definition of 'air pollutant' in 42 U.S.C. § 7602(g). And, as EPA noted in its final rule, the statute continues to grant authority to set emission standards regardless of whether the agency adopts particular regulations for particular sources of emissions.").

section 111 conflicts with the statutory text, Supreme Court precedent, congressional intent, and longstanding Agency practice and improperly musters pseudoscience as support, while refusing to undertake the scientific task the Clean Air Act requires. Nor has EPA provided any reasoned explanation for its wholesale change in position on the commonsense regulation of power plants. The Agency turns a blind eye to grid reliability and energy affordability and ignores the disproportionate impacts its action would have on overburdened communities. And EPA flouted basic procedural requirements at every turn and claims for itself the ability to disclaim authority to regulate greenhouse gases while preventing anyone else from controlling them. The Supplemental Proposal must be abandoned.

Respectfully submitted,

STATE OF NEW YORK
LETITIA JAMES
ATTORNEY GENERAL

/s/ Morgan A. Costello
MORGAN A. COSTELLO
Deputy Bureau Chief
MICHAEL J. MYERS
Senior Counsel for Air Pollution and Climate Change Litigation
ASHLEY M. GREGOR
JOHN BRODERICK
LIBBY DIMENSTEIN
Assistant Attorneys General
Environmental Protection Bureau
NYS Office of the Attorney General
The Capitol
Albany, NY 12224
(518) 776-2392
Morgan.Costello@ag.ny.gov
Michael.Myers@ag.ny.gov
Ashley.Gregor@ag.ny.gov
John.Broderick@ag.ny.gov
Libby.Dimenstein@ag.ny.gov

STATE OF ARIZONA
KRIS MAYES
ATTORNEY GENERAL

/s/ Benjamin L. Champion
BENJAMIN L. CHAMPION
Special Assistant Attorney General
Environmental Protection Unit
Office of the Attorney General
2005 N. Central Ave
Phoenix, AZ 85085
(520) 628-6653
Benjamin.Champion@azag.gov

STATE OF CALIFORNIA
ROB BONTA
ATTORNEY GENERAL

/s/ Kavita Lesser
KAVITA P. LESSER
JONATHAN A. WIENER
THEODORE A.B. MCCOMBS
Deputy Attorneys General
California Department of Justice
300 South Spring, Suite 1702
Los Angeles, CA 90013
(213) 269-6605
Kavita.Lesser@doj.ca.gov

STATE OF COLORADO
PHILIP J. WEISER
ATTORNEY GENERAL

/s/ Carrie Noteboom
CARRIE NOTEBOOM
Assistant Deputy Attorney General
Natural Resources and Environment Section
1300 Broadway, 10th Floor
Denver, CO 80203
(720) 508-6285
carrie.noteboom@coag.gov

STATE OF CONNECTICUT
WILLIAM TONG
ATTORNEY GENERAL

/s/ Scott N. Koschwitz
MATTHEW I. LEVINE
Deputy Associate Attorney General
SCOTT N. KOSCHWITZ
Assistant Attorney General
Connecticut Office of the Attorney General
165 Capitol Avenue
Hartford, CT 06106
(860) 808-5250
scott.koschwitz@ct.gov

STATE OF DELAWARE
KATHLEEN JENNINGS
ATTORNEY GENERAL

/s/ Vanessa L. Kassab
IAN R. LISTON
Director of Impact Litigation
RALPH K. DURSTEIN III
VANESSA L. KASSAB
Deputy Attorneys General
ROBIN L. JACOBS
Assistant Attorney General
Delaware Department of Justice
820 N. French Street
Wilmington, DE 19801
(302) 683-8899
vanessa.kassab@delaware.gov

STATE OF HAWAI'I
ANNE E. LOPEZ
ATTORNEY GENERAL

/s/ Lyle T. Leonard
LYLE T. LEONARD
Deputy Attorney General
465 S. King Street, #200
Honolulu, HI 96813
(808) 587-3052
Lyle.T.Leonard@hawaii.gov

STATE OF ILLINOIS
KWAME RAOUL
ATTORNEY GENERAL

/s/ Jason E. James
JASON E. JAMES
Assistant Attorney General
MATTHEW J. DUNN
Chief, Environmental Enforcement/
Asbestos Litigation Division
JOANNA BRINKMAN
Complex Litigation Counsel
Illinois Attorney General's Office
201 W. Pointe Drive, Suite 7
Belleville, IL 62226
(217) 843-0322
jason.james@ilag.gov

STATE OF MAINE
AARON M. FREY
ATTORNEY GENERAL

/s/ Emma Akrawi
EMMA AKRAWI
Assistant Attorney General
Natural Resources Division
Office of the Maine Attorney General
6 State House Station
Augusta, ME 04333
(207) 626-8800
Emma.Akrawi@maine.gov

STATE OF MARYLAND
ANTHONY G. BROWN
ATTORNEY GENERAL

/s/ Steven J. Goldstein
STEVEN J. GOLDSTEIN
Assistant Attorney General
Office of the Attorney General of Maryland
200 Saint Paul Place, 20th Floor
Baltimore, MD 21202
(410) 576-6414
sgoldstein@oag.maryland.gov

COMMONWEALTH OF MASSACHUSETTS
ANDREA JOY CAMPBELL
ATTORNEY GENERAL

/s/ Turner H. Smith
TURNER H. SMITH
Deputy Bureau Chief
AMY LAURA CAHN
Special Assistant Attorney General
Energy and Environment Bureau
Office of the Massachusetts Attorney General
One Ashburton Place, 18th Fl.
Boston, MA 02108
(617) 963-2782
Turner.Smith@mass.gov

STATE OF MICHIGAN
DANA NESSEL
ATTORNEY GENERAL

/s/ Hadley E. Tuthill
HADLEY E. TUTHILL
Assistant Attorney General
Michigan Department of Attorney General
Environment, Natural Resources, and
Agriculture Division
525 W. Ottawa Street
Lansing, MI 48909
(517) 335-7664
TuthillH@michigan.gov

STATE OF MINNESOTA
KEITH ELLISON
ATTORNEY GENERAL

/s/ Paul Dimick
PAUL A. DIMICK
Special Assistant Attorney General
Office of the Minnesota Attorney General
445 Minnesota St., Suite 600
St. Paul, MN 55101
651-300-7877
paul.dimick@ag.state.mn.us

STATE OF NEW JERSEY
JENNIFER DAVENPORT
ATTORNEY GENERAL

/s/ Lisa J. Morelli
LISA J. MORELLI
Deputy Attorney General
New Jersey Division of Law
25 Market Street
Trenton, New Jersey 08625
(609) 376-2740
Lisa.Morelli@law.njoag.gov

STATE OF NEW MEXICO
RAÚL TORREZ
ATTORNEY GENERAL

/s/ J. Spenser Lotz
J. Spenser Lotz
Assistant Attorney General
Environmental Protection Bureau
201 Third St. NW, Suite 300
Albuquerque, NM 87102
(505) 616-7560
slotz@nmdoj.gov

STATE OF NORTH CAROLINA
JEFF JACKSON
ATTORNEY GENERAL

/s/ Asher P. Spiller
ASHER P. SPILLER
Senior Deputy Attorney General
TAYLOR H. CRABTREE
Special Deputy Attorney General
ABE S. EICHNER
Assistant Attorney General
P.O. Box 629
Raleigh, NC 27602
(919) 716-6600
aspiller@ncdoj.gov
tcrabtree@ncdoj.gov
aeichner@ncdoj.gov

STATE OF OREGON
DAN RAYFIELD
ATTORNEY GENERAL

/s/ Paul Garrahan
PAUL GARRAHAN
Attorney-in-Charge, Natural Resources Section
Oregon Department of Justice
1162 Court Street NE
Salem, OR 97301-4096
(503) 947-4540
Paul.Garrahan@doj.oregon.gov

STATE OF RHODE ISLAND
PETER F. NERONHA
ATTORNEY GENERAL

/s/ Nicholas Vaz
NICHOLAS VAZ
Assistant Attorney General
Environment and Energy Unit Chief
Rhode Island Office of the Attorney General
150 South Main Street
Providence, RI 02903
(401) 274-4400 ext. 2297
nvaz@riag.ri.gov

STATE OF VERMONT
CHARITY R. CLARK
ATTORNEY GENERAL

/s/ Hannah Yindra
HANNAH YINDRA
Assistant Attorney General
Office of the Attorney General
109 State Street
Montpelier, VT 05609
(802) 828-3186
Hannah.Yindra@vermont.gov

COMMONWEALTH OF VIRGINIA
JAY JONES
ATTORNEY GENERAL

/s/ Megan C. Keenan
MEGAN C. KEENAN
Deputy Solicitor General
Virginia Office of the Attorney General
202 North Ninth Street
Richmond, VA 23219
(804) 997-5222
mkeenan@oag.state.va.us

STATE OF WASHINGTON
NICHOLAS W. BROWN
ATTORNEY GENERAL

/s/ Zachary S. Packer
ZACHARY S. PACKER
CHRISTOPHER H. REITZ
Assistant Attorneys General
Office of the Attorney General
P.O. Box 40117
Olympia, WA 98504-0117
(564) 669-8864
zachary.packer@atg.wa.gov

STATE OF WISCONSIN
JOSHUA L. KAUL
ATTORNEY GENERAL

/s/ Gabe Johnson-Karp
GABE JOHNSON-KARP
Assistant Attorney General
Wisconsin Department of Justice
17 West Main Street
Post Office Box 7857
Madison, WI 53707-7857
(608) 267-8904
gabe.johnson-karp@wisdoj.gov

DISTRICT OF COLUMBIA
BRIAN L. SCHWALB
ATTORNEY GENERAL

/s/ Lauren Cullum
LAUREN CULLUM
Special Assistant Attorney General
Office of the Attorney General
for the District of Columbia
400 6th Street, N.W., 10th Floor
Washington, D.C. 20001
lauren.cullum@dc.gov

CITY OF CHICAGO, ILLINOIS
RENEE CAMILLE HATCHER
ACTING CORPORATION COUNSEL

/s/ Gabrielle Sigel
GABRIELLE SIGEL
Assistant Corporation Counsel Supervisor
BRADLEY R. RYBA
Assistant Corporation Counsel
City of Chicago Department of Law
2 North LaSalle Street, Suite 580
Chicago, IL 60602
(312) 744-1438
Gabrielle.Sigel@cityofchicago.org
Bradley.Ryba@cityofchicago.org

CITY AND COUNTY OF DENVER, COLORADO
MIKO ANDO BROWN
CITY ATTORNEY

/s/ Kristin Brainerd
KRISTIN BRAINERD
Assistant City Attorney
Denver City Attorney's Office
201 W. Colfax Avenue, Dept. 1207
Denver, CO 80202
(720) 913-3212
Kristin.Brainerd@denvergov.org

CITY OF NEW YORK, NEW YORK
STEVEN BANKS
CORPORATION COUNSEL

/s/ Alice R. Baker
ALICE R. BAKER
Senior Counsel
TESS DERNBACH
Senior Counsel
CHARLIE HICKERSON
Assistant Corporation Counsel
New York City Law Department
100 Church Street
New York, NY 10007
(212) 356-2314
albaker@law.nyc.gov
tdernbac@law.nyc.gov
charlesh@law.nyc.gov

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
ALEXANDER G. CROCKETT
GENERAL COUNSEL

/s/ Jamie Jefferson
CARRIE SCHILLING
Senior Assistant Counsel
JAMIE JEFFERSON
Assistant Counsel
375 Beale Street, Suite 600
San Francisco, CA 94105
JJefferson@baaqmd.gov
ACrockett@baaqmd.gov
CSchilling@baaqmd.gov