August 7, 2025

EPA Office of Air and Radiation

Docket ID No. EPA–HQ–OAR–2025–0124

Re: Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units (Primary Proposal Comments)

Administrator Zeldin:

Please find attached joint legal comments from the Center for Biological Diversity, Clean Air Task Force, Earthjustice, Environmental Defense Fund, Natural Resources Defense Council, and Sierra Club on the proposed rulemaking entitled "Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units," 90 Fed. Reg. 25,752 (June 17, 2025).

Our organizations strongly urge EPA to maintain the reasonable, cost-effective, and life-saving carbon pollution standards issued in 2024 and withdraw this proposed repeal. This comment addresses numerous legal deficiencies in EPA's decisionmaking and interpretation of the Clean Air Act in its primary proposal.

Chloe Kolman
Sydney Schoonover
Ralph Skinner

Donahue, Goldberg & Herzog

Counsel for EDF
chloe@donahuegoldberg.com

Meredith Hankins
Sarah Buckley
David Doniger
Rachel Heron
Amanda Levin
Yuqi Zhu

Natural Resources Defense Council (NRDC)
mhankins@nrdc.org

Tomás Carbonell
Noha Haggag
Grace Hauser

Environmental Defense Fund (EDF)

Ann Weeks
Frank Sturges
Alan Masinter

Clean Air Task Force (CATF)

Hana V. Vizcarra
Seth L. Johnson

Earthjustice

Andres Restrepo

Sierra Club

Jason Rylander
David Pettit

Center for Biological Diversity

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These comments address EPA's primary proposal: to reinterpret Section 111(b)(1)(A) of the Clean Air Act to substantially narrow when a group of sources may be understood to "contribute significantly" to air pollution that endangers public health or welfare. These comments also address EPA's further proposal to apply that new interpretation to revoke its prior determinations that the category of fossil fuel-fired power plants, and specifically the greenhouse gas emissions from that source category, "contribute significantly" to such air pollution.

Those findings undergird EPA's 2015 and 2024 greenhouse gas emissions standards (in the form of carbon dioxide (CO_2) standards) for new power plants under Section 111(b)(1)(B) and EPA's 2024 emission guidelines for existing power plants under Section 111(d). The current proposal to revoke those determinations and repeal the resulting standards is contrary to the Clean Air Act, arbitrary and capricious in multiple ways, and flies in the face of pertinent court decisions. It must be withdrawn.

First, no matter what interpretation of Section 111(b)(1)(A) EPA ultimately advances, there can be no reasonable basis for concluding that greenhouse gases from power plants do not significantly contribute to air pollution that endangers public health and welfare. EPA previously found that the question of whether these emissions significantly contribute to dangerous air pollution was "not even close," and that CO_2 emissions from these plants contribute significantly to dangerous air pollution "under any reasonable threshold or definition." *Am. Lung Ass'n v. EPA*, 985 F.3d 914, 976-77 (D.C. Cir. 2021), *rev'd on other grounds sub nom. West Virginia v. EPA*, 597 U.S. 697 (2022). The D.C. Circuit affirmed that "sensible" finding, in a portion of the *American Lung Association* decision that the Supreme Court did not disturb.[1]

For good reason. Annually, U.S. fossil fuel-fired power plants release approximately a quarter of the country's total CO_2 emissions, making it second only to the transportation sector domestically.[2] In terms of cumulative emissions over the past three decades, the U.S. power sector alone has contributed more the total emissions of every country on earth apart from China, India, Russia, the E.U., and the United States itself.[3] And analysis submitted to this docket

[1] Likewise, the Supreme Court itself found that "[j]udged by any standard," comparable amounts of emissions from motor vehicles "make a meaningful contribution to greenhouse gas concentrations and … to global warming." *Massachusetts v. EPA,* 549 U.S. 497, 525 (2007).

[2] EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022*, EPA 430-R-24-004 (2024), https://perma.cc/9TE4-M7YC.

[3] Peter H. Howard & Jason A. Schwartz, *The Scale of Significance: Power Plants* at 3–4, NYU Inst. For Pol'y Integrity (May 30, 2025), https://perma.cc/5D4Y-88E3.

indicates that the proposed repeal will result in cumulative increases to power sector carbon emissions by 1.2 to 5.8 *giga* tons by 2050.[4]

As with the sector's past emissions, future emissions will only add to the already dangerous levels of CO_2 and the damage done to human health, property, the economy, and the natural environment, both in the U.S. and worldwide. To deem these emissions not significantly contributing to dangerous air pollution is plainly arbitrary and capricious by any measure.

Second, turning to the language of the statute, the proposal's novel interpretation of "significantly contribute" is simply wrong. The text of Section 111(b)(1)(A) is plain: EPA must consider the extent to which the *source category* contributes to dangerous *air pollution* – not the extent to which imposing regulations on that source category would be effective or desirable, or any of the other policy factors unrelated to the source's causal contribution that the proposed rule inserts into the inquiry.

The structure of Section 111 confirms the error in EPA's new approach. In Section 111, Congress deliberately separated the factual and scientific questions associated with identifying polluting sources and the harms they cause from the policy question of what can be done to remediate that harm. In Section 111(b)(1)(A), Congress directed EPA first to identify pollution problems that are, or are reasonably anticipated to be, harmful to human health or welfare and the polluters contributing to those problems. Once EPA has made those findings, the statute makes regulatory action mandatory. But what that regulatory action should look like is the subject of Section 111(b)(1)(B). That subsection, unlike Section 111(b)(1)(A), provides for considering certain listed factors beyond the extent of the source's contribution, such as costs. EPA has no authority to ignore Congress' two-step scheme and collapse into step one the consideration of factors that are germane only to step two. And it certainly has no authority to inject into step one the vague invocation of "energy dominance" or a policy preference for greater reliance on fossil fuels, which are legally irrelevant under Section 111 even at the standard-setting stage.

Third**,** separate and apart from the proposal's unlawful construction of "contributes significantly," EPA errs in maintaining that it must make a "significant contribution" finding as to greenhouse gas emissions from power plants in the first place. Section 111 is structured such that EPA first lists and then regulates *categories* of stationary sources. Contrary to the proposal, the statutory text and structure do not require a separate significant contribution determination for each individual pollutant from that category that EPA proposes to regulate. In any event,

[4] Nicholas Roy & Karen Palmer, *Hidden Costs of Repealing EPA's Carbon Pollution Standards: Consequences for the Environment*, Households, and Society (Resources for the Future Issue Brief) (Aug. 6, 2025), https://www.rff.org/publications/issue-briefs/hidden-costs-of-repealing-epas-carbon-pollution-standards-consequences-for-the-environment-households-and-society/.

EPA actually made and subsequently reiterated the significant contribution finding for power plants' CO_2 emissions in past rulemakings, and its conclusion was upheld by the D.C. Circuit. And as the record underpinning that finding demonstrates, there is no basis on which EPA could find that CO_2 emissions from power plants – which collectively contribute more than one quarter of the nation's greenhouse gas pollution and emit far more than any other category of stationary sources – do not contribute significantly to pollution that endangers public health and welfare.

***Fourth*,** even taking the proposed rule's erroneous statutory construction on its own terms, the proposal lacks sufficient support to show that it adequately protects public health and welfare.

* * *

The broader implications of the proposal are astounding. Deeming the greenhouse gas contribution of the U.S. power plant source category insignificant implies that EPA also intends to find the contribution of other industrial source categories to be insignificant. In short, this is a formula for taking no action to reduce stationary source emissions of greenhouse gases – or indeed, any pollutant – under Section 111 of the Clean Air Act.

Leaving the CO_2 emissions of U.S. power plants unregulated would make it virtually impossible to reduce overall emissions to non-dangerous levels. Such levels can be achieved only by reducing and over time virtually eliminating emissions from many – indeed, most – slices of the emissions pie in the U.S. and other countries. If EPA deems the greenhouse gas emissions of U.S. power plants – and possibly all other industrial categories – immune from the Clean Air Act, then ever-more dangerous climate change will be locked in.

The following comments will detail the legal errors and arbitrary conclusions in the primary proposal. First, we demonstrate the factual implausibility of EPA's proposed finding that power plants do not significantly contribute to dangerous air pollution. Second, we show that – even assuming EPA is required to find that greenhouse gas emissions from power plants in particular "significantly contribute" to dangerous air pollution before it may regulate under Section 111(b) – EPA fatally misinterprets that statutory phrase. Third, we demonstrate that Section 111(b) does not, in actuality, require a pollutant-specific significant contribution finding in the first place. And finally, we show that – even under the proposal's own flawed statutory test – the proposed rule would not pass muster.

II. There is no plausible argument that power plants do not significantly contribute to dangerous air pollution.

The devastating impacts caused by greenhouse gas emissions are demonstrated by a large body of science spanning decades. Based on this evidence, both EPA and the courts have repeatedly affirmed that greenhouse gases endanger public health and welfare. It is also beyond reasonable dispute that U.S. power plants are a massive contributor to greenhouse gas pollution and to the attendant public harms. As the record shows, these source categories warrant Section 111 listing under *any* metric – including the new interpretation EPA proposes here. EPA's unreasonable contrary conclusion runs counter to the massive record underpinning its own previous conclusions – and is further contradicted by the record being established in the comments on this proposal. And EPA's repeal provides no record support for its conclusions regarding public welfare, or assertions regarding energy dominance and cost-effectiveness. Most concerning, EPA includes no updated analysis regarding the public health implications of the proposal, which belies EPA's own conclusions and fails one of the basic premises of reasoned decisionmaking.

These errors render the proposal – and any rule finalized as a result – unreasonable and unlawful. The Clean Air Act and the Administrative Procedure Act prohibit EPA from taking actions that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 42 U.S.C. § 7607(d)(9)(A); 5 U.S.C. § 706(2)(A). Rulemaking under the Clean Air Act further specifies that EPA's proposed rulemakings must include a "statement of [the proposal's] basis and purpose," including "the factual data on which the proposed rule is based," "the methodology used in obtaining the data and in analyzing the data," and the "major legal interpretations and policy considerations underlying the proposed rule." 42 U.S.C. § 7607(d)(3). The Act also directs that the final rule "may not be based (in whole or in part) on any information or data which has not been placed in the docket as of the date of such promulgation," and affirms its expectation that commenters will be afforded an opportunity to comment on all matters of central relevance to the rule. *Id.* §§ 7607(d)(6)(C), 7607(d)(7)(B).

In defining the scope of reasonable administrative decisionmaking, the Supreme Court has instructed that an agency must "articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'" *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962)). The agency cannot "rel[y] on factors which Congress has not intended it to consider" or "entirely fail[] to consider an important aspect of the problem." *Id.* Nor can it "offer[] an explanation for its decision that runs counter to the evidence before the agency," *id.*; the agency's decision must be "justified by the rulemaking record." *Id.* And the agency must provide "a reasoned explanation … for disregarding facts and circumstances that underlay or were engendered by the prior policy." *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515-16 (2009).

As explained below, the Agency has made each of those errors here, so it cannot lawfully finalize this proposal.

A. There is no scientific dispute that greenhouse gases are "air pollution which may reasonably be anticipated to endanger public health or welfare."

In its 2009 Endangerment Finding – which EPA does not propose to reverse in this action – EPA concluded that greenhouse gases driving climate change endanger public health and public welfare. 74 Fed. Reg. 66,496, 66,497 (Dec. 15, 2009).[5] EPA finalized the 2009 Endangerment Finding in light of *Massachusetts v. EPA*, where the Supreme Court held that EPA has clear authority to regulate greenhouse gas pollution under the Clean Air Act, and that EPA must make a determination as to whether greenhouse gases endanger public health and welfare. 549 U.S. at 532-33.

Following the Supreme Court's decision, the Agency embarked on an extensive record-building evaluation, including review of over 380,000 comments, and an exhaustive investigation of contemporary climate science literature. 74 Fed. Reg. at 66,510, 66,500. The final 2009 Endangerment Finding rests on a vast body of rigorous, peer-reviewed scientific research confirming that greenhouse gas pollution is driving destructive changes in our climate that pose a grave and growing threat to Americans' health, security, and economic well-being. *See* 74 Fed. Reg. at 66,510-11 (citing United States Global Change Research Program (USGCRP), National Research Council (NRC), and the Intergovernmental Panel on Climate Change (IPCC), which analyzed thousands of individual peer-reviewed studies). Since 2009 – and even since publication of the 2024 Carbon Pollution Standards – the evidence of harms caused by greenhouse gases has only grown stronger, as EPA and other federal government agencies have repeatedly recognized.

Following the 2009 Endangerment Finding, EPA denied two sets of petitions for reconsideration of that Finding, 75 Fed. Reg. 49,556 (Aug. 13, 2010); 87 Fed. Reg. 25,412 (Apr. 29, 2022), reiterating that the science is "robust, voluminous, and compelling, and has been strongly

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[5] EPA proposed to repeal the 2009 Endangerment Finding on August 1, 2025. *See* 90 Fed. Reg. 36,288 (Aug. 1, 2025). As noted in Comment II.A.4, below, that proposed repeal is not part of this rulemaking record. The proposed rescission of the 2009 Endangerment Finding also indicates that "EPA is reconsidering additional endangerment findings and GHG emission standards issued under distinct provisions of the CAA in separate rulemakings and is not reopening or proposing to modify those additional findings and standards in this proceeding." 90 Fed. Reg. at 36,293. By EPA's own indication, the proposed rescission of the 2009 Endangerment Finding is a distinct rulemaking and cannot form the basis for repealing these standards. In any event, that proposal is flawed for reasons that will be addressed in that action and does not undermine the extensive factual record in support of the harms of climate change described below.

affirmed by recent scientific assessment."[6] The Agency's final decisions denying those petitions relied upon growing scientific evidence that continued to provide "clear support regarding the current and future dangers of climate change."[7] Furthermore, the first Trump Administration itself acted to deny four petitions to reconsider the Finding, although the Biden Administration later withdrew the denial on the basis that it lacked adequate justification and issued its own denials.[8]

EPA repeatedly reaffirmed these conclusions, providing additional evidence to support them in separate Clean Air Act endangerment findings concluding that climate pollution from the power sector,[9] transportation sector,[10] oil and gas sector,[11] and landfills[12] causes endangerment. *See also, e.g.*, 81 Fed. Reg. 54,422 (Aug. 15, 2016) (finding that greenhouse gas emissions from aircraft likewise cause or contribute to pollution endangering public health and welfare under Section 231 of the Clean Air Act); 87 Fed. Reg. at 25,412 (citing new studies in denial of petitions for reconsideration). For power plants, EPA's 2015 Carbon Pollution Standards determined that power plants contribute significantly to the atmospheric greenhouse gas pollution that endangers public health and welfare, considering both the record underlying the 2009 Endangerment Finding as well as more recent evidence concerning harm from greenhouse gas emissions and the power sector's contribution to those emissions. 80 Fed. Reg. 64,510, 64,529-30 (Oct. 23, 2015).

The 2009 Endangerment Finding also has survived numerous legal challenges and searching judicial review. First, it was upheld by the U.S. Court of Appeals for the D.C. Circuit in 2012 (a

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[6] EPA, Decision Memo 1 (Apr. 2022), EPA-HQ-OAR-2022-0129-0053 [hereinafter "2022 Reconsideration Decision Memo"].

[7] *Id.* at 13.

[8] *See* EPA, Denial of Petitions to Reconsider the EPA's Greenhouse Gas Endangerment Finding (Jan. 19, 2021) (Trump Administration denial), https://perma.cc/B6X8-WJXK; 87 Fed. Reg. at 25,412 (Biden Administration denial); 2022 Reconsideration Decision Memo at 11-14.

[9] *See* 80 Fed. Reg. 64,510, 64,518 (Oct. 23, 2015); *id.* at 64,517-22, 64,530-31; *see also, e.g.*, 89 Fed. Reg. 39,798, 39,807-10 (May 9, 2024).

[10] *See, e.g.*, 75 Fed. Reg. 25,324, 25,398 (May 7, 2010); 76 Fed. Reg. 57,106, 57,294 (Sept. 15, 2011); 77 Fed. Reg. 62,624, 62,894 (Oct. 15, 2012); 81 Fed. Reg. 73,478, 73,486 (Oct. 25, 2016); 89 Fed. Reg. 27,842, 27,862-64 (Apr. 18, 2024); 89 Fed. Reg. 29,440, 29,474-75 (Apr. 22, 2024).

[11] 81 Fed. Reg. 35,824, 35,834 (June 3, 2016); 89 Fed. Reg. 16,820, 16,837, 16,841 (Mar. 8, 2024).

[12] 81 Fed. Reg. 59,332, 59,338 (Aug. 29, 2016).

decision the Supreme Court declined to review). *See Coal. for Responsible Regul. v. EPA*, 684 F.3d 102 (D.C. Cir. 2012), *cert. denied in relevant part sub nom. Chamber of Commerce v. EPA*, 571 U.S. 951 (2013). More recently, the D.C. Circuit again rejected challenges to EPA's denial of petitions for reconsideration of the 2009 Endangerment Finding, and the Supreme Court again denied review. *See Concerned Household Electricity Consumers Council v. EPA*, No. 22-1139, 2023 WL 3643436 (D.C. Cir. May 25, 2023), *cert. denied*, 144 S. Ct. 497 (2023).

At the time of the 2009 Endangerment Finding, the anticipated "dangers of greenhouse gas emissions" included harms such as "heat-related deaths; coastal inundation and erosion"; "more frequent and intense hurricanes, floods, and other 'extreme weather events'"; and "drought due to reductions in mountain snowpack and shifting precipitation patterns." *Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 417 (2011). Further endangerment findings in many sets of standards to reduce climate pollution reflect that the scientific evidence regarding these harms caused by climate change has continued to grow – including in EPA's 2015 greenhouse gas standards for power plants. 80 Fed. Reg. at 64,529-30. These climate impacts are both long-term and gradual (such as increasing global temperatures and sea level rise), and acute and localized (such as extreme storms, wildfires, and flooding). Greenhouse gas emissions also have dangerous public health impacts, such as heat-related deaths and exacerbated respiratory illnesses.

1. Greenhouse gases are increasingly endangering public health and welfare.

Anthropogenic greenhouse gas emissions, largely from burning fossil fuels, have warmed the planet over the past 150 years.[13] As human-caused radiative forcing warms the earth system, surface temperatures and sea levels gradually rise.[14] The most recent IPCC report reaffirms that "[h]uman activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching [2.0 degrees Fahrenheit] above [the] 1850-1900 [temperature] in 2011-2020," and that "[g]lobal greenhouse gas emissions have continued to increase."[15] Indeed, today's atmospheric concentrations of greenhouse gases are

[13] EIA, *Greenhouse Gases and the Climate*, (Jun. 18, 2024), https://perma.cc/6UX5-2KVU.

[14] IPCC, *IPCC, 2021: Summary for Policymakers* at 8, 11 (2021), https://perma.cc/L6WY-DQH5.

[15] IPCC, *Climate Change 2023: AR6 Synthesis Report Summary for Policymakers* at 4 (2023), https://perma.cc/4TBN-D762; *see also* USGCRP, *Fifth National Climate Assessment* 1-40 (2023), https://repository.library.noaa.gov/view/noaa/61592 (noting "observed global warming of about 2 [degrees Fahrenheit] over the industrial era is unequivocally caused by greenhouse gas emissions from human activities, with only very small effects from natural sources," and with "[a]bout three-quarters of total emissions and warming ... hav[ing] occurred since 1970."); *cf.* International Court of Justice, *Advisory Opinion: Obligations of States in Respect of Climate*

higher than they have been in 3 million years, with the largest annual increase in atmospheric CO_2 on record occurring in 2024.[16]

Because of the long lifetime of greenhouse gases in the atmosphere, the effects of current and future greenhouse gas emissions on climate are multifaceted and will continue for tens to thousands of years.[17] The surface temperature of the continental U.S. has been increasing 0.17˚F per decade since 1901, but this rate has sped up since the late 1970s, and the U.S. is currently warming faster than the global average.[18] Ten of the eleven warmest years on record in the U.S. have occurred since 1998, with 2024 being the hottest year in the 130-year record.[19]

Rising temperatures are one of the most concerning public health effects of climate change because extreme heat is already a leading cause of death in the U.S.[20] High temperatures can directly cause heat exhaustion and heat stroke, while contributing to increased incidences of cardiovascular events and strokes.[21] Since 1979, over 14,000 Americans have died directly from heat-related causes according to official death certificates, with the true number likely much greater.[22] The record setting 2,325 heat-related deaths in 2023 represented a 117% increase in the

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Change, July 23, 2025 at 87, ¶ 278 (calling the IPCC reports "the best available science" and stating that, "[i]nformed by the best available science and based on the above considerations, the Court considers that the adverse effects of climate change, including rising temperature levels, sea level rise, negative effects on ecosystems and biological diversity, and extreme weather events, indicate that the accumulation of GHG emissions in the atmosphere is causing significant harm to the climate system and other parts of the environment."), https://perma.cc/A37X-Z983.

[16] NOAA, *Climate change: atmospheric carbon dioxide*, (May 21, 2025), https://perma.cc/2C2P-TM8W.

[17] EPA, *Climate Change Indicators in the United States (Fifth ed., EPA 430-R-24-003)*, at 7 (July 2024), https://perma.cc/YVM7-8SN9.

[18] *Id.* at 14.

[19] NOAA NCEI, *Assessing the U.S. Climate in 2024*, (Jan. 10, 2025), https://perma.cc/DY8Y-ZCA2; *see also* https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/national/time-series/110/tavg/ytd/12/1895-2024?base_prd=true&firstbaseyear=1901&lastbaseyear=2000.

[20] Atlantic Council of the United States, *Extreme Heat: The Economic and Social Consequences for the United States*, at 8 (Aug. 2021), https://perma.cc/U7JN-B5HL.

[21] EPA, *Climate Change Indicators in the United States (Fifth ed., EPA 430-R-24-003)* at 14 (Jul. 2024), https://perma.cc/YVM7-8SN9.

[22] EPA, *Climate Change Indicators: Heat-Related Death* (Feb. 26, 2025), https://perma.cc/5ZWQ-R9CS.

number of heat-related deaths compared to 1999.[23] This is part of a long-term trend: from 1991-2006, 34.7% of heat-related deaths across 210 U.S. cities were attributable to human-induced climate change,[24] averaging 1,148 deaths per year.[25]

Outdoor workers and people without access to air conditioning are among the most vulnerable to extreme heat.[26] As surface temperatures continue to rise, their exposure risk is becoming startlingly more severe. For example, during July and August 2023, 64.5% of days (40 out of 62) in Health and Human Services (HHS) Region 6 – which includes Arkansas, Louisiana, New Mexico, Oklahoma, and Texas[27] – had emergency department visit rates for heat-related illness that exceeded the 95th percentile. Similarly, in HHS Region 4 – which includes Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee – over half the days (32 out of 62) surpassed this threshold. In stark contrast, from 2018-2022, only 8.4% of days in Region 6 and 8.7% of days in Region 4 met this criterion.[28] These trends underscore the rapidly escalating health burden of extreme heat, particularly for those with limited means of protection.

Anthropogenic climate change has also caused the global mean sea level to rise between eight to nine inches since 1880, with almost four of those inches occurring since 1993.[29] Higher sea levels have caused coastal flooding to become more frequent, leading to property damage, community displacement, and threats to public health. These flood events, referred to as "sunny day flooding," are distinct from storm-related flooding and are becoming increasingly common

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[23] Jeffrey T. Howard et al., *Trends of Heat-Related Deaths in the US, 1999-2023*, 332 JAMA 1203-1204 (Oct. 8, 2024), https://perma.cc/BM9B-PKJJ.

[24] A. M. Vicedo-Cabrera et al., *Supplementary Information: The Burden of Heat-Related Mortality Attributable to Recent Human-Induced Climate Change*, 11 Nature Climate Change 492, Supplementary Table 4 (May 31, 2021), https://perma.cc/QA4F-QY2J.

[25] *Id.*, Supplementary Table 5.

[26] Ambarish Vaidyanathan et al., *Heat-Related Emergency Department Visits — United States, May–September 2023*, 73 Center for Disease Control and Prevention Morbidity and Mortality Weekly Report 324, 329 (Apr. 18, 2024), https://perma.cc/92AA-347Z.

[27] U.S. Department of Health and Human Services, *HHS Regional Offices* (Aug. 14, 2024), https://perma.cc/T5YN-TVF8.

[28] Ambarish Vaidyanathan et al., *Heat-Related Emergency Department Visits — United States, May–September 2023*, MMWR at 328 (Apr. 18, 2024) (percentages calculated from Table 2 data), https://perma.cc/92AA-347Z.

[29] NOAA Office for Coastal Management, *High Tide Flooding*, https://perma.cc/HR3Q-A4LD (last modified Aug. 5, 2025).

in coastal U.S. cities.[30] EPA found that in over half of 42 coastline cities studied, non-storm related floods are now at least five times more common than they were in the 1950s.[31] In the U.S. Southeast Atlantic and Gulf Coast regions, sunny-day flooding has become between 400% to 1,100% more common than in 2000.[32] Public health effects of recurrent flooding include drinking water contamination, loss of power, and mold exposure.[33] With over 40% of Americans living near coasts, the risks are widespread.[34]

Acute events are also becoming more common and severe because of anthropogenic climate change. Heatwaves, defined as a period of unusually hot days in a row, are occurring more frequently in major U.S. cities, over longer heatwave seasons and with increasing humidity.[35] Heatwaves are twice as common as they were in the 1980s and the heatwave season is thrice the length it was in the 1960s.[36] Heatwaves are the deadliest form of extreme weather in the U.S., killing more Americans than hurricanes, floods, and tornadoes combined.[37] The effects of extreme heat are intensified in urban areas, where highly concentrated buildings and limited greenery can amplify daytime temperatures by 18˚F to 27˚F compared to surrounding rural areas – a critical concern given that 80% of Americans live in cities.[38] The public health impacts are particularly devastating when high temperatures continue into the night. People's ability to cool off and recover is limited when temperatures remain high overnight, especially for vulnerable

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[30] *Id.*

[31] EPA, *Climate Change Indicators in the United States (Fifth ed., EPA 430-R-24-003)*, at 69 (July 2024), https://perma.cc/YVM7-8SN9.

[32] NOAA Office for Coastal Management, *High Tide Flooding*, https://perma.cc/HR3Q-A4LD (last modified Aug. 5, 2025).

[33] EPA, *Climate Change Indicators in the United States (Fifth ed., EPA 430-R-24-003)*, at 26, (July 2024), https://perma.cc/YVM7-8SN9.

[34] NOAA Office for Coastal Management, *Economics and Demographics*, (Jul. 24, 2025), https://perma.cc/K7G6-2J86.

[35] EPA, *Climate Change Indicators in the United States (Fifth ed., EPA 430-R-24-003)*, at 18, (July 2024), https://perma.cc/YVM7-8SN9.

[36] Michelle L. Bell et al., *Climate Change, Extreme Heat, and Health*, 390 NEJM 19, 1793 (May 15, 2024), https://perma.cc/5DHJ-7A7D.

[37] Terri Adams-Fuller, *Extreme Heat Is Deadlier Than Hurricanes, Floods and Tornadoes Combined*, Scientific American (Jul. 1, 2023), https://perma.cc/3ZZA-P9VR.

[38] *Id.*; U.S. Census Bureau, *Nation's Urban and Rural Populations Shift Following 2020 Census* (Dec. 29, 2022), https://perma.cc/6KCJ-DECK.

populations such as children, the elderly, people without air conditioning, and people with chronic conditions who have less capacity to adapt to extreme temperatures.[39]

Tropical cyclones and hurricanes are also becoming more intense due to increasing ocean surface temperatures. This increase in intensity means more costly destruction and more deaths in communities along the Atlantic Ocean and Gulf of Mexico regions.[40] Due to record sea surface temperatures in the Atlantic basin in 2024, Americans living along the Eastern coastline experienced 18 named tropical cyclones and five hurricanes.[41] In particular, Hurricane Helene caused flash flooding and power outages that affected millions of Americans living in Florida up to North Carolina. It killed 219 Americans and was the deadliest Atlantic hurricane to strike the U.S. mainland since Hurricane Katrina in 2005.[42] The estimated total cost of Hurricane Helene is $34.3 billion, making 2024 the 14th consecutive year where the US has experienced disasters individually costing over $10 billion.[43] Storms like Hurricane Helene are part of a growing pattern: according to NOAA's National Center for Environmental Information, between 2015-2024, 190 billion-dollar disasters collectively killed 6,300 Americans and caused $1.4 trillion in damages.[44]

Climate change is intensifying hydrological extremes across the U.S., making both heavy precipitation events and prolonged droughts more frequent and severe.[45] When extreme precipitation occurs in areas plagued by persistent drought, the sudden transition is referred to as hydroclimate volatility, or precipitation whiplash, and the effects are often more severe than either event in isolation.[46] For example, during the winter of 2022 to 2023, California experienced nine consecutive atmospheric rivers in three weeks after multiple years of severe drought, resulting in flooding, property damage, landslides, and forty counties declaring

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[39] EPA, *Climate Change Indicators in the United States (Fifth ed., EPA 430-R-24-003)*, at 22, (July 2024), https://perma.cc/YVM7-8SN9.

[40] *Id.* at 29-30.

[41] NOAA NCEI, *Assessing the U.S. Climate in 2024* (Jan. 10, 2025), https://perma.cc/DY8Y-ZCA2.

[42] *Id.*

[43] *Id.*

[44] *Id.*

[45] IPCC, *IPCC, 2021: Summary for Policymakers*, at 8-9 (2021), https://perma.cc/L6WY-DQH5.

[46] Daniel L. Swain et al., *Hydroclimate Volatility on a Warming Earth*, 6 Nature Reviews Earth & Environment 35-50, 36 (Jan. 9, 2025), https://perma.cc/V4UC-9HHP.

disasters.[47] On July 4, 2025, Hunt, Texas experienced 6.5 inches of rain in just three hours.[48] Tragically, the drought-affected soil was unable to absorb the extreme rainfall, killing at least 137 people.[49] Two weeks later, over two inches of rain fell in New York City in a single hour, inundating the city, causing dramatic flooding in subways, and killing at least two people.[50] Intensifying climate change will only make climate volatility more common and more dangerous. Scientists predict the Southeastern U.S. to experience an estimated "25–60% increase in frequency [of precipitation whiplash events] and 30–100% increase in intensity of interannual precipitation whiplash … by the late twenty-first century."[51]

While some areas of the U.S. are experiencing increased precipitation, other areas are becoming drier, especially in the Western U.S. From 2000 to 2023, up to 70% of the U.S. land area experienced abnormally dry conditions.[52] Drought harms agricultural yields, depletes water supplies, and increases the risk of wildfires.[53] In the past 5 years, there have been five droughts across the U.S., with damages totaling $59.3 billion.[54] Climate change makes drought-conditions more common by raising Earth's surface temperature, thus increasing the rate of evaporation, and drying out soil. As the Southeastern U.S. continues to grow rapidly in population, the challenges posed by water scarcity and climate change will become increasingly pressing.[55]

Because of climate change's effects on drought and higher temperatures, wildfire season has become longer and more devastating. According to the Fifth National Climate Assessment produced by the U.S. Global Change Research Program (the Trump Administration shut down the globalchange.gov website on June 30, 2025, which had hosted this report along with the four

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[47] *Id*.

[48] Danya Gainor, *Why Was the Flooding in Texas so Bad?*, CNN (Jul. 8, 2025), https://perma.cc/KQ48-XDGL.

[49] Brad Brooks, *Texas lawmakers investigate flash floods as death toll hits 137*, Reuters (Jul. 23, 2025), https://perma.cc/WT59-P85A.

[50] New York Times, *Two Dead After Heavy Rains Swamp Roads and Rails in New York Region* (Jul. 15, 2025), https://www.nytimes.com/live/2025/07/15/nyregion/new-york-jersey-floods#.

[51] Daniel L. Swain et al., *Hydroclimate Volatility on a Warming Earth*, 6 Nature Reviews Earth & Environment 35-50, 39 (Jan. 9, 2025), https://perma.cc/V4UC-9HHP.

[52] *Climate Change Indicators in the United States (Fifth ed., EPA 430-R-24-003)*, at 28 (Jul. 2024), https://perma.cc/YVM7-8SN9.

[53] *Id.*

[54] NOAA NCEI, *Billion-Dollar Weather and Climate Disasters*, (2025), https://perma.cc/8E8B-FVSG.

[55] EPA, *Climate Change Indicators in the United States (Fifth ed., EPA 430-R-24-003)*, at 28.

previous federally mandated climate reports[56]), wildfires are becoming more frequent and burn larger areas.[57] These wildfires have caused billions of dollars in damages annually and endanger human health by worsening air quality from wildfire smoke.[58] Exposure to wildfire smoke is associated with increases in all-cause mortality, asthma, chronic obstructive pulmonary disease, acute bronchitis, pneumonia, and low birth weight.[59] Wildfires are estimates to cost the U.S. between $394 billion to $893 billion annually, mainly due to diminished real estate value, exposure to wildfire smoke, and income loss during these events.[60] Additionally, these events release even more CO_2 into the atmosphere, contributing to the vicious cycle of climate change.

2. Greenhouse gas emissions are expected to continue endangering public health and welfare.

Recent IPCC reports have concluded that there is a near-linear relationship between cumulative anthropogenic CO_2 emissions and global temperature warming.[61] Specifically, each 1,000 $GtCO_2$ of cumulative CO_2 emissions will likely cause an average of 0.45˚C warming in global surface temperatures.[62] The U.S. will continue to warm faster than the global average, with warm nights expected to become more common.[63] Heat stress from additional climate change would compromise outdoor laborers' health and lower productivity.[64] Under baseline climate

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[56] Rebecca Dzombak, *National Climate Report Website Goes Dark*, New York Times (Jul. 1, 2025), https://perma.cc/3GAB-TM2C.

[57] U.S. Global Change Research Program, *Fifth National Climate Assessment, Focus on Western Wildfires*, at F2-3 (2023), https://perma.cc/77LJ-M7L4.

[58] EPA, *Climate Change Indicators in the United States (Fifth ed., EPA 430-R-24-003)*, at 30, (Jul. 2024), https://perma.cc/YVM7-8SN9.

[59] Colleen E. Reid et al., *Critical Review of Health Impacts of Wildfire Smoke Exposure*, 124 Environmental Health Perspectives 1334-1343, 1334 (Apr. 2016), https://perma.cc/C6J2-T2EC.

[60] Joint Economic Committee Democrats, *Climate-Exacerbated Wildfires Cost the U.S. between $394 to $893 Billion Each Year in Economic Costs and Damages,* (Oct. 2023), https://perma.cc/8WTD-Q2WT.

[61] IPCC, *IPCC, 2021: Summary for Policymakers*, at 28 (2021), https://perma.cc/L6WY-DQH5.

[62] *Id.*

[63] EPA, *Extreme Heat*, (Mar. 27, 2025), https://perma.cc/ES82-ZPBS.

[64] IPCC, *Human Health: Impacts, Adaptation, and Co-Benefits In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, at 713 (2014), https://perma.cc/B4MR-BSAK.

conditions, the U.S. could lose $100 billion annually in labor productivity.[65] Without meaningful action, this could reach $200 billion by 2030 and $500 billion by 2050.[66] Texas is predicted to be most affected by this because of its large workforce of outdoor laborers.[67]

The public health effects of increased warming are most pronounced in urban areas. These areas in the U.S. are expected to experience increase heat-related mortality rates due to climate change. If we continue our current emission trends, such as modeled under RCP4.5, New York City will see a five-fold increase in heat-related mortality by the 2080s, while Boston will see a four-fold increase and Philadelphia a three-fold increase.[68] In Seattle in 2085, under the most probable warming scenario, 280 excess deaths are projected to occur among adults 45 and older.[69]

Warmer days will also require more electricity for cooling. Currently, air conditioning units use about 12% of U.S. households' electricity and cause the emission of over 100 million metric tons of CO_2 annually from power plants.[70] The increase in demand as temperatures rise will in turn increase greenhouse gas emissions and exacerbate demand on the U.S. energy grid's most vulnerable days, increasing the likelihood of blackouts during critical times.

Finally, continuing sea level rise is expected to increase the frequency of coastal flooding events. As noted above, American cities are experiencing five extra sunny-day flooding events per year as compared to 2000.[71] Galveston, Texas, a city particularly vulnerable to sea level rise, experienced 23 days of sunny-day flooding in 2023.[72] By 2050, sunny-day flooding is likely to

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[65] Atlantic Council of the United States, *Extreme Heat: The Economic and Social Consequences for the United States*, at 2 (Aug. 2021), https://perma.cc/U7JN-B5HL.

[66] *Id.* at 3.

[67] *Id.*

[68] Elisaveta P. Petkova et al., *Projected Heat-Related Mortality in the U.S. Urban Northeast*, 10 Intl. J. of Environ. Res. and Public Health 6734-7647, 6741 (Dec. 3, 2013), https://perma.cc/4M53-Q5AS.

[69] Elizabeth J. Jackson et al., *Public Health Impacts of Climate Change in Washington State: Projected Mortality Risks Due to Heat Events and Air Pollution*, at 360 tbl. 4 (Sep. 2010), https://perma.cc/NFY6-FMSE.

[70] DOE, *Air Conditioning*, https://perma.cc/6NC9-BS3D.

[71] Rebecca Hersher, *Coastal Flooding Is Getting More Common, Even on Sunny Days*, NPR (Sep. 3, 2024), https://perma.cc/QNH8-JJLA.

[72] *Id*.

occur between 45 to 85 days per year.[73] These events can have a multitude of public health effects on communities, such as overwhelming sewer systems, contaminating drinking water, and isolating neighborhoods.[74]

3. The Trump Administration's policies will worsen harms caused by greenhouse emissions.

The Trump Administration claims that greenhouse gas emissions from the power sector are "not significant" because "[greenhouse gas] emissions from those sources are a small and decreasing part of global emissions" 90 Fed. Reg. 25,755 (Jun. 17, 2025). However, the Trump Administration is actively implementing a suite of federal policies aimed at reversing the clean energy transition and bolstering domestic fossil fuel generation, undermining that projection of emissions decline and making climate and clean air protections more urgent than under prior baselines.

From 2022 to 2023, coal generation dropped 18% contributing to a 7% overall reduction in CO_2 from power plants.[75] These reductions are part of a broader trend: since 1995, CO_2 emissions from the power sector have declined by 28% largely due to shifts to cheaper and lower-emitting or non-emitting forms of generation – including wind, solar, and nuclear.[76] As of 2023, roughly 186 GW of coal-fired power plants are operational in the U.S., with 103 GW slated to retire or convert to natural gas by 2039.[77] However, the Trump Administration's push for expanded fossil fuel production and use and its efforts to protect coal-fired power generation are expected to substantially increase the emissions scenario in the future. Contrary to EPA's suggestion that a repeal of the carbon pollution standards would simply return the U.S. to the baseline indicated the 2024 Carbon Pollution Standards, these policies will result in increases in power plant greenhouse gas emissions above previously predicted levels.

The proposal at issue here is part of a suite of 31 actions announced earlier this year by EPA that, among other things, seeks to systematically remove as many constraints as possible on fossil

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[73] NOAA Office for Coastal Management, *High Tide Flooding*, https://perma.cc/HR3Q-A4LD (last modified Aug. 5, 2025).

[74] Rebecca Hersher, *Coastal Flooding Is Getting More Common, Even on Sunny Days.*

[75] EPA, *EPA Releases 2023 Power Plant Emissions Data*, (Feb. 15, 2024), https://perma.cc/QXB3-5GJV.

[76] *Id.*; EPA, *Electric Power Sector Emissions* (Jan. 9, 2025), https://perma.cc/TKD2-K8SC.

[77] EPA, *Final Carbon Pollution Standards to Reduce Greenhouse Gas Emissions from Power Plants*, (Apr. 25, 2024), https://perma.cc/Q9F8-K2BX.

fuel-fired electricity generation.[78] EPA Administrator Lee Zeldin referred to this as "the greatest day of deregulation our nation has seen," intended to "driv[e] a dagger straight into the heart of the climate change religion" and "unleash American energy."[79] In addition to removing carbon pollution standards for power plants, EPA has already issued a proposal to roll back strengthened mercury and air toxics standards for coal-fired units finalized in 2024,[80] and has announced various other actions that, if finalized, reduce constraints on fossil fuel-fired electricity generation. These include (but are not limited to) plans to reconsider 2024's strengthened effluent limitation guidelines for coal plants, to reconsider the 2024 $PM_{2.5}$ NAAQS, to restructure the regional haze program, to overhaul the Biden-era social cost of carbon metric, to withdraw the 2023 Good Neighbor Plan, and to revise its approach to coal ash management.[81]

Alongside these announced and anticipated EPA actions, U.S. Department of Energy orders have mandated the continued operation of coal-fired power plants slated for retirement, such as the Campbell plant in Michigan[82] and the Eddystone units in Pennsylvania.[83] Additionally, the recently enacted reconciliation law rolls back energy tax credits for solar and wind that were expanded by the Inflation Reduction Act in 2022.[84] At the same time, the bill created a 2.5% tax credit through 2029 for metallurgical coal producers.[85] President Trump has also specifically directed the Treasury to accelerate the phase-out of clean energy tax credits.[86] The Secretary of the Interior has also issued multiple directives placing new burdens and layers of political review

[78] EPA, *EPA Launches Biggest Deregulatory Action in U.S. History* (Mar. 12, 2025), https://perma.cc/94GT-QTRC.

[79] *Id.*

[80] 90 Fed. Reg. 25,535 (June 17, 2025).

[81] EPA, *EPA Launches Biggest Deregulatory Action in U.S. History.*

[82] *See* Order No. 202-25-3, U.S. Dep't of Energy (May 23, 2025).

[83] *See* Order No. 202-25-4, U.S. Dep't of Energy (May 30, 2025)/

[84] Peter Lawrence & Julia Dinkel, *House Reconciliation Bill Would Drastically Reduce ITCs, PTCs, Other Clean Energy Tax Incentives,* Novogradac (Jun. 9, 2025), https://perma.cc/F83F-2XDR.

[85] Hannah Northey & Amelia Davidson, *How a New Coal Credit Snuck Into the GOP Megabill*, E&E News by Politico (Jul. 11, 2025), https://perma.cc/YCS3-LCNT.

[86] Exec. Order 14315, 90 Fed. Reg. 30,821 (July 10, 2025); *see also* Tim Shaw, *Trump Orders Treasury to Axe Clean Energy Credit Guidance*, Reuters (Jul. 11, 2025), https://perma.cc/H9K2-SRXN.

on wind and solar projects.[87] Taken together, these federal actions highlight the Administration's interference in the energy landscape to artificially boost coal production above prior baseline projections.

The President has also issued exemptions to coal-fired power plants that undermine clean air standards.[88] On April 8, 2025, the President invoked Clean Air Act Section112(i)(4) to grant 68 coal-fired power plants compliance exemptions from the 2024 MATS rule, delaying their compliance deadlines from 2027 to 2029.[89] On July 17, he granted three more coal-fired power plants similar exemptions. Coal-fired power plants emit more NO_X, SO_2, PM, and heavy metals per unit of energy than any other fuel type.[90] In 2013, PM emissions from coal-fired power plants alone were estimated to cause 52,000 premature deaths in the U.S. each year.[91] Trump's presidential exemptions have the potential to – and indeed, are explicitly intended to – reverse the U.S.'s move away from coal use and alter the emissions trajectory assumed in the proposal's RIA baseline.

A series of executive orders have shown a particular dedication on the part of the Administration to supporting and expanding the use of fossil fuels as an energy resource. On January 20, 2025, President Trump issued Executive Order 14156 (Declaring a National Energy Emergency) which invoked emergency powers to justify sweeping actions aimed at boosting fossil generation under

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[87] *See* Gregory Wischer, *Departmental Review Procedures for Decisions, Actions, Consultations, and Other Undertakings Related to Wind and Solar Energy Facilities*, Office of the Secretary of the Department of the Interior, Secretary's Order No. 3457 (Jul. 15, 2025), https://perma.cc/5MJ7-6FSN; *see also* Zack Coleman & Josh Siegel, *'Final nail:' Trump administration memo could strike fatal blow to wind and solar power*, Politico (Jul. 17, 2025), https://perma.cc/KRP4-238B (quoting Sen. Lisa Murkowski saying the Administration is "definitely playing favorites and they've made it very clear they do not support continuation of new wind and solar projects" and that the July 15 Interior memo was "like putting the final nail into" a compromise she had negotiated).

[88] *See* Maxine Joselow, *These Companies Avoided Clean-Air Rules. It Took a Single Email.*, N.Y. Times (July 29, 2025), https://perma.cc/3ULL-N6SH.

[89] *See* Proclamation 10914, Regulatory Relief for Certain Stationary Sources To Promote American Energy, 90 Fed. Reg. 16,777 (Apr. 21, 2025).

[90] Mikalai Filonchyk & Michael P. Peterson, *An Integrated Analysis of Air Pollution from US Coal-Fired Power Plants*, 14 Geoscience Frontiers 2, 101498 (Mar. 2023), https://doi.org/10.1016/j.gsf.2022.101498.

[91] Fabio Caiazzo et al., *Air Pollution and Early Deaths in the United States. Part I: Quantifying the Impact of Major Sectors in 2005*, 79 Atmospheric Environment 198-208 (Nov. 2013), https://doi.org/10.1016/j.atmosenv.2013.05.081.

the guise of national security.[92] On the same day, Executive Order 14154 (Unleashing American Energy) directed federal agencies to identify and rescind regulations that were deemed to burden domestic fossil fuel production.[93] Similarly, on April 8, 2025, the President signed Executive Order 14261 (Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241), which announces that "[i]t is a national priority to support the domestic coal industry by removing Federal regulatory barriers that undermine coal production, encouraging the utilization of coal to meet growing domestic energy demands, increasing American coal exports, and ensuring that Federal policy does not discriminate against coal production or coal-fired electricity generation."[94] The order then directs multiple departments and agencies (including EPA) to undertake various actions to support and increase the use of coal.[95]

These directives to facilitate the expanded production and use of fossil fuels have been reinforced by other executive orders from this Administration that are fundamentally designed to increase the use of fossil fuels for energy, including Executive Orders 14213 (Establishing the National Energy Dominance Council),[96] 14260 (Protecting American Energy From State Overreach),[97] and 14270 (Zero-Based Regulatory Budgeting To Unleash American Energy).[98] All of these executive orders conspicuously exclude wind and solar (as well as battery power) from any and all discussion of American energy resources to cultivate. In fact, on July 7th, the president signed Executive Order 14315 Ending Market Distorting Subsidies for Unreliable, Foreign-Controlled Energy Sources), which is designed to end all federal financial support for what it calls "expensive and unreliable energy sources like wind and solar" that "displace[] affordable, reliable, dispatchable domestic energy sources, compromise[] our electric grid, and denigrate[] the beauty of our Nation's natural landscape."[99] To the extent that they are

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[92] *See* Exec. Order 14156, Declaring a National Energy Emergency, 90 Fed. Reg. 8433 (Jan. 29, 2025).

[93] *See* Exec. Order 14154, Unleashing American Energy, 90 Fed. Reg. 8353 (Jan. 29, 2025).

[94] Exec. Order 14241, Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241, 90 Fed. Reg. 15,517 (Apr. 14, 2025).

[95] *Id.* at 15,517-19.

[96] Exec. Order 14213, Establishing the National Energy Dominance Council, 90 Fed. Reg. 9,945 (Feb. 20, 2025).

[97] Exec. Order 14260, Protecting American Energy From State Overreach, 90 Fed. Reg. 15,513 (Apr.14, 2025).

[98] Exec. Order 14270, Zero-Based Regulatory Budgeting To Unleash American Energy, 90 Fed. Reg. 15,643 (Apr. 15, 2025).

[99] Exec. Order 14315, Ending Market Distorting Subsidies for Unreliable, Foreign-Controlled Energy Sources, 90 Fed. Reg. 30,821 (July 10, 2025).

implemented, these agency actions, executive orders, and other policies will significantly alter the regulatory environment and market expectations in the direction of increasing emissions, yet EPA fails to project or account for their cumulative impacts.

The proposed repeal of the Carbon Pollution Standards cannot be viewed in isolation. It is part of a broader federal policy shift marked by presidential exemptions, executive orders, and protectionist trade policies that look to fundamentally alter the energy and regulatory landscape. Yet EPA continues to rely on a baseline that no longer exists: one in which clean energy deployment continues to expand, and fossil fuel generation continues to decline, more rapidly than under current policies. In reality, federal clean energy incentives have been reversed and coal-fired generation is being explicitly encouraged. EPA must produce a credible revised baseline reflecting higher projected emissions, less clean energy investment, and increased reliance on coal. By failing to account for this new reality, EPA's analysis is deeply flawed and underestimates the harms of this policy repeal. This changing landscape only strengthens the need for the Carbon Pollution Standards to protect public health and welfare from increased emissions.

4. EPA has not proposed to repeal its listing for fossil fuel-fired power plants on the basis of a new record concerning the "endangerment finding" prong of 111(b)(1)(A).

In light of the overwhelming data demonstrating the harms directly associated with increasing concentrations of greenhouse gases in the ambient air, it is unsurprising that EPA has not proposed here to repeal its Section 111 listing for fossil fuel-fired power plants, or its regulations thereunder, based on new record evidence concerning the "endangerment finding" prong of 111(b)(1)(A). Because EPA has not proposed to reject the conclusions it made in its 2015 endangerment finding applicable to fossil fuel-fired power plants under Section 111 – or presented any statement of its "basis and purposes" or any record to support such a proposal – EPA could not lawfully finalize the primary or alternative proposals here on a new basis related to greenhouse gases endangering public health and welfare within the meaning of the statute. Although EPA proposed to repeal the 2009 Endangerment Finding in a separate proposal, that rulemaking is not part of this proposal's record. 90 Fed. Reg. at 36,288. If the agency were to include in a final rule under these proceedings a rationale based on the existence of, or any of the arguments contained in, the proposal to repeal the 2009 Endangerment Finding, it would be a major shift in position from the proposal, and would thus not constitute a logical outgrowth of the latter. Indeed, EPA confirms that understanding in the proposal addressing the 2009 Endangerment Finding. *See* 90 Fed. Reg. at 36,293 ("EPA is reconsidering additional endangerment findings and GHG emission standards issued under distinct provisions of the CAA in separate rulemakings and is not reopening or proposing to modify those additional findings and standards in this proceeding."). Accordingly, any consideration of that rulemaking in this

one would require a supplemental proposal and additional opportunity for comment. *See* 5 U.S.C. § 553(c); 42 U.S.C. §§ 7607(d), 7607(h).

EPA has proposed here to alter its interpretation of Section 111(b)(1)(A)'s requirement that EPA determine which source categories "contribute[] significantly" to air pollution, and so proposes to revoke its prior conclusion that fossil fuel-fired power plants significantly contribute to greenhouse gas pollution.[100] But EPA has *not* proposed to reverse its 2015 finding that greenhouse gas pollution is air pollution that endangers public health or welfare under the statute. EPA has not provided any statement of the basis or purpose for such a reversal, docketed materials supporting such a reversal, or provided notice and an opportunity for comment on "the facts found and the choice made." *State Farm*, 463 U.S. at 43. And EPA plainly has not provided (and could not reasonably provide) any fact-based explanation for why greenhouse gas emissions from the U.S. power sector do not endanger public health and welfare.[101]

Any effort to reverse EPA's decision to regulate greenhouse gases from power plants on the basis that greenhouse gases do not endanger the public would require that EPA discuss the voluminous body of scientific evidence concerning the present and future harms caused by climate change, justify why that evidence must now be discarded, and explain how truly dire consequences could be avoided without reducing emissions from power plants. Reversing the 2015 and 2024 greenhouse gas standards for power plants on the basis of a supposed lack of "endangerment" without the requisite record-based, factual analysis and reasoned explanation would yield "an unexplained inconsistency in agency policy" that is arbitrary, capricious, and unlawful. *Encino Motorcars, LLC v. Navarro*, 579 U.S. 211, 222 (2016).

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[100] As discussed below, commenters dispute EPA's view that it was required to make a specific finding that the source category contributes significantly to greenhouse gas pollution but, in any case, EPA made such a finding in the alternative in 2015.

[101] As discussed further below, EPA's unsupported assertion that it has considered the "attenuated nature of the causal chain between the volume of GHG emissions from the EGU source category and potential danger to public health and welfare" as part of its "policy consideration" concerning whether power plants "contribute significantly" to greenhouse gas pollution is inadequate to indicate, let alone substantiate, a change of position. EPA nowhere suggested it was intending to reverse the 2015 endangerment finding, and its brief discussion of the supposed "causal chain" for purposes of its "significance" analysis fails to engage with or rebut EPA's extensive scientific record and detailed conclusions regarding harms caused by greenhouse gases generally and from the power sector specifically. 90 Fed. Reg. at 25,767; s*ee Fox Television,* 556 U.S. at 515-16*;* 42 U.S.C. § 7607(d)(3) (agency must provide notice of "the factual data on which the proposed rule is based," "the methodology used in obtaining the data and in analyzing the data," and the "major … policy considerations underlying the proposed rule").

As such, EPA cannot finalize any action here on the basis of new conclusions concerning whether greenhouse gases are air pollution that endanger public health or welfare under the statute, as that action and such supporting conclusions have not been proposed.

B. By any reasonable metric, greenhouse gas emissions from fossil fuel-fired power plants "contribute[] significantly" to "air pollution."

The crux of EPA's proposal is its newfound determination that "GHG emissions from fossil fuel-fired power plants do not significantly contribute to dangerous air pollution." 90 Fed. Reg. at 25,755. This assertion is arbitrary and capricious: power plant greenhouse gas emissions are "significant" contributors under *any* reasonable interpretation. This has been EPA's consistent finding for nearly a decade and across three different presidential administrations, including President Trump's first term. *See* 80 Fed. Reg. at 64,531 ("[U]nder any reasonable threshold or definition, the [CO_2] emissions from combustion turbines and steam generators are a significant contribution."); 84 Fed. Reg. 32,520, 32,533 (July 8, 2019) (citing and leaving in place the Agency's earlier finding that "even if it were required to make a pollutant-specific finding, given the large amount of CO_2 emitted from this source category (the largest single stationary source category of emissions of CO_2 by far) that EGUs would easily meet the standard for making such a listing"); 89 Fed. Reg. at 39,825 (leaving unchanged 2015 determination). Nor have there been any material changes in fact since 2015 that would justify a reversal of this decision.

EPA attempts to avoid the plain fact that power plant greenhouse gas emissions are, indeed, "significant" using three tactics, each of which fails. First, it posits that "a finding of significance necessarily involves policy considerations," 90 Fed. Reg. at 25,765, and that the agency's current policy agenda requires a reversal of the significant contribution finding. As we explain in Comment III below, this position blatantly misreads the Clean Air Act. Second, in Comment V.A., we address EPA's specious claim that, based on its superficial review of available control options, EPA "*may* be unable to develop a BSER that would result in any meaningful, cost-reasonable GHG emission reductions," 90 Fed. Reg. at 25,766, and so power plant emissions cannot be significant.

In this section, we address EPA's third tactic, in which the Agency gestures toward a feeble argument that, as a purely quantitative matter, power plant emissions may not meet an unenumerated threshold for "significance." On the contrary, the case law, the overwhelming weight of material evidence, EPA's longstanding practice under the Clean Air Act, and basic principles of causation all point to the inescapable conclusion that power plant greenhouse gas emission are "significant" from any reasonable standpoint. Thus, even if the Clean Air Act *did* require a pollutant-specific significant contribution finding – and, as explained in Comment IV, it does not – power plants' greenhouse gas emissions would easily qualify, and the Agency remains obligated to regulate those emissions under Section 111.

1. The D.C. Circuit has already affirmed that power sector CO_2 emissions "significantly contribute to air pollution "under any reasonable threshold or definition."

First, the governing case law forecloses EPA's effort to reverse the significant contribution finding for power plant greenhouse gas emissions. The D.C. Circuit upheld EPA's earlier determination in *American Lung Association*. That holding remains good law. In particular, the court credited "EPA['s] sensibl[e] f[i]nd[ing] that this [case] was not even close" to the "margins" of what might constitute significant contribution, and that "[b]ecause of their substantial contribution to greenhouse gases" (*i.e.*, "a hefty 4.5 percent to global greenhouse gas emissions"), these sources significantly contribute to air pollution "under any reasonable threshold or definition" of that phrase. *Am. Lung Ass'n*, 985 F.3d at 976, 977; *cf. Massachusetts v. EPA*, 549 U.S. at 525 ("Judged by any standard, U.S. motor-vehicle emissions make a meaningful contribution to greenhouse gas concentrations and … to global warming.").

EPA now seeks to brush *American Lung Association* aside, asserting that the court only "addressed the question whether EPA had to consider certain metrics or factors when determining if a source category's contribution is significant," and that the decision "thus does not purport to restrict the Administrator's discretion to exercise judgment by factoring in statutory policy considerations when determining significance." 90 Fed. Reg. at 25,765. This is a plain misreading of *American Lung Association*. The court there not only rejected the claim that EPA must identify a particular numerical threshold for defining "significant contribution[s]," but affirmatively ruled that power plant greenhouse gas emissions qualify "under *any* reasonable threshold or definition" of that term. *Am. Lung Ass'n*, 985 F.3d at 976 (cleaned up and emphasis added).

Specifically, *American Lung Association* rejected petitioners' argument that EPA had erred by not addressing various factors including whether that determination would "(1) address domestic or global emissions, (2) be measured by a 'simple percentage criterion' or another metric, (3) factor in historical trends and/or future projections, and (4) involve a different process for greenhouse gases than other pollutants." *Id.* at 977. The court found that even if the Clean Air Act permitted consideration of such factors (which the court did not decide), "there [was] no showing that any of them would have made any difference" to the Agency's finding that the enormous quantity of greenhouse gas emission from U.S. power plants made them "a significant contributor to air pollution *by any measure*." *Id.* (emphasis added).

The same logic holds with respect to the purported "statutory policy considerations" that EPA now relies upon in reversing its longstanding finding of significance for power plant greenhouse gas emissions. 90 Fed. Reg. at 25,765. As discussed in Comment III below, EPA's attempt to import policy considerations (both those separately relevant to standard-setting and those with no basis in the Act) into the text of Section 111(b)(1)(A) is squarely at odds with the statutory text

and structure. But even if the Agency retained some discretion to weigh such considerations in the balance, EPA could not reasonably conclude that those factors could overcome the sheer magnitude of greenhouse gas emissions from U.S. power plants, which we discuss below. *See also* Comment V.B-C (addressing other "policy considerations" EPA would have to consider if it advanced its chosen interpretation). Indeed, as the court noted in *American Lung Association*, "a holding that greenhouse gas emissions by fossil-fuel-fired power plants are not significant would make it nigh impossible for any source of greenhouse gas pollution to cross that statutory threshold." *Am. Lung Ass'n*, 985 F.3d at 977. That may be the current policy objective of EPA, but it runs afoul of binding legal precedent by the D.C. Circuit.

In an effort to explain away the staggering quantity of greenhouse gases emitted by U.S. power plants, EPA makes two claims. The first is that "relative to global emissions . . . [t]he share of GHG emissions from the U.S. power sector . . . has been declining over time." 90 Fed. Reg. at 25,767. According to EPA, this phenomenon is partially due to "developing countries that are rapidly electrifying and increasing their energy demands, including through the robust deployment of fossil fuel-fired EGUs," and the fact that "many other countries [now] burn much more coal than is utilized by the U.S. power sector," where coal use has declined in the last two decades. *Id.* at 25,768. Thus (the argument goes), "U.S. fossil fuel-fired electricity generation, including U.S. coal use for electricity generation, does not contribute significantly to globally elevated concentrations of GHGs in the atmosphere." *Id.*

As a second claim, EPA asserts that "[t]he 3 percent contribution figure from 2022 suggests that the risks to public health and welfare attributed to anthropogenic climate change would not be meaningfully different even if the fossil fuel-fired EGU source category were to cease all GHG emissions." *Id.* In other words, 3 percent of total global greenhouse gas emissions is simply not enough to make a difference, and so the power sector does not significantly contribute to dangerous pollution. As we discuss below, both of these arguments fall far short of justifying EPA's proposed withdrawal of the significant contribution finding – even if the Agency's new statutory interpretation could be sustained.

2. The fact that power sector CO_2 emissions have declined in recent years relative to global emissions does not support EPA's proposal.

EPA contends that the recent decline in U.S. power sector greenhouse gas emissions as a percentage of global emissions supports its finding of no significant contribution. In particular, EPA notes that the U.S. power plants' percentage contribution of global greenhouse gases dropped from 5.5 percent in 2005 to 3 percent in 2022, and that coal use in the U.S. has declined by approximately 62 percent from since 2007, whereas China now uses 13 times more coal than the U.S. 90 Fed. Reg. at 25,767-68.

This reasoning is deeply flawed, first because it focuses on percentages alone rather than total quantities of emissions. It is a very basic fact that greater greenhouse gas concentrations in the

atmosphere means more radiative forcing and thus more increase in global temperatures. As EPA itself explains on its website, "an increase in the atmospheric concentrations of greenhouse gases produces a positive climate forcing, or warming effect."[102] Limiting CO_2 emissions from U.S. power plants will reduce greenhouse gas concentrations in the atmosphere relative to what they would be in the absence of those standards, thus reducing radiative forcing, *even if other countries continue to increase their emissions*. It is "[not] dispositive that developing countries such as China and India are poised to increase greenhouse gas emissions substantially over the next century: A reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere." *Massachusetts*, 549 U.S. at 525-26.[103]

The science points in the exact opposite direction of EPA's logic. The impact of additional emissions *increases* as global greenhouse gas concentrations rise. As research has repeatedly shown, it is a "a well-known empirical fact that the total forcing from carbon dioxide scales as the logarithm of its concentration,"[104] such that the warming impact of each incremental increase in greenhouse gases increases as the concentration such pollution in the atmosphere increases. This phenomenon has been recognized for many years,[105] and was reaffirmed as recently as November 2023 in a paper in *Science.* According to this study, radiative forcing from CO_2 emissions "is not constant, but rather depends on the climatological base state, increasing by about 25% for every doubling of CO_2, and has increased by about 10% since the preindustrial era primarily due to the cooling within the upper stratosphere, implying a proportionate increase in climate sensitivity" and resulting in non-linear increase in global surface temperatures.[106]

In other words, each new ton of greenhouse gas emissions will inflict more damage in terms of the warming it causes. Suppose, then, that the total greenhouse gas emissions from the U.S. power sector were to remain constant across a two-year stretch, while the total *global* emissions of greenhouse gases were to increase between year one and year two. In year two, the tons of

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[102] EPA, *Climate Change Indicators: Greenhouse Gases*, https://perma.cc/8PJH-5CWK (last updated Aug. 1, 2025).

[103] EPA's logic would only make sense if reductions from the U.S. power plants were to somehow single-handedly *cause* equivalent emission increases elsewhere, thus totally offsetting those reductions. This is obviously not the case.

[104] Romps, D.M., et al., *Why the Forcing from Carbon Dioxide Scales as the Logarithm of Its Concentration*. Journal of Climate. 35:13, 4027, 4045 (July 1, 2022), https://journals.ametsoc.org/view/journals/clim/35/13/JCLI-D-21-0275.1.xml.

[105] *Id.* at 4027 (citing other papers).

[106] He, H., et al., *State dependence of CO2 forcing and its implications for climate sensitivity*, Science, 382:6674, 1051-56 (quote from abstract) (Nov. 30, 2023), https://www.science.org/doi/10.1126/science.abq6872.

greenhouse gas emitted by U.S. power sector emissions would individually cause *more* radiative forcing in year two than they did in year one because the danger of each additional ton of pollution would have grown. In those circumstances, the U.S. contribution to greenhouse gas pollution would actually have increased in significance, even though the sector's absolute tonnage of greenhouse gases stayed constant and the numerical percentage of its contribution to global greenhouse gas emissions actually fell. EPA's assumption is thus precisely backwards: by adding to the total global concentrations of greenhouse gases, greater emissions from other countries will *increase*, rather than decrease, the radiative forcing impact resulting from a given quantity of emissions from U.S. power plants, even if the percentage contribution is in fact lower.

EPA also irrationally assumes that the downward movement in the U.S. share of global emissions identified in the preamble will continue indefinitely. *See* 90 Fed. Reg. at 25,767-68. This assumption ignores recent data on U.S. power sector emissions. According to EIA data, U.S. power sector CO_2 emissions were relatively flat from 2024 (1,429 MMT) compared to 2023 (1,421 MMT).[107] Sector-wide emissions stayed mostly level despite increased generation of electricity due to changes in generation sources, including an approximately 32-percent increase in utility-scale solar generation and an approximately 8-percent increase in utility-scale wind generation.[108] Concerningly, this year has seen a sector-wide increase in emissions. For the first four months of 2025, U.S. power sector emissions were 8.6 percent and 11.2 percent higher than they were at this same time in 2024 and 2023, respectively.[109] EPA fails to address, let alone carefully analyze, these data in its proposal, wrongly assuming that ongoing reductions in sector-wide emissions are inevitable.

More to the point – and as discussed extensively Comment II.A.3 above – the current Administration (including EPA itself) is actively pursuing policies, as evidenced through a slew of executive orders and federal agency actions (including by EPA) that seek to greatly increase the nation's reliance on fossil fuels and thus increase the quantity of CO_2 emitted by U.S. power plants. By contrast, the Administration has shown palpable hostility to wind- and solar-powered electricity resources, which – together with battery storage – have recently constituted the substantial majority of new capacity additions in the United States[110] and have been critical

[107] EIA, *Monthly Energy Review: July 2025*, Table 11.6: Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector (July 28, 2025), https://perma.cc/M2ZY-V6LL.

[108] *Id.* at Table 7.2b- Electricity Net Generation: Electric Power Sector, https://perma.cc/LM89-759D.

[109] EIA, *Monthly Energy Review: July 2025*, Table 11.6.

[110] EIA, *Today in Energy: Solar, battery storage to lead new U.S. generating capacity additions in 2025* (Feb. 24, 2025), https://perma.cc/K2AU-ESDH.

drivers of the downward trend in power sector emissions that EPA calls attention to in the proposal. In a June 29th interview on Fox News, President Trump explained that "[w]e use the generating plants of coal, because it's the strongest. And we're doing coal. So we have everything, every form. I don't want windmills destroying our place. I don't want these solar things where they go for miles and they cover up a half a mountain that are ugly as hell."[111] During a meeting with the President of the European Commission on July 27, President Trump stated he would not allow a windmill to be built in the United States."[112] True to his word, the President recently signed an executive order in June that seeks to remove all federal support for wind and solar projects,[113] and recently approved congressional legislation that would dramatically scale back the renewable Energy tax credits passed in the Inflation Reduction Act.[114]

Ironically, EPA's rule proposal cites these very policies – which, if finalized, are certain to greatly increase the power sector's emissions of CO_2 – as a reason for concluding that the sector's emissions are *not* significant. It states as follows: "[T]he significance analysis is informed by this Administration's national policy that energy production is essential to the public welfare. This entails continued and increasing reliance on fossil fuels to meet increasing demands for electricity generation, including to power artificial intelligence (AI) and related technologies with critical implications for national security and economic growth." 90 Fed. Reg. at 25,766. First, EPA's argument conflicts with Sections 111(b)(1)(A) and 302(h), which demonstrate that Congress limited EPA's consideration of welfare effects to just those welfare effects directly resulting from *air pollution,* not *generalized* welfare. 42 U.S.C. §§ 7411(b)(1)(A), 7602(h). Furthermore, EPA contradicts itself by citing *both* the fact that its policies will increase fossil fuel generation (and thus increase CO_2 emissions) *and* the fact that

[111] Fox News Sunday Morning Futures (Maria Bartiromo interview with President Donald Trump) (June 29, 2025) (transcript available at https://perma.cc/CJ7S-GGVS).

[112] President Donald Trump, Remarks During Bilateral Meeting with European Commission President Ursula von der Leyen (July 27, 2025) (transcript available at https://rollcall.com/factbase/trump/transcript/donald-trump-remarks-bilat-von-der-leyen-european-union-july-27-2025/ (last visited Aug. 4, 2025).

[113] Exec. Order 14315, 90 Fed. Reg. 30,821 (July 10, 2025).

[114] Pub. L. 119-21 (2025); *see* Ed Crooks, Wood McKenzie, *What the "big beautiful bill" means for US energy: Wind and solar power will be hit hardest by the loss of tax credits* (July 11, 2025), https://www.woodmac.com/blogs/energy-pulse/big-beautiful-bill-us-energy/ ("The big picture is that we expect investment in wind and solar power to fall well short of what it would have been if the IRA incentives had remained in place.") (last visited Aug. 4, 2025).

power sector CO_2 emissions were previously in decline as evidence that the sector's emissions do not contribute significantly to dangerous air pollution.

This is not merely poor reasoning; it is a veritable grand slam of arbitrary and capricious agency decisionmaking. The Supreme Court's decision in *State Farm* lays out the familiar test for arbitrary and capricious action:

> Normally, an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise

State Farm, 463 U.S. at 43. Here, the proposal checks off each of these boxes. In claiming that a supposed "national policy" requiring increased fossil use is relevant to whether power plant CO_2 emissions contribute significantly to dangerous pollution, it is quite transparently "rel[ying] on factors which Congress has not intended it to consider" (as described more fully in Comment III below). In citing the recent reduction in power sector CO_2 emissions without evaluating (much less modeling) how the very suite of policies of which this very proposal is one component will affect those emission figures and very likely reverse that downward trend is a "fail[ure] to consider an important aspect of the problem." In citing the reduced coal use in the U.S. electric sector to support its proposal when it is directly and intentionally acting to increase fossil fuel and coal use for electricity, EPA has "offered an explanation for its decision that runs counter to the evidence before the agency." And finally, by asserting that these two diametrically opposed factors *both* somehow support the same finding of no significance contribution is an instance of reasoning that is so "implausible that it could not be ascribed to a difference in view or the product of agency expertise."

Finally, it is worth noting that EPA has not proposed to make a finding of no significant contribution based on the power sector's volume or share of emissions alone, but is at least in part dependent on (and, it seems, primarily determined by) the additional policy considerations mentioned previously. The proposal asserts that its interpretation of significance is "centered" on "policy considerations … rather than a purely quantitative measure of significance" and that U.S. power plants' declining share of global emissions merely "strengthens" EPA's finding of no significant contribution. 90 Fed. Reg. at 25,767-68. At most, the Agency claims that the percentage contribution of U.S. power plants "*may* not be a significant contribution," and that a "3 percent contribution … *suggests* that the risks to public health and welfare … would not be meaningfully different" even if all power plant emissions were eliminated. *Id.* at 25,768 (emphasis added). As we have noted in this section, that characterization is demonstrably incorrect. But in any case, EPA's assertion that a 3 percent contribution to global emissions

"may not" be significant is not presented as an adequate basis for repeal and is not explained or supported in any way.

3. EPA's claim that 3 percent of global greenhouse gas emissions is "not … [a] meaningful[]" quantity is baseless.

As a second argument, EPA suggests that, "[a]side from these relative trends, the percentage contribution of greenhouse gas emissions from U.S. fossil fuel-fired EGUs may not be a significant contribution to global GHG concentrations in the atmosphere," and "[t]he 3 percent contribution figure from 2022 suggests that the risks to public health and welfare attributed to anthropogenic climate change would not be meaningfully different even if the fossil fuel-fired EGU source category were to cease all GHG emissions." 90 Fed. Reg. at 25,768. In other words, EPA indicates, without any elaboration or analysis (or even clear conclusion), that 3 percent of global emissions might just be too small of a number to matter in any real way, so power plants' contribution to dangerous pollution cannot be significant.

EPA's reasoning again falls woefully short. Numerical percentages in and of themselves are essentially meaningless without context. Standing alone, 3 percent might seem like a small fraction, but given the enormous denominator, may in fact represent a quantity with a huge real-world impact. For instance, the United States is a very large country, and a landfill that occupied 3 percent of the land of the United States would be larger than the state of Minnesota, yet no one would claim that such a landfill – or even one 100 times smaller – was "insignificant." To refer back to *American Lung Association*, "[t]he global nature of the air pollution problem means that a country or a source may be a large contributor, in comparison to other countries or sources, even though its percentage contribution may appear relatively small in the context of total emissions worldwide." *Am. Lung Ass'n*, 985 F.3d at 977 (cleaned up).

The data emphatically back this up: according to the European Commission's Emissions Database for Global Atmospheric Research (EDGAR) database, only three national economic sectors *across the world* contributed more than 3 percent of global greenhouse gases – Chinese electricity and heat generation, Chinese manufacturing, and U.S. transportation – with U.S. electricity generation in fourth place.[115] Thus, if countries refused to limit greenhouse gas emissions from their economic sectors that contributed in the low single digits or less in terms of global percentages, it would be impossible to effectively mitigate climate change, since the substantial majority – over three-quarters – of the world's emissions come from such sources. In other words, climate change is a phenomenon that can only be tackled by addressing many small slices of a larger pie. The Supreme Court recognized this in *Massachusetts*, observing that "[a]gencies, like legislatures, do not generally resolve massive problems in one fell regulatory

[115] EDGAR (Emissions Database for Global Atmospheric Research), *Emissions Data and Maps: Greenhouse Gases* (2024), https://perma.cc/G9ED-6NK6 (spreadsheet with 1970-2023 data).

swoop. They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more nuanced understanding of how best to proceed." 549 U.S. at 524 (cleaned up).[116]

A deeper dive into the emissions data drive home just how substantial U.S. power sector emissions are. At 1,421 million metric tons (MMT) of CO_2 in 2023 according to EIA,[117] U.S. power plant emissions contributed approximately 23 percent of the nation's total greenhouse gas emissions (not accounting for changes due to land use, land use change, and forestry).[118] These totals were far greater than those from any other stationary source category and were second overall only to the transportation sector.[119] From 1990 to 2024, the U.S. power sector released nearly 70 *billion* metric tons CO_2 cumulatively.[120] Once emitted, CO_2 persists for thousands of years in the atmosphere, so power plant CO_2 pollution will continue warming the planet far into the future.

In terms of global comparisons, the U.S. power sector's annual emissions exceed the *total* greenhouse gases released by each individual country on Earth apart from China, the U.S. itself, India, and Russia.[121] In fact, in 2023, U.S. power plants emissions exceeded the total *combined* greenhouse gas emissions that year of 56 percent of the countries and territories (117 out of 208)

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[116] *Cf.* International Court of Justice, *Advisory Opinion: Obligations of States in Respect of Climate Change*, July 23, 2025 at 86 ¶ 276 ("[A] risk of significant harm may also be present in situations where significant harm to the environment is caused by the cumulative effect of different acts undertaken by various States and by private actors subject to their respective jurisdiction or control, even if it is difficult in such situations to identify a specific share of responsibility of any particular State."), available at https://www.icj-cij.org/sites/default/files/case-related/187/187-20250723-adv-01-00-en.pdf.

[117] *See* EIA, *Monthly Energy Review: July 2025*, Table 11.6.

[118] EPA, *Trends in Greenhouse Gas Emissions and Removals*, Table 2-1, (2025), https://library.edf.org/AssetLink/670sd82p0ok42r7e5ei5ler727crxv32.pdf. The Inventory shows total gross U.S. greenhouse gas emissions of 6,197 MMT in 2023, and 5,257 MMT after accounting for changes due to land use, land use change, and forestry.

[119] *Id.*

[120] Peter H. Howard & Jason A. Schwartz, *The Scale of Significance: Power Plants* at 11 n.8, NYU Inst. For Pol'y Integrity (May 30, 2025), https://perma.cc/5D4Y-88E3.

[121] EDGAR, *GHG emissions of all world countries: 2024 report*, https://edgar.jrc.ec.europa.eu/report_2024.

that are listed in EDGAR.[122] Thus, far from proving the supposed *in*significance of power sector emissions – as EPA's glib discussion in the preamble seeks to do – global comparisons demonstrate just how massive the greenhouse gases emitted by U.S. power plants actually are.

Fossil fuel-fired power plants in the U.S. emit not only CO_2, but also CH_4 and N_2O, potent greenhouse gases that intensify climate change.[123] Despite a long-term decline in coal use in the United States – driven by market forces and the rise of cleaner alternatives – coal-fired power plants are still a major source of greenhouse gases within the electric power sector. Coal combustion generated less than 16 percent of U.S. electricity in 2024,[124] but emitted a disproportionate 47 percent of CO_2 emissions from the sector.[125] This is because coal has a high carbon intensity, emitting significantly more CO_2 per unit of energy than other sources. At the same time, CO_2 emissions from U.S. gas-fired power plants have grown substantially, accounting for over half of sector-wide emissions in 2024 at 735 million metric tons.[126] This is well over double the quantity of CO_2 emitted by gas plants in 2005.[127] Additionally, because fossil fuel-fired facilities operate at large scales and often run continuously, their cumulative effect on the climate is profound.[128] Reducing greenhouse gas emissions from power plants is indispensable to effectively mitigate the harm from climate change.

It is also instructive to consider pollution percentages from other categories that EPA has deemed to contribute significantly and has regulated under Section 111. To take two examples, consider Portland cement plants and refineries, which were among the very first sources listed after Section 111 was passed in the 1970s. *See* 36 Fed. Reg. 5931 (Mar. 31, 1971)) (listing cement plants); 38 Fed. Reg. 15,380 (June 11, 1973) (listing refineries). Currently, cement plants are subject to new source performance standards for their emissions of PM, NO_x, and SO_2 (as well as for opacity). 40 C.F.R. § 60.62(a). As of EPA's most recent National Emissions Inventory from 2020, cement plants contributed approximately 0.07, 1.2, and 1.5 percent of the total nationwide

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[122] *Id.*

[123] *See* EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2023*, Table 2-1 (shows stationary combustion – which includes fossil fuel-fired power plants – as contributing to both CH_4 and N_2O).

[124] EIA, *Monthly Energy Review: July 2025*, Table 11.6: Carbon Dioxide Emissions From Energy Consumption: Electric Power Sector, Table 7-2b.

[125] *Id*.

[126] *Id.*

[127] *Id.*

[128] *See* Howard & Schwartz, *The Scale of Significance: Power Plants—Power Sector GHG Contribution Issue Brief*.

emissions of these pollutants, respectively.[129] Refineries, for their part, are currently subject to new source performance standards for PM, NO_x, SO_2, and carbon monoxide. 40 C.F.R. § 60.102a(b). Their contributions to the national totals for these pollutants in 2020 were approximately 0.1, 0.7, 2.6, and 0.08 percent, respectively.[130] These *national* percentages are below – and in some cases, orders of magnitude below – the *global* contribution of greenhouse gases made by U.S. power plants.

One might object that these figures are low because these sources are currently subject to regulation, and that the uncontrolled percentages would be much higher. Yet in 2005, before either cement plants or refineries were subject to NO_x standards under Section 111, that year's National Emission Inventory showed that these source categories' NO_x emissions constituted 0.98 and 0.52 percent of the national totals, respectively[131] – again, substantially lower than power plants' contribution to national or global greenhouse gas emissions.

As another example, in 1970, the entire chemical allied and product manufacturing sector – which includes nitric acid is one of well over a thousand distinct manufactures[132] – contributed 1.01 percent of the total national NO_x emissions.[133] The following year, EPA included NO_x standards for nitric acid plants in the first set of Section 111 regulations it promulgated following the program's creation. 36 Fed. Reg. 24,876 (Dec. 23, 1971) (40 C.F.R § 60.72(a)(1)). The Agency also issued revised NO_x standards for nitric acid plants in 2012, reducing the emission limit to one-sixth the level allowed by the original standards, 77 Fed. Reg. 48,433 (Aug. 14,

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[129] To derive these percentages, we used the NEI's Data Query tool (searching the database titled "Sector Summaries - Criteria and Hazardous Air Pollutants by 60 EIS emission sectors"), which is currently accessible at EPA, *2020 NEI Supporting Data and Summaries*, https://www.epa.gov/air-emissions-inventories/2020-nei-supporting-data-and-summaries. The 2020 NEI data for NO_x, PM_{10}, SO_2, and CO emissions from all 60 EIS emissions categories are provided in .csv files that we are submitting to the docket as attachments to these comments.

[130] *See* Howard & Schwartz, *The Scale of Significance: Power Plants—Power Sector GHG Contribution Issue Brief*.

[131] These percentages are derived from data provided by an EPA spreadsheet titled *National and State EIS Sector CAPS Trends*, archived at https://perma.cc/6V78-7SQU.

[132] *See* Occupational Safety and Health Admin., *Major Group 28: Chemicals and Allied Products*, https://perma.cc/2PXZ-9SGU (listing 8 industry groups and 29 subgroups). The specific chemical and allied product manufactures that fall under Major Group 28 – of which there are 1,175 listed – can be viewed by clicking on the hyperlinks for each of the 29 subgroups.

[133] These percentages are derived from data provided by an EPA spreadsheet titled *National Tier 1 CAPS Trends*, which was downloaded from the NEI website, archived at https://perma.cc/QNP2-LWCU.

2012) (40 C.F.R § 60.72a (setting NO_2 limits at 0.5 lbs per ton of nitric acid produced, compared to 3.0 lbs/ton in the 1971 standards)), even while the chemical and allied product manufacturing sector's contribution to the national total of NO_x emissions had fallen to just 0.37 percent in that year.[134]

Finally, it is also notable that in the first Trump Administration, EPA issued a rule establishing 3 percent of *domestic* emissions as the threshold for determining when a source category's greenhouse gas emissions qualify as a "significant contribution" under Section 111. 86 Fed. Reg. 2542, 2552-53 (Jan. 13, 2021). In 2023, according to EPA's *Inventory of U.S. Greenhouse Gas Emissions and Sinks*, the American power sector exceeded this threshold more than seven times over, emitting nearly 23 percent of domestic greenhouse gases.[135] Commenters strongly dispute that EPA can lawfully set a fixed minimum percentage threshold for determining "significance," and many of the undersigned organizations submitted a legal challenge to the rule in question,[136] which was subsequently vacated on procedural grounds.[137] Nevertheless, the first Trump Administration's position on this question demonstrates just how dramatically out-of-step with past practice the Agency's new position is.

At its heart, the proposal fails to grapple with *any* of the factors that place the numerical percentages of U.S. power plant emissions in the proper context. EPA simply asserts, as a conclusory matter, that global percentages in the single digits are "relatively minor" and offers no discussion of what these emissions actually mean in practice. 90 Fed. Reg. at 25,767. In this regard, the proposal "entirely fail[s] to consider an important aspect of the problem," and is thus arbitrary and capricious. *State Farm,* 63 U.S. at 43.

4. The social cost of carbon metric emphasizes the enormity of U.S. power plants' greenhouse gas emissions.

Translating the U.S power sector's raw emission figures into estimates that reflect monetary damages further illustrates just how significant this quantity is. The U.S. government has long

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[134] *See id.*

[135] *See* EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2023*, Table 2-1 (2025), https://library.edf.org/AssetLink/670sd82p0ok42r7e5ei5ler727crxv32.pdf.

[136] *See* Pet. for Review, *Am. Pub. Health Ass'n v. EPA*, No. 21-1036, Doc. No. 1882177 (D.C. Cir. Jan. 19, 2021).

[137] Order, *Am. Pub. Health Ass'n v. EPA*, No. 21-1035, Doc. No. 1893155 (D.C. Cir. Apr. 5, 2021) (vacating rule and remanding for further proceedings).

relied on a robust analytic tool to do exactly that: the social cost of carbon, or SCC.[138] First released over fifteen years ago and updated multiple times since then – including as recently as 2023[139] – the social cost of carbon (SCC) provides annual estimates of the monetary harm caused to society by each incremental ton of CO_2 (as well as similar separate estimates for CH_4 and N_2O) released into the atmosphere. It reflects the combined input of three complex modeling platforms and works by translating CO_2 emissions into projected real-world monetary damage estimates attributable to global greenhouse gas concentrations.[140] According to EPA,

> [this tool] is a comprehensive metric that includes the value of all future climate change impacts (both negative and positive), including changes in net agricultural productivity, human health effects, property damage from increased flood risk, changes in the frequency and severity of natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services.[141]

EPA has incorporated the SCC (or the equivalent metric for CH_4) into numerous rulemakings in the past to help monetize the anticipated CO_2 emission reduction benefits projected under the rule, in each case explaining the SCC's methodology in detail as part of this process and subjecting it to notice and comment procedures.[142] With respect to Section 111(b)(1)(A) in particular, the SCC may be helpful in concretizing the extent to which greenhouse gases endanger health and welfare, which, under Section 111, is a distinct legal question from the extent to which a particular source category's emissions contribute to pollution. However, in this

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[138] Interagency Working Group on Social Cost of Carbon, *United States Government Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866* (Feb. 2010), https://perma.cc/9KCH-9SM5.

[139] *See* EPA, *Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances* [hereinafter "2023 SCC Report"] (Nov. 2023), https://perma.cc/8VW2-AY4K.

[140] *Id.* at 6-7.

[141] *Id.* at 5.

[142] *See, e.g.*, 81 Fed. Reg. 35,824, 35,886-88 (June 3, 2016) (incorporating and discussing social cost of CH_4 in the context of EPA's OOOOa methane rule for the oil and gas sector); 81 Fed. Reg. 73,875-78 (Oct. 25, 2016) (incorporating and discussing SCC and SC-CH4 in the context of the Phase 2 greenhouse gas emission and fuel economy standards for medium- and heavy-duty vehicles); 89 Fed. Reg. at 17,018-19 (incorporating and discussing EPA's 2023 updated SC-CH4 in the context of the OOOOb and c methane rules for oil and gas sources); 89 Fed. Reg. at 40,006-09 (incorporating and discussing EPA's 2023 updated SCC in the context of the 2024 carbon pollution standards for power plants).

case, the SCC is also relevant to the latter inquiry, since it helps demonstrate the sheer magnitude of greenhouse gases emitted by U.S. power plants. In other words, we deploy the SCC in this section not to show how dangerous power plant greenhouse gas emissions are (although they are extremely dangerous), but rather to provide a monetary context in order to place the *quantity* in starker relief.

In November 2023, EPA released a comprehensive report that offered the most up-to-date, scientifically rigorous estimates of the social cost of carbon yet published.[143] The report's 2023 social cost values for CO_2 are $125, $205, and $351 per metric ton (reflecting discount rates of 2.5%, 2%, and 1.5%, respectively).[144] Thus, at 1,421 MMT in 2023, the greenhouse gas emissions from the U.S. electric sector impose between approximately $178 billion and $499 billion in climate damages. At the higher end, this exceeds the annual GDP of approximately 85 percent of the world's countries and territories, according to the World Bank.[145] Even the lower end of this range is also three orders of magnitude greater than the $100 million threshold that defines both a "major rule" under the Congressional Review Act, 5 U.S.C. § 804(2)(A), and an "economically significant regulation" under current OMB/OIRA policy.[146]

During the first Trump Administration, EPA relied on social cost of CO_2 figures that, in contrast to the 2023 values, ignored the damage caused by U.S. CO_2 emissions occurring outside of our country's borders, and that relied on much higher discount rates reflective of outdated economic conditions.[147] The Institute for Policy Integrity is leading a coalition of groups in submitting to this docket a detailed comment explaining why the 2023 methodology was the correct one, and

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[143] 2023 SCC Report.

[144] *Id.* at 154.

[145] World Bank Group, *GDP (current US$)*, https://perma.cc/8S3M-CACX (archived Aug. 6, 2025).

[146] Issued in 1993, Executive Order 12866 established $100 million in annual effects as the thresholds for defining a "[s]ignificant regulatory action'' subject to review by the Office of Information and Regulatory Affairs. Exec. Order No. 12866 § (3)(f)(1), Regulatory Planning and Review, 58 Fed. Reg. 51,735, 51,738 (Oct. 4, 1993). In 2023, President Biden signed Executive Order 14094 increasing this threshold to $200 million, Exec. Order No. 14094 § (b)(1), Modernizing Regulatory Review, 88 Fed. Reg. 21,879, 21,879 (Apr. 11, 2023), but 2025's Executive Order 14148 withdrew Executive Order 14094, thus reverting back to the $100 million figure. Exec. Order 14148 § (2)(ddd), Initial Rescissions of Harmful Executive Orders and Actions, 90 Fed. Reg. 8237, 8239 (Jan. 28, 2025).

[147] *See, e.g.*, EPA, *Regulatory Impact Analysis for the Repeal of the Clean Power Plan, and the Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units* [hereinafter "2019 RIA"], 4-2 to 4-6 (June 2019), https://perma.cc/CZ7G-DSUX.

why the agency must use those values in this rulemaking. But even using the much lower figures previously endorsed by the first Trump Administration, the monetized impact of U.S. power plants' CO_2 emissions is enormous. In the RIA for 2019's Affordable Clean Energy (ACE) Rule, the Agency used 2025 social cost values of $1 and $7 per metric ton of CO_2.[148] This translates to annual climate-related harms valued at $1.4 to approximately $10 billion – 14 to 100 times the cost threshold that OMB uses to define "economically significant regulations."

Under direction from the White House,[149] EPA has now not only disclaimed *entirely* its earlier estimates of the social cost of carbon in rulemakings, but has failed to replace them with any alternative tool or metric. In the Regulatory Impact Analysis ("RIA") for this action, the Agency monetizes the anticipated emission increases of $PM_{2.5}$ and ozone,[150] but not CO_2 – the actual target pollutant of the regulation – explaining that, "[c]onsistent with E.O. 14154 'Unleashing American Energy' (90 FR 8353, January 20, 2025) and the memorandum titled 'Guidance Implementing Section 6 of Executive Order 14154, Entitled 'Unleashing American Energy'', the EPA did not monetize benefits associated with CO_2 emissions changes in Table 1-2."[151] The agency's only attempted rationale for this change in positions is a single paragraph included in the RIA claiming that "[t]here are significant uncertainties related to the monetization of greenhouse gases," and so "monetizing these impacts could potentially result in flawed decision-making due to overreliance on highly uncertain values."[152] This vague assertion falls far short.

To begin, EPA's identification of purported uncertainties surrounding the cost of increased greenhouse gas pollution to public health and welfare does not make those costs disappear. The Agency's choice not to quantify those costs is not sufficient to disclaim them, nor disprove the record evidence included in past EPA rules concerning the magnitude and monetization of these costs. Courts have repeatedly faulted federal agencies for effectively valuing the harm of greenhouse gas pollution at zero by failing to monetize those emissions. *See, e.g.*, *Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1200-01 (9th Cir. 2008) ("First, while the record

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[148] *Id.* at 4-4.

[149] Memorandum from Jeffrey Bossert Clark, and Sr., Acting Administrator, Office of Information and Regulatory Affairs, to Regulatory Policy Officers and Agencies and Managing and Executive Directors of Commissions and Boards, Re: Guidance Implementing Section 6 of Executive Order 14154, Entitled "Unleashing American Energy" (May 5, 2025), https://perma.cc/ZE8C-BF54.

[150] EPA, Regulatory Impact Analysis for the Proposed Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units at 4-1 to 4-8, EPA-452/R-25-002, June 2025, https://perma.cc/U9F7-ZD3V [hereinafter "Repeal RIA"].

[151] *Id.* at 4-1.

[152] *Id.* at 6-6 to 6-7.

shows that there is a range of values, the value of carbon emissions reduction is certainly not zero ... . In sum, there is no evidence to support NHTSA's conclusion that the appropriate course was not to monetize or quantify the value of carbon emissions reduction at all."); *Diné Citizens Against Ruining Our Env't v. Haaland*, 59 F.4th 1016, 1043 (10th Cir. 2023) (agency may not "omit the analysis of environmental effects entirely when an accepted methodology exists to quantify the impact of GHG emissions from the [project]"); *350 Montana v. Haaland*, 50 F.4th 1254, 1272 (9th Cir. 2022); *High Country Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1192 (D. Colo. 2014) ("by deciding not to quantify the costs at all, the agencies effectively zeroed out the cost in its quantitative analysis" and thus acted arbitrarily); *WildEarth Guardians v. Zinke*, No. CV 17-80-BLG-SPW-TJC, 2019 WL 2404860, at *12 (D. Mont. Feb. 11, 2019) ("To the extent the uncertainties OSM cite refer to the fact the Protocol is expressed in a range of values, this is not a valid reason to not quantify the costs of greenhouse gas emissions."). If EPA wishes to assert the monetized costs are less than it anticipated in 2024, it must establish that premise with data and analysis, and afford the public on opportunity to comment on it.

EPA's conclusory remarks in the RIA, which cite "the significant uncertainties related to the monetization of greenhouse gases" as a reason for its disavowal of the SCC, falls far short of the Supreme Court's requirement that an "agency must show that there are good reasons for [a] new policy" that contradicts an earlier policy. *Fox Television*, 556 U.S. at 515. In this case, EPA disregards the fact that the 2023 report "incorporate[d] many major advances in the treatment of uncertainty in integrated assessment modeling," which "allow[ed] for a more holistic treatment of uncertainty than in past estimates by the EPA."[153] Specifically,

> [t]he updates incorporate a quantitative consideration of uncertainty into all modules and use a Monte Carlo approach that captures the compounding uncertainties across modules. The estimation process generates nine separate distributions of discounted marginal damages per metric ton – the product of using three damage modules and three near-term target discount rates – for each gas in each emissions year. These distributions have long right tails reflecting the extensive evidence in the scientific and economic literature that shows the potential for lower-probability but higher-impact outcomes from climate change, which would be particularly harmful to society. The uncertainty grows over the modeled time horizon. Therefore, under cases with a lower near-term target discount rate – that give relatively more weight to impacts in the future – the distribution of results is wider. To produce a range of estimates that reflects the uncertainty in the estimation exercise while also providing a manageable number of estimates for policy analysis, this report combines the multiple lines of

[153] 2023 SCC Report at 168, 2.

evidence on damage modules by averaging the results across the three damage module specifications.[154]

Thus, the 2023 report acknowledged the uncertainties inherent in estimating climate damages and described a sophisticated methodology for incorporating those uncertainties into the model itself. EPA now to fails to explain why its previous approach was insufficient with regard to its treatment of uncertainty. Furthermore, in asserting that these "monetizing [greenhouse gas] impacts could potentially result in flawed decision-making due to overreliance on highly uncertain values,"[155] EPA also fails to account for the much *greater* likelihood (which was the basis for the court decisions cited above) that *not* monetizing greenhouse gas impacts will result in flawed decisionmaking. Even if EPA had discretion as to the specific analytic approaches it uses for its RIA, any decision to pass judgment on the "significance" of U.S. power plant CO_2 emissions while ignoring without any serious consideration, a complex, scientifically rigorous modeling tool that has been developed and refined over many years, that was subject to robust peer review, and that EPA utilized in past rulemakings through notice-and-comment procedures, is arbitrary and capricious.

5. EPA wrongly contends that legal principles of causation disqualify U.S. power plants' CO_2 emissions from contributing significantly to dangerous air pollution.

EPA also cites vague "principles of causation" to attack the Agency's 2015 determination that power plant greenhouse gas emissions significantly contribute to dangerous pollution. 90 Fed. Reg. at 25,767. EPA now claims that the link between those emissions and climate-related harm is simply too indirect and attenuated to qualify as "significant." As we discuss in Comment III.B.1.i and III.B.7 below, this argument is flawed in its initial premises: a source category's emissions must "cause[], or contribute[] significantly to, *air pollution*." It is that air pollution, in turn, that must "reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7411(b)(1)(A) (emphasis added). EPA's causation argument thus erroneously conflates the "significant contribution" and "endanger public health and welfare" prongs of Section 111(b)(1)(A). Even if EPA were correct in this initial assumption, however, its causation argument would fail on its own merits.

EPA's argument is based on the premise that Congress meant to incorporate "background legal principles, including principles of causation and proximate cause," into the fabric of Section 111. 90 Fed. Reg. at 25,767. In particular, the Agency appeals to prior Supreme Court cases discussing proximate cause in a tort law context, citing the Court's definition of proximate cause as asking "whether the harm alleged has a sufficiently close connection to the conduct the statute

[154] *Id.* at 2.

[155] Repeal RIA at 6-7.

prohibits." *Id.* at 25,767 n.116 (citing *Bank of Am. Corp. v. City of Miami*, 581 U.S. 189, 201 (2017)). According to EPA, its earlier finding of significant contribution for power plant greenhouse gas emissions reveals at its heart an "attenuated chain of causation" and "stands in marked contrast to the EPA's prior listing and regulatory efforts under CAA Section 111," which did not "concern[] air pollutants that can be connected to adverse public health and welfare impacts only when aggregated into global emissions from all potential global sources." 90 Fed. Reg. at 25,767. Thus, the Agency now claims that power plant CO_2 emissions lack a sufficient proximate cause to public harm, and so cannot legitimately form the basis of a significant contribution finding. *Id.*

As discussed below, *supra* Comment III.B.7, the text does not support an inference that Congress intended Section 111 to incorporate common law tort concepts, let alone as the proposal describes those concepts. But even if Section 111 *did* require a showing of proximate cause to justify a finding of significant contribution, EPA's argument would still fall short. First, Congress chose the verb "contributes" to address when a pollution source is one among multiple sources that each are responsible for only a slice of the overall pollution pie. This is spelled out in the 1977 House Report accompanying major Clean Air Act amendments from that year, which instructed that the "cause or contribute" condition would require the Administrator to "consider all sources of the contaminant."[156] The language of the statute and the legislative history thus belie the Agency's claim that multiple co-contributors – whether domestic or global – create "attenuated chain[s] of causation." 90 Fed. Reg. at 25,767.

Second, the fact that greenhouse gas emissions mix uniformly in the global atmosphere *simplifies* analysis of causation. Because CO_2 emissions mix evenly globally, the location from which they are emitted does not matter with respect to its primary harm: trapping heat in the atmosphere and thus driving climate change. Through this process, CO_2 emissions from U.S. power plants contribute to damages from floods in Texas to droughts in India. This stands in contrast to many other pollutants, such as NO_x, that disperse unevenly over sub-global distances. The complex modeling of upwind and downwind directionality needed to address interstate transport of NO_x is completely unnecessary for greenhouse gases. Thus, the global nature of greenhouse gas emissions shortens, rather than attenuates the causal chain. The Supreme Court rejected identical logic in *Massachusetts v. EPA* in ruling that plaintiffs had shown a sufficient causal chain between motor vehicle CO_2 emissions and resulting climate-based injuries to establish standing:

> While it may be true that regulating motor-vehicle emissions will not by itself reverse global warming, it by no means follows that we lack jurisdiction to decide whether EPA has a duty to take steps to slow or reduce it…. Nor is it dispositive that developing countries such as China and India are poised to increase greenhouse gas emissions substantially over the next century: A

[156] H.R. Rep. No. 95-294, at 51 (1977).

> reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere.

Massachusetts, 549 U.S. at 524-25, 526.

Likewise, if the global nature of climate pollutants were dispositive or even relevant to the question of significance, the Court's holding in *American Electric Power* would be a dead letter. In that case, the Court held that EPA's statutory authority to control greenhouse gas emissions from power plants under Section 111 displaced any federal common law tort remedies that plaintiffs could assert against power plant owners. As the Court instructed, Section 111 of the Clean Air Act "speaks directly to emissions of carbon dioxide," and "provides a means to seek limits on emissions of carbon dioxide from domestic powerplants." *Am. Elec. Power*, 564 U.S. at 424-25. EPA now effectively disclaims that any such means exists – or *can* exist – because those same emissions contribute to a global phenomenon and are thus too far removed from the harm they cause to be considered "significant." While *American Electric Power* did not directly address the question of significance, the Court was fully aware of the global nature of climate pollution and nonetheless affirmed that that power plant CO_2 emissions *are* subject to Section 111 standards.

Third, *multiple contributing parties* is a distinct concept from *multiple intervening actors*. In the former case, each individual participant causes harm independently of all the other participants that also contribute to the larger pool of harm. In the latter case, an initial participant's actions will *not* cause harm without subsequent actions of the intervening participants. Climate change is clearly a case of multiple contributing parties: the molecules of carbon dioxide emitted by U.S. power plants trap heat and warm the planet *alongside*, but not *because of*, other countries' greenhouse gas emissions. It is the kind of classic collective action problem – a tragedy of the commons – that the Clean Air Act was enacted to address.

Indeed, the plain text of Section 111(b)(1)(A) affirms this: the use of the verb "contributes" assumes the presence of multiple pollution sources, as Congress confirmed in the 1977 House Report cited above.

Furthermore, EPA is equally wrong in its claim that the diverse array of "intervening actors" contributing to climate change (again, muddling the distinction between co-contributors and intervenors) "stands in marked contrast to the [pollutants identified in] EPA's prior listing and regulatory efforts under CAA section 111." 90 Fed. Reg. at 25,767. Consider tropospheric ozone, for instance, which is the primary component of smog. This pollution requires three factors to form in the lower atmosphere, two of which are anthropogenic: emissions of NO_X, emissions of VOCs, and ultraviolet radiation from the sun.[157] *See Wisconsin v. EPA*, 938 F.3d 303, 309 (D.C.

[157] EPA, *Ground-Level Ozone Basics*, https://perma.cc/J4RD-6SVW.

Cir. 2019). By themselves, neither NO_X emissions nor VOC emissions will form ozone; they require one another (as well as energy from the sun), and are typically emitted from different source categories. As such, the creation of ozone and its attendant harms do not follow directly from a rise in the concentration of NO_X only or VOCs only, but require both. Yet EPA has never suggested that the "multiple intervening actors" involved in ozone formation prohibit a source category's NO_X or VOC emissions from qualifying as significant.

Indeed, greenhouse gases have a *more* direct link to the harm they cause than do NO_X or VOCs, since their main impact – radiative forcing – occurs without any chemical interactions in the atmosphere. *See Massachusetts*, 549 U.S. at 509 (explaining that emissions of greenhouse gases directly "increas[e] the atmospheric concentrations of … greenhouse gases [which] will enhance the greenhouse effect" that warms the earth's surface); *Sierra Club v. FERC*, 867 F.3d 1357, 1371 (D.C. Cir. 2017) ("[O]nce in the atmosphere, [emissions of] carbon dioxide will add to the greenhouse effect."); 74 Fed. Reg. at 66,517 (explaining that greenhouse gases are "directly emitted," rather than formed by pre-cursor gases, and exert a warning effect "by trapping heat that would otherwise escape to space"). Although all greenhouse gases eventually undergo atmospheric transformation that remove them from the atmosphere, their warming effect occurs *before* such transformation, which is thus not the basis for the harm they cause. By contrast, while NO_X and VOCs do have some direct health impacts, they are *primarily* regulated under Section 111 as ozone precursors, as noted above. In this regard, greenhouse gases' chain of causation to harm may be *less* attenuated than for certain other pollutants that have always been understood to cause "significant" contributions to dangerous pollution from their major source categories.

For these reasons, EPA errs by suggesting that an assessment of the "directness and degree" of contribution would "heighten" the threshold for significant contribution from greenhouse gases. 90 Fed. Reg. at 25,767. To the extent that they are relevant at all, the "ordinary causation principles" that EPA refers to in the preamble emphatically support a finding of significant contribution for power plant greenhouse gas emissions. In the context of Section 111, and as we discuss further in Comment III below, "significance" must *at least* encompass those source categories whose greenhouse gas emissions are so voluminous that it would not be possible to rectify the pollution problem at hand by leaving them unregulated. As we have discussed throughout this section, CO_2 emission from domestic power plants undeniably satisfy this condition.

III. EPA's proposed interpretation of its authority when determining whether a category of sources causes or contributes significantly to potentially dangerous air pollution is not the best reading of the statute.

Congress enacted in Section 111 a two-step statutory process to govern EPA's establishment of standards of performance for certain categories of stationary sources. The first step, in Section

111(b)(1)(A), requires EPA to make a threshold decision to list a source category for regulation, based solely on the extent to which the source category contributes to air pollution that may cause public health and environmental harm. The second step, in Section 111(b)(1)(B), requires EPA to establish standards of performance that reflect the degree of emission limitation "achievable" through the best system of emission reduction, considering a discrete set of technological and economic factors identified in Section 111(a)(1). Failing to respect the statute's two-step approach, EPA proposes to interpret Section 111(b)(1)(A) as allowing it to consider factors relevant to the second step – and additional "policy considerations" not relevant even at the second step – when making the first-step determination of whether a source category contributes significantly to health risks or environmental danger. This reading is not the "best interpretation" of Section 111, taking into account the plain text, context, and purpose of that section of the Clean Air Act, as well as numerous applicable precedents.

First, EPA's proposal would nullify the specific judgments Congress made in crafting Section 111, thus far exceeding EPA's interpretative authority here. Second, EPA ignores the plain meaning of Section 111(b)(1)(A), which asks EPA to determine whether sources contribute significantly to a pollution problem – not, as EPA suggests, whether *available means of regulating* those sources would be significant to the problem's *resolution*. Third, EPA fails to explain how its reading accords with the overall text and structure of Section 111, which provide further evidence that the "contributes significantly" finding was never intended to encompass far-reaching policy considerations. Fourth, EPA's resort to other parts of the Act and to general causation principles at most supports commenters', not EPA's, reading.

Ultimately, terms like "significantly" and "judgment" – on which EPA hangs its interpretation – cannot reasonably be read to authorize EPA's wholesale reconstruction of Section 111 here, in which it collapses the statute's two-step decisionmaking framework and introduces considerations into the first step that go well beyond what Congress considered relevant even at the second. Nor can EPA claim the "best reading" of the statute is one that would exclude the largest industrial sources of a pollutant, the danger from which EPA does not actually dispute in this rulemaking. For these reasons, and as more fully explained below, EPA's proposed interpretation of Section 111(b)(1)(A) is arbitrary and capricious, unreasonable, and contrary to law, so the proposal should be withdrawn.

A. EPA's proposed interpretation would nullify the basic premises of Section 111.

Section 111(b)(1)(A) requires EPA to create a list of source categories that, in the Administrator's judgment, "cause[], or contribute[] significantly, to air pollution" that EPA concludes may be dangerous. EPA now proposes to reinterpret that simple direction so as to allow the Agency to de-list the largest industrial emitters of an admittedly dangerous air

pollutant.[158] Relying on the words "significantly" and "judgment," EPA claims it has authority to rely on a range of non-scientific, non-health-related factors not mentioned in Section 111(b)(1)(A) to conclude that sources emitting billions of tons of greenhouse gas pollution may be deemed *not* to contribute significantly to dangerous air pollution. These factors include EPA's view of the "effectiveness of emissions reduction controls, cost-reasonableness of those controls, [and] impacts on the affected industry," as well as far-ranging policy considerations the Agency believes speak to public "welfare." 90 Fed. Reg. at 25,765-66.

EPA claims these are considerations "inherent in the statutory structure," because Section 111(b)(1)(B) rests upon factors (included in the definition of "standard of performance" in Section 111(a)(1)) that guide EPA's selection of the "best" system of emission reduction – factors that include "the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements," 42 U.S.C. § 7411(a)(1) – and because Section 111(b)(1)(A) is directed at pollution that endangers "public health and welfare." *Id.* § 7411(b)(1)(A); *see also* 90 Fed. Reg. at 25,765. But the Agency's assertion of power is effectively unbounded: it takes the factors that Congress directed EPA to use when choosing *between* different systems for controlling source emissions and transforms them into a license to override Congress's direction about what sources should be considered for regulation in the first place.

For example, EPA concludes that consideration of "welfare" allows it to decline to list or regulate high-emitting coal plants simply because it is the Administration's policy to "support [] the domestic coal industry" in order to "power artificial intelligence data processing centers," create jobs, and "assist[] allies abroad." 90 Fed. Reg. at 25,755, 25,766.[159] Congress, however, expressly limited "adverse effects on welfare" to mean the *harm pollution causes* to a wide range of environmental and public values, specifically including "weather" and "climate."

In so doing, the proposal purports to replace Congress's plain direction that the Agency identify polluting industries and set reasonable, cost-effective performance standards for them, with an

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[158] As discussed above, EPA does not propose here to determine that greenhouse gases are not an air pollutant, or that greenhouse gas pollution is not dangerous air pollution within the meaning of the Clean Air Act. *See supra* Comment II.A.4; *see also, e.g.*, 90 Fed. Reg. at 25,755, 25,766, & 25,768 (referring to "GHG air pollution"); *id.* at 25,760 & 25,767 (acknowledging EPA's 2015 determination that "GHG air pollution" endangers public health or welfare).

[159] Indeed, EPA described the proposal as an action to "remove regulatory barriers that limit access to our Nation's energy resources and unleash America's true potential," consistent with this Administration's larger deregulatory plans. EPA, "Press Release: 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/7BKA-6Z8V.

unbridled license to ignore its statutory obligation to regulate harmful pollution. To quote Melville's famous scrivener, EPA's interpretation amounts to a claim that it may decline to list high-emitting sources simply because it "would prefer not to."

Indeed, under its unbounded view of "welfare," EPA empowers itself to prioritize over Congress' threshold for regulation *any* policy the Administration believes is in the public interest – which is to say, any governmental priority at all. In other words, EPA asserts that if "administration policy" favors a particular product, the pollution released in making that product cannot be "significant," no matter how many tons of it are emitted into the atmosphere. The Agency thus proposes to "rel[y] on factors which Congress has not intended it to consider," which is a surefire sign that an interpretation is arbitrary and capricious. *State Farm* , 463 U.S. at 43; *see also Sinclair Wyo. Refin. Co. v. EPA*, 114 F.4th 693, 709 (D.C. Cir. 2024) ("[W]e 'may not narrow a provision's reach by inserting words Congress chose to omit.'" (quoting *Lomax v. Ortiz-Marquez*, 590 U.S. 595, 600 (2020)).

Interpreting the statute in a manner that would effectively nullify it cannot plausibly be the best reading of the statute. *See Loper Bright Enters. v. Raimondo*, 603 U.S. 369, 395 (2024). Basic principles of statutory construction highly disfavor nullification. *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 485 (2001) ("The EPA may not construe the statute in a way that completely nullifies textually applicable provisions meant to limit its discretion."); *see also Fischer v. United States*, 603 U.S. 480, 496 (2024) (noting that "surplusage is … disfavored" and a "construction that creates substantially less of it is better than a construction that creates substantially more" (internal quotation marks omitted)); *Morpho Detection, Inc. v. Transp. Sec. Admin.*, 717 F.3d 975, 981 (D.C. Cir. 2013) ("We will not adopt a reading that would so render the [Agency's] general rule a nullity.").

"Nor does Congress typically use oblique or elliptical language to empower an agency to make a 'radical or fundamental change' to a statutory scheme," as EPA's interpretation would do here. *West Virginia*, 597 U.S. at 723 (quoting *MCI Telecomm. Corp. v. American Tel. & Tel. Co.*, 512 U.S. 218, 229 (1994)). "Agencies have only those powers given to them by Congress, and 'enabling legislation' is generally not an open book to which the agency [may] add pages and change the plot line." *Id.* That is especially true where the Supreme Court has already acknowledged the specific authority in question. *See Am. Elec. Power*, 564 U.S. at 424 (explaining that the Clean Air Act, and specifically Section 111, "'speaks directly' to emissions of carbon dioxide from [power] plants"); *see also West Virginia*, 597 U.S. at 707, 710 (describing Section 111 as one of the "three main regulatory programs to control air pollution from stationary sources," "empowering EPA to regulate harmful emissions not already controlled under the Agency's other authorities").

As such, EPA cannot credibly assert that "Congress in fact meant to confer the power the agency has asserted" – here, the power to unilaterally rewrite Congress's approach to emissions

regulation on the basis of the Executive Branch's non-environmental policy preferences and, thus, the power to avoid such regulation whenever EPA may wish. *West Virginia*, 597 U.S. at 721; *Amer. Trucking*, 531 U.S. at 468 ("Congress, we have held, does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes."). Congress did not hide such elephantine extra-statutory factors in the mousehole of Section 111(b)(1)(A)'s listing decision.

Nor could such an assertion of authority survive the fact that the Supreme Court has already held that EPA oversteps when it acts beyond its expertise, including by seeking to "dictat[e] the optimal mix of energy sources nationwide," *West Virginia*, 597 U.S. at 730; *see also* 90 Fed. Reg. at 25,766 (explaining that under its interpretation, "the significance analysis is informed by this Administration's national policy that energy production" in the form of "continued and increasing reliance on fossil fuels" "is essential to the public welfare"); *Gonzales v. Oregon*, 546 U.S. 243, 262-63 (2006) (rejecting an interpretation premised on considerations outside the Agency's sphere of expertise). In reading Section 111 as allowing the executive branch's broad energy policy goals to efface Congress's choices in enacting it, EPA returns to the same premises rejected in *West Virginia*.

EPA's claim that Section 111 grants EPA complete discretion to rewrite Congress's listing provision simply because the Agency thinks that applying the criteria actually set by Congress is a bad idea can be categorically ruled out as the best reading of the statute. Even where an agency has some discretion, it must still "engage[] in reasoned decisionmaking within" "the boundaries of the delegated authority." *See Loper Bright*, 603 U.S. at 395 (cleaned up). Here those boundaries are clear: Congress, in Section 111(b)(1)(A), directed EPA to determine the magnitude of a source category's emissions to air pollution and the effect of that air pollution on public health and welfare. And Congress directed EPA to do so as a predicate procedural step before considering how that source category might be regulated. EPA cannot lawfully finalize its proposed interpretation, which would rewrite the basic function of that section.

B. EPA's proposed interpretation has no plausible textual basis.

Even putting aside the unduly broad sweep of the authority EPA asserts here, EPA's interpretation fails to give proper effect to the plain language of Section 111(b)(1)(A) and the specific statutory structure in which it appears. EPA misreads the text and grammar of the "contributes significantly" test. EPA appeals to dictionary definitions but leaves out relevant parts of the dictionary definition it cites. And EPA fails to harmonize its proposed reading with either the remainder of 111(b)(1)(A) or other pertinent subsections of Section 111. Instead, it collapses the two-step statutory structure into one step that mixes into the listing decision factors Congress intended to be considered only at the subsequent standard-setting step, and includes factors Congress did not authorize EPA to consider even then. Because EPA finds no basis to excuse these errors in any of its purported authorities, including the Act's Good Neighbor

provision and general principles of causation, the Agency's interpretation of Section 111(b)(1)(A) is not the best reading of the statute.

By contrast, commenters' reading of the statute aligns the text, context, and purpose of Section 111(b)(1)(A) and reflects EPA's longstanding practice. As the sections below further detail, the plain language of Section 111(b)(1)(A) asks EPA to list categories of major sources that cause or contribute significantly to dangerous air pollution. Far from authorizing EPA's convoluted invocation of policy considerations, the statute asks a straightforward question about the extent of a source category's share of that pollution: whether it is the sole source of that air pollution (causes) or one source among many (contributes). The addition of "significantly" simply tells us that Congress sought to screen out smaller contributors – not that Congress intended EPA to engage in a wide-ranging policy review of how the Agency might regulate (or whether it wishes to regulate at all). That is evident from the structure of the provision, which segregates the question of *which* source categories shall be listed from *how* they shall be regulated.

At its heart, the plain meaning of "significantly" includes not only concepts of "importance" (as EPA suggests) but also concepts of "magnitude." Congress intended Section 111(b)(1)(A) to identify large contributors to pollution as a prelude to regulation. It did not empower EPA to use listing to *avoid* regulation based on factors not present in that provision. This is the statute's best reading.

1. EPA misreads the phrase "contributes significantly" in Section 111(b)(1)(A).

On its face, Section 111(b)(1)(A) asks whether source categories contribute significantly to air pollution. EPA seeks to avoid the natural implication of this question – an obligation to list at least those sources contributing a large amount of pollution – by adopting partial dictionary definitions, inserting additional words in the statute, and drawing specious analogies to dissimilar provisions of the Act. Those efforts fail. Under the traditional tools of statutory construction, Section 111(b)(1)(A)'s obligation that EPA exercise its judgment to list categories of sources that "cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare" requires that the Agency list source categories based on the extent to which they contribute *to pollution problems*, not based on EPA's view of whether regulation will ultimately be feasible, desirable, or effective.

i. Section 111(b)(1)(A) commands EPA to assess the existence of a pollution problem, not how much standards would mitigate that problem.

At the foundation of EPA's erroneous interpretation of Section 111(b)(1)(A) is the Agency's misreading of the phrase "contributes significantly[] to air pollution which may reasonably be anticipated to endanger public health or welfare." In particular, EPA proposes that "a

determination of significant contribution [under Section 111(b)(1)(A)] must consider whether such determination would have an influence or effect on the targeted air pollution and the public health or welfare impacts attributed to such air pollution." According to EPA, this obligation to assess the source category's "significance" to ameliorating the identified endangerment necessarily allows the Agency to weigh "policy considerations that will inform any subsequent regulation when making the significance determination in the first instance." 90 Fed. Reg. at 25,765. Thus EPA claims it may refuse to list even the largest emitters if it believes that regulation will produce insufficient reductions or if other national policies disfavor any emissions regulation in the first place.

These assertions conflict with the statutory text and structure for many reasons. The first is that the plain text of the phrase "contributes significantly" does not invoke any questions of the wisdom or efficacy of ameliorating the pollution at issue. EPA's task is limited to determining whether a category of sources makes a significant (*i.e.*, large) contribution to a current or future air pollution problem, not whether *regulating* those sources would be significant to the problem's *resolution*.

This is true as a matter of both text and structure.

Text.

EPA's interpretation rests on its conclusion that the text demands that the Agency assess whether regulation of sources would contribute to amelioration of the endangerment. *See, e.g.*, 90 Fed. Reg. at 25,765 ("If regulating emissions of a particular pollutant from a source category would have little effect on dangerous air pollution, that source category's contribution to the air pollution is not significant."). The flaw in EPA's reading is evident simply by writing out the determination EPA proposes it must make. Section 111(b)(1)(A) states that EPA must determine whether "a category of sources … contributes significantly to[] [dangerous] air pollution." EPA proposes to read that by adding extra words: whether "*regulation of* a category of sources … contributes significantly to[] *the amelioration of* [dangerous] air pollution." That changes the meaning of the sentence that appears in the statute. An agency has no power to "tailor" legislation to bureaucratic policy goals by rewriting unambiguous statutory terms, *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 325 (2014) ("*UARG*"). So EPA's reading is not even plausible, let alone the best.

This is further reinforced by the provision's grammar. *See Nielsen v. Preap*, 586 U.S. 392, 407-08 (2019) ("Words are to be given the meaning that proper grammar and usage would assign them." (cleaned up)). By its terms, Section 111(b)(1)(A)'s significant contribution finding asks whether the source category contributes "*to* air pollution." 42 U.S.C. § 7411(b)(1)(A) (emphasis added). To be sure, that cannot be any kind of air pollution; it must be *dangerous* air pollution as judged by whether the pollution "may be reasonably anticipated to endanger public health or welfare." *Id.* But the text, on its face, does not ask EPA to determine whether sources contribute

"to" that endangerment, it asks whether the sources contribute "to air pollution" and then explains what kind of air pollution that must be. In grammatical terms, the restrictive clause ("which may be reasonably anticipated…") modifies "air pollution," not "contributes significantly" or "category of sources." Under the rule of the last antecedent, "a limiting clause or phrase … should ordinarily be read as modifying only the noun or phrase that it immediately follows." *Barnhart v. Thomas*, 540 U.S. 20, 26 (2003) (citing 2A N. Singer, Sutherland on Statutory Construction § 47.33, p. 369 (6th rev. ed. 2000)); *Lopez v. Gonzales*, 549 U.S. 47, 56 (2006) ("[T]he last thing [our interpretive regime] would do is divorce a noun from the modifier next to it without some extraordinary reason."). EPA's reading violates this canon of construction – and normal grammatical presumption – without "extraordinary reason" so it cannot be the best reading of the statute.

Indeed, you could not parse the sentence to suggest that EPA list a source category based on a judgment about its level of endangerment (let alone its amelioration of that endangerment) without changing its grammar substantially:

> He shall include a category of sources in such list if in his judgment it *may reasonably be anticipated to endanger public health or welfare* by causing[~~es~~], or contributing[~~es~~] significantly to, air pollution [~~which~~] ~~*may reasonably be anticipated to endanger public health or welfare*~~.

To get to the test that EPA actually proposes – one that considers the ability of regulations to ameliorate the endangerment – even more redlining is required:

> He shall include a category of sources in such list if in his judgment *available and desirable means of regulating that category* [~~it~~] *may reasonably be anticipated to ameliorate the extent to which sources in that category endanger public health or welfare* by causing[~~es~~], or contributing[~~es~~] significantly to, air pollution [~~which~~] ~~*may reasonably be anticipated to endanger public health or welfare*~~.

If EPA's aim here can only be accomplished by reordering clauses, changing verb forms, and deleting the relative pronoun "which" altogether, then its interpretation serves to rewrite, not best read, the statutory text. As courts have consistently held, "EPA's discretion cannot include the power to rewrite a statute and reshape a policy judgment Congress itself has made." *NRDC v. EPA*, 902 F.2d 962, 977 (D.C. Cir. 1990), *vacated in other part*, 921 F.2d 326 (D.C. Cir. 1991); *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 376 (1986) ("[O]nly Congress can rewrite [a] statute.").

Structure.

The structure of Section 111 further supports that Section 111(b)(1)(A) was intended as an assessment of the extent to which source categories contribute to pollution, not an assessment of

the wisdom of requiring those categories to address those contributions or the efficacy of doing so for purposes of the associated harm.

Congress created two distinct steps in Sections 111(b)(1)(A) and (B). Each requires the Administrator to make a determination, but the nature of those determinations is determined by the specific text surrounding it. Under Section 111(b)(1)(A), the Administrator must determine how large a contribution the source category makes to a dangerous pollution problem. Under Section 111(b)(1)(B) the determination is different: what emission reductions are achievable taking into account the factors listed in Section 111(a)(1). While the former (listing) determination is focused on contribution to pollution, the latter (standards) determination directs EPA to consider specific, listed regulatory factors, including cost, in order to determine the proper level of pollution control for listed source categories. By structuring Section 111 in this manner, Congress crafted specific and separate delegations of authority and so defined the boundaries of not just what criteria EPA could consider but *when* in the process those criteria should be considered.

EPA cannot reasonably combine the distinct tests of Section 111(b)(1)(A) and (B) where Congress intentionally kept them separate. *See, e.g.*, *Inhabitants of Montclair Twp. v. Ramsdell*, 107 U.S. 147, 152 (1883) ("It is the duty of the court to give effect, if possible, to every clause and word of a statute, avoiding, if it may be, any construction which implies that the legislature was ignorant of the meaning of the language it employed."); *UARG*, 573 U.S. at 321 ("[R]easonable statutory interpretation must account for both 'the specific context in which ... language is used' and 'the broader context of the statute as a whole.'" (quoting *Robinson v. Shell Oil Co.*, 519 U.S. 337, 341 (1997))).

EPA claims that "[a]n inquiry into the effect of a finding of significance necessarily involves policy considerations that will inform any subsequent regulation when making the significance determination in the first instance." 90 Fed. Reg. at 25,765. This interpretation contradicts Congress's express choice to separate the question *whether* to regulate from the question of *how* to regulate. Mashing the two steps together creates an unreasonable circularity: requiring that EPA list sources on the basis of regulatory choices that it is only supposed to make after listing. As such, EPA's proposed reading is arbitrary, capricious, and unreasonable. At a minimum, as EPA has also made no attempt to explain how its proposal accords with the statute's evident structural distinction between the timing and process for listing sources and the timing and process for assessing their ameliorative potential, it has also failed to address an important aspect of the problem.

And even if Section 111(b)(1)(A) could be read as allowing EPA to consider the separate considerations in 111(b)(1)(B), EPA's reading presupposes that Congress intended EPA to consider duplicative factors in its listing decisions and standard-setting actions. EPA does not present any support for that proposition. Without an answer to these questions, EPA not only

cannot assert that it has the best reading of the statute, it has plainly ignored an important aspect of the problem and failed to provide an adequate opportunity for comment on its view of how that aspect of the problem should be understood.

ii. EPA elides a part of the plain language definition of the term "significantly" that is fundamental to the best reading here.

EPA appeals to Merriam-Webster's dictionary for the proposition that "the term 'significantly' is defined as 'having or likely to have influence or effect: important," and thus that Section 111(b)(1)(A) requires EPA to determine "[w]hether a source category's contribution to air pollution should be considered 'important' or 'valuable.'" 90 Fed. Reg. at 25,765. EPA claims that this definition of "significantly" thus allows it to reject listing of source categories – despite their "absolute volume of emissions" – where regulation of the source category would "have little effect on dangerous air pollution" or "would not be useful," taking into account, for example, "the Administration's policies concerning[] the source category." *Id.*

EPA cannot reasonably defend this proposition because the Agency has intentionally omitted relevant parts of the same dictionary definition. In full, the Merriam-Webster definition states that "significant" means: "having or likely to have influence or effect: important; *also*: of a noticeably or measurably large amount."[160] This full definition reveals the error in EPA's reading. EPA cannot ignore the latter meaning – "of noticeably or measurably large amount" – which is recognized in other dictionaries[161] and which is plainly relevant in the context of air pollution. *See American Trucking*, 531 U.S. at 466 (choosing between dictionary definitions and concluding that "[w]ords that can have more than one meaning are given content … by their surroundings").

It is "natural," if considering whether a source category contributes significantly to air pollution, to ask whether the source category contributes a "noticeably or measurably large amount" of that air pollution.[162] *See HollyFrontier Cheyenne Ref., LLC v. Renewable Fuels Ass'n*, 594 U.S. 382,

[160] "Significant," Merriam-Webster.com Dictionary, (Definition "2a") (emphasis in original) https://www.merriam-webster.com/dictionary/significant (last visited Aug. 6, 2025).

[161] *See also, e.g.*, "Significant," The American Heritage Dictionary of the English Language (5th ed. 2022) (defining the adjective "significant" as "2. Having or likely to have a major effect; important … 3. Fairly large in amount or quantity"), available at: https://ahdictionary.com/word/search.html?q=significantly (last visited Aug. 7, 2025).

[162] *Cf.* International Court of Justice, *Advisory Opinion: Obligations of States in Respect of Climate Change*, July 23, 2025 at ¶ 150 (explaining that "[a]ll States contribute to [climate change] risk, albeit to significantly differing degrees, and all States are affected by the cumulative effects of GHG emissions, depending on their respective situations," but noting that "the most developed States … have *contributed significantly* to the overall amount of GHG

406 (2021) (Barrett, J., dissenting) ("[T]he 'more natural' interpretation will be more appropriate unless there is 'compelling evidence to the contrary in the statute's structure.'") (internal citation omitted). Air pollution, including greenhouse gas pollution, is a numerically measurable phenomenon, *see, e.g.*, 89 Fed. Reg. at 39,808, so understanding "significantly" as asking about the "amount" or "extent" of pollution best fits the circumstances.

That this is a natural reading of the phrase "contributes significantly" is emphasized by the statute's use of the adverb "significantly." In its adverb form, "significantly" asks a question of degree or extent.[163] Likewise, "significantly" modifies "contribute," a word that means "to have a part or share in producing." *See Bluewater Network v. EPA*, 370 F.3d 1, 13 (D.C. Cir. 2004) (interpreting "contribute" in the context of the Clean Air Act's "cause or contribute" provisions). EPA's use of a partial definition to focus on a source category's influence, rather than the *extent* of the source category's *share* thus fails to give the best meaning to the text.

The full Merriam-Webster definition also belies EPA's assertion that "[a]n inquiry into the effect of a finding of significance *necessarily* involves policy considerations that will inform any subsequent regulation," such as the perceived costs and benefits of that future regulation. 90 Fed. Reg. at 25,765 (emphasis added). The definitions of "significant" and "significantly," at a minimum, leave that question open to be "clarified by the remainder of the statutory scheme." *See UARG v. EPA*, 573 U.S. at 321 ("A statutory provision that may seem ambiguous in isolation is often clarified by the remainder of the statutory scheme … because only one of the permissible meanings produces a substantive effect that is compatible with the rest of the law."). As the remainder of these comments show, the statutory scheme favors commenters' understanding, not EPA's, so EPA's proposal is not the best reading of the statute.

To be sure, even accounting for the "extent" of a source category's contribution, there may be circumstances where the modifier "significantly" would allow EPA to determine that *additional* source categories should be listed for regulation, even in the absence of a large quantum of emissions contributing to the concentration of air pollution (for example, if warranted by other factors like the geographic concentration of emissions in vulnerable areas or the greater potency of even smaller quantities of emissions). But the term is best read to require a listing of categories that contribute "noticeably and measurably large amounts" of air pollution, even if it

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emissions since the Industrial Revolution" (emphasis added)), available at: https://www.icj-cij.org/sites/default/files/case-related/187/187-20250723-adv-01-00-en.pdf.

[163] *See, e.g.*, "Significantly" Merriam-Webster.com Dictionary (defining the adverb "significantly" as "in a significant manner : to a significant degree"), available at: https://www.merriam-webster.com/dictionary/significantly; "Significantly," Oxford English Dictionary Online (defining "significantly" as "to a significant degree or extent"), available at: https://www.oed.com/search/dictionary/?scope=Entries&q=significantly.

may *also* encompass sources whose contribution is significant by some additional measure of severity. As such, EPA cannot refuse to list source categories that meet the more specific definition concerning contribution in large amounts, even if they might also list smaller contributors whose contributions can be otherwise justified as significant. *Cf., e.g.*, *RadLAX Gateway Hotel, LLC v. Amalgamated Bank*, 566 U.S. 639, 645 (2012) ("It is a commonplace of statutory construction that the specific governs the general." (internal quotation marks omitted)).[164]

Even looking only to EPA's truncated dictionary definition of "significant," EPA's argument would still fail. Using EPA's chosen half of Merriam-Webster's definition, Section 111(b)(1)(A) would read: "He shall include a category of sources in such list if in his judgment it causes, or contributes [importantly and with influential effect], to air pollution which may reasonably be anticipated to endanger public health or welfare." This reading is no more helpful to EPA's case than one based on a more purely quantitative definition of "significant": whether a source category's emissions are "important to" or "influence" dangerous air pollution does not contemplate the importation of policy considerations or questions of amelioration. As discussed above, U.S. power plants have had, and will continue to have, an indisputably outsized "influence" on the scope of the greenhouse gas pollution problem, including when considering contributions from other sectors, emissions of other nations, and EPA's own past listing decisions. The Agency cannot now reasonably call these sources "insignificant" even if it leans on the first half of the dictionary's definition rather than the second. Either way, EPA's reading is implausible and so arbitrary, capricious, and unreasonable.[165]

Because the Agency's proposed interpretation is not the best reading of the statute, the interpretation must be rejected. At a minimum, EPA has failed to address an important aspect of the term's plain meaning and so failed to provide public notice and comment on the Agency's

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[164] In a similar way, a phrase like "having reached maturity" might be defined as "reaching the age of adulthood" as well as "being fully grown or developed." In that case, you could not rightfully exclude 18-year-olds – the accepted age of adulthood – even if you could *also* designate additional members of the category according to more qualitative criteria concerning mental or physical development.

[165] In truth, EPA's reading quickly descends into nonsense. EPA claims it "is proposing that a determination of significant contribution must consider whether *such determination* would have an influence or effect on the targeted air pollution and the public health or welfare impacts attributed to such air pollution." 90 Fed. Reg. at 25,755 (emphasis added). But if one reads that language with the help of EPA's own definitions, the statement claims that EPA "must consider whether such determination [that sources will have an effect on the air pollution] would have an … effect on targeted air pollution." EPA's inability to explain with even the barest clarity how its interpretation matches the statutory text is a clear sign that it does not.

view of this aspect. *Cf. Jazz Pharms., Inc. v. Kennedy*, 141 F.4th 254, 261 (D.C. Cir. 2025) (casting doubt on a statutory reading that "brushe[d] past" part of the dictionary definition "without explanation"). For each of these reasons, it cannot finalize the proposed rule.

2. EPA's interpretation cannot harmonize Congress's use of the full phrase "causes or contributes significantly."

EPA's proposal also offers an implausible reading of the larger phrase "causes, or contributes significantly to," that appears is at the heart of the determination in Section 111(b)(1)(A). EPA suggests that its judgment concerning the "significance" of a source category's contribution allows it to import regulatory and policy considerations into the determination whether a source category "contributes significantly" to dangerous pollution. *See* 90 Fed. Reg. at 25,765. But "significantly" only modifies "contributes"; it does not apply to whether a pollutant "causes" dangerous pollution. As a consequence, under EPA's reading, the Agency would have widely divergent authority with respect to sources that "cause" pollution as compared to those that "contribute significantly" to pollution.

Section 111(b)(1)(A) provides no reason to think Congress intended a night-and-day difference between how EPA decides that a source "causes" pollution and how it decides that a source "contributes" to pollution. Section 111 makes no distinctions between source categories that are contributing causes and those that are sole causes either upon listing or at any point thereafter. In such circumstances, basic principles of statutory interpretation demand that the two terms be read in concert, not as encompassing entirely different considerations. *McDonnell v. United States*, 579 U.S. 550, 568-89 (2016) ("[T]he familiar interpretive canon *noscitur a sociis*" is "wisely applied where a word is capable of many meanings in order to avoid the giving of unintended breadth to the Acts of Congress." (internal quotation marks omitted)); *West Virginia*, 597 U.S. at 721 ("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." (internal quotation marks omitted)). Because EPA's reading of "contributes significantly" does not reasonably harmonize the text of Section 111(b)(1)(A), it is not the best reading of the statute. *See Loper Bright*, 603 U.S. at 400.

EPA does not even attempt to explain its way through this problem, or provide any reasoning for how policy considerations like the cost of controls should be considered when determining whether to regulate source categories that are *contributing* causes of dangerous air pollution, but not when determining whether to regulate source categories that are the *sole* causes of dangerous air pollution. EPA does not suggest any explanation for why Congress would have intended EPA to consider costs or other factors when assessing the requirement to regulate some source categories but not others. Because EPA failed to consider the conflict its interpretation would provoke between its approach to sources that "cause[]" pollution and its approach to sources that

"contribute[] significantly" to pollution, its reading is unreasonable and it has failed to consider an important aspect of the problem.

By contrast, the statutory text is harmonized by reading Section 111(b)(1)(A) as directing EPA to weigh the degree to which source categories contribute to concentrations of air pollution (whether as a matter of quantity or by some other measure of severity). To "cause" air pollution is to be a "reason for … [that] condition" or to be "something that brings about [that] effect or [that] result."[166] *See* 90 Fed. Reg. at 25,763 n.91 (confirming that "'causes' generally refers to emissions that are the sole part of the air pollution problem," while "[t]he use of the term 'contribute' clearly indicates a lower threshold than the sole or major cause."). As that definition suggests, "cause" does not allow for the types of policy judgments EPA proposes to graft onto its counterpart "contributes significantly": it would be implausible to suggest that a source category does not "cause" air pollution emitted exclusively by that source category simply because EPA does not wish to regulate those sources or because it might be costly to do so.

Indeed, under such a reading, EPA would have the authority to declare that a pollution problem admittedly brought about by a group of sources nonetheless had *no* "cause." That is obviously illogical. Because "causes" and "contributes significantly" must be read together, the latter is best read, like the former, as referring to the extent of the pollution contribution – not to subsequent regulatory considerations addressed during standard-setting. *See West Virginia,* 597 U.S. at 721 ("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."); *UARG*, 573 U.S. at 321 ("A statutory provision that may seem ambiguous in isolation is often clarified by the remainder of the statutory scheme ... because only one of the permissible meanings produces a substantive effect that is compatible with the rest of the law.").

Taking both terms together, it is plain that the statute is best read as reflecting Congress's intent that EPA assess the spectrum of potential contributors to pollution – from those contributing just above de minimis amounts to those contributing the entirety of the pollution in question. *Cf.* 90 Fed. Reg. at 25,763 n.91; H.R. Rep. 95-294 at 51 (describing Congress's intent that "cause or contribute" provisions "require the Administrator to consider all sources of the contaminant which contribute to air pollution"). While in other sections of the Clean Air Act, Congress directed EPA to regulate *all* sources contributing to known or anticipated pollution problems,[167]

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[166] "Cause," Merriam-Webster.com Dictionary, https://www.merriam-webster.com/dictionary/cause (last accessed Aug. 6, 2025).

[167] That is to say, contributing more than *de minimis* amounts. *See Alabama Power Co. v. Costle*, 636 F.2d 323, 360 (D.C. Cir. 1979) (explaining that the Clean Air Act permits *de minimis* exceptions in most cases).

see, e.g., 42 U.S.C. § 7521(a)(1), in Section 111 Congress set a threshold somewhat further along that spectrum: requiring listing of source categories contributing at least "significantly" to that pollution problem. While Section 111 might thus demand a larger (or more severe) contribution to the pollution problem in question compared to other parts of the Act, Congress's evident direction to EPA is to assess the degree of contribution to the problem itself, not subsequent regulatory considerations about how that contribution might be ameliorated or extra-textual policy considerations like an administration's interest (or disinterest) in addressing the pollution problem in the first place.

Accordingly, while the proper understanding of "contributes significantly" might reasonably vary in different contexts, the grouping of "causes" and "contributes" shows that, in the context of air pollution, Congress intended EPA in Section 111(b)(1)(A) to assess sources' contribution to the *amount* or *severity* of air pollution, rather than assess whether regulation of those sources would be feasible, desirable, or effective.

3. Interpreting Section 111(b)(1)(A) to allow EPA to decline to list a source category based on the nature and effectiveness of its subsequent regulatory choices inverts Section 111(b)'s structure.

EPA asserts that Section 111(b)(1)(A) is best read as requiring the Agency to address, before listing a source category, whether regulation of that source category under 111(b)(1)(B) would be "effective[]" and "cost-reasonable[]." As noted above, *supra* Comment III.A & B.1, that is not a plausible reading (let alone the best reading) of the statute because it defeats Congress's express separation of the listing decision under Section 111(b)(1)(A) and the standard-setting decision under Section 111(b)(1)(B). But identifying "significant" contributors to pollution based on the effectiveness of the Agency's subsequent regulatory choices runs into an additional practical and textual roadblock. Such an approach would require EPA, when listing sources at Section 111(b)(1)(A), to undertake – or predict the outcome of – the standard-setting process in (b)(1)(B) as a *predicate* to listing a source category under (b)(1)(A). That turns the statute back to front.

Making actions under 111(b)(1)(A) contingent on the outcome of separate and subsequent agency action under 111(b)(1)(B) would, thus, require that EPA impermissibly prejudge, or at least unreasonably speculate about, its subsequent regulatory analysis and decisionmaking. Premising a listing decision on yet-to-be-taken regulatory action would risk unlawful prejudgment, *see Air Transp. Ass'n of Am., Inc. v. Nat'l Mediation Bd.*, 663 F.3d 476, 487 (D.C. Cir. 2011) (describing the "unalterably closed mind" test), and would, at a minimum, ignore the Clean Air Act's rulemaking requirements, which prevent EPA from drawing conclusions about the appropriate regulatory approach without first developing a record and consulting the public. 42 U.S.C. § 7607(d).

To interpret Section 111(b)(1)(A) as requiring consideration of the effectiveness of the subsequent regulatory standard without running afoul of the Clean Air Act's rulemaking procedures in Section 307 would necessitate that EPA undertake 111(b)(1)(A) category-listing and 111(b)(1)(B) standard-setting simultaneously in every case. But *requiring* simultaneous action under (b)(1)(A) and (B) is contrary to the text of the Act. Section 111(b)(1)(A) directed EPA to publish a list of categories within 90 days after December 31, 1970, but then, under 111(b)(1)(B), allows EPA up to "one year after the inclusion of a category of stationary sources in a list under subparagraph (A)" to publish proposed regulations. Congress plainly did not believe that determining "significance" when listing source categories required that EPA address the effectiveness or cost of the regulations that would follow; if it had so believed, it could not have granted EPA an additional year after listing to conduct standard-setting. Nor could it have set a schedule in 111(f)(1) allowing EPA up to 6 years to conduct standard-setting for certain major sources. 42 U.S.C. § 7411(f)(1). EPA lacks discretion to adopt such an interpretation where Congress's choices speak otherwise.

And, of course, that is without accounting for the fact that EPA's listing decisions require that it regulate not only new sources, but also establish (with a few exceptions) emissions guidelines for existing sources – not only increasing the complexity of the forecasts EPA would have to make (or rules it would have to issue simultaneously with listing) but introducing questions about how, precisely, those emissions guidelines would be implemented through state existing source plans. *See id.* §§ 7411(d)(1), 7416 (authorizing states to set more stringent standards). This vision of Section 111 is implausible on its face.

Moreover, EPA cannot resolve this problem by noting its discretion to undertake its listing and standard-setting determinations simultaneously in every case because the Act directs EPA to make regulatory determinations under Section 111(b)(1)(B) on an iterative basis. The text of that subsection states: "The Administrator shall, at least every 8 years, review and, if appropriate, revise such standards following the procedure required by this subsection for promulgation of such standards." *Id.* § 7411(b)(1)(B). The purpose of this provision is to require EPA to ensure that Section 111 standards reflect advances in pollution control technology and techniques, reductions in cost, improvements in availability, and other factors that could alter EPA's judgment as to the best system of emission reduction and achievable degree of emission limitation over time. EPA cannot reasonably claim perfect foresight as to the "influence or effect" that "regulating emissions of a particular pollutant from a source category" will have on dangerous air pollution when those effects will be the product not only of an initial 111(b)(1)(B) regulatory process, but also of iterative 111(b)(1)(B) processes that will occur years and indeed decades into the future. EPA cannot reasonably or logically propose to require an influence-or-

effects test when listing sources because it could never accurately account for a listing's future influence or effect.[168]

4. The phrase "in his judgment" does not override the limits on EPA's discretion otherwise evident in text.

EPA's reliance on the term "judgment" in Section 111(b)(1)(A) to import wide-ranging policy considerations into the Agency's determination of a source category's significant contribution contravenes the statutory structure and surrounding text. As the Supreme Court held when considering very similar language in Section 202 of the Clean Air Act, "the use of the word 'judgment' is not a roving license to ignore the statutory text. It is but a direction to exercise discretion within defined statutory limits." *Massachusetts*, 549 U.S. at 533. The Court later tied its reasoning in *Massachusetts* to the use of the term "judgment" in Section 111 specifically. *Am. Elec. Power*, 564 U.S. at 426-27 (quoting Section 111(b)(1)(A) and noting that it already "explained in *Massachusetts*" that the term "judgment" in Section 111 did not create "a roving license to ignore the statutory text" or escape judicial review). As noted above and below, the text and structure of Section 111 establish "defined statutory limits" that the term "judgment" cannot singlehandedly uproot. *See supra* Comment III.B.1-3; *infra* Comment III.B.5, III.C-D.

To the extent that EPA is afforded discretion to consider qualitative factors when assessing whether a source category contributes "significantly," it must exercise that discretion consistent with Section 111(b)(1)(A)'s evident focus on the magnitude or severity of the sources' contribution to the pollution itself – whether those contributions are de miminis, the complete cause, or fall somewhere in between – and not with respect either to the policy considerations it must separately address when setting standards in Section 111(b)(1)(B) or to other, entirely extra-textual considerations. *See State Farm*, 463 U.S. at 43 ("[A]n agency rule would be

[168] Nor could EPA reasonably claim that the 8-year review requirement includes an implicit requirement to simultaneously re-conduct source listing under Section 111(b)(1)(A). That requirement appears nowhere in the text. The 8-year review obligation discusses only the "standards" arising from (b)(1)(B) and "the procedure required by this subsection for promulgation of such standards." *Id*. By limiting that process to the procedures for promulgating standards, Congress left no doubt that it believed the pre-existing listing decision – and its underlying significant contribution finding – would remain in place as a necessary predicate for such all such 8-year reviews. By contrast, EPA's obligation to "revise" its source list occurs "from time to time," not on the same 8-year timeline. Where Congress's has chosen different language and different time periods governing re-review of listings and standards, the difference is presumed to be meaningful. *Russello v. United States*, 464 U.S. 16, 23 (1983) ("[W]here Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion." (internal quotation marks omitted)).

arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider."); *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000) ("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." (internal quotation marks omitted)). EPA fails to demonstrate that its chosen considerations are germane to the question of whether industrial sources are polluting the air, so its reading is inconsistent with the "boundaries of the delegated authority" and thus cannot constitute the best reading of the statute. *See Loper Bright*, 603 U.S. at 395.

The legislative history confirms that the addition of the phrase "in his judgment" in the 1977 Clean Air Act Amendments was intended to ensure EPA regulated *more* source categories, not fewer, and set more protective standards, not less protective ones. Congress described the language as requiring EPA to take a precautionary approach to regulating pollution sources: "the committee language is intended to emphasize the necessarily judgmental element in the task of predicting future health risks of present action and to confer upon the Administrator the requisite authority to exercise such judgment." HR Rep 95-294 at 50-51; *see also infra* Comment III.D. By granting the Administrator the judgment to regulate even in the "awareness of the uncertainties and limitations in the data," the amendment effectuated Congress's desire to "emphasize the predominant value of protection of public health." *Id.*

Moreover, even if EPA had discretion at the 111(b)(1)(A) listing stage to consider, to some degree, the factors relevant to a "best system of emission reduction determination" under 111(b)(1)(B), there would be no textual or structural basis for importing policy considerations that fall well *outside* of Section 111. EPA asserts broad license to consider the Administration's broader policy priorities, including its desire for "energy dominance," 90 Fed. Reg. at 25,755, based on the "policy issues inherent in the statutory structure." *Id.* at 25,765. But Section 111(b)(1)(B)'s regulatory criteria and the definitions in Section 111(a)(1) do not countenance EPA's reading. The statutory factors that inform 111(b)(1)(B) have the narrow and specific purpose of guiding the selection of the "best system of emission reduction" as between available systems: requiring EPA to set a performance standard based on "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." *See* 42 U.S.C. § 7411(a)(1), (b)(1)(B).

Accordingly, even where Section 111 endorses regulatory policy considerations like cost and energy requirements, it does so within the bounds of selecting an appropriate level of pollution control. None of the enumerated considerations creates a broader imprimatur for EPA to consider economic or energy policies delinked from emissions controls or to assess whether those policies should take precedence over implementing Section 111 in the first place. As such, EPA errs in suggesting any aspect of Section 111 authorizes general consideration of "the Administration's policies … concerning the source category," 90 Fed. Reg. at 25,765, which the proposal

explicitly identifies as a policy to "support the domestic coal industry" in order to, among other things, "creat[e] high paying jobs, support[] burgeoning industries, and assist[] allies abroad," *id.* at 25,755.

Similar errors infect EPA's suggestion that it may weigh additional policy considerations based on "the CAA's broad understanding of the term 'welfare,'" 90 Fed. Reg. at 25,766, which the statute defines as including, "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." 42 U.S.C. § 7602(h). Under the basic principles of statutory interpretation, EPA cannot reasonably claim the word "welfare" as used in the Act allows EPA to consider factors beyond the harm that greenhouse gas pollution causes to the values enumerated therein. The meaning of "public health or welfare" in Section 111(b)(1)(A), and the meaning of "economic values" as it appears among its bedfellows in Section 302(h), 42 U.S.C. § 7602(h), is tied to damage caused by pollution – not a free-ranging assessment of what energy policy might best promote national interests. *See Massachusetts*, 549 U.S. at 533 (concluding that "policy judgments" concerning the executive branch's preferred approach to environmental regulation and international affairs fell outside the "defined statutory limits" of similar text in Section 202); *West Virginia,* 597 U.S. at 729 (deeming it "highly unlikely that Congress would leave to [EPA's] discretion the decision of how much coal-based generation there should be over the coming decades" (cleaned up)).

There is simply no statutory foothold in the Clean Air Act's definition of welfare for EPA to claim it is, in fact, "promot[ing] the public health or welfare through energy dominance and independence secured by using fossil fuels to generate power." 90 Fed. Reg. at 25,755. To read "public health and welfare" to encompass any and all governmental policies an administration claims will advance the public's "well-being" would ignore the context in which those terms appear and so give "unintended breadth" to EPA's discretion under Section 111. *McDonnell*, 579 U.S. at 569 (calling *noscitur a sociis* "wisely applied" to avoid such consequences); *West Virginia*, 597 U.S. at 723 ("Agencies have only those powers given to them by Congress, and enabling legislation is generally not an open book to which the agency may add pages and change the plot line." (internal quotation marks omitted)).

5. Other text in Section 111 demonstrates that EPA's proposed interpretation is not the best reading.

i. Modifications

EPA's reading would also create incongruities with Section 111's treatment of sources that become subject to Section 111 when they are modified. The performance standards established under Section 111(b)(1)(B) apply to "new sources." 42 U.S.C. § 7411(b)(1)(A). The definition of a "new source" includes sources where "construction *or modification*" began after the proposal

of a standard of performance applicable to that type of source. *Id*. § 7411(a)(2) (emphasis added). A modification encompasses "any physical change in" the source or a "change in the method of operation of" that source, if the change "increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted." *Id.* § 7411(a)(4).

Under these definitions, modification brings a specific source into the ambit of Section 111(b)(1)(B) performance standards whenever there is *any* physical or operational change that increases pollutant emissions – a much lower bar than whether that particular source on its own significantly contributes to dangerous air pollution.

EPA's proposed interpretation creates an incongruity with this part of Section 111. Under EPA's reading, Congress sought, on the one hand, to ensure that sources could only be subject to Section 111 regulations if the standards issued pursuant to such a listing determination would have some influence or effect on public health and welfare. *See* 90 Fed. Reg. at 25,765. And yet, despite this purportedly high bar for listing source categories, Congress simultaneously set a much lower bar for when existing or older facilities of that same source type could become subject to those same standards: whenever a modification increased their emissions – regardless of whether or not the modification resulted in a substantial increase in emissions, and whether or not applying the standards of performance to those sources would meaningfully ameliorate harmful air pollution. *See, e.g.*, *New York v. EPA*, 443 F.3d 880, 890 (D.C. Cir. 2006). EPA does not explain why, if Congress truly intended to narrow EPA's listing authority as the Agency now contends, it was not similarly sparing in setting the triggers for regulating modified sources.

By contrast, the modification provisions are entirely consonant with the straightforward, best reading of the text: that Congress intended the sources collectively contributing a meaningful amount of emissions to an air pollution problem – whether newly built or undertaking modification – to apply appropriate, top-of-the-line technologies wherever possible. That preference for regulation, and acknowledgement of the importance of tackling collective contribution, is evident in, and best harmonizes, the text of Section 111.

ii. Subcategorization

EPA's authority to regulate subcategories of sources also shows that EPA's proposed interpretation is not best. In Section 111(b)(2), Congress conferred on EPA the authority to "distinguish among classes, types, and sizes within categories of new sources" "for the purpose of establishing" the new source performance standards. 42 U.S.C. § 7411(b)(2). Under that authority, EPA can (and does) set specific standards of performance – according to the statutory factors in Section 111(b)(1)(B) – for narrow sub-groups of sources that share common traits. Those subcategories may include only a handful of sources. But the ultimate "import" of those subcategories is irrelevant to EPA's regulatory authority: once the source category as a whole

has been listed, the Act allows EPA to regulate even very small groups of sources regardless of their independent impact on the pollution problem at hand.

As with the modification provisions discussed above, EPA's subcategorization authority shows that Congress understood, and indeed endorsed, the value of incremental pollution reductions from sources sharing responsibility for a pollution problem. *See* H.R. Rep. 95-294 at 49 (evidencing Congress's concern with addressing the "cumulative impact" of pollution sources). EPA does not lose its authority to regulate a subcategory simply because the ultimate influence of that subcategory on the air pollution in question may be minor; nor should it lose authority to regulate a source category simply because, at present, regulation may make only incremental progress. EPA's effort to slice pollution problems so finely as to make them disappear thus finds no support in the text of the Act, which reflects instead Congress's understanding that addressing pollution problems often requires the aggregation of smaller reductions. *Cf. Bluewater Network*, 370 F.3d at 14 (noting the importance of addressing contributions to cumulative effects because "unlike bologna, which remains bologna no matter how thin you slice it, significant contribution may disappear if emissions activity is sliced too thinly").

iii. Major sources

The proper focus of the "significance" test on the amount of a category's emissions – regardless of the regulatory potential or other policy considerations – is also illustrated by the history of Section 111(f). In the 1977 amendments, Congress amended Section 111(f) to require EPA within one year to "promulgate regulations listing under subsection (b)(1)(A) the categories of major stationary sources" which were not already included on that list. 91 Stat. 697, § 109(a) (1977); *see* H.R. Rep. 95-294 at 133 (describing Section 111 as including a "requirement that all new major sources install and use best available pollution control technology"). Congress described this amendment as needed "to establish an effective mechanism for rectifying the administration's failure to establish adequate initial or revised standards for all categories of major stationary sources." *Id.* at 187.

A "major stationary source" was (and is) defined in the Act as "any stationary facility or source of air pollutants which directly emits, or has the potential to emit, one hundred tons per year or more of any air pollutant." 42 U.S.C. § 7602(j). Section 111(f), as it appeared after the 1977 amendments, thus required that EPA list all sources meeting this definition that had not yet been listed. Congress's historical approach in Section 111(f) demonstrates that it did not intend Section 111(b)(1)(A) to grant EPA broad policy discretion over the listing of source categories, whether based on consideration of the "effectiveness of emissions reduction controls," 90 Fed. Reg. at 25,765, or otherwise. To the contrary, as Congress demonstrated in 1977, it was adequate for purposes of Section 111(b)(1)(A) that the listed source categories be considered large

emitters. 42 U.S.C. § 7602(j).[169] Congress's ongoing oversight of Section 111 through the 1977 and 1990 amendments, and its design of Section 111(f) in that period, is further evidence that it is unreasonable to infer that Congress, *sub silentio*, intended or allowed for EPA's proposed policy considerations to be brought to bear in determining a category's significant contribution. Because EPA's interpretation would fly directly in the face of past Congressional practice concerning Section 111(b)(1)(A), it is arbitrary, capricious, and unreasonable; and because EPA has failed to even consider Congress's listing directions under Section 111(f), it has also failed to consider an important aspect of the problem.

6. EPA's reliance on its interpretation of Clean Air Act Section 110(a)(2)(D)(i)(I) ignores salient distinctions between the two provisions.

EPA purports to find support for its interpretation of Section 111(b)(1)(A) by referring to EPA's interpretation of Section 110(a)(2)(D)(i)(I)," known as the "Good Neighbor" provision, where EPA has traditionally taken account of the cost of reductions when determining how to satisfy the statutory obligation for upwind states to prohibit pollution that "contribute[s] significantly" to downwind air quality problems. 90 Fed. Reg. at 25,766 & n. 107. But EPA ignores the different contexts in which the two usages of "contribute(s) significantly" sit in the statute, the differences in statutory structure between the two usages, and the different statutory purposes of the two statutes. *Cf. UARG*, 573 U.S. at 319-20 (citing *Env't Def. Fund v. Duke Energy Corp*., 549 U.S. 561, 574 (2007), for the proposition that a statutory term may have a different meaning in different statutory contexts).

Section 111's purpose is to set federal performance standards that maximize pollution control on categories of new and existing sources, with provisions that require periodic re-evaluation and strengthening of those pollution controls. Importantly, as noted previously, Congress enacted a two-step process for regulating under Section 111, and Congress set different criteria for the two steps. At the first, listing step in Section 111(b)(1)(A), EPA is tasked with identifying categories of sources that contribute significantly to harmful air pollution and are, therefore, eligible for regulation. At the second, standard-setting step in Section 111(b)(1)(B), EPA proceeds to

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[169] The present form of Section 111(f) does not indicate otherwise. Congress amended Section 111(f) in 1990 to remove the timeline for listing major sources – as EPA had met Congress's requirement. At the same time, it updated the provision to require EPA to finish the job of establishing regulations for the listed "major" sources. That is how the text appears today. *Id*. § 7411(f)(1). In that text, Congress directs EPA to consider "the quantity of air pollutant emissions which each such category will emit" as well as the danger posed by "each such pollutant" (and other considerations) when deciding which standards to promulgate first. *Id.* § 7411(f)(2). But at no point did Congress direct EPA to list sources based on considerations like the extent to which the pollutant poses a danger; those factors have only ever directed the prioritization of setting standards.

regulation: determining (and periodically re-evaluating) the emission reductions achievable through the best system of emission reduction considering – among other things – costs.

By contrast, the Good Neighbor provision in Section 110 is not about source category-based performance standards, but rather establishes the fundamental legal requirements states must meet when they develop implementation plans to attain and maintain specific, numerical air quality standards. Unlike Section 111, the Good Neighbor provision proceeds in one step, requiring states (or EPA) to adopt adequate provisions to "prohibit[]" sources in upwind states "from emitting any air pollutant in amounts which will … contribute significantly to nonattainment" of air quality standards in downwind states. 42 U.S.C. § 7410(a)(2)(D)(i)(I).

In doing so, the Good Neighbor provision does not merely identify sources to be regulated, it dictates the amount of pollution states must eliminate from those sources. *See EPA v. EME Homer City Generation*, 572 U.S. 489, 497 (2014) (explaining that under the Good Neighbor provision, "EPA's chore is to quantify the amount of upwind gases … that must be reduced to enable downwind States to keep their levels of [downwind pollution] in check."). The obligation in the Good Neighbor provision to prohibit emissions that "contribute significantly" to downwind air quality problems is central to EPA's interpretation of that Good Neighbor provision. EPA has read the one-step Good Neighbor provision, in context, to permit it to weigh considerations like cost in determining *how much* of an upwind source's emissions should – and can reasonably – be prohibited, when multiple sources contribute significantly to downwind problems in overlapping ways.

Section 111(b) does not establish a comparable single-step obligation. Section 111(b)(1)(A) – where "contributes significantly" resides – frames the choice of which source categories to regulate. Section 111(b)(1)(B) frames choices about how sources' emissions may be reduced using other language, which refers to cost and other considerations. These textual and contextual distinctions between Sections 111 and 110 demonstrate why EPA's interpretation of "significantly" in one provision does not bear on its interpretation in the other. Indeed, the differences in structure confirm that Congress intended that the two provisions operate differently.

The Supreme Court's opinion in *EME Homer* does not alter that conclusion. *See* 90 Fed. Reg. at 25,766. To the contrary, the Court's opinion shows that it found it reasonable under the Good Neighbor provision for EPA to consider costs in allocating responsibility across contributors for eliminating significant contribution because of features unique to that program – and which have no analogue in Section 111. Though EPA suggests *EME Homer* turns simplistically on "contribute significantly," EPA arbitrarily ignores the *EME Homer* Court's full discussion. When eliminating "significantly contributing" emissions under the Good Neighbor provision, the *EME Homer* Court explained, EPA must contend with the complex and intermingled nature of interstate pollution transport, where emissions from multiple upwind states comingle with other

pollution contributions, are blown across long distances, and can simultaneously impact multiple downwind areas but in differing amounts. These "overlapping and interwoven linkages … with which EPA had to contend number in the thousands," requiring EPA, "[i]n crafting a solution to the problem of interstate air pollution," to quite literally "account for the vagaries of the wind." 572 U.S. at 496-97. In that context, the Court explained, prohibiting emissions that "contribute significantly" to downwind air quality problems raised concerns for how EPA might reasonably allocate responsibility "among multiple contributors," including free-riding issues as between different contributors to the same air quality problem and practical analytical issues with assessing state contributions one-by-one. *See, e.g.*, *id.* at 513-20. This was the foundation for the Court's conclusion that proportional allocation did not work either "mathematically nor in practical application," *id.* at 516, and so EPA's choice to "[e]liminat[e] those amounts that can cost-effectively be reduced [was] an efficient and equitable solution to the allocation problem," and consistent with the Act, *id.* at 519; *see also id*., 572 U.S. at 529 (Scalia, J., dissenting) (observing that "the majority does not allude to, much less try to defend, the Government's 'significantly' argument").

Thus, the Court's analysis in *EME Homer* has no bearing on the distinct regulatory text and context presented in Section 111 and at issue here. Unlike Section 110(a)(2)(D)(i)(I), Section 111(b)(1)(A) presents none of the same concerns about equitable allocation and none of the same methodological challenges associated with "overlapping and interwoven" contributions to and from the regulated states.

7. Ordinary causation principles support commenters' interpretation, not EPA's.

In support of its interpretation, EPA also proposes to interpret Section 111(b)(1)(A) against the "background legal principles" of causation and proximate cause. In EPA's own words, these principles guide EPA to consider whether a source category significantly contributes "in light of the directness and degree of the supposed contribution." 90 Fed. Reg. at 25,767. EPA's application of these principles in its proposal misses the mark. To begin, EPA's stated reliance on these principles runs counter to its separate assertion that EPA may decline to regulate on the basis of policy considerations; if EPA is, in fact, proposing to interpret Section 111(b)(1)(A) to require that it be guided by the "directness and degree of the supposed contribution," then its asserted policy considerations have no relevance. The cited causation principles – to the extent they apply – support commenters' understanding of Section 111, not EPA's.

In any event, EPA does not explain why principles of proximate cause flowing from tort – and tort-like claims under statutes like the Fair Housing Act and the Lanham Act's false advertising provisions, *see* 90 Fed. Reg. at 25,767 n.114 – are appropriate "background principles" for interpreting the Clean Air Act. The three Supreme Court cases it cites in reference to proximate cause – *City of Miami*, 581 U.S. at 201; *Lexmark International, Inc. v. Static Control*

Components, Inc., 572 U.S. 118, 132 (2014) and *University of Texas Southwestern Medical Center. v. Nassar*, 570 U.S. 338, 347 (2013) – involved federal statutes (the Fair Housing Act, the Lanham Act, and Title VII of the Civil Rights Act of 1964, respectively) that established a cause of action for plaintiffs to recover money damages in compensation for injuries to legally protected interests. While these monetary recovery provisions were modeled on common law tort actions, Section 111 was not. Its significant contribution provision determines nothing more than which categories of major industrial sources must be regulated. The Agency's factual and scientific assessment in Section 111(b)(1)(A) of whether sources contribute to pollution for purposes of regulation is thus distinct from common law legal constructs designed to fairly assign civil liability. Moreover, the D.C. Circuit has already rejected similar attempts to impose causation principles on contribution tests. *See also Catawba Cnty. v. EPA*, 571 F.3d 20, 38-39 (D.C. Cir. 2009) (rejecting arguments under Clean Air Act Section 107 that "'significantly contribute' unambiguously means 'strictly cause'" and that there is no "significant causal relationship" where "corrective measures … will do nothing to address the problem or help achieve compliance in the nonattainment area").

Plus, EPA misreads the cases it cites. Those cases stand, at most, for the principle that there must be "some direct relation" to find causation. As discussed at length in Comment II, *supra*, there is indisputably a "direct relation" between the source category's contribution and the resulting *pollution*, which is what the statute demands. *See also* Comment II.B.5 (explaining that that relation is far more "direct" with greenhouse gases than with other pollution problems, like ozone transport); *cf.* 90 Fed. Reg. at 25,762 (seeking comment on "the proposed Administrator's determination that GHG emissions from sources within the fossil fuel-fired EGU source category do not contribute significantly to such pollution"). The relevant links EPA identifies in the causal chain at most describe considerations that lie between the pollution and the harm, not the source categories and the pollution. *See* 90 Fed. Reg. at 25,767. The text demonstrates that such considerations would have no bearing on whether the source category "contributes significantly … to air pollution." 42 U.S.C. § 7411(b)(1)(A).[170]

[170] As discussed in Comment II.A.4, EPA has not proposed to repeal its 2015 determination under Section 111 that greenhouse gases endanger the public, which relied on both historical findings and new data. *See* 80 Fed. Reg. 64,510, 64,517-22, 64,530-31 (Oct. 23, 2015) (explaining, *e.g.*, that "[t]he findings of the recent scientific assessments confirm and strengthen the conclusion that GHGs endanger public health, now and in the future."). So EPA cannot finalize this action on the basis that it wishes to reverse that finding. To the extent EPA no longer believes that the "significant contribution" and "endangerment finding" components of Section 111(b)(1)(A) are distinct findings – which has been its historical understanding of that language, *see* 80 Fed. Reg. at 64,529 & 64,530 (describing the two "components"); *cf.* 74 Fed. Reg. at 66,505 ("Section 202(a) of the CAA sets forth a two-part test for regulatory action under that provision: Endangerment and cause or contribute.") – the proposal does not accord with the

8. EPA fails to explain how its interpretation of the phrase "contributes significantly" would operate independently of its proposal that Section 111 be read to require pollutant-specific contribution findings.

EPA proposes here that Section 111(b)(1)(A) be read to allow consideration of "policy issues" and "background legal principles of proximate cause" when determining whether "an air pollutant contributes to dangerous air pollution." 90 Fed. Reg. at 25,765. But EPA fails to address whether this interpretation of the phrase "contributes significantly" is severable from its proposal that Section 111 be read to require pollutant-specific significant contribution findings in the first place.

As explained below, EPA's proposal concerning pollutant-specific significant contribution findings is contrary to the plain text of the statute, as well as longstanding EPA practice ratified by Congress, so the Agency cannot presume its validity here. In this instance, if the Agency, or a court, were to conclude that pollutant-specific significance findings are not necessary under the Act, EPA would have no authority to de-list the source category on the basis of its "significance" (or alleged lack thereof) to a single pollutant like greenhouse gases alone, whether on policy or any other grounds. The Agency does not explain how or whether its policy- and causation-based interpretation of "significance" would function where a listing decision is based on the source category as a whole rather than its emissions of a particular pollutant. These facts make plain that

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Clean Air Act's requirement that EPA explain the "major legal interpretations" underlying the "basis and purpose" for its action. *See* 42 U.S.C. § 7607(d)(3); *Fox Television*, 556 U.S. at 515 ("[P]roviding a reasoned explanation for [an agency's] action would ordinarily demand that it display awareness that it *is* changing position."). Because the public has not been afforded an opportunity to comment on any reversal of EPA's interpretation concerning the operation of its distinct significant contribution and endangerment findings – and separately on any conclusion that greenhouse gas pollution may not be "reasonably anticipated" to harm the public – EPA cannot finalize a rule that depends upon such a novel interpretation. Nor can EPA rely on its recent proposal under Section 202 to repeal the endangerment finding applicable to greenhouse gas emissions from vehicles. *See* 90 Fed. Reg. at 36,288. That proposed action concerns a separate finding under a separate part of the Act, does not propose to repeal the independent 2015 finding for power plants, and is not a part of this docket or the "major legal interpretations and policy considerations underlying" *this* proposed rule, 42 U.S.C. § 7607(d)(3). *See Air Transp. Ass'n of Am. v. FAA*, 169 F.3d 1, 7 (D.C. Cir. 1999) (explaining that "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"); *Conn. Light & Power Co. v. Nuclear Regul. Comm'n*, 673 F.2d 525, 533 (D.C. Cir. 1982) ("An agency adopting final rules that differ from its proposed rules is required to renotice when the changes are so major that the original notice did not adequately frame the subjects for discussion.").

the interaction of EPA's two proposed interpretations here (concerning pollutant-specific significance findings and concerning the meaning of the phrase "contributes significantly") constitutes an important aspect of the problem. Absent an explanation of whether and how these interpretations are severable – and an opportunity to comment on that explanation – EPA has failed to address that important aspect of the problem.

C. EPA's interpretation is out of step with past practice and precedent.

For the reasons discussed above, EPA's proposed interpretation of "contributes significantly" in Section 111(b)(1)(A) is irreconcilable with statutory text. It is also at odds with the Agency's own past practice, Congress's past actions, and judicial precedent.

1. Past agency practice

Beginning with EPA's past practice, the Agency has identified no prior occasions on which it interpreted 111(b)(1)(A) to permit it to decide that a source category's contribution to air pollution is not significant based on policy factors unrelated to the extent of a category's contribution to dangerous pollution. Likewise, the Agency has identified no prior occasions on which it treated the (surmised) degree of reduction that may be available through regulatory controls as relevant to whether the source's contribution is significant. To the contrary, the first Trump Administration itself promulgated Section 111 standards without considering the efficacy of future regulations or the other policy factors described in the proposed rule. *See* 84 Fed. Reg. at 32,533 (setting standards under 111(d) based on existence of 111(b)(1)(A) standards that were promulgated without considering EPA's newfound policy factors in determining whether significant contribution standard was met); 86 Fed. Reg. at 2544 (determining significance for purpose of setting standards under 111(b)(1)(A) based on numerical threshold for quantity of emissions). Indeed, the first Trump Administration made an affirmative finding that greenhouse gas pollution from power plants *do* significantly contribute to dangerous pollution under Section 111(b)(1)(A), on the basis that those emissions exceeded a percentage threshold of that Administration's invention. 86 Fed. Reg. at 2544. While requiring a percentage threshold (which EPA subsequently withdrew) also misapplied the statutory text, *see* Comment II.B, *supra,* the critical point is that the prior Trump EPA recognized that Section 111(b)(1)(A) is concerned with the extent of the source category's contribution to air pollution, not the unrelated policy considerations EPA now believes the statute must be read to incorporate.

EPA's longstanding practice, which dates to the enactment of Section 111 and "has remained consistent over time," is "especially useful in determining the statute's meaning." *Loper Bright*, 603 U.S. at 394. EPA's departure from the long-understood best meaning of Section 111 is contrary to law. *Id.* And its failure to fully acknowledge the inconsistency of its current view with the uniform view of past administrations (including Trump I), and to adequately explain that departure is arbitrary and capricious. *Fox Television*, 556 U.S. at 515.

2. Past actions of Congress

EPA's newfound interpretation of Section 111 is also inconsistent with Congress' past actions. Since the enactment of Section 111(b) in 1970[171] up until this proposed rule, EPA has consistently added categories to the 111(b)(1)(A) list without making findings regarding the policy considerations included in the proposed rule. *See, e.g.*, 36 Fed. Reg. 5931 (Mar. 31, 1971); 38 Fed. Reg. 15,380 (June 11, 1973); 42 Fed. Reg. 22,510 (May 3, 1977); *see also Nat'l Asphalt Paving Ass'n v. Train*, 539 F.2d 775 (D.C. Cir. 1976). In that time, Congress has amended Section 111 multiple times – including 1977 amendments directing the Administrator to promulgate regulations listing source categories under 111(b)(1)(A) on set timelines and setting out factors for the Administrator to consider in determining priorities for promulgating such standards.[172] Of note, the 1977 amendments tweaked the language of 111(b)(1)(A) itself. *See infra* Comment IV.A.1 n.184. And yet neither in the 1977 amendments nor any other amendments to Section 111 has Congress directed EPA to consider the policy factors EPA now invokes when making a significant contribution determination. To the contrary, amendments to the Act in 2022 affirmed the Agency's authority to regulate greenhouse gas emissions from power plants and other source categories under Section 111. *See, e.g.*, 42 U.S.C. § 7436(f)(6)(A) (referencing Section 111 standards of performance for methane emissions from the oil and gas source category); *id.* § 7435(a)(6) (referencing reductions in greenhouse gas emissions from the electricity sector achieved via existing authorities within the Clean Air Act, *i.e.*, Section 111), *id.* § 7436(f)(6)(A).[173]

The history therefore reflects that Congress has ratified the interpretation of Section 111 that EPA now seeks to change. *See, e.g.*, *Brown & Williamson Tobacco*, 529 U.S. at 156. EPA may not unilaterally overrule an interpretation that Congress has ratified. *Id.*

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[171] The 1970 version of Section 111(b) directed EPA to list sources that "may contribute significantly to air pollution which causes or contributes to the endangerment of public health or welfare." 42 U.S.C. § 1857c-6(b)(1)(A) (1976) (repealed 1977). The 1977 amendments enacted the present language directing EPA to list a source that, in the Administrator's "judgment . . . causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare."

[172] *See* Pub. L. 95-190 91 Stat. 1399 (Nov. 16, 1977); *see also, e.g.*, Pub. L. 95-190 91 Stat. 1399 (Nov. 16, 1977); Pub. L. 95-623, 92 Stat. 3457 (Nov. 9, 1978); Pub. L. 101-549, 104 Stat. 2467 (Nov. 15, 1990).

[173] *See also* Greg Dotson & Dustin J. Maghamfar, *The Clean Air Act Amendments of 2022: Clean Air, Climate Change, and the Inflation Reduction Act*, 53 Envtl. L. Rptr. 10017, 10026–35 (2023) (summarizing 2022 amendments and implications for regulation of greenhouse gases under the Clean Air Act), https://perma.cc/4JPV-AE2M.

3. Judicial precedent

i. Supreme Court precedent

EPA's proposed interpretation of Section 111 is also inconsistent with judicial precedent. The Supreme Court has recognized on more than one occasion that EPA has authority under Section 111 to regulate greenhouse gas pollution from power plants. *West Virginia*, 597 U.S. at 706; *Am. Elec. Power,* 564 U.S. at 424. In no case did the Supreme Court state that EPA lacked authority to regulate power plant greenhouse gas emissions without first considering the policy factors EPA now asserts are a predicate to listing under Section 111(b)(1)(A). To be sure, the Supreme Court held in *West Virginia* that EPA's 2015 Clean Power Plan standards exceeded the Agency's authority under Section 111(b). But it reached that conclusion on the sole basis that EPA erred in determining the "best system of emission reduction" to control greenhouse gas pollution from power plants. *West Virginia*, 597 U.S. at 720-35. The Court did not question EPA's authority to promulgate standards in the first place, notwithstanding that EPA never considered the factors that the Agency now asserts are part of a threshold inquiry for determining whether EPA has authority to regulate under 111(b)(1)(A). *See id.*

Bypassing those decisions, the proposed rule seeks support from the Supreme Court's opinion in *Michigan v. EPA,* 576 U.S. 743 (2015). But the decision does not support EPA's position. That case concerned Section 112(n)(1)(A) of the Clean Air Act. That provision included a specific extra step before regulating hazardous air pollutants emitted by power plants. As the Supreme Court recognized, before regulating these emissions, Section 112 directs EPA to study the extent to which power plant emissions of hazardous air pollutants continued to endanger public health, in light of regulations adopted under other provisions of the Clean Air Act which were expected to have the incidental effect of reducing emissions of the pollutants in question. 576 U.S. at 748. Section 112 directs EPA to "regulate [power plants] under [Section 112]" but only if the Agency "finds . . . regulation is appropriate and necessary after considering the results of the study." 42 U.S.C. § 7412(n)(1)(A). The Court held that Congress's direction that EPA determine whether regulation is "appropriate and necessary" did not preclude EPA's consideration of costs when making that determination. *Michigan*, 576 U.S. at 752.

That Congress directed EPA to weigh the appropriateness of regulating power plants for one kind of pollution in one provision of the Clean Air Act does not mean that those considerations are part of *every* inquiry under the Clean Air Act. And here, text and context show that Section 111(b)(1)(A) requires a far more limited analysis. To state the obvious, the terms "appropriate" or "necessary" from Section 112(n)(1)(A) appear nowhere in Section 111(b)(1)(A), and so *Michigan*'s interpretation of those terms has no relevance here.[174] Nevertheless, EPA's proposal

[174] Indeed, the term "appropriate" is used in Section 111(b)(1)(B), pertaining to establishing and revising new source performance standards, indicating, if anything, that the cost-effectiveness

attempts to analogize the Section 112(n)(1)(A) "appropriate and necessary" determination to Section 111(b)(1)(A)'s determination of whether a source category "causes, or contributes significantly to, air pollution," because, in EPA's view, Section 111(b) also "uses discretionary language and does not purport to exclude any standard administrative considerations from the scope of the EPA's significance analysis." 90 Fed. Reg. at 25,765 (citing *Michigan*, 576 U.S. at 753).

But to say that Section 111(b)(1)(A) does not "exclude" considerations ignores what that section *does* say, especially considering Section 111's broader design and context. As discussed above, Section 111(b)(1)(A) calls on the EPA Administrator to use "his judgment," but it directs that that judgment be applied to a specific question: whether a category of sources "causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." Section 111(b)(1)(A)'s specific directive to apply judgment to the question of whether a source's contribution is significant – with decisions about regulations to enact left to a subsequent step – is unlike the directive in Section 112(n)(1)(A) to decide whether regulating is a good policy. It affirmatively precludes, by negative implication, a more open-ended inquiry into the Agency's other policy preferences, including the cost-effectiveness of potential standards that EPA could apply if it determined that the contribution is significant. *See* Scalia & Gardner, *Reading Law: The Interpretation of Legal Texts* 107–110 (explaining the negative-implication canon, or *expressio unius*). If I instruct my son to use his judgment to determine which books would contribute significantly to completing a school essay, he is not at liberty to decide that, because reading books would not get him a good grade anyway, he may as well play video games instead.

A better analogy than Section 112(n)(1)(A) and *Michigan* is Section 109(b), the national ambient air quality standard-setting provision of the Clean Air Act, and the Supreme Court's interpretation in *Whitman v. American Trucking Associations*, 531 U.S. 457 (2001). Section 109(b)(1) instructs EPA to set the NAAQS "based on" the public health and welfare effects described in the air quality criteria established under Section 108. *American Trucking* rejected the argument that EPA's consideration was "not necessarily *limited* to those effects," and thus that EPA could and should consider implementation cost in setting standards. *Id*. at 469. The Court explained that it was unreasonable to infer such leeway in determining standards from the absence of an express prohibition, in part because implementation cost "is *both* so indirectly related to public health *and* so full of potential for canceling the conclusions drawn from direct health effects that it would surely have been expressly mentioned in [Sections 108 and 109] had Congress meant it to be considered." *Id*.

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inquiry properly belongs in the determinations of standards, not in a determination of significant contribution.

The same is true here. Indeed, as the Court explained in *Michigan*, "*American Trucking* thus establishes the modest principle that where the Clean Air Act expressly directs EPA to regulate on the basis of a factor that on its face does not include cost, the Act normally should not be read as implicitly allowing the Agency to consider cost anyway." *Michigan*, 576 U.S. at 755-56. In Section 111(b)(1)(A), Congress directed EPA to list source categories based on whether they "cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." In this context, reading into that straightforward instruction the discretion to weigh policy considerations like the "effectiveness of emissions reduction controls," "cost-reasonableness of those controls," or "impacts on the affected industry" drains the statutory text of the meaning – and constraints – that Congress was trying to impose. *See* Comment III.B, *supra*.

The proposed rule tries to derive the same flawed lesson it pulls from its overreading of *Michigan – i.e.*, that consideration of wide-ranging policy considerations is proper wherever Congress has charged the agency with any degree of discretion, unless Congress explicitly says otherwise – from two other statutes. This effort also fails. Neither the Safe Drinking Water Act (SDWA) nor the Toxic Substances Control Act (TSCA) supports EPA's claim that because Section 111(b)(1)(A) does not explicitly prohibit cost considerations at the listing stage, it is best read to include them. *See* 90 Fed. Reg. at 25,765. First, SDWA actually differs from the Clean Air Act by expressly requiring EPA to take into account the factors EPA now tries to smuggle into Section 111(b)(1)(A): 42 U.S.C. § 300g-1(b)(1)(A)(iii) provides that when determining whether to regulate a drinking water contaminant, the Administrator must take into account whether regulation "presents a meaningful opportunity for health risk reduction for persons served by public water systems." Thus, EPA's appeal to SDWA backfires as an example of "what Congress knows how to say when it means to say it," because Section 111(b)(1)(A) lacks the language that directs EPA to consider the reduction achievable by a standard at the listing stage. It suggests the opposite: that EPA is *not* to consider at listing whether standard-setting under Section 111(b)(1)(B) would produce "meaningful" health and welfare risk reductions.

Secondly, TSCA directs EPA to "conduct risk evaluations . . . to determine whether a chemical substance presents an unreasonable risk of injury to health or the environment, without consideration of costs or other nonrisk factors," 15 U.S.C. § 2605(b)(4)(A), and then to regulate those substances "to the extent necessary so that the chemical substance or mixture no longer presents such risk," *id*. § 2605(a). But those provisions of TSCA were enacted as part of the 2016 Lautenburg Amendments, *see* Pub. L. No. 114-182, § 6, 130 Stat. 448, 463 (2016); *see also Lab. Council for Latin Am. Advancement v.* EPA, 12 F.4th 234, 243 (2d Cir. 2021), long after Section 111(b)(1)(A) was enacted in the 1970 Clean Air Act Amendments. The specificity of the language included in that subsequent enactment – which came after additional decades of judicial review of Clean Air Act provisions, including in *Michigan* – has no bearing on the meaning of Section 111(b)(1)(A), which was adopted against a different backdrop decades earlier. Notably, the language in TSCA was amended, and new, action-forcing deadlines added

to the statute, after "effective implementation of TSCA [had] been challenged by shortcomings in the statute itself, and by several key decisions of Federal Courts and the Agency's interpretation of those decisions." S. Rep. 114-67, at 2. Congress thus sought to expressly reject court decisions that had required EPA to undertake extensive risk-benefit balancing tests to issue rules, which brought the Agency's efforts to regulate toxic substances practically to a halt. *See* 162 Cong. Rec. S3511-01, S3516 (citing *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201, 1217 (5th Cir. 1991)). So, with the benefit of experience, the TSCA amendments went above and beyond to make clear that "non-risk" factors were not relevant to the evaluation of chemical risks. Nothing about these examples suggests that Congress meant to permit EPA to take compliance costs and other policy factors into accounting in listing decisions under Section 111(b)(1)(A).

ii. Other judicial precedent

D.C. Circuit precedent is likewise a barrier to EPA's new statutory interpretation. In *Coalition for Responsible Regulation*, that court explicitly rejected arguments that non-health and welfare policy considerations should inform EPA's judgment whether any air pollutant may "cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare" under Section 202(a) of the Clean Air Act. 684 F.3d at 117-18. At odds with the stance it now takes regarding Section 111(b), EPA recognized in *Coalition for Responsible Regulation* that an endangerment finding under 202(a) is a "science-based judgment devoid of considerations of policy concerns and regulatory consequences." *Id.* at 117. The D.C. Circuit upheld that interpretation and rejected petitioners' contrary arguments that Section 202(a) required EPA to consider "the benefits of activities that require greenhouse gas emissions, the effectiveness of emissions regulation triggered by the [e]ndangerment [f]inding, and the potential for societal adaption to or mitigation of climate change." *Id.* As the court explained, whether a pollutant causes or contributes to air pollution which may reasonably be anticipated to endanger public health or welfare "require[s] a 'scientific judgment' about the potential risks greenhouse gas emissions pose to public health or welfare – not policy discussions." *Id.* at 117-18. In reaching its conclusion, the court relied on statutory text, the Supreme Court's decision in *Massachusetts*, and the fact that Section 202 – like Section 111, *see* Comment III.A-B – directs the Agency to consider "questions about the cost of compliance with new emissions standards and the availability of technology for meeting those standards" in a separate subsection. *Id.* at 118.

EPA's proposal to import into Section 111(b) the very considerations that *Coalition for Responsible Regulation* rejected as to Section 202(a) is unjustified. Section 202(a) and Section 111(b) both premise agency action on a finding that emissions "cause[]" or "contribute[]" to pollution that may endanger public health or welfare. To be sure, Section 111(b) uses the phrase "contributes *significantly* to" pollution, whereas Section 202(a) uses the unadorned "contribute to." But the inclusion of "significantly" does not change the scientific and harm-based character

of the listing decision under Section 111(b)(1)(A). As discussed in Comment III.B.1, "significantly" modifies "contributes . . . to" – a phrase that *Coalition for Responsible Regulation* interprets to require a scientific inquiry into causation. As a modifier, "significantly" does not replace the underlying scientific inquiry required by "contributes" (*i.e.*, whether a source causes dangerous pollution), but merely sets a standard for determining when that scientific threshold is met, by describing how meaningful the causal nexus must be.[175]

Even setting aside precedent interpreting Section 202, D.C. Circuit caselaw addressing Section 111 itself also undermines the proposed rule's statutory analysis. *National Lime Association v. EPA*, 627 F.2d 416 (D.C. Cir. 1977), recognized that decisions about the achievability of reductions for specific pollutants are part of the inquiry for setting an appropriate "best system of emission reduction" at the second, standard-setting step under Section 111(b)(1)(B). *See* 627 F.2d at 426-30. Nothing in that case suggests that those considerations should have entered into the listing decision for that category at the first step under Section 111(b)(1)(A). To the contrary, Congress' decision to treat the act of listing a source and the act of issuing standards for that source as two distinct steps shows exactly the opposite. *See* Comment III.B, *supra*.

Moreover, as discussed in Section II.B.1, *American Lung Association* specifically concluded that EPA's significant-contribution finding made in the 2015 new source rulemaking was lawful. 985 F.3d at 976-77. EPA did *not* consider the policy factors set out in the proposed rule when making that finding. Indeed, the Court affirmed that "EPA sensibly found that this [case] [was] not even close to the margins of what 'might constitute significant contribution.'" *Id.* Rather, the Court upheld EPA's determination that "[b]ecause of their substantial contribution to greenhouse gases," these sources significantly contribute under "any reasonable threshold or definition" of significant contribution. *Id.* at 976.

The proposed rule's position that contributions of the same pollutants from the same sector are *not* significant based on the new policy considerations is irreconcilable with the D.C. Circuit's recognition that those contributions are significant under "any reasonable . . . definition." Although EPA asserts that this source category's percentage of total global greenhouse gas emissions has gone down since the new source rule was promulgated, that assertion does not undermine either EPA's prior determination or the D.C. Circuit's conclusion, for the reasons already discussed. *See* Comment II.B.2, *supra*. Indeed, the D.C. Circuit relied on record evidence that "power plants are the largest stationary sources of domestic greenhouse gas emissions and that each coal-fired plant may emit millions of tons of carbon dioxide per year" – both facts that

[175] Moreover, it bears noting that, while Section 202(a) does not contain the word "significantly," it does contain the discretion-conferring phrase "in [the Administrator's] judgment." 42 U.S.C. § 7521(a)(1). *Coalition for Responsible Regulation* precludes any argument that that phrase, which appears in both Section 202(a) and Section 111(b), is a basis for importing policy factors into a causal inquiry.

remain true. *Id.*; *cf. Massachusetts*, 549 U.S. at 525 ("Judged by any standard, U.S. motor-vehicle emissions make a meaningful contribution to greenhouse gas concentrations and to global warming."); *see infra* Comment II.B.1-4.

D. EPA's interpretation is also fundamentally out of step with the Clean Air Act's purpose and subverts the aims of the statute.

Finally, EPA's approach here stands in sharp contrast to public health and welfare and to the precautionary purposes of the Clean Air Act that have been foundational to the statute ever since its initial passage more than half a century ago. Even if the term "judgment" is understood to grant the Agency discretion, the statute's overall purpose must be its North Star in that exercise of discretion. *See generally* 42 U.S.C. § 7401 (Congressional findings and declaration of purpose); *id.* § 7401(b) (declaring purpose of Clean Air Act "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population").

Indeed, the Clean Air Act's pollution prevention and precautionary purposes are intentionally designed to favor regulation of potential pollution problems in the face of uncertainty or impacts far in the future.[176] This precautionary principle was a key factor behind the 1977 amendments, of which one explicit purpose was "[t]o emphasize the preventative or precautionary nature of the act, i.e. to assure that regulatory action can effectively prevent harm before it occurs; to emphasize the predominant value of protection of public health."[177] The D.C. Circuit has confirmed that the Act's "precautionary thrust" is relevant to interpretations of Section 111. *See Am. Lung Ass'n*, 985 F.3d at 974.

The Act's overall purpose thus weighs strongly against EPA's interpretation here. EPA's tortured interpretation must fail in the face of the Clean Air Act's goals: it simply cannot decline to find significant contribution on the basis of policy considerations that are sharply at odds with the prevention of pollution, and in the face of evidence that the sources in question *are*, in fact, significantly contributing to dangerous air pollution. Nor can it attempt to slice and dice the problem into ever-smaller categories until each was rendered insignificant: Congress clearly intended otherwise by seeking "[t]o assure consideration of the cumulative impacts of all sources

[176] *See* H.R. 95-294 at 43–51 (confirming that adoption of the phrases "may reasonably be anticipated to endanger" and "in the judgment of the Administrator" was intended to effectuate the precautionary approach described by the en banc court in *Ethyl Corp. v. EPA*, 541 F.2d 1 (D.C. Cir. 1976)).

[177] *Id.* at 49.

of a pollutant in setting… emission standards, not just the extent of the risk from the emissions from a single source or class of sources of the pollutant."[178]

And it is not just the Congress of 1977 whose intent EPA disregards. As discussed above, the Agency's new interpretation also flies in the face of more recent Congressional action to ratify the Agency's authority to regulate greenhouse gas emissions from power plants under Section 111. *Supra* Comment III.C.2.

EPA's proposed interpretation is not only absurd on its face as applied to power plants as a source category, but even more unreasonable when extended to potentially bar regulation of greenhouse gases from *all other source categories* under Section 111. *Am. Lung Ass'n,* 985 F.3d at 977 ("[A] holding that greenhouse gas emissions by fossil-fuel-fired power plants are not significant would make it nigh impossible for any source of greenhouse gas pollution to cross that statutory threshold."). After all, if power plants – the nation's largest stationary source of this pollution – are considered too insignificant to regulate, then what category *is* a significant contributor? Interpreting Section 111 in a manner that could entirely foreclose regulation of a major air pollution problem causing billions of dollars in public health damages every year[179] is an absurd result when contrasted with the purposes of the Clean Air Act outlined above. At minimum, EPA's failure to grapple with the fact that its approach could be applied to entirely foreclose amelioration of dangerous greenhouse gas pollution under Section 111 arbitrarily and capriciously ignores an important aspect of the problem. *State Farm*, 463 U.S. at 43.

Further, EPA's interpretation is contrary to precedent regarding the purposes and reasonableness of regulation under the Clean Air Act. In *Massachusetts*, the Supreme Court firmly rejected standing arguments premised on the idea that greenhouse gas emissions from a defined source category could only be "a small incremental step," explaining that "[a] reduction in domestic emissions would slow the pace of global emission increases, no matter what happens elsewhere." 549 U.S. at 524-26.

That EPA's reading would undermine the Act's emission reduction purpose is error enough to confirm it is not the best reading of the statute. But the Agency's error is compounded by its explicit reliance on concerns beyond the ambit of the Clean Air Act altogether. Specifically, EPA attempts to justify its statutory interpretation by relying on policy preferences that have no basis in or relevance under the Clean Air Act. 90 Fed. Reg. at 25,766 (citing "continued and increasing reliance on fossil fuels to meet increasing demands for electricity generation"). But EPA cannot hide behind external policy justifications to evade its Clean Air Act obligations. *See Dep't of*

[178] H.R. 95-294 at 49–50.

[179] *See, e.g.*, U.S. Global Change Research Program, *Fifth National Climate Assessment: Ch. 19 (Economics)*, at tbl. 19.1 (2023) (projecting billions of dollars in annual cost impacts of climate change across U.S. economic sectors), https://perma.cc/MNU5-JJDT.

Commerce v. New York, 588 U.S. 752, 785 (2019) (noting that while a "reasoned explanation requirement of administrative law … is meant to ensure that agencies offer genuine justifications for important decisions… [a]ccepting contrived reasons would defeat the purpose of the enterprise"). In our constitutional structure, agencies are obligated to follow the laws as Congress wrote them, not as the agency wishes those laws read. Indeed, the Supreme Court in *Massachusetts* told EPA that it cannot simply "offer[] a laundry list of reasons not to regulate" when faced with "clear statutory command." 549 U.S. at 533. "Nor can EPA avoid its statutory obligation by noting the uncertainty surrounding various features of climate change and concluding that it would therefore be better not to regulate at this time." *Id.* at 534. Rather, the Agency "must ground its reasons for action or inaction in the statute." *Id.* at 535. Here, EPA's new laundry list of policy justifications for its absurd interpretation cannot trump the clear language of the Clean Air Act itself.

IV. EPA is not required to make a pollutant-specific significant contribution finding.

EPA in this proposal completely reverses course from its prior position that the Clean Air Act does not require the Agency or the Administrator to repeat the source-category listing process in Section 111(b)(1)(A) for each pollutant it seeks to regulate under Section 111(b)(1)(B). Now, the Agency argues it must make a "pollutant-specific significant contribution finding" each time it seeks to regulate emissions of that air pollutant from a source category. For the reasons set forth below, EPA's attempt to support its new position fall short. EPA's changed position has nothing to do with the Act's language, structure, or the larger context of Section 111, and everything to do with its desired outcome – that is, the delisting of power plants only as to the requirement to regulate greenhouse gas emissions. Without any support in the Act for that outcome – and there is none, as shown herein – this aspect of EPA's proposal collapses on itself.

A. A single significant contribution finding for the source category at the time of listing is the best reading of Section 111.

EPA seeks comment on whether Clean Air Act Section 111 "is best read to require, or at least authorize the EPA to require, an Administrator's determination that an air pollutant emitted by a source category causes, or contributes significantly to, dangerous air pollution as a predicate to establishing emissions standards for that pollutant." 90 Fed. Reg. at 25,762. Section 111 does neither.

Congress in Section 111 created a two-step process for EPA to follow, under which the Agency first lists a source category based on a determination of the source category's causation of, or significant contribution to, "air pollution," and then in a second step considers and issues performance standards for applicable pollutants from the listed source category, using distinctly different criteria. The criteria for each step are clear on the face of the statute, and nowhere do they provide for or require a pollutant-specific significant contribution finding as a prerequisite to issuing performance standards for that pollutant. EPA now proposes a reading that both fails

to respect those discrete steps and fails to explain how its reading accords at all with Congress's directives in the statute.

1. The plain language of Section 111 is the best evidence that a single "significant contribution finding" for the source category is required only at the initial listing of that source category.

The plain language of the statute itself provides the most direct evidence of its meaning.[180] Section 111(b)(1)(A) of the Clean Air Act directs the Administrator to publish a list of "categories of stationary sources" and states that a category shall be included on that 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 grammatical structure is unambiguous. The pronoun "it" refers directly to its antecedent, the "category of stationary sources." *Id.* The finding of significance is thus tied to *the source category as a whole*, not to any individual pollutant emitted by that category, and is made for the purpose of determining whether the source category should be listed.

Furthermore, Congress uses the term "air pollution" as distinct from "air pollutant" in Section 111(b)(1)(A). Thus, during the initial listing step, the question is "what is the source category's contribution to air pollution" not what its contribution is of a specific pollutant in the atmosphere.[181] This framing is consistent elsewhere in Section 111[182] – at any point when

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[180] EPA fails to identify in its proposal any ambiguity in the statutory text or "gap to be filled." Nor is there any delegation of authority to give meaning to a particular statutory term to be found in the text of the statute. Thus, the answer to EPA's question "whether and how *Loper Bright* … should inform the EPA's approach to interpreting CAA section 111 and selecting which interpretation better reflects the best reading of the statute," 90 Fed. Reg. at 25,765, is, in the first instance, "not at all." *Loper Bright* does not change the fundamental point that the plain text itself provides the best reading of an unambiguous statute. And the fact that EPA has for over 50 years implemented Section 111 following the plain text and structure, if anything supports the idea that EPA has no authority here to prescribe a new "interpretation" of that language. *Loper Bright*, 603 U.S. at 394 (longstanding interpretations issued contemporaneously with the statute are especially useful in diving the best reading of a statute). *See supra* Comment III.C.

[181] EPA seems actually to agree that reading Section 111(b)(1)(A) in isolation in order to authorize the listing of a source category for one pollutant alone (as the Agency itself now seeks to do, or at least undo), "fails to give independence to the broader term 'air pollution'" used in Section 111(b)(1)(A). 90 Fed. Reg. at 25,763.

[182] *Compare, e.g.*, Section 111(b)(1) (significant contribution to air pollution) and Section 111(g)(2) (describing the Administrator's duty to revise the list to add a source category on a Governor's application showing that a previously unlisted source category significantly

significant contribution to endangerment is discussed, Congress refers to "air pollution," and where controls are discussed the wording is in terms of the source and the "pollutant(s)" to be controlled. And in most of the subsections under Section 111, neither of these terms appears; instead, the text is directed at sources and performance standards. This textual difference illustrates that the point of the Section 111(b)(1)(A) determination is to derive a list of source categories with air pollution impacts large enough to justify regulating them under the Act's "New Source Performance Standards" program (one of the Act's "three main regulatory programs to control air pollution from stationary sources," *West Virginia*, 597 U.S. at 707). In this way also, Congress established a one-time source category listing decision, rather than requiring EPA (as the Agency now would have it) to undertake a new significant contribution finding under Section 111(b)(1)(A)'s listing provision every time it seeks to regulate an air pollutant emitted by an already-listed source category.

In terms that are just as clear, Section 111(b)(1)(B) then separately mandates that the Administrator "establish . . . Federal standards of performance for new sources within [a listed] category." 42 U.S.C. § 7411(b)(1)(B). That section of the Act does not limit EPA to regulating "significant" pollutants, but rather sets criteria for establishing appropriate regulations for listed source categories based on available and cost-effective technology.[183]

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contributes to air pollution), *with* Section 111(b)(3) (requiring reports about controls for sources and pollutants); Section 111(d) (requiring standards of performance for specific pollutants emitted by existing sources in already listed source categories); and Section 111(f)(2) (describing the process EPA must follow in prioritizing which listed source categories to regulate first, in terms of the amount of specific pollutants the source categories emit). Notably the only places a reference to the significant contribution finding occurs are in subsections directing the addition of source categories to the list of industries to be regulated. Congress clearly intended for that analysis to inform the initial listing decision – the decision whether to regulate, but after that decision the significant contribution finding is not mentioned in any of the steps the Agency must take to regulate.

[183] While working on the Clean Air Amendments of 1970, the Senate Committee on Public Works stated that "[t]he overriding purpose of [Section 111] would be to prevent new air pollution problems, and toward that end, maximum feasible control of new sources at the time of their construction is seen by the committee as the most effective and, in the long run, the least expensive approach." S. Rep. No. 91-1196, at 16 (1970). This framing demonstrates Congress's understanding of "significant contribution" as directed at major contributors, and not as limiting EPA's discretionary reach. The House Report on the 1970 legislation adopted the bill with minimal modification and followed similar language, simply reciting the listing standard in statutory terms without further elaboration. *See* H.R. Rep. No. 91-1146 (1970), *reprinted in* 1970 U.S.C.C.A.N. 5356, 5356.

The text is likewise clear that the text itself provides that a listing – and significant contribution finding – under Section 111(b)(1)(A) triggers EPA's authority to issue *multiple* "proposed regulations" to establish "standards of performance" (plural). 42 U.S.C. § 7411(b)(1)(B). EPA fails to explain how a requirement for pollutant-specific significance findings aligns with this language: if EPA's reading were correct, and EPA were required to apply 111(b)(1)(A) each time it wished to establish a standard of performance, then there would be no need for Congress to have anticipated that multiple "proposed regulations" should issue "[w]ithin one year after the inclusion of a category of stationary sources in a list under [Section 111(b)(1)](A)." *Id.*

Accordingly, while it is true that each "standard of performance" issued under Section 111(b)(1)(B) is pollutant-specific, the statute confirms that EPA "shall" issue standards (plural) of performance for listed industries based on a single listing under Section 111(b)(1)(A).[184] At no point does that text suggest that a pollutant-specific contribution finding is required or even authorized for each such standard setting exercise.[185]

Notably, EPA nowhere explains in its proposal how it would have a new pollutant-specific significant contribution finding work in practice (outside of simply helping it get rid of its

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The 1977 amendment to "standardize" language across the Act made two relevant changes to the then-existing text of Section 111(b)(1)(A): (1) replacing the phrase "if he determines it may contribute" with "if in his judgment it causes, or contributes;" and (2) replacing "air pollution which causes or contributes to the endangerment of" with "air pollution which may reasonably be anticipated to endanger." *Compare id*. *with* 42 U.S.C. § 7411(b)(1)(A). Neither change altered that EPA makes its significant contribution finding with respect to a "category of sources" in the context of listing that category, not as part of subsequent regulation of specific pollutants from that category.

[184] Indeed, nothing in Section 111(b)(1)(B) says that only one pollutant can be regulated in the standards of performance. Section 111(a) defines performance standard as ''a standard for emissions of air pollutants'' plural, which allows multiple pollutants to be regulated in a standard of performance, further suggesting that Congress did not design the Act to focus on individual listings and regulations. In fact, EPA has since the 1970's issued source-specific performance standards for multiple pollutants at the same time based on a single souce-category listing. *See, e.g.*, 75 Fed. Reg. 54,970 (Sept. 9, 2010) (setting performance standards for nitrogen oxides, sulfur dioxide, particulate matter, and opacity).

[185] The "contributes significantly" language also appears in Section 111(g)(2), which directs EPA to add a source category to the 111(b)(1)(A) list on a governor's application "showing that any category of stationary source … contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7411(g)(2). Congress knew how to specify when this analysis could occur and its effect, and only chose to include it at two locations in Section 111.

mandate to regulate power plant greenhouse gas emissions). Does EPA intend its new requirement to mean that every time EPA seeks to regulate another pollutant from a previously listed source category it must undertake a new listing? If EPA means to suggest the list compiled under Section 111(b)(1)(A) must include multiple entries for each source category – one for each pollutant actually regulated – it does not say so. Not only is that concept not found anywhere in the statute, it would wreak havoc on the listings EPA has compiled over the last half century, none of which align with that presumption. And if EPA instead means to suggest that "significance" is (re)assessed as a regulatory factor in Section 111(b)(1)(B), it identifies no text in that subsection to support that claim.

To claim, as EPA now does, that this plain text two-step process in fact requires that EPA make numerous pollutant-specific findings for each source category – either as individual listings under 111(b)(1)(A) or as part of standard-setting at 111(b)(1)(B) (EPA notably does not clarify which) – necessitates reading words into the statute that the statute does not contain. This is not a permissible exercise of EPA's authority. *UARG*, 573 U.S. at 325-26 (invalidating EPA's effort, in a rule, to "tailor legislation to bureaucratic policy goals by rewriting unambiguous statutory terms"). Nor can it possibly constitute the best reading of the statute. In EPA's own words, it "proposes to interpret CAA section 111 as requiring the EPA to determine that *emissions of an air pollutant from* an existing source category significantly contribute to dangerous air pollution before imposing standards of performance *for that air pollutant* on the relevant source categories." 90 Fed. Reg. at 25,763 (emphasis added). But that construction relies on words that appear nowhere in either section. Where the text is clear, there is no room for "interpretation." Nor can EPA plausibly claim this atextual interpretation is required, not least because it has consistently applied a text-based approach for decades.[186]

EPA notably ignores its own consistent application of Section 111(b)(1)(A), which has, for half a century, listed and regulated sources without making pollutant-specific significant contribution

[186] *Compare* "He shall include a category of sources in such list in 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), *and* "the Administrator shall publish regulations establishing Federal standards of performance for new sources within such category," *id.* § 7411(b)(1)(B), *with* "EPA [must] determine that emissions of an air pollutant from an existing source category significantly contribute to dangerous air pollution before imposing standards of performance for that air pollutant," 90 Fed. Reg. at 25,763 (proposed new interpretation of Section 111). *See also Ethyl Corp. v. EPA*, 51 F.3d 1053, 1058, 1061-63 (D.C. Cir. 1995) (declining to find implied authority for EPA action under one provision – Section 211(f), 42 U.S.C. § 7545(f)(4), which is "specific and definite" – when a nearby provision expressly granted that authority in a different context).

findings.[187] Instead, EPA claims that one instance (among dozens) supports its change of position. And even then, EPA is simply wrong to suggest that its new interpretation is consistent with how it applied Section 111 in its early regulation of the lime manufacturing industry. EPA cites *National Lime* as a purported example of an early decision by EPA not to regulate certain air pollutants under Section 111 on grounds that they had little impact or that no effective controls were available. *See* 90 Fed. Reg. at 25,764 & n.95. But it is clear from reading the underlying rules that led to that case that EPA did not undertake a pollutant-specific contribution finding at the regulatory stage. Nor did EPA apply the Agency's new reading of the "significantly" to consider policy factors, *see supra* Comment III.A-B. To the contrary, in that early effort, EPA issued two separate rules, a listing rule under 111(B)(1)(A) making the significance finding (which was not specific to any pollutant), and a later standard-setting rule under 111(b)(1)(B) which did not.

EPA in the lime plant listing rule found that the source category satisfied the requirement for listing because its emissions "contribute significantly" to air pollution that causes or contributes

[187] *See, e.g.*, 36 Fed. Reg. 5931 (Mar. 31, 1971) (listing "[c]ontact sulfuric acid plants; fossil fuel-fired steam generators of more than 250 million B.t.u. per hour heat input; municipal incinerators of more than 2000 lbs. per hour refuse charging rate; nitric acid plants; and Portland cement plants"); 42 Fed. Reg. 53,657 (Oct. 3, 1977) (listing stationary gas turbines); 44 Fed. Reg. 49,222 (Aug. 21, 1979) (listing an additional source categories under 111(b)(1)(A) as part of a "priority list" consistent with EPA's obligation under then 111(f), including "Crude Oil and Natural Gas Production"); 61 Fed. Reg. 9905 (Mar. 21, 1996) (listing and regulating municipal solid waste landfills). None of those listings were pollutant-specific, and when setting standards under those listings, EPA did not make further pollutant-specific significant contribution findings before addressing particular pollutants. *See, e.g.*, 36 Fed. Reg. 24,880 (Dec. 23, 1971) (standards for Portland cement); 36 Fed. Reg. 24,878 (Dec. 23, 1971) (standards for steam generators); 36 Fed. Reg. 24,880 (Dec. 23, 1971) (standards for incinerators); 36 Fed. Reg. 24,881 (Dec. 23, 1971) (standards for nitric acid plants); 36 Fed. Reg. 24,881 (Dec. 23, 1971) (standards for sulfuric acid plants); 44 Fed. Reg. 52,792 (Sept. 10, 1979) (standards for stationary gas turbines); Stationary Combustion Turbines, 71 Fed. Reg. 38,482 (2006) (updated standards for stationary gas turbines); 50 Fed. Reg. 26,122 (June 24, 1985) (VOC standards for oil and gas industry); 50 Fed. Reg. 40,158 (Oct. 1, 1985) (SO2 standard for oil and gas industry); 77 Fed. Reg. 49,490 (Aug. 16, 2012) (new and updated VOC and SO2 standards for oil and gas industry); 61 Fed. Reg. 9905 (Mar. 12, 1996) (NMOC standards for municipal solid waste landfills, as a surrogate for landfill gas (which includes methane and CO2)); 81 Fed. Reg. 59,276 (Aug. 29, 2016) (updated standards for municipal solid waste landfills). While some listings discussed a particular pollutant or pollutants of concern as part of EPA's basis for regulating, none included a pollutant-specific significant contribution finding. *See, e.g.*, 61 Fed. Reg. at 9905 (noting that VOC emissions contribute to ozone formation and that methane emissions contribute to global climate change) & 9906 (listing decision under 111(b)(1)(A)).

to the endangerment of public health and welfare. 42 Fed. Reg. at 22,510. EPA further stated that it had reached this decision "after evaluating available information," that it was "continuing to review other *source categories*," and that "the basis for this determination is discussed in the preamble to the proposed regulation that is published elsewhere in this issue of the Federal Register." *Id.* (emphasis added).

In the second, separate final action, the Agency included the information supporting its listing decision, which was limited to describing the significance of the source category in terms of the magnitude of emissions from the source category. The "significance" of the contribution was based on reports showing that the source category was among the largest U.S. emitters of particulate matter, and also a separate rule identifying the source category as a major contributor to the deterioration of domestic air quality generally.[188]

In no place in the lime manufacturing regulatory rules is the question of the pollutants' significant contribution raised; the development of the regulations themselves was based on the understanding that the Administrator must (under Section111(b)(1)(B)) regulate listed industries, and that regulation and performance standard setting was governed by the factors found in Section 111(a)(1) describing the best system of emissions reductions which must undergird the applicable standard of performance. It was in evaluating *those* factors that EPA determined not to issue performance standards for lime plants' emissions of CO, NO_x, and SO_2. *See* 42 Fed. Reg. at 22,507 (discussing the availability of technology, costs, other non-air environmental factors evaluated in the decision not to regulate lime plants for those pollutants; EPA did not assert anything about the "significance" of those pollutants' contribution to dangerous air pollution). This rule did not contain or rely on any kind of elided version of the subsections of Section 111 or a pollutant-specific significant contribution finding like the one EPA now attempts to create.

In short, the best reading of the statute is evident from its plain terms: EPA must evaluate the significant contribution of a source category to "air pollution" before it is listed under Section 111(b)(1)(A). After listing, EPA must develop "performance standards" for the source category, using the criteria specified in the Section 111(a)(1) definition of performance standard, and without undertaking a "pollutant-specific significant contribution finding" at any of the statutory steps. EPA is not authorized to read a new statutory directive or requirement into the statute, narrowing its authority to regulate, simply because the Agency would prefer that reading to the plain text. *UARG*, 573 U.S. at 325. EPA is limited in the exercise of its authority to that provided to it by Congress in the statute Congress enacted. And this statute does not authorize, never mind require, EPA to continuously undertake pollutant-specific significant contribution findings when it regulates listed industries. Nor does the statute authorize EPA to decline to regulate a specific

[188] 42 Fed. Reg. 22,506, 22,507 (May 3, 1997) (citing the two particulate matter reports as well as 39 Fed. Reg. 42,510, 42,516 (Dec. 5, 1974) (determining that lime plants require permit reviews for both PM and SO2)).

pollutant from a listed source category on the basis of such a pollutant-specific significant contribution finding.

2. The statutory structure further demonstrates that a single significant contribution finding at initial listing is the best reading of Section 111.

On its face, then, Section 111 establishes a two-step process for regulating emissions from new sources. EPA has implemented this two-step scheme for over 50 years,[189] including the significant contribution finding in the source category listing, and then separately undertaking the standard-setting process for the listed source category, considering the factors in Section 111(a)(1).[190]

The remainder of Section 111 supports the plain text reading of Sections 111(b)(1)(A) and (b)(1)(B) as creating a two-step regulatory process in which the significant contribution finding is only completed at the initial source category listing. While it is undoubtedly true that

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[189] *Cf. Loper Bright*, 603 U.S. at 394 (citing *American Trucking*, 310 U.S. at 549, for the proposition that even where there is ambiguity in a text, an interpretation which has remained consistent over time is especially useful in determining meaning); *Kisor v. Wilkie*, 588 U.S. 558, 594 (2019) (Gorsuch, J. concurring in judgment) ("[G]overnment's early, longstanding, and consistent interpretation of a statute … could count as powerful evidence of its original public meaning.").

[190] In particular, for fossil fuel-fired steam generators of more than 250 million B.t.u. per hour heat input, EPA published its significant contribution finding and listing decision in March 1971. 36 Fed. Reg. 5931 (Mar. 31, 1971). Later that year, EPA first published performance standards under Section 111 for the listed power plant source category. 36 Fed. Reg. 24,876 (Dec. 23, 1971). Placing the March and December 1971 rulemakings side by side further reveals a clear procedural sequence. Step 1 (March) was a single, category-wide "significant contribution" finding for the fossil fuel-fired power plant industry. Step 2 (December) was the promulgation of standards for three different pollutants from that industry, based on the analysis of the "best system of emission reduction." There was no intermediate step where EPA found that PM, SO2, or NOx specifically contributed significantly to harming public health or welfare. And, no other update to the power plant standards contains such an analysis. While there are two instances where EPA combined the two determinations inside one rulemaking docket or in the same Federal Register issue, in each case, the Agency still took the two-step approach. *See* 51 Fed. Reg. 42,768 & 42,794-796 (Nov. 25, 1986) (broadening the existing industrial fossil fuel-fired steam generators list to include industrial-commercial-institutional steam-generating units and then promulgating the final standards for the expanded category in the same issue), and for a different industry, 61 Fed. Reg. 9905 (Mar. 12, 1996) (listing municipal solid waste landfills and promulgating the standards for new landfills in the same notice).

111(b)(1)(B) is "ultimately concerned with controlling particular pollutants," 90 Fed. Reg. at 25,764, that purpose has been achieved for decades without inserting extra-statutory "pollutant-specific endangerment findings" into the standard-setting step mandated by Section 111(b)(1)(B) or requiring EPA to repeat the listing process each time it regulates. Nor do the structure or context found in the other subsections of Section 111 support or "reinforce" the need for such findings, as EPA asserts.

i. EPA's attempt to find support in Section 111(b)(3) is unavailing.

EPA first tries to argue that Section 111(b)(3)'s requirement for EPA to periodically issue information on pollution control technologies for categories of sources and "air pollutants" "suggests" that a pollutant-specific significant contribution finding is required at the listing stage as well as in the subsequent regulatory process. In fact, Section 111(b)(3) does nothing of the kind – the direction to continuously evaluate pollution controls neither requires nor suggests the need to evaluate the significant contribution of any particular pollutant before setting performance standards. EPA is just begging the question here. Its argument requires that one accept the newly found counter-textual premise that the Agency tries to use Section 111(b)(3) to try to prove: that the listing EPA must do under Section 111(b)(1)(A) can be pollutant-specific. In fact, Section 111(b)(3)'s requirement to continually report on what source categories can do to control their air emissions reinforces that it is source categories that are listed, and pollutants that are subject to performance standards. Section 111(b)(3) illustrates that Congress intended EPA to continually be considering improvements in controls to achieve further emissions reductions from a listed source category.

Section 111(b)(1)(B) requires EPA to evaluate and update performance standards every eight years, "following the procedure required by this subsection [111(b)(1)(B)]" (which, again, does not mention any additional significant contribution or endangerment finding requirement). 42 U.S.C. § 7411(b)(1)(B). Section 111(b)(3), in turn, simply directs EPA to engage in an ongoing investigation of the pollution controls to support the regulatory review mandate. That provides no justification – or authority –for the idea that EPA must conduct a pollutant-specific contribution finding for each new pollutant regulated from an already-listed industry.

If the Administrator determines during a regulatory review that a revision is warranted,[191] for example by advancement in pollution controls uncovered in EPA Section 111(b)(3) investigation, the Agency must evaluate the factors outlined in Section 111(a)(1) supporting its choice of the "best system of emission reduction," from which any new emissions limits are derived. The information gleaned from the ongoing process directed by Section 111(b)(3) will be

[191] *But see supra*, nothing in 111(b)(1)(B) requires or authorizes another significant contribution finding – for the source category or for any pollutant – at any point in the regulatory process, whether initial rule development or at the periodic review stage.

useful to the Agency in that exercise. But EPA is simply wrong in asserting that anything about that process supports the idea that EPA can add a pollutant-specific significant contribution finding as a prerequisite to a decision to update performance standards.

ii. Section 111(h) provides no textual or logical support for EPA's new interpretation of the statute.

EPA also tries to find support in Section 111(h), arguing that because that section refers to "pollutants" or "pollutant," it somehow "reinforces" the idea that a pollutant-specific significant contribution finding is a prerequisite to any Section 111 standard-setting effort. But Section 111(h) is about what EPA must do where performance-based (i.e., numerical) standards are not feasible, either because fugitive emissions cannot be routed through a stack or because measurement technology is not available. It says nothing about, nor does it reinforce, any idea that a pollutant-specific significance finding must be made before standards can be set in the form of design, equipment, operational, or work practice requirements, which are described under Section 111(h).

EPA's argument makes no logical sense. On its face, Section 111(h) directs limitations on air pollution even where a particular pollutant cannot be controlled using a numerical performance standard like the one directed in Section 111(a)(1). It does not provide authority for the agency to *decline* to issue any kind of regulations based on a pollutant-specific significance finding or for any other reason, as EPA now suggests.

The purpose of the amendment adding Section 111(h), in 1977, was to address an issue that had arisen in lower courts and was ultimately decided in *Adamo Wrecking Co. v. United States,* 434 U.S. 275 (1978). *Adamo* held that EPA lacked authority under the 1970 Act to set standards in any form other than a quantitative emissions limitation. This proved impossible for fugitive emissions of asbestos released in building demolition. Congress adopted Section 111(h) and Section 112(h) to provide authority to set standards in the form of work practices, etc., when quantitative emissions limitations are not feasible. This provision offers no support to the claim that EPA must subject each separate pollutant to an individualized "significance" determination before issuing standards for that pollutant from a listed source category.

Read in the full context of Section 111, including Section 111(b)(1)(B)'s standard-setting mandate and the requirement for periodic review of standards once they are issued, Section 111(h) supports the idea that the administrator is *not* absolved of the requirement to set standards or update those standards based on the configuration of the source category. It says nothing whatsoever about, nor does it provide support or authority for, further evaluation of the significance of air pollution emissions between the initial listing decision for a source category and the establishment of regulations for that category.

iii. Section 111(j) offers no support for a "general" requirement under Section 111 to analyze the contribution of pollutants to dangerous air pollution.

EPA similarly grasps at straws in trying to find support for a pollutant-specific significant contribution finding in the technology waiver provisions of Section 111(j). First, EPA's description of the waivers in its proposal is overly limited. The Agency asserts that because the subsection uses the words "any air pollutant," it must mean that EPA "must analyze the contribution of pollutants to dangerous air pollution generally." 90 Fed. Reg. at 25,764. There is no basis in the text for that reading. While the waivers are from a source category's performance standards applicable to a pollutant or pollutants, the point is the encouragement of innovative control technologies that have "substantial likelihood … to achieve greater continuous emission reduction" than would otherwise be required by the performance standard applicable to the source category. 42 U.S.C.§ 7411(j)(1)(A)(ii). In other words, the section aims to allow for greater efficacy of control, not to add an additional requirement to evaluate the significance of any air specific air pollutant. Nor does Section 111(j) support EPA declining to set performance standards for a specific pollutant on any basis. To the contrary, one of the "innovations" this section is designed to promote is improvement in control strategies for listed source categories, for example by encouraging multi-pollutant control strategies applicable to a source category. *See id.* § 7411(j)(1)(A) (discussing in the last paragraph the degree to which such technology may reduce amounts of unregulated pollutants as a factor to be considered in the Administrator's evaluation of the public health and welfare effects of the technology).

Section 111(j) provides further evidence that Section 111 is designed to achieve deep reductions in dangerous air pollution, from all listed source categories, including through the continual advancement of new, innovative technologies. It offers no support whatsoever for a deregulatory purpose based on the need for an additional pollutant-specific significant contribution finding.

3. EPA's assertion that continuing its longstanding interpretation will create a parade of horribles is not supported by history, or by the constraints found in administrative law.

Credulously, EPA argues that reading the plain text of Section 111 to say what it says would "trigger the requirement that EPA promulgate standards of performance under CAA Section 111(b)(1)(B) for *all* air pollutants emitted by the listed source category under the definition of 'standard of performance' in CAA section 111(a)(1)." 90 Fed. Reg. at 25,763 (emphasis in original). The proposed rule posits that, if EPA is not required, prior to regulating, to make additional pollutant-specific significant contribution finding(s), it will be forced to regulate even

de minimis or non-harmful pollutants.[192] This is not a fair reading of the text, which commands that EPA promulgate regulations establishing standards of performance but nowhere states that it must do so for "all air pollutants." EPA's insertion of that command is obviously specious: despite interpreting Section 111(b)(1)(B) according to its plain and obvious textual meaning for over half a century, EPA has never in the past sought to issue standards for all of any source category's air pollutants or otherwise regulate negligible or de minimis emissions. Indeed, under basic principles of reasoned decisionmaking, no reasonable Agency could offer a plausible rationale for regulating emissions that have no connection to an air pollution problem. *See State Farm*, 463 U.S. at 43 (arbitrary and capricious where outcome is implausible in light of the facts before the agency). And as both EPA and the D.C. Circuit recognized in *National Lime*, *see supra* Comment IV.A.1, EPA's longstanding application of Section 111(b)(1)(B) has afforded it appropriate discretion to weigh which standards should be set for listed categories and with what priority – including whether standards should be set for all or only some emitted pollutants. 627 F.2d at 416.

EPA also fails to acknowledge in this proposal that in setting standards, it is constrained in by Section 111(a)(1)'s requirements governing the selection of the best system of emissions reduction. EPA must, in developing the performance standards required by 111(b)(1)(B), consider factors established in 111(a)(1), including the availability of pollution control technologies, costs, other environmental factors, and the degree of emissions reduction that can be achieved. EPA could not set a standard that did not appropriately balance, when determining the "best system of emission reduction," the proposed pollution control system's efficacy with its cost and other impacts on the regulated sources and the public. *See* 42 U.S.C. § 7411(a)(1) (defining a "standard of performance"). Where an air pollutant is emitted in de minimis amounts, or was harmless, these factors would prevent EPA from over-regulating emissions.

As with every rulemaking, EPA must be guided by the statutory factors constraining its decisionmaking and support its actions with reasoned analysis to reach a result that flows from the consideration of the record before it, articulating a rational connection between the facts found and the choice made. *See* 42 U.S.C. § 7607(d)(9); *see also AdX Commc'ns of Pensacola v FCC*, 794 F3d 74, 79 (D.C. Cir. 2015); *State Farm*, 463 U.S. at 43; *Motor Equipment Mfrs. Ass'n v. EPA*, 627 F.2d 1095, 1106 (D.C. Cir. 1979) ("The Administrator must give reasoned consideration to the issues before him and reach a result which rationally flows from this consideration."); *cf. Loper Bright v. Raimondo*, 603 U.S. at 395 (citing *Michigan v. EPA* and other cases for the proposition that if there were an ambiguity here, leaving a gap for the agency to "fill," EPA would be constrained by the requirement to engage in "reasoned decisionmaking."). Implementing the statute as written does not absolve EPA of the need to weigh appropriate standards consistent with the factors in Section 111(a)(1) and to persuasively

[192] Nor, of course, would EPA be required to regulate emissions that are not "air pollutants" within the meaning of the Act, which would also serve to exclude non-harmful emissions.

demonstrate the reasonableness of its choices for each source category. The Agency's attempt to insert a new pollutant-specific significant contribution finding into the Section 111 standard-setting process is a solution in search of a problem – it is simply not needed to avoid the parade of horribles the Agency now invents. *See* 90 Fed. Reg. at 25,763 (describing EPA's new concern about being forced to regulate "de minimis emissions…[or] pollutants that are not dangerous to public health or welfare"). It should be compelling that in 50 years of implementing this section of the statute as it is written, such horrible outcomes have not arisen. But EPA fails entirely to recognize that salient point.

B. Merging two previously listed source categories does not require a new listing process.

EPA separately argues that regardless of whether a pollutant-specific significant contribution finding is required before initial listing, the combination of two previously listed categories (steam-generating EGUs and stationary combustion turbines) does require a new significance finding. *See* 90 Fed. Reg. at 25,762-63. EPA is incorrect. As a matter of simple logic and mathematics, if each source category separately has been found to significantly contribute to dangerous air pollution – as was found when each was listed – then the combined category must also significantly contribute. EPA also fails to explain why, given that its authority to subcategorize a listed industry as part of the standards-setting process does not require a pollutant-specific significant contribution finding, 42 U.S.C. § 7411(b)(2), whereas combining two listed industries would.

EPA listed the steam unit and combustion turbine source categories under Section 111(b)(1)(A) in the 1970s.[193] In the 2015 rule prescribing performance standards under Section 111(b)(1)(B), EPA issued for the source category comprised of these two listed source categories, a suite of CO_2 standards applicable to subcategories of the combined source category. 80 Fed. Reg. 64,510 (Oct. 23, 2015). Because both source categories were previously listed, no listing under Section 111(b)(1)(A) – and thus no new significant contribution or endangerment finding for the combined category – was required. *See* 42 U.S.C. § 7411(b)(1)(A); 80 Fed. Reg. at 64,529. EPA reasoned at the time that because the two categories provide the same product, namely electricity, because they each separately had been found to contribute significantly to pollution that endangers public health or welfare, and because EPA was not adding any sources to either category, it was rational and reasonable to combine them for purposes of CO_2 regulation. 80 Fed. Reg. at 64,530-32. In the alternative, EPA found that the combined category did significantly contribute to air pollution that may endanger public health and welfare. *Id*. at 64,532. In the proposed repeal, EPA fails to provide a detailed justification for reversing either of these findings.

[193] *See* 80 Fed. Reg. 64,510, 64,531 (Oct. 23, 2015).

Moreover, grouping the two pre-existing categories together did not affect the scientific basis on which either category was listed in the first place: each emits the same pollutants in the same amounts whether the categories are regulated in the same or different parts of EPA's regulations. Just as EPA's decision to subcategorize or divide a pre-existing category is not a new listing decision, *see id*. at 64,528 & nn.100-01 (citing previous rulemakings), the Agency's combination of pre-existing categories is not a new listing decision, and no new significant contribution finding is required, pollutant-specific or otherwise.

That makes logical and mathematical sense. The sum total of endangerment from the combination of two categories, each of which had previously been found separately to significantly contribute to dangerous air pollution, would be necessarily greater than either of the parts separately. EPA in 2015 concluded that it would conserve resources and reduce confusion to issue one set of regulations. 80 Fed. Reg. at 64,531-32. As EPA explained at that time, "these two source categories are pre-existing listed source categories and the EPA will not be subjecting any additional sources in the categories to CAA regulation for the first time." *Id*. at 64,532.

EPA now announces that, "[i]n a change from its position in the 2015 NSPS, the EPA proposes to conclude that a new source category, whether consisting of previously unregulated sources or sources previously regulated under distinct categories, cannot be listed without the Administrator's determination of significant contribution required by the statute." 90 Fed. Reg. at 25,763. Yet the Agency provides neither any record support for its decision nor even a rationale for why its previous position was allegedly incorrect. As such, the proposal falls short of *Fox Television's* requirement that when "depart[ing] from a prior policy," an agency must demonstrate that "the new policy is permissible under the statute, that there are good reasons for it, and that the agency believes it to be better." 556 U.S. at 515 (emphasis omitted). As a practical matter, the outcome of the new position changes nothing about the need to regulate the combined source category or its separate parts – the record amply demonstrates that each component source category, as well as the combined source category, emits CO_2 in significant amounts, and that CO_2 endangers public health and welfare. Nor can EPA show any reasoned basis for its change of position, the result of which would needlessly require the Agency to spend more resources and more time on this question. Finally, the Agency's desired outcome in this proposal is not even furthered by its change of position, as nothing in the record supports a delisting for CO_2 pollution, which EPA seeks. Thus, the proposal is arbitrary and capricious on this issue.

C. EPA has not established that it has authority to reverse a significant contribution finding or delist a source category.

EPA proposes to reverse its 2015 significant contribution finding for greenhouse gas emissions from fossil fuel-fired power plants and delist the combined fossil fuel-fired power plant source category as to greenhouse gases. 90 Fed. Reg. at 25,763. But it offers only a cursory analysis of

its statutory authority to undertake those actions. Because that analysis does not meet the Agency's procedural obligations, both aspects of the proposal must be withdrawn or reissued with a more fulsome explanation of the Agency's claimed authority, with notice and an opportunity for comment.

Regarding its reversal on the significant contribution finding, EPA first contends that "such a determination would be consistent with agencies' authority to reconsider prior decisions." *Id.* But the D.C. Circuit has been clear that EPA has no "inherent" reconsideration authority, only what it is given by statute, because "it is axiomatic that administrative agencies may act only pursuant to authority delegated to them by Congress." *NRDC v. Regan*, 67 F.4th 397, 401 (D.C. Cir. 2023). Thus "EPA must point to something in either the Clean Air Act or the APA that gives it authority to" take the proposed action. *Clean Air Council v. Pruitt*, 862 F.3d 1, 9 (D.C. Cir. 2017). That authority to reconsider past actions must at least be "implicit" in the statutory structure. *NRDC v. Regan*, 67 F.4th at 401 (quoting *HTH Corp. v. Nat'l Lab. Relations Bd.*, 823 F.3d 668, 679 (D.C. Cir. 2016)).

EPA fails to establish that such reversal authority is implicit in Section 111(b), so its general assertions of reconsideration authority do not suffice. The handful of cases that the Agency cites as the basis for its authority do not address Section 111 or otherwise do not support EPA's contention. In *FDA v. Wages & White Lion Invs., L.L.C.*, the FDA applied its guidance as to how it would adjudicate applications for premarket authorization of certain drugs; the Court held that the agency had *not* changed positions in almost every respect to its guidance – and, at any rate, the agency's basic authority to alter its guidance as to future adjudications was not at issue. 145 S. Ct. 898, 916 (2025). Similarly, in *Fox Television*, the FCC issued an order resolving complaints as to the use of certain expletives in television broadcasts – but the agency's power to resolve those complaints, and in so doing change its policy as to enforcement, was not contested. 556 U.S. at 517. And in *State Farm*, NHTSA acted under a provision expressly authorizing the agency to "revoke" safety standards. 463 U.S. at 34.

Although *Clean Air Council* did consider reconsideration of a rule promulgated under Section 111, that case concerned reconsideration of standards of performance under Section 111(b)(1)(B), not listing decisions under Section 111(b)(1)(A). As such, the court's observation that EPA could reconsider its "regulations" was not addressing the Agency's powers under Section 111(b)(1)(A). 862 F.3d at 9. The cases that EPA relies on thus do not establish whether Section 111(b)(1)(A) itself "implies" authority to reverse findings or listings made under that provision - and EPA must do more to establish that this is the case in order to exercise any such authority here.

That is especially true where the Act provides reason to believe such reversal authority may not have been intended. First, the Act provides that once EPA lists a source category, the Agency has an obligation to regulate its emissions of air pollutants on the statutory timetable. 42 U.S.C. §

7411(b)(1)(B). This statutory chain of events points in only one direction, with an initial determination triggering a non-discretionary duty to issue proposed regulations. That has been enough, in other contexts, to conclude that EPA lacks reconsideration authority over the initial determination. In a case under the Safe Drinking Water Act, the D.C. Circuit explained that EPA could not reverse a conclusion that a pollutant "satisfied the criteria for regulating" because under the statute, once EPA made that determination it was "require[d]" to issue a proposed regulation within a specified period of time. *See NRDC v. Regan*, 67 F.4th at 402 ("To read into the statute another course of action – one that allows EPA to withdraw its regulatory determination entirely and decide that it 'shall not' regulate – would be to contravene the statute's clear language and structure and 'nullif[y] textually applicable provisions meant to limit [EPA's] discretion.' (internal quotation marks omitted)). Section 111(b)(1)(A) likewise directs EPA to determine which sources are eligible for regulation, with Section 111(b)(1)(B) requiring the Agency, upon that listing decision, to "publish proposed regulations" within one year. 42 U.S.C. §§ 7411(b)(1)(A)-(B).[194] EPA has not grappled with the implications of this statutory structure, and its interpretation by the *NRDC v. Regan* court, and so has not adequately explained a major legal interpretation, 42 U.S.C. § 7607(d)(3)(C), or considered an important aspect of the problem. *State Farm*, 63 U.S. at 43.

The section's use of the term "revise" does not alone resolve these important questions. *See* 90 Fed. Reg. at 25,763. In context, that term is at least ambiguous. Section 111(g)(2) directs EPA to "revise" the list to specify a source category that a governor demonstrates contributes significantly to dangerous air pollution – authority that, by its terms, allows EPA to "revise" only by adding, not subtracting, source categories. 42 U.S.C. § 7411(g)(2). No comparable provision exists to demonstrate that "revise" was intended by Congress to address removals as well as additions.

Further, despite Congress's inclusion of a source-category delisting provision in Section 112, no such provision was added to Section 111. *See id.* § 7412(c)(9). In Section 112, Congress specified the conditions under which a source category could be delisted, namely, where the emissions of hazardous air pollutants from no source within the category meet defined levels of risk. *Id.* In Section 111, however, there are no express standards governing a delisting determination. It would run contrary to statutory purposes to infer some undefined authority to deregulate a source category under Section 111. *Id.* § 7401(b)(1) (stated purposes of the Clean Air Act is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population"); *id.* § 7411(b)(1)(A).

[194] *NRDC v. Regan* also suggests that the fact that Section 111(b)(1)(A) leaves that determination to the Administrator's "judgment" is not determinative. *See* 90 Fed. Reg. at 25,763; *see also id.* at 25,767 (purporting to reverse the 2015 finding as "an exercise of the Administrator's informed judgment"). The provisions at issue in that case also called for the Administrator to determine "whether or not" to regulate. *See* 67 F.4th at 402.

Section 111 expressly requires new sources, then within a listed category, to continue to comply with standards finalized or in development at the time of their construction, *id.* § 7411(a)(2), (e), and Section 169 incorporates those standards as a floor in new source permitting to prevent deterioration of air quality that has already been attained, *id.* § 7479(3). These statutory indicia further suggest that EPA cannot presume that authority to reverse a listing decision is statutorily implicit; rather, it must affirmatively explain how such authority would be consistent with the statutory text, context, structure, and purposes – and provide notice of, and an opportunity for comment on, that interpretation.

In addition, even assuming that EPA generally had authority to remove source categories from its Section 111(b)(1)(A) list, EPA's approach to delisting here cannot be squared with the statute. EPA proposes "to revise the list of source categories to remove the combined source category of fossil fuel-fired EGUs that emit GHGs that was created for the first time in the 2015 NSPS, while retaining pre-existing source categories for EGUs and related regulations for different, non-GHG pollutants." 90 Fed. Reg. at 25,763. For reasons explained above, EPA has not established that Congress intended sources categories to be listed for specific pollutants. *Supra* Comment IV.A. As such, EPA cannot presume authority to delist a source category or source categories as to only one pollutant, while leaving the rest of a listing in place. Even assuming, *arguendo*, that the statute authorizes delistings, there is even less evidence in the text to suggest that EPA has authority to "revise" its list in a manner that would *partially* delist source categories, such that they could remain regulated for some pollutants but not for others. To the contrary, because the statute directs that EPA "shall include" categories of sources on its list if they contribute significantly to "air pollution," 42 U.S.C. § 7411(b)(1)(A), EPA cannot reasonably delist a source category under Section 111 that it acknowledges *does* contribute significantly to air pollution. *See* 90 Fed. Reg. at 25,763.[195]

EPA has not explained how its proposal to delist the fossil fuel-fired power plant category as to a single pollutant is consistent with the Clean Air Act. Because EPA's authority to reverse its actions under Section 111(b)(1)(A) is a "major legal interpretation . . . underlying the proposed rule," it had to be disclosed at proposal. 42 U.S.C. § 7607(d)(3). Any attempt to cure this defect in the final rule would represent a departure from the proposal, requiring notice and an opportunity to comment on the Agency's previously undisclosed rationale.

[195] The scope of the source category (combined or split) is irrelevant: EPA admits that fossil fuel-fired power plants – whether considering steam boilers and combustion turbines together or separately – do contribute significantly to various air pollution problems. *Id.*

D. To the extent EPA has suggested a pollutant-specific significant contribution finding is required to regulate greenhouse gases in particular, as opposed to other pollutants, there is no textual basis in Section 111 for treating different pollutants differently.

To the extent EPA is proposing that EPA has discretion to treat greenhouse gases *differently* than other pollutants when determining significance under Section 111, that proposal has no basis in the statute. *See* 90 Fed. Reg. at 25,763-64 (analogizing to *UARG*). EPA attempts to find support in *UARG*, 573 U.S. at 302, but there is no support for any such reading of EPA's authority to be found by analogy or otherwise in that case – indeed, the opposite is true.

Section 111(d) provides the only textual basis for EPA to distinguish among air pollutants, and then only in the context of excluding from regulation under 111(d) those pollutants that are already listed under the hazardous air pollutant program in Section 112 or for which ambient air quality criteria have been issued pursuant to Section 108. 42 U.S.C. § 7411(d)(1). Neither of these two exceptions are relevant here, and nowhere else in Section 111 is EPA granted discretion to treat any particular air pollutant differently than any other at the listing stage of the rulemaking. Instead, the Clean Air Act provides flexibility to EPA at the *next* phase: that of standard-setting, s*ee id.* § 7411(a)(1). This flexibility, and the absence of anything resembling the "dramatic expansion" of EPA's potential authority to millions of sources, render EPA's citation to *UARG* inapposite. *Cf. UARG*, 573 U.S. at 322–26 (rejecting as impermissible EPA's attempt to "rewrite" the Act's "precise numerical thresholds").

The lesson EPA should have gleaned from the *UARG* decision is the need to hew to the statute's plain text, and to understand and implement that text in light of the overall context of Section 111. Section 111's subsections fit well together just as they are written, to advance that purpose, and do not support EPA's attempt to add language to sections or otherwise imply the need for exceptions the statute does not already include.

E. *West Virgini*a *v. EPA* does not support EPA's changed interpretation.

EPA seeks comment on whether the requirement for a pollutant-specific significant contribution finding is "necessary" to avoid a major question under *West Virginia v. EPA*. 90 Fed. Reg. at 25,765. The answer is emphatically and unambiguously no. As discussed above, the Supreme Court's decision in *West Virginia* did not disturb the D.C. Circuit's holding that EPA is authorized to set standards for greenhouse gases emissions from power plants. *Am. Lung Ass'n.*, 985 F.3d at 975-77; *see also* Comment II.B.1., *infra*. In *West Virginia*, the major question was limited to the *kind* of standards EPA issued, but the Court recognized EPA's authority to issue "traditional" technology-based standards under Section 111 for greenhouse gas emissions from power plants. *See* 597 U.S. at 709-12 (providing overview of EPA's authority to issue standards

under Section 111). Indeed, the Court denied certiorari on the only question relating to EPA's authority to regulate greenhouse gases from power plants under Section 111.[196]

V. EPA's proposal lacks the sufficient support necessary to demonstrate it protects public health and welfare, even under EPA's own interpretation and consideration of factors.

As detailed in Comment III, *supra*, EPA cannot consider policy considerations or other factors outside of the scope of Section 111 when determining whether a source category contributes significantly to air pollution. However, even considering these factors, the record lacks the evidence necessary to support EPA's conclusions regarding feasibility of the 2015 and 2024 Carbon Pollution Standards and this proposal's impact on public welfare. The proposal would thus be arbitrary and capricious even if policy considerations were relevant to a significant contribution finding, which they are not.

A. EPA incorrectly asserts that no regulation is possible.

Even under EPA's own interpretation, EPA's primary proposal falls short of demonstrating how policy factors or cost considerations support reversal of the 2024 Rule for certain subcategories, let alone for all sources regulated in the 2015 and 2024 Rules. In support of its consideration of policy issues as part of the significant contribution analysis, EPA asserts that it must consider "the availability of achievable, cost-effective emissions reductions" because "if no such reductions are available, the influence or effect of regulating the source category is null and its contribution to air pollution is not significant." 90 Fed. Reg. at 25,766.

EPA cannot substantiate that *no* cost-effective control measures or alternatives are or will be available for these sources because it has not analyzed that question in either the primary *or* alternative proposal. The alternative proposal specifically asserts that consideration of regulatory alternatives other than those it seeks to directly repeal are "outside the scope of this repeal action." 90 Fed. Reg. at 25,773. Because EPA's objections to the existing standards of performance are specific to particular *levels* of emission reduction (90% CCS for baseload gas and coal retiring after 2038, and 40% cofiring for coal retiring between 2032 and 2038) and particular compliance timeframes, the proposal does not present any justification, let alone a sufficient record to show, that emission reductions are unavailable under any number of potential configurations of smaller scales, on different timeframes, in different subcategories, or using different systems of emission reduction, for instance.

EPA's failure to meaningfully consider alternatives extends even to a "system of emission reduction" it adopted for these sources, and defended as reasonable in court, during the last Trump Administration. In the first Trump Administration's Affordable Clean Energy, or "ACE"

[196] *Westmoreland Mining Holdings v. EPA*, No. 20-1778, 142 S. Ct. 420 (2021) (mem.) (grant of certiorari limited to Question 2) (consolidated with *West Virginia v. EPA*).

Rule, EPA concluded that the best system of emission reduction for existing coal plants was heat rate improvements. 84 Fed. Reg. at 32,535-36.

The proposal now claims these techniques "*may* be unsuitable" for existing sources (because individual sources improving their heat rate "may" have lower dispatch costs and "may" displace lower-emitting generation). 90 Fed. Reg. at 25,766 (emphasis added). Whatever the merits of heat rate improvements may be compared to other systems that achieve greater reductions (these commenters think there are few), EPA's feeble attempt to disqualify these measures is not adequate to support it conclusion that there are *no* potential systems of emission reduction for power plant CO_2 emissions.

Moreover, EPA's alternative proposal would repeal only certain greenhouse gas standards for power plants, while leaving others – including regulations governing some new gas plants and all new coal plants – intact. This directly contradicts EPA's assertion that no cost-effective control measures are available for the source category. EPA cannot in one breath claim that it can repeal the significant contribution finding on the basis of a lack of viable regulatory options while proposing in the next breath to keep several existing regulations intact. Proposing to do so is plainly arbitrary and capricious. In fact, EPA does not actually assert that regulation would fail to result in meaningful reduction of greenhouse gases. Instead, EPA asserts that "it is *likely* that the Agency *may be unable to develop* a ["best system of emission reduction"] that would result in meaningful, cost-reasonable GHG emission reductions." 90 Fed. Reg. at 25,766 (emphasis added). EPA falls short of demonstrating that these sources' emissions cannot be meaningfully abated. *See* Comments of Environmental NGOs on Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units, Alternative Proposal (filed to this docket Aug. 7, 2025); Comments of CATF and NRDC on Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units, Alternative Proposal (filed to this docket Aug. 7, 2025).

B. EPA fails to adequately address the public health impacts of its proposed repeal.

In the 2024 Carbon Pollution Standards, EPA took care to explain the lifesaving public health benefits of enacting strong climate standards for the power sector. 89 Fed. Reg. at 39,807-10 (referencing immense scientific literature tying greenhouse gas emissions to the impacts of climate change, and explaining its impact on human health). Yet EPA's proposed repeal of those standards focuses narrowly on compliance cost savings, effectively ignoring the toll on public health and welfare – increased illness, premature death, and billions in monetized climate and health harms.[197] EPA attempts to bury these staggering disbenefits in the final pages of the

[197] 90 Fed. Reg. at 25,779 (presenting the compliance cost savings with only passing reference to other impacts of the proposed repeal "such as effects on emissions, which are further described

Regulatory Impact Analysis, but agencies cannot simply hide inconvenient facts and pretend they do not exist.

EPA proposes to find it has discretion in determining significance to "consider policy issues inherent in the statutory structure, including… impacts of the emissions on public health and welfare." 90 Fed. Reg. at 25,765. Yet the agency then spends pages discussing everything *except* the impacts of emissions on public health and welfare. *See id.* at 25,765-68. Even by its own proposed test, EPA has failed to properly evaluate the relevant policy considerations.

Based on robust power sector modeling, EPA projected $370 billion in net benefits from the 2024 Carbon Pollution Standards over 20 years – including $270 billion in climate benefits, $120 billion in public health benefits, and $19 billion in industry compliance costs.[198] While EPA did not rely on its cost-benefit analysis to set those standards,[199] the monetized benefits are a helpful indicator of the tangible improvements to public health and wellbeing that arise from preventing the climate harms documented in the 2024 Rule's preamble.[200]

By failing to address the fundamental flaw that its proposed repeal will worsen public health and welfare, EPA has failed to demonstrate it has adequately considered even its own named policy issues.

Emission of greenhouse gases cause numerous direct and indirect health impacts, and there is expert consensus that the continued and unfettered emission of greenhouse gases will drive increased climate-attributable morbidity and mortality.[201] The public health impacts of greenhouse gas emissions are unequally distributed – lower-income populations, younger, elderly, disabled, and Indigenous individuals, and women will face a greater health burden due to

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in section 4 of the RIA," and no acknowledgement of the overall net negative cost-benefit analysis or public health harms).

[198] EPA, *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*, EPA-452/R-24-009, April 2024, https://perma.cc/74Q5-BVT6 [hereinafter "2024 CPS RIA"]. Pg. ES-11.

[199] 89 Fed. Reg. at 40,004 (explaining that EPA "does not rely on the benefit-cost results included in the RIA as part of its BSER analysis").

[200] 89 Fed. Reg. at 39,807-10.

[201] *See* IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability, Working Group II Contribution to the Sixth Assessment Report of the IPCCC 50* (Hans-Otto Pörtner et al. eds., 2022) (2022) [hereinafter "IPCC, AR6"], https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf

climate change.[202] EPA cannot reasonably undertake its proposed action without first considering the full scope of public health impacts detailed below and addressing the previously relied on and countervailing facts that contradict the Agency's reversal in policy.

1. EPA fails to adequately consider that its proposal will worsen public health and welfare by increasing greenhouse gas emissions.

i. Air Quality

Worsening air quality due to greenhouse gas emissions causes significant negative health impacts.[203] There are multiple direct and indirect pathways through which greenhouse gas emissions deteriorate air quality. Pollution generated by wildfires – including particulate matter, carbon monoxide, and hazardous air pollutants – contributes to death, respiratory disease, cardiac events, and negative birth outcomes.[204] Additionally, wildfire pollution, particulate matter pollution, and aeroallergens are all produced in heightened quantities with warmer ambient temperatures that result from greenhouse gas emissions.[205] Each of these is associated with heightened climate-sensitive cardiovascular and respiratory distress.[206] Increased ambient temperatures also contributes to the formation of ground-level ozone, the primary component of smog, which causes respiratory disease, obstructive pulmonary disease, asthma attacks, preterm and low birthweight infants, harms to brain health, and premature death.[207]

ii. Extreme Weather Events

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[202] *Id.* at 78.

[203] *Air Pollution*, World Health Org., https://perma.cc/TH6G-PPV2 (WHO estimates that ambient and indoor air pollution jointly cause approximately 7 million premature deaths annually).

[204] *See* Wentz, *Climate Change and Human Health*, at 17.

[205] *Id.*; A.B. Singh & Pawan Kumar, Climate Change and Allergic Diseases: An Overview, 3 Front Allergy 964987 (2022).

[206] *See* IPCC, AR6, at 11.

[207] Hans Orru et al., Impact of Climate Change on Ozone-Related Mortality and Morbidity in Europe, 41 European Respiratory J. 285 (2013); *Health Effects of Ozone Pollution*, Env't Prot. Agency, https://perma.cc/6DCT-V7J2. EPA also lists the following health impacts of ozone: coughing and sore or scratchy throat; difficulty breathing; inflammation and damage to the airways; aggravation of lung diseases such as asthma, emphysema, and chronic bronchitis, increased frequency of asthma attacks. *Id.*; *see also A Declaration on Climate Change and Health*, Am. Lung Ass'n., https://perma.cc/W3AT-YLQT [hereinafter Am. Lung Ass'n, *Declaration on Climate Change*].

Emission of greenhouse gases raises ambient temperatures, which in turn heightens the frequency and severity of extreme weather events, including extreme heat, precipitation, and flooding.[208] These extreme events directly cause mortality and morbidity and indirectly contribute additional health stressors by disrupting health services and emergency management systems.[209]

Extreme heat attributable to greenhouse gas emissions has significant implications for public health, contributing to more deaths than any other climatic hazard.[210] Conclusively, health impact studies have found that climate change induced by greenhouse gas emissions has contributed to rising ambient temperatures, increasing the pervasiveness of extreme heat exposure.[211] Exposure to extreme heat causes a variety of health issues including heat stroke, heat exhaustion, heat cramps, rhabdomyolysis, heat rashes, and hyperthermia.[212] Further, extreme heat can exacerbate existing health issues, including cardiovascular and respiratory diseases, diabetes-related health issues, and cerebrovascular disease.[213]

The climatic impacts resulting from greenhouse gas emissions increase severe precipitation, storm, and flooding events.[214] Directly, extreme weather events cause mortality, property loss,

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[208] *See* IPCC, AR6, at 8, 11.

[209] *Id.* at 11.

[210] Am. Lung Ass'n, *Declaration on Climate Change*; A.M. Vicedo-Cabrera et al., The Burden of Heat-Related Mortality Attributable to Recent Human-Induced Climate Change, 11 Nature Climate Change 492 (2021); *see also* Jagadeesh Puvvula et al., Estimating the Burden of Heat-Related Illness Morbidity Attributable to Anthropogenic Climate Change in North Carolina, 6 GeoHealth e2022GH000636 (2022).

[211] *See* Jess Wentz, *Climate Change and Human Health: A Synthesis of Scientific Research and State Obligations under International* Law 12 (2024); Maria Romanello et al., *The 2023 Report of the Lancet Countdown on Health and Climate Change*, 402 Lancet 2346, 2360 (2023).

[212] *See Heat Stress and Workers*, Nat'l Inst. for Occupational Safety & Health, https://perma.cc/YGJ6-S9AR; Wentz, *Climate Change and Human Health*, at 12.

[213] *Weather Extremes*, Nat'l Inst. of Env't Health Sci., https://perma.cc/QE32-MYQT; *Heat and Health*, World Health Org. (May 28, 2024), https://perma.cc/PUV6-VUNG. Additionally, the incidence of extreme heat exposure disproportionately falls on vulnerable populations, including the elderly, those exposed to high levels of occupational heat, children, disabled, and individuals without access to shelter or air conditioning. *See* Wentz, *Climate Change and Human Health*, at 12.

[214] Wentz, *Climate Change and Human Health*, at 14 (citing Mark Risser & Michael Wehner, *Attributable Human-Induced Changes in the Likelihood and Magnitude of the Observed Extreme Precipitation During Hurricane Harvey*, 44 Geophysical Rsch. Letters 12457 (2017) and Geert

and displacement.[215] Indirectly, these events threaten already fragile infrastructure, health services, and emergency response systems, resulting in high public and private costs.[216] Emissions-induced climate change also increases the occurrence of fire weather, which heightens the risk and potential severity of wildfires.[217] In addition to morbidity, loss of property, and displacement, wildfires produce harmful smoke that is associated with severe respiratory ailments.[218]

iii. Disease, Water Quality, and Water Quantity

Ambient warming caused by greenhouse gas emissions increases the instances of infectious diseases, including vector-borne illnesses such as malaria and diarrheal disease.[219] The prevalence of infection diseases increases with higher ambient temperatures – which expand the geographic range of zoonotic-borne diseases – and through increased human displacement.[220]

Jan van Oldenborgh, *Attribution of Extreme Rainfall from Hurricane Harvey, August 2017*, 12 Env't Rsch. Letters 1 (2017)).

[215] *See* Wentz, *Climate Change and Human Health*, at 14.

[216] *Id*.; *New Report: Extreme Weather Events Cost Economy $2 Trillion Over the Last Decade*, Int'l Chamber of Comm. (Nov. 11, 2024), https://perma.cc/75WG-MAJ2.

[217] *See* Wentz, *Climate Change and Human Health*, at 15 (citing Marco Turco et al., *Anthropogenic Climate Change Impacts Exacerbate Summer Forest Fires in California*, 120(25) Proc. Nat'l Acad. Sci. e2213815120 (2023); Michael Goss et al., *Climate Change is Increasing the Likelihood of Extreme Autumn Wildfire Conditions Across California*, 15 Env't Rsch. Letters 094016 (2020); and Simon F.B. Tett et al., *Explaining Extreme Events of 2016 from a Climate Perspective*, 99 Bulletin Am. Meteorological Soc'y S1, S65 (2018)).

[218] *See* Wentz, *Climate Change and Human Health*, at 17; *see also* Am. Lung Ass'n, *Declaration on Climate Change* ("Particulate pollution and other harmful substances in [wildfire] smoke are linked to lung disease, lung cancer, heart disease, stroke, dementia, and preterm birth.").

[219] *See* IPCC, AR6, at 11; Anthony J. McMichael et al., *Global Climate Change*, ch. 20 in World Health Org., Comparative Quantification of Health Risks: Global and Regional Burden of Disease Attributable to Selected Major Risk Factors 1606 (Majid Ezzati et al. eds., 2004).

[220] *See* IPCC, AR6, at 51–52; *see also* Am. Lung Ass'n, *Declaration on Climate Change*, ("Disease-carrying insects like ticks and mosquitoes are multiplying and spreading to new areas, increasing exposure to illnesses like Lyme disease and Dengue fever. Water- and food-borne pathogens are also spreading.").

Climatic changes resulting from greenhouse gas emissions threaten the ability of local governments to provide safe drinking water and adequate sanitation services.[221] Elevated runoff of pollutants and sediment from heavy precipitation degrades water quality.[222] Additionally, the increasing frequency and duration of droughts strain the existing water supply and undermine food production and distribution systems.[223] Finally, saltwater intrusion – which is exacerbated by drought and sea-level rise – reduces the supply of potable water.[224]

2. EPA's misleading and flawed technical analysis cannot hide the fundamental fact that its proposal will worsen public health and welfare.

Since EPA largely ignores the harmful impacts of its proposal on public health and welfare, it is not surprising that it has likewise failed to conduct sufficient analysis documenting the impacts of the rule. This deprives the public of an opportunity to comment on its analysis and demonstrates that EPA has improperly put its thumb on the scale to hide the worst impacts of its proposed repeal.

i. EPA fails to conduct any updated modeling.

In its proposal to repeal all (or in the alternative, some of the) greenhouse gas standards for fossil fuel-fired power plants, EPA conducted no new modeling to evaluate the impacts. Rather, the agency solely relies on the power sector modeling completed for the 2024 final rule, simply flipping the baseline and policy cases from that analysis. In the 2024 rule's RIA, the baseline reflected EPA's published 2023 reference case that included on-the-books policy as of December 2023, while the policy case reflected all assumptions in the 2023 reference case as well as the final carbon pollution standards themselves.[225] What was previously the policy case (with standards) is now treated as the baseline, and vice versa.

This switch does not substitute for genuine analysis. EPA admits that the 2023 reference case used in the 2024 rule is now outdated. The agency itself acknowledges significant market and

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[221] *See* EPA, *Climate Adaptation and Source Water Impacts*, https://perma.cc/6JBY-9ZFV. EPA also notes increased prevalence of harmful algal blooms, which can have secondary impacts on human health. *Id*.

[222] *Id*.

[223] *Id*.

[224] *Id*.

[225] Modeling documentation and output files for the 2024 CPS RIA can be found on EPA's website at *Analysis of the Final Greenhouse Gas Standards and Guidelines: Power Sector Modeling*, https://perma.cc/5JER-7GRD.

regulatory changes that have occurred since that time,[226] yet still chose not to update its modeling analysis. Despite noting "that the 'true' baseline in the RIA is different than the baseline modeling that informed the 2024 rule's RIA,"[227] EPA relies on old assumptions and fails to reflect a best available estimate of projected impacts of either the proposed repeal or alternative proposal.

EPA provides no explanation or rationale for abandoning its standard practice of conducting new modeling in support of a major regulatory action. Instead, the agency vaguely promises future analysis without specifying when or how it will be done.[228] Its conclusion that the outdated results are the "best-available" is simply the product of its unexplained decision to not conduct any new analysis in the first place:

> *In absence of updated baseline modeling for comparison to projections under this proposal*, the compliance cost estimates presented in the 2024 CPS RIA are the EPA's best available estimate of the reduction of compliance costs under this proposed action. Similarly, the projected emission changes of the CPS in the final rules illustrative scenario in the 2024 CPS RIA are the EPA's best available estimate.[229]

Effective regulatory analysis requires identifying a baseline, or "what the world will be like if the proposed rule is not adopted."[230] EPA fails this basic test. Since the 2024 RIA, key dynamics in the power sector have shifted: electricity demand projections have risen sharply, in part due to AI and data center growth,[231] and natural gas price futures have risen due to factors like increasing

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[226] Repeal RIA at 1-1 to 1-2.

[227] *Id.* at 6-5.

[228] *Id.* at 1-2. *But see* 90 Fed. Reg. at 25,779 n.301 (noting "that the model has not been updated and re-run to account for changes in the energy system that have occurred over the past year" without suggesting EPA will provide new modeling to reflect any of those changes).

[229] Repeal RIA at 1-2 (emphasis added).

[230] Off. of Mgmt. & Budget, Circular No. A-4, at 4 (2003).

[231] *See* Arman Shehabi, et. al., *2024 United States Data Center Energy Usage Report*, Lawrence Berkeley Nat'l Lab., LBNL-2001637 (2024), https://escholarship.org/uc/item/32d6m0d1; Elec. Power Rsch. Inst., *Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption* (2024), https://www.epri.com/research/products/000000003002028905; Lalit Batra, Deb Harris, George Katsigiannakis, Justin Mackovyak, Himali Parmar & Maria Scheller, *Rising Current: America's Growing Electricity Demand*, ICF (June 2025), https://perma.cc/BV7T-QUB6.

liquefied natural gas exporting capacity.[232] These trends fundamentally affect investment decisions, plant operations, and the costs and benefits of repealing standards.

EPA itself concedes this point in the repeal RIA, noting that assumptions about electricity demand, retirements, and gas prices from Summer 2023 no longer reflect current expectations – and that both cost savings and disbenefits "may be higher" if assumptions were updated. [233] EPA also claims that modeling the alternative proposal would not yield materially different results from the primary proposal and thus presents just one set of estimates.[234] But given how much conditions have changed since 2023, this assumption is speculative at best. Without updating modeling, EPA cannot credibly claim that its estimates reflect the likely impacts of either its primary or alternative proposals.

ii. EPA makes unsupported conclusions regarding energy impacts

In both the primary and alternative proposals, EPA asserts the Repeal will prevent negative impacts to the energy grid. *See* 90 Fed. Reg. at 25,755 (asserting that the primary proposal will "promote the public health or welfare through energy dominance and independence secured by using fossil fuels to generate power."); *Id.* at 25,773-74 (asserting the gas co-firing will negatively impact needed energy supply). However, the record lacks any modeling to support that assertion. EPA's reasoning is especially concerning given that the Repeal sacrifices urgently needed emissions reduction to protect public health and welfare, as detailed extensively in the 2024 Carbon Pollution Standards.

To say that the only – or even best – way to a reliable grid is through fossil fuels is evidently false. Grid regions across the country are proving that a clean energy future is compatible with grid stability and reliability.[235] In 2024, for the first time ever, California achieved 100 percent clean energy in the California ISO service area every three out of five days as the California ISO

[232] *See* EIA, *Annual Energy Outlook 2025* (Apr. 15, 2025), https://perma.cc/Y8XA-GVWU. The 2024 CPS RIA, and thus also this proposed repeal, used the Annual Energy Outlook 2023 for many key assumptions. While enacted after the proposal, passage of the One Big Beautiful Bill, Pub. L. 119-21, 139 Stat. 72 (2025), that repealed certain clean energy tax credits may also impact energy projections.

[233] Repeal RIA at 6-6.

[234] *Id.* at 1-2.

[235] *See, e.g.*, Starla Yeh, Chandler LLC, ERCOT and CAISO Demonstrate System Reliability Benefits of Renewables and Energy Storage (Aug. 6, 2025), https://www.caelp.org/s/CAISO_ERCOT_Reliability_case_studies.

system reached 100 percent clean electricity for a period of the day on 219 different days.[236] Through this period California experienced no system outages or generation-related grid issues. Similarly, despite record-breaking electricity demand, a rapidly evolving resource mix, and an unprecedented surge in data center and industrial electricity demand growth, the Texas grid has been notably reliable and resilient in large part due to the contributions of renewable energy and battery storage.[237] While these two regions represent differing approaches to clean energy deployment and integration, both present case studies of successfully and effectively managing renewable energy on an electricity grid while maintaining, and even improving, grid reliability.

In addition, many studies show that grid decarbonization, and the policies that support it, can reduce energy costs and cost variability and support stable costs for consumers.[238] Conversely, a recent analysis by RFF shows that the Administration's current policy landscape including repealing the 2024 standards and gutting the Inflation Reduction Act's clean energy credits, are projected to increase retail rate volatility and the variability of electricity costs, harming consumers.[239] In fact, regions with the least fossil fuel-fired power have the lowest level of energy price volatility.[240] Similarly, another analysis by RFF shows that this combination of policy choices by the Trump Administration will raise electricity costs for households through the entire model period and under all electricity demand and gas price scenarios studied.[241]

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[236] California Energy Commission, *Estimated California ISO Clean Energy Days*, https://perma.cc/MT6W-KXVA.

[237] Texas Reliability Entity (Texas RE), 2024 Reliability Performance and Regional Risk Assessment, https://perma.cc/9U7G-EY6L. Renewable energy served 34.8% of Texas' total electricity demand in 2024. Solar generation rose by 996% and battery storage by 2,617% over the past five years. Battery storage injected over 4,000 MW during critical evening ramp hours, helping prevent outages and stabilize frequency. Grid reliability remained strong, with no Energy Emergency Alerts triggered in 2024 despite extreme weather and record peaks.

[238] McKenna Peplinski & Nicholas Roy, Resources For the Future, If/Then: Unintended Effects of Recent Federal Actions on Electricity Prices (Aug. 2025), https://www.resources.org/common-resources/if-then-unintended-effects-of-recent-federal-actions-on-electricity-prices/.

[239] *Id.* at 2-4

[240] *Id.* at 3 & fig. 1.

[241] Nicholas Roy & Karen Palmer, Resources For the Future, *Hidden Costs of Repealing EPA's Carbon Pollution Standards: Consequences for the Environment, Households, and Society* 5-6 & Fig. 5 (Aug. 2025), https://www.rff.org/publications/issue-briefs/hidden-costs-of-repealing-epas-carbon-pollution-standards-consequences-for-the-environment-households-and-society.

Expert analysis demonstrates that electricity supply is forecasted to keep pace with growing demand at least over the next ten years.[242] While data centers and electrification are expected to increase demand, supply is anticipated to keep up with demand even with the 2024 Carbon Pollution Standards and other clean air protections intact.[243] In addition, continued expansion of intra- and inter-regional transmission capacity, reductions in interconnection queue delays, and alternative supply arrangements (e.g., co-location) for flexible loads will incrementally address reliability concerns.[244]

Moreover, there are existing market and regulatory structures in place to reliably manage accelerated demand growth, including markets and resource planning processes.[245] Utilities are diligent in meeting their reliability obligations; reliability councils are effective in conducting planning studies and identifying locations and timing of new supply and transmission resource development needs; and markets have efficiently provided the price signals needed to spur investment in and development of new power resources.[246] The operation of competitive markets and resource sharing, and the foundations of integrated least-cost resource planning for many decades successfully focused on achieving reliability at the lowest electricity costs for ratepayers.[247] And wholesale markets are designed to provide a financial signal to the development community, resulting in a strong supply and demand response.[248] In states and regions without competitive wholesale markets, regulators mandate that utilities carry out planning and development processes well in advance to ensure that sufficient supply and demand.[249] This is an obligation that has consistently been met by utilities, regardless of high demand growth periods.[250]

EPA's unsupported assertions will not only result in the loss of needed clean air protections to protect public health,[251] but will likely result higher financing costs and corresponding

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[242] *See* Paul Hibbard et al, *Meeting Forecasted Growth in Electricity Demand*, Analysis Group 18-40, 43-47, 56 (Aug. 2025).

[243] *See id.* at 29-40, 43-47, 48-50, 54, 56.

[244] *Id.* at 33-40.

[245] *Id.* at 40.

[246] *See id.* at 40-47.

[247] *See id.* at 40-43.

[248] *Id.* at 40-42.

[249] *Id.* at 42-43.

[250] *Id.* at 40-47.

[251] *Id.* at 50-55.

suboptimal resource selection outcomes that will negatively impact consumers and grid reliability.[252]

iii. EPA assigns zero value to carbon emissions.

Although the RIA includes the total power plant annual emissions of CO_2 and the increase in emissions from the proposed actions in Table 3-1, the benefit-cost analysis fails to quantify the climate impact of these increased emissions. In the 2024 RIA, EPA estimated climate impacts of the change in CO2 emissions using estimates of the social cost of carbon (SCC) "that reflect recent advances in the scientific literature on climate change and its economic impacts."[253] The SCC is an economic metric that estimates the net impact, both positive and negative, from the climate effects of increased carbon dioxide emissions. In Comment II.B.4, *supra*, we explain how the SCC demonstrates beyond any doubt that power plant greenhouse gas emissions are "significant" under any reasonable understanding of that term. In addition, the agency's failure to use the SCC to monetize the greenhouse gas emission increases that would result from the proposal is arbitrary and capricious.

EPA has used estimates of the social cost of carbon and other greenhouse gases in analysis of proposed actions since 2008. In much of that period (from 2009-2016 and from 2021-2025), these values used by EPA were consistent with those recommended by the Interagency Working Group on the SCC. Even in the interim years from 2017 to 2020, when the Interagency Working Group was disbanded, agencies under the First Trump Administration used a different set of values for the SCC for regulatory analyses[254] pursuant to E.O. 13,783.[255] This version of the SCC focused on a domestic-only impact estimates rather than the international estimate used by the prior Administration, and also used much higher discount rates to assess emissions (or emission reductions occurring in future years). Many of the signatories to this comment vigorously disputed those analytic choices, and the comments submitted to this docket by the Institute for Policy Integrity explain in great detail why a proper methodology for monetizing CO2 impacts requires lower discount rates and a global rather than domestic-only focus. However, even with these changes, EPA still derived a non-zero SCC rather than declining to quantify the cost of carbon entirely as seen in the repeal RIA.

[252] *Id.* at 48-50.

[253] 2024 CPS RIA at ES-8.

[254] 2019 RIA at 7-1 to 7-9.

[255] Exec. Order 13783, Promoting Energy Independence and Economic Growth, 82 Fed. Reg. 16,093 (Mar. 31, 2017).

In a 2017 report,[256] the National Academies of Science, Engineering, and Medicine conducted a comprehensive review of the SCC, "recommending specific criteria for future updates to the SC-CO2 estimates, a modeling framework to satisfy the specified criteria, and both near-term updates and longer-term research needs pertaining to various components of the estimation process."[257] These recommendations have been widely accepted by experts. The analysis from the 2024 RIA (which is the basis for this proposed rule's analysis) also sought to use a SCC that addressed the recommendations made in the National Academies' report, with the modeling process detailed in a technical report: *EPA Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances*.[258] EPA also conducted an external peer review of the report to ensure consistency with economic theory and the latest available science.[259]

The 2025 RIA fails to quantify the social cost of carbon based on any of these developments in the last two decades. Instead, it dismisses this entire body of literature and assumes a value of zero. EPA justifies omitting climate impacts and downplaying health harms by citing "uncertainty" in projections. But the Agency's own 2024 RIA – and the scientific literature it draws upon – incorporates rigorous uncertainty analysis, including Monte Carlo simulations, confidence intervals, and peer-reviewed data sources. Ignoring this framework and substituting a "precise" estimate for climate damage defies both logic and precedent.

In the 2025 RIA, EPA claims that there are "significant uncertainties related to the monetization of greenhouse gases" including the magnitude of climate change due to greenhouse gas emissions and the resulting economic impact.[260] EPA also questions socioeconomic and emissions assumptions, including future economic and population growth and future technological advancements.[261] These claims lead EPA to conclude that the impacts from greenhouse gas emissions should not be monetized. However, many of EPA's concerns are

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[256] *See* Nat'l Acad. Sci., Eng'r & Medicine, Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide (2017), https://nap.nationalacademies.org/catalog/24651/valuing-climate-damages-updating-estimation-of-the-social-cost-of.

[257] 2019 RIA at 4-5.

[258] EPA, EPA-HQ-OAR-2021-0317, EPA Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances (2023), https://perma.cc/6CJN-QLHT.

[259] *See e.g.*, EPA, *EPA Releases Responses to External Peer Review Comments on "Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances"*, https://perma.cc/X5UV-PSC3 (last updated Nov. 12, 2024).

[260] Repeal RIA at 6-6.

[261] *Id.* at 6-7.

already addressed in the scientific literature as well as the 2024 RIA. In fact, the widely accepted recommendations from the 2017 report from the National Academies cited above which forms the basis of EPA's pre-2025 work on estimating the SCC, acknowledges that there is a high degree of uncertainty but proposes systematic ways to account for those uncertainties. For instance, the probabilistic projections for population, income, and emissions used in the 2024 RIA and developed by Resources for the Future (RFF)[262] are the "most consistent with the National Academies' recommendations."[263] Analysis used in other modules of EPA's SCC estimation, including the Finite Amplitude Impulse Response (FaIR) model[264], Data-driven Spatial Climate Impacts Model (DSCIM)[265], and the Greenhouse Gas Impact Value Estimator (GIVE) model[266] are also cited by or conform closely to the National Academies recommendations. Throughout the estimation process, uncertainties in the individual parameters across the modules are incorporated in a systematic Monte Carlo analysis that can capture the range of possible outcomes. Omitting the impacts from changes in greenhouse gas emissions in this proposed rule due to the "uncertainty" of estimating impacts "would replace an uncertain range of the SCC with an overly precise estimate of exactly $0."[267]

Agencies cannot simply ignore climate impacts under the guise of "uncertainty" – particularly when the best science and economics demonstrate there *is* no uncertainty that increasing greenhouse gases will have long-lasting and irreversible consequences. *See, e.g.*, *Ctr. for Biological Diversity*, 538 F.3d at 1200("[W]hile the record shows that there is a range of values, the value of carbon emissions reduction is certainly not zero."); *cf. Citizens Action Coal. of Ind., Inc. v. FERC*, 125 F.4th 229, 241 (D.C. Cir. 2025) (explaining that while FERC may decline to

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[262] Kevin Rennert, et al., *The Social Cost of Carbon: Advances in Long-Term Probabilistic Projections of Population, GDP, Emissions, and Discount Rates*, Res. for the Future (Oct. 2021), https://perma.cc/MWR7-ZTQT.

[263] 2024 CPS RIA at 4-6.

[264] Nicholas J. Leach, et al., *FaIRv2.0.0: a generalized impulse response model for climate uncertainty and future scenario exploration*, 14 Geosci. Model Dev. 2007 (2021), https://gmd.copernicus.org/articles/14/3007/2021/.

[265] Tamma Carleton, et al., *Valuing the Global Mortality Consequences of Climate Change Accounting for Adaptation Costs and Benefits*, 137 Q. J. Econ. 2037 (2022), https://academic.oup.com/qje/article-abstract/137/4/2037/6571943.

[266]RFF-Berkeley Greenhouse Gas Impact Value Estimator (GIVE) Model, https://www.rff.org/topics/data-and-decision-tools/give/.

[267] Brian C. Prest & Kevin Rennert, *When Put to the Test, Higher Social Cost of Carbon Stands Firm*, Resources (Feb. 18, 2025), https://perma.cc/3F2L-5HY4.

use the social cost of carbon when conducting environmental reviews, that the agency cannot ignore greenhouse gas emissions).

iv. Errors undermine credibility of EPA's analysis.

In addition to methodological oversights, EPA's analysis also contains typographical errors that cast doubt on the analytical rigor of the updated analysis. In section 3.2.5 (Impacts on Fuel Use, and Prices), EPA simply takes the analysis conducted for the 2024 RIA and reverses the impacts, "so the signs on these projected impacts are the opposite from what they were."[268] These changes are reflected in Table 3-6 ("National Impacts on Fuel Prices, Fuel Consumption, and Electricity Prices") and Table 5-1 ("Summary of Certain Energy Market Impacts"), which summarizes the findings from Table 3-6, giving only the percentage change rather than the price or quantity.

In making these changes, EPA makes a mistake with the signage on the percentage change (+/-), which are inconsistent between Table 3-6 and Table 5-1 for several entries. Retail electricity price and price of natural gas delivered to power sector in 2030 as well as average price of coal delivered to the power sector in 2035 are presented as "-0%" in Table 5-1 when they should instead be positive 0.5%, as seen in Table 3-6. Because of this mistake, Table 5-1 misrepresents the actual results of the analysis first conducted in the 2024 RIA and adjusted for Table 3-6. Instead of showing that retail electricity prices, price of coal delivered, and price of natural gas delivered would increase in the relevant years, Table 5-1 misleadingly signals that these prices would be lower because of the proposed changes. These errors further erode confidence in an analysis that already fails to update its modeling or methods.

C. Even if EPA could base its decision on external policy considerations, it has arbitrarily failed to address the many countervailing harms that will flow from repeal.

Even if EPA were correct that it can account for "policy considerations" in its significance determination – which, as discussed above, it cannot – then the Agency's proposal would *still* be in error because it has not given adequate weight and meaningful consideration to all policy considerations that would be relevant under such an interpretation of the statute. *See State Farm*, 463 U.S. at 43. EPA has failed to consider numerous countervailing policy implications of deregulating greenhouse gas emissions that represent important aspects of the problem. *See id*. Specifically, the Agency has disregarded implications related to national security, geopolitics, global trade, the power sector and clean energy, and the U.S. economy. While Commenters maintain that extra-statutory policy considerations cannot lawfully play *any* role in a significance determination under Section 111(b)(1)(A), *see* Comment III.A-B, *supra*, it would certainly be arbitrary and capricious for EPA to cherry-pick only its *preferred* policy consideration while

[268] Repeal RIA at 3-12.

ignoring other major real-world impacts that would result from the agency's decision not to regulate power plant greenhouse gas emissions simply because they counsel against their preferred outcome.

1. National Security

Greenhouse gas emissions are directly related to national security, yet EPA does not analyze or consider the implications of deregulating greenhouse gas emissions on national security interests. There are numerous national security impacts of greenhouse gas deregulation that warrant meaningful consideration. Increasingly, climate change exacerbates geopolitical tensions over climate responses and social and political unrest caused by climate-related displacement and resource scarcity, in addition to eroding state legitimacy.[269] Absent reductions in greenhouse gas pollution, the risks associated with these impacts will necessitate increased investment in national defense systems, diplomatic initiatives, and global development institutions.[270]

Deregulation of greenhouse gas emissions also undermines global climate change amelioration efforts and threatens U.S. global strategic interests.[271] Specifically, a 2021 report by the National Security Council on the risks to U.S. interests due to climate change found that:

> Geopolitical tensions are likely to grow as countries increasingly argue about how to accelerate the reductions in net greenhouse gas emissions . . . Debate will center on who bears more responsibility to act and to pay – and

[269] *See* Nat'l Intel. Council, *Climate Change and International Responses Increasing Challenges to US National Security Through 2040*, NIC-NIE-2021-10030-A (2021); Sherri Goodman, *Threat Multiplier: Climate, Military Leadership, and the Fight for Global Security* 3–4 (2024); Natl. Acad. Sci., Engineering & Med., *Climate Security in Central America: Proceedings of a Workshop* (2024); Natl. Acad. Sci., Engineering & Med., *Climate Security in South Asia: Proceedings of a Workshop* (2023); *see also* Dep't of Defense, *Department of Defense Climate Adaptation Plan* (Sept. 1, 2021), https://perma.cc/9F49-T72Y.

[270] *See* Nat'l Intel. Council, *Climate Change and International Responses Increasing Challenges to US National Security Through 2040*, at 15.

[271] *See* Tom Kertscher, *US versus China: Which nation is doing more to address climate change?*, Politifact (Mar. 27, 2023), https://perma.cc/5VDD-CAGS (detailing expert consensus that "regardless of what China does, it is important for the U.S. to continue to reduce its emissions because of its impact on the climate and influence on other countries").

> how quickly – and countries will compete to control resources and dominate new technologies required for the clean energy transition.[272]

These concerns will be exacerbated by EPA's reversal of greenhouse gas emissions regulation, and the Agency cannot exclude this aspect of its proposed action to the extent that it brings policy considerations into its determination of significance.[273]

2. Global Political Impacts

EPA also fails to perform a full accounting of the global political impacts of deregulating greenhouse gas emissions. Because global political consequences flow from a reversal of domestic climate regulation, the Agency must adequately assess these implications and reasonably explain its choice of policy.

EPA's brief analysis of global political impacts proposes to find that "the large and growing share of GHG emissions from international sources strengthens the conclusion that U.S. fossil fuel-fired electricity generation . . . does not contribute significantly to globally elevated concentrations of GHGs in the atmosphere," 90 Fed. Reg. at 25,768, and posits that "only extraordinary emissions reductions on a global scale would have any impact on the potential endangerment of public health and welfare." *Id.* at 25,766. The Agency supports these assertions by pointing to the purportedly small contribution of emissions from the U.S. fossil fuel-fired power sector as compared to all other emission sources globally. *Id.* at 25,767.

Contrary to the Agency's conclusion that national regulation of greenhouse gas emissions is unimportant and unimpactful, there is significant evidence that U.S. emissions regulation influences global climate policy.[274] Domestic policy has a technology-diffusing effect through influencing the composition of technology exports, generating cost savings for certain

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[272] *See* Nat'l Intel. Council, *Climate Change and International Responses Increasing Challenges to US National Security Through 2040*, at 1–7.

[273] Fiona Harvey, *'Backsliding': most countries to miss vital climate deadline as Cop30 nears*, The Guardian (Feb. 8, 2025), https://perma.cc/E9DU-WA7W (explaining how geopolitical tension and the devolving trade relationship between China and the United States is partially driven by a divergent view on the importance of climate policy: while the U.S. is backsliding, China has invested heavily in renewable technology and developed significant clean power generation capacity).

[274] *See* Jody Freeman, *The Environmental Protection Agency's Role in U.S. Climate Policy – A Fifty-Year Appraisal*, 31 Duke Env't L. & Pol'y F. 1, 64, 75 (2020) ("[EPA's] experience shows that domestic action can drive international climate progress rather than the other way around. … [U.S.] credibility internationally hinges on our ability to deliver meaningful emission reductions through domestic policies.").

technologies, and signaling to investors and producers the technologies that are most effective and preferable. For example, the global diffusion and universal adoption of catalytic converters as a result of the Clean Air Act is well documented.[275] The U.S.'s method and stringency of regulating emissions also influence regulation in other countries. Some countries base their regulatory policies on the those adopted by the United States, while others are indirectly influenced through signals communicated by U.S. policies.[276] Further, reversal of greenhouse gas regulations undermines the U.S.'s position as a global climate and economic leader. The country's retreat from emissions reduction commitments is likely to weaken relationships with allies who are dedicated to climate action and allow competitors like China to strengthen their geopolitical influence by reaffirming investments in renewable energy and interest in global climate coordination efforts.[277] U.S. emissions regulation impacts the trajectory of global greenhouse gas emissions through technology diffusion and signaling of regulatory priorities. EPA has failed to adequately consider these important global political impacts of deregulating emissions.[278]

3. Global Trade Impacts

EPA disregards how the reversal of domestic greenhouse gas regulation affects global trade, thus neglecting an important aspect of the problem. In the 2025 RIA , EPA concludes that the proposal will affect the global trade balance by generating a "modest increase in net exports in the initial years through changes in domestic relative prices due to avoided compliance costs," but the Agency does not provide data, modeling assumptions, or calculations to support this assertion.[279] Conversely, even if expanded reliance on fossil fuels provided modest short-term benefits through increased energy exports, such gains would invariably be insufficient to offset

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[275] *See e.g.*, David Gerrard & Lester B. Lave, *Implementing technology-forcing policies: The 1970 Clean Air Act Amendments and the introduction of advanced automotive emissions controls in the United States*, 72 Tech. Forecasting & Soc. Change 761 (2005).

[276] *See e.g.*, *FDA Recognizes Canada as Having a Comparable Food Safety System to the U.S.*, U.S. State Dep't (May 4, 2016), https://perma.cc/CS8M-73NS.

[277] *See* Carlos Garcia-Soto, *Reversing climate progress: consequences and solutions in the wake of U.S. policy rollbacks*, 4 npj Climate Action 63 (2025) [hereinafter Garcia-Soto, *Reversing Climate Progress*].

[278] *See e.g.*, Charles F. Parker & Christer Karlsson, *The UN climate change negotiations and the role of the United States: assessing American leadership from Copenhagen to Paris*, 27 Env't Pol. 519, 528 (2018) (finding the US is one of the actors most frequently mentioned as leading in the field of climate change).

[279] *See* Repeal RIA at 5-8.

forgone clean-energy investments and diversification.[280] Moreover, the volatility of global energy prices and the lower cost of renewable power as compared to fossil fuels renders fossil-fuel expansion unlikely to result in economic gains.[281]

Importantly, EPA has ignored numerous economic dimensions of global trade that are implicated by greenhouse gas deregulation. First, the Agency has failed to consider how reversal of domestic greenhouse gas regulations will disadvantage U.S. producers. Research demonstrates that domestic climate policy via the Inflation Reduction Act provided the U.S. with a competitive business advantage on energy products as international companies prioritized U.S. production to capitalize on the resulting tax credits.[282] Additionally, because domestic climate policy reduced the overall price of electricity in the U.S., the country retained an edge over competitors in energy-intensive industries like chemical production.[283] Reversal of greenhouse gas regulation destroys this economic competitiveness by eliminating the global business benefits of U.S. emissions regulation.

Additionally, EPA has not accounted for the cost of other countries' climate regulations, which will increase the more the U.S. backslides on emissions regulations. Some countries leverage economic policy mechanisms to force international producers to internalize the economic cost of carbon-intensive production and to prevent carbon leakage from areas with more stringent emissions policies to those with laxer policies.[284] For example, the European Union's carbon border adjustment mechanism (CBAM) functions by assessing the carbon emissions generated during a good's production and imposing a tariff proportional to those emissions upon importation.[285] Countries that independently internalize the carbon intensity of production by pricing carbon – for example, through an emissions trading scheme or a carbon tax – are exempt from the tariff so long as the exporting country's policy is equivalent to or more stringent than

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[280] *See* Garcia-Soto, *Reversing Climate Progress*.

[281] *Id*.

[282] Milan Elkerbout, Dallas Burtraw, Åsa Löfgren & Lars Zetterberg, Res. for the Future, *Transatlantic Cues: How the United States and European Union Influence Each Other's Climate Policies* 6–7 (2024).

[283] *Id.* at 6.

[284] *See* Garcia-Soto, *Reversing Climate Progress*; Goran Dominioni & Daniel C. Esty, *Designing Effective Border Carbon Adjustment Mechanisms: Aligning the Global Trade and Climate Change Regimes*, 65 Ariz. L. Rev. 1, 9–11 (2022); Ali Hasanbeigi and Aldy Darwili, Global Efficiency Intel., *Embodied Carbon in Trade: Carbon Loophole* 6, 25 (2022).

[285] Emily Benson et al., *Analyzing the European Union's Carbon Border Adjustment Mechanism*, Ctr. Strategic Int'l Stud. (Feb. 17, 2023), https://perma.cc/DV62-YSKL.

that of the importing county.[286] Then, economic mechanisms like CBAMs can be leveraged against U.S. imports because production emissions are not internalized through greenhouse gas regulation.[287] EPA's consideration of the impacts of emissions deregulation on global trade is inadequate because the Agency failed to account for the long-term costs and benefits of expanding reliance on fossil fuel power, ignored numerous economic dimensions of global trade, and omitted the cost of other countries' climate regulations on U.S. producers and consumers.

4. Power Sector & Clean Energy

EPA has neglected to account for the impacts of emissions deregulation on the power sector and energy markets and thus has failed to consider an important aspect of the problem. Energy affordability and grid reliability were significant points of consideration in the Agency's 2024 Rule when assessing the cost and energy requirements factors relevant to a best system of mission reduction determination. *See* 89 Fed. Reg. at 39,803 (discussing adjustments to the final rule to address concerns about resource adequacy and grid reliability). While the discussion in the 2024 Rule was in the context of the *second* stage in Section 111's standard setting rather than in the initial significance stage, the agency's prior factual conclusions with respect to affordability and reliability are relevant here to the extent EPA now contradicts itself without rational explanation.

Instead, the proposed rule merely asserts that the carbon pollution standards did not "adequately ensure the national interest in affordable, reliable electricity," *see* 90 Fed. Reg. at 25,755, with a bare citation to Executive Order 14261, which concludes that coal resources will be "critical" in "increasing energy supply," "lowering electricity costs," and "stabilizing the power grid." *Id.* at 25,755 (citing Exec. Order 14261). If EPA wishes to impute policy considerations such as reliability into the significance assessment, at the very least it must explain itself when disregarding its prior factual findings. *Air All. Houston v. EPA*, 906 F.3d 1049, 1067 (D.C. Cir. 2018); *Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 981 (2005); *see also AEP Texas North Co. v. Surface Transp. Bd.*, 609 F.3d 432, 440–41 (D.C. Cir. 2010). EPA must consider the significant countervailing evidence that clean energy offers substantial

[286] *Id*.

[287] *See* Garcia-Soto, *Reversing Climate Progress* (explaining how countries may elect to exert economic pressure on the U.S. as retribution for reversal of the country's climate policy).

affordability,[288] reliability,[289] and supply availability[290] benefits as compared to fossil fuel-based power.[291] EPA must also address the negative impacts from reversal of greenhouse gas

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[288] *See How do Energy Innovations Make Energy More Affordable*, U.S. Dep't of Energy, https://perma.cc/3YWY-U8RA ("In just the last 10 years, costs have declined significantly for many technologies including distributed solar, land-based wind, utility-scale solar, electric vehicle (EV) batteries, and lithium-ion batteries."); *Rapid Rollout of Clean Technologies Makes Energy Cheaper, Not More Costly*, Int'l Energy Agency (May 30, 2024), https://perma.cc/J6NM-ALE2 ("The data makes it clear that the quicker you move on clean energy transitions, the more cost effective it is for governments, businesses and households."); *Clean Power Facts and Statistics*, Am. Clean Power Ass'n, https://perma.cc/A6E5-4JPE ("Wind and solar costs have fallen 31% and 46% respectively over the last decade, making them the most affordable new electricity sources in the majority of the U.S."); Geoffrey Heal, *Economic Aspects of the Energy Transition*, 83 Env't & Res. Econ. 5 (2022) ("the economic cost of moving from fossil fuels to renewable energy in electricity generation is very low, and probably lower than many estimates of the economic benefits from this change").

[289] *See* Alexandra Klass, Joshua Macey, Shelley Welton & Hannah Wiseman, *Grid Reliability Through Clean Energy*, 74 Stan. L. Rev. 969 (2022) (arguing that the perceived reliability cost of renewable energy is a failure of the U.S.'s segmented approach to energy policy and governance, rather than a factual circumstance); *Renewable Energy Makes the Grid More Reliable*, Am. Clean Power Ass'n, https://perma.cc/UY25-DQ8F ("In many parts of the country, renewables consistently provide the majority of electricity with no reliability issues. Renewables already provide a significant portion of the electricity used in many parts of the country, such as Iowa, Kansas, Texas and California."); *How Renewable Energy Can Make the Power Grid More Reliable and Address Risks to Electricity Infrastructure*, Senate Joint Econ. Comm. Dems. (Jan. 19, 2024), https://perma.cc/UBX6-URNP ("As extreme weather strains the grid and demand grows, renewable sources of energy are already playing a significant role in building grid resilience . . . Around the country, wind turbines, solar energy, and batteries often buttress the grid when extreme heat or other weather events tax it the most.").

[290] *See Renewable Energy Explained*, Energy Info. Admin. (Sept. 13, 2024), https://perma.cc/SH9T-KH2Y ("renewable sources are virtually inexhaustible"); *Renewable Energy*, Cnt. for Climate & Energy Sols., https://perma.cc/ET7B-5K7U ("Renewable energy is the fastest-growing energy source in the United States, increasing 42 percent from 2010 to 2020.").

[291] *See* Eric Gimon, *Energy Innovation, Lessons from the Texas Big Freeze* (2022) (concluding that "fossil-intensive grids cannot provide consistent resilience against climate risks that they are simultaneously exacerbating."); Garcia-Soto, *Reversing Climate Progress* ("The global economy is moving toward renewable energy as the cost of solar and wind power drops to 55% and 65% lower than the average fossil fuel.").

regulations, which include increased energy prices,[292] forgone economic and employment benefits of clean energy, increased energy dependency,[293] and climate-related grid hardening and insurance costs from extreme weather events.[294]

For example, in stating that fossil fuel-based power and coal in particular will be critical for lowering electricity costs, EPA dismisses and ignores the facts of the current energy system. In reality, the key economic drivers of coal plants have all deteriorated over the last decade, due to secular market forces, economic trends, commodity volatility, and their aging and associated increasing costs of operation and maintenance. These worsening cost drivers have resulted in higher levelized cost of energy (LCOE) of coal plants, making them increasingly uncompetitive relative to other sources of electricity including gas (existing and new), nuclear, and renewable technologies. These dynamics have created self-reinforcing cycles that have led generation to shift away from coal and pushed many plants into retirement.[295] Forcing an artificial shift toward

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[292] *See* Garcia-Soto, *Reversing Climate Progress* (noting that energy policy reversals and dependence on fossil fuels will negatively impact consumers via increased costs while providing minimal, short term benefits); Ben King, Hannah Kolus, Michael Gaffney, Anna van Brummen & John Larsen Matt Kasper, The Rhodium Grp., The Stakes for Energy Costs in Budget Reconciliation (2025) (estimating the increase in energy costs resulting from rollback of greenhouse gas regulations); *The External Costs of Fossil Fuels; Environmental and Health Values of Solar*, Energy & Pol'y Inst. (Aug. 6, 2014), https://perma.cc/6YWJ-73QY (outlining the cost to ratepayers from fossil fuel generated electricity – including cleanup of toxic spills, health costs, importing fuel from other states, foregone benefits of local zero emission energy systems – and concluding that utilities have little economic incentive to reduce costs because they can be passed through to the customer.).

[293] *See* Ben King, Hannah Kolus, Michael Gaffney, Anna van Brummen & John Larsen Matt Kasper, The Rhodium Grp., *Trump 2.0: What's in Store for US Energy and Climate?* (2025) ("rolling back executive action on climate could raise average household energy costs, increase dependence on oil and gas imports, drive up GHG emissions, and put substantial levels of private investment at risk").

[294] *See* Sarah Brody, Matt Rogers & Giulia Siccardo, McKinsey, Why, and How, Utilities Should Start to Manage Climate-Change Ris*k* (2019) (describing the increased financial risk to utilities from climate-induced extreme weather events); Madalsa Singh, Alison Ong & Rayan Sud, *Wires and fire: Wildfire investment and network cost differences across California's power providers*, 38 The Electricity J. 107475 (2025) (comparing drivers of utility costs and focusing on wildfire risk).

[295] CAELP, Changing Economics of the U.S. Coal Fleet: A Review of Coal Plants' Operating Costs and Market Dynamics (May 2025), https://www.caelp.org/s/coal_plant_economics.

these resources will increase costs for consumers, a fact which utilities clearly recognize. For example, Duke Energy Indiana noted in their recent Integrated Resource Plan that "[c]ontinued reliance on aging, relatively inefficient [coal-fired power plant] assets through the 2030s results in higher maintenance and compliance costs, increased cost risk due to MISO energy market exposure, and increased reliability risk."[296]

This deliberate misstating and ignoring of energy market facts has been repeated by the current Administration across publications meant to, among other things, support EPA's erroneous and misguided decision to support fossil fuels and repeal the CPS.

5. U.S. Economy Impacts

EPA's minimal consideration of the impacts of repealing emissions regulations on the domestic economy again demonstrates it cannot justify its proposed repeal even assuming arguendo that it has discretion to impute policy considerations into the significance determination. EPA does not address the specific sectoral impacts of the proposed action, for example, with respect to

[296] Duke Energy, "Indiana 2024 Integrated Resource Plan" (2024) at 11, *available at* https://www.duke-energy.com/home/products/indiana-integrated-resource-plan.

industries such as tourism and recreation,[297] real estate,[298] agriculture and fisheries,[299] forests,[300] insurance and reinsurance,[301] and hazardous chemicals.[302] The impact of emissions deregulation on these industries is significant, so EPA cannot purport to weigh broader policy considerations without addressing these impacts.

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[297] *See e.g.*, *Recreation and Tourism*, U.S. Climate Resilience Toolkit, https://perma.cc/32XS-ZA33 ("Climate change puts the ecosystems that support . . . recreational opportunities and other valuable goods and services at risk."); Christopher A. Monz et al., *Understanding and Managing the Interactions of Impacts from Nature-Based Recreation and Climate Change*, 50 Ambio 631 (2021) ("Disturbance to ecosystems in parks and protected areas from nature-based tourism and recreation is increasing in scale and severity, as are the impacts of climate change.").

[298] *See e.g.*, Andrew Freedman, *Climate Change Could Erase $1.4 Trillion in Real Estate Value: Report*, Axios (Feb. 3, 2025), https://perma.cc/G43D-DEDM ("Human-driven climate change could result in $1.47 trillion in net property value losses from rising insurance costs and shifting consumer demand."); Jeff Masters, *Bubble Trouble: Climate Change is Creating a Huge and Growing U.S. Real Estate Bubble*, Yale Climate Connections, (Apr. 10, 2023), https://perma.cc/R9RW-WP4A ("Homes constructed in flood plains, storm surge zones, regions with declining water availability, and the wild-fire prone West are overvalued by hundreds of billions of dollars, put[ting] the U.S. financial system at risk.").

[299] *See Climate Change Impacts on Agriculture and Food Supply*, U.S. Env't Prot. Agency, https://perma.cc/D24V-9RMT ("Agriculture is very sensitive to weather and climate."); Andrew Hultgren et al., *Impacts of Climate Change on Global Agriculture Accounting for Adaptation*, 642 Nature 644 (2025) (finding that US crop systems are optimized for high average yields but not robustness to climate change).

[300] *See Climate Change Impacts on Forests*, U.S. Env't Prot. Agency, https://perma.cc/3AWM-ZB3R (explaining that climate change will impact forests through natural disturbances that threaten forest health, reduced carbon storage and associated ecosystem services, reduced moderation of extreme weather impacts on forest watersheds).

[301] *See e.g.*, Cong. Budget Off., *Climate Change, Disaster Risk and Homeowner's Insurance* (2024); Nils Röper & Sebastian Kohl, *Bookeepers of Catastrophes: The Overlooked Role of Reinsurers in Climate Change Debates*, 89 Glob. Env't Change 102931 (2024) (describing the role of reinsurance companies in producing and translating climate change knowledge).

[302] *See e.g.*, Jacob Carter & Casey Kalman, *A Toxic Relationship: Extreme Coastal Flooding and Superfund Sites*, Ctr. for Sci. & Democracy (2020) ("About 2,000 official and potential Superfund sites . . . are located within 25 miles of the East or Gulf Coast. As sea levels rise, many of these toxic sites are at risk of flooding. Millions of people live near these sites, and flooding could bring them into contact with these chemicals.").

EPA also neglects consideration of the consumer impacts associated with the deregulation of greenhouse gas emissions. Limiting this pollution benefits consumers by avoiding negative impacts associated with emissions, including increased product, transportation, and health care costs; higher expenditures on utilities; and reduced employment benefits and earnings.[303] Additionally, consumers often prefer low-emission products, suggesting the fulfillment of personal preferences is served by regulation of greenhouse gas emissions.[304] Thus, reversal of the existing policy would be disruptive and would increase costs borne by consumers.

Although EPA briefly addresses the labor market impacts of the policy in the regulatory impact analysis accompanying the proposed rule, it does so only topically and excludes numerous important aspects.[305] For example, EPA notes that it excludes from consideration the expected decrease in development and construction of new transmission and distribution capacity throughout the U.S. due to the proposed regulation; however, the Agency does not suggest how impactful this omission is.[306] Evidence in the factual record suggests that greenhouse gas regulations provide significant labor market benefits by stimulating economic growth, job creation, and emerging technologies.[307] Additionally, regulations improve worker health, safety, and compensation.[308] EPA fails to acknowledge the consequences that a policy reversal will have on significant aspects of the labor market and worker wellbeing.

Moreover, to the extent that the RIA *does* address labor market impacts, EPA does not link these matters in any way to its evaluation of significance, even while it addresses its own preferred policy implications. The proposal's only reference at all to labor is its quotation of an executive order claiming that "'beautiful clean coal resources will be critical to' … creating 'high paying jobs.'" 90 Fed. Reg. at 25,755. Otherwise, the Agency ignores the question of labor in its determination of significance.

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[303] *See The Impact of Climate Change on American Household Finances*, U.S. Dep't of the Treasury (2023), https://perma.cc/6MRB-ET48 (outlining the impact of climate change on consumers).

[304] *See e.g.*, Jordan Bar Am, Vinit Doshi, Anandi Malik, Steve Noble & Sherry Frey, McKinsey, *Consumers Care About Sustainability – And Back it up with Their Wallets* (2023) (finding a shift towards consumer spending on products with ESG-related claims).

[305] *See* Repeal RIA at 5-13.

[306] *Id.* at 16.

[307] *See The Impact of Climate Change on American Household Finances*, U.S. Dep't of the Treasury, (detailing the positive impact on workers and the labor market from avoided greenhouse gas emissions).

[308] *Id*.

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Even assuming *arguendo* that EPA can permissibly account for "policy considerations" in its significance determination, the Agency must at the very least give adequate weight and meaningful consideration to all policy considerations that represent important aspects of the problem. *See State Farm*, 463 U.S. at 43. EPA has failed to consider numerous countervailing policy implications of deregulating greenhouse gas emissions, including impacts related to public health, national security, geopolitics, global trade, the power sector and clean energy, and the U.S. economy; rendering its decision making arbitrary and capricious.