State of West Virginia
Office of the Attorney General
John B. McCuskey
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September 22, 2025

Lee M. Zeldin
Administrator, Environmental Protection Agency
1200 Pennsylvania Ave NW, Suite 1101A
Washington, DC 20460

Submitted Electronically via Regulations.gov

Re: Comments on the Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards by the Attorneys General of the States of West Virginia, Kentucky, Alabama, Alaska, Arkansas, Florida, Georgia, Kansas, Idaho, Indiana, Iowa, Kansas, Louisiana, Mississippi, Missouri, Montana, Nebraska, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, and Wyoming (Docket No. EPA-HQ-OAR-2025-0194)

Dear Administrator Zeldin:

We appreciate the chance to comment on EPA's proposed recission of its 2009 Endangerment Finding under Clean Air Act § 202(a) and related greenhouse gas vehicle standards. *Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*, 90 Fed. Reg. 36288 (Aug. 1, 2025).

For several reasons, EPA has correctly proposed rescinding its 2009 Endangerment Finding. First, the Endangerment Finding doesn't rest on the best read of § 202(a)(1) based on textual, historical, and major-questions grounds. Second, climate science didn't support the Endangerment Finding in 2009, and the science has only gotten worse for EPA's original finding since then. And third, issuing the Endangerment Finding apart from greenhouse gas emission standards violated § 202(a)(1).

Separately, if EPA leaves the Endangerment Finding in place, it should rescind all its GHG vehicle emission standards. Those standards are arbitrary and capricious because they lack a statutorily grounded technological foundation, are futile, and hurt consumers.

Finalizing this proposed action is an important step to freeing American industry from burdensome, unlawful regulations and restoring the CAA's proper, congressionally intended structure. The States wholeheartedly support it.

BACKGROUND

I. America Wakes up to Its Air Pollution Problem.

Air pollution control in the 1700s, 1800s, and early 1900s consisted largely of private litigation and smoke abatement ordinances. Arthur C. Stern, *History of Air Pollution Legislation in the United States*, 32 J. AIR POLLUTION CONTROL ASS'N 44, 44 (1982). And there wasn't much of even that. The history of air-pollution control was thin until just after World War II, when America began turning its attention to the problem in earnest. RICHARD J. LAZARUS, THE MAKING OF ENVIRONMENTAL LAW 52 (2004) (noting that "[e]nvironmental issues steadily increased in prominence during the next two decades" after WWII).

It all started in California. Los Angeles residents began commenting on smog issues in the early 1940s. SCOTT HAMILTON DEWEY, DON'T BREATHE THE AIR: AIR POLLUTION AND U.S. ENVIRONMENTAL POLITICS, 1945-1970 84 (2000). This increasing awareness led to widespread activism throughout the 1940s, with local organizations declaring "smog a menace to human health" and property. *Id.* at 85. People didn't yet know where the smog was coming from. *Id.* Even so, suffering Angelenos waged an all-out war against smog in a fight that often dominated California politics. *Id.* at 62-64. And during the 1940s and 1950s, California's fierce "air pollution" fight was *entirely* focused on smog and its intuited negative health effects and property degradation. *See id.* at 83-106. Californians "remained deeply concerned about air pollution as a possible health threat" chiefly because of continuing "smog." *Id.* at 92-93; *see also id.* at 90 (quoting citizens and medical advocates calling smog "a deadly menace" and reciting many other negative health effects).

Around that same time, a few smog-related tragedies began pushing air pollution into the broader public consciousness. In 1948, hydrogen fluoride and sulfur dioxide emissions from a U.S. Steel plant in Donora, Pennsylvania produced a toxic smog that killed 20 people and caused respiratory problems for thousands more. And in December 1952, London suffered the Great Smog, an air-pollution event that killed thousands of people and harmed tens of thousands more. These extreme events received massive international coverage. They, combined with other similar news coverage, led many local governments to try to comprehensively tackle air pollution in the late 1940s and 1950s. *See* Adam D. Orford, *The Clean Air Act of 1963: Postwar Environmental Politics and the Debate over Federal Power*, 27 HASTINGS ENV'T L.J. 1, 11-12 (2021) (noting as examples Los Angeles's "notorious automobile smog problem" and St. Louis's dirty coal problem); Stanford Law Review Board, *Smog—Can Legislation Clear the Air?*, 1 STAN. L. REV. 452, 459 (1949) (outlining how municipalities could craft smoke and smog ordinances, and defining smog as air "pollution by gases, fumes, acids, and other industrial by-products"). Many States got on board, too, including Oregon (1952), Massachusetts (1954), New Jersey (1954), California (1956), Florida (1957), and Hawaii (1957). Stern, *supra*, at 46.

The California smog story and the Donora and London tragedies provide crucial context for understanding § 202, as they drove America's air-pollution narrative for decades. *See* Stern, *supra*, at 49 (noting that the air pollution legislation of the 1950s and 1960s was driven in large

part by the California Congressional delegation's reaction to L.A.'s smog problems); Orford, *supra*, at 35 ("Following Donora, at least twenty-five other cities requested . . . air pollution" investigations); Lazarus, *supra*, at 52 (noting that national interest in environmental issues increased in part because "[s]evere air pollution events similar to what had occurred in Donora recurred in London in 1952 and New York City in 1953, reportedly resulting in the deaths of at least four thousand and two hundred persons, respectively."); Dewey, *supra*, at 143 ("Donora "had a particularly heavy impact on perceptions of air pollution in New York City and throughout the nation."); Layne Delton Hoppe, Agenda-Setting Strategies: Pollution Policy 136, 140 (1969) (Ph.D. dissertation, University of Arizona), http://bit.ly/45PiSsx (saying passage of the CAA was "stimulated by urban lobbyists and the London smog").

The federal government recognized the importance of this emerging issue. In 1950, President Truman sent a message to the first United States Technical Conference on Air Pollution calling air pollution "a singularly important" issue and identifying an "urgent need" to address it. Statement, President Truman, Message to the United States Technical Conference on Air Pollution (May 3, 1950), https://tinyurl.com/ytcw2ssa. Blaming "increasing industrialization," he said the "contamination of the air" was a "serious problem" that "affect[ed]" everyone. *Id.* These "[a]ir contaminants . . . destroy growing crops, damage valuable property, [] blight our cities and the countryside," and "shorten human life." *Id.*

Unfortunately, the smog issue grew worse throughout the 1950s. America's population and economy were exploding, and automobile ownership was following closely behind. Orford, *supra*, 8-9. Between "economic growth, population growth, rapid suburbanization, and the closing of some public transit systems," people became more "relian[t] on personal vehicles for transportation." *History of Reducing Air Pollution from Transportation in the United States*, EPA, https://tinyurl.com/37a8fu2s (last updated Jan. 19, 2021).

Air pollution problems also evolved. America's coal-related particulate matter problem got better in the 1950s as trains moved to diesel fuel and residential homes to natural gas—but our "major trend" in the other direction was "photochemical smog." Orford, *supra*, at 10. This particular form of smog increased because "the nation's transportation fleets created high volumes of byproducts not prevalent in coal combustion: carbon monoxide [], nitrogen oxides [], and volatile organic compounds." *Id.* at 10. Burning more natural gas, diesel, and coal (for energy production), and a huge uptick in automobile ownership—all without *any* kind of emission control—meant that, by the end of the 1950s, "in the United States more people, more of the time, in more places, were being exposed to more air pollution than ever before." *Id.* at 11.

The public's chief question was *where* this smog was coming from. Everyone understood it was tied to America's rapid industrialization. But it took the public a while to understand what or who was to blame. In 1948, California resident Dr. Arie J. Haagen-Smit began conducting a series of experiments connecting motor vehicle exhaust with California's terrible smog problems. He coined the term "photochemical smog" because it resulted from sunlight's interaction with exhaust. He continued sounding the alarm bell on automobile-based smog into the 1950s, showing the toxic effects of chemicals like hydrocarbons and nitrogen dioxide and ozone. Merlin Chowkwanyun, *Two Cheers for Air Pollution Control: Triumphs and Limits of the Mid-Century*

Fight for Air Quality, 134 PUB. HEALTH REP. 307, 309 (2019). By the mid-1950s, scientists in L.A. and Detroit had effectively accepted that there was a real link between motor vehicle exhaust and L.A.'s smog. Dewey, *supra*, at 61-62.

At the same time, this fight began receiving more consistent national attention. Dewey, *supra*, at 94 (noting this initial increase of attention in the mid-1950s). Smog "continued to plague U.S. cities throughout the 1950s, and public health research developed increasingly alarming information about air pollution's contributions to health problems." Orford, *supra*, at 23. In President Eisenhower's 1955 State of the Union address he called the country to "[s]trengthen[] programs to combat . . . the growing problem of air pollution." President Dwight Eisenhower, Annual Message to the Congress on the State of the Union (Jan. 6, 1955).

Congress answered the call and began passing laws requiring various federal agencies to study air pollution—especially from motor vehicle exhaust. In the Air Pollution Control Act, Pub. L. No. 84-159, 69 Stat. 322 (1955), for example, Congress committed to helping States and local governments fight "air pollution" because of "the dangers to the public health and welfare, injury to agricultural crops and livestock, damage to and deterioration of property, and hazards to air and ground transportation, from air pollution." *See also Train v. NRDC*, 421 U.S. 60, 63-64 (1975) (noting that this offer of help to the States was Congress's "initial[] respon[se] to the problem of air pollution").

Once people began realizing that the smog problem was linked to automobiles, they reacted. From "the 1950s" through the early 1960s, "automotive air pollution" was an "emotional issue in" California. Dewey, *supra*, at 81. Over that same time, "[t]he search for antismog devices was the preoccupying concern." *Id.* at 101. And the American public's "anger over polluted air" more generally began to be largely "directed" at the "automobile industry." *Id.* at 107. After all, contemporaneous evidence shows that in the mid to late 1950s, "many U.S. cities remained choked by smog." Orford, *supra*, at 43. And air pollution and its "relationship with lung cancer [was] receiving widespread media attention throughout the 1950s and 1960s." Mark Parascandola, *The other Surgeon General's report: history of the U.S. public health response to air pollution, cigarette smoking, and lung cancer*, 4 ANNALS CANCER EPIDEMIOLOGY 2 (March 2020).

People were realizing that "air pollution"—including from "automobiles"—didn't stay put and, thus, was "a matter of concern" beyond central cities. Winston W. Crouch, *The Government of A Metropolitan Region*, 105 U. PA. L. REV. 474, 477 (1957) (saying that in L.A. "the area affected by the problem is much greater than that placed within the district by law. On a truly smoggy day the urbanized area in the four counties is overhung with a pall to which the industrial plants, chimneys, incinerators and automobiles of the entire area contribute").

II. As Smog Worsens in the 1960s, the Federal Government Begins Taking Air Pollution Seriously.

Federal officials began paying ever more attention to air pollution. For example, the Special Subcommittee on Traffic Safety of the House Committee on Interstate and Foreign Commerce held hearings in 1958 on Rep. Shenck's bill banning "dangerous" levels of

hydrocarbons. Dewey, *supra*, at 67. But this effort died because the government couldn't figure out "what concentration of hydrocarbons should be considered 'dangerous'" to the public health. Stern, *supra*, at 50. That same year, the agency tasked with researching air pollution, the Department of Health, Education, and Welfare (HEW), held a smog conference to explore the role of the federal government in fighting the ever-increasing smog problem. Orford, *supra*, at 44. Everyone was there—the "government, academia, and industry"—and all to "discuss scientific findings and strategies to control air pollution." Parascandola, *supra*, at 3. The conference revealed—in part relying on nationwide air sampling funded by the Air Pollution Control Act—a "growing body of evidence linking urban air pollution exposure to cancer and other health effects." *Id.* The bombshell of the conference, though, was Surgeon General Burney's report connecting air pollution to cancer and his "stern warning that the nation would 'invite disaster' if it failed to act against air pollution." *Id.*

All this research "generated headlines in the national news—'US links cancer to air in cities', 'Dirty air linked to cancer – aid seeks health drive.'" Parascandola, *supra*, at 3. This conference and the surgeon general's report was a federal "response to public pressure to address [the] health threat[]" of air pollution that had already "received broad attention in the media," and it also "played an important role in raising awareness on [the] public health issue[]" of air pollution. *Id.* at 2, 6.

During this time, Americans were peppered with bad air pollution news. In 1959, for example, well publicized epidemiological studies showed that what had originally been "written off at the time as just [ten] smoggy days" in L.A. in August 1955 actually killed 1,200 people. CLAYTON D. FORSWALL & KATHRYN E. HIGGINS, CLEAN AIR ACT IMPLEMENTATION IN HOUSTON: AN HISTORICAL PERSPECTIVE 1970-2005 5 (2005), https://www.ruf.rice.edu/~eesi/scs/SIP.pdf. So no surprise that starting in 1960, "the percentages of Americans who saw 'pollution/ecology as an important problem'" grew exponentially. Lazarus, *supra*, at 53.

That same year, after the House held extensive hearings on "Air Pollution Control Progress," Stern, *supra*, at 51, Congress passed Public Law 86-493, 74 Stat. 162, which extended research funding and "directed the Surgeon General to focus his attention on the health hazards resulting from motor vehicle emissions," *Train*, 421 U.S. at 63.

1962 was also a big year for America's broader environmental movement. Stern, *supra*, at 51. By this point, studies of automotive emissions had identified the chief chemical emissions from cars: "carbon monoxide, carbon dioxide, oxides of nitrogen, and a variety of unburned or partially oxidized hydrocarbons." Richard A. Prindle & Charles D. Yaffe, *Motor Vehicles, Air Pollution, and Public Health*, 77 PUB. HEALTH REPS. 955, 961 (1962).

But scientists in the 1960s didn't consider all automobile emissions "toxic"—carbon dioxide wasn't, for example. Prindle & Yaffe, *supra*, at 961. Rather, the dangerous chemicals were those that "result[ed] in the formation of photochemical smog" (e.g., oxides of nitrogen and hydrocarbons) or were "acutely toxic in high concentrations" (e.g., carbon monoxide). *Id.* A 1962 Public Health Service report pointed to "fuel-use patterns" as a "main cause[] of air pollution"—i.e., "photochemical smog." Hoppe, *supra*, at 133. And the best science had definitively

associated this "particularly . . . urban problem" of "air pollution "with the following respiratory ailments: nonspecific infectious upper respiratory disease, chronic bronchitis, chronic constrictive ventilatory disease, pulmonary emphysema, bronchial asthma, and lung cancer." *Id.* at 137. These details were confirmed by HEW's second national air pollution conference held in 1962 as well. Stern, *supra*, at 51.

On top of all that, Rachel Carson published *Silent Spring*—the best-selling 1962 book that turbocharged public awareness. Forswall & Higgins, *supra*, at 5. *Silent Spring* convinced many Americans that they were being "subjected to contact with dangerous chemicals." Lazarus, *supra*, at 58. And Jean J. Schueneman's highly influential 1963 study confirmed this, finding that over 50% of Americans were exposed to "problematic" air pollution. Jean J. Schueneman, *Air Pollution Problems and Control Programs in the United States*, 13 J. AIR POLLUTION CONTROL ASSOC. 116-125, 118 (1963); Hoppe, *supra*, at 136 (noting that the 1962 Public Health Service report on air pollution put this around 25%).

The dominating "issue" in the early 1960s "was the relative pace" and intensity of this increasingly well understood and dangerous smog issue. Orford, *supra*, at 12. So when a "Killer Smog . . . engulfed London in December 1962" and killed hundreds of people, "[p]ublic pressure for" some sort of air-pollution legislation significantly "increased." Arnold W. Reitze, Jr., *A Century of Air Pollution Control Law: What's Worked; What's Failed; What Might Work*, 21 ENV'T L. 1549, 1586 (1991) ("Reitze 1991").

Congress was still moving on these issues, too, and in 1962, "[a] consensus air pollution bill" appeared to be "in the works" (though that ultimately went nowhere). Orford, *supra*, at 56. President Kennedy suggested certain legislation giving the federal government a bigger role in the air pollution problem. Reitze 1991, *supra*, at 1587.

The Senate took a decisive step in April 1963 when its Public Works Committee created the Special Subcommittee on Air and Water Pollution to handle increasing public attention on air pollution. Dewey, *supra*, at 74. Several Senators had come to the new legislature ready to tackle air pollution, and the subcommittee was tasked with handling several of the air-pollution bills. Stern, *supra*, at 51 (noting "the considerable ferment of air pollution legislative activity in 1963); Dewey, *supra*, at 74 (noting that the House took up air pollution in subcommittees because of the London smog events of 1962-1963). The Senate subcommittee was given a broad mandate to explore air pollution generally, including its causes and effects. It was "inundated with public concern over the health risks of polluted air." Forswall & Higgins, *supra*, at 5.

Meanwhile, newsmaking air pollution research and smog incidents continued apace—now on America's other coast. In September 1963, the U.S. Weather Bureau warned "that serious air pollution incidents would likely become more frequent and severe as . . . motor vehicle use increased," so the East Coast "could expect a major attack once every three years." Dewey, *supra*, at 130. Right on cue, New York City suffered from a smog so bad in October 1963 that the New York State Health Commissioner "declared a 'smog alert.'" *Id.* Like other major cities, the New York press had for years inveighed against air pollution—and specifically automotive air pollution—and had accused it of "suspected health risks," "economic costs," and "sheer ugliness."

Id. at 137; *see, e.g.*, Bess Furman, *Smog is Termed a Cancer Cause; Surgeon General Cites Tests With Animals and Notes Death Rates for Cities*, N.Y. TIMES A39 (Nov. 19, 1958) (repeatedly equating "smog" and "air pollution"). And it "reported frequently on the suspected relationship between air pollution and cancer," "emphysema," "and bronchitis." Dewey, *supra*, at 138. By 1963 New Yorkers were fed up—their "agitations over the still-unsolved [smog] problem" quickly built. *Id.* at 135. "As a result of this gradually growing awareness of the danger of air pollution, it began to revive as a major public issue in New York City by the early 1960s, helping to give impetus to" public "hearings from 1964 onward and making air pollution an issue" in local politics. *Id.* at 156.

Amid this public furor, the Senate subcommittee had its staff prepare an initial study on the state of air pollution and air pollution controls. The subcommittee turned that staff report into a bill and held hearings.

Eventually, the bill was reported out as the Clean Air Act, which became law in December 1963. Pub. L. No. 88-206, 77 Stat. 392 (1963). The law aimed to prevent and control air pollution because pollution was causing "mounting dangers to the public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property." 77 Stat. at 393. To that end, it "authorized federal authorities to expand their research efforts, to make grants to state air pollution control agencies, and also to intervene directly to abate interstate pollution in limited circumstances." *Train*, 421 U.S. at 63-64.

The CAA was a great success, but the subcommittee saw more work to be done—especially on the motor vehicle front. (Indeed, the CAA itself significantly increased research on emissions of all kinds and motor vehicle exhaust in particular.) So throughout 1964, the subcommittee held hearings both in D.C. and cities all over the country—from Los Angeles to Denver to Chicago to Boston to New York to Tampa—on the problem of air pollution. The subcommittee summarized its findings in the report in October 1964, "Steps Toward Clean Air." *See* SPECIAL SUBCOMM. ON AIR & WATER POLLUTION, STEPS TOWARDS CLEAN AIR, REPORT TO THE SENATE COMMITTEE ON PUBLIC WORKS ("Report") (October 1964).

The Steps Toward Clean Air report comprehensively surveyed the state of air pollution in America. It connected "automotive exhaust" with "the national air pollution problem" then occurring in all "major metropolitan areas." Report at 3. Indeed, it "primar[ily]" focused on "automotive air pollution." *Id.* at 7. The subcommittee said industry could dramatically reduce "the air pollution problem created by . . . motor vehicle exhaust"—specifically those air "pollutants which lead to the formation of photochemical smog." *Id.* The report spoke in detail about L.A.'s "automobile air pollution, or smog problem." *Id.* at 7-8. This "automotive smog . . . problem is not confined to one city or State," though—it was "a national problem" with "national significance." *Id.* at 8. As the USDA had found in 1963, vegetation in every major metropolitan area had shown evidence of photochemical smog. *Id.* Even though L.A. tackled "automotive air pollution" first because it was the first "to recognize the role of motor vehicles in producing smog," the subcommittee wanted to craft legislation that didn't "restrict[]" "smog control" "to California." *Id.* at 10, 14. After all, the subcommittee had researched the "destructive effects" of "smog" in dozens of States, and this "air pollution damage" cost "many millions of dollars a year." *Id.* at 14.

The Report identified the same chemical culprits scientists had been blaming for 15 years: sulfuric compounds, Report at 4, 25-26, hydrocarbons, carbon monoxide, and nitrogen oxides, *id.* at 6. Some of these were "among the major contributors to the health injury and property destruction associated with community air pollution." *Id.* at 25. Addressing this automotive air pollution was especially "urgent" because it threatened the "public health and welfare." *Id.* at 27. And delaying risked a "needless sacrifice of human life and health." *Id.* at 28. The subcommittee's goal was to work "toward control of harmful ingredients in those emissions," understanding that those "harmful ingredients are likely to be harmful wherever they appear, maybe in different degree, but at least to some degree." *Id.* at 13 (quoting Subcommittee Chairman Sen. Muskie). This effort would require "limiting exhaust emissions of air pollutants" from various vehicles—which the subcommittee hoped to accomplish through "smog control devices," which would "convert hydrocarbons and carbon monoxide into harmless materials." *Id.* at 3, 12.

III. Congress Creates § 202 As Part of the Motor Vehicle Pollution Control Act.

As part of President Johnson's January 4, 1965 State of the Union Address, he called on Congress to act to "prevent pollution of our air . . . before it happens"; America had to "end the poisoning of . . . the air that we breathe." Congress responded. President Lyndon Johnson, Annual Message to the Congress on the State of the Union (Jan. 4, 1965).

Just three days later, on January 7, 1965, 21 Senators introduced the Motor Vehicle Pollution Control Act, S. 306, which adopted and implemented the Steps Toward Clean Air report's recommendations. Indeed, S. 306's chief provision closely tracked the report's language: "The Secretary shall by regulation, giving appropriate consideration to technological feasibility and economic costs, prescribe as soon as practicable standards, applicable to the emission of any kind of substance, from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause or contribute to, or are likely to cause or to contribute to, air pollution which endangers the health or welfare of any persons." Public Law 89-271, § 202(a). Congress had California's early smog-related problems firmly in mind when it began drafted this language. Dewey, *supra*, at 75 (noting that the subcommittee that drafted § 202 explicitly relied on California's motor vehicle exhaust efforts); *see also* 111 CONG. REC. 25056 (1965) (statement of Rep. McVicker) (noting that § 202 emerged from the same smog challenges States were facing).

Introducing the Act at that point made good sense. Congress was seeking to catch an early wave of widespread public support in favor of regulating automotive pollution. The Opinion Research Corporation's opinion polls showed that by 1965 28% of Americans thought "air pollution was a serious problem"—a number that would double within just a few years. *See also* Forswall & Higgins, *supra*, at 6. And "[d]uring this time, the environmental movement began to catch the attention of the national media. The number of articles on environmental topics in the New York Times" alone "doubled from 1964 to 1965." *Id.* at 5.

The next nine months of legislative history were effectively a condensed version of what the American public had learned over last 20 years in experiencing air pollution: automotive exhaust was partly to blame because automobiles emitted both carbon monoxide, which in large

enough quantities is toxic, and nitrogen oxides and hydrocarbons, which created a smog that threatened health and destroyed property and plants. A few episodes and documents highlight Congress's particular focus on those smog-driving gases.

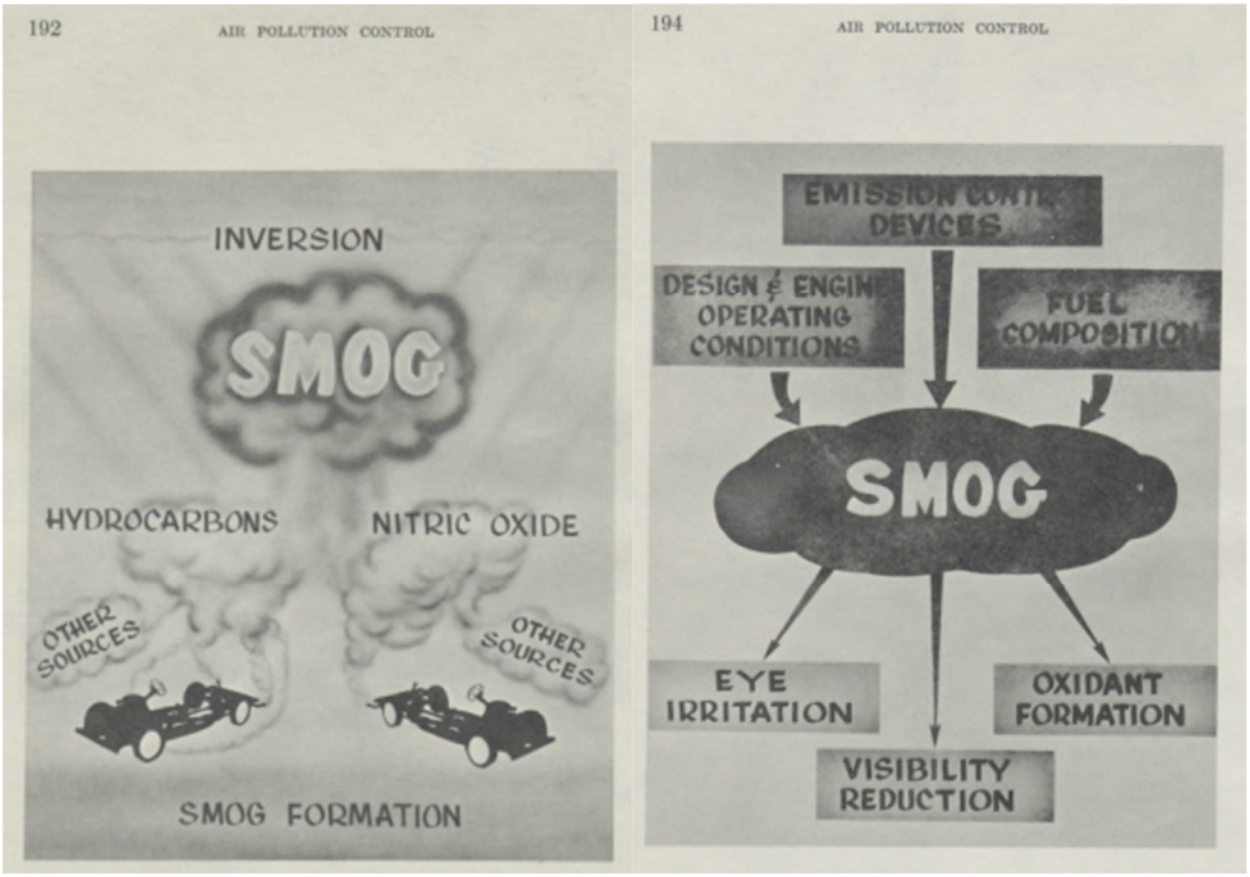
A. The Senate Subcommittee Holds Hearings in April 1965.

In April 1965, the Senate subcommittee held hearings on S. 306 in D.C. and Detroit—taking testimony from federal officials, industry, local governments, health organizations, and others. The subcommittee started by noting that federal and federally sponsored research efforts over the past several years had firmed up and greatly "elucidate[ed]" the connection between "motor vehicle pollution" and damaged vegetation, irritated eyes, and other biological systems—including which chemicals caused what harms. *Air Pollution Control: Hearings Before a Special Subcomm. on Air & Water Pollution of the Comm. on Pub. Works*, 89th Cong. 40 (1965), https://tinyurl.com/4fenvbmh. That same day, HEW representatives testified that, in their view, "air pollution threatens not only the beauty of our natural environment but also the health of the American people." *Id.* at 21 (statement of Mr. Quigley, assistant secretary of HEW). "Emissions from motor vehicles are prime factors in the occurrence of a specific type of air pollution—photochemical smog." *Id.*

Some of the primary evidence submitted to the subcommittee differentiated between chemicals considered "toxic"—like hydrocarbons, aldehydes, carbon monoxide, etc.—and those chemicals that would be emitted even from a 100% efficient engine—like "carbon dioxide and water" vapor. *Air Pollution Control: Hearings Before a Special Subcomm. on Air & Water Pollution of the Comm. on Pub. Works*, 89th Cong. 79. Indeed, of all the chemicals HEW was studying at that time—including carbon monoxide, nitric oxide, nitrogen dioxide, sulfur dioxide, hyrdocarbons, and total oxidants—carbon dioxide wasn't one of them. *Id.* at 120. HEW noted that complaints about the effects of smog on health, visibility, and vegetation "were voiced vigorously by the public." *Id.*; *see also id.* at 80-83 (HEW confirming this by citing and discussing myriad animal studies showing bad health outcomes for animals exposed to smog or pre-smog pollutants).

Many non-HEW witnesses from across the country emphasized smog issues, too. *Air Pollution Control: Hearings Before a Special Subcomm. on Air & Water Pollution of the Comm. on Pub. Works*, 89th Cong. 113 (statement of Theodore R. McKeldin, mayor, city of Baltimore, Md.). Indeed, when the director of the Automobile Manufacturers Association showed up to testify with representatives from General Motors, Ford, and Chrysler, the one staffer he brought with him was the Association's "smog project consultant." *Id.* at 117. And the subcommittee's wide-ranging conversation covering the air pollution in many American cities was dominated by questions and answers about smog and its effects on health. *Id.* at 118-26, 139, 142 (Senator Muskie and the manufacturer representatives all mentioning smog and health issues); *see also id.* at 256-57, 263-67, 273, 303-05 (various witnesses doing the same). Nearly unanimous agreement arose that, in the words of Senator Muskie, "air pollution [was] a problem" and had a negative "impact upon people" and "their health." *Id.* at 121.

And when the subcommittee took the S. 306 show on the road, the Detroit automakers also focused closely on the smog and smog-adjacent effects of automotive air pollution. Consider a few pages from the packet Chrysler gave to the subcommittee during its tour of Chrysler's facility:



See also Air Pollution Control: Hearings Before a Special Subcomm. on Air & Water Pollution of the Comm. on Pub. Works, 89th Cong. 199 (Ford, too, focusing on smog and carbon monoxide).

B. The Senate Committee on Public Works Recommends and the Senate Passes S. 306.

The Committee on Public Works unanimously recommended S. 306 to the Senate in May 1965. In the Committee's view, S. 306 was crucial to meeting the threat of hydrocarbons, carbon monoxide, and similar air pollution culprits. Committee on Public Works, S. Rep. No. 192, 89th Cong., 1st Sess., Report to Accompany S. 306, p. 3 (May 14, 1965). "Photochemical air pollution, or smog," it said, was "a problem of growing national importance and is attributable largely to the operation of the motor vehicle. This type of air pollution is appearing with increasing frequency and severity in metropolitan areas throughout the Nation, and studies indicate that it produces adverse health effects, eye irritation, and plant damage." *Id.* at 4.

When S. 306 hit the Senate floor, only Senator Muskie spoke on it. Largely echoing the Committee's report, he said that S. 306 represented "a substantial advance in our efforts to improve the quality of our air." 111 Cong. Rec. 10782 (1965) (statement of Sen. Edmund Muskie). Senator Muskie strongly "emphasize[d] the importance of the automotive pollution exhaust control provisions." The subcommittee, he said, had "been confronted by the fact that 50 percent of our national air pollution problem is attributable to the 84 million automobiles, trucks, and buses on our highways. *Id.* at 10783. Every day those vehicles were discharging hundreds of thousands of tons of "carbon monoxide," "hydrocarbons," and "nitrogen oxides" into the air. *Id.* That had to stop, Senator Muskie said. *Id.* The Senate agreed and promptly passed S. 306. *Id.*

C. The House Subcommittee Holds Hearings in June 1965.

The House Subcommittee on Public Health and Welfare promptly took up S. 306. HEW assistant secretary Quigley again testified—but this time his remarks were even more pointed. S. 306 was necessary, he said, to "freeing this Nation of the mounting smog burden, and the incalculable price we pay for it in terms of hazards to the public health and welfare." *Clean Air Act Amendments: Hearing Before the Subcomm. on Pub. Health & Welfare on the Comm. on Interstate & Foreign Com.*, 89th Cong. 101 (1965) (statement of Assistant Sec'y James Quigley), http://bit.ly/47rMQFx. Like everyone else, Quigley pointed to chemicals like "hydrocarbons and carbon monoxide." *Id.* He said S. 306 was necessary to "reduce the burden of contamination in the air and reverse the trend toward more serious health, economic, and esthetic injuries resulting from polluted air." *Id.* And the following week, Chairman Fogarty, Rep. Springer, and Mr. Perry of the Bureau of Mines had an extended discussion about whether smog was a federal or state problem; the conversation was again dominated by instances of smog directly, tangibly harming people. *Id.* at 320.

Individual representatives' comments from that hearing are enlightening, too. Rep. Scheuer, who had sponsored an identical House bill, H.R. 8723, said automotive pollution was leading to damaged buildings, ruined crops, dying vegetation, increased cleaning of homes and clothes, hundreds of extra deaths. *Clean Air Act Amendments: Hearing Before the Subcomm. on Pub. Health & Welfare on the Comm. on Interstate & Foreign Com.*, 89th Cong. 373 (1965). "The link between air pollution" from pollutants like "carbon monoxide" "and serious illness is becoming increasingly apparent," he said. *Id.* (noting the deaths from the "smog of toxic chemicals" in Donora). In his view, S. 306 was designed to prevent damage to health and property. *Id.* at 374. Rep. Lindsay pointed to smog blankets of toxic chemicals, too: "Smog and other forms of air pollution" were becoming problems far outside just urban areas. *Id.* at 375 (reciting a lengthy list of physical and health harms to vegetation, people, property, etc. from these air pollutants). He blamed chemicals like "hydrocarbons, carbon monoxide, and nitrogen oxides" emitted from vehicles for cities' "acute" "photochemical smog." *Id.* at 377.

D. The House Passes S. 306 in September 1965.

Many representatives offered floor statements in support of S. 306, all of which centered around a central idea: automotive air pollution—from chemicals like hydrocarbons, carbon monoxide and nitrogen oxides—was actively damaging property and harming health. *See*

generally 111 CONG. REC. 25049-25065 (1965). Consider a few excerpts, which give an excellent picture of the themes in the legislative debate over S. 306 and air pollution more broadly:

- Rep. Harris: Automobile exhaust was "making a significant contribution" to air pollution in the form of "smog." *Id.* at 25050. S. 306 was therefore "highly important to the health of the Nation"—this automotive "air pollution" affected "every family or almost every family in the United States." *Id.* at 25049.

- Rep Steed: S. 306 would address America's "smog situation." *Id.* at 25051.

- Rep. Cunningham: America had "a polluted atmosphere" and S. 306 "gets at one of the root causes of certain types of cancer including lung cancer." *Id.* at 25053.

- Rep. Halpern: S. 306 "represent[ed] the first major [federal] step toward defeating the menace of air pollution"—i.e., "carbon monoxide," "nitrogen dioxide," and "sulfur dioxide," which caused extensive "property damage" and health issues like "chronic respiratory disease" and lung cancer. *Id.* at 25054-55.

- Rep. Lindsay: "Air pollution" from chemicals like "hydrocarbons and carbon monoxide" was a "national . . . health" and safety issue—e.g., hundreds of New Yorkers had recently died during 15 days of "intense air pollution"—and increased "cleaning and laundry bills." S. 306 addressed the "pressing danger of poisoned air." *Id.* at 25055-56.

- Rep. McVicker: S. 306 addressed "the news stories over the last few years about air pollution. The fogs, the smogs, the hazes, the smazes. The increase of respiratory diseases. The decline of vegetation and wildlife in our urban areas due, among other things, to bad air." *Id.* at 25056.

- Rep. Bingham: An internal poll showed 93% of people in his district favored S. 306 because "air pollution" meant the "increased poisoning of the very air we breathe." *Id.* at 25057.

- Rep. Pelly: S. 306 was aimed at the "increasing contamination of our environment and air pollution, especially that emanating from motor vehicles which certainly represents a threat to public health." *Id.*

- Rep. Helstoski: "Air pollution endangers public health, damages and destroys property, offends the senses, and frustrates the universal desire for clean and comfortable surroundings"—e.g., the New Jersey turnpike's many closures due to smog. *Id.* at 25061.

- Rep. Gibbons: S. 306 targeted air "pollution which causes untold human suffering and the loss of millions of dollars each year in property and crop loss"—including "the aggravation of heart conditions," "chronic respiratory diseases," "eye irritation," and "rickets." *Id.* at 25062.

- Rep. Ryan: "We have known for some time that air pollution is a killer. It is a catalyst for some of our most serious respiratory and other diseases . . . . The contaminants which pollute our air are not only dangers to our health; they cause economic losses amounting to nearly $12 billion per year in damaged property and crops." *Id.* at 25063.

- Rep. Tupper: "For far too long we have allowed our atmosphere to be polluted and the health of our citizens endangered." *Id.*

- Rep. Reuss: "Polluted air"—specifically, hydrocarbons, carbon monoxide, and oxides of nitrogen—"is a health hazard which cannot be ignored any longer. Most frequently it is the automobile which is the predominant contaminator." *Id.*

- Rep. Dwyer: "Air pollution" is "[t]he contamination of the atmosphere"—i.e., putting "poisons into [the] air." It consists of "fumes and filth which clog our air and choke our throats." *Id.* at 25064. And it is "a cause or major contributing factor in such killing and crippling diseases as cancer, heart and lung disease, and respiratory problems generally." *Id.*; *see also id.* at 25065 (citing Donora and other catastrophes as reasons to pass S. 306).

After these speeches, then-Congressman Gerald Ford successfully moved for passage of S. 306. 111 Cong. Rec. 25072.

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The Senate concurred with the House's minor tweaks and finally passed S. 306 on October 1, 1965. 111 CONG. REC. 25851 (1965). Section 202 was now law.

IV. Section 202's Language Remains Largely Unchanged as Congress Passes More Environmental Statutes.

Despite § 202, the smog kept accumulating, so Congress tweaked the CAA in 1966 and again in 1967. Pub. L. No. 89-675, 80 Stat. 954 (1966); Pub. L. No. 90-148, 81 Stat. 485 (1967). By 1970, the public had become "angry and upset" about the "black pall hanging over [American] cities[.]" H.R. DOC. NO. 17255, at 116 (1970) (Conf. Rep.). It was unnatural, "unhealthy[,] and uncomfortable." *Id.* So Congress took a massive step forward and enacted the CAA amendments of 1970—creating the EPA, requiring it to set National Ambient Air Quality Standards ("NAAQS"), and amending the mobile emissions provision. Pub. L. No. 91-604, 84 Stat. 1676 (1970).

Like previous CAA amendments, deep concern about the measurable problems caused by smog saturated the 1970 amendments. The American public had reached an intense level of "concern about the perils and the costs of air pollution," due in large part to "the increasing body of medical evidence that contaminated air endangers the health and well-being of man." H.R. DOC. NO. 17255, at 117 (1970) (Conf. Rep.). And these costs were not just theoretical: "[c]ities up and down the east coast were living under clouds of smog and daily air pollution alerts" and "[m]ore than 200 million tons of contaminants were being spilled into the air annually." S. DOC. NO. 17255, at 124 (1970) (Conf. Rep.). As Congress, scientists, industry, and the attentive public had known for almost a decade, "these pollutants mean[t] cancer, headaches, dizziness, nausea, metabolic and respiratory disease, and impairment of mental processes." *Id.* at 126. And vehicles "were responsible for more than 42 percent" of those contaminants. *Id.*

Among other CAA changes in 1970, Congress reorganized and added several pollutant-specific provisions to § 202. *See* 84 Stat. 1690-93. Congress carried § 202's main provision over into the new § 202(a), only slightly tweaking it to read that the Administrator shall prescribe standards of emissions "which in his judgment cause[] or contribute[] to . . . air pollution which endangers the health or welfare." *Id.* Section 202(b) also enumerated emission standards for the main automotive exhaust pollutants Americans and Congress were concerned about—hydrocarbons, carbon monoxide, and nitrogen oxides. *Id.*

Since 1970, § 202's general framework has remained intact despite more CAA amendments. *See* Pub. L. No. 95-95, 91 Stat. 685 (1977); Pub. L. No. 101-549, 104 Stat. 2399 (1990). The biggest changes made to § 202 were modifying some of the specific emission standards and timeframes for implementation in 1990. *See* 104 Stat. 2473-74.

So as it stands today, § 202 includes the catchall provision in § 202(a)(1), outlines specific air contaminants to be eliminated, sets permissible amounts of each contaminant for different model years over time—with differing timelines and emissions goals for light- versus heavy-duty vehicles—and requires the Administrator to conduct certain studies and implement regulations based on the results of those studies and in accordance with specific protocols. *See generally* 42 U.S.C. § 7521.

V. EPA Regulates Modestly Under § 202(a).

As far as the States can tell, between 1965 and the Endangerment Finding, EPA referenced § 202(a)(1) as an authority in fifteen final rules. *See* App. These uses revealed a few important trends.

First, EPA used § 202(a)(1) to regulate only four air pollutants: volatile organic compounds (chiefly hydrocarbons), carbon monoxide, nitrogen oxides, and, eventually, particulate matter—the pollution that America, Congress, and § 202 were first focused on.

Second, EPA didn't use § 202(a)(1) as its primary regulatory option. It always deferred to specific regulatory authority—like heavy-duty-vehicle or motorcycle authority in § 202(a)(3),

onboard vapor recovery under § 202(a)(6), or hazardous air pollutants under § 202(l)(2). It used § 202(a)(1) only when it had to.

Third, § 202(a)(1) didn't play a significant role in EPA's pre-Endangerment Finding automotive exhaust regulations—and EPA's automobile regulations in that era were already "rare[]." Reitze 1991, *supra*, at 1592. During that timeframe, EPA promulgated eighteen final rules under § 202(a)(1). The first five § 202(a)(1) rules up through 1994 chiefly applied other standards to light-duty trucks, and another later rule did the same with several kinds of light vehicles. A few other § 202(a)(1) rules applied preexisting regulations to alternative fuel vehicles—like natural gas, liquified petroleum, or methanol vehicles. A few created voluntary emission standards programs. A few others mentioned § 202(a)(1) just to incorporate § 202(a)(1)'s useful life provision—not to declare a certain air pollutant as having met the endangerment standard. The last three § 202(a)(1) rules before the Endangerment Finding were all primarily promulgated under other subsections, with § 202(a)(1) playing its standard backup role.

Along the way, EPA had some critical internal discussions over its potential authority to regulate GHGs like carbon dioxide. In 1998, EPA General Counsel Jonathan Z. Cannon published a five-page memorandum saying EPA *did* have that authority. Memorandum from Jonathan Z. Cannon, Gen. Couns., EPA Off. Gen. Couns., to Carol M. Browner, Adm'r of the EPA 1 (Apr. 10, 1998), https://tinyurl.com/2z2ya38w ("Cannon Memo"). Two weeks after President Clinton announced its "Comprehensive Electricity Plan," Cannon asserted—for the first time ever—that EPA could regulate carbon dioxide as an "air pollutant" under § 202. *Id.* at 1, 5. Cannon said carbon dioxide fits the definition of "air pollutant" in CAA § 302(g): "any air pollution agent or combination of such agents, including any physical, chemical, biological, [or] radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air." Cannon Memo, *supra*, at 2. Carbon dioxide is "a 'physical and chemical substance which is emitted into the ambient air," Cannon reasoned, so it's "an air pollutant" under the CAA. *Id.*

Nevertheless, EPA did not act on this transformative, newfound authority—at least not for a while.

In 2003, EPA corrected course when new General Counsel Robert E. Fabricant officially withdrew the Cannon Memo. Memorandum from Robert E. Fabricant, Gen. Couns. EPA Off. Gen. Couns., to Marianne L. Horinko, Acting Adm'r of the EPA 1 (Aug. 28, 2003), https://tinyurl.com/yf2atr3a ("Fabricant Memo"). First, Fabricant noted that the CAA was "conspicuously missing a functional regulatory regime for addressing global climate change." *Id.* at 4. It authorized only "information development and 'non-regulatory' measures" related to global climate change—a glaring vacancy in the face of "the unusually large economic and societal significance [that] such a regulation might have." *Id.* And this absence was the result of the legislative compromise, not legislative oversight. When Congress deliberated about the 1990 amendments to the Act, a Senate committee proposed a provision "requiring EPA to set [carbon dioxide] emission standards for motor vehicles." *Id.* at 5. But "that provision was [ultimately] removed from the bill." *Id.* at 5. All that survived the legislative process on global climate change were the provisions "calling on EPA to conduct research and collect information" about the issue.

Id. Fabricant's conclusion that the agency lacked authority to regulate GHGs under § 202(a)(1) was bolstered by recent Supreme Court cases like *Brown & Williamson*, which cautioned that agencies should conduct a "more thorough inquiry" before taking unprecedented action in an area "where unusually significant policy questions are involved." *Id.* at 4.

So for a time, Cannon's idea to extend the Clean Air Act to carbon dioxide remained just that: an idea.

VI. The Supreme Court Blunders in *Massachusetts v. EPA*.

Starting in the 1980s and continuing into the 2000s, climate change continued gaining social, but not necessarily statutory, traction. For a time, the only laws Congress passed regarding climate change were research-focused. *See, e.g.*, 15 U.S.C. § 2902, *et seq.*; 42 U.S.C. § 7403. Efforts to get the United States involved in international agreements with climate change obligations fell flat, too. *See Massachusetts v. EPA*, 549 U.S. 497, 508 (2007).

So in 1999—frustrated by Congress's inaction—environmental advocacy groups began petitioning EPA to start regulating GHGs under § 202(a) anyway. *See, e.g.*, *Control of Emissions From New and In-use Highway Vehicles and Engine*s, 66 Fed. Reg. 7486, 7486 (Jan. 23, 2001).

But after the Cannon Memo/Fabricant Memo exchange, "EPA conclude[d] that it [could not] and should not regulate GHG emission from U.S. motor vehicles under the CAA." *Control of Emissions From New Highway Vehicles and Engines*, 68 Fed. Reg. 52922, 52925 (Sep. 8, 2003). Leaning on the Fabricant Memo, EPA offered a threefold rationale: First, the CAA's statutory text and regulatory history confirm that GHGs are not air pollutants under § 202(a); second, the "only practical way" to reduce carbon dioxide emissions is to improve fuel economy—something Congress already had authorized the Department of Transportation to pursue; and third, the President had already "laid out a comprehensive approach to climate change" focused on "voluntary actions and incentives," and a sudden regulatory crackdown would be antithetical to that approach. 68 Fed. Reg. 52925-33.

Undergirding EPA's denial was scientific uncertainty regarding climate change and its causes. 68 Fed. Reg. 52930. Even with some consensus that "concentrations of GHGs [were] increasing in the atmosphere as a result of human activities," the "a casual linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes during the 20th century [could not] be unequivocally established." 68 Fed. Reg. 52930 (quoting NAT. RSCH. COUNCIL, CLIMATE CHANGE SCIENCE: AN ANALYSIS OF SOME KEY QUESTIONS 17 (2001), available at https://tinyurl.com/2fnbf4m6) (cleaned up). There also was "considerable uncertainty" regarding "how the climate system varies naturally and reacts to [GHG] emissions." NAT. RSCH. COUNCIL, *supra*, at 1. EPA therefore concluded that this "extraordinarily complex and still evolving" area called for a measured—not rushed—regulatory approach. 68 Fed. Reg. 52930.

Those same environmental groups challenged EPA's denial, which the D.C. Circuit initially upheld. *Massachusetts*, 549 U.S. at 514-515. But on appeal, the Supreme Court reversed.

It noted that § 202(a)(1) enables EPA to prescribe vehicle emission standards for air pollutants that endanger the public health or welfare. *Id.* at 528. And § 302(g) defines air pollutant as "any air pollution agent or combination of such agents, *including* any physical[] [or] chemical . . . substance or matter which . . . enters the ambient air." *Id.* at 528-29 (emphasis added). That is a "sweeping definition," the Court said, and "embraces all airborne compounds of whatever stripe." *Id.* On this read, the language following "air pollution agents" in the second half of the definition is considered independently of the "air pollution" language in the first half. *Id.*

The majority also made little of Congress's failed attempts to legislate regarding GHGs, of how the CAA addressed climate change in only research (and not regulatory) provisions, and how Congress had already assigned another agency responsibility to set vehicle emission standards. *Massachusetts*, 549 U.S. at 529-32. And even though the Act "says nothing at all about the reasons for which the Administrator may defer making a judgment," *id.* at 552 (Scalia, J., dissenting), the majority held that the "EPA [could] avoid taking further action *only* if it determine[d] that greenhouse gases" were not "putting the global climate out of kilter" or if—this time around—it gave some "reasonable explanation" why it wouldn't regulate, *id.* at 531-32 (emphasis added). Chief Justice Roberts and Justice Scalia both wrote strong dissents disagreeing with that analysis (more on Justice Scalia's dissent below).

On remand, EPA heeded the Court's mandate. It sought comments on whether it should regulate GHGs under the CAA, and what policy alternatives it might have. *Regulating Greenhouse Gas Emissions Under the Clean Air Act*, 73 Fed. Reg. 44354, 44354 (July 30, 2008). *Massachusetts* did not require EPA to abandon its earlier concerns about using § 202(a) to regulate GHGs. 73 Fed. Reg. 44355. And EPA was chiefly concerned that regulating GHGs would result in an "unprecedented expansion of EPA authority that would have a profound effect on virtually every sector of the economy and touch every household in the land." 73 Fed. Reg. 44355. The Departments of Transportation, Energy, and Commerce all expressed similar concerns in their comments. *See* 73 Fed. Reg. 44361-78.

VII. EPA Issues the Endangerment Finding.

But 2009 brought a sea change. Within months of President Obama taking office, the White House announced its National Fuel Efficiency Policy, aimed at "reducing greenhouse gas pollution for all new cars and trucks sold in the United States." *President Obama Announces National Fuel Efficiency Policy*, OFF. PRESS SEC. (May 19, 2009), https://tinyurl.com/5a59fb2k. Congress's simultaneous efforts to accomplish the same lofty goals via legislation failed—yet again. *See* American Clean Energy and Security Act of 2009, H.R. 2454, 111th Congress (2009).

So EPA stepped in. It published a proposed rule "consistent with the President's announcement." *Proposed Rulemaking To Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards*, 74 Fed. Reg. 49454, 49632 (Sep. 28, 2009). In the year and half between this and EPA's first proposed rulemaking about GHGs, all its concerns—about lacking statutory authority and the adequacy of the CAA for regulation GHGs—evaporated. It finalized the rule a few months later after a short 60-day comment period. *See Endangerment and Cause or Contribute Findings for Greenhouse Gases*

Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66496, 66503 (Dec. 15, 2009) (the "Endangerment Finding").

The 2009 Endangerment Finding contained many bold claims masquerading as unassuming ones.

On the procedural front, EPA concluded that § 202(a)'s silence as to whether it could issue an endangerment determination "separate and apart from the rulemaking to establish emissions standards" was a grant of "procedural discretion" to do so. 74 Fed. Reg. 66501.

Substantively, EPA declined to make specific findings for any specific pollutant, instead addressing "six . . . greenhouse gases," because—once emitted—they became "well-mixed throughout the entire global atmosphere." 74 Fed. Reg. 66537. Regarding § 202(a)'s "cause or contribute" standard, it rejected a "bright line" rule for what showing was required to regulate under this provision. 74 Fed. Reg. 66523. EPA's most generous estimates projected that sources subject to § 202(a) regulation constituted a mere 4.3% of global GHG emissions—a number that it decided wasn't "trivial or de minimis," 74 Fed. Reg. 66543. The percentage was admittedly lower "than might otherwise be considered appropriate when addressing a more typical local or regional air pollution problem," but the "unique, global aspects of the climate change problem" warranted lowering the bar. 74 Fed. Reg. 66538.

Regarding the endangerment of public health or welfare, the Endangerment Finding embraced a global frame of reference. The agency first asserted that "[g]lobal mean surface temperatures ha[d] risen by 0.74 °C (1.3 °F) . . . over the [previous] 100 years," and that this increase was due to human activity, including GHG emissions. 74 Fed. Reg. 66517. It then reasoned that because U.S. air is "an integral part of th[e] global pool," we had to "do [our] part," even if—statistically speaking—it would be of little global impact, 74 Fed. Reg. 66522, 66543.

The Endangerment Finding also hinged on long-term, high-level, and probabilistic impacts on health and welfare. For example, EPA predicted that the potential global warming caused by GHG emissions *might* increase the following: the frequency of "unusually hot days and heat waves" which might "increase heat related mortality," 74 Fed. Reg. 66524; regional ozone pollution due to "higher temperatures and weaker circulation," and ozone pollution had "associated risks in respiratory illness and premature death," 74 Fed. Reg. 66525; the frequency of extreme weather events, which carry the "potential for increased deaths, injuries, infectious diseases, and stress-related disorders and other adverse effects associated with social disruption," 74 Fed. Reg. 66525; "the spread of several food and water-borne pathogens" depending on the pathogens' reactions under a changing climate, 74 Fed. Reg. 66525; and the cost of "humanitarian, trade, and national security concerns for the United States," 74 Fed. Reg. 66514.

The 2009 Endangerment Finding embodied a new approach. Because an "altered atmosphere and climate," 74 Fed. Reg. 66519, was a "far-reaching and multi-dimensional" issue, the risks and impacts could not be qualified in any uniform way, 74 Fed. Reg. 66524-25.

VIII. This Action: The Recission of the Costly Endangerment Finding.

Unfortunately, and unsurprisingly, the concerns EPA voiced in 2008 about an "unprecedented expansion of [its] authority" have since come to fruition. 73 Fed. Reg. 44355. Based on the Endangerment Finding, the agency promulgated "seven [new] vehicle regulations with an aggregate cost of more than $1 trillion." EPA PRESS OFF., *EPA Releases Proposal to Rescind Obama-Era Endangerment Finding, Regulations that Paved the Way for Electric Vehicle Mandates* (July 29, 2025), https://tinyurl.com/5a5jh68r.[1]

At its core, the Endangerment Finding was built on shaky ground—legally and scientifically. Since 2009, a thorough analysis of current "empirical data, peer-reviewed studies, and available scientific information" casts even more doubt on the relationship between GHGs and climate change. 90 Fed. Reg. 36288-01, 36307-10. And Supreme Court decisions have significantly circumscribed an agency's ability to take unprecedented and expansive views of its own authority. *See Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244 (2024); *West Virginia v. EPA*, 597 U.S. 697 (2022); *Michigan v. EPA*, 576 U.S. 743 (2015); *Util. Air Reg. Grp. v. EPA*, 573 U.S. 302 (2014) ("*UARG*").

Given the shifting scientific and legal landscapes, EPA now seeks to correct course and restore § 202(a) to its proper role.

EPA proposes to repeal the 2009 Endangerment Finding and all resulting GHG emission standards. 90 Fed. Reg. 36290. Now—as it did before 2009—it believes the best reading of § 202(a) allows it to regulate only "local or regional exposure to dangerous air pollution." 90 Fed. Reg. 36290. It further says that § 202 "does not grant the Administrator 'procedural discretion' to issue standalone findings that trigger a duty to regulate," and that if the Administrator identifies a pollutant under § 202, he must also find that vehicle emissions cause or contribute to air pollution, "without relying on emissions from stationary or other sources regulated by distinct CAA provisions." 90 Fed. Reg. 36290.

In the alternative, EPA proposes that—even if § 202(a) "authorizes the EPA to address GHG emissions based on global climate change concerns"—the GHG regulations should still be repealed for several reasons. First, EPA "misapplied the statutory standard for regulation to the scientific record." 90 Fed. Reg. 36290. Second, the evidence shows that eliminating all GHG vehicle emissions "would not have a scientifically measurable impact on global GHG concentrations and climate trends." 90 Fed. Reg. 36290. And, on balance, the emission standards

[1] These seven regulations are: *Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards*, 75 Fed. Reg. 25324 (May 7, 2010); *2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards*, 77 Fed. Reg. 62624 (Oct. 15, 2012); *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles—Phase 2*, 81 Fed. Reg. 73478 (Oct. 25, 2016); *The Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks*, 85 Fed. Reg. 24174 (Apr. 30, 2020); *Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards*, 86 Fed. Reg. 74434 (Dec. 30, 2021); *Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles*, 89 Fed. Reg. 27842 (Apr. 18, 2024); *Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles—Phase 3*, 89 Fed. Reg. 29440 (Apr. 22, 2024).

harm public health and welfare by "increasing prices, decreasing consumer choice, and slowing the replacement of older vehicles," making them arbitrary and capricious. 90 Fed. Reg. 36290.

DISCUSSION

The States support EPA's proposed recission of its 2009 Endangerment Finding and the related GHG vehicle standards. As a threshold matter, EPA has authority to take up this question now. *See* 90 Fed. Reg. 36296. When EPA has "the power to decide" a question, it has a "statutorily implicit" "power to reconsider" unless Congress has limited that discretion. *Nat. Res. Def. Council v. Regan*, 67 F.4th 397, 401 (D.C. Cir. 2023) (cleaned up). And it may reverse course so "long as [it] provide[s] a reasoned explanation for the change." *Encino Motorcars, LLC v. Navarro*, 579 U.S. 211, 221 (2016). Several good reasons exist for a change.

To start, legal developments since *Massachusetts* have shown that GHGs like carbon dioxide are not "air pollutants" under § 302(g). If the Supreme Court were to consider this question again, the Court would have every reason to overrule *Massachusetts*'s holding on that score: it implicates important issues, its reasoning was unsound, it hasn't proved workable over the last twenty years, and no adverse reliance interests exist here.

But in truth, EPA doesn't need *Massachusetts* overruled to justify this recission, as a few other independent reasons support revisiting the endangerment finding.

For one thing, arguments grounded in § 202(a)(1)'s text and socio-political history and § 202's and the CAA's structure show that the best read of § 202(a)(1) precludes the agency from treating carbon dioxide as an "air pollutant" under § 202(a)(1), global warming as "air pollution," or the standard bevy of climate change horrors as the sort of "endangerment of public health or welfare" § 202(a)(1) is talking about. The average, ordinarily sophisticated 1965 American would never have read § 202(a)(1)'s text to include GHGs like carbon dioxide and their alleged harms.

These statutory understandings are buttressed by the major-questions doctrine analysis. Climate change—and combatting climate change through GHG emission standards—is a major question along every relevant axis: economic cost, political and social significance, and the transformative scope of the power asserted. Yet EPA can point to no congressional statement authorizing its seizure of authority in the Endangerment Finding and related regulations—let alone a *clear* statement. Under the Supreme Court's post-*Massachusetts* major-questions jurisprudence, this is an easy one.

Another reason to rescind the Endangerment Finding is its shaky scientific foundation. When EPA promulgated the Endangerment Finding in 2009, the climate science was still evolving. Contrary to EPA's statements at that time, the science was in no way settled. And it's even more unsettled now. EPA was wrong to say that what other countries do with their emissions don't matter; net global emission reductions are the only way to achieve EPA's Endangerment Finding goals. EPA overestimated the effect of emissions on global temperature. It ignored fatal uncertainty in the climate models. It was wrong that increased carbon dioxide has led to increased extreme weather events like hurricanes or tornadoes or wildfires. And the sea hasn't risen like the

climate alarmists and EPA predicted. Not only did EPA miscalculate carbon dioxide's harms, but it also failed to consider potential positive effects—like increased agricultural production.

A final reason to rescind the Endangerment Finding is that EPA divorced it from standards. Section 202(a)(1)'s text doesn't allow for independent endangerment findings. It commands the Administrator to prescribe standards. That's it. At the beginning of the standard-prescribing process, EPA must, of course, make an endangerment finding. But that finding cannot be separated from the only *agency action* § 202(a)(1) permits: prescribing standards. It's true that § 202(a)(1) doesn't explicitly forbid a standalone endangerment finding. But as a creature of Congress, EPA must follow § 202(a)(1) as written—not interpret perceived statutory silence as giving it carte blanche "procedural discretion" to follow parts of a statute but not the whole thing. Recission is justified on this ground alone, too.

Even if EPA doesn't rescind its Endangerment Finding, it should still repeal the GHG emission standards as arbitrary and capricious for at least three reasons.

- First, the GHG emission standards lack a requisite technological foundation. Carbon dioxide is an inherent byproduct of combustion. No available technology could eliminate or meaningfully reduce carbon dioxide emissions without eliminating the engine itself—thereby looping in zero emission vehicles and their host of problems.

- Second, reducing GHG emissions from American vehicles would be a futile exercise, chiefly because EPA has identified climate change as a *global* problem, and America's automotive exhaust is a tiny fraction of *global* GHG output—not nearly enough to make a meaningful difference.

- And third, the GHG emissions standards have tangibly harmed public health and welfare—driving up vehicle costs, limiting consumer choice, and keeping older, more dangerous vehicles on the road. All these outcomes undermine public health and welfare.

I. *Massachusetts* Was Wrong: Greenhouse Gases Like Carbon Dioxide Are Not Air Pollutants Under § 302(g).

The States acknowledge that the Court in *Massachusetts* held that GHGs like carbon dioxide count as "air pollutants" under the CAA's act-wide definition in § 302(g). But as Justice Alito hinted in 2011, that "interpretation of the Clean Air Act" was not "correct." *Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 430 (2011) (Alito, J., concurring in the judgment). The Supreme Court will likely overturn it using the five factors it summarized in *Dobbs v. Jackson Women's Health Org.*, 597 U.S. 215, 268 (2022).

First, "*the nature of their error.*" *Dobbs*, 597 U.S. at 268. *Massachusetts*'s error goes far beyond the CAA and emissions—it strikes at the heart of our system of government: the separation of powers. The Founders thought that the surest way to achieve our national aims—as outlined in the Constitution's preamble—was to protect people's liberty. And a great threat to that liberty is

concentrated governmental power. The Federalist No. 47, at 301 (James Madison) (Clinton Rossiter ed., 1961) ("The accumulation of all powers, legislative, executive, and judiciary, in the same hands . . . may justly be pronounced the very definition of tyranny."). The Founders therefore limited both the *amount* of power and divvied up that limited power amongst three co-equal branches by *kind*—legislative, executive, and judicial. Divvying up power forces one branch's "[a]mbition . . . to counteract [another branch's] ambition." The Federalist No. 51, at 320 (Madison) (Clinton Rossiter ed., 1961) ("[T]he interior structure of the government" should be set up so that "its several constituent parts may, by their mutual relations, be the means of keeping each other in their proper places."); Brett M. Kavanaugh, *Our Anchor for 225 Years and Counting: The Enduring Significance of the Precise Text of the Constitution*, 89 NOTRE DAME L. REV. 1907, 1909 (2014) ("So what is the opposite of concentration of power? Separation of power.").

Keeping the legislative, executive, and judicial powers separate is "universally recognized as vital to the integrity and maintenance of the system of government ordained by the constitution." *Marshall Field & Co. v. Clark*, 143 U.S. 649, 692 (1892). "No political truth is certainly of greater intrinsic value, or is stamped with the authority of more enlightened patrons of liberty." The Federalist No. 47, at 301 (Madison) (Clinton Rossiter ed., 1961). The Founders were obsessed with structure. The Federalist No. 51, at 322 (Madison) (Clinton Rossiter ed., 1961) ("In framing a government . . . , the great difficulty lies in this: you must first enable the government to control the governed; and in the next place oblige it to control itself."). They saw the government's structure as essential in preventing the "gradual concentration of the several powers in the same department"—their definition of tyranny. *Id.*; Kavanaugh, *supra*, at 1908 ("[T]he Constitution creates a structure—a separation of powers—that protects liberty."). Ignoring this structure "would dash the whole scheme." *Dep't of Transp. v. Ass'n of Am. R.R.*, 575 U.S. 43, 61 (2015) (Alito, J., concurring).

Yet *Massachusetts* ignored this separation of powers. It is "the peculiar province of the legislature to prescribe general rules for the government of society." *Fletcher v. Peck*, 10 U.S. 87, 136 (1810). The Founders gave "[a]ll legislative Powers"—the greatest of the three powers—to Congress. U.S. Const. art 1, § 1. So "important subjects" ought to "be entirely regulated by the legislature itself." *Wayman v. Southard*, 23 U.S. 1, 43 (1825). Few issues are more important than GHGs, climate change, and the government's approach to them (more on that below). At a minimum, everyone can agree that whether and how to regulate GHGs belongs to Congress in the first instance. Until the late 1990s, no one thought Congress had given that power to EPA in § 202(a)(1). And until after *Massachusetts*, EPA had never used that alleged power. So the nature of the error in *Massachusetts* isn't just bad statutory interpretation. Far worse, it allowed a "government by bureaucracy [to] supplant[] government by the people" through their elected representatives. Antonin Scalia, *A Note on the Benzene Case*, AM. ENTER. INST. J. ON GOVT. & SOC. 27 (July/Aug. 1980).

The "sovereign people" deserve to see "whom to hold accountable for the laws they" must follow. *Gundy v. United States*, 588 U.S. 128, 155 (2019) (Gorsuch, J., dissenting). "By shifting responsibility to a less accountable branch," the *Massachusetts* Court "deprive[d] the people of the say the framers intended them to have." *Tiger Lily, LLC v. United States Dep't of Hous. & Urb. Dev.*, 5 F.4th 666, 674 (6th Cir. 2021) (Thapar, J., concurring). No doubt "Congress was faced

with a . . . difficult[] choice between" legislating on GHGs or not—but in "pass[ing] this difficult choice on to" EPA, *Massachusetts* made a fatal and deeply troubling mistake. *Indus. Union Dep't, AFL-CIO v. Am. Petrol. Inst.*, 448 U.S. 607, 685 (1980) (Rehnquist, J., concurring in the judgment); *id.* at 687 (saying Congress "itself [must] make the critical policy decisions"). This factor weighs in favor of reversal.

Second, "the quality of their reasoning." Dobbs, 597 U.S. at 268. The *Massachusetts* majority's reasoning was poor. The four dissenters had the better of the argument.

Section 302(g) defines "air pollutant" as "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air." The majority claimed that because GHGs "are without a doubt 'physical and chemical substances which are emitted into the ambient air," they count as "air pollutants." *Massachusetts*, 549 U.S. at 529 (cleaned up). It called this definition of "air pollutant" "sweeping" and "capacious"—saying it "embraces all airborne compounds of whatever stripe," as confirmed by Congress's use of the word "any." *Id.* at 528-29, 532.

But Justice Scalia pointed out that § 302(g)'s definition also required "the 'substance or matter [being] emitted into . . . the ambient air' . . . [to] meet the first half of the definition—namely, it must be an 'air pollution agent or combination of such agents.'" *Massachusetts*, 549 U.S. at 556 (Scalia, J., dissenting). Yes, "including" *can* signal "an 'illustrative' sampling of the general category." *Id.* at 556. But often, as here, "the examples standing alone are broader than the general category." *Id.* at 557. In these cases, the examples "must be viewed as limited in light of that category." *Id.* For example, "[t]he phrase 'any American automobile, including any truck or minivan,' would not naturally be construed to encompass a foreign-manufactured truck or minivan." *Id.* (cleaned up). The general topic of "American automobiles" explains and modifies the illustrative examples "and limits them accordingly, even though in isolation they are broader." *Id.* Congress has done this in several statutes—like 28 U.S.C. § 1782(a), which refers to "a proceeding in a foreign or international tribunal, including criminal investigations conducted before formal accusation." *Id.*

Justice Scalia's read of the statute wasn't just reasonable; it was the *best* read—"far more plausible than the Court's alternative." *Massachusetts*, 549 U.S. at 557-58, 558 n.2 (Scalia, J., dissenting). After all, the majority's read would render the root of the definition—"agent of air pollution"—surplusage. Justice Scalia colorfully noted that this would mean "*everything* airborne, from Frisbees to flatulence," would now count "as an 'air pollutant.'" *Id.* at 558 n.2. That reading indeed "defies common sense." *Id.* And although Justice Scalia did not make this point, it would also render surplusage the final phrase in § 302(g): "Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term 'air pollutant' is used." If an air pollutant includes literally *any* physical or chemical substance emitted into air near humans, there's no need to further include "precursors"—they're already covered. What's more, we know that if Congress had wanted to explicitly call GHGs like carbon dioxide "air pollutants" it could have—it did so in the Inflation Reduction Act many times. *See* CAA §§ 132(d)(4), 133(d)(2), 135(c), 136(i), 137(d)(2), 138(d) ("In this section, the term 'greenhouse gas' means the air pollutants carbon

dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons, and sulfur hexafluoride."), and 23 U.S.C. § 179(c)(3) (same). That it didn't is good evidence that GHGs like carbon dioxide aren't "air pollutants."

Further, everyone recognizes that Congress did not design Section 302(g) to cover GHGs like carbon dioxide, and this "historical context and purpose" matters, too. *Truck Ins. Exch. v. Kaiser Gypsum Co., Inc.*, 602 U.S. 268, 279 (2024). When Congress added the "air pollutant" definition in 1977, Pub. L. 95-95, 91 Stat. 685, 770 (Aug. 7, 1977), no one was thinking about GHGs. The first time we find any "meaningful legislative history directly relevant to CO_2" was "with the Clean Air Act Amendments of 1990." J. Christopher Baird, *Trapped in the Greenhouse?: Regulating Carbon Dioxide After* FDA v. Brown & Williamson Tobacco Corp., 54 DUKE L. J. 147, 159-60 (2004). And even that legislation wasn't regulatory in nature. Indeed, Congress has had a long "history of avoiding the regulation of greenhouse gases." Dawn M. Kurz, *The Return of the Lorax:* Massachusetts v. EPA*, 127 S. Ct. 1438 (2007), Can States "Speak" for the Trees?*, 87 NEB. L. REV. 1055, 1081 (2009). Congress's GHG legislative proposals have long focused on "additional research and eschew[ed] mandatory regulations." *Id.* At one point during the 1990 CAA amendments, for example, the Senate rejected "a provision to regulate carbon dioxide emissions for motor vehicles." *Id.*; Arnold W. Reitze, Jr., *Federal Control of Carbon Dioxide Emissions: What are the Options?*, 36 B.C. ENV'TL AFF. L. REV. 1, 14 (2009) (saying that because Congress refused to regulate carbon dioxide before "1990, the language of § 202 appears to preclude their regulation from heavy-duty vehicles") ("Reitze 2009").

Even the *Massachusetts* majority admitted that "[w]hen Congress enacted these provisions, the study of climate change was in its infancy." *Massachusetts*, 549 U.S. at 507. The idea of carbon dioxide as a pollutant or agent of climate change was not part of the national or even mainstream scientific discourse. *See, e.g., id.* at 507 n.8. *Massachusetts* stretches Congress's original definition of "air pollutant" so far that it becomes "not only broad" but "absurdly broad," including "nearly everything in the known universe." Christopher T. Giovinazzo, *Defending Overstatement: The Symbolic Clean Air Act and Carbon Dioxide*, 30 HARV. ENV'TL L. REV. 99, 151-52 (2006). And it "is tautological." *Id.* at 152. *Massachusetts*'s read isn't really grounded in the concrete meaning of the text but serves "as a statement of symbolic intent." *Id.*

Third, "'workability' of the rules they imposed on the country." Dobbs, 597 U.S. at 268. Applying *Massachusetts*'s read of § 302(g) across the CAA has created workability issues. For example, issuing post-Endangerment Finding GHG emission standards under § 202(a)(1) "trigger[ed] regulation—under EPA's PSD and Title V programs—of stationary sources that emit greenhouse gases at levels above longstanding statutory thresholds." *Coal. for Responsible Regul., Inc. v. EPA*, 684 F.3d 102, 119 (D.C. Cir. 2012), *aff'd in part, rev'd in part sub nom. Util. Air Regul. Grp. v. EPA*, 573 U.S. 302 (2014) ("UARG"). Because sources emit GHGs "in much higher volumes than other air pollutants, hundreds of thousands of small stationary sources would exceed those thresholds." *Id.* Recognizing the potentially absurd results, EPA adopted the Tailoring Rule in 2010, which changed "the applicability criteria that determine which stationary sources and modification projects become subject to permitting requirements" for GHG emissions under the PSD and Title V programs. 75 Fed. Reg. 31514. Without changing the criteria, EPA explained, if the "PSD and Title V requirements would apply, . . . [it would] greatly increas[e] the number of

required permits, impos[e] undue costs on small sources, overwhelm[] the resources of permitting authorities, and severely impair[] the functioning of the programs." 75 Fed. Reg. 31514. The Tailoring Rule "acknowledged that applying the PSD and Title V permitting requirements to greenhouse gases would be inconsistent with—in fact, would overthrow—the Act's structure and design." *UARG*, 573 U.S. at 321. And it would make the CAA "unrecognizable to the Congress that designed" it. 75 Fed. Reg. 31555.

The Supreme Court solved this conundrum in *UARG*, of course, when it held that the term "air pollutant" means different things in § 302(g) and the CAA's "operative provisions," including the PSD and Title V sections. 573 U.S. at 316, 333-34. But the Court had to do statutory interpretation backflips to get there—including shelving the ordinary assumption "that identical words used in different parts of the same act are intended to have the same meaning." *Id.* at 319 (cleaned up). The Court complained about "Congress's profligate use of 'air pollutant' where what is meant is obviously narrower than the Act-wide definition." *Id.*.

True, the CAA "is far from a *chef d'oeuvre* of legislative draftsmanship." *UARG*, 573 U.S. at 320. But it's not quite fair to lay the whole mess at Congress's feet. *Massachusetts* created this and a host of other issues with its untethered interpretation of "air pollutant." A more modest read of § 302(g) much more easily harmonizes it and the CAA's operative provisions like § 202(a)(1).

Fourth, "their disruptive effect on other areas of the law." Dobbs, 597 U.S. at 268. *Massachusetts*'s definition of "air pollutant" did not create the seismic distortions across the law that abortion jurisprudence did. But it *has* created serious distortions within the CAA (see above) and across the economy (see below). Those effects matter, too.

And fifth, "the absence of concrete reliance." Dobbs, 597 U.S. at 268. Reliance interests shouldn't matter in cases like this—they're "irrelevant when assessing whether to rescind an action that [EPA] lacked statutory authority to take" because "[n]o amount of reliance could ever justify continuing a program that allows [EPA] to wield power that neither Congress nor the Constitution gave it." *DHS v. Regents of the Univ. of Cali.*, 140 S. Ct. 1891, 1930 (2020) (Thomas, J., concurring in part).

Regardless, stepping back from *Massachusetts*'s "air pollutant" holding and its progeny (the Endangerment Finding and related GHG emission standards) would harm no reliance interests. The only group changing their behavior in response to regulation flowing from the *Massachusetts* holding is industry. Take just the industry relevant here—automobile manufacturers. The GHG emission standards force manufacturers to build vehicles with more emission controls. These additional controls burden the manufacturers at every phase of the process: R&D, design, manufacturing, and sales. They drive prices up and force manufacturers to spend billions of dollars they wouldn't otherwise. To be sure, these manufacturers have changed their behavior to comply with the GHG emission standards flowing from *Massachusetts*'s mistake—but that isn't "reliance" as *Dobbs* uses it. They won't be hurt if *Massachusetts*'s bad holding and the resulting regulations go away. They'll save billions of dollars, and they would once again enjoy whatever flexibility the *market* will allow. *See* Breana Noble, *Here's how Ford is responding to the carbon emissions regulation cuts*, DETROIT NEWS (July 31, 2025, 2:49 p.m.),

https://tinyurl.com/4e8hm2rx. Indeed, it seems rare, if not impossible, for the mere *removal* of a legally binding regulation to harm a regulated party. Ford or General Motors can still implement their GHG emission standard plans and designs as they're currently drawn up. So all overturning *Massachusetts*'s "air pollution" holding would change is giving regulated parties more options. So no, "regulated parties" do not have "significant reliance interests in" the GHG emission standards. *Cf.* 90 Fed. Reg. 36297 (asking that question).

Any other reliance interest seems to be the sort of vague, attenuated reliance the Supreme Court rejected in *Dobbs*. There, the Court said harms like how people "organized intimate relationships" or "their views of themselves and their places in society" or perceived involvement "in the economic and social life of the Nation" weren't the sort of "very concrete reliance interests" the Court's stare decisis jurisprudence cares about. 597 U.S. at 288. Here, it's difficult to imagine what sorts of claims of reliance environmental groups or private citizens or States might make that aren't the sort of "novel and intangible form of reliance" rejected in *Dobbs*. *Id.*

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Massachusetts's "air pollution" holding is no longer defensible. But EPA is right that it doesn't need that to justify this action. 90 Fed. Reg. 36299. Remember that *Massachusetts*'s holding was limited to the act-wide definition of "air pollutant" in § 302(g). The Supreme Court did *not* consider whether that meant EPA had to take action under § 202(a)(1): "We need not and do not reach the question whether on remand EPA must make an endangerment finding, or whether policy concerns can inform EPA's actions in the event that it makes such a finding. We hold only that EPA must ground its reasons for action or inaction in the statute." *Massachusetts*, 549 U.S. at 534-35 (cleaned up). So EPA was wrong to interpret *Massachusetts* as requiring a finding of endangerment under § 202(a)(1) and regulation "GHG emissions in response to global climate change concerns." 90 Fed. Reg. 36299.

II. The Endangerment Finding Contradicts the Best Read of § 202(a)(1).

Even assuming GHGs like carbon dioxide are "air pollutants" for purposes of § 302(g), they aren't the sort of "air pollutants" § 202(a)(1) allows the Administrator to regulate. And of course a substance must meet *both* standards to be regulated under § 202(a)(1). 90 Fed. Reg. 36302.

Massachusetts did not resolve this issue. To be sure, it said: "On the merits, the first question is whether § 202(a)(1) of the Clean Air Act authorizes EPA to regulate greenhouse gas emissions from new motor vehicles in the event that it forms a 'judgment' that such emissions contribute to climate change. We have little trouble concluding that it does." 549 U.S. at 528. But *Massachusetts* then examined only the definition of "air pollutant" in § 302(g) and appeared to assume, without reasoning or explanation, that it would be the same in § 202(a)(1). *See id.* at 528-30. In *UARG*, the Court noted *Massachusetts*'s holding, but it explained that "where the term 'air pollutant' appears in the Act's operative provisions"—such as § 202(a)(1)—"EPA has routinely given it a narrower, context-appropriate meaning." 573 U.S. at 316. And EPA read "air pollutant" much more narrowly in the PSD and Title V provisions. *Id.* at 317. Because

Massachusetts assumed without holding the crucial point that *UARG* later rejected, the issue of whether GHGs are "air pollutants" under § 202(a)(1) is an open question.

So the agency must turn again to the statute. Section 202(a)(1) applies to "air pollutants" that, in the Administrator's "judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." The States agree with EPA that § 202(a)(1) "is best read as authorizing the Agency to regulate air pollutant emissions that cause or contribute to air pollution that endangers public health or welfare through local or regional exposure." 90 Fed. Reg. 36300; *see also* 90 Fed. Reg. 36297 (emphasizing "the best reading of CAA section 202(a)"). That's so for several reasons.

Text. EPA makes several text-based arguments focused on the phrases "air pollutants" and "air pollution . . . [that] endanger[s] public health or welfare."

For one, it concludes these phrases should "be construed in accordance with the specific air pollutants identified for other purposes in the remainder of CAA section 202": namely, hydrocarbons, carbon monoxide, oxides of nitrogen, and particulate matter. 90 Fed. Reg. 36300. All these pollutants harm people directly through their exposure—both breathing them in and physical contact to skin. 90 Fed. Reg. 36300. The same is true of all the specific pollutants the CAA names elsewhere: particulate matter, ground-level ozone, sulfur dioxide, nitrogen dioxide, lead, and carbon monoxide. 90 Fed. Reg. 36300. Again, these chemicals harm people either directly, by contact with their lungs or skin, or by reacting to other environmental factors present in ambient air—like other chemicals or sunlight. 90 Fed. Reg. 36300. These pollutants are thus all different from GHGs like carbon dioxide, which allegedly cause harm through a daisy chain of effects far removed from people—specifically, by increasing global temperature and changing the oceans' pH levels, from which flows the standard parade of global warming horribles. 90 Fed. Reg. 36304.

For another, modern dictionary definitions of pollutant and pollution seem to exclude carbon dioxide by using words like "poisonous," "noxious," "contaminates" and "contaminants," and "harmful." 90 Fed. Reg. 36300 (quoting Black's Law Dictionary 1403 (11th ed. 2019) and Am. Heritage Dictionary (5th ed. 2022)). Those definitions were largely the same at the time that Congress passed the Act, too.

Section 202(a)(1)'s "cause[] or contribute to" language is important, too. Congress legislated against background "cause" and "contribute" principles. 90 Fed. Reg. 36302. And the alleged GHG-global warming causation chain is far too attenuated to count. 90 Fed. Reg. 36302. Only this construction avoids absurdities that could result if "air pollutant" is broadly defined; otherwise, it could theoretically include water vapor. 90 Fed. Reg. 36302.

History and tradition. EPA also appropriately appeals to its own history and tradition in enforcing § 202(a)(1). It says that rescinding the Endangerment Finding is necessary to return EPA to its prior enforcement regime. 90 Fed. Reg. 36301. And in the Endangerment Finding itself, EPA admitted that this situation was not one of the "more typical local or regional air pollution problem[s]" it normally handled under § 202(a)(1). *Id.* (quoting 74 Fed. Reg. 66538).

The States agree: § 202(a)(1)'s text, structure, and history show that GHGs like carbon dioxide are not the sort of "air pollutants" that can be said to cause or contribute to "air pollution that endangers public health or welfare."

A. GHGs like Carbon Dioxide Are Not "air pollution which may reasonably be anticipated to endanger public health or welfare."

The central question is whether the best reading of § 202(a)(1) places GHGs like carbon dioxide in the category of "air pollutants" that cause or contribute to "air pollution which may reasonably be anticipated to endanger public health or welfare." *See Ethyl Corp. v. EPA*, 541 F.2d 1, 15-16, 15 n.24 (D.C. Cir. 1976) (noting the centrality and importance of that language). The "exercise of EPA's authority" to regulate is strictly "condition[ed]" on such a finding. *Massachusetts*, 549 U.S. at 532-33.

EPA wrongly assumed in 2009 that "statutory silence granted discretion to construe the scope of [its own] authority" to regulate under § 202(a)(1). 90 Fed. Reg. 36299. But the Supreme Court has now clarified that an agency's "reasonable" interpretation of a statute isn't enough—it must be the "single, best meaning." 90 Fed. Reg. 36299 (quoting *Loper Bright Enters. v. Raimondo*, 603 U.S. 369, 400-01 (2024)). Indeed, every statute, "no matter how impenetrable, do[es]—in fact, must—have a single, best meaning. That is the whole point of having written statutes; 'every statute's meaning is fixed at the time of enactment.'" *Loper Bright*, 603 U.S. at 400 (quoting *Wisconsin Cent. Ltd. v. United States*, 585 U.S. 274, 284 (2018) (cleaned up)).

In other words, in 2009, EPA was still operating under the *Chevron* doctrine, where courts would defer to the agency's "permissible" reading of an ambiguous statute. But no more. Courts aren't checking for "permissible" reads—they're "us[ing] every tool at their disposal to determine the best reading of the statute and resolve [any] ambiguity." *Loper Bright*, 603 U.S. at 400. "In the business of statutory interpretation, if it is not the best, it is not permissible." *Id.*

The search for a statute's "best" interpretation is a search for its ordinary meaning. W. ESKRIDGE, INTERPRETING LAW 33, 81 (2016) (saying the "linchpin of statutory interpretation is *ordinary meaning*"); ANTONIN SCALIA, A MATTER OF INTERPRETATION: FEDERAL COURTS AND THE LAW 24 (1997) ("[T]he good textualist is not a literalist."). The ordinary meaning is "how a reasonable person, conversant with the relevant social and linguistic conventions, would read the text in context." John F. Manning, *The Absurdity Doctrine*, 116 HARV. L. REV. 2387, 2392-93 (2003); Eskridge, *supra*, at 34-35 (citing the interpretation "a reasonable reader would derive from the text"); ANTONIN SCALIA & BRYAN A. GARNER, READING LAW 16 (2012) (looking for the meaning the words "conveyed to reasonable people at the time"). This approach "is grounded on an understanding of the way language works," *Bostock v. Clayton Cnty.*, 590 U.S. 644, 704 (2020) (Alito, J., dissenting), recognizing that "the meaning of language depends on the way a linguistic community uses words and phrases in context," John Manning, *What Divides Textualists From Purposivists?*, 106 COLUM. L. REV. 70, 78 (2006). In *Herrmann v. Cencom Cable Associates, Inc.*, 978 F.2d 978, 982 (7th Cir. 1992), Judge Easterbrook explained that because "[w]ords are arbitrary signs," they "hav[e] meaning only to the extent writers and readers share an understanding." *Id.*

"Language in general, and legislation in particular, is a social enterprise to which both speakers and listeners contribute, drawing on background understandings and the structure and circumstances of the utterance." *Id.*

Like all statutes, then, § 202(a)(1) is a communication "between members of a particular linguistic community, one that existed in a particular place and at a particular time." *Bostock,* 590 U.S. at 706 (Alito, J., dissenting). Properly understanding its text requires "an examination of the social context in which a statute was enacted because this may have an important bearing on what its words were understood to mean at the time of enactment." *Id.* at 705. "And these communications must therefore be interpreted as they were understood by that community at that time." *Id.* at 706.

Those principles are doubly true here because the language at issue in § 202(a)(1) is not just a word but a phrase—"air pollutants . . . which . . . cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." Courts are careful to consider the ordinary meaning of the entire phrase—not just the separate, individualized meaning of each word in the phrase. *See FCC v. AT&T Inc.*, 562 U.S. 397, 405-07 (2011) (doing that with the phrase "personal privacy"). "[T]he meaning of a sentence may be more than that of the separate words, as a melody is more than the notes." *Helvering v. Gregory*, 69 F.2d 809, 810-11 (2nd Cir. 1934) (Learned Hand, J.). "Adhering to the fair meaning of the text (the textualist's touchstone) does not limit one to the hyperliteral meaning of each word in the text. . . . The full body of a text contains implications that can alter the literal meaning of individual words." SCALIA & GARNER, *supra*, at 356.

So to understand the relevant phrase in § 202(a)(1), we need to ask how the average or reasonable reader in 1965 would have understood the phrase in context when Congress first passed it.

To be clear, 1965 is the relevant timeframe. Although the CAA has been amended many times since 1965, and § 202(a)(1) a few times, the current language is, in all relevant parts, identical to the original 1965 language. The original language said the Secretary could prescribe standards for "the emission of any kind of substance . . . which in his judgment cause or contribute to, or are likely to cause or to contribute to, . . . air pollution which endangers the health or welfare of any persons." Public Law 89-272, § 202(a). Today's language says the Administrator can prescribe standards for "the emission of any air pollutant . . . which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." § 202(a)(1). The key language is the same: "air pollution" that "endanger[s]" "public"/"any persons'" "health or welfare."

And to understand that language, we need to do a deep dive into the text and legislative and social-political history of these terms. That's not to say that legislative history is the be all, end all. Using legislative history to understand a statute is a delicate thing, and courts often seem to mine CAA legislative history as a *replacement* for an analysis of the statutory text. *See NRDC v. EPA*, 655 F.2d 318, 325-27 (D.C. Cir. 1981) (appearing to search legislative history as the definitive guide to whether EPA could regulate particulate matter). The States reject that approach.

But legislative history can play a helpful, supplementary role, often alongside broader historical analysis, in understanding how Americans in a certain time and place thought about and used the language in the statutory text—especially for complicated statutes like the CAA. *See, e.g.*, *Int'l Harvester Co. v. Ruckelshaus*, 478 F.2d 615, 639-40 (D.C. Cir. 1973) (relying on legislative history to understand § 202).

The socio-political history is particularly important here because phrases like "air pollution" have long "become another 'dinner table' or 'news media' term and should be viewed as a social and political concept and not a scientific one." Michael A. Champ, *Etymology and Use of the Term "Pollution"*, CANADIAN J. OF FISHERIES AND AQUATIC SCIS. 7 (April 2011), https://tinyurl.com/55zvfzsj. Their "environmental connotation is relative to social and political values and . . . economic conditions of a given period." *Id.*

That Congress kept § 202(a)(1)'s key phrases and concepts the same over time is also important. "When Congress repeatedly amends only some portions of a statute," courts assume "that it intends no change to the law of unamended portions." *Chelette v. Harris*, 229 F.3d 684, 686 (8th Cir. 2000); *see also American Cas. Co. of Reading, Pennsylvania v. Nordic Leasing, Inc.*, 42 F.3d 725, 732 n.7 (2d Cir. 1994) ("Where sections of a statute have been amended but certain provisions have been left unchanged, we must generally assume that the legislature intended to leave the untouched provisions' original meaning intact."); *Costello v. United States R.R. Retirement Bd.*, 780 F.2d 1352, 1355 (8th Cir. 1985) (reasoning that amendment of some portions of a statute evidenced congressional intent to leave unamended portions intact). This concept also applies to provisions of the original act that "are repeated in the body of the amendment . . . [in] equivalent words." *Kirchner v. Kansas Tpk. Auth.*, 336 F.2d 222, 230 (10th Cir. 1964). In such cases, the equivalent language is "considered a continuation of the original law." *Id.*; *accord Tyson v. United States*, 285 F.2d 19, 22 (10th Cir. 1960) ("[P]rovisions of an original act or section re-enacted or substantially repeated in an amendment are construed as a continuation of the original law."); AMENDMENTS AND RETROACTIVITY, 1A SUTHERLAND STATUTORY CONSTRUCTION § 22:34 (8th ed.) (same).

So "it is well-settled" that when Congress amended various CAA provisions, including § 202(a)(1) itself, but left the relevant endangerment finding language effectively "unchanged," it meant Congress was "satisf[ied] with the unamended" endangerment finding "portion." *Regal Stone Ltd. v. Longs Drug Stores Cal., L.L.C.*, 881 F. Supp. 2d 1123, 1129 (N.D. Cal. 2012); *accord Tomlinson v. State*, 369 So. 3d 1142, 1150 (Fla. 2023).

Massachusetts and other authorities agree that when Congress was addressing continuing air pollution issues with major CAA amendments in 1970, issues like carbon dioxide and climate change were not a "concern" to it or the public. Arnold W. Reitze, Jr., *If Carbon Dioxide is a Pollutant, What is EPA to do?*, ROCKY MOUNTAIN MINERAL L. FOUND., Paper No. 13 (2008) ("Reitze 2008"). Carbon dioxide was even less a concern in the 1960s; unlike in today's world, it had zero negative connotations or baggage. In Representative Harris's floor speech supporting the passage of S. 306, for example, he said: "Ideally, the only type of emissions that would occur from gasoline powered or diesel engines would be carbon dioxide and water." 111 Cong. Rec. 25050 (Rep. Harris floor speech). The "general[]" sentiment in Congress during the passage of

§ 202 was that carbon dioxide was not "considered air pollution" because "carbon dioxide is emitted from perfect combustion." Reitze 1991, *supra*, at 1633; *accord* HEW Memorandum, at 79 (April 6, 1965), https://tinyurl.com/4fenvbmh. If, as *Massachusetts* said, "the study of climate change was in its infancy" even in the late 1970s, 549 U.S. at 507, in the mid-1960s, it wasn't even yet conceived. Indeed, everyone agrees that GHGs like carbon dioxide and global warming were the furthest thing from Congress's mind in the 1960s and 1970s.

Yet *Massachusetts* was correct that although "the Congresses that drafted § 202(a)(1) might not have appreciated the possibility that burning fossil fuels could lead to global warming," it doesn't per se follow that § 202(a)(1)'s ordinary meaning couldn't apply to GHGs and climate change. 549 U.S. at 532. After all, Congress can't anticipate *everything* when it's drafting. Not only does it face knowledge constraints—especially with complex, emerging problems like air pollution—but society is always changing. So statutes often end up applying to situations the original drafters couldn't have foreseen.

But applying a statute's original meaning to fresh situations (good) is fundamentally different from swapping out or expanding the statute's original meaning so it can apply to discovered problems (bad). Unfortunately, the Endangerment Finding did the latter. Yet the textual and historical evidence shows that the ordinary person in 1965 would have understood the concept of an air pollutant "causing or contributing to air pollution which may reasonably be anticipated to endanger public health or welfare" as applying strictly to the chemical and physical substances leading to smog and smog-like pollution events.

Five aspects of the 1965 air pollution scene in particular flesh out how 1965 Joe Citizen would read that phrase—and they show that alleged pollution from GHGs like carbon dioxide is a qualitatively different issue that § 202(a)(1)'s language doesn't address.

Kinds of substances. Section 202's socio-political and legislative history shows that 1965 America was concerned with a set list of automotive chemical and physical air pollutants: volatile organic compounds (especially hydrocarbons (like benzenes), but aldehydes too), oxides of nitrogen (especially nitrogen dioxide), carbon monoxide, and sulfuric compounds (especially sulfur dioxide). *See generally supra*, Background Section; *see also* Reitze 1991, *supra*, at 1592-93 (saying "motor vehicles" are traditionally associated with three pollutants: "carbon monoxide, nitrogen oxides, and hydrocarbons"). Carbon dioxide *wasn't* on the list. Of course, Americans understood they had far more to learn about air pollution—the legislative history is crystal clear on that point. But when the average American conversant in air pollution read the term "emission of any kind of substance" (the term Congress later simplified to "air pollutant") in an air pollution bill, he was drawing from a short, well-defined list of chemicals and substances that had been consistently discussed in academia, politics, and the press for years.

Section 202(a)(1)'s rich legislative history is likewise laser focused on that small, contained group of substances. *See generally* STEPS TOWARD CLEAN AIR REPORT. That's important because it means that while the average reader *could* expand the "substance" category to incorporate a new substance, he would expect that the new category member would possess the key shared characteristics of the initial ones. Ultrafine particulate matter, for example, is an

automotive air pollutant that was rarely if ever talked about in 1965, but it is of a piece with other air pollutant substances on key points (e.g., sorts of harms it causes).[2] But as discussed more below, carbon dioxide shares no relevant characteristic with volatile organic compounds like hydrocarbons, oxides of nitrogen, carbon monoxide, and sulfur dioxide. It's not the sort of thing a 1965 American would have identified with the language "emission of any kind of substance" in an air pollution bill. J. O'M. BOCKRIS, ENVIRONMENTAL CHEMISTRY 183 (1977) (saying in 1977 that "until recently" no one "considered" carbon dioxide "an air pollutant").

Section 202's substance and structure support this reading. As EPA explains, § 202(a)(1)'s phrases must "be construed in accordance with the specific air pollutants identified for other purposes in the remainder of" § 202. 90 Fed. Reg. 36300. Many subsections and subdivisions in § 202 authorize regulating the classic four automotive air pollutants: hydrocarbons, carbon dioxide, oxides of nitrogen, and ultrafine particulate matter. *See* § 202(a)(3)(A)(i), (b), (g), (h), (j), (k). The common thread between these air pollutants is that they "are pure economic bads," meaning that "beyond some threshold concentration level, their presence is at least an annoying nuisance to daily life and at worst may cause adverse acute or long-term health effects." Jason Scott Johnston, *Climate Change Confusion and the Supreme Court: The Misguided Regulation of Greenhouse Gas Emissions Under the Clean Air Act*, 84 NOTRE DAME L. REV. 1, 12 (2008). Carbon dioxide does not tug on that same common thread.

In contrast to other pollutant-specific § 202 provisions, Section 202(a)(1) functions more like a catchall provision. *See NRDC*, 655 F.2d at 325-27. And like all catchall provisions, § 202(a)(1) must be viewed in "'the specific context' in which [it] appears 'and the broader context of the statute as a whole.'" *Fischer v. United States*, 603 U.S. 480, 486 (2024) (quoting *Robinson v. Shell Oil Co.*, 519 U.S. 337, 341 (1997)). Courts understand catchall provisions by using their "surrounding words." *Id.* (quoting *Yates v. United States*, 574 U.S. 528, 536 (2015) (plurality opinion)). The statute provides "no textually sound reason to suppose" that the "catchall" provision of § 202(a)(1) "should bear such a radically different object than" the provisions in § 202(a)(3)(A)(i), (b), (g), (h), (j), and (k). *Epic Sys. Corp. v. Lewis*, 584 U.S. 497, 513 (2018).

The Supreme Court showed how this principle works in practice in *Harrington v. Purdue Pharma L. P.*, 603 U.S. 204, 218 (2024). There, the Court held that a catchall bankruptcy provision didn't "afford[] a bankruptcy court" certain wide-ranging authority based on the word "appropriate" because of the limiting context provided by the surrounding statutory provisions. *Id.* The catchall provision gave *some* new authority, the Court said, but echoing *Epic Systems Corporation*, it held that that provision couldn't "be fairly read to endow a bankruptcy court with the radically different power to discharge the debts of a nondebtor without the consent of affected nondebtor claimants." *Id.* (cleaned up). The Court explained that because the word "appropriate"

[2] Particulate matter was *the* original air pollutant. That's what all the late nineteenth and early twentieth century smoke ordinances were about. But people knew cars weren't burning coal or wood—the primary culprits of particulate matter were in urban areas. In fact, § 202(a)(1)'s legislative history shows that Congress designed § 202(a) "to prevent the delay of emission controls by allowing HC, CO[,] and NOx to be controlled immediately, with particulates to be regulated using § 202(a) as soon as technology to measure particulates improved." *See* Reitze 2008, *supra*; Reitze 2009, *supra*, at 14 n.98. It took some time to measure the PM2.5 for which automobile tires, brakes, and other parts are responsible.

is "'context dependent'" it "draws its meaning from surrounding provisions." *Id.* (quoting *Sossamon v. Texas*, 563 U.S. 277, 286 (2011)).

Section 202(a)(1)'s language is also highly context dependent, relying on various other § 202 provisions to flesh out its meaning. Congress itself saw these provisions as intimately connected. Section 202 contains dozens of cross references throughout; almost every subsection regulating hydrocarbons, oxides of nitrogen, and carbon monoxide explicitly references § 202(a), *see* § 202(a)(3)(A)(i), (b), (g), (h), (j); and a few of these specifically reference § 202(a)(1), *see* § 202(b), (j). So EPA is right that the air pollutants Congress listed in these later § 202 subsections inform what sorts of air pollutants are permissible under § 202(a)(1).

The next four aspects are drawn from how, when, and where these air pollutants create the air pollution that endangers public health and welfare.

To summarize: In 1965, one issue dominated the air pollution conversation: smog. *E.g.*, Dewey, *supra*, at 65 (noting that when California's emission control devices on vehicles in 1960 were called "smog devices"). The Background Section is chock full of evidence supporting this fact. For nearly 20 years, smog was the 800-pound gorilla in the room. Local, state, and national conversations about air pollution were driven by this problem. By 1965, Americans knew that volatile organic compounds like hydrocarbons and oxides of nitrogen interacting with the sunlight in the ambient air to form smog (chiefly ground-level ozone). They also knew sufficient quantities of air pollutants like carbon monoxide, nitrogen dioxide, and sulfur dioxide harmed people and vegetation directly. And they knew a great deal of these air pollutants came from automobiles. For decades, tens of millions of Americans in our biggest cities had lived with constant air pollution of all sorts, including smog, and periodically they would suffer a tragic smog disaster, claiming hundreds of lives. Some places with unfavorable geographic features, like L.A., were flagship hotspots; but Americans knew the problem extended far beyond that. That air pollution was the sort of thing people could see, taste, smell, and touch. And by 1965, they realized they were creating and breathing toxins that were harming and killing them, their children and parents, and their plants and animals.

This understanding of pollution is fundamentally different than every major aspect of how the Endangerment Finding predicted GHGs like carbon dioxide work and allegedly endanger the public health and welfare.

How the air pollutants and air pollution work practically. Recall where the causation/contribution element is placed in § 202(a)(1)'s language: The Administrator may prescribe standards for air pollutants that *cause or contribute* to air pollution that may reasonably be anticipated to endanger public health or welfare. Note that the causation or contribution language applies to only "air pollution"—not "endanger public health or welfare." So while EPA might try to get creative with how remotely a particular air pollutant "causes or contributes" to air pollution, it can't get creative with how the resulting air pollution endangers public health or welfare.

The text doesn't say the air pollution can contribute to another thing or event or circumstance that is reasonably anticipated to endanger public health or welfare—it says that we must be able to reasonably anticipate that the air pollution itself will do the endangering. If Congress had wanted to allow for conceptual or causal space between the air pollution and the danger it could have, but it chose not to. EPA, as it recognizes now, is stuck with that language.

Consider how well the 1965 air pollutants and resulting air pollution fit this reading. Those air pollutants create air pollution that harms in one way: via direct contact (with skin, lungs, leaves, etc.). These air pollutants create offending air pollution either by themselves (e.g., carbon monoxide) or in combination with sunlight in the ambient air (e.g., volatile organic compounds). (This is a good example of § 202(a)(1)'s cause or contribute language in practice.) Then, that air pollution directly harms people, animals, plants, and other things. As § 202(a)(1) conceives it, the air pollution mechanism is direct, personal, and individual. No intervening steps or daisy chains of reactions lie between the air pollution and harm. In all these cases, the air pollution *itself* is the thing endangering public health and welfare—as it must under § 202(a)(1).

Now contrast that with the Endangerment Finding's conception of how carbon dioxide fits under § 202(a)(1): automobiles emit carbon dioxide, that emitted carbon dioxide begins to absorb infrared heat emitted from the earth's surface, and later the carbon dioxide reemits that heat into the lower atmosphere, causing global temperatures to slowly rise. After a long time, those rising temperatures may cause other serious events—like melting ice and rising ocean levels or more hurricanes and wildfires or more droughts. And depending on where and how bad these events get, people could be forced to move to avoid rising water or drought, or get injured, lose property, or even die in major weather events.

In this telling, the same carbon dioxide molecule, like carbon monoxide, is both the air pollutant and the endangering air pollution. But unlike all the 1965 air pollutants, "carbon dioxide does not directly cause harm" to anything. *Nicholle Winters, Carbon Dioxide: A Pollutant in the Air, but Is the EPA Correct That It Is Not an "Air Pollutant"?,* 104 COLUM. L. REV. 1996, 1999 (2004). It floats about absorbing and retaining heat, "contribut[ing] to global warming." *Id.* That's it. That's the life of the polluting carbon dioxide molecule. It doesn't negatively interact *at all* with a person or animal or plant. In EPA's telling, that emitted heat then causes things to happen to other things and after a long chain of effects—far removed causally and temporally from the atmospheric "air pollution"—someone or something might get hurt. But even if that were true, the air pollution itself wouldn't itself be endangering public health or welfare—at least not as § 202(a)(1) understood "endangers."

The D.C. Circuit rejected the Endangerment Finding's read of § 202(a)(1) in 1976 when it held that § 202(a)(1)'s "cause or contribute to" language "refers not to the causal relationship between air pollution and health, but to the relationship between automobile emissions and air pollution." *Ethyl Corp.*, 541 F.2d at 15. Adding another "cause or contribute to" clause between "air pollution" and the "endanger" language is "[q]uite obviously" contrary to "what Congress said." *Id.* at 15 n.24. Further, "not all air pollutants contribute to dangerous air pollution and, more importantly, not all dangerous air pollution is caused by air pollutants that are, themselves, dangerous." *Id.*at 16 n.27 (cleaned up). Hydrocarbons, for example, could be properly regulated

under § 202(a)(1) because even though they "are not themselves always dangerous," "they react in sunlight to form smog, which is dangerous." *Id.*

Carbon dioxide is thus a prime example of an "air pollutant" (assuming *Massachusetts* is correct) that does *not* contribute to dangerous air pollution. *See* STATE WATER POLLUTION CONTROL BOARD, WATER QUALITY CRITERIA 100 (1952) (supporting the conceptual difference between "harmful pollution" from "pollution" (citing *Doremus v. Mayor and Aldermen of the City of Paterson*, 69 A. 225, 232 (N.J. Eq. 1908)). Unlike hydrocarbons, it doesn't react with anything to form a "dangerous" substance. *Cf. Ford Motor Co. v. EPA*, 604 F.2d 685, 685-86 (D.C. Cir. 1979) (noting that EPA defended its methane regulation under § 202(b)'s hydrocarbon-specific provision instead of § 202(a)(1)'s general provision because, as Ford argued, "methane is a nonreactive hydrocarbon" and therefore does not contribute to dangerous "air pollution" like smog); 44 Fed. Reg. 20086 (April 4,, 1979) (EPA noting that in its hydrocarbon measurements it discounts methane "because EPA scientists believe methane is photochemically unreactive and does not contribute to the formation of photochemical smog").

So the only way the Endangerment Finding could force GHGs like carbon dioxide to work with § 202(a)(1) is to read an extra "cause or contribute to" clause between "air pollution" and "endanger." Granting all of EPA's other assumptions, inserting that language would mean carbon dioxide was an air pollutant that contributed to air pollution that may be reasonably anticipated to contribute to endangering public health or welfare. But adding that extra clause is exactly what *Ethyl Corp.* says EPA can't do. *See* Jay M. Zitter, *Construction and Application of § 202(a)(1)*, 13 A.L.R. FED. 2D 703 (originally published in 2006) (summarizing *Ethyl Corp.*).

How 1965 air pollution endangered public health and welfare. Smog's chief harm was death—causing thousands of fatalities from London to New York to L.A. to Donora. People knew it was deadly. And it was fatal primarily because it harmed the respiratory system, making it difficult (especially for children and the elderly and already sick) to breathe. And even if it didn't kill imminently, Americans knew it shortened lifespans and made people sicker: lung cancer, chronic respiratory diseases (e.g., emphysema), bronchitis, heart conditions, rickets, and irritated eyes. Smog reduced visibility—a sheer ugliness that hurt America's beauty and, through lack of visibility, made transportation of all kinds hazardous. It harmed plants and animals—everything from farmers' crops and herds to pets and window box flowers. And it dirtied clothing and property of every kind.

Contrast these harms with the near effects of the increases in automotive emission carbon dioxide from automobiles: nothing. OSHA's Permissible Exposure guidelines for carbon dioxide limit exposure at 5,000 ppm every eight hours. DEPARTMENT OF ENERGY, CLIMATE WORKING GROUP, A CRITICAL REVIEW OF IMPACTS OF GREENHOUSE GAS EMISSIONS ON THE U.S. CLIMATE 2 (July 23, 2025). But ambient air carbon dioxide levels are around 430 ppm, increasing only 2ppm yearly. *Id.* It would take many, many years at the current pace for carbon dioxide emissions to have the sort of health effects § 202(a)(1) air pollutants have. And of course, the technical "air pollution" from carbon dioxide—more retained heat—doesn't hurt people at all.

A quick look at how today's and 1950's and 1960's dictionaries and treatises defined words like "pollute" or "pollution" drives this home from the text side. Today's legal dictionary defines "air pollution" as "[a]ny harmful substance or energy emitted directly or indirectly into the air, especially if the harm is to the environment or to the public health or welfare; contaminants in the atmosphere." Black's Law Dictionary (12th ed. 2024). Similarly, the dictionary published just a few years after § 202 defined "pollute" as "[t]o corrupt or defile." Black's Law Dictionary (1968 4th ed.) (citing *Young v. State*, 141 N.E. 309, 311 (Ind. 1923)). General, non-law dictionaries from that era used identical language. Webster's New World Dictionary of the American Language (1960), for example, defined "pollute" as "to make unclean, impure, or corrupt; desecrate; defile; contaminate; dirty." And EPA's other dictionaries add words like "noxious" and "poisonous." 90 Fed. Reg. 36300.

Several environmental or environmental-adjacent expert sources from the early 1900s through the 1960s defined "pollution" in the clean water context by asking whether the thing added to the water destroyed its *usefulness*. *See, e.g.*, HENRY JOHN WASTELL COULSON & URQUHART A. FORBES, THE LAW RELATING TO WATERS, SEA, TIDAL, AND INLAND 183 (1924) ("The addition of something to water which changes its natural qualities so that the riparian proprietor does not get the natural water of the stream transmitted to him."); STATE WATER POLLUTION CONTROL BOARD, WATER QUALITY CRITERIA 100 (1952) ("[T]he word 'pollution' means an impairment, with attendant injury, to the use of the water that plaintiffs are entitled to make. Unless the introduction of extraneous matter so unfavorably affects such use, the condition created is short of pollution." (quoting *Wilmore v. Chain O'Mines, Inc.*, 44 P.2d. 1024 (Colo. 1934))); U.S. PUBLIC HEALTH SERVICE, DRINKING WATER STANDARDS 2 (1962), https://tinyurl.com/bdewe8b9 ("Pollution . . . means the presence any foreign substance . . . which tends to degrade its quality so as to constitute a hazard or impair the usefulness of the [resource].").

No one at any time in America's history would use words like "contaminating, defiling, dirty, unclean, noxious, impure, poisonous, corrupt, or desecrating"—drawn from the above authorities—to describe carbon dioxide emissions. Nor would anyone use that language to describe its action of capturing and retaining heat. Nor would most people even describe the predicted global warming catastrophes with that language. Nor would anyone say that carbon dioxide so degrades the natural qualities of our air that people are injured by the air itself or are unable to enjoy it in its capacity as air. The text and the socio-political and legislative history are telling the same story: carbon dioxide isn't the sort of "air pollutant causing air pollution that endangers public health and welfare" that § 202(a)(1) was talking about.

Where the air pollutants cause the air pollution and public health or welfare is endangered. EPA is right that Section 202(a)(1)'s "language targets air pollution that threatens public health or welfare *through local or regional exposure*." 90 Fed. Reg. 36299 (emphasis added). Contrary to that understanding, the Endangerment Finding explicitly conceives of the danger of GHGs like carbon dioxide as a *global* problem: "If the United States and the rest of the world are to combat the risks associated with global climate change, contributors must do their part even if their contributions to the global problem, measured in terms of percentage, are smaller than typically encountered when tackling solely regional or local environmental issues." 74 Fed. Reg. 66543.

Yet § 202(a)(1)'s text, socio-political history, and legislative history confirm that § 202(a)(1) does not admit of a global lens for the concepts "air pollutants" and "air pollution hat endangers public health or welfare." Instead, they allow us to understand § 202(a)(1) as applying strictly to "local and regional air pollution." Jonathan H. Adler, *Warming Up to Climate Change Litigation*, 93 VA. L. REV. IN BRIEF 63, 69-70 (2007); *see also* Fabricant Memo, *supra*, at 6 (summarizing the history of EPA pollutant regulation by saying EPA had always addressed pollution occurring "at ground level or near the surface of the earth").

Take the history of the language: "air pollution that endangers public health or welfare." By the mid-1960s, affected parts of the United States, like Los Angeles, had begun equating "the word 'smog'" with "air pollution"—leaving no room for concerns like climate change. Merlin Chowkwanyun, *Two Cheers for Air Pollution Control: Triumphs and Limits of the Mid-Century Fight for Air Quality*, 134:3 PUBLIC HEALTH REP. 307, 307-08 (March 21, 2019); *see also* Testimony of Morton Sterling, Chief of Detroit's Bureau of Air Pollution Control, Before the Senate Subcommittee p. 153, (April 6, 1965), https://tinyurl.com/4fenvbmh (noting that the public and Congress were "interchanging" "air pollution" and "photochemical smog problem"). Smog is, of course, highly localized or regionalized. Remember that the smog catastrophes that had caught Americans' attention in the 1950s and 1960s were all city-based: Donora, London, New York, and Los Angeles.

Of course, though, many people suffered from smog without living through a tragedy. And it's true that air pollutants like volatile organic compounds and oxides of nitrogen can drift quite a ways, causing dangerous pollution than in the immediate area around air pollutant sources. 60 Fed. Reg. 4712 ("The chemical reactions that create smog take place while the pollutants are being blown through the air by the wind," so sometimes "smog can be more severe miles away from the source of pollution than it is at the source."). For example, larger regions including a good bit of the New Jersey turnpike outside New York suffered from smog along with the city. And it wasn't just L.A. proper that suffered from smog—it was the greater metropolitan area, including places like Pasadena and even further up into the hills surrounding L.A. *See* Crouch, *supra*, at 477 (saying that "[o]n a truly smoggy day the urbanized area in the four counties is overhung with a pall"). The statistics on Americans' exposure to air pollution always considered metropolitan areas because urban residents were the ones exposed to dangerous levels of air pollution.

But no one ever seriously thought smog and smog-related problems had a *global*—or even *national*—scope. Indeed, the smog-centric concerns of the early to mid-1960s animating § 202(a)(1) were not remotely comparable to the much later environmental movement that involved global warming. There was not, in the 1960s, a widespread, totalizing "focus[]on the development and protection of wilderness and other scenic resources" or the global environment; the worldwide "conservation movement played no significant role in air pollution advocacy." Orford, *supra*, at 30. "[M]ost" Americans' "incipient environmental concern" through the mid-1960s "was not at all identical to the more radical, all-encompassing 'environmentalism' that swept the nation at the very end of the 1960s." Dewey, *supra*, at 83.

So even though § 202(a)(1) was passed in "[r]espon[se] to a national outcry for air pollution control," that outcry was laser focused on a far more geographically and spatially focused set of

environmental issues than climate change activists warn about today. *Id.* Congress simply did not "design[]" § 202(a)(1) "with carbon dioxide, or any other greenhouse gas, in mind." Senator Frank H. Murkowski, *The Kyoto Protocol Is Not the Answer to Climate Change*, 37 HARV. J. ON LEGIS. 345, 364 (2000); *see also* Baird, *supra*, at 159-60; Kurz, *supra*, at 1080-81. That scope would be far too geographically and spatially broad in light of § 202(a)(1)'s history.

Americans would not have understood § 202(a)(1)'s reference to dangerous air pollution to be referencing the *worldwide* effects from emissions like carbon dioxide and water that freely mix throughout our global atmosphere. They were focused on their own communities. News reports show that people in L.A. or New York understood what people across the country were going through because they had smog issues of their own. But no L.A. resident would have blamed New York for "air pollution that endangered [L.A.] public health or welfare" and vice versa—let alone blaming London or Shanghai. Not one piece of contemporaneous evidence shows that Americans would have understood either "air pollution" or the "endanger" clause as operating at the level required by the Endangerment Finding. Congress "enacted and revised" § 202(a)(1) "to control local and regional air pollution, such as soot and smog"—and the average American reading § 202(a)(1) would have understood that. Adler, *supra*, at 69-70.

This read is supported by § 302(g)'s definition of "air pollutant," which says air pollutants are emitted into "ambient air." For ~50 years EPA has defined "ambient air" as "that portion of the atmosphere, external to buildings, to which the general public has access." 40 C.F.R. § 50.1(e); *see also Hancock v. Train*, 426 U.S. 167, 169 n. 4 (1976) (same definition). And while carbon dioxide meets that easy bit of § 302(g)'s definition, the "ambient air" language and its definition shed some helpful light on how Congress and EPA view "air pollutants."

The phrase "ambient air" itself connotes human presence—this is air that people are moving in and breathing in. It is our immediate environment—the environment we can taste, smell, touch, and feel. Section 50.1(e) says that ambient air is outside air the public can access. All of this matters for § 202(a)(1)'s "air pollutant" language because the Court in *Massachusetts*, 549 U.S. at 528-29, 532, called § 302(g)'s definition of "air pollutant" "sweeping" and "capacious," and in *UARG*, 573 U.S. at 319-20, complained that Congress had made that definition broader than the same "air pollutant" definition in operative provisions. So it seems likely that, at the very least, § 202(a)(1) carries with it any limiting connotations present in § 302(g)—including its "ambient air" language.

Other parts of the CAA provide more support, as we see Congress focusing on the international effects of air pollution when it wants. In CAA § 179b, for example, Congress has allowed states to adjust for foreign pollution interfering with NAAQS goals. Congress also provides for stratospheric ozone depletion—a global issue. §§ 601-618; *see* Adler, *supra*, at 69-70 (noting these provisions as evidence that Congress has *not* given the power to EPA to regulate global GHG emissions). And under CAA § 115, EPA may decide whether "air pollutant or pollutants emitted in the United States cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare in a foreign country." Section 115 is especially pertinent because Congress first passed it as part of the MVPCA. *See* Public Law 89-271, § 102(a). Almost exactly like the current language, the original language allowed the HEW Secretary to

determine whether pollution "endanger[s] the health or welfare of persons in a foreign country." *Id.* That Congress didn't use language like "international" or "outside of the United States" in § 202 is therefore strong evidence that it never intended § 202(a)(1) endangerment findings to have an international sweep.

That last example is perhaps the most helpful. Context and legislative history show that government officials in 1965 understood Public Law 89-271, § 102(a)'s term "foreign country" to include only those directly neighboring countries who could reasonably be affected by America's automotive air pollution. HEW Secretary Anthony Celebrezze's report told the subcommittee that this language was desirable because of America's "friendly relations with *bordering* countries." Report of Cabinet Secretary Anthony J. Celebrezze, p. 12 (April 6, 1965), https://tinyurl.com/4fenvbmh. His assistant secretary Mr. Quigley justified the language in live testimony similarly: "We have situations on the Canadian border where frankly we are not being very good neighbors." Testimony of Mr. Quigley, p. 30 (April 6, 1965), https://tinyurl.com/4fenvbmh. The Senate Committee's report flagged an ongoing concern that HEW couldn't adequately "cooperate with and assist neighboring countries in solving mutual problems of air pollution." Committee on Public Works, S. Rep. No. 192, 89th Cong., 1st Sess., Report to Accompany S. 306, p. 9 (May 14, 1965). And Representative Harris's floor statement explicitly envisioned that the Public Law 89-271, § 102(a), language would apply with respect to "air pollution adversely affecting persons in Mexico or Canada." 111 Cong. Rec. 25050.

Language like "bordering" or "neighboring" country, and references to Canada and Mexico, make good sense if "air pollution" that "endangers public health or welfare" applies issues in a location's or a broader cross-jurisdiction region's ambient air—i.e., drifting smog. *See* Forswall & Higgins, *supra*, at 6 (saying § 202 "recognized the problem of transborder air pollution and encouraged research on the movement and effects of pollution to and from Mexico and Canada."). But it makes no sense if the Endangerment Finding was correct and § 202 is meant to have a global focus.

EPA is therefore correct that "'air pollution' defined as six 'well-mixed' GHGs raising global climate change concerns that adversely impact a subset of regions globally cannot satisfy" § 202(a)(1). 90 Fed. Reg. 36299. EPA would be justified in rescinding the Endangerment Finding for this reason alone.

When the air pollution endangers public health or welfare. 1965 air pollutants turned into air pollution quickly and began endangering public health or welfare quickly. The substances discussed above would usually become air pollution within a few days—or, at most, several weeks. And even more importantly, once the air pollution existed, it would begin to hurt people *immediately* upon contact. Granted, some of the physical problems people suffered, like lung cancer, would take years to develop. But the damage itself—the actual *harm* from the air pollution—happened effectively instantly upon contact. And it was possible for the damaging pollution to dissipate quickly, too. If everyone stopped driving cars, running factories, and burning solid waste, what Americans considered "air pollution" in 1965 would have been gone.

But none of that's true with carbon dioxide and global warming. Even accepting the Endangerment Finding's view of the situation, it takes a long time for the carbon dioxide that becomes air pollution to lead to effects that begin harming people. The estimates vary, but generally the threats of harm from climate change range from a few years to decades—several orders of magnitude more temporally removed than the harms from 1965 air pollution. And GHGs like carbon dioxide aren't something that just go away in a few days or weeks if we were to stop *all* allegedly polluting activity. They're a permanent problem requiring a permanent solution. This less dynamic form of pollution is fundamentally different than the concepts of "air pollution" and "endangers public health and welfare" that ordinary Americans would have accepted in 1965.

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The average American in 1965 wouldn't have called carbon dioxide an "air pollutant." They wouldn't have understood something like global warming to be "air pollution." And they wouldn't have recognized the parade of climate change horribles as the sort of "endangerment to public health and welfare" created by automotive exhaust. In short, they wouldn't have read § 202(a)(1) in any way that justifies the Endangerment Finding. Because the Endangerment Finding transgresses the best read of § 202(a)(1), EPA is right to rescind it.

B. The Major Questions Doctrine Confirms that EPA Cannot Use § 202 to Regulate Global Warming.

EPA is also right to say that cases like *West Virginia*, *UARG*, and *Brown & Williamson* prohibit the Endangerment Finding because Congress has not clearly given EPA the power to address the major question of climate change. 90 Fed. Reg. 36299 ("At a minimum, Congress did not *clearly* authorize the EPA to decide the Nation's response to global climate change concerns by empowering the Agency to 'prescribe . . . standards' for certain air pollutants emitted by new motor vehicles and engines.").

EPA has seen this fatal major-questions flaw in the Endangerment Finding for a long time. Its Fabricant Memo noted that *Brown & Williamson* made it "clear that an administrative agency [must] await[] congressional direction on a fundamental policy issue such as global climate change, instead of searching for new authority in an existing statute that was not designed or enacted to deal with that issue." Fabricant Memo, *supra*, at 4. EPA admitted that Congress, not EPA, had the tools—and, more importantly, the constitutional authority—to settle these costly, hotly debated, and significant policy questions. *See* 68 Fed. Reg. 52922 (denying the environmental groups' petitions in 2003, in part, by using the Fabricant Memo's reasoning).

Since EPA promulgated the Endangerment Finding in 2009, the Supreme Court has done much to develop and refine the major-questions doctrine in cases like *UARG*, *West Virginia*, *Biden v. Nebraska*, and *NFIB v. OSHA*. A question is major when the "basic and consequential tradeoffs" at stake "are ones that Congress would likely have intended for itself." *Biden v. Nebraska*, 600 U.S. 477, 506 (2023). Before an agency can make calls about such tradeoffs, Congress must "speak clearly." *Id.* at 507. The major-questions doctrine is therefore fundamentally interested in

statutory construction, asking "Congress in fact meant to confer the power the agency has asserted." *West Virginia*, 597 U.S. at 721.

1. The Endangerment Finding Takes On a Major Question.

In recent years, the Court has fleshed out several "indicators" to help decide whether this is the sort of situation where it would expect Congress to delegate regulatory authority more clearly and explicitly than in other cases. *Nebraska*, 600 U.S. at 504. Of course, the major-questions doctrine is not an "on-off switch that flips when a critical mass of factors is present." *Id.* at 521 (Barrett, J., concurring). The doctrine "simply reflects 'common sense as to the manner in which Congress is likely to delegate a policy decision of such economic and political magnitude.'" *Id.* (quoting *FDA v. Brown & Williamson*, 529 U.S. 120, 133 (2000)). Four of the main indicators are economic cost, social and political significance, the scope of the claimed power, and federalism interests. Here, all four indicators show that in the Endangerment Finding EPA waded smack dab into the middle of a major question—and without any Congressional authorization, let alone "clear" authorization. Taking these issues in turn:

Economic cost. This indicator is present when the agency "seeks to regulate 'a significant portion of the American economy,'" *West Virginia*, 597 U.S. at 744 (Gorsuch, J., concurring) (quoting *UARG*, 573 U.S. at 324), or costs "billions of dollars in spending," from the private sector, *King v. Burwell*, 576 U.S. 473, 485 (2015). "[R]egulating tobacco products, eliminating rate regulation in the telecommunications industry, subjecting private homes to [CAA] restrictions, and suspending local housing laws and regulations" are the sorts of agency actions that trigger this indicator. *West Virginia*, 597 U.S. at 744 (Gorsuch, J., concurring).

The Endangerment Finding has a tremendous economic cost—perhaps the most significant price tag of any major questions case the Supreme Court has considered. EPA and others estimate that the seven GHG emission standard regulations it has promulgated based on the Endangerment Finding have "an aggregate cost of more than $1 trillion." EPA Press Off., *supra*.; *see also* James Broughel, *The Behavioral Economics Battle Lurking in EPA's Endangerment Finding Repeal*, FORBES (Aug. 11, 2025, 8:49 a.m.), https://tinyurl.com/ywtt97xb. These enormous costs are a strong indicator that the major-questions doctrine applies. *See Ala. Ass'n of Realtors v. HHS*, 594 U.S. 758, 764 (2021) (citing program's "billion[s]" in "economic impact"); *King*, 576 U.S. at 485 (same).

Some might argue that the Endangerment Finding itself doesn't impose these GHG emission standard costs, so it'd be unfair to count them here. But no honest, common-sense evaluation of the Endangerment Finding would peg its costs at $0—that's an inappropriately blinkered approach. The major-questions doctrine is concerned with "highly *consequential* [agency] power." *West Virginia*, 597 U.S. at 724 (emphasis added). So it takes account of both effects (the Endangerment Finding) *and* consequences (GHG emission standards). *Id.* at 721; *Biden*, 600 U.S. at 506 (saying "basic and consequential tradeoffs" make something major). Here, a cost evaluation *must* consider the GHG emission standards because those consequences are legally mandated: as *Massachusetts* held, § 202(a)(1) "*requires*" standards to follow any endangerment finding. 549 U.S. at 533 (emphasis added). The agency need not reduce what is

supposed to be clear-eyed, common-sense inquiry into the costs of an agency's action to "empty formalism." *Va. Off. for Protection & Advoc. v. Stewart*, 563 U.S. 247, 256 (2011).

Political and social significance. Another indicator is "when an agency claims the power to resolve a matter of great 'political significance,'" *West Virginia*, 597 U.S. at 743 (Gorsuch, J., concurring) (quoting *NFIB v. OSHA*, 595 U.S. 109, 117 (2022)), "or end an 'earnest and profound debate across the country,'" *West Virginia*, 597 U.S. at 743 (quoting *Gonzales v. Oregon*, 546 U.S. 243, 267 (2006)). In *Gonzales*, the Attorney General attempted to end the physician-assisted-suicide debate. 546 U.S. at 267. And in *NFIB v. OSHA*, OSHA issued a COVID-19 vaccine for most American workers. 595 U.S. at 112-13. Both of these cases involved major questions.

By seeking to resolve significant aspects of the debate on climate change—including anthropogenic causes and government solutions—the Endangerment Finding put itself on the same plane of importance as *NFIB v. OSHA* and *Gonzales*. *Massachusetts* called the issue of climate change "the most pressing environmental challenge of our time." 549 U.S. at 505. Justice Kagan did the same in *West Virginia*. 597 U.S. at 753 (Kagan, J., dissenting). As Justice Alito put it, climate change has "staked a place at the very center of this Nation's public discourse." *Nat'l Rev., Inc. v. Mann*, 140 S. Ct. 344, 348 (2019) (Alito, J., dissenting from denial of certiorari). For decades a significant percentage of the country has believed that "[g]lobal warming is the most serious long-term threat to welfare of the planet, threatening to cause rising sea levels that flood coastal areas, widespread disruptions to forest ecosystems, drought, and potentially severe health impacts." Henry A. Waxman, et al., *Cars, Fuels, and Clean Air: A Review of Title II of the Clean Air Act Amendments of 1990*, 21 ENV'T L. 1947, 2018 (1991).

The Court in *West Virginia* said it thought it "'highly unlikely that Congress would leave' to 'agency discretion' the decision of how much coal-based generation there should be over the coming decades." 597 U.S. at 729 (quoting *MCI*, 512 U.S. at 231). The same is true here. Whether to regulate the GHG emissions from hundreds of millions of vehicles to the tune of $1 trillion dollars involves the sort of "basic and consequential tradeoffs . . . that Congress would likely have intended for itself." *Id.* Courts assume that even when Congress delegates *some* power to an agency, it "does not delegate its authority to settle or amend major social and economic policy decisions." Eskridge, *supra*, at 288. As *Brown & Williamson* put it: "We are confident that Congress could not have intended to delegate a decision of such economic and political significance to an agency in so cryptic a fashion." 529 U.S. at 160.

Some might object that the proper level of analysis isn't climate change, but EPA's § 202(a)(1) GHG emission standards regulating automotive exhaust. This level of specificity would be too exacting. In *Brown & Williamson*, the Court noted that the major questions doctrine requires the Court to be guided by "common sense as to the manner in which Congress is likely to delegate a policy decision of such economic and political magnitude to an administrative agency." 529 U.S. at 133. And when it handled the "political magnitude" aspect, it used the "political significance of the tobacco industry" as a whole and "the most troubling public health problems facing our Nation today: the thousands of premature deaths that occur each year because of tobacco use." *Id.* at 125, 147. It did not rely on the specific labelling requirements, identity verification mandate, or other specific rules promulgated by FDA. *Id.* at 128-29. It kept its analysis at a high

level of generality. The Court in *Biden v. Nebraska* did the same. When discussing political significance, the Court didn't ask whether the $10,000 discharge the Secretary had settled on had been widely debated. It was enough that Congress had repeatedly considered "student loan forgiveness bills and other student loan legislation" and that the public generally was hotly debating "student loan cancellation." 600 U.S. at 503. "Climate change" or "global warming" is a perfectly legitimate level of generality at which to analyze the Endangerment Finding.

Regardless, even considering the Endangerment Finding's particular findings shows that this rulemaking purported to unilaterally resolve a major question. There, EPA found that GHGs like carbon dioxide are "air pollutants" under § 202(a)(1), that those GHG air pollutants cause "air pollution" in the form of global warming, and that the resulting changed climate endangers Americans public health and welfare. Those were (and are) hotly debated questions of "political significance." *UARG*, 573 U.S. at 324. And there's no question that the "regulation of greenhouse gases" flowing from the Endangerment Finding "is an economic and political issue of major significance." Jody Freeman & Adrian Vermeule, Massachusetts v EPA*: From Politics to Expertise*, 2007 SUP. CT. REV. 51, 75 (2007). In regulating vehicles, the GHG emission standards touch "the most prized possession of many Americans—their automobile." INTRODUCTION, 2 L. OF ENVTL. PROT. § 12:172. And with well over 90% of American households owning automobiles, the Endangerment Finding is an action that has "touch[ed] every household in the land." *UARG*, 573 U.S. at 311-12.

Newfound, transformative power. When EPA published notice of its Endangerment Finding in May 2009, the Obama administration's press release announced "a new national policy aimed at both increasing fuel economy and reducing greenhouse gas pollution for all new cars and trucks sold in the United States." Press Release, The White House Off. of the Press Sec'y, *President Obama Announces National Fuel Efficiency Policy*, May 19, 2009, https://tinyurl.com/y6sprxjn. The White House made sure to emphasize that this was "the first time in history" that the federal government had regulated GHGs like carbon dioxide. But while novel and innovative regulatory solutions to major national policy questions may play well politically, they often don't play well legally—at least absent a clear green light from Congress. That's because grounding a regulation in "newfound" and "transformative" authority is another indicator that EPA has triggered a major question. *West Virginia*, 597 U.S. at 724.

The Obama administration was right to highlight the unprecedented nature of the Endangerment Finding. For decades, Congress had avoided thorny question of GHG regulation. Anthropogenic global warming had been a "prominent national and international issue" since the 1980s, when "scientific discussions about the possibility of global climate change led to growing public concern both in the U.S. and abroad." Fabricant Memo, *supra*, at 5. Yet "[f]rom the late 1970s" through 2009, "Congress repeatedly considered climate change legislation, and consistently *refused to authorize regulatory controls* on greenhouse gas emissions." Adler, *supra*, at 70 (emphasis added). So while Congress has repeatedly legislated on the climate change issue, *e.g.*, The National Climate Program Act of 1978, 15 U.S.C. 2901 *et seq.*; Global Climate Protection Act of 1987, 22 U.S.C. 2651; Global Change Research Act of 1990, 15 U.S.C. 2931 et seq, it never gave EPA regulatory authority over GHGs or climate change. Adler, *supra*, at 70. Rather,

"Congress encouraged the adoption of 'nonregulatory' approaches to climate change concerns"—chiefly in the form of information gathering and research. *Id.*

Congress refused to pass bills requiring GHG emission reductions. This resistance came to a head during the 1990 CAA amendments. During that session, it considered multiple such bills. *See, e.g.*, S. 1224, 101st Cong. (1989); H.R. 5966, 101st Cong. (1990); Reitze 1991, *supra*, at 1633 ("Global warming issues are largely ignored by the 1990 Amendments."). It even "explicitly considered the adoption of vehicle emission controls" after "[a] provision to require such controls was approved by the Senate Committee on Environment and Public Works, but was stricken before final passage of the bill due to heated opposition." Adler, *supra*, at 70. Congress refused any action along these lines. Henry A. Waxman, *supra*, at 2018 (bemoaning that even after the 1990 CAA amendments the CAA's "mobile source provisions" fail to address the "important" "problem of global warming"). Indeed, not only did Congress refuse to give EPA regulatory power over GHGs like carbon dioxide, but when the Cannon Memo suggested EPA had the power to unilaterally regulate GHGs, Congress "responded with appropriations riders explicitly barring the expenditure of any EPA funds on developing or implementing such rules." Adler, *supra*, at 70. All this was for many years considered strong evidence that Congress has *not* given EPA the authority to do so under general CAA provisions. *See* Arnold W. Reitze, Jr., *Global Warming*, 31 ENV'T L. REP. 10,253, 10,259 (2001) ("Reitze 2001").

The circumstances and characteristics of EPA's Endangerment Finding track exactly those of the Clean Power Plan, which the Court held unlawful because it implicated a major question absent a clear statement from Congress. Just like the Clean Power Plan, the Endangerment Finding claimed to have "'discover[ed] in a long-extant statute an unheralded power' representing a 'transformative expansion in [its] regulatory authority.'" *West Virginia*, 597 U.S. at 724 (quoting *UARG*, 573 U.S. at 324). In both, EPA claimed to have found "that newfound power in the vague language of an 'ancillary provision' of the" CAA. *Id.* (quoting *Whitman*, 531 U.S. at 468). Like § 111(d), § 202(a)(1) "was designed to function as a gap filler and had rarely been used in the preceding decades." *Id.* In fact, EPA has *never* promulgated a rule solely under its § 202(a)(1) power; whenever it invoked § 202(a)(1), it did so alongside other § 202 provisions. In these belt-and-suspender moves, § 202(a)(1) served as the suspenders. So it looks like the "little-used backwater" of § 111(d). *Id.* at 730. Like the Clean Power Plan and § 111(d), EPA in the Endangerment Finding claimed its discovery in § 202(a)(1) "allowed it to adopt a regulatory program that Congress had conspicuously and repeatedly declined to enact itself." *Id.* at 724 (citing *Brown & Williamson*, 529 U.S. at 159-60; *Gonzales*, 546 U.S. at 267-68). And just like there, it means a great deal that the "regulatory writ EPA newly uncovered" in 2009 "conveniently enabled it to enact a program that, long after the [alleged] dangers posed by greenhouse gas emissions 'had become well known, Congress considered and rejected' multiple times." *Id.* at 731 (quoting *Brown & Williamson*, 529 U.S. at 160).

As the Supreme Court said in *West Virginia*, these circumstances provide "every reason to 'hesitate before concluding that Congress' meant to confer on EPA the authority it claims under" § 202(a)(1). 597 U.S. at 725 (quoting *Brown & Williamson*, 529 U.S. at 159-60). Just like with the Clean Power Plan, finding GHG regulation permissible under § 202(a)(1) "effected a

'fundamental revision of [§ 202], changing it from one sort of scheme of regulation' into an entirely different kind." *Id.* (quoting *MCI*, 512 U.S. at 231).

Federalism. A last signal of a major question pertains to federalism. When a rule upsets the proper balance between the States and the federal government, that's another good indication that the agency has overreached, at least absent a go-ahead from Congress. *West Virginia*, 597 U.S. at 742-44 (Gorsuch, J., concurring). In other words, "when the asserted power raises federalism concerns," *N.C. Coastal Fisheries Reform Grp. v. Capt. Gaston LLC*, 76 F.4th 291, 297 (4th Cir. 2023), the agency should approach with caution. *See also, e.g.*, Louis J. Capozzi III, *In Defense of the Major Questions Doctrine*, 100 NOTRE DAME L. REV. 509, 537–38 (2025) (noting how the major-questions doctrine "safeguards federalism by preventing presidential lawmaking from displacing state laws").

To be sure, interstate air pollution has long been a federal concern, especially considering Congress's choice to delegate authority to EPA in this space. *See City of New York v. Chevron Corp.*, 993 F.3d 81, 91 (2d Cir. 2021), *Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 429 (2011). But the scale of federal interference engendered by the Endangerment Finding *specifically* extends this particular regulatory effort beyond a national problem. By tackling GHG emissions in this manner, EPA has purported to interfere with all manner of micro-level, intrastate, localized activities—transportation, manufacturing, local land use, and more. *See* Section V.C.2, *infra*. These are matters of State concern. GHG regulation, for instance, has become a *de facto* means of regulating utility industries—even though such regulation is "one of the most important … functions traditionally associated with the police power of the States." *Ark. Elec. Co-op Corp. v. Ark. Pub. Serv. Comm'n*, 461 U.S. 375, 377 (1983); *see also Bates v. Dow Agrosciences LLC*, 544 U.S. 431, 449 (2005) (noting the States' traditional concern in regulating manufacturers through tort law).

States are best positioned to regulate the local activities that occur within their borders. But the Endangerment Finding imposes a one-size-fits-all model that directly interferences with that authority—once more suggesting this effort involves a major question.

2. Congress Did Not Clearly Empower EPA to Address this Major Question.

Because the Endangerment Finding implicates a major question, EPA had to point to more than "a colorable textual basis" to claim authority to decide it. *West Virginia*, 597 U.S. at 722. EPA needs to show "clear congressional authorization." *Id.* at 732.

It can't. Congress does not empower agencies to resolve major questions "through 'modest words,' 'vague terms,' or 'subtle devices.'" *West Virginia*, 597 U.S. at 723. But that's what the Endangerment Finding's statutory analysis was built on. *See* Section II(A). And even if someone thinks that the analysis in Section II(A) is wrong, it's not *clearly* wrong. At the very least it's a close call. And given the "well known" issues at stake, that EPA lacks "*clear* authorization" to act dooms the Endangerment Finding. *West Virginia*, 597 U.S. at 731-32 (emphasis added). When an issue "has been the subject of an earnest and profound debate across the country," like climate

change or automotive exhaust regulation, it "makes the oblique form of the claimed delegation all the more suspect." *Gonzales*, 546 U.S. at 267 (cleaned up). Congress has not spoken clearly in § 202(a)(1), so EPA may not use it to make "decisions of vast economic and political significance." *West Virginia*, 597 U.S. at 716.

That EPA regulates emissions and pollution all the time doesn't change the calculus. After all, "reduc[ing] air pollution from power plants . . . is EPA's bread and butter," but that was not enough to justify its actions in *West Virginia*. 597 U.S. at 730. Likewise, measures to address infectious disease fall within the core powers of the Centers for Disease Control, but the Supreme Court still found CDC overstepped when it tried to use those powers to address a major question in an unexpected new way. *Ala. Ass'n of Realtors*, 594 U.S. at 763-65. When it comes to the major questions doctrine, even an act that might be dressed as a traditional power falling within an agency's usual domain can be stretched and warped too far. EPA can do a million things that are well within the parameters Congress has set to achieve its overarching mission of fighting pollution. What it can't do, though, is treat a small, discrete grant of authority that plays a minor role in that overall mission (§ 202(a)(1)) as a giant grant of authority that allows it to range broadly to achieve its mission. Like any complex statutory scheme, the CAA has its minor provisions and major provisions. Structurally, minor provisions (like Section § 202(a)(1)) shouldn't usually be generating signature agency rulemaking—and definitely not waves of signature agency rulemaking, as the Endangerment Finding has done.

Nor does it matter that people talked about using § 202 to regulate GHG emissions for years before EPA did so in the Endangerment Finding. President Obama aggressively attacked student loan issues throughout his presidency. Many of these issues spanned multiple administrations. *See* Collin Binkley, *Obama-era rule leads to $150M in student loan forgiveness*, AP (Dec. 14, 2018, 5:18 p.m.), https://tinyurl.com/ms68ht5k. Many called on President Obama to use his executive power to forgive more and more student loans. Yet it wasn't until President Biden that the federal government *actually* pulled the trigger on broad-based Presidential loan forgiveness. Despite this idea having been around for a while (and consistently nay-sayed), the Court held that President Biden's application of it was, indeed, a "novel and fundamentally different loan forgiveness program." *Nebraska*, 600 U.S. at 496.

Finally, some might argue that *Massachusetts* forecloses this analysis. But that would be wrong for three reasons:

- First, as explained above, *Massachusetts* was about § 302(g), not § 202(a)(1).

- Second, *Massachusetts*'s approach to major questions has been completely eclipsed by cases like *UARG* and, most importantly, *West Virginia*. Those are the controlling cases now and decide the issue as outlined above.

- Third, *Massachusetts* was fundamentally inconsistent with the earliest clear major questions case—*Brown & Williamson*—which preceded it by several years. Freeman & Vermeule, *supra*, at 75-76.

This last point warrants particular attention. The amount of authority in *Massachusetts* was at least as great as that in *Brown & Williamson*. Freeman & Vermeule, *supra*, at 75. And remember that in *Brown & Williamson* the Court refused to give the FDA *Chevron* deference because even though the immediate statutory text was straightforward enough, the surrounding sections and overall statutory scheme showed that Congress had clearly not granted that nicotine-regulating authority. 529 U.S. at 161. And the government's "arguments from the overall statutory scheme" in *Massachusetts* "were at least as strong as in *Brown & Williamson*." Freeman & Vermeule, *supra*, at 76. Whereas "*Brown & Williamson* denied an agency authority because Congress had not clearly granted it, *Massachusetts v EPA* thrusts authority upon the agency, even though Congress had not clearly granted it." *Id.*

The "inconsistency goes deeper, however": in *Brown & Williamson*, the Court's refusal to say the FDA had authority put the buck back on Congress; but in *Massachusetts*, it took the buck from Congress and put it on EPA. Freeman & Vermeule, *supra*, at 76. Attempts to harmonize these cases are not compelling. *See, e.g.*, *id.* at 76-78. Nor are they believable. *Id.* at 77-78 (noting that the "statutory provisions that (the Court argued) clearly gave EPA authority over greenhouse gas emissions were enacted in the 1960s and 1970s, before greenhouse gases and global warming moved to the top of scientific and public agendas").

No matter how you slice it, *Massachusetts*'s approach to major questions is aberrant and wouldn't preclude a major questions finding here. Reitze 2008, *supra* (criticizing *Massachusetts* for finding clear authority to regulate GHGs).

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EPA's interpretation of § 202(a)(1) in the Endangerment Finding has brought "about an enormous and transformative expansion in EPA's regulatory authority." *UARG*, 573 U.S. at 324. Acting under the cover of *Massachusetts*, EPA through the Endangerment Finding unleashed "a course of regulation resulting in 'the single largest expansion in the scope of the [CAA] in its history.'" *UARG*, 573 U.S. at 310 (quoting the Clean Air Act Handbook, at xxi (J. Domike & A. Zacaroli eds., 3d ed. 2011)). That transformative shift has affected each American—an extraordinary "encroachment" by any measure. *NFIB v. OSHA*, 595 U.S. at 117. This "economic dragooning" and forced "acquiesce[nce]" pushed on both the automotive industry and America writ large is the definition of transformative. *NFIB v. Sebelius*, 567 U.S. 519, 582 (2012). The power to require tens of millions of new vehicles manufactured in and imported into America to meet specific GHG emission standards "falls comfortably within the class of authorizations that [courts] have been reluctant to read into ambiguous statutory text." *UARG*, 573 U.S. at 324. Congress did not speak clearly, so that's the end of it.

The best course here isn't to focus on how much EPA regulates and how much that generally costs, but on whether Congress would have expected EPA to promulgate *this* Rule causing *these* effects under *this* statute. And the answer to that properly framed inquiry is "no." The only reason this EPA's "claim to extravagant statutory power" has not transformed the CAA and American society even more—say, by allowing EPA to require building permits for "millions

of small sources nationwide," as it urged in *UARG*—is because the Supreme Court has been willing to construe what it considered ambiguous text against such interpretations. *UARG*, 573 U.S. at 324 (cleaned up). The Endangerment Finding's distortions are what led Justice Scalia to comment in *UARG* that the Court was faced with "a singular situation: an agency laying claim to extravagant statutory power over the national economy while at the same time strenuously asserting that the authority claimed would render the statute 'unrecognizable to the Congress that designed' it." *Id.* (quoting 74 Fed. Reg. 31555). But expecting the Supreme Court to clean up the Endangerment Finding's downstream mess isn't good governance. The better move—and the one EPA makes here—is to attack the problem at its source and repeal the Endangerment Finding.

III. The Evolving Climate Science Shows the Endangerment Finding Is No Longer Viable.

The Endangerment Finding was the first of a "cascading series of greenhouse gas-related rules and regulations" spurred by *Massachusetts*. *Coalition for Responsible Regulation*, 684 F.3d at 114. It was issued after EPA compiled and considered "a considerable body of scientific evidence" and then concluded that carbon dioxide as a component of an aggregate group of six "well-mixed" gases contributes to climate change and so is "reasonably anticipated to endanger public health and welfare." *Id.* at 115. Unfortunately, EPA inadequately considered some significant and important parts of the scientific evidence, giving short shrift, for example, to the possible diminishing effects of additional carbon dioxide as concentration levels increase. *See* Holman W. Jenkins, Jr., *Green Elites, Trumped*, WALL ST. J.: OPINION (July 8, 2025, 4:34 p.m.), https://tinyurl.com/4rv8aycr. As important, EPA did not fully consider the net benefits of higher levels of carbon dioxide for millions of Americans.

And much of the scientific record EPA did consider amounted to essentially a "consensus of interested scientists," not provable evidence subjected to the scientific method. When scientific propositions fail to reproduce observable conditions, it's not science. "[T]he statements constituting a scientific explanation must be capable of empirical test." *Daubert v. Merrill Dow Pharms., Inc.*, 509 U.S. 579, 593 (1993) (quoting C. HEMPEL, PHILOSOPHY OF NATURAL SCIENCE 49 (1966)).

Yet nearly every aspect of the Endangerment Finding is based on computer models that have not only failed to accurately forecast the magnitude of climate changes, but that have failed to hindcast the observed temperatures seen in the 20th century and that have only become more unreliable as they have become more sophisticated. And time and again, EPA relied on representative concentration pathways, RCPs or scenarios, that have become implausible—so much so that continued reliance on them approaches scientific malpractice. The Endangerment Finding adopted assessments by outside organizations predicting more intense storms, more frequent droughts, more wildfires and an accelerating rise in sea levels only to find nearly twenty years later that no signals of such changes are present in the scientific record and are not expected to emerge in the 21st century.

In fact, in nearly every respect, the data developed over the last 15 years regarding the principal scientific pillars on which the Endangerment Finding stands shows that the conditions EPA surmised would follow indirectly from U.S. transportation sector carbon dioxide emissions,

including worsening extreme weather events such as hurricanes, floods, droughts and wildfires, have failed to develop and likely won't develop this century. Despite assertions of an expected acceleration in sea level rise, which has been ongoing for centuries, the data fail to show human-caused change in the rate of increase, or any reason to conclude that the rate of increase for the remainder of the 21st century will be remarkable. And far from showing an adverse effect on agriculture and food production, the data show a significant increase in agricultural output over the last 50 years. In sum, the observable evidence fails to support EPA's conclusion that carbon dioxide emissions constitute a pollutant that causes or contributes to air pollution that may reasonably be anticipated to endanger public health or welfare.

Perhaps EPA could be forgiven for getting so much of the science wrong.[3] After all, the Supreme Court got it wrong in the opening paragraph of *Massachusetts*, calling carbon dioxide "the most important species . . . of a greenhouse gas." 549 U.S. at 505 (cleaned up). Of course, "[w]ater vapour is the primary greenhouse gas in the Earth's atmosphere," exerting a far greater influence on temperature than carbon dioxide. CLIMATE CHANGE 2013: THE PHYSICAL SCIENCE BASIS 666, https://tinyurl.com/2tum6djx. "Water vapor and cloud droplets are in fact the dominant atmospheric absorbers, and how these substances respond to climate forcings is a principal determinant of climate sensitivity." NAT'L RSCH. COUNCIL, CLIMATE CHANGE SCIENCE: AN ANALYSIS OF SOME KEY QUESTIONS 9 (2001), https://tinyurl.com/5n7jy5fv.

Regardless, the Supreme Court set the stage for the Endangerment Finding by adopting the entire theory of causation offered by the State of Massachusetts and others. The Court likely would not reach the same conclusion considering the scientific record today. As important, it seems unlikely the Court would employ the same rationale today, one that disregards the overwhelming evidence that global carbon dioxide emissions are dependent on sources and countries outside the control of EPA, and that even without U.S. emissions, global carbon dioxide levels will continue to increase. In *Massachusetts*, the Supreme Court declared that "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." 549 U.S. at 525-26. Empirical data over the last two decades highlights the flaw in that reasoning.

On every point, EPA was wrong to find that climate change is air pollution that endangers public health and welfare under § 202(a)(1). This mistake justifies EPA's current recission.

[3] That EPA unlawfully failed to submit the Endangerment Finding to the Science Advisory Board certainly didn't help its grasp of the climate science. The Texas Policy Foundation correctly notes that the relevant statute's use of the word "shall" imposes a nondiscretionary duty upon EPA to submit *all* regulatory proposals to the Science Advisory Board for peer review. 42 U.S.C. § 4365(c)(1). This unambiguous requirement applies comprehensively to all EPA regulatory proposals under every statute it administers, including the CAA. As the D.C. Circuit held in *American Petroleum Institute v. Costle*, § 4365(c)(1)'s language about "making a [regulatory proposal] available to the SAB for comment is mandatory." 665 F.2d 1176, 1188 (D.C. Cir. 1981). The SAB's statutory role to provide "and comments on the adequacy of the scientific and technical basis" of proposed regulations, 42 U.S.C. § 4365(c)(2), underscores the critical importance of this peer review process. Any agency action that circumvents this mandatory requirement without substantial justification would be arbitrary and capricious, as agencies cannot reasonably assume facts "with absolutely no evidence to back [them] up." *Safe Extensions, Inc. v. FAA*, 509 F.3d 593, 605 (D.C. Cir. 2007).

A. Global Emissions Data

It matters a lot "what happens elsewhere." If as is now the case, foreign countries increase their emissions faster than the U.S. reduces its own, the pace of global emissions will continue to increase, just as it has for the past 15 years even as the United States decreased emissions on average by almost 1 percent annually. EPA, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990-2021 24 (2023) https://tinyurl.com/3fzsjypk. "Total U.S. emissions have decreased by 2.3 percent from 1990 to 2021, down from a high of 15.8 percent above 1990 levels in 2007." *Id.* at 4. But the pace of global emissions increases did not slow.

"With only two exceptions, 2009 (global financial crisis) and 2020 (COVID-19), global GHG emissions have grown steadily since the beginning of the 21st century, mainly due to the increase in fossil CO_2 emissions by China, India, and other emerging economies." EDGAR, GHG EMISSIONS OF ALL WORLD COUNTRIES (2024), https://tinyurl.com/yn8m9fd5. "Based on the emission estimates for 2023 provided by EDGAR, global GHG emissions increased by 1.9% compared to 2022, reaching 53.0 Gt CO_{2eq}." *Id.* This increase was the highest level ever recorded, despite consistent U.S. reductions. While the United States decreased its emissions by 18 percent, since 2005 China *increased* its total greenhouse gas emissions from 3,876.30 Mt CO_2 eq to 15,943.00 Mt CO_2eq, or an increase of 311%, while India *increased* total emissions from 1,383.06 Mt CO_2eq to 4,133,55 Mt CO_2eq, or an *increase* of 299% percent. *Id.*

And these trends will only continue. Despite China's professed commitment to reducing carbon dioxide emissions no later than 2030, it has recently doubled-down on its commitment to coal-fired electricity generation. Hongqiao Liu, et al., *The Carbon Brief Profile: China*, CARBON BRIEF (Nov. 29, 2023), https://tinyurl.com/yrwsfkwn. "Coal power plant permitting, construction starts and new project announcements accelerated dramatically in China in 2022, with new permits reaching the highest level since 2015. The coal power capacity starting construction in China was *six times as large* as that in all the rest of the world combined." Lauri Myllyvirta, et al., *China Permits Two New Coal Power Plants Per Week In 2022*, CREA (Feb. 27, 2023), https://tinyurl.com/ycx55esu (emphasis added). So global carbon dioxide emissions will continue to climb at an increasing pace, no matter what happens in the United States.

The Court's "no matter what happens elsewhere" rhetoric highlights the analytical weakness of the *Massachusetts* majority. But the empirical evidence since 2007 makes plain that EPA correctly denied the Endangerment Finding petition in 2003, concluding that possible reductions available through § 202(a)(1) "would have no discernable impact on future global warming." 549 U.S. at 526. Any emission reductions that might flow from retaining the Endangerment Finding would be dwarfed by the increased emissions from China, India, and the rest of the world, just as they have been for the last two decades. And absent a "cause or contribute" nexus between domestic carbon dioxide emissions and a measurable improvement in global "well-mixed" air pollution that lessens or eliminates a danger to the public health or welfare, the CAA provides EPA with no mandate to regulate.

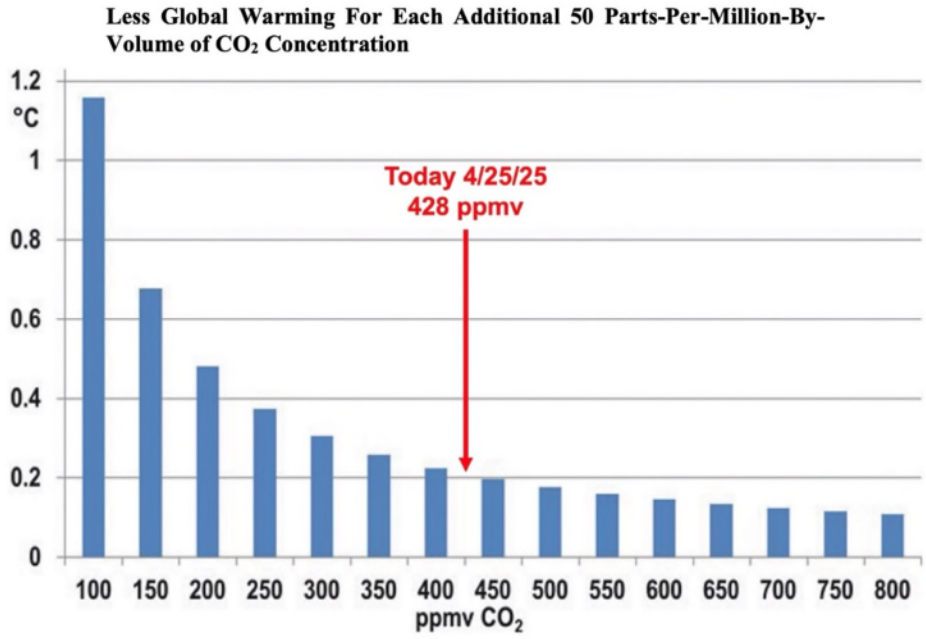
Retaining the Endangerment Finding (and the panoply of carbon dioxide-focused regulations it engendered) will *increase* global carbon dioxide concentrations for decades. China's ever-increasing demand for coal-fired electricity is fueled in part by its manufacturing of "green energy" products for the net-zero focused European and North American markets. "The manufacturing of PV modules, batteries, and EVs excluding the processing of associated materials are estimated to have consumed around 320 TWh of electricity in 2024 – as much electricity as Italy uses in a year." IEA, ELECTRICITY 2025: ANALYSIS AND FORECAST TO 2027 18 (Feb. 2025), https://tinyurl.com/43fk4kke. The increase in consumption of these sectors has been remarkable in recent years, which rose by more than 230 TWh over 2022-2024." *Id.* EPA's misguided array of carbon dioxide regulations has led to a major distortion of the market demand for the very "green energy" products that China exploits by increasing its coal consumption and carbon dioxide emissions. This array of carbon dioxide regulations is only driving global carbon dioxide emissions higher. So imposing crippling costs on American utilities and the American people while depressing demand for internal combustion engine vehicles to reach "net-zero" carbon dioxide emissions worldwide is a fool's errand.

B. Emissions and Temperature

Because of foreign GHG emissions, moving the entire U.S. economy to "net-zero" emissions would have only a trivial effect on global average temperatures. Using the MAGICC model employed by EPA, *see* https://magicc.org/, expert Benjamin Zycher demonstrated that "Net-zero U.S. GHG emissions effective immediately would yield a reduction in global temperatures of 0.173°C by 2100. That effect would be barely detectable given the standard deviation (about 0.11°C) of the surface temperature record." *Left Holding the Bag: The Cost of Oil Dependence in a Low-Carbon World: Hearing Before the S. Comm. on the Budget*, 118th Cong. 1, 36 (Mar. 9, 2023) (statement of Benjamin Zycher, Senior Fellow, Am. Enter. Inst.), https://tinyurl.com/4vsy7df6. So eliminating U.S. carbon dioxide emissions will have almost no effect on temperatures, and therefore no measurable effect on public health or welfare.

Increasing carbon dioxide concentration would similarly have only a trivial effect on global temperature. Dr. Steven E. Koonin, former Obama Administration Undersecretary for Science for the Department of Energy, notes that while greenhouse gases certainly impede the radiation of heat to space, "[w]ater vapor is the most important of the greenhouse gases," accounting for "more than 90 percent of the atmosphere's ability to intercept heat." STEVEN E. KOONIN, UNSETTLED: WHAT CLIMATE SCIENCE TELLS US, WHAT IT DOESN'T, AND WHY IT MATTERS 50-51 (2021). Carbon dioxide, on the other hand, "accounts for about 7 percent of the atmosphere's ability to intercept heat." *Id.* at 51. And while carbon dioxide at current concentration levels impedes the transfer of heat to space, the heat-trapping effect of adding more carbon dioxide diminishes as concentrations increase. Compared to an atmosphere with no carbon dioxide, "when CO_2 is present at 400 ppm (about today's concentration)," the carbon dioxide reduces the radiation of heat into space by 7.6 percent. *Id.* at 53. But "when the CO_2 concentration is raised to 800 ppm, roughly twice what it is today," only "[a]n additional 0.8 percent loss of cooling power" follows. *Id.* This change is "barely visible" in the graph representing it. *Id.* In other words, "although the effect of CO_2 at today's concentration is significant (7.6 percent), doubling it doesn't change things much

(an additional 0.8 percent)," *id.* at 54, in the same way that adding a second coat of black paint to an already black window will not block much more sunlight.



And Dr. William Happer and Dr. Richard Lindzen explained that "CO_2 becomes a less effective greenhouse gas at higher concentrations because of . . . 'saturation.'" William Happer & Richard Lindzen, *Comment Letter on Proposed Rule Establishing New Source Performance Standards for Greenhouse Gas Emissions* 26 (July 26, 2023), https://tinyurl.com/bdhptawj. "Each additional 50 ppm increase of carbon dioxide in the atmosphere causes a smaller and smaller change in . . . temperature." *Id.* at 26-27. The above graph shows that the heat trapping effect of additional carbon dioxide drops asymptotically so that doubling carbon dioxide from current levels would increase temperatures by about 0.1 degree Centigrade.

Other scientists have reached the same conclusion, finding that doubling the carbon dioxide content in air "confirms that the effect of an anthropogenic CO_2 increase on the climate on earth is fairly negligible." *See, e.g.*, Dieter Schildknecht, *Saturation of the Infrared Absorption by Carbon Dioxide in the Atmosphere*, 34 INT'L J. OF MOD. PHYSICS 30 (2020) https://doi.org/10.1142/S0217979220502938. When it issued the Endangerment Finding, EPA essentially dismissed this "important aspect of the problem," *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983), but the science on this fundamental aspect of the physical science is further support for repeal.

Apart from the problems with unchecked foreign emissions, the Endangerment Finding is premised largely on the RCP 8.5 scenario, which is now widely discredited. "In the absence of strong control measures, emissions projected for this century would result in the carbon dioxide concentration increasing to a level that is roughly 2 to 3 times the highest level occurring over the glacial-interglacial era that spans the last 800,000 or more years." Thomas R. Karl, et al., *Climate Change Impacts in the United States* 13 (2009), https://tinyurl.com/es9pwxc3. But whatever the future concentration levels, with the pace of global emissions increasing despite what happens here, if not in fact because of the Endangerment Finding and its market-distorting effects, the

Administrator can reasonably conclude that U.S. emissions subject to regulation under § 202(a)(1) are not reasonably anticipated to endanger the public health or welfare.

In fact, the United States could eliminate carbon dioxide emissions entirely and the global emissions would still exceed the emissions level of 2005. Global carbon dioxide emissions in 2005 were 29,908.23 million metric tons. EPA, *Climate Change Indicators: Global Greenhouse Gas Emissions* (Mar. 27, 2025), https://tinyurl.com/4zs3hy7m. In 2023, global CO_2 emissions reached 39,023.937, and of that the United States contributed 4,682.039 metric tons. So it does not follow that a reduction in greenhouse gas emissions in the United States—a reduction that would be *de minimis* on a global scale—would lead to a reduction in the problem *Massachusetts* sought to solve, i.e., "global warming." EPA itself acknowledged this threshold concern in the Endangerment Finding: "To be sure, any finding of a 'contribution' requires some threshold to be met; a truly trivial or de minimis 'contribution' might not count as such." 74 Fed. Reg. 66506. A contribution that makes no difference is de minimis.

To that extent, the agency cannot appropriately find that U.S. emissions subject to regulation by EPA under § 202 may reasonably be anticipated to endanger public health or welfare. As Chief Justice Roberts noted, "[i]n light of the bit-part domestic new motor vehicle greenhouse gas emissions have played in what petitioners describe as a 150-year global phenomenon, and the myriad additional factors bearing on petitioners' alleged injury—the loss of Massachusetts coastal land—the connection is far too speculative to establish causation." *Massachusetts*, 549 U.S. at 544-45 (Roberts, C.J., dissenting).

C. Scientific Uncertainty and Unreliable Models.

Of course, *Massachusetts* did not compel EPA to issue the Endangerment Finding. It only required EPA to explain why, if it exercised its discretion not to, the scientific evidence did not allow a reasoned judgment whether greenhouse gases contributed to air pollution that might reasonably be anticipated to endanger the public health or welfare. *Massachusetts*, 549 U.S. at 535.

But as Justice Scalia pointed out, EPA had done exactly that—and in great detail. It noted that "there is considerable uncertainty in current understanding of how the climate system varies naturally and reacts to emissions of [GHGs] and aerosols." *Id.* at 554 (Scalia, J., dissenting) . "As a result of that uncertainty, the [National Research Council] cautioned that 'current estimate[s] of the magnitude of future warming should be regarded as tentative and subject to future adjustments (either upward or downward).'" *Id.* And EPA pointed out that the NRC had "further advised that '[r]educing the wide range of uncertainty inherent in current model predictions of global climate change will require major advances in understanding and modeling of both (1) the factors that determine atmospheric concentrations of [GHGs] and aerosols and (2) the so-called 'feedbacks' that determine the sensitivity of the climate system to a prescribed increase in [GHGs].'" *Id.* EPA also noted:

> The science of climate change is extraordinarily complex and still evolving. Although there have been substantial advances in climate change science, there

> continue to be important uncertainties in our understanding of the factors that may affect future climate change and how it should be addressed. As the NRC explained, predicting future climate change necessarily involves a complex web of economic and physical factors including: Our ability to predict future global anthropogenic emissions of GHGs and aerosols; the fate of these emissions once they enter the atmosphere (*e.g.*, what percentage are absorbed by vegetation or are taken up by the oceans); the impact of those emissions that remain in the atmosphere on the radiative properties of the atmosphere; changes in critically important climate feedbacks (*e.g.*, changes in cloud cover and ocean circulation); changes in temperature characteristics (*e.g.*, average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (*e.g.*, shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (*e.g.*, increases or decreases in agricultural productivity, human health impacts).

Id. at 554-55.

Quoting the National Research Council report, EPA also explained that "[t]he understanding of the relationships between weather/climate and human health is in its infancy and therefore the health consequences of climate change are poorly understood." *Massachusetts*, 549 at 555 (Scalia, J., dissenting). "Substantial scientific uncertainties limit our ability to assess each of these factors and to separate out those changes resulting from natural variability from those that are directly the result of increases in anthropogenic GHGs." *Id.* And "[r]educing the wide range of uncertainty inherent in current model predictions will require major advances in understanding and modeling of the factors that determine atmospheric concentrations of [GHGs] and aerosols, and the processes that determine the sensitivity of the climate system." *Id.*

So in declining to regulate, EPA articulated the many scientific uncertainties that prevented it from finding endangerment. As Justice Scalia observed, it would have been impossible to conceive of what else the Supreme Court would have had EPA say to adequately explain its action. And as true as that proposition was in 2007, it is even truer today, as the developing body of scientific evidence makes plain.

First, despite the passage of more than 20 years since EPA commented on the "range of uncertainty" in the models used to predict climate impacts, the scientific community by and large has not reduced the uncertainty significantly. Not only do the dozens of models used by the IPCC not agree, their "results differ dramatically both from each other and from observations." Koonin, *supra*, at 86. So the IPCC averages the results. *Id.* If the models were just applying physics, their results would agree. But the "simulated global average surface temperature (not the anomaly) varies among models by about 3 degrees C (5.6 degrees F), three times greater than the observed value of the twentieth-century warming they're purporting to describe and explain." *Id.* at 87.

The importance of this lack of agreement in computer models is hard to overstate. According to Dr. Roy Spencer, chief research scientist at the University of Alabama in Huntsville: "The large number of climate models produce global warming rates which vary by about a factor

of three between them (1.8ºC to 5.6ºC) in response to a doubling of atmospheric CO_2. In 2023, Earth's atmosphere was about 50 percent of the way to 2 x CO_2." Roy Spencer, *Global Warming: Observations vs. Climate Models* (Jan. 24, 2024), https://tinyurl.com/53a2je98. Yet "[t]his factor-of-three range of warming projections has not changed in the more than 30 years of climate-model improvements." *Id.* "This proves that climate-model forecasts are not, as is often claimed, based on proven physics. If they were, they would all produce about the same amount of warming." *Id.*

And because the models used to justify the Endangerment Finding are not based on physics, they must be adjusted to produce energy balance in the absence of human-produced CO_2 emissions. Spencer, *supra*. In other words, the models used to justify the Endangerment Finding assume that all warming is man-made, on the assumption that the Earth is otherwise in energy balance. Without adjustment for these assumptions, "all models' temperature would slowly drift over time—that is, becoming progressively warmer or cooler." *Id.* "The need for model tuning is unavoidable because the fundamental physical processes in the climate system (especially cloud characteristics) are not known accurately enough to build a stable model from physical first principles alone." *Id.* "So, empirical adjustments must be made to those modeled processes so that the model will not spuriously warm or cool over centuries of model run time. Yet, even at this, many models fail." *Id.*

So after nearly 20 years of additional data, it seems both EPA's and the Supreme Court's confidence in the reliability of climate models in predicting either the trajectory of future temperature change or the consequences was misplaced.

Another and even more glaring problem with the climate models used to justify the Endangerment Finding is that the more sophisticated the models become, the less accurate they are. "[T]he later generation of models is actually *more* uncertain than the earlier one." Koonin, *supra*, at 87. Even worse, the IPCC models uniformly are unable to compute, or "hindcast," the temperature records for the last 125 years, particularly the relative warm period from 1910 to 1940. "On average, the models give a warming rate over that period of about half what was actually observed." *Id.* at 88. The IPCC conceded that "it remains difficult to quantify the contribution to this warming from internal variability, natural forcing and anthropogenic forcing, due to forcing and response uncertainties and incomplete observational coverage." NATHANIEL L. BINDOFF, ET AL., DETECTION AND ATTRIBUTION OF CLIMATE CHANGE: FROM GLOBAL TO REGIONAL 887 (2013), https://tinyurl.com/4cf3kd3w. Or as Dr. Koonin put it, they "[ha]ve no idea what causes this failure of the models." Koonin, *supra*, at 89.

Over a broader period, the models not only fail to hindcast the observed temperatures, but they also all err on the side of greater warming. All 38 models "overpredict warming in every target observational analog, in most cases significantly so, and the average differences between models and observations are statistically significant." Ross McKitrick & John Christy, *Pervasive Warming Bias in CMIP6 Tropospheric Layers*, 7 EARTH & SPACE SCI. 9, 1 (2020) https://tinyurl.com/3x2dn8sn. "The upshot is that the models on average overstate the observations by a factor of over 2.3." Zycher, *supra*, at 33. So the models "predict[] mid-troposphere temperature increases of 0.44°C per decade, while the actual measurements were 0.16°C per decade." *Id.*

Dr. John Christy explained that the climate models "fail[] the test to match the real-world observations by a significant margin." *Climate Science: Assumptions, Policy Implications, and the Scientific Method: Hearing Before the House Comm. Sci., Space & Tech.*, 115th Cong. 1, 13 (2017) (statement of John R. Christy, Professor of Atmospheric Science), https://tinyurl.com/Christy-testimony. So "the average of the models is considered to be untruthful in representing the recent decades of climate variation and change, and thus would be inappropriate for use in predicting future changes in the climate or related policy decisions." *Id.* Or as Drs. Happer and Lindzen put it: "101 of the 102 predictions by the models … fail miserably to predict reality." Happer & Lindzen, *supra*, at 19. The one model that didn't "fail miserably" was excluded by the IPCC. *Id.* at 19 n.48.

A separate and equally fundamental problem with the IPCC models is that they depend on hypothetical "climate scenarios" that are now plainly implausible. The direst predictions of global warming and climate catastrophe depend on the RCP 8.5 scenario that assumes that additional carbon dioxide increases the radiative forcing by 8.5 watts per square meter by 2100, compared to the current approximately 274 watts per square meter. "The emissions scenarios the climate community is now using as baselines for climate models depend on portrayals of the present that are no longer true." Roger Pielke, Jr. & Justin Richie, *How Climate Scenarios Lost Touch with Reality*, 38 ISSUES IN SCI. & TECH. 4, 77 (2021). "And once the scenarios lost touch with reality, so did the climate, impact, and economic models that depend on them for their projections of the future." *Id.*

While the IPCC has used the RCP 8.5 scenario as its baseline or "business as usual" approach for its assessments, by 2021 that scenario had come to represent not just "an implausible future in 2100, but a present that already deviate[d] significantly from reality." Pielke, Jr. & Richie, *supra*, at 76, 80. As important, "it is not just RCP8.5 that is implausible, but the entire set of baseline scenarios used by the IPCC," a situation that "amounts to a stubborn commitment to error" on the part of the IPCC, *id.* at 80-81, and, by extension, the entire climate science establishment. But EPA need not stay committed to that same error.

EPA conceded 20 years ago that "[t]he science of climate change is extraordinarily complex and still evolving," and nothing of substance has changed. *Massachusetts*, 549 U.S. at 554 (Scalia, J., dissenting) (*quoting Control of Emissions From New Highway Vehicles and Engines*, 68 Fed. Reg. 52922, 52930 (Sep. 8, 2003)). Any confidence EPA might now place in the predictions of conditions that would likely endanger the public health and welfare remains an article of faith, not verifiable science.

D. Extreme Weather Events

The Endangerment Finding is premised in large part on EPA's 2009 conclusion that hurricanes, tornadoes, floods, drought and the like are becoming more frequent and more intense. "[E]vidence concerning how human-induced climate change may alter extreme weather events also clearly supports a finding of endangerment, given the serious adverse impacts that can result from such events and the increase in risk, even if small, of the occurrence and intensity of events

such as hurricanes and floods." 74 Fed. Reg. 66497. According to EPA, strong support for the Endangerment Finding "is also found in the evidence concerning infrastructure and settlements, as well as ecosystems and wildlife. Across the sectors, the potential serious adverse impacts of extreme events, such as wildfires, flooding, drought, and extreme weather conditions, provide strong support for such a finding." 74 Fed. Reg. 66498.

EPA carried this belief forward for the next 15 years essentially unchanged. Clean Power Plan 2.0 Rule was based on it: "Climate change is also expected to cause more intense hurricanes and more frequent and intense storms of other types and heavy precipitation, with impacts on other areas of public health, such as the potential for increased deaths, injuries, infectious and waterborne diseases, and stress-related disorders." 89 Fed. Reg. 39798, 39807 (May 9, 2024). But 15 years of scientific evidence provide no support for the proposition. Not even the IPCC claims a link between greenhouse gas emissions and the frequency or intensity of weather events.

Take drought, for example. Everyone "knows" that heat waves and extremely hot days are occurring with greater frequency than ever before. Except the data does not support it. For example, evidence shows that droughts as severe as the Dust Bowl of the 1930s were much more common during the 10th to 14th centuries than they have been in the more recent record. Nat'l Rsch. Council, *supra*, at Chapter 5, p. 8. "Paleoclimatic proxies indicate that [Southwestern North America] experienced many severe swings in hydroclimate before the observed period. In particular, tree-ring records reveal several megadrought events during the Medieval era and subsequent centuries (~850–1600 CE) that dwarfed all droughts in the following 400 years in intensity and duration." A. Park Williams, et al., *Contribution from anthropogenic warming to an emerging North American megadrought*, 368 SCIENCE 6488, 314 (2020).

In fact, no signal of hydrological, agricultural or ecological drought has emerged. For that matter, the IPCC acknowledges that none is expected to emerge anytime this century, even using its most extreme RCP 8.5 scenario. IPCC, SIXTH ASSESSMENT REPORT, Table 12.12 (2021), https://tinyurl.com/bp9h26c6. The United States has experienced much drier conditions for sustained periods of time over the past 1,000 years:

> Recent advances in the reconstruction of past drought over North America and in modeling the causes of droughts there have provided important new insights into one of the most costly recurring natural disasters to strike North America. A grid of summer PDSI [Palmer Drought Severity Index] reconstructions has been developed now for most of North America from a remarkable network of long, drought sensitive tree-ring chronologies. These reconstructions, many of which cover the past 1000 yr, have revealed the occurrence of a number of unprecedented megadroughts over the past millennium that clearly exceed any found in the instrumental records since about AD 1850, including an epoch of significantly elevated aridity that persisted for almost 400 yr over the AD 900–1300 period. In terms of duration, these past megadroughts dwarf the famous droughts of the 20th century, such as the Dust Bowl drought of the 1930s, the southern Great Plains drought of the 1950s.

Edward R. Cook, et al., *North American drought: Reconstructions, causes, and consequences*, 81 EARTH-SCIENCE REVIEWS 93, 130 (2007). Those remain "the two most severe droughts since 1900." *Id.* at 94. But these severe droughts, neither of which was caused by man-made greenhouse gas emissions, pale in comparison to far more severe, frequent and long-lasting droughts of earlier centuries. "For example, the 16th century megadrought . . . is now seen to have affected large areas of North America, especially in the West and northern Mexico, and was much more prolonged than any of the 20th century droughts." *Id.* at 96. "The drought reconstructions also provide clear evidence for a much drier climate across the West and Great Plains during Medieval times, a drought that lasted with few interruptions for a few hundred years." *Id.* Indeed, "whereas the recent droughts last at most a decade, the medieval ones lasted for decades at a time and came in quick succession." *Id.* at 109. "All in all this suggests that whatever currently forces intermittent droughts in the West and Plains was simply the normal state of affairs during the medieval period." *Id*. What's more, "[s]evere decadal drought was not confined to the arid west over the past millennium." *Id.* at 110. "The tree-ring reconstructions document prolonged drought over the central and lower Mississippi Valley during the 14th, 15th, and 16th centuries, which may have contributed to the disintegration of the large complex chiefdoms of the Mississippian period." *Id.* More recently, "the tree-ring reconstructions indicate that the latter half of the 19th century was frequented by persistent, multi-year, droughts across much of the West," and "[t]he proxy tree-ring data tell us that drought prevailed over much of the Plains during the 19th century." *Id*. at 113.

So not only has a signal of anthropogenic climate change not emerged in the drought data since the Endangerment Finding, but more recent studies demonstrate plainly that the current North American climate is far wetter than 1,000 years ago, and that recent droughts have not been nearly as severe, or as prolonged, as centuries of drought in previous eras.

Next, take hot days, heat waves, and wildfires. Temperatures on average are milder than in the past, and extremely hot days are less frequent than 100 years ago. Data from 1895 to 2025 show that 60 percent of the recorded maximum temperatures and 59 percent of the recorded minimum temperatures occurred in the first half of that period, *i.e.*, before 1961. DOE Climate Working Group, *supra*, at 54-56. "In summary, while temperature extremes are regularly experienced in the U.S. and attract a great deal of media attention, long term records show the U.S. climate has become less extreme over time (milder) when measured by the range between warm season maxima and cold season minima." *Id.* at 56. So again, despite the hype, the scientific evidence demonstrates that average temperatures have become milder, not more extreme.

As for heat waves, looking at data from 1988 to 2024 (in contrast to the Fourth National Climate Assessment report for example, that looked only at data from 1961 to 1990) "[f]or the [Continental United States] as a whole, the evidence in this section suggests GHG emissions have had little-to-no effect on heatwaves against the background of urbanization and natural climate variability." DOE Climate Working Group, *supra*, at 59. And regarding wildfires, "the IPCC has not provided an attribution assessment", but "[p]aleoclimatic evidence indicates that past activity was much higher than today." *Id*. at 69.

Or consider hurricanes. EPA relied on the notion that hurricanes would become more frequent and intense. "The conclusion in the assessment literature that" hurricanes may "become more intense (and even some evidence that Atlantic hurricanes have already become more intense) reinforces the judgment that coastal communities are now endangered by human-induced climate change, and may face substantially greater risk in the future." 74 Fed. Reg. 66498. Yet again, the scientific evidence provides no support. "There is *low confidence* in most reported long-term (multi-decadal to centennial) trends in [tropical cyclone] frequency- or intensity-based metrics . . . either the quality or the temporal length of the data is not adequate to provide robust trend detection statements, particularly in the presence of multi-decadal variability." SONIA SENEVIRATNE, ET AL., WEATHER AND CLIMATE EXTREME EVENTS IN A CHANGING CLIMATE 1585 (2021), https://tinyurl.com/ycxdj8rr. And despite EPA's confidence in 2009 with the Endangerment Finding, with 15 years of additional data and supposedly more advanced climate models, the IPCC can't say that hurricanes are getting larger: "No detectable anthropogenic influences on TC [tropical cyclone] size have been identified to date, because TCs in observations vary in size substantially and there is no definite theory on what controls TC size." *Id.* at 1591. In short, "trends in hurricane activity outside the range of documented variability have not been detected, nor is there high confidence in connections of hurricane behavior to greenhouse gas emissions." Roger Pielke Jr., *2023 Edition: What the media won't tell you about … hurricanes*, HONEST BROKER (June 1, 2023), https://tinyurl.com/bdf73xdk.

The same is true for extra-tropical storms. "[T]here is *low confidence* in projections of small-scale phenomena such as tornadoes and hail storms." Seneviratne, *supra*, at 1585. There's also "*low confidence* in past-century trends in the number and intensity of the strongest [extratropical storms] due to the large interannual and decadal variability." *Id.* at 1592. And IPCC determined that for each of these events (and more, like coastal and river flooding and erosion, fire weather, and drought), no signal of a change in climate from AGW has yet emerged or is expected to emerge by 2100—even under the IPCC's most extreme scenario of RCP 8.5. *See* ROSHANKA RANASINGHE ET AL., CLIMATE CHANGE INFORMATION FOR REGIONAL IMPACT AND FOR RISK ASSESSMENT 1856 (2021), https://tinyurl.com/yxss7pn8.

Throughout the Endangerment Finding, EPA claimed that the likelihood of extreme weather events posed a risk to the health and welfare of the public. Whether because of some ill-defined concern for pathogens and water quality ("Potential increases in allergenic illnesses and Pathogen borne disease vectors"), or because of vague concerns for "mortality" ("The impact on mortality and morbidity associated with increases in average temperatures, which increase the likelihood of heat waves, also provides support for a public health endangerment finding"), EPA suggested without offering much evidence that the health and safety of the public would be endangered ("certain groups, including children, the elderly, and the poor, are most vulnerable to these climate-related health effects"). 74 Fed. Reg. 66496. Those supporting "net-zero" carbon dioxide policies often claim that greenhouse gas emissions have caused more loss of life and in particular more property damage than storms in the past. But again, it's false.

First, Americans have voted with their feet for decades, moving by the millions from the relatively cold Northeast and Midwest to the relatively warm Sunbelt states. The migration began no later than 1970. And it "continues today, with Sun Belt cities such as Phoenix experiencing the

highest growth rates in the country (U.S. Census Bureau, 2021)." Margaret Schafer, *Comparing U.S. Domestic Migration with Climate Livability* (May 3, 2023), https://tinyurl.com/4c9875vu. "Comparing hotspots of domestic migration across states during two time periods (2005 to 2009 and 2016 to 2020), we see that these patterns have intensified over the past decade (U.S. Census Bureau)." *Id.* Florida has seen perhaps the largest influx of senior citizens. "With more than 5.5 million residents age 60 and older, Florida outnumbers the state senior populations of 20 other states combined. By 2045, the older adult population is estimated to increase to 8.4 million, or over 30 percent of the state's population." DEP'T OF ELDER AFFAIRS, FLORIDA STATE PLAN ON AGING 2022-2025 3 (Aug. 5, 2021), https://tinyurl.com/4awjxzrj. Presumably, many of these domestic migrants choose their Sunbelt locations in part because they perceive the climate of warm temperatures and abundant sunshine to be preferable (and presumably less dangerous) to a colder, less sunny climate.

And globally, deaths due to natural disasters have plummeted since 1900, notwithstanding any incremental increase in average temperatures or theoretical risk of extreme weather. *Decadal average: Death rates from natural disasters*, OUR WORLD IN DATA, https://tinyurl.com/5n85jx95 (last visited Sept. 19, 2025). Even with the rise of climate doomerism due to increasing GHGs, the death rate has continued to fall. *Id.* In 1920, the death rate due to storms was 0.62 per 100,000. By 2020, the rate was only 0.05 per 100,000. *Id.*

As for property damage, "[t]he overwhelming majority of the literature . . . reports normalisation results that indicate no detectable trends in normalized losses on climate time scales." Roger Pielke Jr., *Climate Change and Disaster Loss*, HONEST BROKER (May 18, 2023), https://tinyurl.com/bdfxcp7v. The storm causing the most property damage in real dollars occurred 99 years ago in Miami. *Id.* "And just as with overall and major hurricane landfalls, there is no trend in normalized losses for the continental United States." Roger Pielke Jr., *Making Sense of Trends in Disaster Losses*, HONEST BROKER (Sep. 27, 2022), https://tinyurl.com/y4cstne7. So "there is little evidence to support claims that changes in climate resulting from the emissions of greenhouse gases (or other causes) have resulted in detectable or attributable trends in disaster losses." Pielke Jr. May 2023, *supra*. Of the "62 relevant studies of various phenomena in regions around the world," "61 of them make no claims of attribution." *Id.* The IPCC "cherrypicked the one study that claimed . . . detection and attribution." *Id.*

Time and again with the Endangerment Finding, EPA professed confidence in the consensus views expressed in the assessment literature on which it relied for its conclusion that hurricanes, floods, droughts and all the rest were directly caused by increasing carbon dioxide concentrations, so that the public health and welfare was endangered. But consensus is not science, and today EPA is well-equipped to conclude otherwise. The bottom line is that "[u]biquitous claims that hurricanes, floods, and drought (and various other extremes) have become more intense or frequent (regardless of cause) in the context of documented variability are simply wrong." Roger Pielke Jr., *We Don't Need No Stinking Science*, HONEST BROKER (July 22, 2024), https://tinyurl.com/y6c8b8p7.

E. Sea Level Rise

Closely associated with its unjustified conclusion concerning hurricanes and other extreme weather was EPA's notion that rising sea levels provided "strong support" for the Endangerment Finding. "The evidence concerning adverse impacts in the areas of water resources and sea level rise and coastal areas provides the clearest and strongest support for an endangerment finding, both for current and future generations." 74 Fed. Reg. 66498. "The most serious potential adverse effects are the increased risk of storm surge and flooding in coastal areas from sea level rise and more intense storms." 74 Fed. Reg. 66498. "The Administrator finds that the most serious risk of adverse effects is presented by the increased risk of storm surge and flooding in coastal areas from sea level rise." 74 Fed. Reg. 66533.

As with drought, the agency should assess the extent and impact of sea level rise over a period of centuries or millennia, not years or decades. After all, Earth has gone through a cycle of intermittent periods of glaciation followed by interglacial periods of melting. Depending on where we are in the cycle, sea level has risen or fallen. Over "the past half-million years . . . sea level dropped slowly by about 120 meters (400 feet) every 100,000 years as continental-scale glaciers built up, but then rose back up rapidly over about 20,000 years as the glaciers melted again." Koonin, *supra*, at 151. At present, we are in the Holocene interglacial period, which started about 12,000 years ago. During this period, sea level has risen "as rapidly as 120 mm (5 inches) per decade", *id.*, whereas "for the past three decades it's been about 3 mm (0.12 inches) per year," *id.* at 154. That's "about the height of two stacked pennies." DOE Climate Working Group, *supra*, at 75.

The sea level is rising and has been rising for at least 12,000 years. The only question relevant to the Endangerment Finding is whether and to what extent "human influences are accelerating that rise." Koonin, *supra*, at 152. Koonin suggests that one good way to assess that would be to compare measurements since 1950 (when human influences increased dramatically) with earlier measurements. *Id.* Looking at data from 1900 forward, "the rate [of increase] varies so much, it's hard to know for recent years what's human-caused and what's natural." *Id.* at 157. In fact, despite the murkiness of the data, according to data from the IPCC's 2019 Special Report on the Oceans and Cryosphere in a Changing Climate, AR 5, WG1, Section 3.7.4, www.ipcc.ch/srocc/, "there was acceleration well before human influences were significant." *Id.* According to the IPCC, it has been clear for some time that there was a significant increase in the rate of sea level rise in the four oldest records from Northern Europe starting in the early to mid-19th century. "The results are consistent and indicate a significant acceleration that started in the early to mid-19th century, although some have argued it may have started in the late 1700s." *Id.*

According to EPA, sea level increase represents the "clearest and strongest support" for the notion that man-made emissions are the justification for the Endangerment Finding. 74 Fed. Reg. 66498. And yet even the IPCC now admits that sea level has been rising for thousands of years, and any acceleration in the rate of sea level increase began no later than sometime in the antebellum era, and perhaps as early as our nation's Founding. So neither the fact of sea level rise or the fact of acceleration can be assessed as the result of man-made CO_2 emissions, and the rate of change in acceleration can't be accurately evaluated. At best, this represents a degree of

scientific uncertainty that *Massachusetts* said would have justified EPA in forgoing a § 202(a)(1) finding. And it therefore also justifies repeal of the Endangerment Finding today.

But still more uncertainty exists. Although the Earth has warmed since 1900, "the contribution [to global sea level rise] from [Greenland and Antarctic] glacier melting has slightly declined since 1900 and is the same now as it was fifty years ago; the contribution from Greenland when through a minimum around 1995 and is now no higher than it was in 1935." Koonin, *supra*, at 160. So the uncertainty regarding sea level increase or change in its rate is magnified "because the dynamics of the Greenland and Antarctic ice sheets are quite uncertain." *Id.* And these and other uncertainties forced the IPCC to offer the following disclaimer: "[F]or periods prior to 1970, significant discrepancies between climate models and observations arise from the inability of climate models to reproduce some regional changes in glacier and [Greenland Ice Sheet Surface Mass Balance] around the southern tip of Greenland. It is not clear whether this bias in climate models is due to the internal variability of the climate system or deficiencies in climate models." IPCC 2019 Special Report, *supra*, at Section 4.2.2.2.6.

As with the ubiquitous claims of worsening extreme weather events, our understanding of the dynamics of sea level rise is riddled with uncertainty. Dr. Koonin notes that "[d]espite considerable progress during the last decade, major gaps remain in our understanding of past and contemporary sea level change and their causes, particularly for prediction/projection of lea level rise on regional and local scales." Koonin, *supra*, at 162. Fundamentally, "we don't know how much of the rise in global sea levels is due to human-caused warming and how much is a product of long-term natural cycles." *Id.* at 165. But in any case, there's "scant evidence that [human] contribution has been or will be significant, much less disastrous." *Id.*

F. Agricultural Production

Wholly apart from the Endangerment Finding's inaccurate predictions regarding extreme whether events and reliance on unreliable models, EPA arbitrarily gave little consideration to the beneficial effects of carbon dioxide for agricultural production, a seemingly important part of the "public health and welfare" calculus. What consideration it did give the issue seems once again to be based only loosely on scientific evidence or verifiable data, and instead on blind adherence to the "consensus" within the assessment literature it surveyed. And once again, when in doubt, EPA fell back on unreliable models and implausible scenarios for its conclusion that extreme weather events would intervene to cancel out any beneficial effects from improved agricultural yield due to carbon dioxide enrichment. "There is a potential for a net benefit in the near term for certain crops, but there is significant uncertainty about whether this benefit will be achieved given the various potential adverse impacts of climate change on crop yield, such as the increasing risk of extreme weather events." 74 Fed. Reg. 66498.

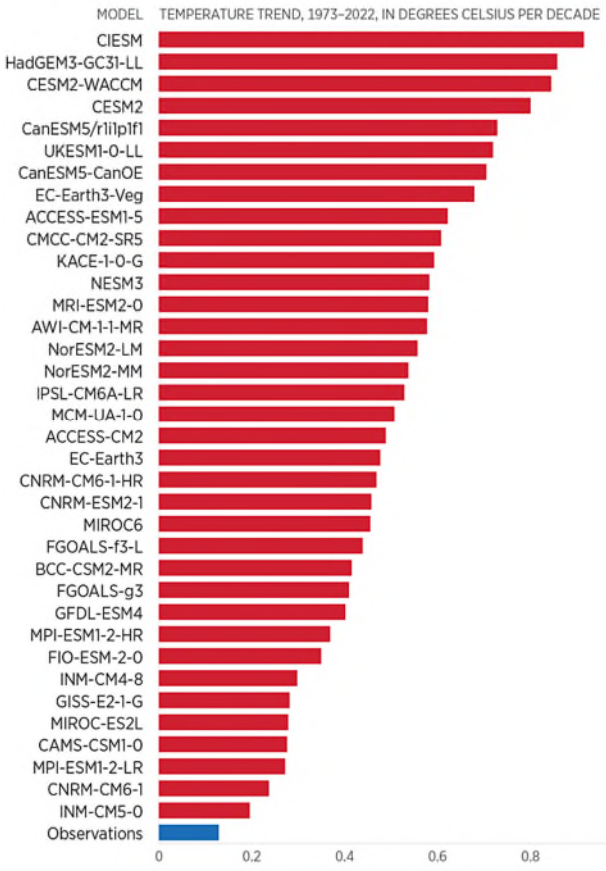
EPA bases its entire conclusion regarding the potential adverse effect on agriculture from extreme weather on the "business as usual" emissions scenario (i.e., RCP 8.5) which is now well-understood to be completely implausible. In 2009, EPA admitted "that climate change benefits agriculture in some places and harms them in others," but said "the far larger temperature increases expected over coming decades and beyond on the 'business as usual' trajectory will put significant stresses on agriculture and land resources in all regions of the United States." 74 Fed. Reg. 66536. But EPA did not rest on extreme weather alone for its conclusion that greenhouse gas emissions would adversely affect the American agriculture sector and thereby endanger public health and welfare. EPA attempted to model other problems, such as weeds and bugs. "Further, the effects of climate change on weeds, insect pests, and pathogens are recognized as key factors in determining plant damage in future decades." 74 Fed. Reg. 66536. And if that were not enough, EPA also noted that "scientific literature clearly supports the finding that drought frequency and severity are projected to increase in the future over much of the United States, which will likely reduce crop yields because of excesses or deficits of water." 74 Fed. Reg. 66536.

As far as it appears, the Endangerment Finding never addresses the agricultural output issue in the context of any other scenario other than "business as usual." Because RCP 8.5 will not come to be, neither will the adverse consequences for agriculture EPA imagined. Indeed, as it concerns the agricultural sector, climate models for U.S. farmland are as unreliable as they are globally. "[S]urface air temperatures during the growing season (June, July, and August) over the 12-state Corn Belt for the past 50 years reveal a large discrepancy between climate models and observations, with all 36 models producing warming rates well above what has been observed." Spencer, *supra*. The "most extreme model," for example, produced "seven times too much warming." *Id.* The magnitude of the model inaccuracy is clear in the chart to the right, prepared by Spencer, *supra*.

CHART 2

Climate Models Vastly Overstated Warming

The observed 12-state U.S. Corn Belt summer temperature trend for 1973–2022 is considerably less than that produced by all 36 climate models used to promote changes in U.S. energy policy.



SOURCES: Author's calculations based on data from five different observation-based datasets and 36 climate models taking part in the sixth IPCC Climate Model Intercomparison Project, and KNMI Climate Explorer, "Starting Point," https://climexp.knmi.nl/start.cgi (accessed January 10, 2024).

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And apart from EPA's flawed premises and unsupported notions of future agricultural damage, the Endangerment Finding discounted the beneficial effects of higher CO_2 concentrations without

attempting to reconcile its models to agricultural output. "The fact that greenhouse operators choose to pump CO_2 into their chambers showcases that CO_2 is an input that meaningfully enhances yields. Optimal levels are reported to be in the range of 800-1000 ppm, more than twice current atmospheric carbon dioxide concentrations of 415 ppm." CHARLES A. TAYLOR & WOLFRAM SCHLENKER, ENVIRONMENTAL DRIVERS OF AGRICULTURAL PRODUCTIVITY GROWTH: CO_2 FERTILIZATION OF US FIELD CROPS 6 (Jan. 2023), https://tinyurl.com/yc8en3n2. The beneficial effects are clear. "We find large fertilization effects in the US: a 1 part per million (ppm) increase in CO_2 equates to a 0.4%, 0.6%, 1% yield increase for corn, soybeans, and winter wheat, respectively, in our baseline panel model, and the results hold across linear and non-linear specifications. Global ambient CO_2 levels have increased by 2 to 2.5 ppm per year on average since 2000. Our panel models estimate a yield response between 0.4% to 1% per 1 ppm CO_2." *Id.* at 4. These estimates, which are at the very top of the range found in the literature, imply that CO2 fertilization was a major contributor to recent crop productivity in the US. Put another way, yields may have increased 1% to 2.5% per year due to CO_2 in recent years, fully accounting for observed yield increases. *Id.* at 19.

And unlike the flawed temperature models EPA relied on, these expected gains in yield are consistent with real world results shown in agricultural yield data. After more than 30 years of headlines trumpeting "the hottest year on record," U.S. agricultural production just keeps going up. In 2024, for example, corn, rice, sorghum, soybeans and cotton all saw record yields. NATIONAL AGRICULTURAL STATISTICS SERVICE, CROP PRODUCTION: 2024 SUMMARY (Jan. 2025), https://tinyurl.com/3v45xex8. Despite climate models predicting net crop damage, "[c]orn yield in the United States is estimated at 179.3 bushels per acre, 2.0 bushels above 2023 and a record high." NATIONAL AGRICULTURAL STATISTICS SERVICE, Press Release, *Corn production down, soybean production up in 2024* (Jan. 10, 2025), https://tinyurl.com/57p5beue. And the gains are not just in the United States. From 1961 to 2023, total world agricultural production tripled, rising from $1.06 trillion to $4.38 trillion, measured in constant U.S. 2015 dollars. Hannah Ritchie, et al., Agricultural Production, OUR WORLD IN DATA, https://tinyurl.com/4tpx2492 (last visited Sept. 19, 2025). And the data for the last 85 years is compelling. "[S]ince 1940 corn yields have increased by 500% and soybeans and winter wheat yields by 200%, while ambient CO_2 levels have increased by about 100 ppm." Taylor & Schlenker, *supra*, at 19. "CO_2 fertilization may be responsible for the vast majority of past productivity growth, and that in the absence of CO_2 fertilization, yields may have otherwise started to plateau or even decline in recent decades." *Id.*

So agricultural production in the Corn Belt has reached record levels while CO_2 concentrations have increased at a near constant rate. Meanwhile, the temperature models supporting the Endangerment Finding predicting ruinous extreme heat that would devastate the crops have proven to be unreliable.

What's more, recent analysis demonstrates that EPA under the Biden Administration failed to accurately model potential crop loss due to temperature increase coupled with yield gains due to increasing CO_2 concentration. EPA's recent SCC estimates "are about 5 times higher than previously. Part of the increase is due to an upward revision of the estimated agricultural damages from climate warming." Ross McKitrick, *Extended crop yield meta-analysis data do not support upward SCC revision*, SCIENTIFIC REPORTS (Feb. 15, 2025), https://tinyurl.com/5bwu7ujp. But

EPA's study omitted critical data and failed to use multivariate modeling, which eliminated some 50 percent of the available data. After recovering missing data and making appropriate adjustments, Dr. Ross McKitrick was able to demonstrate "different and much more optimistic results, namely that net crop yield changes are zero to positive out to 5 ºC for all crop types," including the highly sensitive soybeans. *Id.* When properly modeled, "[t]he negative temperature effects are fully offset by gains from CO_2 fertilization and adaptation." *Id.*

Data like this demonstrates the beneficial effect on agricultural output due to carbon dioxide. The Endangerment Finding's Technical Summary Document acknowledges the benefit of additional carbon dioxide: "It has generally been observed that the presence of elevated CO_2 concentrations and temperatures stimulates plants to increase photosynthesis, biomass, water use efficiency, and reproductive effort." EPA, *Endangerment Finding Technical Support Document* 88 (Dec. 7, 2009), https://tinyurl.com/3rrj92vc. But the Endangerment Finding itself simply declared the demonstrated benefits of carbon dioxide for crop yield to be less significant than the potential adverse effects. While in the near term the costs and benefits appeared about equal, the evidence "point[ed] towards increasing risk of net adverse impacts on U.S. food production and agriculture over time, with the potential for significant disruptions and crop failure in the future." 74 Fed. Reg. 66498.

EPA didn't explain how the theoretical risk of crop damage due to future extreme weather "appears generally comparable" to the scientifically clear increase in yield due to higher carbon dioxide concentration. To the same extent, EPA nowhere explained the analytical process it used to conclude that "the body of evidence" points toward increasing the risk of net adverse impacts on U.S. food production and agriculture over time, with the potential for significant disruptions and crop failure in the future. In any event, "there is abundant evidence going back decades that rising CO_2 levels benefit plants, including agricultural crops, and that CO2-induced warming will be a net benefit to U.S. agriculture." DOE Climate Working Group, *supra*, at 108.

As for weeds and insects, it does not appear that the Endangerment Finding gave any attention to the availability of herbicides and insecticides, or to the capacity of the American agricultural industry to anticipate developing threats to crops and livestock and develop effective prophylactic measures in advance of damage. In any event, agricultural yields have increased. And as for drought, while it is always a concern for farmers, the preceding discussion demonstrates that the IPCC has not detected any signal of agricultural drought (or any other type) and does not expect a signal to emerge this century. And given the compelling evidence that the North American continent in the Medieval period and earlier has seen drier periods and more severe and persist droughts than modern era droughts, including the Dust Bowl decade, it is as likely that no signal of anthropogenic-induced drought will emerge.

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Based on the evidence, EPA proposes to determine that "the data on weather events, coupled with the Agency's decision to exclude mitigation and adaptation information from the analysis, fatally undermines the Endangerment Finding's conclusions in this respect." 90 Fed. Reg. 36309. Indeed, the Endangerment Finding's conclusions regarding extreme weather events

are flawed. One need only look at the IPCC AR 6 report for confirmation. No signal of anthropogenic climate change regarding hurricanes, storms, flooding, drought or wildfires has emerged, and none is expected to emerge in the 21st century, even using the IPCC's now largely discredited RCP 8.5 scenario. *See* IPCC, Sixth Assessment Report, *supra*, Table 12.12.

The Endangerment Finding operated on the premise that EPA is authorized to act before harm has occurred. "First, the Administrator is required to protect public health and welfare, but she is not asked to wait until harm has occurred. EPA must be ready to take regulatory action to prevent harm before it occurs." 74 Fed. Reg. 66505. Even so, the Administrator is surely not authorized to take regulatory action before any signal of damaging climate effects has emerged or can be expected to emerge for nearly a century. EPA ignored hard scientific data that casts grave doubt on the entire premise of the Endangerment Finding and turned a blind eye to the beneficial effects of milder temperatures and enhanced agricultural output. Because it has not shown that GHGs like carbon dioxide are air pollution that endanger public health or welfare under § 202(a)(1), it is right to rescind the Endangerment Finding.

IV. EPA Inappropriately Divorced the Endangerment Finding from Standards.

EPA also correctly recognizes that it must rescind the Endangerment Finding because "it is impermissible for the Administrator to make an endangerment finding without prescribing the emission standards required in response to such a finding." 90 Fed. Reg. 36302. Several reasons show why.

Text. First, § 202(a)(2) contemplates that standards will be associated with a § 202(a)(1) regulation. 90 Fed. Reg. 36303. And § 202(a)(1)'s "in accordance with" language does the same. 90 Fed. Reg. 36303. What's more, § 202(a) does not permit such a divorce. 90 Fed. Reg. 36303. And that's a problem because ''statutory ambiguity . . . is not a reliable indicator of actual delegation of discretionary authority to agencies.'' *Loper Bright*, 603 U.S. at 411. In short, separating the endangerment finding from standards can't be squared with § 202(a)'s text. CAA provisions like NAAQS and § 109(b) aren't helpful here; and *Massachusetts* doesn't compel this read either. 90 Fed. Reg. 36303.

History. Further, as EPA admitted in 2009, "typically endangerment and cause or contribute findings have been proposed concurrently with proposed standards under various sections of the CAA, including CAA section 202(a)." 74 Fed. Reg. 66501. "Typically" isn't quite fair: EPA couldn't give a *single* example of issuing an endangerment finding absent standards—because it never had. Now EPA is correcting course. It rightly says that its pre-2009 historical practice "is entitled to great[er] weight" than the Endangerment Finding's about face because its historical practice was "an Executive Branch interpretation" that "issued roughly contemporaneously with enactment of the statute and remained consistent over time.'' *Loper Bright*, 603 U.S. at 386.

Flawed calculations. Separating the Endangerment Finding from standards allowed EPA to fudge many numbers. For example, it allowed EPA to ignore adaption, mitigation, and cost—a serious problem under *Whitman*. 90 Fed. Reg. 36303. Under *Michigan*, an "'agency action is

lawful only if it rests on a consideration of the relevant factors,' 576 U.S. at 750, including 'at least some attention to cost,' *id.* at 752." 90 Fed. Reg. 36303. Further, issuing the Endangerment Finding without standards also allowed EPA to functionally treat all GHG emissions as the fault of motor vehicles; and it allowed EPA to hang around motor vehicles' neck two GHGs (PFCs and SF6) that they don't even emit but that have the warming potential of carbon dioxide. 90 Fed. Reg. 36304. EPA considered *all* motor vehicles and engines—not just the new ones as required by § 202(a). 90 Fed. Reg. 36304 (citing 74 Fed. Reg. 66543).

Ultimately, EPA's decision to bifurcate Endangerment Finding from the Standards removed crucial limiting principles. 90 Fed. Reg. 36304. And it meant EPA didn't have to address questions like whether regulating new vehicle emissions would be futile because it wouldn't contribute to statistically measurable decreases in GHGs, whether GHG emission standards would lead to "carbon leakage," and what the proper definition of "endanger" was. 90 Fed. Reg. 36305.

In now recognizing all the above, EPA has gotten it right, especially as to § 202(a)(1)'s text. Remember that under the Administrative Procedures Act courts weigh every discrete "agency *action*." 5 U.S.C. § 706 (emphasis added). And they can "set aside agency action" that exceeds the agency's statutory authority. 5 U.S.C. § 706(2)(C). In short, the judicial inquiry is "action" driven.

The APA framework makes short work of the Endangerment Finding. Section 202(a)(1)'s language allows one action: the "Administrator" "shall . . . prescribe" "standards." The text allows just one subject (the Administrator) to perform just one deed (shall prescribe) creating just one direct object (standards). And this structure reflects the default flow in administrative proceedings: Congress tells an agency to promulgate regulations, but before regulating, the agency must find certain facts to ensure its regulations reflect reality. This is the most modest, faithful, and natural read of § 202(a)(1). But the Endangerment Finding wasn't that sort of action. Instead, EPA used it to unlawfully substitute the statutorily mandated action—prescribing standards—with a subordinate assessment. *City of Providence v. Barr*, 954 F.3d 23, 31 (1st Cir. 2020) (saying an action "outside the bounds of [an agency's] statutory authority is ultra vires . . . and violates" the APA (citing *City of Arlington*, 569 U.S. at 297, and 5 U.S.C. § 706(2)(C))).

Remember that agencies like EPA are "creatures of statute and as such 'literally ha[ve] no power to act' except to the extent Congress authorized them." *Marin Audubon Soc'y v. Fed. Aviation Admin.*, 121 F.4th 902, 912 (D.C. Cir. 2024) (quoting *FEC v. Ted Cruz for Senate*, 596 U.S. 289, 301 (2022)); *accord La. Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 374 (1986) (saying "an agency literally has no power to act . . . unless and until Congress confers power upon it"). EPA has "no constitutional or common law existence or authority" to draw on, "but only those authorities conferred upon it by Congress." *Michigan v. EPA*, 268 F.3d 1075, 1081 (D.C. Cir. 2001).

Here, § 202(a)(1) does not give power or authority to EPA to issue endangerment findings apart from prescribing standards. As *Massachusetts* held, if EPA issues an endangerment finding § 202(a)(1) "*requires* [EPA] to regulate emissions of the deleterious pollutant from new motor vehicles." 549 U.S. at 533 (emphasis added). Indeed, when authorities describe § 202(a)(1), they

describe EPA's action under it as *regulatory*—not fact-finding. *See*, *e.g.*, *Ethyl Corp.*, 541 F.2d at 14-15 (saying § 202 allows EPA "to set standards" and issue "regulation[s]"); Jonathan H. Adler, *Warming Up to Climate Change Litigation*, 93 VA. L. REV. IN BRIEF 63, 73 (2007) (saying § 202(a)(1)'s "shall" language means EPA "is required to *regulate*" (emphasis added)); Senate Committee on Public Works's Report, 1-2 (May 14, 1965) (saying § 202(a)(1)'s purpose was to "[p]rovide for . . . *standards*" for various vehicles). So issuing the Endangerment Finding was unlawful. *See City of Arlington v. FCC*, 569 U.S. 290, 297 (2013) (saying an agency's power is "authoritatively prescribed by Congress").

EPA disagreed in the Endangerment Finding, claiming § 202(a)(1)'s text sets out two "actions": endangerment finding and standards. 74 Fed. Reg. 66501. But that's incorrect. To be sure, § 202(a)(1) requires the Administrator to decide whether certain air pollutants cause air pollution that is reasonably likely to endanger health and welfare. But just because we can conceptually isolate one specific step within § 202(a)(1) doesn't mean EPA can treat that step as a standalone action. We could also conceptually isolate the step of deciding whether GHGs like carbon dioxide are "air pollutants"—or an almost infinite number of other questions about § 202(a)(1)—but that doesn't mean EPA would be justified in undertaking independent, standalone rulemaking for each of those steps.

EPA's past position ignores § 202(a)(1)'s grammar and structure. The endangerment finding language in § 202(a)(1) is just a series of dependent, subordinate clauses that modify the word "standards." So when EPA invented endangerment findings as an independent step in 2009, it had to borrow the subject ("Administrator") and manufacture a new verb ("determin[e]") just to make the sentence and concept work. 74 Fed. Reg. 66501. It's true that before the Administrator can prescribe standards, he must do some legwork; and this sentence's direct object is complicated, requiring several nested determinations that affect the whole action. But that doesn't mean the Administrator can substitute the underlying legwork for the standards themselves.

Because § 202(a)(1) "commands [EPA] without qualification to carry out [this] particular program in a particular way"—i.e., by prescribing standards and, as part of that, making an endangerment finding—EPA's "duty is clear." *Oceana, Inc. v. Locke*, 670 F.3d 1238, 1243 (D.C. Cir. 2011). EPA needs to just follow the law. In *Oceana*, the relevant statute ordered the National Marine Fisheries Service to "establish a standardized reporting methodology to assess the amount and type of bycatch" in northeastern fisheries. *Id.* at 1239. Given the economic hard times, the Service crafted a methodology that would apply (and thus burden industry more) in some years, but not in others. *Id.* at 1240-41. The court vacated the rule, rejecting "the self-proclaimed wisdom of the approach . . . because the Congress, in its more commanding wisdom, has not authorized it." *Id.* at 1243. Like the Service, EPA may have any number of reasonable policy justifications for isolating one step in § 202(a)(1). But Congress hasn't authorized that, so the Endangerment Finding is unlawful. *See* 73 C.J.S. PUBLIC ADMINISTRATIVE LAW AND PROCEDURE § 148 (echoing *Oceana*'s rule).

EPA might think divorcing Standings from the Endangerment Finding is more efficient, but it has "no general administrative power to create exemptions to statutory requirements based upon the agency's perceptions of costs and benefits." *Alabama Power Co. v. Costle*, 636 F.2d 323,

357 (D.C. Cir. 1979). Nor may it "substitute its own policy for that of the legislature," *La. Fed. Land Bank Ass'n, FCLA v. Farm Credit Administration*, 180 F. Supp. 2d 47, 57 (D.D.C.2001), or use its own "preference[s]" to "trump" statutory text, *Michigan*, 576 U.S. at 757. "Put simply, agencies, like the rest of us, must obey the law—even if compliance is cumbersome, burdensome, or costly." *Gray Panthers Project Fund v. Thompson*, 273 F. Supp. 2d 32, 37 (D.D.C. 2002). Congress "wrote the provision" here a particular way—and "'[t]hat congressional election settles this case.'" *Michigan*, 576 U.S. at 757 (quoting *CSX Transp., Inc. v. Ala. Dep't of Rev.*, 562 U.S. 277, 296 (2011)). So if EPA in 2009 had "believe[d]" § 202(a)(1) to be "untoward in some respect, then it should [have] take[n] its concerns to Congress" and, "in the meantime . . . obey[ed] the statute as written." *Oceana*, 670 F.3d at 1243.

And to be clear: obeying the statute as written means obeying *all of it*. Just as "[a]gencies may not choose to follow some laws while ignoring others," an agency may not pick and choose among parts of a statute or provision, either. *Gray Panthers*, 273 F. Supp. 2d at 37. "Unlike courts, agencies do not have the luxury of merely interpreting some" part of a "statutory" scheme—they "must develop plans to effectuate *the whole statute*." Anya Bernstein & Cristina Rodríguez, *Working with Statutes*, 103 TEX. L. REV. 921, 993-94 (2025) (emphasis added). And Congress knows how to allow an agency to effectuate only one part of a statute. *See generally* William R. Weissman & J. Michael Sowinski, Jr., *Revitalizing the Brownfields Revitalization and Environmental Restoration Act: Harmonizing the Liability Defense Language to Achieve Brownfield Restoration*, 33 VA. ENVTL. L.J. 257, 355 (2015).

Congress could have structured § 202(a)(1) to allow EPA to issue an endangerment finding absent final standards—but it didn't. Indeed, Congress rejected a similar statutory structure in 1960. Then-HEW Secretary Arthur Flemming proposed air pollution legislation that would have "authorized federally-initiated hearings as an information-generating endeavor to create nonbinding recommendations" and with no "federal abatement or enforcement mechanism." Orford, *supra*, at 44. So we know what it would have looked like for Congress to authorize fact-finding without regulatory action because very much like what the proposed Flemming bill did. *Id.* at 45. But Congress rejected that proposal, Stern, *supra*, at 49, and passed § 202(a)(1)'s action-centric language a few years later.

EPA originally claimed "procedural discretion" rooted in § 202(a)(1)'s silence on this issue, 74 Fed. Reg. 66501 ("The text of CAA section 202(a) is silent on this issue. It does not specify the timing of an endangerment finding, other than to be clear that emissions standards may not be issued unless such a determination has been made. EPA is exercising the procedural discretion" § 202(a)(1)'s silence affords it). But that's wrong on two fronts.

First, § 202(a)(1) isn't silent. As shown above, its text and structure speak loud and clear: the Administrator prescribes standards, not endangerment findings.

Second, even if § 202(a)(1) were silent, it wouldn't justify divorcing standards from the endangerment finding. Statutory silence forces an agency into implied-powers land—generally not an agency-friendly place. "[I]mplied authority" exists only when "the implicitly authorized act [is] essential to carrying out an express duty of an administrative agency." 2 AM. JUR. 2D

ADMINISTRATIVE LAW § 52; 73 C.J.S. PUBLIC ADMINISTRATIVE LAW AND PROCEDURE § 150 ("[A]gencies generally have such implied powers, and only such, as are necessarily inferred or implied from, or incident to, the powers and duties expressly granted and imposed on them."). Words like "essential" and "necessary" "are not to be extended beyond fair and reasonable inferences." 73 C.J.S. PUBLIC ADMINISTRATIVE LAW AND PROCEDURE § 150. A *standalone* endangerment finding is in no sense "essential" or "necessary" to EPA doing its explicit § 202(a)(1) work—prescribing standards. So it isn't one of EPA's implied § 202(a)(1) powers.

Further, an agency "cannot claim implied powers that exceed or conflict with express powers." 73 C.J.S. PUBLIC ADMINISTRATIVE LAW AND PROCEDURE § 150. So in *Michigan*, for example, the Court held that because the CAA "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." 576 U.S. 743, 755-56. And in *D&G Holdings, L.L.C. v. Becerra*, 22 F.4th 470, 477 n.9 (5th Cir. 2022), the court rejected the HHS Secretary's argument that explicit statutory permission "to reopen and revise initial determinations should not implicitly disallow reopening non-initial determinations." The explicit command in the "applicable" law cabined his implied "authority," the court said. *Id.*

The same principle holds true here. Section 202(a)(1) says the Administrator could issue one standalone thing—standards. That means, contrary to the Endangerment Finding, that EPA *lacks* the implied power under § 202(a)(1) to issue an endangerment finding. As in *D&G Holdings*, the "obvious interpretive defects of [EPA's] argument" shows that "it fundamentally misunderstands the source and scope of agency power." 22 F.4th at 477 n.9.

V. Separate Bases Exist to Repeal the GHG Emission Standards.

Even if one disagreed with everything up to this point, including rescinding the Endangerment Finding, EPA should still repeal the GHG emission standards. The chief reason is that the GHG emissions standards harm public health and welfare more than they help. *See* 90 Fed. Reg. 36312-13. Regulating GHGs like carbon dioxide stretches the CAA beyond its technological and practical limits and has produced outcomes at odds with Congress's statutory objectives. 90 Fed. Reg. 36312-13. A faithful application of the statute guided by evidence and sound policy requires repeal of the GHG emission standards for three reasons.

First, the GHG emission standards lack a requisite technological foundation. 90 Fed. Reg. 36311-12. Section 202(a) presupposes that EPA will prescribe standards that are achievable through available or reasonably anticipated technology. *See* § 202(a)(2) (regulations take effect only after "the development and application of the requisite technology"). Unlike traditional air pollutants like hydrocarbons, nitrogen oxides, or particulate matter, carbon dioxide is an "inherent byproduct of combustion." Jason Scott Johnston, *Climate Change Confusion and the Supreme Court: The Misguided Regulation of Greenhouse Gas Emissions Under the Clean Air Act*, 84 NOTRE DAME L. REV. 1, 30 (2008). And no commercially viable technology will eliminate or meaningfully reduce such emissions from internal combustion engines. But because it has assumed in the past that every square inch of American life must nevertheless be brought into the fight against global warming, EPA GHG emissions standards have effectively aimed to eliminate

the carbon dioxide-emitting engine itself. *See* 90 Fed. Reg. 36311-12. An impossible regulatory mandate cannot be reconciled with the CAA's statutory framework.

Second, even assuming compliance were possible (it is not), EPA's effort to reduce GHG emissions from U.S. motor vehicles is futile in the broader context of global climate change. *See* 90 Fed. Reg. 36312 ("contribution of GHG emissions to global concentrations from new motor vehicles and engines in the United States is small"). Transportation emissions from the United States represent only a small fraction of worldwide GHG output. 90 Fed. Reg. 36312. Marginal reductions from domestic vehicle standards cannot plausibly alter atmospheric concentrations of carbon dioxide or global temperature trajectories. 90 Fed. Reg. 36312. Congress did not design § 202(a) to support symbolic, costly regulation untethered from measurable results.

Third, the GHG emissions standards have tangibly harmed public health and welfare. 90 Fed. Reg. 36312-13. By driving up vehicle costs, constraining consumer choice, and slowing the replacement of older, less safe vehicles, GHG standards have imposed economic and safety burdens that undermine public welfare. 90 Fed. Reg. 36312-13. Compliance and development costs ripple through the economy, diminishing affordability for families and placing strain on the automotive industry. 90 Fed. Reg. 36312-13. Section 202(a)'s reference to "public health or welfare" demands that these consequences be considered. § 202(a)(1); *see also* 90 Fed. Reg. 36312-13. Yet far from enhancing welfare, the GHG emission standards have diminished it.

A. No Requisite Technology Exists.

1. "Requisite" Means "no more than necessary."

When EPA sets new-vehicle emission standards under § 201(a), it must give "appropriate consideration to the cost of compliance within such period," and provide "such period as the Administrator finds necessary to permit the development and application of *the requisite technology*," § 202(a)(2) (emphasis added). This text does not license wish-casting. It ties technology to standards that can be developed and applied within real-world constraints.

True, courts have described the CAA as "technology forcing," requiring industry to push toward innovative solutions. *See, e.g., Union Elec. Co. v. EPA*, 427 U.S. 246, 257-58 (1976). And this push has spurred developments such as catalytic converters, which reduced emissions without requiring wholesale fuel switching. *See* Murray Tabb, *Twenty-Five Years of the Clean Air Act in Perspective*, 10 NAT. RESOURCES & ENV'T 13 (1995); *see also* J. ROBERT MONDT, CLEANER CARS: THE HISTORY & TECHNOLOGY OF EMISSION CONTROL SINCE THE 1960S, 25 (2000). Yet "technology forcing" can force only those changes that are "requisite." § 202(a)(2). Anything more than that is unlawful. In *Whitman*, the Court explained that the term "requisite" in § 109(b)(1) meant "*sufficient, but not more than necessary*" to achieve the statutory objective of protecting public health and welfare. 531 U.S. at 473 (emphasis added). So "requisite" is a limit, not a blank check. *See, e.g., NRDC v. Reilly*, 983 F.2d 259, 268 (D.C. Cir. 1993) ("Technology-based provisions require EPA to promulgate standards only after finding that the requisite technology exists or may be feasibly developed." (citing *NRDC v. EPA*, 655 F.2d 318, 322 (D.C. Cir. 1981))).

This interpretation ensures that EPA may neither set standards that are *too lax* to protect health nor *too stringent* such that they impose unnecessary costs or cause collateral harms. It obliges EPA to select the minimally sufficient means to accomplish the statutory end. So EPA may not pursue broader social or global aims through standards that force technologies beyond what the statute contemplates. As Justice Breyer explained in his *Whitman* concurrence, "requisite" is not an invitation to "eliminate every health risk" conceivable, however minor, "at any [] cost." *Whitman*, 531 U.S. at 494 (Breyer, J., concurring). Rather, it requires EPA to weigh "what risks are acceptable in the world in which we live" and recognize that regulatory standards must be sensitive to context. *Id.* at 494-95 (Breyer, J., concurring) (citing *NRDC v. EPA*, 824 F.2d 1146, 1165 (D.C. Cir. 1987)). The CAA may have been a "drastic remedy to . . . a serious and otherwise uncheckable problem," *Union Elec. Co.*, 427 U.S. at 256, but it doesn't authorize regulations pushing industry to "the brink of ruin." *Whitman*, 531 U.S. at 494 (Breyer, J., concurring).

All that applies to "requisite" in § 202(a)(2), too. Section 202's statutory design requires EPA to allow a lead time sufficient for such technology to develop, § 202(a)(3)(C), "giving appropriate consideration to the cost of compliance within such period," § 202(a)(2). In other words, "requisite" technology means technology that is sufficient, but not more than necessary, to reduce or prevent the emissions that endanger public health or welfare**.** That doesn't include technology that goes further by attempting to remove existing global GHG concentrations or overhaul entire industries without a proportionate effect on the identified harm. The statute, by its express terms, "does not compel the elimination of *all* risk." *Whitman*, 531 U.S. at 494 (Breyer, J., concurring). As it stands now, EPA has premised the GHG emission standards on global concentrations of GHGs. 74 Fed. Reg. 66516 (saying global concentrations of GHGs "endanger[] public health and welfare."); *see also* 74 Fed. Reg. 66542-43 (saying "contributors must do their part even if their contributions to the global [climate change] problem . . . are smaller than . . . regional or local" contributions). But "requisite" cannot be stretched to demand sector-transforming outcomes that only economy-wide or power-sector decarbonization could hope to deliver. Repealing the GHG emission standards is necessary to realign EPA's regulatory posture with the § 202(a)(2)'s "requisite" language.

This construction is reinforced by the Act's broader purposes. The CAA's stated objective 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." § 101(b)(1). The statutory definition of "welfare" is sweeping, including "economic values," "property," "transportation," and even "personal comfort and well-being." § 302(h). Thus, a regulatory requirement that causes grid instability, reduces economic growth, or increases energy costs for vulnerable communities exceeds what is "requisite" to protect the public interest. Full stop. A rule that causes more harm than it prevents is, by definition, not "requisite." *Whitman*, 531 U.S. at 495 (Breyer, J., concurring).

2. GHG Standards Have Been Fuel Switching by Another Name.

EPA's post-Endangerment Finding regulations have effectively mandated fuel switching to address global GHG concentrations. *See* 90 Fed. Reg. 36312. But the Supreme Court in *West Virginia* rejected a similar "generation shifting" approach for stationary sources, holding that EPA exceeded its statutory authority by compelling a sector-wide transition from coal to renewable energy. *See West Virginia*, 597 U.S. at 732. Similarly, § 202 does not empower EPA to compel industry-wide fuel switching—specifically by replacing internal combustion engines with EVs.

On the Endangerment Finding's own terms, the causes and effects EPA is trying to address are truly staggering: globally accumulated stock of long-lived GHGs leading to the diffuse harms associated with global climate change. 74 Fed. Reg. 66496. Even if human behavior is partially to blame for those issues, they are not engineering problems solvable by marginal emissions-rate tweaks to tailpipes. This issue is a macro-systems problem that depends on power-sector mix, global mineral supply chains, charging infrastructure, transmission build-out, consumer behavior, and more. *See* Johnston, *supra*, at 74-75 (explaining that "drastically cut[ting] current CO_2 emissions," would require "radical decarbonization—such as a wholesale conversion to nuclear power" or another "large-scale adaptation."). EPA has invoked that global predicate often as it seeks to regulate beyond "requisite technology" and toward sectoral transformation. § 202(a)(2). So no surprise that the Supreme Court has twice rebuked EPA for its GHG emission standards: first, in UARG when it narrowed the PSD trigger, *see UARG*, 573 U.S. at 302, and a second time by rejecting generation-shifting under § 111 in *West Virginia*, 597 U.S. at 732.

EPA has chosen to make similarly radical moves with GHG emissions standards for motor vehicles. It called its 2024 "Multi-Pollutant" standards for model years 2027-2032 "technology-neutral," but its own analyses and the best external syntheses show compliance requires large-scale adoption of EVs and plug-in vehicles. *See* ICCT, *U.S. Multi-Pollutant Emissions Standards For Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles* (Mar. 2025), https://tinyurl.com/33x3ahv4. The final rule's compliance pathways, cost-benefit accounting, and fleet modeling all assume sizable increases in battery-electric and plug-in hybrid market share to make the math work. Independent technical assessments estimate that meeting the standards entails roughly half of new light-duty sales being plug-ins by 2032 (with some scenarios higher). That is mandatory fuel switching in everything but name.

This functional fuel switching is unlawful. Just as EPA in *West Virginia* couldn't find the power to force generation shifting in § 111, it can't find it in § 202 either. In fact, § 202(a)(2)'s "requisite technology" language affirmatively forbids such a move. It strictly limits EPA's emission standards to *technology*-driven changes achievable on the vehicle within lead-time and cost-energy-safety constraints. EPA should repeal its GHG emission standards to stop the same transformation the Court rejected in *West Virginia*.

3. Zero-emission Technology isn't Feasible.

Because no commercially available options currently exist to limit ICE vehicles' carbon-dioxide emissions—and because of EPA's prior commitments to massive anthropogenic climate

change and the urgent need to recalibrate all of society to fight that—EPA's previous regulations would have effectively transitioned America's vehicle fleet from ICE vehicles to zero-emission vehicles like hybrids and plug-ins. As discussed above, that zero-emission technology violates § 202(a)'s requirement to take account of lead time for development and deployment, cost, energy, and safety. Mandating it at scale also doesn't work and is thus arbitrary and capricious.

EVs depend on critical minerals whose extraction and processing are geographically concentrated and time-consuming to scale. The International Energy Agency reports long project lead times and high concentration of processing for lithium, nickel, and cobalt, which heightens price and geopolitical risk precisely in the window EPA assumes rapid scale-up. IEA, *Global Critical Minerals Outlook 2024* (May 2024), https://tinyurl.com/5ac7dbcb. USGS likewise catalogs the tight concentration of raw materials and processing capacity. USGS, *USGS Projects World Production Capacity for 7 Critical Minerals and Helium From 2025 to* 2029 (Mar. 11, 2025), https://tinyurl.com/2njtfth7. And "requisite" cannot mean "assume the minerals will arrive on time."

Meeting fleet-wide standards via plug-ins turns on an underwhelming and overstrained charging infrastructure that is not under automakers' control. America's grids are "overloaded and running on an antiquated delivery system established several decades ago" as is. Gina S. Warren, *Hotboxing the Polar Bear: The Energy and Climate Impacts of Indoor Marijuana Cultivation*, 101 B.U. L. Rev. 979, 982 (2021); *see also* Luis Avelar, *The Road to An EV Future Still Has a Few Potholes. Here's How To Fix Them*, World Econ. Forum (Jan. 31, 2022), http://bit.ly/3gEVgRj. And regional grids around the country show more signs of stress every day. *Belmont Mun. Light Dep't v. FERC*, 38 F.4th 173, 177 (D.C. Cir. 2022). NREL's national needs assessment estimates millions of additional Level 2 ports plus substantial fast-charging build-out to support elevated EV and plug-in shares. National Renewable Energy Laboratory, *Building the 2030 National Charging Network: NREL Study Identifies Nationwide Charging Needs for Accelerating EV Adoption* (June 27, 2023), https://tinyurl.com/bdecwu82.

If compliance requires an infrastructure revolution outside § 202(a) and outside the manufacturers' span of control, that is not "requisite technology" applied to *vehicles*; it is system-level fuel switching. Further, studies through 2024-2025 reported failed charging attempts around 20% of the time in late 2024 and persistently low satisfaction with charging costs. *See* J.D. Power, *Public EV Charging Sees Consistent Progress for Two Consecutive Quarters, J.D. Power Finds* (Aug. 14, 2024), https://tinyurl.com/537sxv92. And that's an important number because EPA's EV- and plug-in-forcing emission standards rely on mass consumer acceptance to work. But the relevant service ecosystem is still fighting basic reliability and cost-transparency challenges. It's difficult to see how this is "requisite." Long-term assessments of charging infrastructure also continue to flag the need for large, timely additions of generation and transmission to meet electrification growth, including transportation. *See e.g.*, North American Electric Reliability Corp., *2024 Long-Term Reliability Assessment* (July 2025), https://tinyurl.com/5n7zx5y9.

These blemishes show that requiring a nationwide transition to EVs and plug-ins is not "requisite" under § 202(a)(2). Unlike catalytic converters, which worked within existing engine systems, EPA's GHG emission standards amount to a forced abandonment of internal combustion

technology. But EPA has had to make the GHG emission standards that strict because of the Endangerment Finding's global climate predicate. With the Endangerment Finding as the baseline, it can't follow § 202(a)(2)'s requirement for technology that is available, affordable, safe, and capable of being applied within statutory lead times.

What's more, a rule-driven EV surge raises serious justice and affordability issues that weigh against using the Endangerment Finding as a policy lever. Transitioning prematurely to EVs destabilizes the electric grid, increases costs for consumers, and disproportionately burdens low-income and rural communities. Kylie Conrad, *et al*., *The Benefits and Costs of Automotive Regulations for Low-Income Americans*, J. Benefit-Cost Analysis (2021). Widespread EV adoption requires massive upgrades to charging infrastructure, increased reliance on intermittent renewable energy, and higher utility costs—all of which worsen public health and welfare. *See generally* U.S. Dep't of Energy, *The Future of Resource Adequacy* (2024). Studies show that state zero-emission vehicle programs may increase overall GHG emissions by driving higher demand for electricity from fossil-fuel-fired plants. Alan Jenn, *et al*., *Alternative Fuel Vehicle Adoption Increases Fleet Gasoline Consumption and Greenhouse Gas Emissions Under United States Corporate Average Fuel Economy Policy and Greenhouse Gas Emissions Standards*, 50 Environmental Science and Technology 5, 2165-74 (Feb. 11, 2016); Conrad, *supra* (citing National Research Council, *Overcoming Barriers to Deployment of Plug-in Electric Vehicles* (2015)). And supply chain constraints—like reliance on critical minerals mined under poor environmental and labor conditions abroad—undercut both the climate and welfare justifications of the policy. James Broughel, *The Behavioral Economics Battle Lurking in EPA's Endangerment Finding Repeal*, Forbes (Aug. 11, 2025). Because these GHG emission standards are "likely to cause more harm to health than" they prevent, they can't be considered "'requisite to protect the public health.'" *Whitman*, 531 U.S. at 495 (Breyer, J., concurring).

Average transaction prices for EVs remain higher than for comparable, traditional vehicles. Insurance costs, driven by high battery-pack repair rates and limited repair networks, have trended higher for EVs on average, with recent reporting pegging increases in many states. Conrad, *supra*. The 2025 OBBB also ended the Inflation Reduction Act's 30D new clean vehicle tax credit before the end of 2025. This significant change will increase the effective price of many new battery electric, plug-in hybrid electric, and fuel cell vehicles, including leased vehicles. For middle-income households, these EV cost hurdles aren't trivial. *See* Kelley Blue Book, *How Much Are Electric Cars?* (Sept. 17, 2025), https://tinyurl.com/mr4v949k. Renters and multi-unit dwellers often lack home charging, pushing them to public networks where reliability and cost dissatisfaction remain sticking points. *Id*. And rural drivers with long distances and cold-weather regions face both range and charging-availability constraints. *See* Cox Automotive, *Kelley Blue Book Report: New-Vehicle Prices Trend Higher, as Higher Costs Hit Automakers, 2026 Model Year Product Arrives* (Aug. 11, 2025), https://tinyurl.com/5dkyyn4k.

Meeting charging demand requires capital-intensive distribution upgrades, public fast-charging buildouts, and upstream generation investments, which are costs reaped through rate increases and taxes. *See e.g.*, North American Electric Reliability Corp., *2024 Long-Term Reliability Assessment* (July 2025), https://tinyurl.com/5n7zx5y9. Electrification also raises national-security issues outside EPA's expertise. The United States "has very little capacity in

mining and refining any of the key raw materials" needed for electric vehicles. 86 Fed. Reg. 49,602, 49,797 (Sept. 3, 2021). The standards will thus make American fleets more dependent on supply chains in China and other "countries with which the U.S. has fragile trade relations or significant policy differences." 89 Fed. Reg. 29,440, 29,509 (Apr. 22, 2024).

To be clear, the States are not opposed to EVs. They *are* opposed to using the Endangerment Finding and resulting GHG emission standards as levers to force an economy-wide transition—especially when that transition's costs, prerequisites, and equity impacts lie beyond § 202(a) and EPA's expertise. Congress and the States have many tools that respect statutory limits and do more to address the actual bottlenecks. For example, Congress can adopt fuel-neutral standards (e.g., grams-CO_2/mile on a well-to-wheels basis) with compliance credits for *verified* lifecycle reductions—letting hybrids, renewable fuels, hydrogen ICE, and efficiency compete alongside EVs. And recent legislation including the Bipartisan Infrastructure Law (BIL) and the IRA are providing unprecedented funding to support grid infrastructure and the accelerated deployment of clean electricity, through tax credits, loans, and other programs. *See e.g.*, Inflation Reduction Act, Pub. L. No. 117-169, 136 Stat. 1818 (2022). Together, these laws are projected to double the share of clean electricity by 2030. *See* U.S. Dep't of Energy, *The Future of Resource Adequacy* (2024), https://tinyurl.com/52b8ahah.

B. The GHG Emission Standards are Futile.

The GHG emission standards are futile because even eliminating all GHG emissions from new U.S. motor vehicles would not measurably affect global atmospheric concentrations or climate outcomes. This reality cannot be squared with black letter law which holds agency action that fails to grapple with an "important aspect of the problem" is arbitrary and capricious. *DHS v. Regents of the Univ. of Cal.*, 591 U.S. 1, 30 (2020) (cleaned up). U.S. light-duty vehicles, for example, account for less than 2 percent of global GHG emissions. *See* EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2021* (2023). And especially given the continuing growth of emissions from emerging economies, American reductions are dwarfed by the problem abroad.

Because EPA views climate change as driven by global, cumulative GHG concentrations, not localized emissions, regulation of new vehicles in the United States cannot "reliably and meaningfully reduce the risks of climate change asserted in the Endangerment Finding." 90 Fed Reg. 36312. This isn't the "reasoned decisionmaking" required by *Regents of the Univ. of Cal.*, 591 U.S. at 16. As with the generation-shifting program struck down in *West Virginia*, EPA's mobile source GHG program implicitly attempts to achieve global climate outcomes through a tool designed for localized pollution. But "the CAA is not concerned with international air pollution." Johnston, *supra* at 19; *see also supra*, Section II. That mismatch underscores the absence of statutory authority to continue relying on the Endangerment Finding as the basis for vehicle GHG regulation.

West Virginia v. EPA underscores why EPA's reliance on the Endangerment Finding is misplaced. There, the Court struck down EPA's attempt to implement "generation shifting" under CAA Section 111, reasoning that Congress did not authorize EPA to restructure the nation's energy

mix to achieve broad climate objectives. *West Virginia*, 597 U.S. at 721-22. The same principle applies here. By using Section 202 to mandate reductions in vehicle GHG emissions that cannot themselves meaningfully affect global concentrations, EPA transforms the statute into a tool for symbolic climate policy rather than a regulatory measure tethered to achievable health and welfare benefits.

The futility of the GHG emission standards distinguishes them from the catalytic converter example often cited in support of technology-forcing. *See* Nicholas S. Bryner, *The Once and Future Clean Air Act: Impacts of the Inflation Reduction Act on EPA's Regulatory Authority*, 65 B.C. L. REV. 1, 12 (2024). That device produced immediate and measurable reductions in pollutants such as carbon monoxide, hydrocarbons, and nitrogen oxides—pollutants that directly contributed to urban smog and respiratory illness. *See* Arnold W. Reitze, *Mobile Source Air Pollution Control*, 6 ENV. LAW. 309, 326-27 (2000) (discussing the development of the catalytic converter). By contrast, even a wholesale transition to zero-emission vehicles would not meaningfully reduce the risks identified in the Endangerment Finding, because those risks are driven by cumulative global concentrations unaffected by marginal reductions from U.S. new motor vehicles. 90 Fed. Reg. 36312.

C. The Endangerment Finding Violates § 202's Objectives.

The Endangerment Finding concluded that concentrations of GHGs "threaten the public health and welfare of current and future generations," paving the way for GHG emissions standards for new motor vehicles. 76 Fed. Reg. 66496. While tethered to *Massachusetts*'s holding that GHGs qualify as "air pollutants," the Endangerment Finding elevated climate risk without sufficiently weighing "public welfare" effects. 74 Fed. Reg. 66516-36. A detailed reading of § 202(a) that fully incorporates the concept of welfare in § 302(h) requires considering economic and social welfare in prescribing standards. *See* §§ 202(a)(1), 302(h). Moreover, real-world consequences of GHG regulation, including costs to safety trade-offs, suggest net welfare reduction. 90 Fed. Reg. 36312. Because EPA has failed to fully consider public welfare in promulgating the GHG emission standards, they should be repealed.

1. GHG Emission Standards Account for Public Welfare.

EPA must consider public welfare when prescribing and revising § 202(a) emission standards. If it doesn't, that's a plain failure to consider "relevant factors" and amounts to a "clear error of judgment." *Regents of the Univ. of Cal.*, 591 U.S. at 16 (cleaned up). The CAA's central purpose is to protect public health and welfare. § 101(b)(1). The CAA defines "welfare" as: "[I]nclud[ing], but . . . not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being." § 302(h). This definition is expansive. It requires consideration of both environmental parameters like soil and vegetation and "economic values" and "personal comfort and well-being." *Id.* And relevant to § 202(a), it includes "hazards to transportation," incorporating issues like vehicle safety and mobility. *Id.* In short, welfare encompasses both environmental and economic dimensions.

Under § 202(a)(1), considering the "public welfare" is not peripheral or optional, but a central requirement. So in promulgating GHG emission standards under § 202(a)(1), EPA must weigh the broader welfare consequences of regulation, including economic costs, consumer choice, vehicle safety, and the overall balance of societal impacts. After all, "public health or welfare" must be read conjunctively. EPA cannot focus solely on medical or epidemiological harms at the expense of economic ones. EPA must *show* that it "examined the relevant data" with respect to economic harm and "articulate[] a satisfactory explanation for [its] decision" to issue the GHG emission standards anyway. *Dep't of Com. v. New York*, 588 U.S. 752, 73 (2019) (cleaned up).

Other CAA provisions drive this home. Contrast § 202(a)(1) with others like § 109(b), where Congress tells EPA to set the standards at a level "requisite to protect the public health" with "an adequate margin of safety." The Supreme Court held in *Whitman* that EPA couldn't include cost when setting NAAQS because § 109(b)'s language is explicitly limited to protecting health. By including the broadly defined "welfare" in § 202(a)(1), Congress intentionally widened the scope of considerations for vehicle emission standards. Ignoring welfare-based harms would do violence to Congress's intent with § 202(a), erasing the deliberate statutory distinction between single-focus provisions like § 109 and dual-focus provisions like § 202(a).

Yet the Endangerment Finding and subsequent GHG emission standards do exactly that—foregrounding public health concerns based on shaky climate science at the expense of a comprehensive welfare analysis. Repealing the GHG emission standards would, by contrast, realign regulation with statutory language by considering more seriously the public-welfare harms.

Further, "welfare" is multifaceted—meaning it encompasses harms from pollution *and* harms from EPA's own regulations. EPA must account for both. Thus, a key part of the public welfare analysis is considering whether EPA's regulatory measures to limit such pollutants might themselves impair welfare through economic burdens, reduced consumer choice, or impacts on transportation safety—in short, a cost-benefit analysis. And if the overall harms from regulating outweigh the benefits, EPA shouldn't regulate because doing so would be arbitrary and capricious.

To be clear, this does not mean that EPA must abandon regulation if costs are present. Rather, EPA's holistic evaluation must balance competing welfare considerations. For example, stringent vehicle standards might reduce certain emissions but increase vehicle costs, thereby delaying consumer turnover from older, less-safe vehicles. Such outcomes directly implicate the statutory definition of welfare, which includes hazards to transportation and economic values. But by comprehensively considering welfare, EPA would better fulfill Congress's command and prevent lopsided regulation that advances one aspect of welfare (e.g., climate change) while undermining others (e.g., vehicle safety, affordability, economic security).

2. The Endangerment Finding Harms Public Health and Welfare.

Sixteen years on, evidence shows that the Endangerment Finding and related GHG emission standards have substantially harmed public health and welfare. Rather than producing

measurable benefits, the standards built on the Endangerment Finding have cost trillions of dollars, slowed technological adoption, constrained consumer choice, and disproportionately harmed low-income households. These standards do not serve the purpose of the CAA. The GHG emission standards have perversely delayed fleet turnover and resulted in higher compliance, vehicle, and energy costs. This has reduced consumer welfare, harmed the poor, and threatened families' social and economic well-being. For this, the Endangerment Finding is "illogical on its own terms" and is "arbitrary and capricious." *Am. Fed'n of Gov't Emps., Loc. 2924 v. Federal Lab. Rels. Auth.*, 470 F.3d 375, 380 (D.C. Cir. 2006) (cleaned up).

One of the most direct harms traceable to the GHG emission standards are the staggering compliance costs they impose on businesses, households, and consumers. EPA itself has acknowledged billions in annual costs from mandatory testing, reporting, and technology requirements. 90 Fed. Reg. 36290. Some estimates suggest the cumulative costs approach or exceed $1 trillion. Broughel, *supra* ("EPA justifies the repeal by citing the severe economic burdens of its existing rules, including over $1 trillion in compliance costs."). These are not abstract figures: manufacturers must invest heavily in redesigning vehicles, installing costly new technologies, and conducting ongoing compliance testing, all of which in turn raises the purchase price of new vehicles for consumers. The case of commercial trucking illustrates the problem. Regulations based on the Finding require not only changes to engines but also fundamental redesigns of entire vehicles. *See* 76 Fed. Reg. 57106, 57114 (2011). These design mandates impose research and development costs of at least $6.8 million per manufacturer per year—costs passed to fleet operators. *See* 76 Fed. Reg. 57321. For commercial buyers, the calculus is straightforward: higher upfront costs discourage purchase of newer vehicles. *See* S&P Global, *Commercial Vehicle Forecast Cut for 2025* (2025), https://tinyurl.com/yv3tyt2p (noting commercial buyers are responding cautiously to pre-buying EPA-compliant trucks in anticipation of updated US emission standards for 2027). This chilling effect on new sales reverberates across the economy, depressing demand for American manufacturing, limiting investment, and costing jobs in transportation, mining, construction, and related sectors. 73 Fed. Reg. 44,354, 44,371.

The ripple effects of the GHG emission standards extend beyond industry to the everyday lives of consumers. By forcing manufacturers to adopt expensive clean technologies before they are commercially viable, the regulations inflate vehicle prices dramatically. As EPA notes, the National Center for Energy Analytics has warned that regulators have largely ignored the real-world consumer welfare costs of these standards. The average incremental regulatory cost embedded in new vehicles is estimated at $6,000-$7,000—amounting to as much as 20% of the purchase price. *See* Conrad, *supra*.

These increased costs end up undermining the standards' stated purpose by slowing the replacement of older, higher-polluting vehicles. Vehicle purchasers—both individual and commercial—evaluate the total cost of ownership, which includes purchase price, maintenance, and fuel. Kylie Conrad, *et al*., *The Benefits and Costs of Automotive Regulations for Low-Income Americans*, J. of Benefit-Cost Analysis (Nov. 16, 2021), https://tinyurl.com/ymjy5zhe. When new vehicles are made more expensive by regulatory mandates, consumers logically delay upgrading. The predictable result is that many consumers shift to the used-vehicle market or retain aging vehicles longer. *See* Howard K. Gruenspecht, *Differentiated Regulation: The Case of Auto*

Emissions Standards, 72 AMERICAN ECON. R. 2, 328-31 (May 1982). But the used-car market, cannot absorb unlimited demand, and higher new-car prices spill over to raise used-car prices as well. Gruenspecht, *supra*, at 328-31; Mark R. Jacobsen, *Evaluating U.S. Fuel Economy Standards in a Model with Producer and Household Heterogeneity*, 5 AMERICAN ECON. J. 2, 148-87 (Mar. 2012); Mark R. Jacobsen & Arthur A. Van Benthem, *Vehicle Scrappage and Gasoline Policy*, 105 AMERICAN ECON. R. 3, 1312-38 (Mar. 2015); Lucas W. Davis & Christopher R. Knittel, *Are Fuel Economy Standards Regressive?*, J. OF THE ASS'N OF ENVTL. AND RESOURCE ECONOMISTS (Mar. 2019). Together, these facts mean that fleets remain older for longer, and older vehicles emit significantly more criteria pollutants such as particulate matter, nitrogen oxides, and volatile organic compounds. 85 Fed. Reg. 24186, 25039 (Apr. 30, 2020) (discussing the impact of higher vehicle prices on slowing fleet turnover and thus increasing emissions). EPA has acknowledged this reality—conceding that higher new-vehicle prices discourage turnover and can result in higher emissions of conventional air pollutants. *Id.* This result runs directly counter to the CAA's public health objectives. Instead of delivering cleaner air, the GHG emission standards indirectly entrench dirtier fleets, harming respiratory health and environmental quality in the short and medium term.

This dynamic also leaves households worse off—either priced out of ownership or forced to maintain less reliable vehicles. The problem is compounded by recent rules requiring that 45% of trucks and 70% of cars be electric by 2032. *See* 89 Fed. Reg. 29567-68; 28057. While some consumers may prefer electric vehicles, many do not, and mandating them substitutes bureaucratic judgment for individual choice. Forcing consumers to buy vehicles they would not voluntarily select undermines welfare rather than enhancing it. *See* Broughel, *supra*.

The distributional consequences of the Endangerment Finding are particularly troubling. Low-income households are least able to afford higher vehicle prices and least likely to purchase new vehicles at all. *See 2025 Global Automotive Consumer Study*, Deloitte (Jan. 2025) ("Respondents in some global markets continue to steer away from all-battery electric vehicles in favor of ICE and hybrids, which could be due, in part, to lingering affordability concerns"); *see also* David L. Greene and Jilleah G. Welch, *The Impact of Increased Fuel Economy for Light-Duty Vehicles on the Distribution of Income in the US: A Retrospective and Prospective Analysis*, Baker Center for Public Policy (Mar. 2017), https://tinyurl.com/4xp7y5s3. Instead, they rely disproportionately on used vehicles, meaning they face higher costs when regulatory mandates inflate the entire market. Gordon Bauer, *et al.*, *When Might Low-Income Drivers Benefit from Electric Vehicles? Quantifying the Economic Equity Implications of Electric Vehicle Adoption*, International Council on Clean Transportation (Feb. 2021). About 80% of low-income households own and depend on vehicles, and more than 60% of low-income workers commute alone in a private vehicle. *See* Isabel V. Sawhill, *How Higher Gas Prices Hurt Less Affluent Consumers and the Economy*, Brookings (Mar. 6, 2012); Christopher R. Hayes, *Impact of Rising Gas Prices on Below-Poverty Commuters*, Urban Institute (Oct. 2, 2008). Increased vehicle costs, therefore, function as a regressive tax on the poor.

Access to a vehicle is correlated with employment, wages, educational opportunities, health outcomes, and neighborhood safety. Rolf Pendall, *et al.*, *Driving to Opportunity: Understanding the Links among Transportation Access, Residential Outcomes, and Economic*

Opportunity for Housing Voucher Recipients, Urban Institute (2014), https://tinyurl.com/yp9vw3kb (access to a care leads to improved educational opportunities and outcomes for children in the household); Paul M. Ong, *Car Ownership and Welfare-to-Work*, 21 J. of Pol. Analysis and Mgmt. 239-52 (Mar. 2002), https://tinyurl.com/44vxh83h; Charles L. Baum, *The Effects of Vehicle Ownership on Employment*, 66 J. of Urban Economics 151-63 (2009), https://tinyurl.com/3zcckk4a (access to a care increases the rate and duration of employment and reduces family reliance on public assistance); Tami Gurley & Donald Bruce, *The Effects of Car Access on Employment Outcomes for Welfare Recipients*, 58 J. of Urban Economics 2, 250-72 (Sep. 2005), https://tinyurl.com/5fmzwe77 (access to a car boosts wages and earnings); Ken Bensinger, *A Hard Road Ahead for the Poor in Need of Cars*, Los Angeles Times (Nov. 3, 2011), https://tinyurl.com/nysxfbap (access to a car improves use of health care services); Emily Badger, *Why the Poor Need Access to Cars*, Washington Post (Apr. 1, 2014), https://tinyurl.com/8ynf6cxb (access to a car enables families to relocate to safer neighborhoods).

So anything that reduces vehicle affordability threatens to trap vulnerable households in poverty. Regulations justified by the Endangerment Finding have, therefore, undermined the very public welfare the CAA is meant to protect. Justice-focused scholarship cautions that even if fuel savings from efficient vehicles accrue eventually, those savings are inaccessible to low-income families who cannot afford the vehicles in the first place, lack home charging infrastructure, or cannot risk the high costs of EV battery replacement in the used market. *See* Conrad, *supra*.

Beyond households, the GHG emission standards' ripple effects touch every sector of the economy. The Department of Commerce warned as early as 2008 that regulating GHGs under the CAA would "impose significant costs on U.S. workers, consumers, and producers and harm U.S. competitiveness without necessarily producing meaningful reductions in global GHG emissions." 73 Fed. Reg. 44,354, 44,371. These predictions have been borne out. Higher energy costs increase input costs for plastics, fertilizers, pharmaceuticals, and countless other necessities. Reduced competitiveness drives energy-intensive industries offshore, resulting in "emissions leakage" without environmental benefit. *See* Aaron Jenkins, et al., *Addressing Leakage in a Greenhouse Gas Mitigation Offsets Program for Forestry and Agriculture*, NICHOLAS INSTITUTE FOR ENVIRONMENTAL POLICY SOLUTIONS, DUKE UNIVERSITY (March 2009). And constraining affordable fossil fuel use risks undermining the prosperity that has historically reduced mortality and increased resilience to natural disasters. Thomas J. Pyle, *Ending the Endangerment Finding is Necessary for Energy Abundance, and it Follows the Law*, Inst. for Energy Research, (Aug. 20, 2025), https://tinyurl.com/3pcpcm5x.

In short, public welfare is not served by expensive regulations yielding phantom global climate benefits while raising costs at home. *See* Hannah Ritchie, *The World Has Become More Resilient to Disasters, but Investment Is Needed To Save More Lives*, Our World in Data (May 20, 2024), https://tinyurl.com/4629kaa7. On the contrary, energy affordability and economic growth are the foundations of longer lifespans, healthier populations, and safer societies. *See* Kevin D. Dayaratna & Diana Furchtgott-Roth, *Reversing the EPA's Endangerment Finding on Greenhouse Gases*, Heritage Foundation (July 30, 2025), https://tinyurl.com/54wpwr7k. By suppressing these foundations, the GHG emission standards have become a barrier to public welfare.

The 2009 Endangerment Finding was adopted in the name of protecting public health and welfare, but its legacy has been the opposite. By imposing trillions in compliance costs, delaying fleet turnover and worsening conventional pollution, raising vehicle and energy prices, constraining consumer choice, and disproportionately harming low-income households, the Endangerment Finding's resulting regulations have eroded public welfare. Many federal agencies warned of these outcomes nearly two decades ago, and experience has confirmed their concerns. The CAA requires EPA to protect both health and welfare. Today, repeal of the GHG emission standards is necessary to restore that balance, to prioritize affordability and economic opportunity, and to ensure that environmental policy does not undermine the very public welfare it purports to defend.

VI. All GHG-Related Vehicle Emission Standards Should be Rescinded.

Given its rescission of the Endangerment Finding—and independent failings of the resulting GHG emission standards—"EPA is proposing to repeal all GHG emission standards for light-duty vehicles, medium-duty vehicles, heavy-duty vehicles, and heavy-duty engines." 90 Fed. Reg. 36313. And EPA recites in detail these many regulations. *See* 90 Fed. Reg. 36313-24. The States fully agree with these specific repeals and urge EPA to continue aggressively cleaning up the Endangerment Finding's detritus wherever it finds it.[4]

* * *

For all these reasons, EPA should adopt the proposed rule.

Sincerely,

John B. McCuskey
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[4] The States agree with EPA that repealing the endangerment finding "would not impact Federal preemption for motor vehicle and engine emission standards under CAA section 209(a)." 90 Fed. Reg. at 36314. Section 209(a) says that "[n]o State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines subject to this part." 42 U.S.C. § 7543(a). Congress's decision to limit EPA's authority to regulating "any air pollutant" in § 202 is distinct from its decision to preempt States from enacting "any standard relating to the control of emissions from new motor vehicles" in § 209(a).

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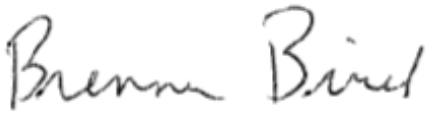

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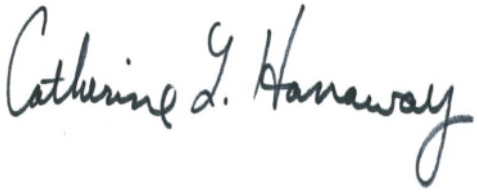

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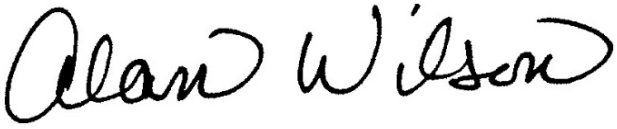

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APPENDIX

Between 1965 and the Endangerment Finding, EPA referenced § 202(a)(1) as an authority in fifteen regulations:

1. 1980: EPA regulated hydrocarbons, carbon monoxide, and nitrogen oxides emitted from heavy duty vehicles using its "specific[]" authority in § 202(a)(3) and regulated those same pollutants emitted from light duty trucks using its "general statutory authority" in § 202(a)(1). *The Control of Air Pollution From New Motor Vehicles and Motor Vehicle Engines; Gaseous Emission Regulations for 1984 and Later Model Year Light-Duty Trucks*, 45 Fed. Reg. 63734, 63735 (Sept. 25, 1980). "It is clear," EPA said, that § 202(a)(1) was satisfied because "HC and CO emissions from LDTs contribute to air pollution which endangers public health." 45 Fed. Reg. 63736. And these were "conventional" pollutants it was dealing with. 45 Fed. Reg. 63736.

2. 1983: EPA promulgated a final rule under § 206(f)(1) amending hydrocarbon, carbon monoxide, and nitrogen oxide emission standards for LDVs and LTDs. *Control of Air Pollution from New Motor Vehicles and New Motor Vehicle Engines; Emission Standards for 1984 and Later Model Year Light-Duty Vehicles and Light-Duty Trucks*, 48 Fed. Reg. 48598, 48599 (Oct. 19, 1983). In EPA's "Legal Authority" section, it also listed § 201(a)(1) as an authority for its regulation but didn't explain further or analyze § 202(a)(1).

3. 1984: EPA delayed the effective date for particulate emission standards for diesel-powered LDTs and LDVs using its "discretion under § 202(a)(1)-(2)." *Standards for Emission of Particulate Matter From Diesel-Powered Light-Duty Vehicles and Light-Duty Trucks and Technical Amendment to Emission Regulations for Light-Duty Vehicles, Light-Duty Trucks, and Heavy-Duty Engines*, 49 Fed. Reg. 3010, 3015 (Jan. 24, 1984).

4. 1988: EPA revisited particulate matter emission standards for light-duty diesel trucks; for those LDDTs that also counted as heavy duty vehicles it regulated under § 202(a)(3)(A)(iii), and for those LDDTs that weren't, it regulated under § 202(a)(1). *Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines; Revision of Particulate Emission Standards for Certain 1987 and Later Model Year Light-Duty Diesel Trucks*, 53 Fed. Reg. 43870, 43871 (Oct. 31, 1988). And it noted that under § 202(a)(1) it had "broad discretion to define classes of vehicles for purposes of setting standards under that section." 53 Fed. Reg. 43781.

5. 1994: EPA issued a rule implementing Congress's direct command in § 202(a)(6) to promulgate standards requiring light-duty vehicles to have onboard refueling vapor recovery systems to limit vehicle refueling emissions—specifically hydrocarbons. *Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines; Refueling Emission Regulations for Light-Duty Vehicles and Light-Duty Trucks*, 59 Fed. Reg. 16262, 16263 (April 6, 1994). In the same action, EPA used its § 202(a)(1) to also apply these same requirements to light-duty trucks. 59 Fed. Reg. 16263.

6. 1994: EPA "extend[ed] the coverage of the existing federal motor vehicle emissions program to include natural gas and [liquified petroleum gas] vehicles." *Standards for Emissions From Natural Gas-Fueled, and Liquefied Petroleum Gas-Fueled Motor Vehicles and Motor Vehicle Engines, and Certification Procedures for Aftermarket Conversions*, 59 Fed. Reg. 48472, 48473 (Sept. 21, 1994). This included hydrocarbons, carbon monoxide, nitrogen oxides, and particulate matter. 59 Fed. Reg. 48474. Although EPA unhelpfully kept its statutory references vague—repeatedly citing just "§ 202(a)"—in response to a comment it seemed to invoke specifically § 202(a)(1) as its statutory basis. 59 Fed. Reg. 48484.

7. 1995: EPA targeted "[g]round-level ozone" under its § 202(a)(1) authority by creating stricter, but voluntary, emission standards for "volatile organic compounds . . . and nitrogen oxides" for States in the "northeast region of the country." *Final Rule on Ozone Transport Commission; Low Emission Vehicle Program for the Northeast Ozone Transport Region*, 60 Fed. Reg. 4712, 4714 (Jan. 24, 1995). The goal, EPA said, was to combat the smog that "damages lung tissue, reduces lung function, and sensitizes the lungs to other irritants." 60 Fed. Reg. 4712. Manufacturers could voluntarily opt into these stricter voluntary standards. 60 Fed. Reg. 4714.

8. 1995: EPA relied on four CAA provisions, including § 202(a)(1), to modify emission testing procedures for methanol-fueled vehicles. *Control of Air Pollution From New and In-Use Motor Vehicles and New and In-Use Motor Vehicle Engines; Technical Amendments to the Test Procedures for Methanol-Fueled Motor Vehicles and Motor Vehicle Engines and Petroleum-Fueled Motor Vehicles; Final Rule*, 60 Fed. Reg. 34326 (June 30, 1995). These testing procedures measured hydrocarbons, nitrogen oxides, and carbon monoxide. 60 Fed. Reg. 34332.

9. 1997: EPA used its § 202(a)(1) authority to create a voluntary national low emission vehicle program for light-duty vehicles aimed at reducing particulate matter, nitrogen oxides, carbon monoxide, and volatile organic compounds. *Control of Air Pollution From New Motor Vehicles and New Motor Vehicle Engines: Voluntary Standards for Light-Duty Vehicles*, 62 Fed. Reg. 31192, 31195-96, 31198 (June 6, 1997).

10. 1997: EPA adopted emission standards under § 202(a)(3) for hydrocarbon and nitrogen oxides for "on-highway heavy-duty diesel-cycle engines … apply[ing] to model year 2004 and later." *Control of Emissions of Air Pollution From Highway Heavy-Duty Engines*, 62 Fed. Reg. 54694, 54699 (October 21, 1997). EPA referenced § 202(a)(1) only to incorporate its useful life provision—not to declare a certain air pollutant as having met the endangerment standard. 62 Fed. Reg. 54714.

11. 2000: EPA established "a single set of emission standards that apply regardless of the fuel used and whether the vehicle is a car, a light truck, or a larger passenger vehicle" aimed at reducing ground-level ozone and particulate matter pollution. *Control of Air Pollution From New Motor Vehicles: Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur*

Control Requirements, 65 Fed. Reg. 6698, 6701 (Feb. 10, 2000). The rule referenced § 202(a)(1) several times through in relation to limiting ground-level ozone, *id.* at 6709; nitrogen oxide, volatile organic compounds, and particulate matter, *id.* at 6716; and "benzene, formaldehyde, acetaldehyde, 1,3-butadiene, and diesel particulate matter," *id.* at 6722.

12. 2000: EPA promulgated another rule "reaffirm[ing] … the [hydrocarbon and nitrogen oxides] standard for diesel engines and [setting] new emission standards for heavy-duty Otto-cycle engines and vehicles." *Control of Emissions of Air Pollution from 2004 and Later Model Year Heavy-Duty Highway Engines and Vehicles; Revision of Light-Duty On-Board Diagnostics Requirements*, 65 Fed. Reg. 59896, 59898 (October 6, 2000). Notably, EPA promulgated this rule under § 202(a)(3); and it referenced § 202(a)(1) only to incorporate its useful life provision—not to declare a certain air pollutant as having met the endangerment standard. 65 Fed. Reg. 59943.

13. 2001: EPA established a program chiefly relying on § 202(a)(3) to "regulate the heavy-duty vehicle and its fuel as a single system." *Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*, 66 Fed. Reg. 5002, 5002 (January 18, 2001). EPA also said that, based on the record evidence, nitrogen oxides, volatile organic compounds, sulfur oxides, and particulate matter from heavy duty trucks satisfied § 202(a)(1)'s endangerment standard. 66 Fed. Reg. 5008.

14. 2004: EPA revised exhaust emission standards for highway motorcycles under its specific authority in § 202(a)(3)(E) and general authority in § 202(a)(1)—aimed at decreasing hydrocarbon, nitrogen oxides, and particulate matter emissions. *Control of Emissions From Highway Motorcycles*, 69 Fed. Reg. 2398, 2403 (Jan. 15, 2004).

15. 2007: EPA set standards to "reduce emissions of the many air toxics that are hydrocarbons, including benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, and naphthalene." *Control of Hazardous Air Pollutants From Mobile Sources, Control of Hazardous Air Pollutants From Mobile Sources*, 72 Fed. Reg. 8428, 8430 (Feb. 26, 2007). Although EPA promulgated primarily under § 202(*l*)(2), it also promulgated under § 202(a)(1) because these hydrocarbons endanger public health and welfare. 72 Fed. Reg. 8432.