Comments of the Attorneys General of California, Arizona, Colorado, Connecticut, Delaware, the District of Columbia, Hawaiʻi, Illinois, Maine, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New Mexico, New York, North Carolina, Oregon, Rhode Island, Vermont, Washington, and Wisconsin, and the Chief Legal Officers of the City of Chicago, Illinois; the City of New York, New York; the City and County of San Francisco, California; and the City and County of Denver, Colorado

on

The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule III for Model Years 2022 to 2031 Passenger Cars and Light Truck, 90 Fed. Reg. 56,438 (Dec. 5, 2025)

DETAILED COMMENTS

NHTSA-2025-0491

February 4, 2026

I. INTRODUCTION

The States and Cities strongly oppose the proposed rollback of fuel economy standards. 90 Fed. Reg. 56,438 (Dec. 5, 2025) (the Proposal or NPRM). In the Proposal, NHTSA builds on a flawed legal premise pushed by opponents of strong fuel-economy standards and adopted last summer in a purported interpretive rule, *Resetting the Corporate Average Fuel Economy Program*, 90 Fed. Reg. 24,518 (June 11, 2025) (the Resetting Rule). In the Resetting Rule, for the first time in the Corporate Average Fuel Economy (CAFE) Program's fifty years, NHTSA declared without notice or public comment that the Energy Policy & Conservation Act (EPCA) prohibits the consideration of the fuel-economy values that EPCA assigns to electric vehicles "in any respect and at any point in the process of setting fuel economy standards." 90 Fed. Reg. at 24,522. That declaration represents a radical reinterpretation of 49 U.S.C. § 32902(h)(1) (the EV Restriction), which, as NHTSA told federal appellate courts as recently as last year, is far more precise in scope and can be implemented with far less violence to accurate modeling of the auto industry's capabilities. Under the Resetting Rule's novel reinterpretation, however, NHTSA has taken real-world data—technological profiles of actual vehicle models produced and actual sales data from past model years—and deleted over hundreds of EV models and millions of EV sales from its data files. Focusing on a subfleet of vehicles fueled only by gasoline or diesel fuel,[1] NHTSA has produced revised standards far below what EPCA requires.

EPCA directs NHTSA to set CAFE standards at the "maximum feasible average fuel economy" that automakers can achieve in a given model year. 49 U.S.C. § 32902(a). NHTSA determines what is maximum feasible by weighing four factors specified in Section 32902(f), hereafter the "feasibility factors" or the "feasibility analysis": technological feasibility, economic practicability, the effect of other motor vehicle standards of the Government on fuel economy, and the need of the United States to conserve energy. *Id.* § 32902(f). Even accounting for the new and erroneous reinterpretation of the EV Restriction, NHTSA has conducted its feasibility analysis in a flawed, contradictory, and grossly result-driven manner, sacrificing Congress's statutory objectives for the Administration's contrary goal of increasing fossil fuel consumption. NHTSA has dramatically distorted its cost-benefit analysis to make the Proposal look beneficial for Americans, when in fact it will decrease the affordability of purchasing and owning a vehicle, raise gas prices, exacerbate climate change, and increase our individual and national vulnerability to volatility in oil markets.

The Proposal is contrary to law and arbitrary and capricious. NHTSA should not finalize any of the alternatives, but preserve existing MY2022–2031 standards.

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[1] For brevity, gasoline- and diesel-fueled vehicles, together, are referred to simply as gas-powered or gas-fueled hereafter.

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II. BACKGROUND

A. The Importance of the CAFE Program

1. Robust CAFE standards secure true, lasting affordability benefits for all Americans, not just illusory savings for new car purchasers

The States and Cities have a strong interest in a CAFE program that accomplishes its statutory objectives: reducing fuel consumption by requiring automakers to improve their fleets' fuel economy. Those reductions in fuel consumption translate to improved vehicle affordability for consumers, downward pressure on gas prices, and less exposure to oil shocks. These benefits dwarf any speculative, short-term savings on vehicle purchase prices, which are more than offset by the increased fuel costs caused by less fuel-efficient vehicles.

NHTSA's Proposal contains four alternatives for passenger cars and light trucks for model years (MY) 2027–2031. 90 Fed. Reg. at 56,446. The different alternatives are defined by a starting point as a compliance share of the MY2022 fleet and then small, year-over-year stringency increases.[2] All three alternatives are significantly less stringent than the existing standards,[3] and adopting any of these alternatives would harm our States and Cities.

As NHTSA found in the June 2024 final rule *Corporate Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027 and Beyond*, the existing standards generate fuel savings that exceeded the technology costs necessary to comply with the standards. 89 Fed. Reg. 52,540, 52,550 (June 24, 2024) (2024 Rule). Under the standards, drivers benefited from lower costs but also increased mobility and fewer refueling events. 89 Fed. Reg. at 52,742. NHTSA acknowledges in the Proposal that under all three proposed alternatives, consumers will spend more on fuel, 90 Fed. Reg. at 56,609, and suffer reduced mobility and greater frequency of

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2 For passenger cars, Alternative 1 starts at 80% compliance share and then increases by 0.50% per year for MY 2023-2026, 0.1% for MY 2027, 0.3% for MY 2028, and 0.25% per year for MYs 2029–31; Alternative 2 starts at 75% compliance share and then increases by 0.50% per year for MYs 2023–2026, 0.35% for MY 2027, 0.25% for MY 2028, and 0.25% per year for MYs 2029–31; and Alternative 3 starts at 70% compliance share and then increases by 0.50% per year for MYs 2023-2026, 1.4% for MY 2027, 1.5% for MY 2028, and 1% per year for MYs 2029–31. For light trucks, Alternative 1 starts at 80% compliance share and then increases by 0.50% per year for MYs 2023–2026, 0.8% for MY 2027, 0.6% for MY 2028, and 0.25% per year for MYs 2029–2031; Alternative 2 starts at 70% compliance share and then increases by 0.50% per year for MYs 2023–2026, 0.7% for MY 2027, 0.25% for MY 2028, and 0.25% per year for MYs 2029–31; and Alternative 3 starts at 50% compliance share and increases by 0.50% per year for MYs 2023–2026, 0.4% for MY 2027, 0.2% for MY 2028, and 1% per year for MYs 2029–2031. 90 Fed. Reg. at 56,446.

3 For passenger cars, the no-action alternative would increase the MY 2022 standards by 1.5% for MY 2023, 8% per year for MYs 2024–2025, 10% for MY 2026, and 2% for MYs 2027–2031. For light trucks, the no-action alternative would increase the MY 2022 standards by 1.5% for MY 2023, 8% per year for MYs 2024–2025, 10% for MY 2026, 0% per year for MYs 2027–2028, and 2% per year for MYs 2029–2031. 90 Fed. Reg. at 56,446.

refueling events, 90 Fed. Reg. at 56,514. Although NHTSA concludes that these costs are outweighed by the benefits of the Proposal, this conclusion is arbitrary and capricious for reasons discussed below.

Improved fuel economy benefits consumer welfare beyond reduced fuel expenditures for drivers who purchase new, more fuel-efficient cars. As NHTSA recognizes, the Proposal will increase gasoline consumption in the United States as manufacturers produce less fuel-efficient fleets. *See* 90 Fed. Reg. at 56,609. The "resulting increase in global petroleum demand will exert some upward pressure on worldwide prices," tending to raise gas prices for all drivers. *Id.* at 56,515 (the Proposal's). Our States and Cities have an interest in consumer well-being and income inequality, both of which are strongly influenced by prices at the pump. *Contra id.* at 56,515 (asserting that the financial consequences of rising petroleum prices "are transfers that do not affect economic welfare"). In addition, the domestic demand for petroleum exposes consumers and the broader U.S. economy to potentially devastating oil price shocks. *Id.*; 89 Fed. Reg. at 52,848. Stronger fuel economy standards and lower fuel consumption insulate the United States, including our States and Cities, from these effects. *See* 89 Fed. Reg. 52,848.

2. Reduced fuel use improves national security

Our States and Cities also recognize that reduction in fuel use benefits our nation's security. Experts have noted numerous foreign policy costs that arise from the domestic consumption of foreign oil, including: vulnerability to disruptions in oil supply; political realignment that limits U.S. alliances and partnerships; an increase in the power of oil-exporting countries to enact policies that are contrary to U.S. interests; and the maintenance of U.S. military presence in the Middle East arising from interest in protecting oil interests. 89 Fed. Reg. at 52,829 (citing Council on Foreign Relations, *National Security Consequences of U.S. Oil Dependency* (Oct. 2006).[4]) By reducing fuel use, strong fuel economy standards strengthen the United States' resilience to supply disruptions, lower the costs of safeguarding the U.S. oil supply, and reduce revenue to regimes that are opposed to U.S. interests. *Id.* at 52,829–30.

3. Effective CAFE standards enhance technological innovation, global competitiveness, and consumer choice

A robust CAFE program is important to the long-term success of the American automotive industry, including its supply chains, which our States and Cities have invested heavily in supporting. In today's global automotive market, the most cutting-edge technological innovations shaping the future of the industry—and American competitiveness within that industry—are electric and hybrid powertrain technologies, which reduce the consumption of gas and diesel fuel. Moreover, many global markets in which U.S. automakers compete have prioritized electric and hybrid vehicles. A robust CAFE program provides a stable policy signal supporting the U.S. auto industry's investment in electric and hybrid vehicles that make U.S.-made vehicles cheaper and better to drive.

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[4] Available at https://cdn.cfr.org/sites/default/files/report_pdf/0876093659.pdf.

Decades of economic research confirm that well-designed fuel-economy standards and environmental regulations foster technological innovation.[5,6,7] Several factors explain this effect: the right form of regulation reduces firms' uncertainty that investments in beneficial technology will be valuable; creates legal and economic incentives that motivate innovation and progress; levels the transitional playing field among competitors within the regulated industry; and corrects organizational or market failures that prevent private firms from making profit-maximizing decisions about investments in research and development.[8] These innovation benefits are most likely to occur where the regulation is designed flexibly enough to leave the technical approach to industry, fosters continuous improvement, and minimizes uncertainty at every stage.[9]

The CAFE program is just such a regulatory program primed to induce innovation. In particular, the fleet-average standards, supported by credit banking and intermanufacturer trading, create the flexible, performance-based targets likeliest to foster innovation. And the CAFE program's fifty-year history demonstrates that steady progress and regulatory stability that produces the technological innovation and competitiveness that Congress envisioned for the U.S. auto industry. A stabler regulatory landscape—one that avoids the ideological seesawing of successive rollbacks and stringency increases, and instead provides a steady policy signal to guide effective investments in vehicle technologies—is the critical missing piece for the auto industry.

Technological innovation not only benefits American industrial competitiveness; it also enhances consumer choice. Specifically, a CAFE program aligned with the steady growth of electric and hybrid vehicles enhances the affordability, performance, and diversity of vehicles available to consumers. Electric vehicles and hybrids carry enhanced performance attributes that consumers value, such as fuel and maintenance savings; higher horsepower, responsiveness, and acceleration; and reduced noise.[10] Consumer research shows that, where EVs and hybrids are

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5 R. Rozendaal & H. Vollebergh, "Policy-induced innovation in clean technologies: Evidence from the car market," *J. Ass'n of Envt. & Resource Economists* (2024), https://doi.org/10.1086/731834.

6 S. Ambec et al., "The Porter Hypothesis at 20: Can Environmental Regulation Enhance Innovation and Competitiveness?" (Jan. 2011), at 7–10, https://www.journals.uchicago.edu/doi/abs/10.1093/reep/res016?journalCode=reep.

7 S. Houde & C. Spurlock, Lawrence Berkeley Nat'l Laboratory, *Do Energy Efficiency Standards Improve Air Quality? Evidence from a Revealed Preference Approach* (Jun. 2015), at 4, 34, https://eta-publications.lbl.gov/sites/default/files/lbnl-182701.pdf (showing U.S. energy efficiency standards for appliances from 2001–2011 improved product quality while prices remained stable or decreased, and observing, "standards reduce product differentiation in the regulated dimension"—i.e., energy efficiency—"which increases competition among products and incentivizes firms to further differentiate by expanding quality").

8 Ambec et al. (2011)*, supra* note 6, at 3, 5–6.

9 *Id.* at 10–12 (reviewing studies of market-based mechanisms, performance standards, and other flexible regulations).

10 EPA, *2024 EPA Automotive Trends Report* (Nov. 2024), at 32–34, https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P101CUU6.pdf; EPA, *Literature Review of U.S.*

available, consumers buy them, and often at a premium.[11] Those EV characteristics or concerns that have historically inhibited adoption—purchase price differential, range anxiety, charging time, cold-weather performance—do not represent inherent limitations of EV technology, as demonstrated by EV successes in regions that have supported those technologies: consider China's 1,000-mile range EVs[12] and five-minute chargers.[13] Purchase price parity, greater ranges, faster charging times, and improved cold-weather performance are a matter of technological innovation, production experience, and economies of scale.[14] Thus, a regulatory regime that enhances real consumer choice is one that promotes and rewards innovation in this cutting-edge vehicle technology, not one that protects legacy technology at the expense of innovation.

4. Reducing fuel demand carries crucial benefits in fighting climate change, reducing smog and other air pollution, and mitigating health and environmental disparities

Fuel-economy regulations not only directly improve consumer welfare, but also deliver important environmental benefits by reducing the pollution associated with gas and diesel fuel consumption, transportation, extraction, and refining, including greenhouse gas emissions and "criteria" pollutants such as nitrogen oxides (NOx) and particulate matter (PM). 89 Fed. Reg. at

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Consumer Acceptance of New Personally Owned Light Duty Plug-in Electric Vehicles (Jan. 2023), at 20, EPA-HQ-OAR-2022-0985-3985.

[11] C. Forsythe et al., "Technology Advancement is Driving Electric Vehicle Adoption," *Sustainability Science (PNAS)* 120:23 (2023), https://www.pnas.org/doi/epdf/10.1073/pnas.2219396120 (finding, given sufficient technological innovation, "even if all purchase incentives were entirely phased out, BEVs could still have a market share of about 50% relative to combustion vehicles by 2030, based on consumer choice alone").

[12] Danny Lee, "China's 1,000-Mile EVs Render Range Anxiety Obsolete," *Bloomberg* (June 2, 2025), https://www.bloomberg.com/news/newsletters/2025-06-02/china-s-1-000-mile-evs-render-range-anxiety-obsolete. Notably, Tesla sells a Model 3 with 513 miles of range in China, but not in the U.S. Brad Anderson, "Tesla's Longest Range EV Is Here But Not For You," *Carscoops* (Aug. 13, 2025), https://www.carscoops.com/2025/08/tesla-has-a-new-range-king-but-only-for-china/.

[13] *See, e.g.*, Claire Brown, "Why Can't the U.S. Build 5-Minute E.V. Chargers?" *N.Y. Times* (Aug. 19, 2025), https://www.nytimes.com/2025/08/19/climate/us-electric-vehicle-chargers-china.html (describing China's advantage in introducing fast EV chargers that provide hundreds of miles of range in roughly five minutes).

[14] Several lines of evidence indicate that China's vehicle regulations were crucial in spurring the technological innovation that produced these patents and lowered prices—not government subsidies alone. *See, e.g.*, Y. Deng et al., "Examining the Influence of Emission Standards on Green Innovation: A Study Across Automotive Supply Chain Entities: Firms, Suppliers, and Universities" (Jun. 30, 2024), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4716653; M. Totty, *Tough standards led to an increase in auto-related patents* (Apr. 17, 2024), https://anderson-review.ucla.edu/strict-emissions-rules-in-china-spur-automotive-innovations/; Stanford Center on China's Economy & Institutions, *It's Not Just Subsidies: How China's EV Battery Firms Learned Their Way to Dominance* (Aug. 15, 2025), https://sccei.fsi.stanford.edu/china-briefs/its-not-just-subsidies-how-chinas-ev-battery-firms-learned-their-way-dominance.

52,670–72, 52,827–29, 52,842–47. Strong CAFE standards are important to protecting the States and Cities and our residents from the worst effects of climate change, the health and environmental impacts of criteria pollution, and the health and environmental disparities exacerbated by both forms of pollution.

a. Climate change

The 2023 Fifth National Climate Assessment (NCA5) determined that the effects of climate change—including changes in temperature, precipitation, and sea level rise—are apparent in every region of the United States.[15] These changes contribute directly to the degradation of public health and wellbeing. An enormous body of scientific research affirms that human activity—primarily burning fossil fuels like gasoline and diesel fuel—is exacerbating climate change and harming public health and welfare and the environment across the United States. Summer 2024 was the hottest summer recorded in the Northern Hemisphere—breaking the previous record set in 2023.[16] Extreme summer heat driven by climate change is leading to increased rates of heat-related illness and death, particularly among populations vulnerable to high heat, including children, the elderly, low-income individuals, and workers.[17] Wildfires, which are fueled by hotter, drier conditions, are becoming one of the deadliest and most costly environmental threats in the country. A 2025 study found that particulate pollution ($PM_{2.5}$) from wildfires caused approximately 15,000 premature deaths in the United States from 2006 to 2020, disproportionately impacting communities in the West and Midwest.[18] The study also found that the cumulative economic burden of climate change-related wildfire $PM_{2.5}$ mortality was $160 billion.[19] Another 2025 study found wildfire smoke, intensified by rising temperatures, is on track to kill an estimated 70,000 Americans each year by 2050.[20]

These changes and harms have had devastating effects on our States and Cities and our residents. Attached to these comments as Appendix 1 is a detailed discussion of the range and

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15 Allison R. Crimmins et al., U.S. Glob. Change Rsch. Program, *Fifth National Climate Assessment*, Ch. 1, at 1-6–1-7, fig. 1.1 (2023) ("NCA5"), https://repository.library.noaa.gov/view/noaa/61592/noaa_61592_DS1.pdf.

16 Sally Younger, NASA, "NASA Finds Summer 2024 Hottest to Date" (Sept. 11, 2024), https://perma.cc/V4UK-MZNP; NOAA, "Earth Had Its Hottest August in 175-Year Record" (Sept. 12, 2024), https://perma.cc/A7RW-A6FP.

17 Marina Romanello et al., "The 2024 Report of the Lancet Countdown on Health and Climate Change: Facing Record-Breaking Threats from Delayed Action," 404 *The Lancet* 1847–96 (2024), https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)01822-1/abstract https://perma.cc/R544-MTT5.

18 Beverly E. Law et al., "Anthropogenic Climate Change Contributes to Wildfire Particulate Matter and Related Mortality in the United States," 6 *Comms. Earth & Env't* 1, 2 (2025), https://perma.cc/QVF5-SQ7S.

19 *Id*.

20 Qiu, M. *et al.*, "Wildfire smoke exposure and mortality burden in the USA under climate change," *Nature* 647, 935–943 (2025), https://doi.org/10.1038/s41586-025-09611-w.

breadth of climate change impacts to our States and Cities. This subsection highlights just a few examples of these harms:

- In 2012, Superstorm Sandy brought strong winds, record storm tide levels, coastal flooding, and loss of power for 385,000 Massachusetts residents.[21] Massachusetts suffered an estimated $375 million in property losses alone.[22] In January 2018, the storm surge from a powerful winter storm caused major coastal flooding and resulted in a high tide in Boston of 15.16 feet, the highest tide since recordkeeping began in 1921.[23] Two months later, a March 2018 coastal storm resulted in a 14.67 foot tide in Boston, the third-highest on record.[24] That March 2018 coastal storm damaged 2,113 homes, including destroying 147 homes, and caused more than $24 million in flood damage across six Massachusetts coastal counties.[25] In Massachusetts, by 2050, sea levels along the southern coastal region are expected to rise over 2 feet, which will cause over 25 miles of road and more than 1,400 buildings in the region to flood every day at high tide.[26]

- In Northern California, a September 2022 heatwave reached record-breaking temperatures in 1,500 distinct places.[27] In Sacramento, "temperatures reached 116°F (46.7°C), their highest temperatures since record-keeping began in 1899 . . . . The Sacramento record, which was previously 110°F (43.3°C), was broken by a significant margin."[28] 395 deaths were traced to this heatwave.[29]

- In the Pacific Northwest, a 2021 heatwave "shattered" temperature records, with "all-time highs of . . . 108°F (42°C) in Seattle, Washington."[30] The temperature hit 115°F in

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[21] Nat'l Ctrs. for Env't Info., NOAA, "Massachusetts State Climate Summary," at 4 (2022), https://perma.cc/N6HR-DXX8.

[22] *Id*.

[23] Martin Finucane, "It's Official: Boston Breaks Tide Record," *Boston Globe* (Jan. 5, 2017), https://perma.cc/QT6D-A8LH?type=standard.

[24] Christina Prignano, "The Noon High Tide Was Bad, but the Midnight High Tide Could Be Worse," *Boston Globe* (Mar. 2, 2018), https://perma.cc/FQM8-X4FN.

[25] Christian M. Wade, "Baker Seeks Federal Disaster Funds for Storm Damages," *Lawrence Eagle-Trib.* (May 1, 2018), https://perma.cc/GT7L-XCHK.

[26] Barbara Moran, "Rising seas threaten Mass. South Coast and prosperous fishing port, report finds. Here are 5 takeaways," *WBUR* (Sept. 19, 2022), https://perma.cc/P7AS-J8EU.

[27] Cal. Dep't of Pub. Health, "Excess Mortality During the September 2022 Heat Wave in California," at 4 (2023), https://perma.cc/YU9L-8F6X.

[28] Sara E. Pratt, NASA Earth Observatory, "A Long-Lasting Western Heatwave" (Sept. 6, 2022), https://perma.cc/5NLP-Y92A.

[29] Cal. Dep't of Pub. Health, *supra* note 27, at 3.

[30] Emily Bercos-Hickey et al., "Anthropogenic Contributions to the 2021 Pacific Northwest Heatwave," 49 *Geophysical Rsch. Letters* 1 (2022), https://perma.cc/C5Z3-6ZXV.

Portland, Oregon, where during that time of year the typical temperature is 73°F.[31] These soaring temperatures ruined crops and caused roads to buckle.[32] "The heatwave led to more than 1,400 heat-related deaths, another severe wildfire season, mass die-offs of fishery species important to the region's economy and Indigenous communities, and total damages exceeding $38.5 billion."[33]

- In 2024, Phoenix, Arizona, experienced a record-breaking 70 days with temperatures at or above 110°F, and the city reached 100°F for 113 consecutive days, another record.[34] *See* App. 1 at 1.

- Since 2000, the Southwest has experienced a "megadrought"—defined as "an episode of intense aridity that persists for multiple decades"—that is recognized as the driest two decades in 1,200 years.[35] This drought has "drastically shrunk the Colorado River, which provides water for drinking and irrigation" for over 40 million people in seven states, 30 tribes, and Mexico.[36] *See* App. 1 at 27, 77.

- In 2018, California experienced the worst wildfire season in its recorded history. Over 24,226 structures were damaged or destroyed, and over 100 lives lost.[37] The Camp Fire alone resulted in damages of $16.5 billion.[38] And a 2021 drought in California "cost California farming sectors an estimate[d] $1.28 billion (in 2022 dollars)" and "the loss of 8,745 full or part-time jobs."[39] California's almond industry—which produces 80% of the world's supply—experienced a yield 10% lower than the preceding year.[40]

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31 Neil Vigdor, "Pacific Northwest Heat Wave Shatters Temperature Records," *N.Y. Times* (June 30, 2021), https://perma.cc/5JXR-XEQZ.

32 Bercos-Hickey et al., *supra* note 30, at 1.

33 NCA5, *supra* note 15, at 1-19.

34 Hayleigh Evans, "Arizona Weather Wrapped: A Broken Record of Broken Records in Phoenix During 2024," *Ariz. Republic* (Dec. 21, 2024, 6:02 AM MT), https://perma.cc/2CBH-5F3R.

35 A. Park Williams et al., "Rapid Intensification of the Emerging Southwestern North American Megadrought in 2020–2021," 12 *Nature Climate Change* 232–34 (2022), https://perma.cc/XZ8D-Q8W7.

36 Jennifer Weeks, "The Colorado River Drought Crisis: 5 Essential Reads," *The Conversation* (Apr. 13, 2023, 8:26 AM ET), https://perma.cc/6WKK-Q4ZG; "'Mega-drought' Takes Dramatic Toll on Colorado River System that Provides Water to 40 Million People," *CBS News* (June 9, 2021, 7:05 AM ET), https://perma.cc/4MS4-9LUF; National Integrated Drought Information System, NOAA, "National Conditions: Colorado," https://perma.cc/L9UX-QDE7.

37 Cal. Air Res. Bd. (CARB), 2022 Scoping Plan for Achieving Carbon Neutrality, 15–16 (Nov. 16, 2022), https://perma.cc/P8FH-82A8.

38 *Id*.

39 NCA5, *supra* note 15, at 28-19.

40 Adeel Hassan, "The Plains and Upper Midwest Are Growing Drier As Drought Deepens in the West," *N.Y. Times* (Aug. 23, 2022), https://perma.cc/C469-ZR6Z.

- In late September 2024, Hurricane Helene brought torrential rain to Western North Carolina, exceeding previous records for rainfall in the region and causing catastrophic and unprecedented damage.[41] North Carolina experienced over 30 inches of rainfall in some locations, and more than a thousand landslides.[42] As of June 17, 2025, 108 verified deaths in North Carolina were attributed to Helene.[43] The National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information estimates that Helene has caused $78.7 billion in damage.[44] *See* App. 1 at 87–88.

- Since the 2010s, when Tropical Storm Lee, Hurricane Irene, and Hurricane Sandy collectively killed over 50 people and caused billions of dollars in damage, New York State has continued to experience an increase in the intensity, duration, and frequency of hurricanes and tropical storm events. Tropical Storm Henri and Hurricane Ida occurred within two weeks of each other in 2021. Tropical Storm Henri broke several meteorological records in New York City, including the biggest two-day rainfall event since Hurricane Irene with 7.04 inches total.[45] Eight days later, Hurricane Ida shattered many of these records. Some parts of the City experienced 3.15 inches of rainfall in one hour, and the National Weather Service issued the first ever flash flood emergency for New York City.[46] In total, Hurricane Ida caused 17 deaths in New York State and 7.5 billion dollars' worth of damage, including flood damage to 11,000 homes.[47] *See* App. 1 at 82–83, 120.

- Illinois experienced twelve weather and climate disasters in 2024 that caused over a billion dollars of damage each.[48] Nine of these disasters were severe storm events. These storms included a July 15, 2024, "derecho" that produced 100 mile-per-hour winds and

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41 Andrew B. Hagen et al., *National Hurricane Center Tropical Cyclone Report: Hurricane Helene* (AL092024) 24-27 September 2024 at 1, 14–17, 22–26 (Apr. 8, 2025), https://perma.cc/JT6Z-V43D.

42 *Id.* at 14, 22–24.

43 N.C. Dep't of Health & Human Servs., "Hurricane Helene Storm Related Fatalities," https://perma.cc/4YAT-3Y7Q.

44 Hagen et al., *supra* note 41, at 19.

45 Andy Newman & Ellen Barry, "Tropical Storm Henri Brings Power Outages and Record Rain to Northeast," *N.Y. Times* (Oct. 28, 2021), https://perma.cc/Z7FX-U76J.

46 Jesus Jiménez, "New York City Faces the First 'Flash Flood Emergency' in Its History," *N.Y. Times* (Nov. 12, 2021), https://perma.cc/TAC5-4YH2.

47 Press Release, Kathy Hochul, N.Y. State Governor, "Governor Hochul Announces Hurricane Ida Recovery Action Plan to Assist New Yorkers Impacted by Deadly Storm" (Aug. 29, 2022), https://perma.cc/RA44-F78J.

48 Nat'l Ctrs. for Env't Info., NOAA, "Billion-Dollar Weather and Climate Disasters: Illinois Summary," https://perma.cc/MTD9-CRN5. Notably, the current Administration will cease recording billion-dollar weather incidents.

48 separate tornadoes.[49] In the Chicago area alone, the derecho produced 32 tornadoes, breaking the previous records set by the July 2014 "double derecho" and March 2023 storm.[50] *See* App. 1 at 47.

- A series of heavy rain and flooding events occurred over New England in July 2023 which dumped as much as 9 inches of rain on Vermont, at a time when rivers were high and soils were saturated from prior storms.[51] That storm caused catastrophic flooding in downtown Montpelier, the state's capital, and numerous other cities and towns. One year later, on July 10–11, 2024, the remnants of tropical cyclone Beryl converged with a stationary front, leading to heavy localized rainfall and riverine and flash flooding across northeastern and northwestern Vermont.[52] Rainfall exceeded 7 inches, with heavy thunderstorms resulting in heavy winds and large hail up to 1.5 inches in diameter. Numerous roads and bridges were impacted, or in some cases washed out, and more than 100 evacuations were conducted by local first responders or teams from Vermont Swift Water Rescue. At least two deaths are believed to have been caused by the flooding.[53] *See* App. 1 at 102.

- States across the United States have experienced an average of 18% decline in snowpack between 1950 and 2023, with especially pronounced declines in Washington, Oregon, and Northern California.[54] Not only does reduced snowpack impact tourism and winter sport economies in Colorado[55] and other states, but it also alters the volume and timing of streamflow that affects hydropower, irrigation, and availability of drinking water and increases the risk of wildfires.[56]

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[49] Nat'l Weather Serv.: Chi. Ill. Weather Forecast Off., NOAA, "July 15, 2024: Derecho Produces Widespread Wind Damage and Numerous Tornadoes," https://perma.cc/4EBT-4SRG; *see also* David Struett, "Tornado Record Broken with 27 Chicago Area Twisters July 15—Spawned by 'Ring of Fire'," *WBEZ Chi.* (July 24, 2024, 8:34 AM ET), https://perma.cc/4XBC-D7GU.

[50] *Id*.

[51] Seven Days Staff, "'Historic and Catastrophic': Unrelenting Rain Swamped Vermont's Cities, Towns and Hamlets. The Recovery is Just Beginning," *Seven Days* (July 19, 2023, 9:56 AM ET), https://perma.cc/2L2J-C8QC.

[52] John Goff, Brooke Taber & Pete Banacos, NOAA Nat'l Weather Serv., "The Significant Flooding and Severe Weather Event of 10-11 July 2024" (Aug. 10, 2024, 9:45 PM ET), https://perma.cc/U8VN-SAMP.

[53] Jenna Russell, "Flash Flooding Leads to Evacuations and Rescues in Central Vermont," *N.Y. Times* (July 11, 2024), https://perma.cc/HZ3V-7QDF.

[54] EPA, "Climate Change Indicators: Snowpack" (June 2024), https://perma.cc/6WP9-CRMG; *see also* Alexander R. Gottlieb & Justin S. Mankin, "Evidence of human influence on Northern Hemisphere snow loss," 625 *Nature* 293–300 (Jan. 10, 2024), https://perma.cc/6EDP-ZYZK.

[55] EPA, "Climate Change Connections: Colorado (Winter Sports)" (last updated Aug. 11, 2025), https://perma.cc/9MVG-DNCJ.

[56] *Id.*; *see also* NCA5, *supra* note 15, at 1-23.

- Coral reefs are currently undergoing the most severe bleaching event in history; ocean temperatures are rising such that *80%* of all corals on a reef are at risk of dying due to prolonged bleaching.[57] Coral reefs sustain upward of $10 trillion in value in connection with food, jobs, and coastal protection.[58] Similarly, abundant kelp forests like those off the coasts of California, Oregon and Washington State generate "an average of $500 billion" annually, considering the fisheries that kelp forests support, and the excess nutrients (which can be dangerous in large quantities)[59] that kelp forests absorb.[60] Like coral reefs, climate change is exacting a toll on kelp forests around the globe.[61]

- Ocean acidification also threatens coral and marine ecosystems throughout the coastal waters of the United States, with global oceans already experiencing an 18% increase in acidity between 1982 and 2022.[62] This acidification endangers the survival of the crab, lobster and scallop industries, whose fisheries total around $1.5 billion each year.[63] These impacts would particularly harm coastal and Indigenous communities who rely on these resources for their livelihoods and for their cultural significance.[64]

b. Criteria pollution

Our States and Cities also face major public health challenges caused by motor vehicle emissions of criteria pollutants and air toxics, such as fine particulate matter $PM_{2.5}$, nitrogen oxides (NO_x), and non-methane organic compounds, that would increase if NHTSA's Proposal is finalized.[65] Indeed, NHTSA's modeling shows that the Proposal would yield significant

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57 Int'l Coral Reef Initiative, "84% of the world's coral reefs impacted in the most intense global coral bleaching event ever" (Apr. 23, 2025), https://perma.cc/ZMY6-SHAV.

58 *Id.*

59 EPA, "Basic Information on Nutrient Pollution" (last updated Apr. 22, 2025), https://perma.cc/U2WG-QG45.

60 *See generally* Aaron Eger, "The Value of Ecosystem Services in Global Marine Kelp Forests," 14 *Nature Commc'ns*. 1–13 (2023), https://perma.cc/99WK-5T26.

61 Dan A. Smale, "Impacts of Ocean Warming on Kelp Forest Ecosystems," 225 *New Phytologist* 1447–52 (2020), https://perma.cc/7T7F-4BHM; *see also* NCA5, *supra* note 15, at 10-5.

62 Interagency Working Grp. on Ocean Acidification, *The United States Ocean Acidification Action Plan* 2 (Dec. 2023), https://perma.cc/Q4LM-XR38.

63 *Id.* at 5.

64 *Id*.

65 *See, e.g.*, Lake Mich. Air Dirs. Consortium, "Attainment Demonstration Modeling for the 2015 Ozone National Ambient Air Quality Standard: Technical Support Document" (Sept. 21, 2022), https://perma.cc/VR53-SGCS (Onroad mobile non-diesel sources are the largest contributor to ozone in all of Wisconsin's remaining 2015 ozone NAAQS nonattainment areas); EPA, "Current Nonattainment Counties for All Criteria Pollutant"s (May 31, 2023), https://perma.cc/ZS77-C53D (listing 19 of the 67 counties in Pennsylvania as nonattainment areas); EPA, "8-Hour Ozone (2008) Nonattainment Areas"

increases in $PM_{2.5}$, NO_x, and volatile organic compounds (VOCs).[66] These and other pollutants include known carcinogens and well-studied and regulated toxics that deteriorate the health of communities often already burdened by other health harms.

The fuel consumption and production associated with light-duty vehicles substantially contribute to the share of $PM_{2.5}$, NO_x, and other harmful air pollutants in the atmosphere. Criteria pollution such as NO_x, SO_x, and NH_3, and NO_x and VOCs are precursors to $PM_{2.5}$ and ozone, respectively.[67] 89 Fed. Reg. at 52,673. In some states and urban areas, tailpipe exhaust and/or refineries are the primary contributors of emissions of these harmful air pollutants.[68]

These pollutants both directly and indirectly contribute to a wide range of health harms. Exposure to $PM_{2.5}$ is causally related to premature mortality[69] and cardiovascular effects; consistently associated with asthma and chronic obstructive pulmonary disease exacerbation; and

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(May 31, 2023), https://perma.cc/TKL7-PBMN (listing New York, northern New Jersey, and Long Island area as Severe 15 for 8-hour ozone nonattainment).

66 Draft Supplemental EIS at 4-6 (Table 4.2.1-1).

67 *See* Margaret Zawacki et al., "Mobile Source Contributions to Ambient Ozone and Particulate Matter in 2025," 188 *Atmospheric Env't.* 129 (1994), https://perma.cc/M98P-JGAT.

68 *See*, *e.g*., Vt. Dep't of Env't Conservation, Agency of Nat. Res., "Mobile Sources," https://perma.cc/7YR5-FSP8 (mobile sources contribute approximately 50% of the NO_x emissions in Vermont); CARB, *2020 Mobile Source Strategy* 19–20 (Oct. 28, 2021), https://perma.cc/B6A8-25SS ("Every year, over 5,000 premature deaths and hundreds of illnesses and emergency room visits for respiratory and cardiovascular disease in California are linked to $PM_{2.5}$ pollution, of which more than half is produced by mobile sources."); CARB, *Discussion Draft 2025 Mobile Source Strategy* 15 (Oct. 11, 2024), https://perma.cc/RRE3-LZ4N ("mobile sources continue to contribute a majority of the NOx emissions, a significant precursor to ozone and PM"); McDuffie et al., "Source sector and fuel contributions to ambient PM2.5 and attributable mortality across multiple spatial scales," 12 *Nature Commc'ns* 1 (2021), https://perma.cc/Z992-QR6W ("[T]he transportation sector was the largest PWM PM2.5 source in the U.S.").

69 Karn Vohra et al., "Global mortality from outdoor fine particle pollution generated by fossil fuel combustion: Results from GEOS-Chem," 195 *Env't Rsch.* 1 (Apr. 2021) (Researchers "estimate[d] a global total of 10.2…million premature deaths annually attributable to the fossil-fuel component of $PM_{2.5}$."; Calvin A. Arter, et al., "Mortality-based damages per ton due to the on-road mobile sector in the Northeastern and Mid-Atlantic U.S. by region, vehicle class and precursor," 16 *Env't Rsch. Letters* 1–2, 5 (June 2021), https://perma.cc/YYF4-LZ3A ("The largest source of both $PM_{2.5}$ and O_3[ozone]-attributable premature mortalities are LDT [light-duty trucks] at 1234 and 1229 mortalities, respectively. LDT PPM emissions are responsible for 46% of $PM_{2.5}$ mortalities, and LDT NOx emissions are responsible for 80% of O_3 [ozone] mortalities."); *see also* Devin Henry, Stanford Univ. Doerr Sch. of Sustainability, *Identifying sources of deadly air pollution in the U.S.* (July 15, 2020), https://perma.cc/242W-5GN4 (air pollution responsible for 100,000 deaths annually in the United States, half of which come from fossil fuel combustion); Ekta Chaudhary et al., "Cumulative effect of PM2.5 components is larger than the effect of PM2.5 mass on child health in India," 14 *Nature Commc'ns* 1 (2023), https://perma.cc/C4VV-KKFP (Using multiple logistic regression, we showed that for every 10 μg m−3 increase in PM2.5 exposure, anaemia, acute respiratory infection, and low birth weight prevalence increase by 10% (95% uncertainty interval, UI: 9–11), 11% (8–13), and 5% (4–6)).

associated with negative birth outcomes, such as low birth weight and negative fetal growth outcomes.[70] Exposure to NO_x is causally related to asthma exacerbation; likely causally related to respiratory effects; and possibly causally related to cardiovascular effects, mortality, diabetes, cancer, and birth defects. 88 Fed. Reg. 29,184, 29,214 (May 5, 2023). Exposure to ozone is causally related to respiratory effects, including lung function decrements, pulmonary inflammation, exacerbation of asthma, respiratory-related hospital admissions, and mortality; likely causally related to metabolic effects and complications due to diabetes; and possibly causally related to cardiovascular effects and central nervous system effects. *Id.* at 29,213–14.

Motor vehicles also emit air toxics like benzene and formaldehyde. For example, in the Northeast, mobile sources contribute 21% of benzene concentrations in the ambient air.[71] Benzene is a known carcinogen, with a particular link to leukemia, and accordingly poses a substantial danger to public health and wellbeing, given that "[e]xposure to benzene is highest in areas of heavy motor vehicle traffic."[72] Similarly, motor vehicles emit formaldehyde, a known carcinogen, that is also associated with chronic non-cancer and reproductive and developmental health effects.[73] NHTSA estimated that non-greenhouse gas emission reductions from the most recent CAFE standards would result in public health benefits of between $3.4 and $7.9 billion.[74]

c. Environmental justice

As explained above and more fully summarized in ***Appendix 1***, no region of the United States will be spared from the harms of climate change. But such harms will be especially pronounced in communities with environmental justice concerns and other vulnerable populations. These communities already bear the disproportionate burden of environmental harms and adverse health outcomes stemming from the longstanding cumulative impacts of multiple polluting sources[75] and exacerbated by climate change attributed to greenhouse gas

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70 *See* CARB, Comment Letter on Proposed Reconsideration of the National Ambient Air Quality Standards for Particulate Matter (June 29, 2020), https://perma.cc/ET42-Z5GE.

71 Cynthia H. Whaley, "How much does traffic contribute to benzene and polycyclic aromatic hydrocarbon air pollution? Results from a high-resolution North American air quality model centered on Toronto, Canada," 20 *Atmospheric Chemistry & Physics* 2911 (2020), https://perma.cc/S6C2-JX72.

72 Dep't of Health & Human Servs., *Report on Carcinogens*, 15th Ed., "Benzene" (2021), https://perma.cc/H5ZD-6C2J.

73 Ricardo Suarez-Bertoa et al., "Real-Time Measurements of Formaldehyde Emissions from Modern Vehicles," 15 *Energies* 1 (2022), https://perma.cc/TF75-SL9J.

74 NHTSA, Final Regulatory Impact Analysis: Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027 and Beyond and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030 and Beyond at 8-33, Figure 8-28 (June 2024), https://www.nhtsa.gov/sites/nhtsa.gov/files/2024-07/NHTSA-CAFE-2027-2031-HDPUV-2030-2035-Final-Environmental-Regulatory-Impact-Analysis.pdf (2024 FRIA).

75 EPA, *Interim Framework for Advancing Consideration of Cumulative Impacts* 4 (Nov. 2024), https://perma.cc/JP4K-CGE9 ("Environmental public health research has shown that the cumulative impacts of longstanding place-based inequalities in exposures to environmental hazards are significant, with health disparities linked to these inequalities" (citations omitted)); *see also* Rachel Morello-Frosch et

emissions from mobile and other sources.[76] Evidence-based studies and residents' lived experiences demonstrate that certain communities most commonly and acutely experience the impacts of both environmental injustice and the harms associated with climate change: communities of color;[77] Indigenous people and Tribal nations;[78] low-income,[79] rural,[80] and unincorporated communities;[81] communities in which a high proportion of residents speak a

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al., "Understanding the Cumulative Impacts of Inequalities in Environmental Health: Implications for Policy," 30 *Health Affs.* 879 (2011), https://perma.cc/JT6V-5Y3F; Council on Env't Quality, *The Second Annual Report of the Council on Environmental Quality* 191–96 (Aug. 1971), https://perma.cc/2K5J-UCTS.

[76] A. G. Berberian et al., "Racial Disparities in Climate Change-Related Health Effects in the United States," 9 *Current Env't Health Rep.* 451, 451–52 (2022), https://perma.cc/4BUF-7RMP; H. Orru et al., "The Interplay of Climate Change and Air Pollution on Health," 4 *Current Env't Health Rep.* 504, 504 (2017), https://perma.cc/GY2P-M4DW; *see also* NCA5, *supra* note 15, at Ch. 14: Air Quality.

[77] Christopher W. Tessum et al., "$PM_{2.5}$ Polluters Disproportionately and Systemically Affect People of Color in the United States," 7 *Sci. Advances* 1 (2021), https://perma.cc/DW4B-HAWZ; *see also* United Church of Christ Comm'n for Racial Just., *Toxic Wastes and Race in the United States: A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites* (1987), https://perma.cc/6L8E-E4GW; https://perma.cc/6L8E-E4GW; United Church of Christ Just. & Witness Ministries, *Toxic Wastes and Race at Twenty, 1987–2007* (2007), https://perma.cc/SM6W-A7DD.

[78] U.N. Special Rapporteur, End of Mission Statement by the United Nations Special Rapporteur on the Rights of Indigenous Peoples, Victoria Tauli-Corpuz of Her Visit to the United States of America (Mar. 3, 2017), https://perma.cc/UQ6P-CSFK.

[79] Ihab Mikati et al., "Disparities in Distribution of Particulate Matter Emission Sources by Race and Poverty Status," 108 *Am. J. Pub. Health* 480 (n2018), https://perma.cc/Z9CZ-UXLE; Qian Di et al., "Air Pollution and Mortality in the Medicare Population," 376 *New Eng. J. Med.* 2513 (2017), https://perma.cc/F3J7-7G8N.

[80] Monica Sanders, "Understanding Environmental Justice in Rural Communities," *Forbes* (Aug. 26, 2024, 9:30 AM ET), https://perma.cc/9EKS-564U.

[81] Cristina Gomez-Vidal & Anu Manchikanti Gomez, "Invisible and Unequal: Unincorporated Community Status as a Structural Determinant of Health," 285 *Soc. Sci. & Med.* 1 (2021), https://perma.cc/2UVF-SQA5.

language other than English;[82] people experiencing housing insecurity,[83] people with disabilities;[84] and LGBTQ+ people.[85]

Climate change worsens the problems faced by communities with environmental justice concerns. As described above, climate change will continue to increase the frequency and severity of extreme temperature events,[86] and the U.S. Environmental Protection Agency (EPA) has projected that heat-related mortality will increase even more in communities with environmental justice concerns.[87] EPA's information also highlights that the rising heat associated with climate change contributes to the already-damaging heat island effects that many cities face.[88] Heat further degrades air quality in historically redlined neighborhoods, leading to

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[82] Kelvin C. Fong et al., "The Intersection of Immigrant and Environmental Health: A Scoping Review of Observational Population Exposure and Epidemiologic Studies," 130 *Env't Health Persps.* 1 (2022), https://perma.cc/X36G-VTSX; Yoshira Ornelas Van Horne et al., "Toward Language Justice in Environmental Health Sciences in the United States: A Case for Spanish as a Language of Science," 131 *Env't Health Persps.* 1 (2023), https://perma.cc/3XNF-E8ZM.

[83] Chima Anyanwu & Kirsten M.M. Beyer, "Intersections Among Housing, Environmental Conditions, and Health Equity: A Conceptual Model for Environmental Justice Policy," 9 *Soc. Sci. & Human. Open* 1 (2024), https://perma.cc/C66L-TQY3; Mariya Bezgrebelna, et al., "Climate Change, Weather, Housing Precarity, and Homelessness: A Systematic Review of Reviews," 18 *Int'l J. Env't Rsch. Pub. Health* 1, 11 (2021), https://perma.cc/46Y9-28PA.

[84] Jayajit Chakraborty, "Disparities in Exposure to Fine Particulate Air Pollution for People with Disabilities in the US," 842 *Sci. of the Total Env't* 1 (2022), https://perma.cc/LMW8-MQK7; NAS, *Constructing Valid Geospatial Tools for Environmental Justice* 38–39 (2024), https://perma.cc/ZZ78-PU6U; Cadeyrn J. Gaskin et al., "Factors Associated with the Climate Change Vulnerability and the Adaptive Capacity of People with Disability: A Systematic Review," 9 *Weather, Climate & Soc'y* 801 (2017), https://perma.cc/GN46-3H49.

[85] Timothy W. Collins et al., "Environmental Injustice and Sexual Minority Health Disparities: A National Study of Inequitable Health Risks from Air Pollution Among Same-Sex Partners," 191 *Soc. Sci. & Med.* 38 (2017), https://perma.cc/6PM9-UCEP; Lindsay Mahowald & Ari Shaw, UCLA Sch. of L. Williams Inst., *Climate Change Risk for LGBT People in the United States* (2024), https://perma.cc/BSY7-DRLK.

[86] Intergovernmental Panel on Climate Change (IPCC), *Climate Change: 2023 Synthesis Report* 12, 14 (2023), https://perma.cc/PUK3-W57E; IPCC, *Climate Change 2022: Impacts, Adaptation and Vulnerability* 9, 13 (2022), https://perma.cc/QP68-4N5Z.

[87] EPA, *Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts* 35 (Sept. 2021), https://perma.cc/PJS8-WPZG ("In the cities analyzed, minorities and those with low income are more likely . . . to currently live in areas with the highest projected increases in temperature mortality from climate-driven changes in extreme temperatures.").

[88] EPA, "Heat Island Trends" (Feb. 13, 2025), https://perma.cc/KAL3-ESPU ("Climate change and heat islands interact in important ways. In many areas of the U.S., steadily increasing warming trends are intensifying already higher temperatures in heat island areas [and] is expected to worsen heat islands in the future.").

heat-related deaths, asthma diagnoses, and lost work.[89] Low-income households and households of color are less likely to have good insulation and efficient indoor climate control,[90] and so are more likely to face energy affordability challenges,[91] forego necessities such as food and healthcare to afford their energy bills,[92] and keep their homes at unsafe temperatures,[93] which has associated adverse health outcomes.[94] People with disabilities and seniors are also more likely to experience greater risks from extreme temperatures and a lack of electricity,[95] while energy poverty increases health risks overall.[96]

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89 *See Climate Change and Social Vulnerability*, *supra* note 87, at 8; Jeremy Hoffman, Vivek Shandas & Nicholas Pendleton, "The Effects of Historical Housing Policies on Resident Exposure to Intra-Urban Heat: A Study of 108 US Urban Areas," 8 *Climate* 1 (2020), https://perma.cc/K7UW-ZDPH.

90 *See* Luling Huang et al., "Inequalities Across Cooling and Heating in Households: Energy Equity Gaps," 182 *Energy Pol'y* 1, 10 (2023), https://perma.cc/4R7L-2N3C.

91 *See* Claire McKenna et al., "Heating with Justice: Barriers and Solutions to a Just Energy Transition in Cold Climates," 208 *Res., Conservation, & Recycling* 1, 9 (2024), https://perma.cc/2KXT-UH66; Marilyn Ann Brown et al., U.S. Dep't of Energy, *Low-Income Energy Affordability: Conclusions from a Literature Review* (Mar. 2020), https://perma.cc/6Q5L-29T4; Sanya Carley et al., Ind. Univ. Energy Just. Lab, "Household Energy Insecurity Survey, Winter 2021–2022" (2022), https://perma.cc/S9YF-8Y97.

92 Shuchen Cong et al., "Unveiling Hidden Energy Poverty Using the Energy Equity Gap," 13 Na*ture Commc'ns* 1, 22 (2022), https://perma.cc/P43C-2MSA; N.Y.C. Mayor's Off. of Sustainability & N.Y.C. Mayor's Off. for Econ. Opportunity, "Understanding and Alleviating Energy Cost Burden in New York City" (Aug. 2019), https://perma.cc/6CNA-TZAE.

93 Cong et al., *supra* note 92, at 2 ("As the effects of climate change manifest themselves in heatwaves and deep freezes, communities will need to adapt (i.e., reduce their risk of illness and death) by creating comfortable indoor temperatures within their homes. However … many vulnerable households who limit their energy consumption, potentially putting themselves at risk of heatstroke or hypothermia, may not qualify for energy poverty alleviation under current programs." (citations omitted)).

94 Limiting cooling usage puts people at risk of heat stroke and heat illness and limiting heat in cold temperatures may cause increased incidence of illness. *See*, *e.g*., Sally Ann Iverson et al., "Heat-Associated Mortality in a Hot Climate: Maricopa County, Arizona, 2006-2016," 135 *Pub. Health Reps.* 631–39 (2020), https://perma.cc/3MMJ-VV5T; Alan Barreca et al., "Adapting to Climate Change: The Remarkable Decline in the US Temperature-Mortality Relationship over the Twentieth Century," 124 *J. Pol. Econ.* 105 (2016), https://perma.cc/Y4VP-BQL6; Nat'l Energy Assistance Dirs.' Ass'n, "2005 National Energy Assistance Survey" (Sept. 2005), https://perma.cc/FMK5-GTM2.

95 Carli Friedman, "Unsafe Temperatures, Going Without Necessities, and Unpayable Bills: Energy Insecurity of People with Disabilities in the United States During the COVID-19 Pandemic," 92 *Energy Rsch. & Soc. Sci.* 1 (2022), https://perma.cc/2QFX-FNLZ; Marquisha Johns et al., Ctr. for Am. Progress, *Protecting Older Adults From the Growing Threats of Extreme Heat* (Aug. 22, 2024), https://perma.cc/6ZCB-NSFF.

96 Diana Hernández, "Understanding 'Energy Insecurity' and Why It Matters to Health," 167 *Soc. Sci. & Med.* 1 (2016), https://perma.cc/WDA6-3QAV; Eva Laura Siegel et al., "Energy Insecurity Indicators Associated With Increased Odds of Respiratory, Mental Health, And Cardiovascular Conditions," 43 *Health Affs.* 260 (2024), https://perma.cc/TDQ7-6X3Z.

The increasing frequency and intensity of extreme temperatures are also projected to cause labor disruptions in sectors such as agriculture and construction where people work outdoors or in indoor environments without air conditioning, leading to lost wages for already low-income populations and forcing workers to choose between losing essential pay and working in unsafe conditions.[97] Those same workers (and their families) are less likely to have access to quality healthcare, rendering them even more vulnerable to health risks from heat exposure.[98]

Climate change also will continue to cause an increase in the frequency and severity of extreme weather events and natural disasters in every region of the United States, causing deaths, displacement, and economic upheaval.[99] Communities with environmental justice concerns—such as communities of color and low-income communities—are disproportionately vulnerable to such events,[100] and they are less equipped to recover.[101] Climate change also will lead to an increased threat from infectious diseases,[102] and threaten food and water safety and security for Indigenous populations, many of whom rely "on the environment for sustenance or [] live in geographically isolated or impoverished communities" and so will "experience greater exposure and lower resilience to climate related health effects."[103] The impacts of climate change are particularly stark for people with disabilities, who face disproportionate health risks,[104] are often not fully considered in disaster planning, and are far more likely to be displaced by extreme weather events.[105] The climate change-fueled increase in extreme precipitation events will lead

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97 *See Climate Change and Social Vulnerability*, *supra* note 87, at 38.

98 *Id*.

99 2023 IPCC Synthesis Report, *supra* note 86, at 5–11.

100 Janet L. Gamble et al., U.S. Glob. Change Rsch. Program, *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*, "Ch. 9: Populations of Concern," at 248, 253 (2016), https://perma.cc/3E2S-ZRFA ("Given the relatively higher rates of cardiovascular and respiratory diseases in low-income urban populations, these populations are more sensitive to degraded air quality, resulting in increases in illness, hospitalization, and premature death. In addition, climate change can contribute to increases in aeroallergens, which exacerbate asthma, an illness that is relatively more common among some communities of color and low-income groups." (citations omitted)).

101 *See* NCA5, *supra* note 15, at Ch. 31, 11–14; Patrick Boyle, Ass'n of Am. Med. Colls., "Rural Americans Find Little Escape from Climate Change" (July 13, 2023), https://perma.cc/H9KC-SFVN; *see also* Gamble et al., *supra* note 100, at 249–50 ("For example, people with limited economic resources living in areas with deteriorating infrastructure are more likely to experience disproportionate impacts and are less able to recover following extreme events, increasing their vulnerability to climate-related health effects[.]").

102 2023 IPCC Synthesis Report, *supra* note 86, at 6–7, 15; Gamble et al., *supra* note 100, at 253 (describing the impacts of climate change on vector-borne diseases and water-related illness).

103 Gamble et al., *supra* note 100, at 253.

104 Nakyung Rhim et al., "Adverse Health Effects of Climate Change and Air Pollution in People with Disabilities: A Systematic Review," 46 *Epidemiology & Health* 1 (2024), https://perma.cc/3PMN-CAV5.

105 Ash Reynolds, "Disability Amid Disaster: People with Disabilities Are Disproportionately Impacted by Natural Disasters," *NBC News* (Feb. 23, 2025, 3:10 PM ET), https://perma.cc/W8WM-SQ8F.

to increased exposure to water-born pollutants and illnesses,[106] to which communities with environmental justice concerns are also particularly vulnerable.[107]

Climate impacts impede communities' ability to recover from the historic and ongoing disproportionate location of pollution sources,[108] toxic sites,[109] transportation infrastructure,[110]

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[106] Juli Trtanj et al., U.S. Glob. Change Rsch. Program, *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*, "Chapter 6: Climate Impacts on Water-Related Illnesses" at 158 (2016), https://perma.cc/8SXM-P92J.

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

[108] Landfills and incinerators, industrial facilities, concentrated agricultural operations, and other pollution sources have been and continue to be concentrated in communities of color, low-income communities, and Indigenous communities. *See* Ana Isabel Baptista et al., Tishman Env't & Design Ctr. at The New Sch., *U.S. Municipal Solid Waste Incinerators: An Industry in Decline* 13–16 (May 2019), https://perma.cc/ZNJ7-VA4V; Robert D. Bullard et al., "Toxic Wastes and Race at Twenty: Why Race Still Matters After All of These Years," 38 *Env't L.* 371 (2008), https://perma.cc/PXJ3-9263; Jill Johnson & Lara Cushing, "Chemical Exposures, Health, and Environmental Justice in Communities Living on the Fenceline of Industry," 7 *Current Env't Health Rep.* 48 (2020), https://perma.cc/T7XZ-RHLH. The impacts of such facilities are exacerbated by extreme weather. *See* Orru et al. (2017), *supra* note 76, at 504.

[109] NCA5, *supra* note 15, at Ch. 9, 9-14 ("[C]ontaminated sites, such as Superfund sites, face increasing exposure to rising groundwater and flood damages, which could lead to future public health and environmental concerns if buried contaminants are mobilized and enter groundwater or river systems[.]"); NCA5, *supra* note 15, at Ch. 15, 15-13 ("[A]bout 70% of Superfund sites . . . are located within one mile of federally assisted housing, which disproportionately houses people of color, individuals with low wealth, and those with disabilities." (citations omitted)); U.S. Gov't Accountability Off., GAO-21-555T, "Superfund: EPA Should Take Additional Actions to Manage Risks from Climate Change Effects" (May 13, 2021) (Statement of J. Alfredo Gómez, Dir., Natural Res. and Env't), https://perma.cc/7UEX-A3R4.

[110] Deborah N. Archer, "Transportation Policy and the Underdevelopment of Black Communities," 106 *Iowa L. Rev.* 2125, 2131–48 (2021), https://perma.cc/C85R-9984.

and underinvestment,[111] all while widening the wealth gap.[112] At the same time, communities with environmental justice concerns experience disparities in access to benefits that support environmental and public health, mitigate the worst impacts of climate change, and assist in recovering from disasters. These disparities exist for a wide range of infrastructure and resources, such as clean drinking water and sanitation,[113] affordable and reliable energy,[114] transportation,[115] housing,[116] food access,[117] health care,[118] and disaster mitigation and recovery

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[111] Neighborhoods formerly subject to explicitly racist federal housing policy known as "redlining," which made it difficult or impossible for Black and immigrant families to obtain mortgages and become homeowners, have less green space, higher impervious ground cover, and are subject to greater urban heat island effects. *See* David J. Novak, Alexis Ellis & Eric J. Greenfield, "The Disparity in Tree Cover and Ecosystem Service Values Among Redlining Classes in the United States," 221 *Landscape & Urb. Planning* 1 (2022), https://perma.cc/3CJ7-SVJE; *see also* Haley M. Lane et al., "Historical Redlining Is Associated with Present-Day Air Pollution Disparities in U.S. Cities," 9 *Env't Sci. Tech. Letters* 345 (2022), https://perma.cc/2SXW-F94M; Cesar O. Estien et al., "Historical Redlining Is Associated with Disparities in Environmental Quality Across California," 11 *Env't Sci. Tech. Letters* 54 (2024), https://perma.cc/4GA3-JQGU; Bev Wilson, "Urban Heat Management and the Legacy of Redlining," 86 *J. Am. Planning Ass'n* 443 (2020), https://perma.cc/9NMY-EQQB.

[112] Avery Ellfeldt & E&E News, "Climate Disasters Threaten to Widen U.S. Wealth Gap," *Sci. Am.* (Oct. 2, 2023), https://perma.cc/9QQ5-NTBS.

[113] Leila M. Harris et al., "Revisiting the Human Right to Water from an Environmental Justice Lens," 3 *Pol. Grps., & Identities* 660 (2015), https://perma.cc/DHW2-AD4Q; Dig Deep & U.S. Water Alliance, *Closing the Water Access Gap in the United States: A National Action Plan* 20–25 (2019), https://perma.cc/2C4P-8X42.

[114] Hernández, *supra* note 96; Ariel Drehobl, et al., *How High are Household Energy Burdens?* iii–iv (2020), https://perma.cc/Y8GA-QBYW.

[115] *See* Robert Bullard, "Addressing Urban Transportation Equity in the United States," 31 *Fordham U. L. J.* 1183 (2004), https://perma.cc/WJ7B-QAVZ; Stephanie Pollack et al., NE. Univ. Dukakis Ctr. for Urb. & Reg'l Pol'y, *The Toll of Transportation* (Nov. 2013), https://perma.cc/9WW9-NTE2; Brian S. McKenzie, "Neighborhood Access to Transit by Race, Ethnicity, and Poverty in Portland, OR," 12 City & Cmty. 134–55 (2013), https://perma.cc/8YMS-WDMG.

[116] Anyanwu & Beyer, *supra* note 83.

[117] *See, e.g.*, Lisa Powell et al., "Food Store Availability and Neighborhood Characteristics in the United States," 44 *Preventative Med.* 189 (2007), https://perma.cc/VXH8-Z7HL; Thomas A. LaVeist et al., Joint Ctr. for Pol. & Econ. Stud. Segregated Spaces, "Risky Places: The Effects of Racial Segregation on Health Inequalities" (Sept. 2011), https://perma.cc/55GC-LVHW; *see also* Alison Hope Alkon & Julian Agyeman, *Cultivating Food Just.: Race, Class, and Sustainability* 89, 93 (2011); *see* Mari Gallagher Rsch. & Consulting Grp., *Good Food: Examining the Impact of Food Deserts on Public Health in Chicago*, Executive Summary 2, 4 (2006), https://perma.cc/KU3L-9Q5N; Philip J. Landrigan et al., "Environmental Justice and the Health of Children," 77 *Mt. Sinai J. of Med.* 178, 179 (2010), https://perma.cc/VMB9-AUTP.

[118] Sarah Dewees & Benjamin Marks, First Nations Dev. Inst., *Twice Invisible: Understanding Rural Native America* 1 (Apr. 2017), https://perma.cc/9VLY-NX6F (indicating that 54% of Native American and Alaska Native people live in rural or small-town areas on or near reservations, areas which lack reliable access to healthcare and experience other economic and social disparities); Michael Gochfeld &

resources.[119] As discussed above, and in further detail in ***Appendix 1***, our States and Cities have faced myriad impacts from climate change in recent years. The increasing frequency, size, and intensity of such events have been conclusively tied to a warming planet as well as to widening environmental, health, and economic disparities for disadvantaged communities in our States and nationwide.[120] In short, our most vulnerable residents are experiencing widespread climate and environmental injustices. These harmful effects are reduced when actions are taken to cut greenhouse gas emissions,[121] and will only increase, along with associated disparities, in the absence of drastic emission reductions.

The CAFE program also produces important emission reductions at upstream pollution sources that disproportionately impact low-income communities and communities of color, including petroleum refineries and oil wells.[122] These facilities emit multiple air pollutants including NOx, $PM_{2.5}$, heavy metals, benzene, and formaldehyde, in addition to causing water contamination.[123] Proximity to these facilities is linked to a slew of health problems, such as

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Joanna Burger, "Disproportionate Exposures in Environmental Justice and Other Populations: The Importance of Outliers," 101 *Am. J. Pub. Health* S53 (2011), https://perma.cc/S3TC-LRZM ("Disparities in access to health information and health care are important aspects of the disproportionate burden faced by environmental justice communities. Poor access to health information and health care means less health promotion, less risk avoidance, a less healthy diet, and more adverse conditions that increase susceptibility to exposure."); Landrigan et al., *supra* note 117.

119 Christopher T. Emrich, Sanam K. Aksha & Yao Zhou, "Assessing distributive inequities in FEMA's Disaster recovery assistance fund allocation," 74 *Int'l J. Disaster Risk Reduction* 1 (May 2022), https://perma.cc/7YJ5-JZRF; Lidia Cano Pecharroman and ChangHoon Hahn, "Exposing disparities in flood adaptation for equitable future interventions in the USA," 15 *Nature Commc'ns* 1 (2024), https://perma.cc/DR79-65S4; Lauren Lee, "Racial Disparities Are Working Against Disaster Recovery for People of Color. Climate Change Could Make It Worse," *CNN* (Apr. 17, 2023, 8:03 AM ET), https://perma.cc/JTL2-TJBT.

120 David Herring, "What is an 'Extreme Event'?," Climate.gov (Oct. 29, 2020) https://perma.cc/2Z46-BNN7.

121 Sarah Whitmee et al., "Pathways to a Healthy Net-Zero Future," 403 *The Lancet Comm'ns* 67, 67 (Jan. 6, 2024), https://perma.cc/MCD9-L4FM.

122 A. Carpenter & M. Wagner, "Environmental Justice in the Oil Refinery Industry: A Panel Analysis Across United States Counties," *Ecol. Econ.* 159:101 (2019), https://www.sciencedirect.com/science/article/abs/pii/S092180091830586X; NAACP & Clean Air Task Force, *Fumes Across the Fence-Line: The Health Impacts of Air Pollution from Oil & Gas Facilities on African American Communities* (Nov. 2017), https://cdn.catf.us/wp-content/uploads/2017/11/21092330/catf-rpt-naacp-4.21.pdf; D.J. X. Gonzalez et al., "Historic Redlining and the Siting of Oil and Gas Wells in the United States," *J. Exposure Sci. Env't Epidemiology* 33:76 (Jan. 2023), https://pubmed.ncbi.nlm.nih.gov/35418707/.

123 R.A. Tavella et al., "A Review of Air Pollution from Petroleum Refining and Petrochemical Industrial Complexes: Sources, Key Pollutants, Health Impacts, and Challenges," *ChemEngineering* 9:13 (2025); D.J. X. Gonzalez et al., "Upstream Oil and Gas Production and Ambient Air Pollution in California," *Sci. Total Env't* 806 (2022), https://www.sciencedirect.com/science/article/pii/S0048969721053754; L. Markow, et al., Envt. Integrity Project, *Oil's Unchecked Outfalls: Water Pollution from Refineries and EPA's Failure to Enforce the*

cancers, chronic disease, and adverse birth outcomes, even after accounting for other demographic factors.[124] Census tract-level data from California demonstrate these concerns. For example, the census tracts near the California refinery with the largest output (the Marathon Refinery in Carson)[125] are overwhelmingly communities of color with high cumulative pollution burdens and adverse health outcomes:

Census Tracts near the Marathon Refinery in Carson, California[126]

Census Tract	People of Color	Pollution	Toxic Releases	Asthma	Heart Disease
6037294120	98.0%	93rd	99th	83rd	93rd
6037543306	92.4%	96th	99th	57th	52nd
6037543905	97.2%	84th	99th	72nd	77th
6037294110	90.5%	88th	99th	75th	83rd

Preserving a protective CAFE program is a critical piece of reducing these disparate health outcomes and environmental inequality for our residents.

B. Statutory and Regulatory History

1. Fuel-Economy Standard-Setting under EPCA

EPCA's fuel-economy program is designed to reduce the amount of petroleum-based fuels consumed by the nation's vehicles. *Ctr. for Auto Safety v. NHTSA*, 710 F.2d 842, 844 (D.C. Cir. 1983) (*Ctr. for Auto Safety I*) (EPCA was "a reaction to the energy shortage and resulting economic downturn that followed the oil embargo of 1973–1974"). To that end, Congress established CAFE standards requiring annual improvements in the average fuel economy of new passenger cars for MY1978–1980. Pub. L. No. 94-163, §§ 501, 502, 89 Stat. 871, 901–02 (1975). Starting with MY1981, Congress tasked NHTSA with establishing average fuel-

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Clean Water Act (2023), https://environmentalintegrity.org/wp-content/uploads/2023/01/Oils-Unchecked-Outfalls-03.06.2023.pdf.

124 J. Johnston & L. Cushing, "Chemical Exposures, Health, and Environmental Justice in Communities Living on the Fenceline of Industry," *Curr. Envtl. Health Rep.* 7:48 (2020), https://pmc.ncbi.nlm.nih.gov/articles/PMC7035204/pdf/nihms-1551486.pdf; S.B. Williams et al., "Proximity to Oil Refineries and Risk of Cancer: A Population-Based Analysis," *JNCI Cancer Spectrum* 4:6 (2020), https://pmc.ncbi.nlm.nih.gov/articles/PMC7691047/pdf/pkaa088.pdf.

125 Cal. Energy Comm'n, "California's Oil Refineries" (data as of Oct. 2024), https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/californias-oil-refineries.

126 Data from CalEnviroScreen 4.0, California Office of Environmental Health Hazard Assessment, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40. Metrics for overall pollution burden, toxic releases, asthma, and heart disease are the census tract's percentile ranking as compared to all census tracts in California, demonstrating that these census tracts are among those with the greatest pollution exposure and detrimental health impacts statewide.

economy standards at the "maximum feasible average fuel economy level" that the agency decides the manufacturers can achieve in each given model year. *Id.* § 502, 89 Stat. at 902–03, *now codified at* 49 U.S.C. § 32902(a).

The statute requires NHTSA to prescribe fuel-economy standards "for each model year" with no end date. 49 U.S.C. § 32902(a), (b)(1). But NHTSA may prescribe standards for only five model years at a time. *Id.* § 32902(b)(3)(B). This means that NHTSA must continuously reevaluate the industry's capabilities at least every five years. NHTSA may also revisit and update standards under two amendment provisions in subsections (c) and (g). *Id.* § 32902(c), (g).

Since the very first fuel-economy standards, NHTSA has determined the maximum feasible average fuel economy in two basic steps. First, NHTSA projects what the future fleet would look like if it made no change to current fuel-economy standards. Second, NHTSA "consider[s] what, if any, additional actions the manufacturers could take to improve their fuel economy" above that baseline. *See, e.g.*, 50 Fed. Reg. 40,528, 40,533–34 (Oct. 4, 1985); *see also* 42 Fed. Reg. 33,534, 33,535 (June 30, 1977). For EPCA's first three decades, NHTSA constructed the "no-action" baseline fleet by soliciting automakers' confidential product plans; in 2010, NHTSA began instead using the CAFE Model to simulate the baseline fleet based on public sales figures and market forecasts. 75 Fed. Reg. 25,324, 25,348–54 (May 7, 2010).

NHTSA's task during the second step is to determine how far automakers can improve their fleets' fuel economy *over* that baseline. 42 Fed. Reg. at 33,535 (adopting this improvement-over-baseline methodology instead of a "best in class" methodology). NHTSA does so, first, by identifying fuel-efficiency technologies like engine modifications, weight reductions, and aerodynamic and tire rolling improvements, and then, by evaluating these improvements against four factors set out in Section 32902(f): "technological feasibility," "economic practicability," "the effect of other motor vehicle standards of the Government on fuel economy," and "the need of the United States to conserve energy." *Id.* at 33,537–49; 49 U.S.C. § 32902(f). Using these factors, NHTSA determines the maximum feasible improvement over the baseline, which is the final standard.

2. The Alternative Motor Fuels Act of 1988 and its application to electric vehicles

Parallel to Congress's push for improved fuel economy, Congress steadily promoted the development of alternatives to the gas-fueled engine. In 1976, Congress enacted the Electric & Hybrid Vehicle Research, Development, and Demonstration Act (Demonstration Act), Pub. L. No. 94-413, 90 Stat. 1260, which declared it "the policy of Congress" to "facilitate, and remove barriers to, the use of electric and hybrid vehicles in lieu of gasoline- and diesel-powered motor vehicles, where practicable." 15 U.S.C. § 2501(b). Section 13(c) of the Demonstration Act tasked the Department of Energy with studying "incentives to promote broader utilization and consumer acceptance of electric and hybrid vehicle technologies." 90 Stat. at 1269. In 1980, Congress amended Section 13(c) to focus explicitly on incentivizing EVs through EPCA's fuel-economy program, Pub. L. No. 96-185, § 18, 93 Stat. 1324, 1336. The new Section 13(c) required new federal regulations for the calculation of what is now the "petroleum equivalency factor." *Id.*, *codified at* 15 U.S.C. § 2512(c).

Subsequently, Congress amended EPCA in the Alternative Motor Fuels Act of 1988 (AMFA), Pub. L. No. 100-494, 102 Stat. 2441, to incentivize, through the CAFE program, the introduction of clean vehicle technologies beyond EVs. AMFA thus provided that alcohol- and natural gas-powered vehicles should be factored into an automaker's fleet-average fuel economy using highly favorable multipliers, such that, for example, a car that drove 18 miles on one gallon of ethanol[127] would carry a 120 mpg fuel economy value. *See id.* § 6(a), 102 Stat. at 2448 (creating new EPCA § 513(a) and making one gallon of alcohol fuel equivalent to 0.15 gallons of petroleum fuel). AMFA also created a category for vehicles that ran on either gas or alternative fuels: a "dual energy automobile," which carried a fuel-economy value set at the simple average of its petroleum fuel economy and its alternative fuel economy value. *Id.* § 6(a), 102 Stat. at 2448, 2450 (creating EPCA § 513(b), (d), and (h)(1)(C)). With AMFA, automakers now had three ways to improve their fleet-average fuel economy to meet standards: by installing fuel-efficiency technologies on their gas vehicles, by building alternative-fueled vehicles, and by building dual energy automobiles.

AMFA tempered this potent incentive in two ways. First, it imposed a cap on the "maximum increase in average fuel economy" from dual energy automobiles, initially 1.2 mpg for MY1993–2004. *Id.* § 6(a), 102 Stat. at 2449 (creating EPCA § 513(g)). Second, it created the restriction that (as amended) is at the heart of NHTSA's "Resetting" strategy. In what is now Section 32902(f), under the four feasibility factors, AMFA barred consideration of the fuel economy of alternative-fueled vehicles and restricted how NHTSA may consider dual energy vehicles. *Id.* § 6(c), 102 Stat. at 2452 (amending EPCA § 502(e)). AMFA used similar language to restrict NHTSA's amendment of fuel-economy standards. *Id.* § 6(a), 102 Stat. at 2450 (creating EPCA § 502(g)(2)(B), which applied an equivalent restriction to "carrying out section 502(a)(4) and (f)").

In Section 7 of AMFA, Congress requested a report from NHTSA on how vehicle regulatory programs might be amended to further promote EVs. *Id.* § 7(a), 102 Stat. at 2452. Two years later, in the Energy Policy Act, Congress brought EVs under both the alternative-fueled vehicle incentive and its accompanying restriction established in AMFA, now using the defined term "dedicated automobiles" to refer to vehicles powered solely by alcohols, natural gas, electricity, and other non-petroleum fuels. Pub. L. No. 102-486, § 302, 106 Stat. 2776, 2868–71 (1992); *see* 49 U.S.C. § 32901(a)(1), (2), (8), (9).

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[127] Ethanol contains roughly two-thirds of the energy content of pure gasoline. U.S. Energy Info. Admin., "How much ethanol is in gasoline, and how does it affect fuel economy?", https://www.eia.gov/tools/faqs/faq.php?id=27&t=4 (last visited Jan. 30, 2026). In 1988, GM, Chrysler, and all Japanese automakers reported average gasoline fuel economies 27.2 mpg and higher, while Ford projected 26.5 mpg for its MY1989 fleet. 53 Fed. Reg. 39,275, 39,287–88 (Oct. 6, 1988). Eighteen mpg represents two-thirds of about 26.9 mpg.

3. The Energy Independence and Security Act of 2007

In 1994, Congress recodified its transportation statutes into their present location in Title 49. Pub. L. No. 103-272, 108 Stat. 745.[128] As part of that reorganization, the above-discussed provisions in Sections 502 and 513 of EPCA were redistributed into subsections of 49 U.S.C. §§ 32902 and 32905. Specifically, the restrictions AMFA placed on carrying out Section 502(e) (the four feasibility factors, now Section 32902(f)) and in Section 513(g)(2)(B) (the amendment provisions, now Sections 32902(c) and (g)) were consolidated into Section 32902(h), applicable to "carrying out subsections (c), (f), and (g) of this section." *Id.* § 1(e), 108 Stat. at 1061.

In 2007, Congress revisited EPCA's fuel-economy provisions in a substantive overhaul that brought the fuel-economy program into its present-day form. Energy Independence and Security Act, Pub. L. No. 110-140, 121 Stat. 1492 (EISA). First, EISA restructured the distinct standard-setting provisions for passenger and non-passenger automobiles. *Id.* § 102(a), 121 Stat. 1498–99. The new Section 32902(a) directed the Secretary of Transportation to "prescribe by regulation average fuel economy standards for automobiles manufactured by a manufacturer in that model year," with "[e]ach standard" set at "the maximum feasible average fuel economy that the Secretary decides the manufacturers can achieve in that model year." 49 U.S.C. § 32902(a). Subsection (b) created a new 35 mpg target for the combined fuel economy of passenger cars and light trucks in MY2020, but still subject to the "maximum feasible" criterion. *Id.* § 32902(b)(2).

Second, EISA significantly expanded the fuel-economy credits program into the modern trading program. Pub. L. No. 110-140, § 104, 121 Stat. at 1501–03. In its original form, the credits program allowed automakers to offset their statutory noncompliance penalties if they had exceeded fuel-economy standards within the previous model year. 15 U.S.C. § 2008(a)(3) (1976). EISA reconceived credits as tradeable instruments that automakers could bank for several model years or sell to their competitors as a compliance flexibility. *See* 49 U.S.C. § 32903. Consistent with AMFA's restriction on NHTSA's consideration of other alternative compliance mechanisms, EISA added a subparagraph to the new Section 32902(h), providing that NHTSA "may not consider, when prescribing a fuel economy standard, the trading, transferring, or availability of credits under section 32903." 49 U.S.C. § 32902(h)(3) (the Credit Restriction). Thus, automakers now had four ways to improve fleet-average fuel economy: installing fuel-efficiency technologies on gas vehicles, producing EVs or other alternative-fueled vehicles, producing dual-fueled vehicles, and using credits that they had earned or purchased. The final form of Section 32902(h) ensured that NHTSA could not consider the three latter flexibilities, but only the first, conventional compliance route, in "carrying out subsections (c), (f), and (g)."

Third, EISA directed NHTSA to establish a new "fuel efficiency improvement program" for commercial medium- and heavy-duty trucks, "designed to achieve the maximum feasible improvement." 49 U.S.C. § 32902(k); *see* Pub. L. No. 110-140, § 102(b), 121 Stat. at 1500–01. Given the diversity of designs, functionalities, and energy consumption of these vehicles, Congress did not specify a fleet-average standard or other structure for the medium- and heavy-

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[128] Congress expressly prohibited construing the reorganization as "making a substantive change" to the previous statutes. *Id.* at § 6(a), 108 Stat. at 1378.

duty (MDHD) program, but directed NHTSA to determine "appropriate" test methods, metrics, and compliance and enforcement protocols administratively. 49 U.S.C. § 32902(k)(2).

Finally, EISA imposed an additional standard on domestic automakers: the "minimum standard for domestically manufactured passenger automobiles," which is the greater of 27.5 mpg or "92 percent of the average fuel economy projected by the Secretary for the combined domestic and non-domestic passenger automobile fleets manufactured for sale in the United States by all manufacturers in the model year." 49 U.S.C. § 32902(b)(4); *see* Pub. L. No. 110-140, § 102(a)(2), 121 Stat. at 1499–1500. In effect, the domestic minimum ensures that U.S. automakers do not fall too far below the fuel economy of the entire national fleet, both domestic and foreign-made. *Id.*

C. Americans' Increasing Demand for Electric and Plug-in Hybrid Vehicles

Core to NHTSA's new "Resetting" strategy is a reinterpretation of the EV Restriction to exclude all consideration of electric vehicles from CAFE standard-setting. *See infra* Part III. As the electrified portion of the national fleet grows, the increasing disparity between the artificial fleet used to develop CAFE standards under NHTSA's reinterpretation and the actual national fleet subject to those standards will render the CAFE program wholly ineffective at improving petroleum fuel economy *or* incentivizing alternate fueled vehicles. *Infra* Part III.C.1. And despite the Administration's attacks on the EV industry, the market evidence shows that EVs and plug-in hybrids' share of the national fleet will continue to grow year after year—albeit less steeply—as battery prices fall and consumers become more familiar with EVs. That steady growth underscores both the long-term unworkability of NHTSA's EV Restriction and its conflict with congressional intent.

1. Consumer interest in electric vehicles remains strong in the United States despite the sunset of the federal EV tax credit

Year after year, U.S. market penetration of zero- and low-emitting vehicles has continued to rise: in 2020, EVs made up 2.3% of the U.S. vehicle market, but that figure nearly doubled in 2021 to 4.4%, increased to 9.5% in 2023, and increased again to 10.2% in 2024.[129] EVs also achieved the highest monthly market share on record for the United States in September 2025 at 12.9%.[130]

Recent survey data shows that 60% of American consumers would consider purchasing an EV, and that interest is even higher among younger generations.[131] In October 2025, the first

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[129] Alliance for Auto. Innovation, *Get Connected: Electric Vehicle Quarterly Report, Second Quarter, 2025* (Sept. 24, 2025), at 3, https://www.autosinnovate.org/posts/papers-reports/Get%20Connected%20EV%20Quarterly%20Report%202025%20Q2.pdf.

[130] J.D. Power, "U.S. Automotive Forecast for October 2025" (Oct. 23, 2025), https://www.jdpower.com/business/press-releases/jd-power-globaldata-forecast-october-2025.

[131] BMW Group, "New Consumer Survey Reveals Majority of Americans Are Still Open to Buying Electric Vehicles Despite Changing EV Market," (Jun. 5, 2024), https://www.press.bmwgroup.com/usa/article/detail/T0442867EN_US/new-consumer-survey-reveals-

full month after the expiration of the federal EV tax credit, the percentage of American consumers shopping for a new vehicle who reported they are "very likely" to consider an EV was 24.2%, which, combined with the 35.5% shoppers reporting "somewhat likely" interest, represent a solid majority of the new vehicle market, continuing the decade-long trend of increasing interest in EVs, plug-in hybrid electric vehicles (PHEVs), and other electrified vehicles.[132,133]

This consumer interest is reflected in EV sales figures post-dating the expiration of the federal tax credit in September 2025. Although EVs' record monthly retail share in September 2025 owes largely to consumers pulling ahead purchases to beat the tax credit's expiration,[134] the corresponding drop in EV retail share in the fourth quarter was limited, with the EV market stabilizing without federal incentives at around 9.5% of U.S. new vehicle sales from January through November 2025.[135] Analysts continue to predict steady, if slower EV growth over the remainder of the decade as battery costs fall and the build-out of public charging infrastructure continues, with 26%–27% EV share of new vehicle sales projected for 2030.[136]

2. The number and types of EV and PHEV models continue to grow

Meanwhile, automakers continue to expand the range of electric and hybrid vehicle options available to American consumers. EV market coverage—i.e., the availability of EV options in different segments of the vehicle market—increased to 59% in 2024, driven by a 58%

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majority-of-americans-are-still-open-to-buying-electric-vehicles-despite-changing-ev-market?language=en_US.

132 J.D. Power, "EV Sales Down, but Not Out: U.S. Consumer Interest Continues to Grow, Led by Current EV Lessees Coming Back to Market" (Nov. 7, 2025), https://www.jdpower.com/business/resources/ev-sales-down-not-out-us-consumer-interest-continues-grow-led-current-ev-lessees.

133 EPA, *Literature Review of U.S. Consumer Acceptance*, *supra* note 10, at 39; M. Singer, Nat'l Renewable Energy Laboratory, *The Barriers to Acceptance of Plug-in Electric Vehicles: 2017 Update* (Nov. 2017), https://doi.org/10.2172/1408997; S. Nicholson-Crotty et al., "Evolution of Plug-in Electric Vehicle Demand: Assessing Consumer Perceptions and Intent to Purchase over Time," *Transportation Research Part D: Transport and Environment* 70:94–111 (Mar. 2019), https://doi.org/10.1016/j.trd.2019.04.002.

134 J.D. Power, "U.S. Automotive Forecast for October 2025," *supra* note 130.

135 J.D. Power, "U.S. Automotive Forecast for December 2025" (Dec. 26, 2025), https://www.jdpower.com/business/press-releases/jd-power-globaldata-forecast-december-2025; Alliance for Auto. Innovation, *Stay Connected: EV Monthly Recharge, December 2025* (Dec. 23, 2025), https://www.autosinnovate.org/posts/papers-reports/Stay_Connected_12_2025.pdf.

136 Levi McAllister, Morgan Lewis, "2025 US Electric Vehicle Landscape: Market Growth and Regulatory Pressures" (Dec. 15, 2025), https://www.morganlewis.com/pubs/2025/12/2025-us-electric-vehicle-landscape-market-growth-and-regulatory-pressures; Robert Walton, "US electric vehicle sales are slowing amid policy shifts: BNEF," *Utility Dive* (June 18, 2025), https://www.utilitydive.com/news/us-electric-vehicle-sales-are-slowing-amid-policy-shifts-bnef/751079/.

increase in "mass market EVs."[137] In the fourth quarter of 2024, 155 different EV models were sold. There were 95 different battery-electric models sold comprising 26 car models, 52 utility vehicle models, 7 pickup models, and 10 van models. Fifty-seven PHEV models were sold comprising 24 car models, 32 utility vehicle models, and 1 van model. In the second quarter of 2025, light trucks (utility vehicles, minivans, and pickup trucks) constituted 79% of the EV market.[138]

While more technological progress is needed to ensure electric and hybrid vehicles meet the needs of all drivers, most EVs produced today offer more than enough range for a great majority of Americans.[139] Most consumers drive less than 75 miles per day, and while the average range for an EV is nearly 300 miles per full charge, there are currently over 50 battery-electric vehicles on the market with a range over 300 miles.[140,141,142] Recent studies have shown that, if current projections for technology development hold, when vehicles are offered with both gasoline and battery-electric powertrain options, by 2030 more than half of consumers would choose a battery-electric vehicle even without EV purchase incentives.[143] The study found that consumers value battery-electric vehicles with a range of 300 miles equivalent to or more than their gas-fueled counterparts.[144]

Over the next several years, automakers plan to release for sale in the U.S. a host of new EV models covering a wide scope of mass market vehicle types including sedans, hatchbacks, compacts, sport utility vehicles, pickup trucks, and sportscars.[145] The new EV offerings will

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137 J.D. Power, "U.S. Automotive Forecast for January 2025" (Jan. 23, 2025), https://www.jdpower.com/business/press-releases/jd-power-globaldata-forecast-january-2025.

138 Alliance for Auto. Innovation, *Electric Vehicle Quarterly Report, Second Quarter, 2025*, *supra* note 129, at 8.

139 *See* Christopher Mims, "I Drove an EV Deep Into the Wilderness. I Never Feared Running Out of Juice." *Wall Street Journal* (Aug. 22, 2025), https://www.wsj.com/business/autos/electric-vehicle-rivian-charging-infrastructure-b90be73a?st=vXSRon&reflink=desktopwebshare_permalink

140 BMW Group, "New Consumer Survey," *supra* note 131.

141 U.S. Dept. of Energy, Vehicles Tech. Off., "FOTW #1375, December 30, 2024: Median EV Range in Model Year 2024 Reached a Record High of 283 Miles per Charge" (Dec. 30, 2024), https://www.energy.gov/eere/vehicles/articles/fotw-1375-december-30-2024-median-ev-range-model-year-2024-reached-record.

142 Jonathan Elfalan, "Edmunds Tested: Electric Car Range and Consumption," *Edmunds* (Jul. 10, 2025), https://www.edmunds.com/car-news/electric-car-range-and-consumption-epa-vs-edmunds.html.

143 Forsythe, *supra* note 11, at 1, 6.

144 *Id.* at 6.

145 Caleb Miller, "Future Electric Vehicles: The EVs You'll Soon Be Able to Buy," *Car and Driver* (Feb. 14, 2025), https://www.caranddriver.com/news/g29994375/future-electric-cars-trucks/; Ford, "Q4 & Full Year 2024 Earnings Presentation" (2025), https://ford2022rd.q4web.com/files/doc_financials/2024/q4/Ford-Q4-2024-Earnings-Presentation.pdf (Ford E-Transit van accounted for 9% of transit sales in Q4 2024).

include an increasing number of affordable options expected to be priced in the $20,000 to $40,000 range.[146] These EVs will include improvements to battery range, acceleration, and other performance metrics that consumers value.[147] As discussed above, regulatory incentives like the CAFE program are important to spur automakers to improve these future offerings' affordability and performance.

3. Electric vehicles are becoming less expensive than combustion-engine vehicles

One of the primary drivers of increased consumer enthusiasm for electric vehicles is that the total cost of ownership (which takes into account fuel and maintenance costs) of an EV is on average lower than that of a combustion-engine vehicle.[148] EVs generally have fewer moving parts than their gas counterparts, which typically results in reduced costs for maintenance and repair due to having fewer serviceable parts and potential failures.[149] Accordingly, the average EV owner spends 60% less to power their vehicle over its lifetime.[150] As the differential in up-front purchase costs continues to drop—as of November 2025, a new EV was still, on average, priced about $5,000 higher than a gas-fueled vehicle[151]—purchase price parity is likely to begin occurring by the mid- to late-2020s for many vehicle segments and models. *See* 89 Fed. Reg. 27,842, 27,991 (Apr. 18, 2024) (EPA analysis of EV price projections in final rule setting multipollutant emission standards for MY2024–2032 light- and medium-duty vehicles). The growing second-hand market for light-duty EVs will also improve affordability.[152]

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146 Caleb Miller, "Future Electric Vehicles," *supra* note 145; Car and Driver, "Cheapest Electric Vehicles," https://www.caranddriver.com/rankings/best-electric-cars/cheapest; Rob Wile, "Bezos-backed Slate Auto unveils affordable EV truck," *NBC News* (Apr. 25, 2025), https://www.nbcnews.com/business/autos/bezos-backed-slate-auto-unveils-affordable-ev-truck-rcna203014; Michael Wayland, "Stellantis CEO says $25,000 Jeep EV coming to the U.S. 'very soon,'" *CNBC* (May 29, 2024), https://www.cnbc.com/2024/05/29/stellantis-affordable-jeep-ev.html.

147 Caleb Miller, "Future Electric Vehicles," *supra* note 145.

148 J.D. Power, "EV Sales Down, but Not Out," *supra* note 132 ("The number one reason EV owners select an EV over a gasoline-powered vehicle is expected lower running costs. In the majority of cases (86%), EVs end up delivering on that expectation.").

149 CARB, *Advanced Clean Fleets Regulation, Appendix G: Total Cost of Ownership* (Aug. 30, 2022), at § 4, G21–G23, https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/appg.pdf.

150 Steve Patton, "EV price parity with gas vehicles may be closer than we think," *Fortune* (Oct. 2, 2024), https://fortune.com/2024/09/13/ev-price-parity-gas-vehicles-automotive-trends/.

151 J.D. Power, "U.S. Automotive Forecast for December 2025," *supra* note 135.

152 Jack Ewing, "Used E.V. Sales Take Off as Prices Plummet," *N.Y. Times* (Sept. 13, 2025), https://www.nytimes.com/2025/09/13/business/used-electric-vehicles.html ("Used battery-powered vehicles often sell for less than comparable cars with internal combustion engines, making them a good deal even before calculating savings in maintenance costs and fuel."); Liz Najman, Recurrent Auto, "Used Electric Car Prices & Market Report – Q3 2025" (Jul. 9, 2025), https://www.recurrentauto.com/research/used-electric-vehicle-buying-report; Alliance for Auto.

The declining overall price of EVs is being driven in large part by decreasing battery prices. This downward trend in battery prices is, in turn, being caused by increased investment in domestic battery manufacturing capacity, potentially putting the purchase price of EVs in line with the price of owning a gas vehicle on an unsubsidized basis by 2026.[153]

EVs and other clean vehicles generally enjoy lower fueling and maintenance costs, reducing the total cost of ownership. Even without any federal or state EV incentives, the owner of an EV generally saves $6,600 to $11,000 relative to its combustion-engine counterpart over a six-year ownership period, across all vehicle types.[154] For light-duty vehicles, EVs are cheaper to fuel than gas-powered vehicles for every state and every passenger vehicle class—even in regions with lower gas prices or higher electricity rates.[155] Maintenance and service costs are also significantly lower for electric and hybrid vehicles across classes. *See* 89 Fed. Reg. at 27,859–60 (Table 8) ($10–16 billion in annualized maintenance and repair savings from MY2027–32 light- and medium-duty standards); 89 Fed. Reg. at 29,659, 29,716.

4. Global demand for clean vehicles is skyrocketing

Global demand for EVs continues to increase at a rapid pace, presenting an opportunity for domestic manufacturers to plug into a widening consumer base.[156] Electric vehicles accounted for approximately 20% of all cars sold globally in 2024, continuing the upward trend from 18% in 2023 and 14% in 2022.[157] The Chinese manufacturer BYD sold 4.27 million EVs

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Innovation, *EV Monthly Recharge, December 2025*, *supra* note 135, at 2 (noting used EV price decline to within $2,762 of gas models).

[153] Goldman Sachs, "Electric vehicle battery prices are expected to fall almost 50% by 2026" (Oct. 7, 2024), https://www.goldmansachs.com/insights/articles/electric-vehicle-battery-prices-are-expected-to-fall-almost-50-percent-by-2025.

[154] A. Isenstadt & K. Pennington, ICCT, *Tax Credits or No Tax Credits, EV Costs Are Projected to Keep Dropping* (Jul. 30, 2025), https://theicct.org/tax-credits-or-no-tax-credits-ev-costs-are-projected-to-keep-dropping-jul25/.

[155] S. Baldwin & J. Conness, Energy Innovation Policy & Technology, *Comparing the Cost to Travel: Electric Vehicle Fill-Up Savings by State* (Aug. 2023), at 1, https://energyinnovation.org/wp-content/uploads/EV-Fill-Up-Savings-by-State-2.pdf.

[156] Chris Marquette & Alex Guillen, "Auto experts doubt Duffy's CAFE standards review will lower prices," *E&E News* (Jan. 30, 2025), https://www.eenews.net/articles/auto-experts-doubt-duffys-cafe-standards-review-will-lower-prices/; Camila Domonoske, "Trump's pulling a U-turn on EVs, but not much has changed — yet," *NPR* (Jan. 30, 2025), https://www.npr.org/2025/01/30/nx-s1-5272749/donald-trump-ev-electric-vehicles-subsidies-auto-industry.

[157] IEA, *Global EV Outlook 2024* (Apr. 2024), at 17, available at: https://www.iea.org/reports/global-ev-outlook-2024; IEA, "More than 1 in 4 cars sold worldwide this year is set to be electric as EV sales continue to grow" (May 14, 2025), https://www.iea.org/news/more-than-1-in-4-cars-sold-worldwide-this-year-is-set-to-be-electric-as-ev-sales-continue-to-grow.

and plug-in hybrids in 2024, a 41% increase over its 2023 sales.[158] EV sales are on track to account for over a quarter of all cars sold globally in 2025 and to reach over 40% by 2030.[159] In China, the world's largest auto market, EV sales accounted for almost half of all sales in 2024.[160] EV sales continue to grow across the globe, including in markets outside the major EV markets.[161]

Concurrent with rising consumer demand, major global markets—including China, the European Union, and Canada—have enacted significant phase-downs of combustion-engine vehicles.[162] That means U.S. automakers will have to become global leaders in electrified vehicle technologies in the next ten years or lose some of their largest markets.[163] As discussed *supra* Part II.A.3, production experience, supported by stable and stringent CAFE standards, is the most effective way to ensure these iconic U.S. industries remain globally viable.

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158 Indrabati Lahiri, "Chinese EV giant BYD beats domestic layers to hit record 2024 sales," *Euro News* (Mar. 1, 2025), https://www.euronews.com/business/2025/01/03/chinese-ev-giant-byd-beats-domestic-players-to-hit-record-2024-sales.

159 IEA, "More than 1 in 4 cars sold electric," *supra* note 157; *see also* L. Fisher et al., McKinsey & Co., *Exploring consumer sentiment on electric-vehicle charging*, (Jan. 9, 2024), https://www.mckinsey.com/features/mckinsey-center-for-future-mobility/our-insights/exploring-consumer-sentiment-on-electric-vehicle-charging.

160 IEA, "More than 1 in 4 cars sold electric," *supra* note 157.

161 IEA, *Global EV Outlook 2024*, *supra* note 157, at 26–29.

162 Theo Leggett, "EU waters down plans to end new petrol and diesel car sales by 2035," *BBC* (Dec. 16, 2025), https://www.bbc.com/news/articles/crk78y7k8ezo (European Commission's new plan requires 90% of new car sales in 2035 to be zero-emission, rather than 100%); Jessica Murphy, "Carney pushes for 'Buy Canadian' policy and pauses EV targets for 2026," *BBC* (Sept. 5, 2025), https://www.bbc.com/news/articles/cdxqrgze0rno ("While the EV mandate from [2026] will be paused, the longer-term goals - 60% by 2030 and 100% by 2035 - will remain."); Sean Fleming, World Economic Forum, "China joins list of nations banning the sale of old-style fossil-fuelled vehicles" (Nov. 11, 2020), https://www.weforum.org/stories/2020/11/china-bans-fossil-fuel-vehicles-electric/.

163 For example, China was General Motors' top sales market from 2010 to 2023, but GM's market share collapsed as Chinese firms out-competed on battery-electric vehicles and plug-in hybrids. *See* Keith Bradsher, "G.M. Led in Chian for Years. Here's How It Ended Up 16th in Sales," *N.Y. Times* (Dec. 19, 2024), https://www.nytimes.com/2024/12/19/business/gm-china.html ("G.M. has not competed effectively in battery electric vehicles and plug-in hybrid cars. These models together accounted for 52.3 percent of the Chinese market in November [2024] … [but] less than 20 percent of G.M. sales this year – while its sales of gasoline-powered cars have halved."); Michael Wayland, "U.S. automakers like GM are rapidly losing ground in China, once an engine for growth," *CNBC* (May 6, 2024), https://www.cnbc.com/2024/05/06/us-automakers-like-gm-rapidly-lose-ground-in-china.html.

D. The States and Cities' Investments in Electric and Hybrid Transportation

1. States, local governments, and private companies are expanding EV charging and other alternative fueling infrastructure

Public and private actors are working in concert to develop a robust network of electric vehicle supply equipment (EVSE), especially EV charging infrastructure, to support anticipated levels of electric vehicle adoption. Private entities, including Ionna (a joint venture consisting of seven of the world's largest automakers), Electrify America, Francis Energy, Wallbox N.V., Blink, and EVgo have recently added a number of light-duty charging locations to their national networks, and announced that additional stations are on the way. Below are just a few examples:

- In 2024, Electrify America opened its 1,000th charging station in North America and grew its network of DC fast chargers to 4,800.[164]
- EVGo more than doubled the number of stalls served by 350 kW "fast-charging" chargers in 2024, and also increased the sites capable of serving at least six vehicles by 80% compared to the prior year.[165]
- Pilot, in collaboration with GM and EVgo, has expanded its charging network to more than 130 locations in more than 25 states, and since the start of 2025, Pilot has installed 12 new fast charging locations across ten states.[166,167]

Aside from public charging, 83% of EV owners in the U.S. have access to home charging.[168] In addition, major business chains have installed thousands of chargers for corporate fleets, employees, and customers.[169]

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164 Electrify America, "Press Kit: Fast Facts" (updated July 2025), https://media.electrifyamerica.com/press-kits/fast-facts; Patrick George, "Electrify America's 2024 Stats Reveal How The EV Market Is Blowing Up," *Inside EVs* (Mar. 5, 2025), https://insideevs.com/news/752565/electrify-america-2024-charging-sessions/.

165 EVgo, "EVgo Announces Major Network Enhancements Across Nationwide Fast Charging Network" (Aug. 14, 2024), https://www.evgo.com/press-release/evgo-announces-major-network-enhancements-across-nationwide-fast-charging-network/.

166 Chuck Ulie, "Pilot Continues Momentum With New Flagship, More Store Upgrades, EV Charging Growth," *CSP* (Apr. 3, 2025), https://www.cspdailynews.com/company-news/pilot-continues-momentum-new-flagship-more-store-upgrades-ev-charging-growth.

167 Scooter Doll, "GM, Pilot, and EVgo share progress updates, installing EV fast chargers across 25+ states," *Electrek* (Mar. 25, 2025), https://electrek.co/2025/03/25/gm-pilot-evgo-progress-updates-installing-ev-fast-chargers-25-states/.

168 IEA, *Global EV Outlook 2025* (May 2025), at 68, available at: https://www.iea.org/reports/global-ev-outlook-2025.

169 *See, e.g.*, Tom Moloughney, "Walmart Opens Up About Its EV Charging Network: Charge Better," *Inside EVs* (Apr. 24, 2025), https://insideevs.com/news/757648/walmart-ev-charging-network-revealed/ (Walmart plans to roll out 400 kW fast EV chargers at "thousands" of its locations by 2030).

States, local governments (including school districts), and public utilities have also continued to make substantial progress in building out their EV charging infrastructure. As of February 2025, the California Energy Commission reported that the State had over 178,000 total public and shared private EV chargers available for use, including 15,639 public DC fast chargers.[170] According to a U.S. Department of Energy report, Connecticut, New York, Utah, Delaware, and North Carolina expanded the number of available EV charging ports per 100 EVs by 40.2%, 15.4%, 13.2%, 13.1%, and 10.2%, respectively, in the second quarter of 2024.[171] These states represent the highest rate of growth, but public EV charging ports grew across the country by 6.5% in the second quarter of 2024.[172] As of April 2025, the New York Power Authority had surpassed the halfway mark of its goal to install 400 Evolve NY fast chargers by 2026.[173] New York as a whole had more than 21,200 public charging ports and 4,900 public charging stations, including over 5,800 DC fast charging ports.[174]

On top of that, States have continued to build on the early success of the National Electric Vehicle Infrastructure (NEVI) Formula Program. Created in the Infrastructure Investment and Jobs Act, the NEVI Formula Program appropriates $5 billion over fiscal years 2022 to 2026 to fund the construction of a nationwide network of EV charging infrastructure that improves the reliability and accessibility of electric vehicles. Pub. L. No. 117-58, 135 Stat. at 1421. According to the National Association of State Energy Officials, currently, thirty-eight states have issued over 1,000 awards under the NEVI funding program and ten states (Delaware, Michigan, Minnesota, North Carolina, Ohio, Pennsylvania, Rhode Island, Utah, Wyoming, and Vermont) have fully built out their designated electric vehicle Alternative Fuel Corridors.[175] All States increased their Alternative Fuel Corridors to total more than 81,000 miles.[176]

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[170] Cal. Energy Comm'n, "Electric Vehicle Chargers in California" (last updated Mar. 7, 2025) https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/electric.

[171] A. Brown et al., Nat'l Renewable Energy Laboratory, *Electric Vehicle Charging Infrastructure Trends from the Alternative Fueling Station Locator: Second Quarter 2024* (Nov. 2024), at 17–18, https://afdc.energy.gov/files/u/publication/electric_vehicle_charging_infrastructure_trends_second_quarter_2024.pdf.

[172] Id.

[173] Gov. Kathy Hochul, New York State, "Governor Hochul Announces an Additional $30 Million is Now Available to Lease or Purchase an Electric Vehicle in New York" (Apr. 18, 2025), https://www.governor.ny.gov/news/governor-hochul-announces-additional-30-million-now-available-lease-or-purchase-electric.

[174] Mohit Mendiratta, Atlas Public Policy, "EValuate NY: Charging" (2025), https://atlaspolicy.com/evaluateny/.

[175] National Association of State Energy Officials, *National Electric Vehicle Infrastructure (NEVI) Awards Dashboard,* https://evstates.org/awards-dashboard/.

[176] U.S. Joint Office of Energy & Transp., *National Electric Vehicle Infrastructure Formula Program: Annual Report: Plan Year 2023-2024*, DOE/EE-2972 (Aug. 2024), at 20, https://driveelectric.gov/files/nevi-annual-report-2023-2024.pdf (NEVI Annual Report 2024).

2. Domestic battery production is rapidly expanding

Recent investments by the federal and state governments have led to a boom in domestic battery manufacturing capacity. The IIJA provided $7.9 billion for battery manufacturing, battery recycling, and critical minerals production.[177] Recipients of $2.8 billion of IIJA funding matched the federal investment, leveraging this portion of the funding to a total of $9 billion to expand domestic production of critical minerals and manufacturing of batteries for electric vehicles.[178] California has offered $25 million in grant funds for projects that will promote in-state battery manufacturing for zero-emission vehicles.[179] And New York has invested more than $50 million to support the creation of Battery-NY, a technology development, manufacturing, and commercialization center in upstate New York.[180]

Those investments have led the number of battery production plants in the United States to increase from just two in 2019 to 34 either planned, under construction, or in operation.[181] Battery costs are also anticipated to decrease because of Inflation Reduction Act incentives, including manufacturer production tax incentives of $35 per kWh for U.S. production of battery cells, $10 per kWh for U.S. production of modules, and 10% of production cost for U.S.-made critical minerals and electrode active materials. 89 Fed. Reg. at 27,852. (Congress did not sunset this Inflation Reduction Act tax credit.) This rapid buildout of domestic battery manufacturing capacity is expected to continue driving down EV prices across the board while also creating jobs for the States and Cities' residents.

III. NHTSA's Reinterpretation and Proposed Application of the EV Restriction Is Contrary to Statute and Arbitrary and Capricious

Last summer, NHTSA released a direct final rule, "Resetting the Corporate Average Fuel Economy Program," 90 Fed. Reg. 24,518 (June 11, 2025) (the Resetting Rule), abandoning its longstanding interpretation of the EV Restriction. Under that prior, longstanding interpretation, NHTSA may not consider the three statutory compliance flexibilities enumerated in subsection

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177 Cong. Rsch. Serv., *Energy and Minerals Provision in the Infrastructure Investment and Jobs Act (P.L. 117-58)*, R47034 (Mar. 31, 2023), https://crsreports.congress.gov/product/pdf/R/R47034.

178 White House, "FACT SHEET: Biden-Harris Administration Driving U.S. Battery Manufacturing and Good-Paying Jobs" (Oct. 19, 2022), https://bidenwhitehouse.archives.gov/briefing-room/statements-releases/2022/10/19/fact-sheet-biden-harris-administration-driving-u-s-battery-manufacturing-and-good-paying-jobs/.

179 Cal. Grants Portal, *GFO-21-606 - Zero-Emission Vehicle Battery Manufacturing Block Grant*, https://www.grants.ca.gov/grants/gfo-21-606-zero-emission-vehicle-battery-manufacturing-block-grant/.

180 Gov. Kathy Hochul, New York State, "Governor Hochul Announces Nearly $114 Million in Federal and State Funding to Create First-In-Class Battery-NY Center at Binghamton University" (Sep. 2, 2022), https://www.governor.ny.gov/news/governor-hochul-announces-nearly-114-million-federal-and-state-funding-create-first-class.

181 Rebecca Bellan, "Tracking the EV battery factory construction boom across North America," *TechCrunch* (Feb. 6, 2025), https://techcrunch.com/2025/02/06/tracking-the-ev-battery-factory-construction-boom-across-north-america/.

(h)—the fuel economy values assigned to dedicated automobiles or dual-fueled vehicles and the use of credits—as means of improving average fuel economy when evaluating manufacturers' capabilities under the feasibility factors. 89 Fed. Reg. at 52,832–36. That reading ensures that CAFE standards may always be met by the conventional route: adding or upgrading fuel-efficiency technologies on gas vehicles. *Id.*

Without notice or any public comment process, NHTSA instead adopted in the Resetting Rule the interpretation that petroleum and biofuel industry interests had put forward in litigation, and which NHTSA had twice defended against. Because NHTSA never took public comment on this erroneous reinterpretation of the EV Restriction, and because NHTSA applies that reinterpretation in the Proposal, the State and Local Governments set out their objections to NHTSA's reinterpretation here.

The Resetting Rule construes the EV Restriction to mean that "NHTSA may not consider the fuel economy of [electric vehicles] in any respect and at any point in the process of setting fuel economy standards." 90 Fed. Reg. at 24,522. And in the Proposal, NHTSA applies that new construction even more expansively, to delete *all* real-world data about electric vehicles (not just their assigned fuel economy values) from the CAFE Model in its compliance simulation runs. In essence, NHTSA deletes over 4 million EV sales from its model and pretends those vehicles do not exist.

NHTSA's application of the EV Restriction is contrary to the best reading of Section 32902 and flouts principles of reasoned decisionmaking by using inputs NHTSA knows are wrong. *See Loper Bright Enters. v. Raimondo*, 603 U.S. 369, 400 (2024) (statutory provisions, "no matter how impenetrable, do—in fact, must—have a single, best meaning"); *Animal Legal Def. Fund, Inc. v. Perdue*, 872 F.3d 602, 619 (D.C. Cir. 2017) ("Reliance on facts that an agency knows are false at the time it relies on them is the essence of arbitrary and capricious decisionmaking"). First, NHTSA violates the statutory mandate to set fuel-economy standards based on realistic assessments of what automakers' entire fleets can achieve, instead erasing millions of actual EVs and historical EV sales from its data files. Second, NHTSA ignores Congress's choices (1) to apply subsection (h) restrictions only to NHTSA's activities "carrying out" three specific subsections, *not* to the entire standard-setting process, and (2) to prohibit consideration only of the compliance flexibility associated with EVs—their assigned fuel economy values—*not* consideration of electric vehicles altogether. 49 U.S.C. § 32902(h)(1). Third, NHTSA's reinterpretation and application of the EV Restriction defeats the statutory purpose and introduces conflicts between other provisions.

A. Under the reinterpreted EV Restriction, NHTSA's analysis relies on data it knows is wrong and modeling it knows is unrealistic

1. Section 32902 requires a realistic, forward-looking assessment of automakers' actual capabilities

Section 32902's text grounds fuel-economy standards in a forward-looking, realistic analysis. The statute's lodestar term, "maximum feasible," roots NHTSA's duties in practical, real-world evaluations of what fuel economy can be achieved in the future. *See* Webster's 3d New Int'l Dictionary 831 (1976) (defining "feasible" as "capable of being done, executed, or effected: possible of realization"); *Habecker v. Clark Equip. Co.*, 36 F.3d 278, 286 (3d Cir. 1994) (same definition); 42 Fed. Reg. 33,534, 33,536 (June 30, 1977) (inaugural CAFE standard-setting citing EPCA's conference report: "The term feasibility is used … in the strict sense, namely, 'capable of being carried out'"). The statute requires NHTSA to evaluate, at least 18 months in advance of each model year, "the maximum feasible average fuel economy level that … manufacturers *can achieve* in *that model year*," underscoring the need to determine automakers' actual capabilities in a specific future timeframe. 49 U.S.C. § 32902(a) (emphasis added); *see also* 90 Fed. Reg. at 56,521 (noting that "achieved" fuel economy values refer to "manufacturer capabilities" for each fleet in each model year).

That ordinary meaning of "feasible" is consistent with background administrative law principles of reasoned decisionmaking, which require agencies to use realistic models and the most accurate data available. *See, e.g.*, *Animal Legal Def. Fund*, 872 F.3d at 619; *Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1053 (D.C. Cir. 2001) ("While courts routinely defer to agency modeling of complex phenomena, model assumptions must have a rational relationship to the real world") (cleaned up).

The fuel-economy provisions also make clear that "maximum feasible" fuel-economy standards must reflect the capabilities of an automaker's *entire* fleet. That follows from the term "average fuel economy," which Congress defined according to the statutory calculation of an automaker's fleet average in Section 32904. 49 U.S.C. §§ 32901(a)(5), 32902(a). That calculation expressly "shall include" EVs' assigned fuel economy values. *Id.* § 32904(a)(2)(B) (agency "shall include in the calculation of average fuel economy … fuel economy values … for various classes of electric vehicles").[182]

The statutory text thus unambiguously charges NHTSA to set standards at the "maximum feasible" output of a formula that includes EVs' fuel-economy values. That text simply cannot be squared with NHTSA's Resetting Rule—just as one cannot speak of maximizing "adjusted gross income" without considering deductions, NHTSA cannot determine maximum feasible "average fuel economy" in a manner that excludes EVs from that average. *See* 26 U.S.C. § 62(a) (defining "adjusted gross income" as gross income minus specified deductions). Whatever the best reading of the EV Restriction is, *see infra* Part III.B., it cannot justify NHTSA *removing* what Congress directed NHTSA to *include*.

2. The Proposal distorts the feasibility analysis by erasing real-world information about EVs and EV sales from the CAFE Model

Contrary to the explicit directive to set maximum feasible standards based on automakers' entire fleets, NHTSA's Proposal considers only automakers' gas-fueled subfleet. 90 Fed. Reg. at 56,593. That requires stripping actual EV models and historical EV sales data out of the CAFE Model's input files—an unprecedented tampering with real-world data that NHTSA

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182 *See also id.* § 32902(a) (requiring standards for "automobiles manufactured by a manufacturer in [a] model year"); *id.* § 32901(a)(4) (defining "automobile manufactured by a manufacturer" to include "*every automobile* manufactured by a person that controls, is controlled by, or is under common control with the manufacturer" (emphasis added)).

never suggested was appropriate before the Resetting Rule. That removal of EV-related data in turn distorts NHTSA's feasibility analysis in several material ways.

Deletion of EVs from the baseline fleet and historical EV sales from input files

NHTSA itself recognizes the importance of using accurate data. NHTSA describes the Market Data Input File's "Vehicles" tab as "a characterization of the fleet of vehicle models each manufacturer produced for sale in the United States for MY 2024," called the "analysis fleet." 90 Fed. Reg. at 56,464. NHTSA identifies several modeling decisions it made in constructing this fleet to "improve[] the accuracy of the analysis," *id.*, such as separately including vehicle model variants, using the most recent real-world sales data, and using mid-year reports supplemented by NHTSA staff's research, *id.* at 56,461, 56,466–67. Thus, "the light-duty analysis fleet consists of every vehicle model in MY 2024 in nearly every configuration that has a different compliance fuel economy value." *Id.* at 56,467. That includes 336 battery-electric models, totaling 1,066,268 million sales in MY2024. *See* Reference Market Data Input File, Vehicles Tab, LD_ref.zip/input/market_data_LD_2024_ref.xlsx.

But in the "No-Action" Alternative—that is, the regulatory baseline[183]—all EVs and all EV sales have been erased. *See* Vehicles Report: Scenario 0, LD_ref.zip/output/reports-csv/vehicles_report_sn0.csv. So too in the three compliance simulations for Alternatives 1, 2, and 3. And in the spreadsheet "Historic [*sic*] Fleet Data," NHTSA has removed *2.9 million* EVs actually sold from MY2019 to MY2023 alone. *See* Reference Parameters File, Historic Fleet Data Tab, LD_ref.zip/input/parameters_ref.xlsx; *see also id.*, Economic Values Tab (removing historical vehicle miles traveled and fuel economy values associated with EVs); *id.*, DFS Model Values Tab (removing EVs from projections of light-duty fleet's passenger car share);[184] *see* Kenneth Gillingham, Alan Jenn, Colin Cunliff, and Sujata Rajpurohit, Analysis of NHTSA's Proposed "SAFE III" Corporate Average Fuel Economy Standards for MY2022–2031, at 9–20 (Feb. 4, 2025) (Gillingham et. al.).

The States and Cities have found no instance where NHTSA discloses this erasure in the NPRM or even the Draft TSD. The closest the NPRM comes is a statement that the analysis of the No-Action Alternative "also applies the statutory limitations in 49 U.S.C. 32902(h) in all model years in the analysis; specifically, the fuel economy of dedicated automobiles is not considered … ." 90 Fed. Reg. at 56,526, 56,528. Buried three hundred pages in the CAFE Model Documentation is a runtime setting that allows the user to "***Exclude BEV/FCV from analysis***:

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183 NHTSA describes the no-action scenario as "what would occur in the absence of any regulatory action by the agency—in other words, the baseline." 90 Fed. Reg. at 56,519. NHTSA also cites OMB Circular A-4—albeit the superseded 2003 version—which directs that the baseline "should be the best assessment of the way the world would look absent the proposed action." OMB, *Circular A-4* (Sept. 17, 2003), https://obamawhitehouse.archives.gov/omb/circulars_a004_a-4/.

184 In previous rulemakings, a single Parameters file was used for both the standard-setting/constrained modeling and the unconstrained modeling used in the EIS, which ensures transparency where the two scenarios are modeled differently and consistency otherwise. But in the Proposal, NHTSA uses different Parameters files for the standard-setting modeling and the EIS modeling, which is a departure from its prior practice.

Specifies whether the model should remove all [battery-electric vehicles] and [fuel-cell vehicles] from the industry fleet prior to start of analysis and disallow application of new BEVs or FCVs during modeling (including for the ZEV mandate).” CAFE Model Documentation 302. But even here, NHTSA does not disclose its erasure of millions of EV sales and hundreds of EV models from its input files. Rather, only a side-by-side comparison of the “Reference” and “EIS”[185] data files showed how much real-world data NHTSA stripped from the CAFE Model. The below tables set out that comparison for MY2019–2023 only, alongside the alterations to the analysis fleet (i.e., MY2024):

TABLE 1

MY	“EIS” Fleet	“Ref” Fleet	Difference	Difference (%)
2019	16,133,198	15,945,000	188,198	1.17%
2020	13,707,279	13,481,000	226,279	1.65%
2021	13,824,811	13,362,000	462,811	3.35%
2022	12,861,000	12,192,000	669,000	5.20%
2023	14,197,000	12,805,000	1,392,000	9.80%
2019–2023			*2,938,288*	
	Market Data Input File	**Vehicles Report_Sn0**	**Difference**	**Difference (%)**
2024	14,773,182	13,706,220	1,066,962	7.22%
2019–2024			*4,005,250*	

Gillingham et al. 15.

That restricted fleet makes it impossible for NHTSA to set standards that comply with its statutory mandate. Most egregiously, the restricted baseline fleet inflates automakers’ costs of compliance to achieve the existing MY2027–31 standards (i.e., the No-Action Alternative in the present rulemaking) and makes it effectively impossible to set standards that demand improvement over the status quo. *See infra* Part III.C.1.

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[185] NHTSA does not apply the Section 32902(h) restrictions (under either its prior or new interpretation) when studying the Proposal’s environmental effects for the Draft Environmental Impact Statement (EIS) under the National Environmental Policy Act (NEPA). 90 Fed. Reg. at 56,591. Thus, the EIS data files appear to reflect the real-world data NHTSA later constrained for the “Reference” (i.e., standard-setting) modeling. And while NHTSA deleted historical EV sales from model years prior to 2019, this comment focuses on MY2019–2024, capturing the dramatic surge of EV sales across the U.S.

By removing actual vehicles and vehicle sales from the no-action baseline fleet, the CAFE Model also distorts the feasibility analysis under the first and third factors. For example, numerous candidate technologies in the mass reduction, aerodynamic improvements, and tire rolling resistance pathways could be feasibly applied to EVs to improve the fleet's average fuel economy, as these technologies are independent of the vehicle's powertrain (and certainly do not depend on EVs' assigned fuel economy values). *See* Draft TSD chs. 3.4–3.6. But NHTSA's restricted fleet prevents NHTSA from considering the full potential of these improvements on the real-world fleet.

Deletion of projected EV sales from macroeconomic sales forecasts

Independently of the baseline fleet created for the No-Action Alternative, NHTSA removes EVs from its vehicle sales forecast by, first, modeling projected new vehicle sales in future years from certain macroeconomic inputs, and, second, subtracting a portion of that projected fleet representing new EV sales using the Annual Energy Outlook 2025 (AEO 2025) Alternative Transportation Case's projections of EV market share. 90 Fed. Reg. at 56,505 & n.275; Draft TSD ch. 4.2.1.2.

Comparing Figure 4-4 (showing the "nominal" new vehicle sales forecast for the total light-duty fleet) and Figure 4-5 (showing a gas-only sales forecast) shows how the removal of EVs distorts this important metric. Draft TSD at 4-12, 4-13. Aside from eliminating several million vehicle sales projected to happen over MY2024–31, NHTSA has changed the shape of the curve—transforming a *rising* trend in vehicle sales through 2027, followed by a falling trend to 2031, into a steady *decline* from 2024 to 2031. *Id.* A side-by-side comparison of the "Reference" and "EIS" Parameters files confirms NHTSA's application of the reinterpreted EV Restriction to the sales forecast paints a significantly worse economic picture for the industry than NHTSA's real-world projections actually show:

TABLE 2

MY	"EIS" Fleet	"Ref" Fleet	Difference	Year-to-Year Change (EIS)	Year-to-Year Change (Ref)
2024	14,773,182	13,706,220	1,066,962	n/a	n/a
2025	14,986,503	13,359,971	1,626,531	213,321	–346,249
2026	15,223,245	13,240,949	1,982,296	236,742	–119,022
2027	15,289,305	13,115,439	2,173,865	66,060	–125,510
2028	15,106,005	12,587,414	2,518,591	–183,299	–528,025
2029	14,962,914	12,392,614	2,570,301	–143,091	–194,800
2030	14,810,883	12,222,388	2,588,495	–152,032	–170,226
2031	14,638,262	11,815,846	2,822,416	–172,621	–406,542

Gillingham et al. 15; *compare* Reference Parameters File, Sales Model Values Tab, LD_ref.zip/input/ parameters_ref.xlsx *with* EIS Parameters File, Sales Model Values Tab, LD_eis.zip/input/ parameters_eis.xlsx.

Because NHTSA considers new vehicle sales under the economic practicability factor, 90 Fed. Reg. at 56,595–96, 56,603, here, too, the agency's application of the EV Restriction distorts its supposedly data-driven feasibility analysis. *See also* 89 Fed. Reg. at 52,812 ("[S]ales and employment responses have historically been key to NHTSA's understanding of economic practicability."). Especially to the extent that NHTSA takes a declining sales forecast as an indicator that "the auto industry is facing significantly adverse economic conditions," 90 Fed. Reg. at 56,585, eliminating several millions of new vehicle sales and even an initial *rising* sales trend grossly distorts NHTSA's analysis under the second feasibility factor.

Deletion of EV "vehicle miles traveled" from safety analysis

NHTSA's removal of EVs from its modeling also affects NHTSA's projections of vehicle miles traveled (VMTs), which is an important part of its safety analysis. 90 Fed. Reg. at 56,508; TSD at 4-1, 4-39 to 4-40 (calculating VMT according to, in significant part, "the number of gas-powered vehicles remaining in use during that year"). By restricting VMTs to the gas-fueled fleet, NHTSA ignores VMT-related benefits and costs (such as rebound driving benefits from improved fleet fuel economy or increased crashes and fatalities from rebound driving) that would otherwise affect its analysis of safety effects. 90 Fed. Reg. at 56,605. For periods where gas-fueled VMTs decline as total VMTs increase, *see* Gillingham et al. 23 (Figure 3), a safety analysis focused solely on the gas fleet would mistake the directionality of safety changes—predicting a decrease in crashes and fatalities even as actual crashes and fatalities increase.

The above examples are only the modeling distortions the States and Cities have been able to identify during the 61-day public comment period: nowhere does NHTSA provide a comprehensive analysis of how the reinterpreted EV Restriction changes its evaluation of the feasibility factors. This egregious lack of transparency alone renders the Proposal arbitrary.

By invoking the EV Restriction, NHTSA, in essence, justifies its distorted modeling by claiming Congress instructed it to use such models. But that claim expands the EV Restriction well beyond the plain text, context, and evident purpose of the statute.

B. The best reading of Section 32902(h)(1) does not justify deleting electric vehicles altogether from the entire standard-setting process

The plain text of the EV Restriction is precise in both scope and operation. First, the EV Restriction applies only "[i]n carrying out subsections (c), (f), and (g)," not in the entirety of CAFE standard-setting. 49 U.S.C. § 32902(h)(1). Second, within that specific scope, NHTSA "shall not consider the *fuel economy of* dedicated automobiles." *Id.* (emphases added). Yet NHTSA's reinterpretation of the EV Restriction in the Resetting Rule—and its application in the Proposal—violate that precision as to both scope and operation. Because NHTSA enlarges the EV Restriction's scope beyond the plain text of the statute, the Proposal is unlawful.

1. The Proposal wrongly expands the EV Restriction's scope to apply to every element of CAFE standard-setting

Since 1975, NHTSA's authority to set "maximum feasible" CAFE standards has derived from three standard-setting provisions, now codified at subsections (a), (b), and (d). 49 U.S.C. § 32902(a), (b), (d). Those subsections are *excluded* from the EV Restriction's scope, *id.* § 32902(h), indicating Congress did not constrain the standard-setting process from start to finish. If, as the Resetting Rule states, Congress meant to prohibit consideration of EVs "for any purpose and at any point in the process of setting fuel economy standards," 90 Fed. Reg. at 24,519, it would not have excluded those standard-setting provisions—or made any distinction between subsections at all—but would have simply written "In carrying out this section."

When Congress wrote what is now subsection (h), NHTSA had been setting and amending fuel-economy standards for over a decade. *See* 42 Fed. Reg. 33,534 (June 30, 1977) (inaugural standard-setting). In that decade, NHTSA consistently determined the maximum feasible average fuel economy level that manufacturers could achieve in two steps: first, "analyz[ing] the manufacturers' current projections and underlying product plans" (i.e., determining the baseline fleet) and second, "consider[ing] what, if any, additional actions the manufacturers could take to improve their fuel economy." 50 Fed. Reg. at 40,534 (1985 standard-setting for MY1986). The feasibility factors in subsection (f) naturally apply to the second step—fuel-economy improvements—as the baseline fleet is by its very nature already technologically feasible and economically practicable. *See also* 42 Fed Reg. at 33,537 (interpreting third factor, now "other motor vehicle standards of the Government," to "call for making a straight-forward adjustment to the *fuel economy improvement* projections to account for the [other vehicle standards'] impacts" (emphasis added)). Similarly, in deciding whether amending passenger car standards would be appropriate under what is now subsection (g), NHTSA's consistent practice was to evaluate "manufacturers' past efforts to achieve higher levels of fuel economy." 50 Fed. Reg. at 40,533; 51 Fed. Reg. 35,594, 35,599 (Oct. 6, 1986). Thus, in 1988, Congress would have understood "carrying out subsection (c), (f), and (g)" to refer to NHTSA's analysis of efforts to *improve* average fuel economy: certainly an important part of the standard-setting process, but not the entire standard-setting process itself.

That makes sense today, too. The EV Restriction, the Dual-Fueled Vehicle Restriction, and the Credit Restriction all concern compliance flexibilities, which by definition substitute for the conventional means of compliance: upgrading gas vehicles' fuel economy *over* the status quo. The three restrictions in subsection (h) logically apply only when NHTSA would "consider" those alternative means of compliance—namely, when NHTSA assesses how manufacturers would close the distance between the baseline fleet and more stringent fuel-economy standards under consideration by the agency. 49 U.S.C. § 32902(h); *see also* Pub. L. No. 100-494, § 6(a), 102 Stat. at 2449, *codified at* 49 U.S.C. § 32906(a) (capping and phasing down the "maximum increase in average fuel economy" from dual-fueled vehicles compliance flexibility).[186]

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[186] Indeed, in the 1977 inaugural CAFE standard-setting, a transition to diesel powertrain technology was one fuel economy improvement strategy evaluated under the feasibility factors. 42 Fed. Reg. at 33,535 (finding a 25% penetration of diesel powertrains in the passenger automobile fleet was feasible). This underscores how the 1988 Congress, in crafting the EV Restriction, would have understood the role

Although the analysis of the subsection (f) factors bears significantly on the standard-setting process, it is not itself the determination of maximum feasible average fuel economy, and certainly not the entirety of the standard-setting process. Rather, subsection (f) simply identifies four factors NHTSA must consider "when" determining whether more improvement is possible. 49 U.S.C. § 32902(f).

As for the amendment provisions—subsections (c) and (g)—the application of the EV Restriction to these subsections constrains the otherwise "substantial discretion" that NHTSA has "in deciding whether to amend previously established fuel economy standards." *General Motors Corp. v. NHTSA*, 898 F.2d 165, 167 (D.C. Cir. 1990). That decision whether to amend involves distinct "policy and administrative concerns" from the promulgation of standards in the first instance, including the "efficient administration" of the program, *id.* at 172, and the potential for "serious reliance interests that must be taken into account," *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009). In other words, to amend previously established standards, NHTSA must not only decide the level at which it would set any amended standards; it must also conclude that promulgating amended standards is appropriate. By including these amendment-authorizing subsections but excluding the initial standard-setting subsections—(a), (b), and (d)—Congress sought to constrain that discretionary decision, which is involved in subsections (c) and (g) but not in (a), (b), or (d). *Compare* 49 U.S.C. § 32902(a) ("shall prescribe"), *with id.* § 32902(c) ("may prescribe").[187]

By conflating specific parts of the standard-setting process with the entirety of the standard-setting process, the Resetting Rule expands the scope of the EV Restriction, contrary to the statute's plain text. *See* 90 Fed. Reg. at 24,519. By applying that erroneous interpretation, the Proposal is contrary to law. *See* 90 Fed. Reg. at 56,588–89.

2. The Proposal wrongly construes "shall not consider the fuel economy of dedicated automobiles" to require excluding EVs altogether

The plain text of the EV Restriction's instruction—NHTSA "shall not consider the fuel economy of dedicated automobiles"—prohibits NHTSA from treating EVs' higher assigned fuel economy values as a means for automakers to improve average fuel economy in the subsection (f) feasibility analysis. That follows, first, from the ordinary meaning of "consider": "to reflect on: think about with a degree of care or caution." Webster's 3d New Int'l Dictionary 483 (1976). Thus, "the term 'shall consider' indicates [a requirement] to reflect actively and carefully … , as consideration clearly involves more than a passing thought." *Brownlee v. Haley*, 306 F.3d 1043, 1076 (11th Cir. 2002) (collecting definitions). Second, the object of the statutory directive to "not consider"—i.e., "the fuel economy of dedicated automobiles"—is one precise characteristic of dedicated vehicles, not the vehicles themselves. Third, context: the *one* function of dedicated

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that alternatives to gasoline fuel would have played in "carrying out" subsection (f): as a candidate fuel economy improvement.

[187] Standards amended under subsection (g) must "meet[] the requirements of subsection (a) or (d)," *id.* § 32902(g). Thus, had it intended to constrain the full standard-setting process, Congress would have included subsections (a) and (d), and not (g), in the EV Restriction.

automobiles' assigned fuel economy values is to raise the average fuel economy of a manufacturer's fleet.

Consider how this restriction would have played out in 1988, when Congress enacted it. NHTSA would have reviewed product plans from manufacturers to understand the baseline fleet, including any alternative-fueled vehicles manufacturers included in those plans, and reviewed a set of candidate improvements to evaluate the feasibility factors. In evaluating those factors, the baseline fleet's composition might inform how NHTSA considered a factor: e.g., the technology profiles of baseline vehicles would affect whether a candidate improvement was technologically feasible to apply to them. But that compatibility question would not depend on the special fuel-economy value assigned by statute to alternative-fueled vehicles. In examining the feasibility of an engine upgrade on an ethanol vehicle, say, NHTSA would not be considering the "fuel economy of dedicated automobiles"—indeed, whatever the ethanol vehicle's fuel economy value was, the technological compatibility question would be the same. The only way NHTSA would have "consider[ed] the fuel economy of dedicated automobiles" when "carrying out" subsection (f) would be when it examined the production of *more* ethanol vehicles as a candidate strategy to improve average fuel economy.

The same remains true now that NHTSA has shifted its methodology to rely on the CAFE Model. As NHTSA recognizes, "While the analytical results [produced by the CAFE Model] are used to inform the maximum feasible determination, the analytical results do not dictate the maximum feasible determination." 90 Fed. Reg. at 24,521. Indeed, the CAFE Model does not itself "carry[] out" subsection (f) by weighing the feasibility factors: "Importantly, the modeling system does not determine the form or stringency of the standards, which must be developed in consideration of statutory factors that must be balanced by policy-makers. Instead, the CAFE Model applies inputs specifying the form and stringency of standards to be analyzed and produces outputs showing the impacts of manufacturers working to meet those standards, which become part of the basis for comparing different potential stringencies." 90 Fed. Reg. at 56,454.

Thus, to justify taking EVs out of the CAFE Model entirely, NHTSA would need the EV Restriction to read far more broadly than it does. First, "shall not consider" would have to mean something like "shall completely exclude" or "shall preclude any influence, no matter how indirect, on its analysis." Plainly, the provision does not say that. Because "consideration clearly involves more than a passing thought," *Brownlee*, 306 F.3d at 1076, what the EV Restriction prohibits must similarly involve direct and careful attention, not the passive presence of EVs in a model's input files.

Second, NHTSA would need the EV Restriction to read "shall not consider the existence of dedicated automobiles" or simply "shall not consider dedicated automobiles." NHTSA's new application of the reinterpreted EV Restriction erases EVs from the CAFE Model in areas that have nothing to do with their "fuel economy" values. 49 U.S.C. § 32902(h)(1). When, under NHTSA's prior interpretation of the EV Restriction, the CAFE Model simulated technology upgrades on the baseline fleet and declined to apply, e.g., a transmission improvement to an EV, NHTSA was not considering the EV's assigned fuel economy value—whatever that value, the Model skipped it because the EV had no transmission to upgrade. Similarly, when NHTSA forecasted vehicle sales under different regulatory alternatives under the economic feasibility factor, none of that turned on the fuel economy values assigned to EVs within that forecasted fleet. Nor did NHTSA's estimation of crash and fatality rates turn on the fuel economy values of EVs. Under its new interpretation, NHTSA asserts it must distort all these evaluations, but the text of EPCA simply does not say that.

The dramatic distortions NHTSA creates in the CAFE Model—removing over 334 EV models from the analysis fleet, removing over 4 million historical EV sales from the input files, and removing EVs from the new vehicle sales and VMT forecasts—cannot be justified by the EV Restriction, as such actions go far beyond the plain text of the prohibition. Rather, that distortion is simply bad modeling and thus arbitrary and capricious action.

C. NHTSA's new reading defeats statutory purpose and creates contradictions

1. NHTSA's reinterpretation leads to standards that are below maximum feasible

a. NHTSA previously found that applying the EV Restriction to baseline fleets would render the CAFE program obsolete

A "bedrock principle[] of statutory construction" is that "courts should prefer textually permissible readings that would advance statutory or regulatory goals over ones that would frustrate them." *NextEra Energy Res., LLC v. FERC*, 118 F.4th 361, 371 (D.C. Cir. 2024). Yet NHTSA's novel reading produces a weaker, soon-obsolescent fuel-economy program that fails to conserve energy. Removing EVs from baseline fleets forces NHTSA to examine feasibility from an unrealistically low starting point, leading to "maximum feasible" standards that are in fact below what the industry is already achieving. That anomaly closes the book on the CAFE program, as automakers will have no regulatory incentive going forward to improve fuel economy over the status quo. And that anomaly occurs even at modest EV market shares. It is implausible—and decidedly not the best reading of the statute—to suggest that Congress, when enacting the compliance incentive for dedicated automobiles, meant the CAFE program to go defunct as soon as the incentive achieved moderate success.

NHTSA understands this, as it explained this effect to both the Sixth Circuit and D.C. Circuit Courts of Appeals. *See* ECF No. 119 at 31–32, *In re CAFE Standards*, Case No. 24-7001 (6th Cir. Jan. 17, 2025); ECF No. 2000002 at 39–40, *NRDC v. NHTSA*, Case No. 22-1080 (D.C. Cir. May 19, 2023). In NHTSA's simplified example, gas vehicles were assumed to have an average fuel economy of 40 mpg and EVs, an average fuel economy value of 160 mpg. *Id.*[188] If EVs made up 50% of new national vehicle sales, the real-world fleet average calculated under

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[188] For simplicity, this discussion uses the same representative fuel economy values for gas vehicles and EVs that NHTSA used in its briefing. Sales-weighted averages of gas-fueled and battery-electric passenger cars in the Proposal's Market Data Input File are, respectively, 43.2 mpg and 153.5 mpg. Using those numbers instead does not alter the overall effect illustrated in the hypothetical calculations.

Section 32904 would be 64 mpg.[189] But, under the Resetting Rule's novel reading, NHTSA would assume that automakers were achieving only 40 mpg.

> If NHTSA then concluded that manufacturers could achieve an additional 5 miles per gallon in fuel-economy gain through improvements to their gasoline-powered vehicles, it would set the fuel-economy standard … at 45 miles per gallon. Because manufacturers would already have achieved average fleet fuel economy well above that level, it would be unnecessary for them to make any improvements at all to achieve compliance, thus nullifying Congress's fuel-economy program. Indeed, the fuel-economy standards at that point would not even be effective in preventing automakers from downgrading their gasoline-powered vehicles to less expensive and less efficient technology.

ECF No. 119 at 32, *In re CAFE Standards*, Case No. 24-7001 (6th Cir. Jan. 17, 2025). As NHTSA then recognized, "Congress did not dictate a course that would first reduce and then eliminate NHTSA's obligation to set technology-forcing standards." *Id.*

While NHTSA's brief assumed a 50% EV penetration, the same effect is apparent even at much lower EV penetration rates. After Congress's discontinuation of the EV tax incentives, 27% represents a more conservative EV market share forecast for 2030 passenger cars.[190] (The AEO2025 Alternative Transportation Case, which NHTSA uses in its Proposal, 90 Fed. Reg. at 56,505, projects 38% EV share of passenger cars in 2030.[191]) At 27% penetration, the fleet-average calculation produces 50.16 mpg.[192] Again, that baseline average fuel economy would already be *above* what NHTSA would determine to be "maximum feasible" under its new, restricted view.

Notably, the consequences of NHTSA's new, expansive reading would have been apparent—and even starker—when Congress adopted AMFA. Given the generous alcohol-fueled vehicle multiplier in AMFA, a restricted baseline would have rendered the CAFE program toothless at single-digit adoption rates for alcohol-fueled vehicles. In 1988, at the time Congress enacted AMFA, NHTSA had determined that 26.0 mpg was the maximum feasible average fuel economy and had rejected arguments to restore the CAFE standard to the statutory 27.5 mpg target.[193] Under AMFA's statutory multiplier, an alcohol-fueled vehicle running just 18 miles for

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189 The fleet average is calculated as the harmonic mean of the vehicles' fuel economy values: i.e., 100 vehicles / ((50 gas vehicles / 40 mpg) + (50 EVs / 160 mpg)). *See* 49 C.F.R. Part 533, App. A.

190 *See supra* note 136 (quoting industry analyses projecting 26% and 27% EV share by 2030).

191 U.S. Energy Info. Admin., *Annual Energy Outlook 2025*, Table 38: Light-Duty Vehicle Sales by Technology Type, Case: Alternative Transportation, https://www.eia.gov/outlooks/aeo/data/browser/#/?id=48-AEO2025&region=1-0&cases=alttrnp&start=2023&end=2050&f=A&sourcekey=0.

192 At 27% EV penetration, the fleet average fuel economy calculation is 100 cars / ((73 gas vehicles / 40 mpg) + (27 EVs / 160 mpg)) = 50.16 mpg.

193 51 Fed. Reg. at 35,615 (1986 rulemaking setting MY1987–88 passenger car CAFE standards).

every gallon would have an 120 mpg fuel economy value. *See* 49 U.S.C. § 32905(a) (0.15 multiplier for liquid alternative fuels). But under NHTSA's reinterpretation of subsection (h)(1), even just a 7% penetration rate for such vehicles would have produced a baseline already at 27.5 mpg—a level the agency had just determined was beyond maximum feasible.[194] In short, in order to believe that NHTSA's reinterpretation was the true reading of Section 32902(h)(1), one would have to believe Congress meant for the modest success of AMFA incentives to disable the CAFE program as a tool for driving *any* further reductions in oil consumption.

It is implausible to think that the Congress that enacted AMFA intended this carefully balanced set of incentives to render the CAFE program ineffective. The statute—with its indefinite requirements that NHTSA promulgate iterative "maximum feasible" standards at least every five years and issue credits for overcompliance—gives no hint that Congress intended such obsolescence to result from a moderately successful incentive. *Cf.* H.R. Rep. No. 100-476, at 12 (1987) (Congress did not intend its alternative-fueled-vehicle incentive in AMFA "to allow manufacturers to relax their efforts to achieve better mileage in the remainder of their fleets that are still fueled with gasoline.").

b. NHTSA's own analysis in the SAFE III Proposal bears out its prediction of obsolescence

Under NHTSA's novel reinterpretation of the EV Restriction, the CAFE program is already ineffective, and at far lower thresholds than 50% EV penetration. In Table I-2, NHTSA estimates the fleet-average fuel economy achieved by the national passenger, light truck, and combined light-duty fleets for MY2022–31 as well as the fleet-average required by the revised CAFE standards under its preferred alternative.[195] 90 Fed. Reg. at 56,448. While NHTSA does not offer much transparency, Table I-2 appears to be generated from the "Reference" case, i.e., the gas-fueled subfleet only. Using the "EIS" data files, which depict the complete fleets that by law would be subject to the CAFE standards, *see* 49 U.S.C. § 32904, a more accurate and informative Table I-2 would appear as follows:

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194 At 7% penetration, the fleet-average fuel economy calculation is 100 cars / ((93 gas vehicles / 26.0 mpg) + (7 alcohol-fueled vehicles / 120 mpg)) = 27.51 mpg.

195 As NHTSA explains, "the actual CAFE standards are the footprint target curves for passenger cars and light trucks," 90 Fed. Reg. at 56,447; to translate these standards into an industry-wide fleet average in mpg, NHTSA must apply the footprint target curves to a projected fleet, *id.*

TABLE 3

Required and Achieved Fuel Economy, EIS (Full Fleet)								
Model Year	2024	2025	2026	2027	2028	2029	2030	2031
Passenger Car								
Required	36.5	36.6	36.8	36.6	36.9	37.0	37.1	37.2
Achieved	51.0	55.6	64.7	65.3	53.0	52.7	52.2	52.5
Light Truck								
Required	27.9	28	28.1	28.3	28.4	28.5	28.5	28.6
Achieved	34.0	37.3	41.3	42.6	32.9	33.1	33.2	33.5
Total LD Fleet								
Required	30.1	30.4	30.4	30.7	34.3	34.4	34.5	34.5
Achieved	38.4	42.5	47.4	48.5	46.0	46.0	45.8	46.2

See Gillingham et al. 52–53, Appendix 1 (setting out methodology of generating Table 3).

NHTSA's sheepish concession that "manufacturers appear to be over-complying with required fuel economy levels in MY 2027"—an understatement even for the gas-fueled subfleet—does not go nearly far enough. The average light-truck fuel economy that the industry already achieved in MY2024 is at least 5 mpg higher than the average fuel economy automakers are ever required to meet under the revised MY2027–2031 standards. The average passenger car fuel economy achieved in MY2024 is at least *13.8 mpg* higher than the revised MY2027–2031 standards in each year. Nor is this massive overcompliance attributable to the reclassification of crossover and SUVs, *see infra* Part IV.C., as the combined fleet in MY2024 outperforms the revised MY2027–2031 CAFE standards in every model year as well. In other words, to comply with CAFE standards, manufacturers need do no more—and may do significantly less—than the status quo. Congress did not intend for the CAFE program to be so ineffective.

c. NHTSA's reinterpretation of the EV Restriction makes the statutorily created credit system worthless

The substantial and worthless credit banks NHTSA's new reading would produce underscore the point. The Compliance Report in NHTSA's "Reference" case (i.e., the standard-setting run applying the EV Restriction), manufacturers of gas-fueled vehicles generate about 3.6 billion surplus credits from MY2024–2031. But in the unconstrained "EIS" run—representing NHTSA's projection of real-world compliance actions—these manufacturers generate over *23 billion* surplus credits over the same period:

TABLE 4[196]

	2024	2025	2026	2027	2028	2029	2030	2031	Sum
BMW	(951,785)	6,235,419	6,027,658	87,110,790	60,827,373	55,964,007	51,990,522	55,828,178	323,032,162
Ferrari	(663,000)	(757,981)	(647,955)	85,800	135,080	23,716	3,417	111,804	(1,709,119)
Fisker	3,076,416	3,275,900	4,775,738	2,163,304	1,248,192	844,022	613,600	608,204	16,605,376
Ford	(13,743,671)	9,796,183	7,035,787	302,948,280	218,229,512	192,556,195	180,983,033	177,073,686	1,074,879,005
GM	(80,805,008)	(62,768,559)	31,696,833	421,011,435	383,692,830	349,997,003	339,548,339	343,710,762	1,726,083,635
Honda	25,470,837	(10,675,702)	11,118,860	262,164,436	227,689,968	218,487,197	202,258,656	202,556,494	1,139,070,746
Hyundai	(2,532,176)	(19,006,014)	15,530,350	183,476,393	129,672,642	121,314,046	113,099,319	111,043,088	652,597,648
Ineos	(1,503,345)	(1,765,480)	(2,238,444)	(553,128)	(836,331)	(832,128)	(824,585)	1,727,649	(6,825,792)
JLR	(6,010,280)	(6,250,224)	(1,841,115)	13,660,902	16,115,902	13,761,975	10,978,266	11,750,515	52,165,941
KIA	(10,041,247)	(2,706,013)	(12,042,504)	132,251,558	86,519,467	81,133,758	75,808,390	74,188,146	425,111,555
Lucid	32,382,740	34,638,554	34,120,658	17,028,921	10,002,360	6,922,773	5,169,105	5,118,108	145,383,219
Mazda	(7,106,313)	(15,726,516)	(27,248,644)	59,495,574	18,515,868	18,684,661	17,078,240	29,079,360	92,772,230
Mercedes-Benz	4,848,144	679,968	11,561,043	56,633,405	37,195,445	34,383,934	32,787,235	33,090,622	211,179,796
Mitsubishi	(2,651,287)	(700,629)	6,606,028	36,961,741	21,893,838	20,714,100	26,345,240	25,874,576	135,043,607
Mullen	4,958,044	4,835,880	4,928,560	5,029,185	3,030,500	2,470,284	1,837,775	1,811,232	28,901,460
Nissan	(20,962,052)	(9,106,347)	(17,909,925)	188,931,710	117,543,800	131,423,094	131,895,776	129,695,138	651,511,194
Rivian	232,444,164	227,871,874	233,787,060	111,951,075	72,629,124	50,607,414	37,824,676	37,316,000	1,004,431,387
Stellantis	79,631,574	76,797,404	60,626,297	206,432,789	95,759,716	101,268,022	90,182,066	88,720,900	799,418,768
Subaru	(22,968,420)	(35,968,546)	(74,654,105)	63,756,321	26,108,460	28,695,537	26,777,936	25,722,108	37,469,291
Tesla	2,672,475,000	2,853,070,693	2,808,150,949	1,488,141,563	869,231,149	597,816,936	443,230,635	439,021,296	12,171,138,221
Toyota	26,404,300	14,386,780	14,733,512	473,855,451	384,734,473	376,771,100	370,690,366	367,422,085	2,028,998,067
Vinfast	3,349,550	3,510,864	3,363,840	3,639,790	2,004,785	1,268,439	849,354	837,372	18,823,994
Volvo	15,107,834	13,466,534	14,742,898	40,464,537	21,072,745	19,124,198	17,203,698	16,866,855	158,049,299
VWA	(31,582,888)	9,140,038	13,383,772	174,060,425	100,351,472	92,811,934	84,583,090	84,527,006	527,274,849
TOTAL	2,898,627,131	3,092,274,080	3,145,607,151	4,330,702,257	2,903,368,370	2,516,212,217	2,260,914,149	2,263,701,184	23,411,406,539

As Table 4 illustrates, even without the elimination of intermanufacturer trading, there would be no use and no market for nearly any of those credits from MY2027 on, because virtually all the industry would be similarly overcomplying.[197]

Had Congress intended Section 32902(h) to operate as NHTSA now claims, it would have easily foreseen such enormous credit banks given the generous multipliers it assigned to fuel-economy values for alcohol- and natural gas-fueled vehicles. 49 U.S.C. § 32905(a); *supra* Part III.C.1.a. But Congress anticipated precisely the opposite: that the standards would be stringent enough, and credits therefore scarce enough, that manufacturers unable to meet the standards in a given year would have to submit plans for NHTSA's approval explaining how they would earn sufficient credits "within the next 3 model years" to address the shortfall. 49 U.S.C. §§ 32903(b)(2)(A), 32905(a). Congress also anticipated credits would be so valuable that it required NHTSA to "give the manufacturer written notice and reasonable opportunity to comment" before applying the automakers' credits to its compliance calculation. *Id.* § 32903(d).

Congress permitted manufacturers to earn credits because it "[r]ecogniz[ed] that manufacturers would not always be able to attain the … standard for a particular year." *General Motors*, 898 F.2d at 173. The Rule's new interpretation would turn this statutory scheme upside-down, requiring NHTSA to perpetually issue credits for overcompliance with weak standards. And, though continuously issued, those credits would be useless because standards below business-as-usual levels will generate large credit banks at the same time that no credits are

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196 Taken from Compliance Report.csv in the "EIS" folder. Note that NHTSA has excluded Tesla, Rivian, and other EV-only manufacturers altogether from these credit bank projections.

197 *See also* 90 Fed. Reg. at 56,600–01 (Tables V-5 & V-6). In every model year, the credit surplus is over 2 billion.

needed to meet standards. Leaving an agency to set ineffectual standards and issue worthless credits over and over again "is just the type of absurd result courts should avoid." *Holland as Tr. of UMWA 1992 Benefit Plan v. Arch Coal, Inc.*, 947 F.3d 812, 819 (D.C. Cir. 2020).

2. NHTSA's reinterpretation produces maximum feasible standards below the domestic minimum

The contradictions in the Rule's application of the EV Restriction continue into the domestic minimum, which, at a certain threshold of EV penetration, would be set *higher* than "maximum feasible" standards. The domestic minimum calculation in subsection (b)(4) is not within the scope of "subsections (c), (f), and (g)," nor does it contain any cross-reference to the constrained subsections (c), (f), and (g). 49 U.S.C. § 32902(b)(4), (h). Thus, the "projection" of average fuel economy that becomes the basis for the domestic minimum necessarily includes *all* vehicles. *Id.* § 32902(b)(4).[198]

If the Rule were correct that a maximum feasible standard cannot reflect the EVs in the baseline fleet, the *maximum* standard would quickly drop below the domestic *minimum* standard. In the simplified example above, the national fleet already has crossed that threshold at 27% EV penetration: if the real-world fleet average is 50.16 mpg, then "92 percent of the average fuel economy projected" is 46.14 mpg, which is higher than the 45 mpg "maximum feasible" standard that the Rule would require in the example. The numbers from Table 3, *supra*, illustrate this effect occurring in the Proposal itself for passenger cars MY2027–31:

TABLE 5

Model Year	2027	2028	2029	2030	2031
Required (mpg)	36.6	36.9	37	37.1	37.2
Achieved (mpg)	65.3	53	52.7	52.2	52.5
92% of Achieved	60.1	48.8	42.2	48.5	48.3

In each of these model years, the domestic "minimum" is at least 5 mpg *higher* than what NHTSA has determined to be "maximum" feasible.[199] NHTSA avoids this result only by rewriting the statute to calculate the domestic minimum as 92% of the average fuel economy standard projected—i.e., the "Required" row. 90 Fed. Reg. at 56,583–84. As discussed *infra* in

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[198] Much like subsection (a)'s general standard-setting provision, subsection (b)(4) directs NHTSA to project the average fuel economy "for … automobile fleets manufactured … by all manufacturers," using terms that are defined to include EVs. 49 U.S.C. § 32902(b)(4); *see id.* § 32901(a)(3) ("automobile" includes vehicles propelled by electricity), 32901(a)(4) ("automobile manufactured by a manufacturer" means "*every* automobile manufactured" (emphasis added)).

[199] Shockingly, the same paradox is observable even in the gas-fueled subfleet. *See* 90 Fed. Reg. at 56,448 (Table I-2). Thus, even setting aside the erroneous reinterpretation of the EV Restriction, NHTSA has set its "maximum feasible" standards so far below the actual capabilities of the gas-fueled subfleet, they fall below the domestic minimum standard that Congress imposed. That clearly indicates NHTSA has taken a "wrong interpretive turn" in its weighing of the feasibility factors. *Util. Air Regulatory Group v. EPA*, 573 U.S. 302, 328 (2014); *see infra* Part IV.

Part V.C., that erroneous reading of the statute is contrary to the plain text and cannot offer NHTSA an escape hatch from this absurd result.

The anomaly of a "minimum" greater than a "maximum" will only grow as EV penetration increases. Such an anomaly is "contrary to common sense" and "inconsistent with the clear intentions of" Congress. *Mova Pharm. Corp. v. Shalala*, 140 F.3d 1060, 1068 (D.C. Cir. 1998).

3. NHTSA's reinterpretation creates a contradiction with the statutory calculation of "average fuel economy" and the small manufacturer exemption

In Section 32902(a), which directs NHTSA to set fuel-economy standards at the "maximum feasible average fuel economy level" automakers "can achieve" in a given model year, the term "average fuel economy level" refers to an automaker's fleet average calculated under Section 32904. 49 U.S.C. §§ 32901(a)(5), 32902(a). That calculated fleet average, in turn, must reflect the manufacturer's entire production fleet, including EVs. *Id.* § 32904(a)(2)(B). Under NHTSA's reinterpretation, the EV Restriction overwrites this plain text, instructing NHTSA to take out what subsection (a) and Section 32904's fleet-average formulas instruct NHTSA to leave in. *See supra* Part III.A.

NHTSA's novel reading would also make a hash out of subsection (d), which uses the same key phrase as in subsection (a) (the "maximum feasible average fuel economy level that the manufacturer can achieve") to define the exemption for small manufacturers. 49 U.S.C. § 32902(d). That is, NHTSA may exempt a small manufacturer from its generally applicable CAFE standards when the "maximum feasible average fuel economy level that the manufacturer can achieve" falls below NHTSA's standard. *Id.* § 32902(d)(A). Reading that term to exclude EVs would effectively exempt a small manufacturer with a substantial line of electric vehicles from NHTSA's standards even if that manufacturer is *in fact* over-complying and generating credits, contrary to the plain operation of the exemption. Here again, Petitioners' reading is not the best reading.

4. NHTSA's reading is unworkable in practice, as shown by its inconsistent application of the 32902(h) restrictions

Under NHTSA's novel reading of subsection (h), NHTSA pretends that EVs simply do not exist in the national fleet—even the ones actually manufactured in the 2024 model year—at all stages of its standard-setting. That leads NHTSA to delete EVs and EV sales from its baseline fleets, but also to eliminate new EV sales from its nominal sales forecast and EVs' VMTs from its VMT projections. 90 Fed. Reg. at 56,505, 56,508; TSD at 4-12. But if that were truly required by the text of Section 32902(h)(1), then subsection (h)(2) and (h)(3) would require the same modeling distortions for plug-in hybrids (as dual-fueled vehicles) and credits. Yet that is not how NHTSA has applied the Dual-Fueled Vehicle Restriction and the Credit Restriction.

First, NHTSA apparently does not eliminate plug-in hybrid vehicles from the baseline fleets, historical sales data, new vehicle sales forecast, or VMT forecasts. *See* 90 Fed. Reg. at 56,505, 56,508 (discussing only dedicated automobiles); TSD at 4-12 ("Because of statutory restrictions, NHTSA needs to exclude dedicated vehicles from its analysis."). This means that, while plug-in hybrids' fuel economy performance is considered in a restricted manner according to subsection (h)(2), the vehicle itself "counts" in the analysis, informing the feasibility analysis under the first, second, and third factors. *Cf. supra* Part III.A. But EVs are totally erased from the analysis—not just their fuel economy values. *Id.*; *see also supra* Part III.B.2. Because both the EV Restriction and the Dual-Fueled Vehicle Restriction focus on the special fuel economy values assigned to dedicated and dual-fueled automobiles as compliance flexibilities, NHTSA's disparate treatment of these categories of vehicles has no textual justification.

Second, the Credit Restriction in subsection (h)(3) should, under NHTSA's interpretation, require the same pretense about "the trading, transferring, or availability of credits under section 32903" that NHTSA applies to the presence of EVs in the fleet. That is, according to NHTSA, it is no longer sufficient to disable EV production and credit trading as a candidate fuel-economy improvement strategy in the modeling; the agency must scrub the baseline of any historical EV production in order to avoid "baking in" those automaker decisions. *See* 90 Fed. Reg. at 24,522 ("The prior consideration of dedicated vehicles' fuel economy in the agency's analysis sets the floor for what was deemed feasible."). But by that logic, the Credit Restriction similarly requires NHTSA to scrub the baseline of historical credit-trading, lest *that* historical use of voluntary compliance flexibilities by automakers "set the floor for what is deemed feasible." The automakers' previous decisions to avail themselves of credit-related flexibilities is necessarily reflected in the present fleet's composition: e.g., when one manufacturer decides to produce a less efficient vehicle and offset its low fuel economy with credits purchased from another, overcomplying manufacturer, that produces a different fleet than if the manufacturer had decided to comply by installing fuel-economy technologies. Similarly, the ability to produce and sell credits may lead other automakers to construct *more* efficient fleets than strictly needed for compliance. *Cf.* 90 Fed. Reg. at 56,600 (Table V-5) (Mitsubishi). Yet the Proposal never suggests that NHTSA has constructed any baseline fleet that backs out the effects of past credit trading in the way it has backed out past EV production, by removing actual vehicles produced and sold because of credit trading. Nor does NHTSA identify—in either the Resetting Rule or the Proposal—how such a convoluted counterfactual exercise would be workable.

That unworkability, and the apparent impossibility of applying the three restrictions in subsection (h) consistently under NHTSA's reinterpretation, likewise indicates NHTSA has "taken a wrong interpretive turn" in the Proposal. *Util. Air Regulatory Group*, 573 U.S. at 328.

D. NHTSA similarly misreads the Dual-Fueled Vehicle Restriction and the Credit Restriction

NHTSA's misreading of the EV Restriction carries over into the Resetting Rule's discussion of the Dual-Fueled Vehicle Restriction and the Credit Restriction: i.e., that "NHTSA may not consider the fuel economy of dual-fueled automobiles operated by electricity or other fuel" and "may not consider credit trading" or compliance credits "in any respect and at any point in the process of setting fuel economy standards." 90 Fed. Reg. at 24,523. For the reasons stated above, that atextual expansion of Section 32902(h)'s scope is just as wrong across the three alternative compliance mechanisms.

IV. NHTSA's Proposed Reinterpretation and Weighing of the Maximum Feasible Factors Is Contrary to Statute and Arbitrary and Capricious

A. NHTSA's reinterpretations of the statutory feasibility factors are contrary to statute, and NHTSA has balanced them in an arbitrary manner

The Proposal abdicates NHTSA's statutory duty to promote energy efficiency and conservation. Congress created the national fuel economy program expressly "to provide for improved energy efficiency of motor vehicles." Pub. L. No. 94–163, § 2(5), 89 Stat. 871, 874 (1975). Congress delegated authority to NHTSA to set fuel standards to achieve this "overarching purpose," 90 Fed. Reg. at 56,611—a purpose manifest in the very title of the "Energy Policy and Conservation Act." The text of EPCA expressly enacts this purpose in the requirement to set fuel economy standards at the "maximum feasible" level, 49 U.S.C. § 32902(a), and to consider the "need of the United States to conserve energy," *id.* § 32902(f), in determining that level. Congress reaffirmed this purpose in 2007 in EISA, which Congress intended to "move the United States toward greater independence and security, to increase the production of clean renewable fuels, to protect consumers, [and] to increase the efficiency of . . . vehicles." Pub. L. No. 110-140, 121 Stat. 1492, 1492 (2007); *see also id.* § 102(b), 121 Stat. at 1500–01 (creating medium- and heavy-duty counterpart to the CAFE program "designed to achieve the maximum feasible improvement"), *codified at* 49 U.S.C. § 32902(k).

The legislative history confirms this obvious objective: "[EPCA] establishes aggressive and effective programs for energy conservation designed to encourage the maximum efficient utilization of domestic energy." H.R. Rep. No. 94-700, at 118. And multiple courts have held that when setting standards, NHTSA must act in a way that promotes energy conservation. *See Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1197 (9th Cir. 2008) ("NHTSA cannot set fuel economy standards that are contrary to Congress's purpose in enacting the EPCA—energy conservation."); *Ctr. for Auto Safety v. NHTSA*, 793 F.2d 1322, 1340 (D.C. Cir. 1986) (*Ctr. for Auto Safety II*) ("It is axiomatic that Congress intended energy conservation to be a long term effort that would continue through temporary improvements in energy availability.").

While NHTSA acknowledges this purpose and contends it has set "maximum feasible" standards requiring "small, steady, incremental increases in fuel economy standards over time," 90 Fed. Reg. at 56,595, in fact, NHTSA is proposing to roll back ten years of fuel economy standards, even for model years that are already passed, and even standards that the first Trump Administration set for MY2022 and MY2023. NHTSA's statement about "steady" improvement is misleading because the agency has proposed retroactively changing the standards so that they start at a less stringent level in MY2022 than the MY2022 fleet achieved. Strikingly, while EISA required the agency to set standards that would achieve 35 mpg for combined passenger and non-passenger vehicles by 2020, 49 U.S.C. § 32902(b)(2)(A), the Proposal projects its standards will "correspond to the industry fleetwide average for all light-duty vehicles of roughly 34.5 miles per gallon (mpg) in MY 2031." 90 Fed. Reg. at 56,438. Such regression more than a decade after the 2020 deadline, when automakers' fuel economy capabilities have only advanced, is further evidence that the proposed standards are not maximum feasible.

The readiest proof of NHTSA's mishandling of the feasibility factors is Table I-2 in the NPRM. 90 Fed. Reg. at 56,448. Even evaluating the gas-fueled subfleet only—i.e., accepting

NHTSA's reinterpretation of the EV Restriction, *see supra* Part III., and without counting any compliance flexibilities—NHTSA projects that in every model year, the national gas subfleets will dramatically outperform the new standards by anywhere from 2.7 mpg to *17.4 mpg*:

FIGURE 1 (Table I-2)

Model Year	2022[a]	2023[a]	2024	2025[b]	2026[b]	2027	2028[c]	2029	2030	2031
Passenger Car										
Required[d]	36.0	36.0	36.5	36.6	36.8	36.9	37.1	37.2	37.3	37.4
Achieved	39.5	39.2	43.2	-	-	54.3	45.5	45.9	46.1	46.3
Light Truck										
Required[d]	27.7	27.7	27.9	28.0	28.1	28.3	28.4	28.5	28.5	28.6
Achieved	29.8	29.7	32.7	-	-	38.6	31.1	31.5	31.8	32.1
Total LD Fleet										
Required[d]	31.2	29.8	30.1	30.4	30.4	30.4	34.2	34.4	34.4	34.5
Achieved	32.7	32.1	35.4	-	-	42.2	40.4	40.8	41.1	41.3

See also 90 Fed. Reg. at 56,600–01 (Tables V-5 and V-6, showing all manufacturers but two—specialty automakers Ferrari and Ineos—overcomplying with the preferred alternative standards individually).

Whatever interpretive somersaults one performs on "maximum feasible," the term cannot possibly mean *less* than what NHTSA expects the industry will achieve. *See also supra* note 199 (noting proposed standards are less stringent *even for gas-only fleets* than domestic "minimum" standard in Section 32902(b)(4)). Especially where the proposed standards will never require gas fleets to be more efficient than they were in MY2024, NHTSA's suggestion that the amendments "require continuous improvements over time, but at sustainable levels for manufacturers," 90 Fed. Reg. at 56,609, is wholly irrational and arbitrary.

A detailed review of the Proposal reveals multiple ways that NHTSA has interpreted the subsection (f) feasibility factors inconsistent with EPCA's language and intent. NHTSA has also weighed the factors in a manner that contravenes EPCA's central energy conservation purpose. NHTSA has failed to provide reasoned explanations for its actions, ignored crucial aspects of the problem the agency is required by statute to solve, reached conclusions that run counter to the evidence before the agency, and offered explanations that are simply implausible, rendering its "maximum feasible" determination arbitrary and capricious. *See Motor Vehicle Mfr. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42–43 (1983).

NHTSA also has departed sharply from past positions and practice without adequate explanation, often without acknowledgment. *See Fox Television,* 556 U.S. at 515. For example, NHTSA has long recognized that "[c]onserving energy, especially reducing the nation's dependence on petroleum, benefits the U.S. in several ways" and "[i]mproving energy efficiency has benefits for economic growth and the environment as well as other benefits such as reducing pollution and improving security of energy supply." 70 Fed. Reg. 51,414, 51,455 (Aug. 30, 2005). NHTSA previously rejected less stringent alternatives where "they would have left technology, fuel savings, and emissions reductions on the table unnecessarily, and not contributed as much as possible to reducing our nation's energy security and climate change concerns." 77 Fed. Reg. 62,624, 63,055 (Oct. 15, 2012). With the Proposal, NHTSA has changed positions—assuming energy conservation provides little benefit, and forgoing fuel savings and climate benefits of truly staggering proportions—without explaining or even acknowledging this reversal. *See Fox Television*, 556 U.S. at 515.

1. Technological feasibility

NHTSA has unreasonably reinterpreted the technological feasibility factor to include consideration of cost. NHTSA states that "the crucial question on the technological feasibility factor is not whether technologies exist to meet the standards," but "how much existing technology should be required to be added to new cars and trucks to conserve fuel, *and how appropriately to balance any additional fuel conserved against the additional cost the mileage requirements will impose* on new vehicles." 90 Fed. Reg. at 56,585 (emphasis added). This reinterpretation inappropriately uses costs neutralizes a factor that EPCA expressly designed to be independent of "economic practicability." Moreover, NHTSA's reading is contrary to the ordinary meaning of "technological feasibility." Something is "feasible" if it is "capable of being done, executed, or effected: possible of realization." Webster's 3d New Int'l Dictionary 831 (1976). As modified by the adverb "technologically," this term calls for a straightforward consideration of an engineering question: whether a given vehicle technology will improve fuel economy on a given vehicle. 42 Fed. Reg. at 33,536. The cost of installing that technology is separately considered under the economic practicability factor. 49 U.S.C. § 32902(f).

NHTSA has also unreasonably reinterpreted this statutory factor in a manner contrary to EPCA's purpose of encouraging technological development. CAFE standards are "intended to be technology forcing" because Congress recognized "that 'market forces . . . may not be strong enough to bring about the necessary fuel conservation which a national energy policy demands.'" *Center for Auto Safety II*, 793 F.2d at 1339 (quoting S. Rep. No. 179, 94th Cong., 1st Sess. 2 (1975) at 9). NHTSA now rejects this premise. 90 Fed. Reg. at 56,585. The Proposal's preferred alternative would essentially flatline standards for ten years, resulting in no technology-forcing whatsoever. And the other proposed alternatives would require only very slight increases in fuel economy over time, also resulting in no technological advancement. 90 Fed. Reg. at 56,595 ("[M]anufacturers can comply with standards under each regulatory alternative by applying existing technology to their vehicles"). NHTSA is therefore impermissibly and unreasonably re-interpreting this factor in a manner contrary to the plain meaning of "feasibility," and ignoring EPCA's technology-forcing purpose. *Fox Television*, 556 U.S. at 515 ("An agency may not … depart from a prior policy *sub silentio*.").

The Proposal further departs from NHTSA's practice regarding the scope of technology it considers. In past rulemakings, the agency has considered "all types of technologies that improve real-world fuel economy." 77 Fed. Reg. at 62,668; 75 Fed. Reg. at 25,555. NHTSA recognized that it is "not limited . . . to technology that is already being commercially applied at the time of the rulemaking" but rather "can, instead, set technology-forcing standards." 77 Fed. Reg. at 63,015; *see also* 75 Fed. Reg. at 25,605. In the Proposal, NHTSA now indicates that it did not account for technology that is not "already being commercially applied at the time of the rulemaking." 90 Fed. Reg. at 56,585. And NHTSA affirmatively redefines this factor to address "how much existing technology should be required to be added to new cars and trucks to conserve fuel." *Id.*

This is an unexplained departure from the agency's past practice and prior interpretation of "technological feasibility." *Fox Television*, 556 U.S. at 515. In lieu of an explanation, NHTSA opines that it is unnecessary to account for all technologies "given that many technologies address fuel economy in similar ways." 90 Fed. Reg. at 56,585. However, NHTSA has failed to explain: (1) what "similar ways" means, or (2) why the fact that a technology that might improve fuel economy "in similar ways" to another technology obviates NHTSA's obligation to consider its availability, particularly given the differences in costs between different technologies. *See State Farm*, 463 U.S. at 43; *Fox Television*, 556 U.S. at 515 (requiring "a more detailed justification" when agencies "new policy rests upon factual findings that contradict those which underlay its prior policy"). Due to these arbitrary technology constraints, NHTSA has failed to evaluate what is technologically feasible.

2. Economic practicability

In evaluating economic practicability, NHTSA asks "whether a standard is one 'within the financial capability of the industry, but not so stringent as to' lead to 'adverse economic consequences, such as a significant loss of jobs or the unreasonable elimination of consumer choice.'" 90 Fed. Reg. 56,585. NHTSA fails to accurately apply that interpretation in assessing the economic practicability of robust fuel-economy standards in numerous ways.

a. NHTSA arbitrarily concludes that the existing standards are economically impracticable

NHTSA begins its economic practicability analysis by asserting the existing MY2022–2031 standards are economically impracticable because some manufacturers undercomply when only their gas-powered vehicles are considered. 90 Fed. Reg. at 56,596. This rationale violates the EV and Dual-Fueled Vehicles Restrictions. 49 U.S.C. § 32902(h)(1), (2). By evaluating the difference between the gas-only subfleet and the existing CAFE standards as a key indicator of economic impracticability, NHTSA is effectively isolating the special fuel-economy values of dedicated vehicles and dual-fueled vehicles as a major, even determinative, consideration under the second feasibility factor. This is forbidden under any reading of Section 32902(h).

Even if it were not statutorily prohibited, NHTSA's analysis of economic practicability is arbitrary and capricious because it bears no relationship to "practicability." Automakers were never required—and never attempted—to achieve existing standards with a subfleet consisting of only gas-fueled vehicles. It is irrational to ask whether a standard is "within the financial capability of the industry" by evaluating whether the industry's gas-fueled subfleets happened to comply with it. *Cf. Columbia Falls Aluminum Co. v. EPA*, 139 F.3d 914, 923 (D.C. Cir. 1988) (use of model is arbitrary and capricious where it "bears no rational relationship to the reality it purports to represent"). As NHTSA itself acknowledges, "one would reasonably expect the real-world gasoline- and diesel-powered fleet to under-comply relative to the standards" to the extent manufacturers applied the available compliance flexibilities. 90 Fed. Reg. at 56,596. NHTSA's assessment of only gas-powered vehicles is as meaningless as evaluating a basketball team's competitiveness according to whether it would have made the playoffs without free throws.

More fundamentally, NHTSA's evaluation of historical gas fleets bears no relationship to the question it purports to study. *State Farm*, 463 U.S. at 43 (agency must provide "rational connection between the facts found and the choice made"). Economic practicability asks whether a standard is "capable of being put into practice, done, or accomplished," 42 Fed. Reg. at 33,536 (citing dictionary definitions), not whether it *was* accomplished historically. Here, NHTSA has not purported to evaluate whether it was "within the financial capability of the industry," or would lead to "significant loss of jobs" or "unreasonable elimination of consumer choice," for MY2022–25 gas-only subfleets to meet existing standards. 90 Fed. Reg. at 56,585. Indeed, the per-vehicle costs that NHTSA assigns to the No-Action Alternative for MY2027–31, though unrealistic and inflated, do not appear higher than per-vehicle costs the agency has previously found to be economically practicable. *Id.* at 56,603 (Figure V-1); *compare with* 77 Fed. Reg. at 62,853 (Table III-25).[200]

Indeed, NHTSA does not use this same analysis to evaluate the economic practicability of its own Preferred Alternative. As shown in Tables IV-1 to IV-9, and as assumed in NHTSA's very construction of the action alternatives for MY2022–2026, several major automakers' historical gas-only subfleets of MY2024–2026 undercomply with its revised standards. 90 Fed. Reg. at 56,534 (designing Alternative 2 such that 75% of passenger car fleet and 70% of light trucks comply with MY2022 revised standards); *id.* at 56,549–55 (showing undercompliance by BMW, Ford, GM, Mercedes-Benz, Volkswagen, and Stellantis in MY2022–2024). Yet NHTSA never weighs this retroactive noncompliance as a point against its revised standards' economic practicability. This inconsistency itself is arbitrary and capricious. *See Gen. Chem. Corp. v. United States*, 817 F.2d 844, 846 (D.C. Cir. 1987) (agency action is arbitrary and capricious where its analysis is "internally inconsistent and inadequately explained").

b. NHTSA overrelies on consumer choice, contrary to statute, despite its lack of evidence of consumer preference

In evaluating economic practicability, NHTSA unreasonably elevates the significance of consumer choice—despite lacking meaningful evidence for its conclusions about what consumers prefer. NHTSA's longstanding interpretation of "economic practicability" includes evaluating whether the standards are so stringent as to lead to "unreasonable elimination of consumer choice.'" 90 Fed. Reg. at 56,585; *see also id.* at 56,603. Prior CAFE rulemakings have applied this standard to assign a limited role to consumer demand, especially after courts have constrained that consideration in the feasibility analysis. *See, e.g.*, 87 Fed. Reg. at 25,976 (noting that the "question … about consumer demand is whether the standards will require automakers to change their vehicles or lineups in ways that affect sales and employment to such an extent that it makes the standards economically impracticable"). In *Center for Auto Safety II*, the D.C. Circuit held NHTSA may not consider consumer demand "to such an extent that it ignore[s] the

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200 As EPA calculated, the per-vehicle costs of the joint EPA GHG emission standards/NHTSA CAFE standards for MY2017–2025 in Table III-25 correspond to $2,429 in 2022 dollars. EPA, Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles: Response to Comments 305 (Mar. 2024).

overarching goal of fuel conservation." 793 F.2d at 1340. But elevating consumer demand at the expense of fuel conservation is exactly what NHTSA proposes to do here.

After purporting to show that the existing standards are economically impracticable, NHTSA next states that "resetting standards at a level where all manufacturers can respond to market demand, consider affordability, and consider safety, would effectuate EPCA's structure and purpose by letting technology equalize as a baseline for further increases that better reflect consumer needs and preferences." 90 Fed. Reg. at 56,596. This is precisely what EPCA forbids: subordinating Congress's energy conservation objective in favor of "letting technology equalize" so that manufacturers can pursue "increases that better reflect consumer needs and preferences." *Id.*; *see Ctr. for Auto Safety II*, 793 F.2d at 1340. Similarly, NHTSA states it believes that "small, steady, incremental increases in fuel economy standards over time, which preserve the ability for manufacturers to focus on safety, affordability, and consumer choice, are reasonable and appropriate." 90 Fed. Reg. 56,592. However, EPCA requires *maximum feasible* standards, not "small" standards that allow manufacturers to "focus" on "consumer choice." *Id.*; 49 U.S.C. § 32902(a), (b)(2)(B).

NHTSA next tries, but is unable to show that existing standards forced manufacturers to adopt technologies that consumers reject. It acknowledges what technologies automakers would have applied "absent regulatory obligations," but does claim to know that "for some vehicle technologies ostensibly applied solely in response to increasing regulatory requirements . . . consumers frequently opt to deactivate the technology when able to do so, negating any potential fuel economy benefit." 90 Fed. Reg. 56,597. NHTSA does not cite to any data to support this statement. Instead, it cites two websites about deactivating stop-start technology (one of which is an advertisement for deactivation technology to potential buyers), neither of which makes any claim about how many consumers actually wish to deactivate this technology or whether they do so "frequently." *Id.* at n.480. The fact that some consumers are able to deactivate a single fuel-efficiency technology does not show consumer rejection, any more than the car stereo's "off" button shows consumer rejection of vehicle entertainment systems. NHTSA does not attempt to evaluate how many consumers do or do not prefer stop-start technology. Indeed, regardless of how many buyers prefer stop-start technology, the fact that buyers can choose a vehicle equipped with stop-start technology, choose a vehicle not equipped with stop-start technology, or choose a vehicle equipped with stop-start technology and then deactivate that feature expands the options available to buyers.[201] And NHTSA is even farther from showing that consumers "reject" any of the other many technologies manufacturers have added to vehicles under the existing standards. Nor does NHTSA explain why it has abruptly changed its position regarding the desirability of fuel economy technologies. *See, e.g.*, 89 Fed. Reg. 52,814 ("NHTSA agrees with comments suggesting that improved fuel economy is beneficial to consumers, and that having an array of

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[201] NHTSA cites to a Ford Motor Company webpage explaining that auto stop-start is "available on select vehicles" and "can be temporarily disabled." Ford, How Does Auto Start-Stop Technology Work in My Ford?, available at: https://www.ford.com/support/how-tos/more-vehicle-topics/engine-and-transmission/how-does-auto-start-stop-technology-work-in-my-ford (accessed: December 30, 2025).

vehicle choices with higher fuel economy is also beneficial."); *see Fox Television*, 556 U.S. at 515 (agency must demonstrate awareness of and explain change in position).

NHTSA also finds that because its analysis "shows significant penetration rates for strong hybrid vehicles by MY 2031," it must consider "potential consumer acceptance issues associated with that technology," as well as whether strong hybrid technology was applied at the expense of other technology "that consumers would prefer." 90 Fed. Reg. 56,598. This statement is baffling. Unlike in previous rulemakings, when NHTSA found high penetration of a technology to represent the auto industry's faith in consumer demand for that technology, NHTSA now seems to interpret high penetration as indicating a *lack* of consumer acceptance. *Compare with* 89 Fed. Reg. at 52,814 ("The auto industry has a strong interest in offering vehicles that consumers will buy. Introducing new models with these technologies suggests that the industry believes that consumer demand for these technologies is robust enough to support a greater supply."). The agency appears not to consider the possibility that consumers simply enjoy the benefits afforded by strong hybrid vehicles, including fuel savings. *Cf.* 90 Fed. Reg. at 56,599 (noting that gasoline prices have been increasing as market penetration of strong hybrid vehicles has increased). Even more fundamentally, NHTSA does not explain how or why it came to believe that strong hybrid technologies limit consumer access to other technologies. *See, e.g.*, 89 Fed. Reg. 52,814 ("NHTSA does not believe that it is a given that improving fuel economy comes at the expense of improving other vehicle attributes appreciated by consumers."); *see Fox Television*, 556 U.S. at 515.

Having stated that it will consider consumer preferences for forgone technology, NHTSA immediately acknowledges the difficulty of such analysis because "no consumer choice model satisfactorily predicts future behavior for the agency's purposes." 90 Fed. Reg. at 56,598. Although it has "previously invested considerable resources in developing a discrete choice model of the new automobile market," NHTSA acknowledges that these efforts "have not yet produced a satisfactory and operational model." *Id.* at 56,505. Because it cannot successfully model consumer choice, NHTSA "accounts for the possibility of decreased utility of vehicles because of CAFE standards outside of the sales module." *Id.* [202] By placing so much emphasis on a consideration it cannot meaningfully predict or analyze, NHTSA fails to provide a "rational connection between the facts found and the choice made." *State Farm*, 463 U.S. at 43. Further, the internal inconsistency of NHTSA heavily relying on a consideration it admits it cannot model or predict is arbitrary and capricious.

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202 Indeed, NHTSA cannot model consumer reactions to these hypothesized technology tradeoffs within the CAFE Model at all because the Model assumes that manufacturers "will not compromise the capacity, comfort, performance, or safety features of their existing models as part of their efforts to meet fuel economy regulations." Draft TSD at 6-8; *see also* 90 Fed. Reg. at 56,505 ("NHTSA implements several guardrails to prevent the CAFE Model from adopting technologies for fuel economy that could adversely affect the utility of vehicles, such as maintaining performance neutrality, including phase-in caps, and defining technology pathways by using engineering judgement.").

Finally, NHTSA claims that "[o]ne of the most important aspects of resetting CAFE standards is to reduce the up-front costs that consumers must pay for new vehicles due to CAFE standards." 90 Fed. Reg. 56,603. NHTSA does not explain why reducing upfront costs is more important than reducing long-term fuel costs. *Cf.* 89 Fed. Reg. at 52,550 (considering upfront costs alongside the "corresponding fuel savings benefits" that "offset those costs"). This conclusion is especially perverse given that energy conservation, not vehicle prices, is the "paramount objective" of the CAFE standards. 88 Fed. Reg. 56,329. Further, NHTSA makes no showing that vehicle costs under the existing standards "impede the ability of manufacturers and dealers to sell vehicles." 90 Fed. Reg. at 56,603. Although NHTSA cites to data showing the increasing price of new vehicles relative to income, it does not show that these increases are due to the CAFE standards, 90 Fed. Reg. 56,504, and does not consider the role of the standards in lowering lifetime fuel costs, 89 Fed. Reg. 52,551. NHTSA seems to assume that CAFE standards should reduce upfront vehicle prices whenever possible, but such an assumption leads to the absurd result that CAFE standards should always be minimally stringent.

c. NHTSA fails to account for dramatically falling battery costs in calculating the cost of hybridization

NHTSA's evaluation of economic feasibility relies on cost models for applying hybrid technologies that fail to account for dramatically falling battery costs. Those inaccurate hybrid battery cost assumptions artificially inflate the cost of "strong" hybrid vehicles, which in turn raises projected regulatory costs, distorts the projected makeup of the fleet, and overall renders the CAFE Model's results arbitrary and capricious. *See* Gillingham et al. 39–40.

First, NHTSA uses 2022 as a base year to estimate the manufacturing cost of hybrid battery packs. 90 Fed. Reg. 56,495; Gillingham et al. 33–35. But because materials costs and the relative intensity of certain mineral use dropped between 2022 and 2024, NHTSA's use of the 2022 base year overestimates direct manufacturing costs. Gillingham et al. 33–35. In particular, NHTSA assumes that all strong hybrids rely on lithium manganese cobalt battery chemistries rather than cheaper lithium iron phosphate. 90 Fed. Reg. at 56,495. Since 2022, however, lithium iron phosphate has quickly become the dominant global battery chemistry. Gillingham et al. 33. Although NHTSA attempts to account for advancements in battery technology by using a learning rate, 90 Fed. Reg. at 56,495, the learning rate it applies is the same as that used for the 2024 Final Rule and is inadequate to keep pace with current battery technology. Gillingham et al. 35–37. Evidence suggests that EV battery manufacturing has recently demonstrated a 7.5 percent learning rate—five times the 1.5 percent rate applied by NHTSA. Gillingham et al. 37.

NHTSA also models battery costs without the effects of the 45X advanced manufacturing production tax credit, ostensibly because of foreign entity of concern constraints and American component threshold percentages. 90 Fed. Reg. at 56,478. However, recent years have seen significant onshoring of the battery supply chain and investments in critical mineral supply chain. Gillingham et al. 38–39. Accordingly, there is no reason to believe that the entire industry will be unable to take advantage of the 45X credit, as NHTSA assumes. *Id.* NHTSA's unjustified assumption has significant impacts on projected battery cost: one 2024 Argonne National Laboratory study found that the 45X credit could reduce average battery pack cost from $86/kWh in MY2035 to as low as $56/kWh in MY2029. *Id.*

Because NHTSA's battery cost modeling is inaccurate and insufficiently justified, the agency cannot rely upon the resulting data as support for the Proposal.

d. NHTSA proposes to eliminate off-cycle credits without considering the negative impacts on economic practicability

NHTSA proposes eliminating off-cycle credits but fails to consider the impact of doing so on the economic practicability of both existing and proposed standards. CAFE standards are the most cost-effective when manufacturers can choose from a wide variety of efficiency improvements and deploy those that deliver the greatest fuel savings per dollar. Gillingham et al. 44. Certain off-cycle credits—those that deliver real-world efficiency benefits that are not fully captured by the laboratory test cycles used for compliance—expand the options available to manufacturers and thus reduce costs. Gillingham et al. 44–45.

NHTSA's proposed rule argues that off-cycle credits provide "uncertain real-world benefits" and impose "added costs." 90 Fed. Reg. at 56,443, 56,503. But uncertainty in measured benefits does not always indicate the absence of benefits. Gillingham et al. 45. Moreover, many off-cycle technologies deliver well-documented, measurable reductions in real-world fuel consumption, including advanced air-conditioning efficiency and leakage reduction;[203] active aerodynamics (e.g., grille shutters and deployable spoilers);[204] and accessory improvements such as high-efficiency alternators and electric power steering.[205]

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[203] A. A. Dahlan et al., "Efficient and 'Green' Vehicle Air Conditioning System using Electric Compressor." *Energy Procedia* 61 (2014), at 270–273, https://www.sciencedirect.com/science/article/pii/S187661021402935X; R. Farrington & J. Rugh, "Impact of vehicle air-conditioning on fuel economy, tailpipe emissions, and electric vehicle range," *National Renewable Energy Lab* No. NREL/CP-540-28960 (2000), https://digital.library.unt.edu/ark:/67531/metadc718307/m2/1/high_res_d/764573.pdf.

[204] Y. Cho et al., "Optimization of active grille shutters operation for improved fuel economy," *SAE International Journal of Passenger Cars-Mechanical Systems* 10, no. 2017-01-1513 (2017), at 563-572, https://saemobilus.sae.org/articles/optimization-active-grille-shutters-operation-improved-fuel-economy-2017-01-1513; S. Natarajan et al., "Impact of Active-Grille Shutter Position on Vehicle Air-Conditioning System Performance and Energy Consumption in Real World Conditions," *SAE*, No. 2020-01-0947 (2020), https://saemobilus.sae.org/papers/impact-active-grille-shutter-position-vehicle-air-conditioning-system-performance-energy-consumption-real-world-conditions-2020-01-0947; S. Chacko et al., "Fuel Economy Benefit of Active Grille Shutters for Real World, Worldwide Harmonized Light Vehicles Test Procedure, and Real Driving Emission Cycles," *SAE International*, No. 2022-01-5013 (2022), https://www.sae.org/papers/fuel-economy-benefit-active-grille-shutters-real-world-worldwide-harmonized-light-vehicles-test-procedure-real-driving-emission-cycles-2022-01-5013.

[205] V. Lakshminarasimhan and G. Athani, "An intelligent alternator control mechanism for energy recuperation and fuel efficiency improvement," *SAE International Journal of Alternative Powertrains* 2, no. 1 (2013), at 217-225, https://saemobilus.sae.org/articles/intelligent-alternator-control-mechanism-energy-recuperation-fuel-efficiency-improvement-2013-01-1750; J. I. Park et al., "An investigation on the energy-saving effect of a hybrid electric-power steering system for commercial vehicles," *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering* 233, no. 6 (2019), at 1623-1648, https://journals.sagepub.com/doi/10.1177/0954407018777579.

Off-cycle technologies also provide additional benefits not captured in NHTSA's analysis. For example, off-cycle technologies such as advanced air-conditioning systems or tire pressure monitoring can enhance vehicle safety, reliability, and consumer convenience while also reducing fuel consumption in real-world driving.[206] Similarly, the availability of off-cycle credits allows manufacturers to achieve efficiency improvements without risking the tradeoffs in performance with which NHTSA elsewhere expresses concern. 90 Fed. Reg. at 56,505.

NHTSA's proposal to eliminate this compliance pathway does not eliminate underlying efficiency opportunities. Instead, it forces manufacturers to substitute toward a narrower set of on-cycle technologies, many of which are more expensive. As a result, the same aggregate fuel economy outcome is achieved at higher cost. NHTSA's failure to consider this distortive effect of its own Proposal on the second feasibility factor is arbitrary.

e. NHTSA fails to meaningfully consider job losses and associated economic harms from the Proposal

NHTSA has failed to consider significant job losses and other economic harms that would result from the Proposal, contrary to the agency's historical practice.

An important consideration in setting fuel economy standards is the impact such standards will have on the auto industry and national economy. *See* H.R. Rep. No. 94-340, at 9 (1975) (discussing Congress's intent that "economic health is restored, that the jobless find work"). Accordingly, NHTSA has long considered a standard to lack economical practicability where it would lead to "a significant loss of jobs." 90 Fed. Reg. at 56,585.

NHTSA now deviates from this position, without explanation, by failing to consider significant economic harms that would result from the Proposal. NHTSA estimates employment effects by translating "any reduction in costs . . . directly to an assumption of reduced labor hours into a metric called 'person years,'" without accounting for "a diversion of such labor into development or production of different technologies." *Id.* at 56,604. However, "[g]iven a range of potential industry responses, not only to new fuel economy standards, but also to the larger macroeconomic context," NHTSA "cannot conclude that its estimate of changes in employment effects would lead it to changing its proposed determination on maximum feasible standards." *Id.*; *see also* Draft TSD at 6-37 ("NHTSA believes that all labor costs or cost savings imposed by the standards are subsumed by the costs and benefits estimated elsewhere in the analysis, and therefore NHTSA does not separately monetize the labor impacts discussed in this section in the primary benefits and costs of the standards.").

This analysis is arbitrary and capricious. First, NHTSA's projection of jobs under the No-Action Alternative differs, without explanation, from its projection of the same metric in the Final Regulatory Impact Analysis supporting the 2024 Rule. *Compare* 2024 FRIA at 8-19, 8-20,

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[206] Z. Yang & A. Bandivadekar, *Light-duty vehicle greenhouse gas and fuel economy standards* at 19–20 (2017), https://theicct.org/wp-content/uploads/2021/06/2017-Global-LDV-Standards-Update_ICCT-Report_23062017_vF.pdf.

with PRIA at 8-33, 8-34; *see Fox Television*, 556 U.S. at 515 (when "new policy rests upon factual findings that contradict those which underlay the prior policy," agency must "provide a more detailed justification than what would suffice for a new policy created on a blank slate").

Second, NHTSA arbitrarily forgoes a meaningful evaluation of employment effects in making its proposed determination. 90 Fed. Reg. at 56,604. NHTSA nowhere justifies its opaque assertion that lost American jobs are "subsumed" in other, unspecified costs and benefits. Draft TSD at 6-37. Certainly, the public is entitled to more notice if NHTSA's position is that higher oil profits or the lowered price of a Ferrari adequately capture the lost value of an auto worker's livelihood. NHTSA also fails to acknowledge or explain its break with its practice of considering a "significant loss of jobs" as an indicator of economic impracticability. 83 Fed. Reg. at 43,208; *Fox Television*, 556 U.S. at 515; *see also State Farm*, 463 U.S. at 42–43 (failure to consider an important aspect of the problem is arbitrary). Most notably, NHTSA fails entirely to analyze the impacts its Proposal would have on employment in the large and growing EV industry, which includes not only individual workers but entire companies focused on EV production. By failing to meaningfully consider the impact of the Proposal on this important labor sector, NHTSA has ignored a key aspect of the problem and failed to propose a "rational connection between the facts found and the choice made." *State Farm*, 463 U.S. at 42–43.

f. The PRIA economic analysis arbitrarily obscures the destruction of billions of dollars in real consumer savings by inventing an unsupported "opportunity cost" value

NHTSA states that it "considers estimated net benefits as relevant to determining maximum feasible CAFE standards," presumably under the second and/or fourth feasibility factors. 90 Fed. Reg. at 56,609. But because NHTSA's cost-benefit analysis egregiously distorts those purported net benefits, NHTSA's reliance on it in the feasibility analysis renders its maximum feasible determination arbitrary.

Specifically, NHTSA's cost-benefit analysis disguises the Proposal's catastrophic impact on consumer affordability: destroying billions of dollars in fuel savings that existing MY2027–2031 CAFE standards were set to achieve. The PRIA mutes this impact by pretending a sizeable portion of these fuel savings—actual dollars saved at the pump from more fuel-efficient cars—do not actually accrue to consumers because they are offset by "implicit opportunity costs." Draft TSD at 6-4–6-10. NHTSA's embrace of implicit opportunity costs represents a reversal of its previous position without explanation or support, and ignores the fact that such a cost *cannot exist* in NHTSA's modeling. The resulting figure, included in NHTSA's cost-benefit analysis, is thus arbitrary and capricious.

NHTSA states in the PRIA that it has "reconsidered" its prior position that market failures prevent vehicle purchasers from fully taking future fuel savings into account in their decisions. Under its new position, consumers fail to fully account for fuel economy because they "prefer to pay for other features." PRIA at 2-4. In changing position, NHTSA does not consider (much less rebut) the literature cited for the opposite conclusion in the 2024 Rule Final Regulatory Impact Analysis. 2024 FRIA at 9-55–9-57. NHTSA's failure to support its changed position with evidence is arbitrary and capricious. *Fox Television*, 556 U.S. at 515 (when "new policy rests upon factual findings that contradict those which underlay the prior policy," agency must "provide a more detailed justification than what would suffice for a new policy created on a blank slate").

Most fundamentally, this change in position makes no sense in the context of the CAFE Model because the Model assumes that manufacturers "will not compromise the capacity, comfort, performance, or safety features of their existing models as part of their efforts to meet fuel economy regulations." Draft TSD at 6-8; *see* 90 Fed. Reg. at 56,505 ("NHTSA implements several guardrails to prevent the CAFE Model from adopting technologies for fuel economy that could adversely affect the utility of vehicles, such as maintaining performance neutrality. . . ."); *see also* Gillingham et al. 28. NHTSA does not identify any other possible source of implicit opportunity costs given that all observed variables are kept constant, and there is no basis to conclude such costs exist. *Id*. The literature NHTSA purports to rely on to calculate consumer valuation of fuel economy similarly eliminates the possibility of opportunity costs by holding observed attributes constant, such that the existence of opportunity costs cannot reasonably be inferred from the literature. *See* PRIA at 2-4; Gillingham et al. 28–29.

NHTSA's opportunity cost figure is also based on the agency's arbitrary and capricious conclusion that consumers value 75% of future fuel savings. Draft TSD at 6-9–6-10; Gillingham et al. 29. NHTSA justifies its conclusion that consumers value 75% of fuel savings with a flawed and cherry-picked literature review. That literature review—in addition to including papers with a mathematical error—omits important papers showing lower valuation figures, and, of the papers included in the literature review, selectively calculates the percent of lifetime fuel cost savings for only those papers that yield a higher valuation figure. Gillingham et al. 29; *see* Draft TSD at 4-2. As such, NHTSA's analysis of consumer valuation runs counter to the evidence before the agency. *State Farm*, 463 U.S. at 43.

NHTSA's opportunity cost analysis is further flawed because, as NHTSA itself admits, the accuracy of its opportunity cost estimate is limited by its own inability to meaningfully model consumer preferences. Draft TSD 4-7–4-8; *see also supra* Part IV.A.2.f.; 90 Fed. Reg. at 56,505 (NHTSA has not produced a satisfactory discrete choice model). Even if NHTSA did use a discrete choice model to model consumer preferences, that model would need to be consistent with the many variables the CAFE Model holds constant.

Moreover, NHTSA's estimation inexplicably is much larger than its prior analysis of the same figure. NHTSA states that the implicit opportunity cost is $2,625 per MY2031 vehicle (3% discount rate) under the No-Action Alternative. PRIA at 8-36. The FRIA for the 2024 Rule, which calculated implicit opportunity cost as a sensitivity case, estimated the same figure at $127. 2024 FRIA at 9-57. NHTSA does not explain this enormous leap. *Fox Television*, 556 U.S. at 515. Nor does the agency reckon with the "potential countervailing effects" it found in 2024, such as "various externalities" associated with potentially forgone attributes, or the possibility that some vehicle attributes are valued according to their ranking among other goods (e.g., "best in class") and thus may not be impacted by standards' stringency. 2024 FRIA at 9-57; *see State*

Farm, 463 U.S. at 43 (agency action is arbitrary and capricious where it fails to consider a key aspect of the problem).

3. Other motor vehicle standards of the Government

NHTSA's consideration of the third feasibility factor, "the effect of other motor vehicle standards of the Government on fuel economy," 49 U.S.C. § 32902(f), "involves analysis of the effects of compliance with emission, safety, noise, or damageability standards on fuel economy capability and thus on average fuel economy." 90 Fed. Reg. at 56,586. The States and Cities agree it is appropriate for NHTSA to model the interaction of its fuel economy standards and EPA's criteria pollutant emission standards, as criteria emission controls and fuel-economy improvements carry significant technological interactions and even overlap. *Id.* at 56,595. The States and Cities also agree it is reasonable not to model EPA's greenhouse gas standards if EPA finalizes its proposed rescission of those emission standards. However, since that proposed action is flagrantly illegal,[207] we expect NHTSA to be prepared to redo its modeling and issue a new NPRM if that proposed action is either not finalized or ultimately vacated or rescinded.

The bulk of NHTSA's discussion of this third feasibility factor is a wholly unnecessary digression on whether California vehicle emission standards covered by a preemption waiver under Clean Air Act section 209(b) (hereafter California 209(b) standards) are "other motor vehicle standards of the Government" under EPCA. While NHTSA prevaricates on its history, 90 Fed. Reg. at 56,586, NHTSA clearly considered California 209(b) standards under the third factor in the past, including under every prior Republican President's administration. *See, e.g.*, 71 Fed. Reg. 17,566, 17,639–43 (Apr. 6, 2006); 68 Fed. Reg. 16,868, 16,893–96 (Apr. 7, 2003); 56 Fed. Reg. 13,773, 13,777–79 (Apr. 4, 1991); 53 Fed. Reg. 39,275, 39,296 (Oct. 6, 1988); 51 Fed. Reg. 35,594, 35,611 (Oct. 6, 1986). As discussed below, that history is justified under ordinary tools of statutory interpretation. However, because California's current 209(b) standards likely would have no effect on the feasibility analysis—certainly not under NHTSA's reinterpreted EV Restriction, but not even under its prior, correct interpretation—the issue is irrelevant to the Proposal.

a. NHTSA's unnecessary reinterpretation of "other motor vehicle standards of the Government" is erroneous and should not be finalized

As used in EPCA, the term "other motor vehicle standards of the Government" includes new motor vehicle emission standards established by EPA and by California where those state standards have been granted waivers under Clean Air Act section 209(b). The provision's

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[207] *See generally* Comments of Massachusetts, New York, California, Connecticut et al. on EPA's Proposed Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards, EPA-HQ-OAR-2025-0194-13587 (Sept. 22, 2025), https://www.regulations.gov/comment/EPA-HQ-OAR-2025-0194-13587; Comments of the Attorneys General of California et al. on EPA's Proposed Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards, EPA-HQ-OAR-2025-0194-2974 (Sept. 22, 2025), https://www.regulations.gov/comment/EPA-HQ-OAR-2025-0194-2974.

structure and context further affirm that, where California 209(b) standards have an effect on fuel economy, those effects should be considered in determining maximum feasible CAFE standards.

When Congress defines a term in statute, that definition controls. *Tanzin v. Tanvir*, 592 U.S. 43, 47 (2020) (finding Congress supplanted the ordinary meaning of "government" with an express definition). Here, Congress enacted two express interpretive commands as to "other motor vehicle standards of the Government." First, when Congress consolidated transportation statutes in 1994 into the present Title 49 of the U.S. Code, it substituted "other motor vehicle standards of the Government" for EPCA's original language in the same provision, "other Federal motor vehicle standards." Pub. L. No. 103-272, 108 Stat. at 1060 (Jul. 5, 1994); *see* 15 U.S.C. § 2002(e)(3) (1976). In that same law, Congress expressly stated that this revision and others "restate, without substantive change, laws enacted before July 1, 1993" and "may not be construed as making a substantive change in the laws replaced." Pub. L. No. 103-272, § 6(a), 108 Stat. at 1378. "Other motor vehicle standards of the Government" thus by law means the same thing that "other Federal motor vehicle standards" did in the original statute, regardless of the ordinary meaning of terms like "the Government." *See Tanzin*, 592 U.S. at 47; *contra* 90 Fed. Reg. at 56,586.

Second, in the original statute, Congress explicitly defined "Federal standards" to include California emission standards that had received an EPA waiver:

> Each of the following is a category of Federal standards; … (i) Emissions standards under section 202 of the Clean Air Act and emissions standards applicable by reason of section 209(b) of such Act.

15 U.S.C. § 2002(d)(3)(D)(i) (1976). Because EPCA specifically included California 209(b) standards as "Federal standards," California 209(b) standards are included in "other Federal motor vehicle standards" in the original section 2002(e) and thus "other motor vehicle standards of the Government" in the present-day section 32902(f).

A review of the structure and operation of the original section 2002 confirms that "Federal standards," in subsection (d)(3), and "other Federal motor vehicle standards," in subsection (e) meant the same thing. *Food & Drug Admin. v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 133 (2000) (statutory terms "must be read in their context and with a view to their place in the overall statutory scheme" and courts must "fit, if possible, all parts into an harmonious whole") (citations and quotation marks omitted).

When Congress adopted EPCA in 1975, it specified the numeric average fuel-economy standards for MY1978–80 passenger vehicles, but it allowed NHTSA to adjust these standards for qualifying manufacturers. 15 U.S.C. §§ 2002(a)(1), (d)(1) (1976). For model years after 1980, Congress directed NHTSA to set standards at what it determined to be the "maximum feasible average fuel economy level." *Id.*, § 2002(a)(3), (4) (1976). In the original section 2002, subsection (d) governed the first task—how NHTSA may adjust the 1978–80 standards—while subsection (e) governed the second—how NHTSA decides the "maximum feasible average fuel economy level" for post-1980 standards. In subsection (d), NHTSA's duty to consider "Federal standards" expressly follows from the premise that compliance with other standards on vehicle safety, emissions, and noise might cause a significant "reduction" in manufacturers' ability to achieve the level of fuel economy Congress had required, and subsection (d) allows NHTSA to adjust down the manufacturer's fuel-economy standard accordingly. *Id.* § 2002(d)(2)(A), (3)(B)-(C) (1976). (Indeed, Congress itself considered that California's vehicle emission limits would affect fuel economy when setting the original MY1978–80 standards.[208])

To qualify for the adjustment, a manufacturer had to demonstrate that other "Federal standards," including California 209(b) standards, likely caused a "fuel economy reduction," and that the manufacturer had applied a "reasonably selected technology," i.e., a vehicle or engine design appropriate to "the Nation's need to improve [] fuel economy" and "the energy savings, economic costs, and lead-time requirements" of available technological alternatives. 15 U.S.C. § 2002(d)(2)(A), 3(A) (1976). The plain function of subsection (d), then, was to hold manufacturers to as high a fuel economy as feasible in MY1978–80 given the constraints to which they were otherwise subject and the policy considerations Congress imposed on NHTSA in the provision. In turn, subsection (e) reapplied these same principles for post-1980 models: manufacturers must achieve "maximum feasible average fuel economy" given available technology, economic practicability, the effect of other vehicle standards on fuel economy, and "the need of the Nation to conserve energy." *Id.*, § 2002(e) (1976).

Given the symmetrical functions of subsections (d) and (e), the only permissible reading of them together is to construe "Federal standards" and "Federal motor vehicle standards" as identical in scope.[209] Indeed, it would make no logical sense to require NHTSA to consider California 209(b) standards as "Federal standards" relevant to MY1978–80, but not as "Federal motor vehicle standards" relevant to later model years, particularly since California 209(b) standards can have the same or greater impact on fuel economy as EPA's emissions standards. Both references in Sections 2002(d) and 2002(e) served the same function: directing NHTSA to accommodate automakers' obligations to comply with existing environmental and safety standards when deciding how much automakers could improve fuel economy.[210]

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208 H.R. Rep. No. 94-340, at 86-87 (1975) (committee report discussing positive and negative effects on fuel economy of automakers' compliance with California emission limits for carbon monoxide and hydrocarbons).

209 This contextual reading of subsections (d) and (e) also confirms that the additional words "motor vehicle" do not intend any distinction between "Federal standards" and "Federal motor vehicle standards"; notably, all the "Federal standards" defined in subsection (d) were in fact motor vehicle standards. 15 U.S.C. § 2002(d)(3)(D) (1976). Similarly, while subsection (d) defined "Federal standards" and other terms "for purposes of this subsection," the provision does not restrict the definition of "Federal standards" to that subsection exclusively, and reading subsections (d) and (e) together as a whole confirms that this language was not intended to generate a different, unspecified meaning for "other Federal motor vehicle standards" in subsection (e).

210 In the early years of the fuel-economy program, Congress set passenger-car standards itself, 15 U.S.C. § 2002(a)(1) (1976), but Section 2002(d) directed NHTSA to grant variances to automakers if other "Federal standards" impeded their compliance. For later years, Congress directed NHTSA to set passenger-car fuel-economy standards and to account for the effects of "Federal motor vehicle standards" on fuel economy when doing so. *Id.* § 2002(a)(3), (a)(4), (e) (1976).

Further, construing "other Federal motor vehicle standards" in subsection (e) to exclude California 209(b) standards would create other asymmetries that are contrary to the intent of Congress. For example, under such an interpretation, if NHTSA found that compliance with California 209(b) standards would significantly reduce fuel economy below the levels Congress set, it could have accommodated that reduction with adjusted standards for MY1978–80 passenger vehicles (subsection (d)), but not for MY1978–80 light trucks (subsection (b)). Similarly, it could not have granted exemptions to small manufacturers and issued alternative fuel-economy standards based on such a reduction (subsection (c)). There is no policy rationale to justify these anomalies; the plain purpose of subsection (c) is to accommodate the special obstacles that small manufacturers face in improving fuel economy, which could certainly include California 209(b) standards. 15 U.S.C. §§ 2002(b), (c), (d) (1976). Unsurprisingly, then, across multiple administrations, NHTSA has consistently interpreted both "other Federal motor vehicle standards" in subsection (e) and "other motor vehicle standards of the Government" in the present section 32902(f) to include California 209(b) standards.

NHTSA's new contrary arguments are unconvincing. First, NHTSA argues that the singular article in "the Government," 49 U.S.C. § 32902(f), "likely reflects that only the Federal Government has authority to set standards 'on fuel economy,'" 90 Fed. Reg. at 56,586. But that makes no sense: the manifest object of this third factor is to consider the effect of *non-fuel economy* vehicle standards, which can be set by California (subject to a 209(b) waiver) as well as the federal government. In any case, Congress expressly commanded that the new language in the Title 49 recodification should not change the substantive meaning of this term. Pub. L. No. 103-272, § 6(a), 108 Stat. at 1378. Second, NHTSA makes a structural argument based on the deletion of 15 U.S.C. § 2002(d) (allowing for the adjustment of 1978–80 standards) in the Title 49 recodification. 90 Fed. Reg. at 56,568–69. Again, NHTSA contradicts Congress's express command by interpreting this action to work a substantive change in meaning. Pub. L. No. 103-272, § 6(a), 108 Stat. at 1378. Moreover, the relevant question is what the term "other Federal motor vehicle standards" in 15 U.S.C. § 2002(e) meant in 1975, as a statute's "meaning is fixed at the time of enactment." *Wisc. Cent. Ltd. v. United States*, 585 U.S. 274, 284 (2018) (emphasis omitted). And the express definition of "Federal standards" to include California 209(b) standards in the immediately preceding subsection plainly bears on that original meaning, despite that subsection's later deletion as a fully "executed" provision. 90 Fed. Reg. at 56,587.

Again, that makes sense today as much as in 1975, and NHTSA's insistence on changing practice helps no one—certainly not automakers, who will be prejudiced to the extent California 209(b) standards in the future carry a real-world fuel-economy penalty that NHTSA disregards in its feasibility analysis. But as the next section discusses, there is no need to pronounce on this issue in any final rule, because NHTSA does not identify any appreciable effect on fuel economy that the present California 209(b) standards carry.

b. Whether or not NHTSA treats California standards as "other motor vehicle standards of the Government" is irrelevant under NHTSA's analysis

Under the classic third factor analysis, other motor vehicle standards could affect fuel economy in three distinct ways. First, those other standards could carry a fuel-economy penalty: i.e., by leading to the installation of technology that diminished fuel economy (e.g., a catalytic converter for NOx control). *See, e.g.*, 53 Fed. Reg. at 39,296 (discussion of fuel economy penalty from California NOx standards). Second, other standards might limit or preclude the application of a candidate fuel efficiency improvement: e.g., by leading to increased production of EVs, which would preclude the application of combustion-engine technologies on those vehicles. Third, other standards might in fact carry a fuel-economy bonus, if they lead to the installation of technology that both reduces emissions (or improves safety) and improves fuel economy, such as fuel injection controls. And, of course, other motor vehicle standards could be fuel economy neutral, in which case the third factor does no meaningful work.

NHTSA has not identified any way that California 209(b) standards could have one of the above effects, and there is reason to doubt they would. In the past, NHTSA has used California's Zero-Emission Vehicle (ZEV) regulation and its sales targets as a proxy for a growing EV market share in the no-action fleet. *See* 89 Fed. Reg. at 52,610. That is, NHTSA assumed that automakers would continue to comply with the ZEV regulation in the States adopting it and that, for a given model year, the number of ZEVs representing compliance with that regulation in those States would reasonably stand in for the total number of EVs that automakers would sell *nationwide*. *Id.* at 52,611. That modeling choice would allow the CAFE Model, during the compliance simulation, to skip the application of combustion-engine technologies to vehicles converted to EVs in response to the California ZEV regulation. But of course, under NHTSA's new, erroneous reinterpretation of the EV Restriction, electric vehicles are excluded from the entirety of the CAFE Model. That means that, under the Proposal's framework as it is, no California standards could have an effect on fuel economy one way or another, whether or not they are treated as "other motor vehicle standards of the Government."

Even if NHTSA were to return to its correct interpretation of the EV Restriction, any potential effects of California's currently enforced 209(b) standards would almost certainly be swallowed by an accurate representation of year-over-year EV growth in the no-action fleet.[211] While California 209(b) standards were a reasonable proxy for EV market share in 2024, the MY2025 ZEV target from the Advanced Clean Cars I regulation is definitely an underestimate for EV growth now, when the national EV market share is 9–10% and climbing. In the present Proposal, NHTSA has modeled EV growth using projections from the AEO2025 Alternative Transportation Case, 90 Fed. Reg. at 56,505 & n.408, and the States and Cities agree that this is a reasonable modeling option. Under a correct interpretation of the EV Restriction, NHTSA could easily program the CAFE Model to convert a certain number of vehicles in the baseline fleet to EVs to match the AEO projections without reference to California 209(b) standards at all. Thus, in these particular circumstances, whether or not NHTSA treats California 209(b) standards as

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[211] Because California is not enforcing the Advanced Clean Cars II regulation while litigation over the June 12, 2025 congressional disapproval resolutions is pending, *see* CARB, Manufacturers Advisory Correspondence (MAC) EECD-2025-08 (Aug. 25, 2025), https://ww2.arb.ca.gov/sites/default/files/2025-08/MAC%20ECCD-2025-08.pdf, the States and Cities agree NHTSA need not model these standards, whether under the third factor, in the baseline, or otherwise. That course is consistent with the States and Cities' (and NHTSA's) prior treatment of California standards in litigation and rulemaking proceedings. *See, e.g.*, ECF No. 121 at 21 & n.15, *In re CAFE Standards*, Case No. 24-7001 (6th Cir. Jan. 24, 2025); *see* 89 Fed. Reg at 52,610–11.

"other motor vehicle standards of the Government" under the third feasibility factor has no bearing on the present rulemaking—even under the correct interpretation of the EV Restriction.

4. Need of the United States to conserve energy

The Proposal unlawfully diminishes the fourth feasibility factor, "the need of the United States to conserve energy," 49 U.S.C. § 32902(f), in a manner that contradicts statutory language as well as congressional design. In proposing to relax past standards and advancing a preferred alternative that would freeze CAFE standards through MY2031, NHTSA effectively proposes that the nation no longer needs to conserve energy. However, Congress already made the determination that the nation *does* need to conserve energy and directed the agency to act accordingly. Pub. L. No. 94-163, § 2(4), (5), 89 Stat. at 874 ("The purposes of [EPCA] are—to conserve energy supplies through … the regulation of certain energy uses" and "to provide for improved efficiency of motor vehicles," among others). It thus limited NHTSA's role to balancing that previously established need with other enumerated factors to determine maximum feasible fuel-economy levels. 49 U.S.C. § 32902(f) (NHTSA "shall consider … *the* need of the United States to conserve energy" (emphasis added)); *Nielsen v. Preap*, 586 U.S. 392, 408 (2019) (the definite article "indicat[es] that a following noun or noun equivalent is definite or has been previously specified by context" (citing dictionaries and other authorities)); *see also Ctr. for Auto Safety II*, 793 F.2d at 1338 ("Congress intended energy conservation to be a long term effort that would continue through temporary improvements in energy availability."). Thus, NHTSA's current proposal contravenes EPCA, and indeed is *ultra vires*, because the statute does not delegate authority to NHTSA to decide *whether* the nation needs to conserve energy.

As a primary basis for the assertion that the nation does not need to conserve energy, NHTSA points to the United States' reduced need to import foreign oil now that it is a "net energy exporter." 90 Fed. Reg. at 56,588. That assertion is arbitrary and capricious, particularly in light of President Trum's January 20, 2025 declaration of a "national energy emergency" asserting that "[t]he energy … identification, leasing, development, production, transportation, refining, and generation capacity of the United States are all far too inadequate to meet our Nation's needs."[212] The official position of the Trump Administration continues to be that this "insufficient energy production, transportation, refining, and generation constitutes an unusual and extraordinary threat to our Nation's economy, national security, and foreign policy."[213] As recently as January 12, 2026, the Administration offered to suspend enforcement of hazardous material safety regulations for crude oil pipelines and other energy transportation infrastructure because of this declared emergency.[214] Even if NHTSA could decide to dismiss the "need to

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212 Exec. Order No. 14,156, *Declaring a National Energy Emergency*, 90 Fed. Reg. 8433 (Jan. 29, 2025).

213 *Id.*

214 U.S. Dept. of Transp., Pipeline & Hazardous Materials Safety Admin., *Notice of Limited Enforcement Discretion and Statement of Policy for Issuing Special Permits in Response to National Energy Emergency* (Jan. 12, 2026), https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2026-01/Notice%20of%20Limited%20Enforcement%20Discretion%20and%20Statement%20of%20Policy%2

conserve energy" factor, it cannot do so for reasons that are directly contrary to the President's own declaration of a nationwide energy crisis, which to date has not been withdrawn.

Traditionally, NHTSA has evaluated "the need of the United States to conserve energy" by considering "the consumer cost, national balance of payments, environmental, and foreign policy implications of our need for large quantities of petroleum, especially imported petroleum." 83 Fed. Reg. at 43,210. In the Proposal, NHTSA arrives at arbitrary or unsupported conclusions on these matters by failing to accurately consider consumer costs, mischaracterizing the United States' position in the global oil market, and ignoring the fundamental fact that the Proposal will result in greater use of petroleum, thus increasing our nation's dependence on oil. NHTSA's own modeling indicates the Proposal will raise fuel consumption by nearly 100 billion gallons through 2050, costing Americans up to $185 billion. PRIA 8-64, 9-9.[215] NHTSA also discounts environmental impacts, especially the ruinous climate impacts, of this increase in the nation's oil dependency, even proposing to define "conservation" to exclude environmental effects altogether. 90 Fed. Reg. at 56,588. As discussed below, each of these points renders the agency's analysis under the fourth feasibility factor arbitrary and capricious.

a. Consumer costs and fuel prices

Congress established the fuel economy program in the 1970s to reduce our nation's dependence on foreign oil and limit Americans' exposure to energy price shocks.[216] In the Proposal, NHTSA admits that "fuel purchases for vehicles are costly to vehicle owners and operators," but fails to analyze the fact that its Proposal will increase fuel costs for consumers and increase consumer exposure to price spikes. 90 Fed. Reg. at 56,587.

NHTSA arbitrarily and capriciously assumes in its modeling that there will not be shocks or volatility in oil prices, and attempts to justify this claim by presenting unsupported conjecture that the nation is now immune from price shocks in the global oil market. *See* 90 Fed. Reg. at 56,609. But accurate forecasting of the oil market is difficult, and there is ample evidence that oil prices will fluctuate in the future. In its forecast from 2025 to 2030, the International Energy Agency (IEA) highlighted that oil markets were "turbulent" in 2025, partly due to trade tensions and uncertainty.[217] IEA predicted that this "heightened uncertainty" is likely to continue for a

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0for%20Issuing%20Special%20Permits%20in%20Response%20to%20National%20Energy%20Emergency.pdf.

215 In 2024, NHTSA estimated standards it was setting for model years 2027-31 would lower fuel costs an estimated $23 billion and save 70 billion gallons of gasoline through 2050. NHTSA, *USDOT Finalizes New Fuel Economy Standards for Model Years 2027-2031* (June 7, 2024), https://www.nhtsa.gov/press-releases/new-fuel-economy-standards-model-years-2027-2031.

216 Cong. Res. Serv., *Vehicle Fuel Economy and Greenhouse Gas Standards: Frequently Asked Questions* at 2–3 (June 1, 2021), https://www.congress.gov/crs_external_products/R/PDF/R45204/R45204.7.pdf.

217 IEA, *Oil 2025*, at 6 (June 17, 2025), https://www.iea.org/reports/oil-2025.

"protracted period."[218] *See also infra* Part IV.A.4.b. (discussing Russia's invasion of Ukraine and the United States' operation to remove Venezuela's head of state).

Moreover, NHTSA's emphasis on the domestic "shale-oil boom" leading the U.S. to "attain[] energy independence," 90 Fed. Reg. at 56,609, is misplaced. U.S. shale growth has slowed "precipitously" as crude supplies plateau, and U.S. production is expected to "stall."[219] Most fundamentally, NHTSA fails to explain why U.S. gas prices are any less vulnerable to volatility in global oil markets as a result of increased domestic production.[220] The most effective action NHTSA can take to protect Americans from gas price volatility is to steadily and predictably improve vehicle fuel economy and thereby reduce the oil intensity of the U.S. economy. By failing to analyze the likely impact of any volatility in fuel prices, NHTSA has failed to consider an important aspect of the problem, and finalizing this finding would run counter to the evidence before the agency. *See State Farm*, 463 U.S. at 43.

Finally, NHTSA fails to take into account the fact that, regardless of whether gas prices rise or remain constant, the Proposal would inevitably force consumers to spend more on gas. This would lead to a number of economic consequences that NHTSA has failed to analyze even though it has considered them in past rulemakings. *See, e.g.*, 89 Fed. Reg. at 52,826. Historically, as gas expenditures rise, consumers' disposable incomes shrink and their spending on other goods falls, resulting in negative economy-wide effects.[221] Further, higher gas expenditures disproportionately impact low income households, which spend a larger share of their income on gas.[222] These negative impacts on consumer costs are likely to continue, given that cars sold in the current and upcoming model years for which NHTSA proposes to weaken standards will be on the roads for decades. NHTSA's failure to consider how the Proposal would impact consumers and the economy as a whole due to increased gasoline expenditures is arbitrary under the fourth feasibility factor. *See also supra* Part IV.A.2.f. This failure is especially pronounced given the Trump Administration's contentions elsewhere that household energy costs are too high and too vulnerable to gas price volatility.[223]

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218 *Id.* at 13.

219 *Id.* at 48, 69–74.

220 *See* Jason Bordoff, Comment on NHTSA's assessment of the need to conserve energy in the Notice of Proposed Rulemaking for the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, NHTSA-2018-0067-10718, at 6–7 (Oct. 22, 2018), https://www.regulations.gov/comment/NHTSA-2018-0067-10718 (noting that "increased U.S. oil supply does not insulate drivers from higher pump prices, which are largely determined by oil prices set in a globally integrated market" and that "[r]ising domestic output does nothing to diminish U.S. linkages with world energy markets.").

221 Edelstein, P. & Kilian, L. "How sensitive are consumer expenditures to retail energy prices?" *J. Monetary Economics* 56(6): 766-779 (2009), https://ideas.repec.org/a/eee/moneco/v56y2009i6p766-779.html.

222 *See Declaring a National Energy Emergency*, *supra* note 212 ("high energy prices . . . devastate Americans, particularly those living on low- and fixed-incomes").

223 *Id*.

b. National balance of payments and foreign policy

NHTSA has failed to offer an adequate explanation for assigning diminished value to the national balance of payments and foreign policy elements of the fourth factor. Instead, NHTSA spends several pages of the Proposal minimizing the extent to which the Proposal would make the nation more dependent on oil, including imported oil. NHTSA's primary argument is that "the U.S. is now a net oil exporter." 90 Fed. Reg. at 56,587. But NHTSA has recognized in past rulemakings that, even as a net exporter, the U.S. still imports a substantial amount of oil, including from countries vulnerable to supply shocks. *See, e.g.*, 89 Fed. Reg. at 52,686. For example, "the global supply shock caused by Russia's invasion of Ukraine was followed by a surge of more than 20 percent in crude oil prices." *Id.* In 2024, NHTSA acknowledged that the U.S. currently imports just under 3 million barrels of crude oil per day and is expected to import 6.65 million barrels of oil per day in 2050. *Id.* NHTSA nowhere offers the "more detailed justification" required to abandon positions supported by specific factual findings of this kind. *Fox Television*, 556 U.S. at 515.

Imports are particularly important in certain areas of the country, like the West Coast, that are not well connected to domestic production, which primarily occurs in the middle of the U.S.[224] To take one striking example: the State of Hawai'i has no domestic sources of petroleum, but it depends on petroleum for roughly 80% of its energy consumption.[225] In 2022, the state's third-largest supplier of petroleum was Russia; but after Russia invaded Ukraine and the U.S. imposed sanctions, Hawai'i stopped importing Russian oil altogether. Geopolitical turmoil, supply chain disruptions, and natural disasters expose Hawaiians to significant oil price shocks:

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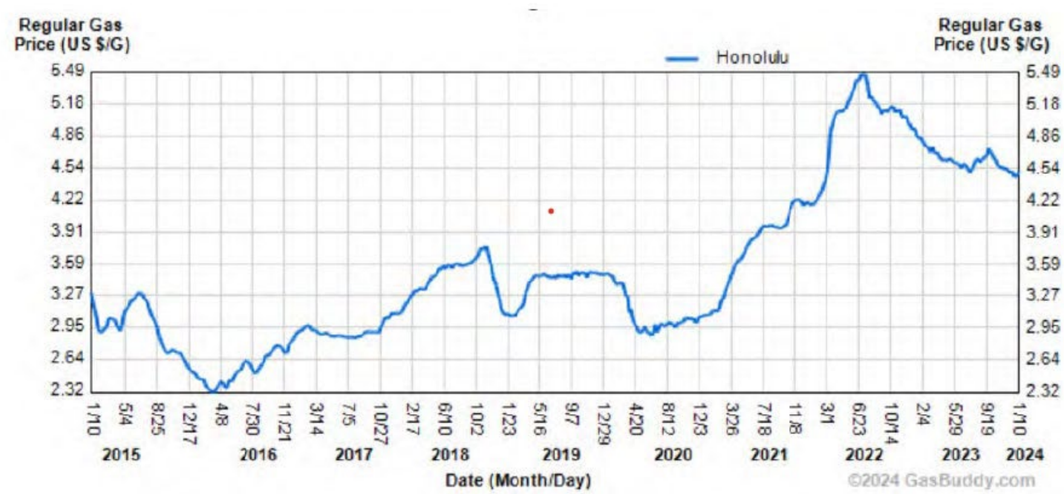
224 *Explainer: The myth of 'energy independence'*, University of California at Berkeley Haas School of Business (Mar. 24, 2022), https://newsroom.haas.berkeley.edu/research/what-is-energy-independence-debunking-the-myth/.

225 Hawaiian Electric, *Electrification of Transportation: Strategic Roadmap 2.0*, at 23 (May 2024), https://www.hawaiianelectric.com/documents/products_and_services/electric_vehicles/electrification_of_transportation_roadmap/20240531_eot_roadmap_2.pdf.

FIGURE 2: RETAIL GASOLINE PRICES, HONOLULU HI, 2015-2023



Source: GasBuddy.com. Prices shown in nominal dollars.

Hawai'i's "dependence on fossil fuels . . . drains the economy of billions of dollars each year, makes residents vulnerable to the volatility of oil prices, and puts residents at increased risk in the event of a natural disaster."[226] Imports are also required to supply refineries across the U.S. that are fine-tuned to process certain types of crude oils and to supply U.S. consumers with goods that use petroleum as an input.[227] Moreover, as discussed above, increased domestic oil production does not immunize consumers from oil price fluctuations. In President Trump's own words, our nation has a "diminished capacity to insulate itself from hostile foreign actors" and "[e]nergy security is an increasingly crucial theater of global competition."[228]

Bizarrely, NHTSA also argues that the need of the nation to conserve energy is lessened by the fact that fuel purchases increasingly "represent transfers between domestic consumers of fuel and domestic producers of petroleum." 90 Fed. Reg. at 56,587. In doing so, NHTSA essentially claims that increasing revenues of oil companies—which report annual profits in the tens of billions[229]—is an even trade for adding cost pressures and oil-price shock exposure to American households. As discussed in the previous section, this assertion ignores the negative economic impacts that would result from increasing the cost burden on gasoline consumers. NHTSA's argument that the "need of the U.S. to conserve energy" has been reduced due to the

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[226] Hawai'i State Legislature, H.B. 552 §§ 1, 3 (2021), https://www.capitol.hawaii.gov/sessions/session2021/bills/HB552_.HTM.

[227] *Explainer: The myth of 'energy independence'*, *supra* note 224; *see also* 89 Fed. Reg. at 52,686.

[228] Declaring a National Energy Emergency, *supra* note 212.

[229] In 2025, Exxon Mobil made $33.68 billion in profits, and Chevron earned $17.66 billion. Andrea Murphy and Matt Shifrin, "The Global 2000," *Forbes* (June 12, 2025), https://www.forbes.com/lists/global2000/.

profits of domestic oil companies, 90 Fed. Reg. at 56,587, "is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *State Farm*, 463 U.S. at 43.

Finally, NHTSA fails to provide adequate support for its conclusion that foreign policy considerations have "shifted" along with supply shifts in the global oil market. 90 Fed. Reg. at 56,588; *State Farm*, 463 U.S. at 43. As NHTSA has acknowledged in the past, "expenses for maintaining a U.S. military presence to secure imported oil supplies from unstable regions" are linked to increases in demand for petroleum. *See* 77 Fed. Reg. at 62,939; *see also* 75 Fed. Reg. at 25,556 (same); 83 Fed. Reg. at 43,106 ("If U.S. demand for imported petroleum increases, it is also possible that increased military spending to secure larger oil supplies from unstable regions of the globe will be necessary."). Even in the time *since the Proposal was announced*, the U.S. has spent considerable resources on military action in Venezuela, which President Trump has said will "get the oil flowing the way it should be,"[230] and enable "U.S. oil companies . . . [to] go in, spend billions of dollars, fix the badly broken infrastructure, the oil infrastructure, and start making money for the country."[231] Energy Secretary Chris Wright has said that the United States plans to sell Venezuelan oil "indefinitely" and create the conditions for oil majors to operate in Venezuela.[232]

NHTSA has not explained why the Proposal, which will increase our nation's oil consumption, would not increase these expenses. *See Fox Television*, 556 U.S. at 515. The only discussion of military spending in the Proposal is cursory and conclusory, with no evidentiary support for propositions that U.S. military commitments in oil-producing regions are unrelated to securing petroleum supplies and that oil consumption affected by CAFE standards will not "alter any existing military missions focused on ensuring the safe and expedient production and transportation of oil around the globe." 90 Fed. Reg. at 56,588, n.414; Draft TSD at Section 6.2.4.3. This is arbitrary and capricious, particularly given the strong evidence that the cost of protecting global oil supply exceeds the zero value that NHTSA assigns.[233]

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230 Alain Sherter & Mary Cunningham, "U.S. seeks to tap Venezuela's vast oil reserves after military strikes. Here's what to know," *CBS News* (Jan. 5, 2026), https://www.cbsnews.com/news/venezuela-oil-reserves-us-strike-trump-what-to-know/.

231 Julia Simon, "Trump wants U.S. oil companies in Venezuela. Here's what to know," *NPR* (Jan. 4, 2026), https://www.npr.org/2026/01/04/nx-s1-5665795/trump-us-oil-companies-venezuela.

232 James Bikales, "Wright: US will sell Venezuelan oil 'indefinitely'," *Politico* (Jan. 7, 2026), https://www.politico.com/news/2026/01/07/wright-venezuelan-oil-sales-00713654.

233 *See, e.g.*, SAFE, *The Military Cost of Defending Global Oil Supplies* (Sept. 20, 2018), https://secureenergy.org/military-cost-defending-global-oil-supplies/ (reporting that approximately $81 billion per year is spent by the U.S. military protecting global oil supplies at minimum and arguing that NHTSA should assign a cost of at least $0.28 per gallon in their military cost/benefit analysis).

c. Environmental impacts

1) Environmental impacts must continue to be considered under this factor

NHTSA improperly disregards environmental effects in the Proposal and instead seeks comment on whether "Congress has given it authority under EPCA to consider environmental effects when setting fuel economy standards." 90 Fed. Reg. at 56,588. NHTSA advances four arguments in support of this novel interpretation, each of which fails: (1) NHTSA reinterprets its "charge" under EPCA as "set[ting] maximum feasible fuel economy standards to reduce national vulnerability to supply shocks while balancing statutory factors—none of which includes environmental effects"; (2) NHTSA has "traditionally considered" vehicles' obligations under EPA criteria emission standards under the "other motor vehicle standards of the government" factor; (3) EPCA was passed as an "energy conservation statute" and environmental effects are not relevant now that the U.S. is a net energy exporter; and (4) "consideration of potential effects of upstream activity such as domestic extraction and refining of petroleum conflicts with or is otherwise not contemplated by Congress' delegation of fuel-economy regulatory authority to NHTSA, including because those upstream activities are subject to regulation by the EPA under the Clean Air Act." *Id.*

First, NHTSA's description of its charge under EPCA is incomplete and misleading. EPCA was passed as an "energy conservation" statute, and NHTSA was more specifically tasked with setting standards to "provide for improved energy efficiency of motor vehicles." Pub. L. No. 94-163, 89 Stat. 871. There is nothing about the ordinary meaning of "conservation" or "the need to conserve" that suggests the sharp distinction between "reduc[ing] national vulnerability to supply shocks" and "environmental effects" that NHTSA draws, 90 Fed. Reg. at 56,588, or that supports excluding the obvious pollution-reduction benefits of such improved efficiency. "Conservation" simply means "[p]rotecting and using resources in a wise way to get the most benefit for long term."[234] Congress accordingly tasked NHTSA with weighing how improving vehicles fuel efficiency would serve a host of important national interests: it observed that the goals of EPCA are to "decrease dependence on foreign imports, enhance national security, *achieve the efficient utilization of scarce resources*, and guarantee the availability of domestic energy supplies at prices consumers can afford." S. Rep. No. 94–516 (1975) (Conf. Rep.), *as reprinted in* 1975 U.S.C.C.A.N. 1956, 1957 (emphasis added). Subsequent Acts amending EPCA reaffirm that the "need to conserve energy" has always been understood to cover all of these intertwined policy reasons for reducing oil consumption, including reduction of criteria pollution and greenhouse gas emissions associated with its extraction, refining, and end-use combustion. For example, the AMFA found that decreasing imported oil will "help to achieve energy security *and improve air quality*;" decreasing petroleum fuel use will benefit the Nation's "security, economic, *and environmental* interests;" and alternatives to petroleum-based fuel release less carbon dioxide, which contributes to global warming. Pub. L. No. 100–494 § 2, 102 Stat. 2441 (emphases added). President George W. Bush recognized when signing EISA that the Act was "a major step toward reducing our dependence on oil, *confronting global climate*

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234 Black's Law Dictionary, *Conservation*, https://thelawdictionary.org/conservation/.

change . . . and giving future generations of our country a nation that is stronger, *cleaner* and more secure"; he recognized explicitly that oil dependence "creates pollution and contributes to greenhouse gas [em]issions."[235]

NHTSA has always considered environmental implications within the "need of the United States to conserve energy" factor. Indeed, NHTSA itself notes that from "the outset of the CAFE program, [it] has consistently considered environmental issues." 90 Fed. Reg. at 56,587; *see, e.g.*, 71 Fed. Reg. at 17,644 (acknowledging that "[c]onserving energy, especially reducing the nation's dependence on petroleum, benefits the U.S. in several ways. [It] has benefits for economic growth and the environment, as well as other benefits, such as reducing pollution and improving security of energy supply."). This consideration of environmental effects has extended to thorough consideration of how CAFE standards may increase or decrease vehicle emissions. As early as 1988, NHTSA included climate change considerations in its CAFE notices and prepared its first environmental assessment addressing that subject. 53 Fed. Reg. 33,080, 33,096 (Aug. 29, 1988). It then cited concerns about climate change as one of the reasons for limiting the extent of its reduction of the CAFE standard for model year 1989 passenger cars. 63 Fed. Reg. 39,275, 39,302 (Oct. 6, 1988). More recent rules have carefully evaluated the relationship between fuel-economy standards and emissions of CO_2 and other pollutants, including through secondary effects on costs and vehicle miles traveled, in recognition that such emissions are an important element of "conserving" energy. *See, e.g.*, 89 Fed. Reg. at 52,827. Finally, three different court of appeal decisions over the last 40 years have affirmed that this statutory factor can, and should, include consideration of environmental effects like possible increases in the emissions that cause climate change.[236] NHTSA's new disregard for environmental effects is at odds with its historical interpretation of "the need of the US to conserve energy" and past practice of considering environmental impacts. *See State Farm*, 463 U.S. at 43; *Fox Television*, 556 U.S. at 515.

Second, NHTSA is wrong that it is sufficient to consider environmental effects only in the context of the "other motor vehicle standards of the Government" factor because of EPA's role in setting emission standards. To begin, as explained above, this claim rings hollow due to EPA's proposed rescission of all greenhouse gas emissions standards for vehicles and engines—thus, *no* federal regulator is currently considering the environmental effects of greenhouse gas

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[235] The White House, *President Bush Signs H.R. 6, the Energy Independence and Security Act of 2007* (Dec. 19, 2007) (emphasis added), https://georgewbush-whitehouse.archives.gov/news/releases/2007/12/20071219-6.html.

[236] *Ctr. for Auto Safety II*, 793 F.2d at 1325 n.12 (affirming NHTSA's decision to interpret the factor as requiring "consideration of the . . . environmental . . . implications of our need for large quantities of petroleum, especially imported petroleum"); *see also Public Citizen v. NHTSA*, 848 F. 2d 256, 262–63 n.27 (D.C. Cir. 1988) (petitioner had standing to challenge whether lowering of fuel economy standard would lead to adverse environmental effects, and noting environmental consequences are considered in "the factors NHTSA must weigh under EPCA"); *Ctr. for Biological Diversity*, 538 F.3d at 1197–99 (noting "[t]he need of the nation to conserve energy is even more pressing today than it was at the time of EPCA's enactment" due to advancing "scientific knowledge of climate change and its causes" and faulting NHTSA for assigning no value to "the most significant benefit of more stringent CAFE standards: reduction in carbon emissions").

emissions from vehicles. 90 Fed. Reg. at 56,586. Moreover, NHTSA's obligation under the third feasibility factor to accommodate EPA's emission standards technologically is distinct from its duty under the fourth to consider the broader social importance of reducing fuel consumption. NHTSA's consideration of the ordinary, foreseeable consequences of its regulations no more "turn[s] NHTSA into" an environmental regulator than its consideration of "economic practicability" turns it into the Department of Commerce. *Id.* Finally, NHTSA has never made this argument before. Instead, it has always considered environmental effects, prior to and while EPA set criteria pollution and greenhouse emission standards, in the "need to conserve energy" factor. *See, e.g.*, 53 Fed. Reg. at 33,096; 63 Fed. Reg. at 39,302; *Ct. for Biological Diversity*, 538 F.3d at 1197. This interpretation of how NHTSA should consider environmental effects is the most consistent with the statute and its enumeration as a distinct factor.

Third, NHTSA fails to explain why the U.S.'s status as a net oil exporter would means it is less appropriate to consider environmental effects. *State Farm*, 463 U.S. at 43 (agencies must provide "a rational connection between the facts found and the choice made."). NHTSA implies that the U.S.'s status as a net energy exporter means that energy conservation is no longer necessary. But for all the reasons noted above, that is incorrect, and it is not within NHTSA's delegated authority to make that determination. Congress mandated energy conservation when it enacted EPCA, it reaffirmed this goal in EISA, and NHTSA is not empowered to override these laws. Moreover, with respect to environmental effects, air pollution, and climate considerations, "[t]he need of the nation to conserve energy is even more pressing today than it was at the time of EPCA's enactment," *Ctr. for Biological Diversity*, 538 F.3d at 1197, and is unaffected by the U.S. status as a net petroleum importer or exporter.

Fourth, consideration of potential effects of upstream activity such as "extraction and refining of petroleum" clearly are contemplated by Congress' delegation of regulatory authority to NHTSA. There is no rational reason to restrict consideration of environmental effects to "downstream" emissions when other, necessary aspects of the fourth feasibility factor cannot be evaluated without considering "upstream" effects. EPCA emerged out of the 1970s oil embargo, *Ctr. for Auto Safety I*, 710 F.2d at 844, and the foreign policy implications of oil consumption are one of the quintessential considerations within the "need to conserve energy" factor. And foreign policy implications necessarily involve attention to upstream activities: e.g., consideration of where petroleum is extracted, the expenses of securing oil supplies, how disruptions could impact U.S. consumers, and so on. Treating "upstream" activity inconsistently between foreign policy and environment effects is arbitrary.[237] NHTSA has previously recognized that evaluation of environmental effects should include upstream emissions to more accurately reflect the true costs and benefits of regulatory alternatives. *See, e.g.*, 89 Fed. Reg. at 52,844, 52,902. Emissions are generated upstream "at several stages between the initial point of energy feedstock extraction and delivering fuel to vehicles' fuel tanks or energy storage systems" as well as downstream "by vehicles' exhaust systems . . . during vehicle refueling, use, and inactivity including

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[237] NHTSA has not argued—or given sufficient notice of any argument—that the Supreme Court's analysis in *Seven County Infrastructure Coalition v. Eagle County*, 605 U.S. 168 (2025), should change NHTSA's consideration of upstream environmental effects in the context of the "need to conserve energy" factor. Nor could it, as *Seven County* addresses an agency's responsibilities under the specific text of the National Environmental Policy Act, not EPCA.

hydrofluorocarbons leaked from vehicles' air conditioning (AC) systems . . . [from] brake and tire wear (BTW) as well as evaporation of volatile organic compounds (VOCs) from fuel pumps and vehicles' fuel storage systems during refueling and when parked." *Id.* at 52,670.

NHTSA's analyses of criteria pollutant and greenhouse gas (GHG) emissions are also flawed for reasons explained in the next two subsections, but there is a more fundamental problem with generating those analyses only to claim that environmental effects should not be part of its maximum feasible determination. NHTSA's suggestion that it should not consider environmental effects is impermissible and unreasonable.

2) Zeroing out the social cost of greenhouse gas emissions is unsupportable

NHTSA's refusal to consider any measure of the costs associated with changes in greenhouse gas emissions is an arbitrary and capricious failure to consider environmental impacts. Since 2008, all of NHTSA's CAFE rulemakings have included a social cost of carbon (SCC) analysis as well as other qualitative measures of climate change's impacts, including environmental justice. In the Proposal, NHTSA declares that because of "many uncertainties" related to monetizing the impacts of changes in GHG emissions, it excludes any valuation of these impacts *at all* in the Proposal's central analysis, thus setting the input value for the social cost of carbon at zero. 90 Fed. Reg. 56,515. This decision represents a wholesale departure from NHSTA's prior rulemakings without a sufficient explanation and a failure to consider an important aspect of the fourth feasibility factor. *See Fox Television*, 556 U.S. at 516; *State Farm*, 463 U.S. at 43.

Applying EPA's average global GHG damage estimates (2.5%, dynamic discount rate) to NHTSA's emissions estimates show that the Preferred Alternative results in an additional $230 billion in damages from 2024–2050 compared to its No-Action scenario. Gillingham et al. 61. Using EPA's 2.0% dynamic discount rate, which is more aligned with the most recent academic research, that figure becomes $351 billion. *Id.* For reference, in the PRIA, total calendar-year societal benefits of the Preferred Alternative are $76–$109 billion, and net benefits are $24 billion. All of these purported social benefits are dwarfed by the climate damages that NHTSA arbitrarily excludes from consideration.

A zero social cost of carbon is contrary to law

NHTSA's primary assertion—that because the monetized costs of changes in GHG emissions are uncertain they need not be considered—is unsupportable. Courts have consistently held that agency analyses that ignore or fail to adequately account for important considerations are improper. *Bus. Roundtable v. SEC*, 647 F.3d 1144, 1148–49 (D.C. Cir. 2011); *Pub. Citizen, Inc. v. Mineta*, 340 F.3d 39, 58 (2d Cir. 2003); *Sierra Club v. Sigler*, 695 F.2d 957, 979 (5th Cir. 1983); *Getty v. Fed. Savs. & Loan Ins. Corp.*, 805 F.2d 1050, 1055, 1057 (D.C. Cir. 1986); *Sierra Club v. U.S. Dep't of Interior*, 899 F.3d 260, 293 (4th Cir. 2018). As the Supreme Court has held, "reasonable regulation ordinarily requires paying attention to the advantages *and* the disadvantages of agency decisions." *Michigan v. EPA*, 576 U.S. 743, 753 (2015). The mere fact that an anticipated result of the regulation is uncertain does not exempt an agency from the obligations to consider relevant factors and reach reasonable conclusions. *Pub. Citizen v. Fed. Motor Carrier Safety Admin*., 374 F.3d 1209, 1219 (D.C. Cir. 2004).

NHTSA's proposal altogether fails to comply with the court's decision in *Center for Biological Diversity v. NHTSA*¸ which held that NHTSA's decision not to monetize the benefits of carbon emissions reduction in setting the CAFE standard was arbitrary and capricious. 538 F.3d at 1198–1203. The Court observed that NHTSA had monetized the value of other uncertain benefits, including reduction of criteria pollution, crashes, and increases in energy security. *Id*. at 1202. Other courts have followed suit, holding that if an agency quantifies the economic benefits of an action that could increase greenhouse gases, it must also calculate a social cost of carbon to quantify the costs of the increased emissions. *See Mont. Env't Info. Ctr. v. U.S. Off. of Surface Mining*, 274 F. Supp. 3d 1074, 1095–99 (D. Mont. 2017); *High Cnty. Conservation Advocates v. U.S. Forest Serv.*, 52 F. Supp. 3d 1174, 1189–92 (D. Colo. 2014). These decisions recognize that the SCC metric is a reliable and scientifically valid approach to monetizing climate change impacts that should inform federal decisionmaking.

As in *Center for Biological Diversity v. NHTSA*, NHTSA here may not "put a thumb on the scale" by neglecting to consider the monetized costs of changes in GHG emissions while it considers monetized benefits. 538 F.3d at 1198. NHTSA especially may not hand-wave at barely examined "uncertainties" of the SCC, 90 Fed. Reg. at 56,515, while inventing out of whole cloth metrics like the "implicit opportunity costs" of fuel-economy standards, *see supra* Part IV.A.2.f.

NHTSA fails to consider any of the relevant factors that it admits would be components of the monetization analysis for GHG emissions, such as the magnitude of the change in climate due to a change in GHG emissions and the share of impacts from GHG emissions that affect U.S. residents, 90 Fed. Reg. 56,515, and it fails to give any explanation as to why the inherent uncertainty allows NHTSA to effectively set the cost of these factors at zero. The lack of any such explanation is arbitrary. *Ctr. for Biological Diversity*, 538 F.3d at 1201 (finding NHTSA's action arbitrary where NHTSA failed to provide any evidence or explanation to support decision not to monetize or quantify the value of carbon emissions reduction at all); *see State Farm*, 463 U.S. at 43 (an agency "must examine the relevant data and articulate a … 'rational connection between the facts found and the choice made'"). The Proposal's lack of even a "minimal level of analysis" supporting its decision to ignore the climate costs of its proposal renders the action arbitrary and capricious. *Encino Motorcars, LLC v. Navarro*, 579 U.S. 211, 221 (2016).

<u>*A zero social cost of carbon is arbitrary and capricious*</u>

Even if the specific value of the change in GHG emissions carries uncertainty, there is no colorable argument for setting that value at *zero*. *Ctr. for Biological Diversity*, 538 F.3d at 1200 ("[W]hile the record shows that there is a range of values, the value of carbon emissions reduction is certainly not zero."). In 2010, the federal government developed a SCC for use in monetizing the net damages caused by GHG emissions using an interagency group of experts and relying on state-of-the-art models from the peer-reviewed literature.[238] The history of this process is laid out in a 2023 report EPA published specifically on the social cost of GHG emissions.[239] The values have been updated at numerous points since 2010 to incorporate advances in science and economics, and have been peer-reviewed, routinely subject to public comment, reviewed by the U.S. Government Accountability Office,[240] and comprehensively evaluated by the National Academy of Sciences in 2016 and 2017.[241] The most recent values reflected in the 2023 EPA Report integrate the latest updates in scientific knowledge and economics, address the near-term recommendations of the National Academy of Sciences (including explicit representation of uncertainty), and produce a SCC central estimate of $140, $230, and $390/metric ton for 2030 emissions using a near-term discount rate of 2.5%, 2.0%, and 1.5%, respectively.[242]

NHTSA does not explain why any of the robust methodologies used in the 2023 EPA Report to characterize and account for uncertainties in the SCC are insufficient. 90 Fed. Reg. at 56,515. EPA's 2023 Report draws on the latest economic and scientific research,[243] was subject to a robust peer review,[244] and fully articulates and addresses the uncertainties involved in calculating the social cost of GHG emissions. The 2023 EPA Report also explains, in expansive detail, the state-of-the-art methodologies deployed to quantify and address uncertainty, and ensure that the estimates are uncertainty-weighted.[245] The 2023 EPA Report identified sources of uncertainty and used techniques like Monte Carlo analysis (where the model is run ten thousand times, drawing input values from probability distribution functions that reflect the uncertainty associated with those values) to characterize uncertainty and develop estimates that rigorously

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238 Interagency Working Grp. on the Social Cost of Greenhouse Gases, *Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Exec. Order 12866* (Aug. 2016), https://perma.cc/B58R-8F6S

239 EPA, *Report on the Social Cost Of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances, Supplementary Material for the Regulatory Impact Analysis for the Final Rulemaking, "Standards Of Performance For New, Reconstructed, And Modified Sources And Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review,"* EPA-HQ-OAR-2021-0317, at 48–50, 53–55 (Nov. 2023) (2023 EPA Report), https://perma.cc/DK5F-YYMQ.

240 *Id*. at 8.

241 *Id*. at 8–10.

242 *Id*. at 1, 20–21, 78, 106.

243 *Id*. at 1–2, 24–25, 35–36, 47–53, 55–59, 64, 67–68.

244 *Id*. at 10 ("The report "represents a huge advance in estimating the US Social Cost of Carbon (SCC). The estimates reported have successfully incorporated all of the short-term recommendations of the National Research Council (NRC) Committee on Valuing Climate Damages, and some of the longer-term recommendations. The report represents the state-of-the-art in executing the four steps of SCC calculation."); *see also* EPA, "EPA Releases Responses to External Peer Review Comments on 'Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances'" (Dec. 2, 2023), https://19january2025snapshot.epa.gov/environmental-economics/scghg-tsd-peer-review/index.html.

245 2023 EPA Report, *supra* note 239, at 2, 20–21, 26, 61, 64–65, 67–68, 77–79, 80, 85, 168–70.

reflect that uncertainty.[246] It results in uncertainty-weighted estimates of the SCC consistent with other estimates in the peer-reviewed literature derived using alternate methodologies,[247] and it responds to and implements the recommendations of the National Academies of Sciences in their comprehensive review of the prior federal estimates.[248]

Nor does NHTSA explain how using the value of zero—which is absolutely the incorrect value—provides decision-makers with better information than the estimates in the 2023 EPA Report. Given the known potential for non-linear responses by the climate system to GHG forcing that could lead to truly catastrophic damages, a reasonable approach would be to use a *higher* social cost estimate rather than a lower one, let alone zero. The estimates in the 2023 EPA Report are, as EPA acknowledged, only partial estimates of the actual damage values due to the many damage categories that are not included,[249] and a recent study incorporating just part of one category of omitted damages—eight tipping points in the climate system—found that it increased the estimated SCC by 24.5%.[250]

Further, the probability distributions for the 2023 estimates themselves show a very significant risk that the actual SCC value is much higher than the central estimate.[251] In other words, high-end SCC values with a 5% or 10% likelihood of being "correct" are dramatically higher than the central estimate, while the low-end social cost of greenhouse gas values with a 5% or 10% likelihood of being "correct" are much closer to the central estimate. The significant risk that the "actual" damage number is significantly higher than the central estimate, the fact that these estimates are underestimates (omitting many damage categories entirely and covering many more partially), and the fact that estimates of the social cost of greenhouse gas have been increasing over time as data and methodologies have improved,[252] make NHTSA's proposal to use a value of zero even more arbitrary.

The above makes clear that the evidence before NHTSA is that GHG emissions cause very significant damages to human health and welfare, and as such should be accounted for in any analysis that aims to, as NHTSA claims, "reflect the current state of the world [] accurately and to apply the best current estimates of future condition." 90 Fed. Reg. 56,456. Moreover,

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246 *Id*. at 20, 61, 77, 80.

247 *Id*. at 102–03. Estimates in the 2023 EPA Report are comparable in magnitude to other recent social cost of carbon estimates developed using large expert surveys ($200 per metric ton) and vehicle choice experiments of willingness to pay ($236 per metric ton CO_2; $130–$372 per metric ton CO_2). *See also id.* at 98 (discussing total-economy approach, capturing only market effects and deriving a $48 social cost per metric ton of CO_2 estimate).

248 *Id*. at 1–2, 23, 36, 52–53, 55, 106.

249 *Id*. at 3, 5, 56, 81–87.

250 *Id*. at 82 (citing Simon Dietz et al., "Economic Impacts of Tipping Points in the Climate System," 118 *PNAS* (2021)).

251 *Id*. at 80, fig. 3.1.1.

252 *Id*. at 102; *see also* Richard S. J. Tol, "Social Cost of Carbon Estimates Have Increased Over Time," 13 *Nature Climate Change* 532 (2023), https://www.nature.com/articles/s41558-023-01680-x.

NHTSA fails to provide *any* explanation of why the Proposal diverges from all recent CAFE standards rulemakings that incorporated the cost of increase greenhouse gas emissions, including NHTSA's SAFE II Rule (albeit at a grossly undervalued number). *See* 85 Fed. Reg. 24,174, 24,235 (Apr. 30, 2020).

The total failure to engage with the record supporting the federal government's ability to monetize the costs of GHG emissions constitutes a failure to provide a "reasoned explanation [] for disregarding facts and circumstances that underlay" its prior policy. *Fox Television*, 556 U.S. at 516. It is nothing short of arbitrary to pretend $230–351 billion in social costs from the Proposal are zero dollars.

<u>The PRIA's sensitivity case considering domestic-only social cost of carbon values is similarly arbitrary and capricious</u>

Despite neglecting to include any social cost of carbon evaluation in its central analysis, NHTSA claims it has satisfied the requirement to consider the monetization of GHG emissions by its inclusion of a sensitivity case in the PRIA. 90 Fed. Reg. 56,515. Rather than include a monetized value for the SCC in the central analysis, as required, NHTSA cabins all discussion of GHG emission in the PRIA's alternatives discussion. *Id*. Moreover, the PRIA's sensitivity case only considers the "domestic" costs of increased GHG emissions, thus dramatically undervaluing the true costs associated with changes in carbon emissions under the Proposal. The decisions to exclude a global monetization in the PRIA's alternative analysis, and to omit any monetization from the central analysis, is arbitrary and capricious.

The PRIA's sensitivity case uses the same domestic-only monetization of GHG emissions that was used in NHTSA's 2020 final rule. 90 Fed. Reg. 56,515. This domestic-only consideration grossly underestimates the social cost of carbon, relying on a number that is dramatically lower than any that was used in hundreds of regulatory proceedings at the federal level.[253] NHTSA has provided no reasoning to support its decision to calculate the SCC on a domestic rather than a global basis. *See Fox Television*, 556 U.S. at 515. Moreover, the PRIA uses 2019 monetization values for GHG emissions which are based on the outdated and highly flawed 2019 EPA Regulatory Impact Analysis conducted in support of the EPA's Clean Power Plan Repeal.[254] NHTSA's analysis does not even attempt to address the more recent SCC analysis in the 2023 EPA Report and provides no explanation for its failure to incorporate any of the updated data and analysis on the appropriate SCC value past 2019.

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253 *See* 2023 EPA Report at 6-10; *See, e.g.*, 75 Fed. Reg. at 25,343, 25,377 (MY2012–16 light-duty standards); 77 Fed. Reg. at 62,629 (MY2017 light duty standards); 81 Fed. Reg. 73,875 (Phase 2 medium- and heavy- duty standards); 87 Fed. Reg. at 25,724 (MY 2024-26 passenger cars and light trucks standards); 88 Fed. Reg. 29,184, 29,344 (MY 2027 light- and medium- duty standards).

254 PRIA at 9-1, Table 9-1 & n.156; EPA, *Regulatory Impact Analysis for the Repeal of the Clean Power Plan, and the Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units*, EPA-452/R-19-003, at 4-4 & Table 4-1 (2019), https://www.epa.gov/sites/default/files/2019-06/documents/utilities_ria_final_cpp_repeal_and_ace_2019-06.pdf (using SCC values of $1–11 per ton (2016$)).

NHTSA's decision to calculate a domestic-only SCC is severely flawed for at least six reasons. First, by calculating the SCC on a domestic rather than a global basis, NHTSA fails to account for the global effects of carbon pollution that impact the U.S. and its citizens. As EPA recognized in 2008,[255] carbon pollution's effects do not stop at the U.S. border; emissions in India and China, for example, can cause damage to U.S. companies and citizens (and vice versa). NHTSA's use of a domestic SCC number to justify greater U.S. emissions creates a dangerous precedent that other countries may also follow to relax their own emissions. Such increased global emissions will, in turn, harm the U.S. and its citizens.[256]

Second, by omitting any analysis of the global SCC, NHTSA failed to adhere to OMB's Circular A-4, which instructs that impacts beyond the U.S. borders should be reported separately. NHTSA's failure to calculate a global SCC was not due to a lack of information; EPA provided the data for NHTSA to do so, and NHTSA ignored it. By omitting a global SCC calculation, NHTSA has attempted to conceal from the public the implications of switching from a global to a domestic SCC calculation: using the 2019 global number, alone, would increase NHTSA's SCC calculation at least seven-fold.[257]

Third, NHTSA's domestic SCC omits important spillover effects on U.S. corporations. The negative effects of global climate change—such as increased armed conflicts and extreme weather events—impact U.S. corporations both directly (through assets they own) and indirectly (though disruptions of supply chains). NHTSA's domestic SCC does not account for any of these global effects.[258]

Fourth, by using only a domestic SCC, NTHSA fails to consider the welfare of 9 million U.S. citizens living abroad and the hundreds of thousands of men and women serving in the U.S. armed forces abroad. These individuals are affected by extreme weather events outside U.S. borders. Moreover, despite sound science demonstrating that climate change will lead to an increase in the frequency of conflict domestically and globally, NHTSA fails to account for the likelihood that the number of American troops who will be deployed abroad will increase.[259]

Fifth, NHTSA failed to use the best available science when it relied on outdated models that did not implement any of the updates suggested by the abovementioned National Academy of Sciences panel which studied SCC at the request of a federal interagency working group. NHTSA's decision to ignore these updates, such as damage functions concerning the agricultural impacts of climate change, is inexplicable because many of the panel's suggestions have already been implemented in the peer-reviewed literature and so are readily available. Moreover,

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255 M. Auffhammer, *The Use of the Social Cost of Carbon in the Federal Proposal "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021 – 2026 Passenger Cars and Light Trucks. [83 Fed. Reg. 42,986 (Aug. 24, 2018)],"* at 8–9 (Oct. 2018) (Auffhammer Report).

256 *Id.* at 8.

257 *Id.* at 10.

258 *Id.* at 10–11.

259 *Id.* at 11.

whereas the clear majority of the literature analyzing SCC is from after 2010, NHTSA's analysis, again, relying on its 2020 rule, here did not incorporate any literature from the past decade. This failure had a significant impact on the SCC calculation; for example, as one analysis found,[260] simply updating the damage function for one sector of the economy leads to a doubling of the SCC.[261]

Sixth, even if a domestic SCC number were appropriate (which it is not), the most recent, peer-reviewed, scientific analysis published in a top journal indicates such a domestic number is at least $48 per ton of CO_2—far higher than the $1–$7 range used to justify the Proposal.[262] Similarly, an EPA study published in 2025 finds U.S.-specific damages ranging from $31–85 per ton of CO_2, with losses of gross domestic product alone exceeding the numbers NHTSA has used:

FIGURE 3[263]

Table 6: Combined evidence on U.S. nonmarket health damages and U.S. GDP-based market damages from CO_2 emissions

	U.S.-specific SC-CO_2 *(2030 emissions, 2% near-term Ramsey discount rate, 2020\$/mtCO_2)*		
Source of GDP-based market damages[b]	GDP-based market damages	Health nonmarket damages (Cromar et al. 2022)[c]	Total
Acevedo et al. (2020)	$10	$21	$31
Kahn et al. (2021)	$10	$21	$31
Casey et al. (2023)	$14	$21	$35
Harding et al. (2024)	$28	$20	$48
Nath et al. (2024)	$66	$19	$85

U.S. mortality from climate-driven wildfire smoke alone may raise the SCC by $15/ton.[264]

In sum, the costs associated with the Proposal's impact on GHG emissions is an important aspect of the regulatory problem that must be considered. *See State Farm*, 463 U.S. at 43; *Am. Lung Ass'n v. EPA*, 985 F.3d 914, 995 (D.C. Cir. 2021) (agency's disregard of a

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260 F.C. Moore et al., "New science of climate change impacts on agriculture implies higher social cost of carbon," 8 *Nature Commc'ns.* 1 (2017), at 1607, https://pmc.ncbi.nlm.nih.gov/articles/PMC5694765/.

261 Auffhammer Report at 14.

262 *Id.* at 14.

263 E. Kopits et al., "Economic Damages from Climate Change to U.S. Populations: Integrating Evidence from Recent Studies," National Center for Environmental Economics-NCEE Working Papers 368258, at 30, U.S. EPA (2025). DOI: 10.22004/ag.econ.368258, https://ageconsearch.umn.edu/record/368258/files/2025-01_3.pdf.

264 *Id.* at 13.

proposal's impact on GHG emissions failed to consider "arguably the most important aspect" of the regulatory problem), *rev'd on other grounds*, *West Virginia v. EPA*, 597 U.S. 697 (2022).

3) Criteria Pollution

NHTSA admits that the Proposal will increase criteria pollution emissions relative to baseline, and that such emissions will have negative human health impacts. 90 Fed. Reg. at 56,566 ("The external benefits of health outcomes related to exposure of criteria pollutants . . . would decrease slightly relative to the No-Action Alternative under each of the regulatory alternatives considered in this proposal."); *id.* at 56,608, 56,610 ("Adverse health outcomes from criteria pollutant emissions are expected to increase nationwide in 2035 and 2050 under all action alternatives"). However, this admission is undermined by statements that confuse the issue and limitations in NHTSA's skewed evaluation.

First, NHTSA in the NPRM repeatedly minimizes the significance of the emissions at issue by referring to the increase as "marginal" and "slight," *id.* at 56,566, 56,608, without providing emissions figures or explaining what those terms mean. While the emissions figures NHTSA separately provides in Chapter 8 of the PRIA may seem "slight" in comparison to the limited no-action and action alternatives NHTSA selects for evaluation, NHTSA never compares these figures to the significant emission reductions it projected in 2024 from the existing MY2027–2031 standards. In 2024, NHTSA projected that the MY2027–2031 standards would lead to a "dramatic decline" in annual emissions of NO_X and $PM_{2.5}$, ultimately preventing hundreds of premature deaths. 89 Fed. Reg. at 52,753–55. Those projections indicate the Proposal does not disclose the true criteria pollution consequences of rolling back existing standards.

Second, NHTSA misleadingly emphasizes that criteria emissions decrease over time under all the action alternatives—an effect not attributable to and in fact occurring in spite of the proposed CAFE standards. 90 Fed. Reg. at 56,608. As NHTSA explains earlier, the decrease in emissions is "due to the analogous decrease in VMT [in the light-duty on-road gas fleet] and retirement of older less efficient vehicles." *Id.* at 56,572 & Figure IV-6. As Figure IV-6 shows, *all* of this decrease occurs in the no-action baseline, while all of the action alternatives increase emissions relative to that baseline. *Id.* NHTSA cannot credit its Proposal under the fourth feasibility factor for environmental trends occurring independent of and contrary to its proposed action.

And that decrease in gas fleet VMTs appears to be due in significant part to the growth in EV market share projected in the AEO 2025 Alternative Transportation Case, which NHTSA uses to model the gas-fueled fleet's evolution over time. *See* Draft TSD at 4-1, 4-39–4-40. This underscores how misguided NHTSA's reinterpretation of the EV Restriction is: even as NHTSA tries to eliminate all influence of the EV transition on its modeling, it ends up considering the effect of EV growth in the baseline under the fourth feasibility factor. (NHTSA's arbitrary approach to projecting pre-rebound VMT also undermines its criteria analysis, *see infra* Part IV.B.3.a.) Under NHTSA's prior, correct interpretation, the agency could properly isolate these baseline trends from the effects of its action alternatives and ensure its feasibility analysis focuses on the fuel-economy improvements specific to its standards. Instead, NHTSA simply contradicts its own hard line.

Third, NHTSA evaluates only a subset of relevant criteria pollutants: nitrogen oxides (NO_X), sulfur dioxide (SO_2), and directly emitted fine particulate matter ($PM_{2.5}$). 90 Fed. Reg. at 56,510 n.294; Draft TSD at 5-8. NHTSA does not explain its change in position from prior rules, where it also evaluated carbon monoxide (CO), volatile organic compounds, and air toxics. 89 Fed. Reg. at 52,842–43. It states in a footnote that it focused on the three pollutants it did "since they are emitted regularly by refineries and motor vehicles, cause the most severe effects on human health, and have been the subject of extensive research to quantify and monetize their health impacts." 90 Fed. Reg. at 56,515 n.308. But these things are true of the other pollutants NHTSA has studied historically as well. It is unreasonable to claim, for example, that a listed pollutant like carbon monoxide is not well-documented or does not have severe effects.

Finally, NHTSA fails entirely to consider "important aspect[s] of the problem" and has arbitrarily changed its position, *see State Farm*, 463 U.S. at 43; *Fox Television*, 556 U.S. at 515, by not conducting key analyses of criteria pollution impacts. Notably, NHTSA does not examine environmental justice implications of criteria pollution tied to upstream emissions from petroleum extraction and refining, despite previously examining environmental justice impacts under the fourth feasibility factor. 89 Fed. Reg. at 52,827; *see supra* Part II.A.4.c. Nor does NHTSA disclose the impacts on attainment of national ambient air quality standards.

B. NHTSA's application of the nonstatutory safety factor is unlawful

1. A nonstatutory factor like safety may not lawfully displace the feasibility factors that Congress specified

The Proposal significantly distorts its feasibility analysis by placing unreasonable weight on a nonstatutory safety factor. Whatever discretion NHTSA may claim to consider other factors as part of the feasibility analysis, it may not escape the fundamental goal of EPCA or its express statutory responsibility under Section 32902. *Indep. US Tanker Owners Comm. v. Dole*, 809 F.2d 847, 854 (D.C. Cir. 1987) ("[T]he Secretary is certainly free to consider factors that are not mentioned explicitly in the governing statute, yet she is not free to substitute new goals in place of the statutory objectives without explaining how these actions are consistent with her authority under the statute."); *see also Chemical Mfrs. Ass'n v. EPA,* 217 F.3d 861, 867 (D.C. Cir. 2000) ("Given the absence of environmental benefits—indeed, the possibility of environmental harm—EPA violated the basic requirement that its actions must 'not deviate from or ignore the ascertainable legislative intent.'" (citing *Small Refiner Lead Phase-Down Task Force v. EPA,* 705 F.2d 506, 520 (D.C. Cir. 1983))). In short, NHTSA's discretion is constrained by EPCA's express objectives, and its excessive emphasis on dubious vehicle safety benefits is arbitrary and otherwise unlawful for at least two reasons.

First, as discussed further below, the agency's projections with regards to adverse safety impacts are inflated. *See infra* Part IV.B.3.

Second, NHTSA attempts to justify the Proposal's reductions in fuel economy by emphasizing the purported safety benefits, effectively substituting a new safety goal in place of the statutory objective of maximizing fuel economy. *Indep. US Tanker Owners*, 809 F.2d at 854. NHTSA suggests that revising existing CAFE standards will result in thousands of fewer deaths and billions of dollars in avoided costs flowing from fatalities, injuries, and property damage.

See, e.g., 90 Fed. Reg. at 56,516–18, 56,604–07. NHTSA does not describe how much relative weight it assigns to these projections compared to the other feasibility factors—NHTSA generally notes that it "also considers safety effects in determining maximum feasible CAFE standards, both because of its expertise as a safety agency and also as an element of economic practicability," *id.* at 56,604—but its presentation and description of these projections signal that safety plays an important, if not driving, role in NHTSA's proposed maximum feasible determination. *See, e.g.*, *id.* at 56,605 ("As the Nation's primary vehicle safety regulator, NHTSA … endeavors to avoid the adoption of fuel economy standards that are likely to result in a significant increase in roadway deaths and serious injuries."). Even the Proposal's title suggests safety was front of mind for the agency: "The *Safer* Affordable Fuel-Efficient (SAFE) Vehicles Rule III for Model Years 2022 to 2031 Passenger Cars and Light Trucks." 90 Fed. Reg. at 56,438 (emphasis added).

NHTSA identifies three mechanisms through which it expects the Proposal to affect safety outcomes: (1) by promoting the rate at which Americans shift from older, more dangerous vehicles to newer vehicles that are designed to be safer, (2) through the "rebound effect"[265]—in other words, by making it more expensive for Americans to drive by reducing the fuel efficiency of new vehicles, and (3) by incentivizing the mass of different vehicle models to change, thereby impacting safety outcomes in different vehicle collision scenarios. 90 Fed. Reg. at 56,605. Of these, "the rebound effect on vehicle safety dominates the overall safety picture across the three [regulatory] alternatives." *Id.*; *see also id.* at 56,606–07 (Tables V-9, V-10).[266] NHTSA claims that the Preferred Alternative, largely as a result of decreased rebound VMT, will avoid approximately 1,567 fatalities, 246,408 non-fatal injuries, and 794,297 crashes between calendar years 2024 and 2050, saving society approximately $68.4 billion in estimated costs over that time period. 90 Fed. Reg. at 56,606–07.

Yet the rebound effect is inherently intertwined with Congress's statutory objective of maximizing fuel economy. Essentially, NHTSA expects adoption of the Proposal to result in safety benefits because less efficient vehicles will lead Americans to drive (and crash) less. NHTSA's vaunted safety benefits are thus by their very nature opposed to Congress's express objective: "to provide for improved energy efficiency of motor vehicles." Pub. L. No. 94–163, 89 Stat. at 874. That contradiction underscores how NHTSA's emphasis on safety does not merely complement, but substitutes for, EPCA's actual objectives.

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[265] The "rebound effect" is premised on the idea that people will adjust the amount of their driving in response to increases or decreases in the cost of driving. It is typically measured in percentages. A rebound of effect of 5% generally means that for every one percent increase in the cost of driving, there will be a 0.05% decrease in vehicle miles traveled. Conversely, for every one percent decrease in the cost of driving, there will be a 0.05% increase in the amount of driving. The cost of driving may be affected by swings in fuel prices or, as here, an increase in fuel economy that effectively makes driving cheaper.

[266] As discussed further below, NHTSA projects that mass changes incentivized by the Proposal will be net detrimental (i.e., the proposed standards will result in more fatalities, higher crash costs, and more property damage due to mass changes), and the projected safety benefits from fleet turnover/scrappage will be miniscule (approximately 66 deaths avoided over 26+ years). 90 Fed. Reg. at 56,606–07.

For further confirmation, consider the difference in how NHTSA presents the rebound effect within the feasibility analysis and within its cost-benefit analysis. NHTSA's feasibility analysis omits the substantial societal benefits that accrue to Americans from increased mobility and fewer refueling stops—benefits that will be forgone if NHTSA adopts the Proposal. *See* 90 Fed. Reg. at 56,606–07. Yet, as NHTSA acknowledges elsewhere, "a large portion of the safety risks associated with additional driving are offset by the benefits drivers gain from added driving." 90 Fed. Reg. at 56,518. For this reason, NHTSA assumes in the cost-benefit analysis that "drivers internalize 90 percent of this risk, which mostly offsets the societal impact of added fatalities from this voluntary consumer choice." *Id.* Accordingly, in the PRIA, NHTSA predicts that the lost benefits from reduced driving will offset no less than *$25.1 billion* of the $27 billion in safety benefits from the Preferred Alternative. PRIA at 8-63–8-64 (Table 8-14).[267]

Thus, within the feasibility analysis, NHTSA discusses safety as if the Proposal will significantly benefit society, 90 Fed. Reg. at 56,605–07, while excluding the forgone benefits tied to the same rebound effect—benefits, moreover, that reflect the statutory goals of EPCA. That imbalance renders NHTSA's feasibility analysis arbitrary. *See Ctr. for Biological Diversity*, 538 F.3d at 1198 (agency "cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards"). Particularly where the touted safety benefits are so illusory, NHTSA's suggestion that these benefits justify "small, steady, incremental" standards nowhere near the maximum feasible level is arbitrary and capricious.

2. "Safety" is not a "subcomponent of economic practicality" or any statutory factor

NHTSA has, without explanation, departed from its prior practice by defining safety as a "subcomponent of economic practicability"—perhaps to justify the outsized weight it gives to this nonstatutory consideration. 90 Fed. Reg. at 56,586. That is an unreasonable interpretation of the feasibility factors, given that safety concerns are not discussed in EPCA and have no direct correlation to economically practicability or the other subsection (f) factors. *See State Farm*, 463 U.S. at 43 (it is arbitrary and capricious for an agency to rely on factors "which Congress has not intended it to consider"). The only justifications NHTSA offers for this redefinition are the unsupported assertions that:

- "Because manufacturers have finite resources to invest in research and development, investment into the development and implementation of fuel-saving technology necessarily comes at the expense of investing in other areas, such as safety technology. … As manufacturers add technology to increase fuel efficiency, they may decide against installing additional safety equipment to reduce cost increases." 90 Fed. Reg. at 56,586.

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267 Even this figure is somewhat doubtful, however: viewed through another lens (the incremental benefits and costs for calendar years 2024–2050), the PRIA actually predicts that the forgone benefits from reduced driving will *outpace* the safety costs the Proposal will avoid, to the tune of approximately $16 billion (at a 3% discount rate). *See id.* at 8-64–8-65 (predicting $68.3 billion in avoided safety costs, compared to $84.3 billion in foregone benefits from reduced driving).

- “And as the prices of new vehicles increase beyond the reach of more consumers, such consumers continue to drive or purchase older, less safely used vehicles. In assessing economic practicability, NHTSA thus also considers the harm to the U.S. economy caused by highway fatalities and injuries.” *Id.*

These assertions are speculative and unsupported by evidence—for example, evidence that *any* automaker has chosen to install fuel-efficiency technology at the expense of safety technology.

Moreover, NHTSA’s justifications do not explain why safety should be folded into the entirely distinct, statutorily enumerated economic practicability factor. *See Pub. Citizen v. NHTSA*, 848 F.2d 256, 264–65 (D.C. Cir. 1988) (affirming interpretation of “economically practicable” to be “within the financial capability of the industry, but not so stringent as to threaten substantial economic hardship for the industry”). Congress specified the precise and limited role safety should play in the “maximum feasible” analysis in subsection (f), confining NHTSA’s analysis to whether its separately adopted safety regulations would limit the fuel-economy improvements automakers could apply to their fleets. 49 U.S.C. § 32902(f); *see* 90 Fed. Reg. at 56,586. NHTSA is not free to deviate from Congress’s choice and enlarge the safety analysis beyond that narrow question. *See, e.g.*, *West Virginia v. EPA*, 597 U.S. at 723 (“Enabling legislation is generally not an open book to which the agency may add pages and change the plot line.”) (cleaned up).

3. NHTSA’s safety analysis is arbitrary and capricious

Even NHTSA’s own cost-benefit analysis indicates that the Proposal may result in a net detriment to society from a safety perspective. From a “calendar year perspective,” the PRIA estimates that the forgone benefits associated with reduced driving will exceed the Proposal’s avoided safety costs by approximately $16 billion (3% discount rate) or $8.1 billion (7% discount rate). PRIA at 8-64–8-65. Even viewed through the lens more favorable to NHTSA (the “model year perspective”), the Proposal’s safety benefits are expected to exceed these forgone benefits by only $1.2–1.9 billion. PRIA at 8-63–8-64. That is a far cry from the $68.4 billion in safety benefits NHTSA trumpets in the feasibility analysis. 90 Fed. Reg. at 56,606–07. Allowing such a relatively slight safety benefit to outweigh considerations that are expressly articulated in the statutory scheme is arbitrary, capricious, and contrary to law.

As detailed below, there are also numerous reasons to doubt the accuracy of the claimed safety benefits of the Proposal, which are based on a flawed, non-peer-reviewed model that incorporates illogical assumptions and fails to use real-world data.

a. NHTSA’s estimate of rebound VMT is arbitrary and capricious

By far the single greatest contributor to the Proposal’s alleged safety benefits is the “rebound effect.” 90 Fed. Reg. at 56,607, Table V-10; *see also* PRIA at 8-48, Table 8-10 (noting 1,528 fewer fatalities from reduced rebound driving, compared to 27 *additional* fatalities from mass changes and 66 fewer deaths from changes in vehicle scrappage). Both the factual and policy underpinnings of that conclusion are erroneous.

First, NHTSA's fatalities projection is doubtful given the agency's erroneous calculation of pre-rebound VMT. Unlike prior rulemakings, the Proposal projects pre-rebound VMT from the gas-only subfleet for its standard-setting analysis. 90 Fed. Reg. at 56,508.[268] Under this new approach, "NHTSA creates 'mileage accumulation schedules' as an initial estimate of how much a vehicle is expected to drive at each age throughout its life" using historic odometer data. *Id.* Then, NHTSA projects the on-road gas fleet using its sales and scrappage models and multiplies "each vehicle projected to be in the fleet by the per-vehicle VMT estimates from the mileage accumulation schedules." *Id.*

The States and Cities dispute that NHTSA is justified, much less required to measure pre-rebound VMT using only data from the gas-powered fleet. *Supra* Part III.A.2. Even putting aside that issue, NHTSA's methodology for calculating pre-rebound, gas-only VMT appears seriously flawed, producing absurd results when compared with the agency's sales projections in the EIS. Gillingham et al. at 21. The reference analysis projects *more* VMT from a *smaller* fleet, and projects declining VMT while the EIS projects growth. *Id.* at 21–23. Moreover, the share of VMT attributed to gas vehicles in the reference projections declines twice as fast compared to the AEO 2025 Alternate Transportation Case, which NHTSA incorporates into its vehicle sales projections. *Id.* at 23–24.

Because NHTSA incorporates its projections of pre-rebound VMT into its calculations to estimate the societal effects of each regulatory alternative, these errors compound downstream and distort the Proposal's projected incremental safety benefits. *See* 90 Fed. Reg. at 56,508–09; PRIA at 8-62–8-65. NHTSA's use of inconsistent VMT methodologies causes the reference analysis to inflate the number of avoided fatalities compared to the EIS (–1,567 in the reference analysis vs. –1,147 in the EIS). Gillingham et al. at 25–26. Under the model year perspective, the net safety benefits are inflated (compared to the EIS), while under the calendar year perspective, net costs are actually understated. *See* PRIA at 8-63–8-65. NHTSA cannot credibly rely on such an incoherent methodology. If NHTSA insists on proceeding with projected VMT from only gas vehicles, it would at least be more consistent to use the AEO 2025 Alternative Transportation Case VMT to calculate pre-rebound VMT schedules. *See* Gillingham et al. at 23–26. If NHTSA instead elects to rely on its own mileage accumulation schedules, it must justify its decision and reconcile its findings with its sales calculations. *Id.*

Beyond the flaws inherent in NHTSA's calculation of pre-rebound VMT, NHTSA's selection of a rebound figure of 15% is unsupported by the evidence and erroneous. In 2024, NHTSA concluded that the rebound effect from the existing standards is 10%, based on many of the same studies considered in the Proposal. 88 Fed. Reg. at 56,244; 89 Fed. Reg. at 52,669. In other words, NHTSA concluded that, for every one percent increase in the cost of driving, there would be a 0.10% decrease in vehicle miles traveled. In the Proposal, however, NHTSA has increased its estimate of the rebound effect, placing it at 15%. 90 Fed. Reg. at 56,508. Consequently, NHTSA posits that there will be more fatal and nonfatal crashes under existing

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[268] NHTSA explains in the Preamble that, in prior rulemakings, it used the Federal Highway Administration (FHWA) VMT Forecasting Model, but that it can no longer use this model "since the FHWA model includes miles that will be driven in dedicated automobiles," specifically EVs. 90 Fed. Reg. at 56,508.

standards because driving will be more affordable under the existing standards. As discussed below, NHTSA does not offer adequate reasons for increasing the rebound effect by a factor of 1.5. *Fox Television*, 556 U.S. at 515 (agency must provide a "more detailed justification" for rejecting prior factual findings supporting prior position).

While NHTSA makes sure to highlight in the feasibility analysis the fatalities it claims will result from the rebound effect, it concedes elsewhere that fatalities and increases in non-fatal accidents from such additional driving should not be a basis for rolling back CAFE standards. It concludes that increased driving from the rebound effect is not imposed on consumers by the regulations but rather is a matter of personal choice:

> [I]ncreased driving associated with the rebound effect is a consumer choice that reveals the benefits of additional travel. Consumers who choose to drive more have decided that the utility of additional driving exceeds the additional costs for doing so, including the crash risk that they perceive additional driving involves.

90 Fed. Reg. at 56,516.

Therefore, NHTSA offsets 90% of the societal cost of fatal and non-fatal collisions resulting from the rebound effect with the societal benefit of the rebound effect. 90 Fed. Reg. at 56,516–17; *id.* at 56,567, Table IV-26; Draft TSD at 7-57–7-58. NHTSA's decision to offset at least most of the costs is reasonable because there is a societal benefit to consumers being free to drive more if they choose.[269] Certainly, for decades it has been the practice of United States policymakers to accept increased risks when taking steps to make transportation more affordable, such as pursuing policies to reduce fuel prices. President George W. Bush sought energy policies that would reduce the price of fuel over time.[270] So, too, did congressional leaders at the same time, when they enacted EISA.[271] The Department Energy currently touts that President Trump has "kept" his promise to lower Americans' gas prices.[272] Presumably, NHTSA is not currently advocating increasing the cost of driving to protect people from the risks entailed in driving. In

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[269] *See* Detailed Comments of the California, et al. on EPA and NHTSA's Joint Proposed "SAFE" Vehicle Rule for Model Years 2021–2026 Passenger Cars & Light Trucks, NHTSA-2018-0067-11735, at 97 (Oct. 26, 2018), https://www.regulations.gov/comment/NHTSA-2018-0067-11735 (SAFE II Comments) (citing Expert Report of Kenneth Gillingham, The Rebound Effect of Fuel Economy Standards: Comment on the Safer Affordable Fuel-Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, at 10 (Oct. 2018)).

[270] *See* 2007 State of the Union Policy Initiatives, Twenty In Ten: Strengthening America's Energy Security, https://georgewbushwhitehouse.archives.gov/stateoftheunion/2007/initiatives/energy.html.

[271] *See* 153 Cong. Rec. S7586 (daily ed. June 13, 2007) (statement of Sen. Thune), https://www.congress.gov/crec/2007/06/13/CREC-2007-06-13-pt1-PgS7582-2.pdf; *see also* 153 Cong. Rec. H16748 (daily ed. Dec. 18, 2007) (statement of Speaker Pelosi), https://www.congress.gov/crec/2007/12/18/CREC-2007-12-18-pt1-PgH16659.pdf.

[272] U.S. Department of Energy, *Promises Made, Promises Kept* (Dec. 18, 2025), https://www.energy.gov/articles/promises-made-promises-kept.

reality, NHTSA is trying to have it both ways: ignoring the benefits of existing standards while attributing to the standards the increased risks inherent in driving.

Regardless, NHTSA's new claim that the rebound effect is 15%—or 1.5 times its previous finding—is unsupported. NHTSA does not present any new studies or information that would support a higher rebound figure; instead, NHTSA argues that its 2022 and 2024 rebound analyses improperly assumed the rebound effect was declining over time and were unduly focused on studies showing a lower rebound estimate. 90 Fed. Reg. at 56,508. But the best evidence on rebound driving available—from the United States, using odometer data from emissions or safety inspections, and from recent years—leads to a central case estimate for the rebound effect of 10%, or perhaps even lower. Gillingham et al. at 30. Instead, NHTSA cherry picks studies from outside the United States and studies using dated data and methodologies, and assigns disproportionate weight to studies that rely on data of poor quality. *Id.* NHSTA also ignores evidence that would support a lower rebound effect for projections into the future. *Id.* In the Draft TSD, NHTSA acknowledges that the better evidence in the literature—the evidence that previously led the agency to employ a rebound estimate of 10%—is evidence "for the U.S.," "derived using more recent data," "based on multiple years of data," "values that are based on FE or fuel CPM rather than the price of gasoline itself," and "estimates derived from more reliable data sources." Draft TSD at 4-54. Indeed, the only study cited in the Draft TSD that was not cited by NHTSA in its previous rulemakings is a study using data from Switzerland (Roth 2019), which itself has a range of rebound estimates on the low end of 0-5%. NHTSA does not provide an adequate explanation of why this evidence should now lead to a rebound estimate of 15%. In short, NHTSA has abandoned its prior analyses of rebound research, ignored relevant research it previously considered, and given undue weight to studies it knows are not as relevant or reliable but which have a high rebound number. That is arbitrary and capricious. *See Genuine Parts*, 890 F.3d at 307.

b. NHTSA's scrappage modeling retains many of the same flaws identified in previous rulemakings

NHTSA claims the Proposal would reduce fatalities by accelerating the scrappage of older vehicles, thereby increasing the proportion of newer vehicles (with better safety features) in the nationwide fleet. Specifically, NHTSA claims that the "delayed scrappage" effect of existing standards will cause fatalities to increase by 66 deaths over calendar years 2024–2050. PRIA at 8-48, Table 8-10. Not only is that total—66 fewer deaths over the course of a quarter century—miniscule when compared to the total number of road fatalities NHTSA estimates will occur over the same time period, NHTSA itself acknowledges that it cannot determine whether this total is statistically significant because its projected scrappage effects are not produced using a statistical model and, thus "do not have estimated confidence bounds" and "in turn, neither do the aggregated safety effects." PRIA at 4-9. NHTSA's failure to produce statistically significant results calls into serious question the usefulness of the scrappage model. Yet NHTSA continues to emphasize the model's results to highlight safety impacts of each regulatory alternative. *See* 90 Fed. Reg. at 56,454, 56,506–07, 56,517–18; Draft TSD at 4-18–4-20.

NHTSA's scrappage model suffers from structural flaws as well. NHTSA first developed its scrappage model for use in its SAFE II rulemaking. At that time, the States and Cities (and other commenters) pointed out that the model was so inherently flawed that its numbers were meaningless.[273] In an attempt to remedy some of the model's deepest flaws, NHTSA has made some changes to its inputs and structure, *see* Draft TSD at 4-20, but many of the same problems previously identified persist. For instance, NTHSA's scrappage model is still not connected to its sales model, so the scrappage model does not consider the sales model's projections of new vehicle sales. *Compare* 90 Fed. Reg. at 56,504 ("NHTSA models sales and scrappage independently") *with* 83 Fed. Reg. at 43,099 ("our analysis uses sales and scrappage models that do not dynamically interact"); *see also* 85 Fed. Reg. at 24,636 (failing to adequately respond to comments pointing out that sales and scrappage model are not linked).[274]

Nor does the scrappage model link new and used vehicle markets, or attempt to measure used vehicle prices, which form the basis of scrappage theory (i.e., if used vehicle prices increase, then people will be less likely to scrap their vehicles). Draft TSD at 4-20–4-25 (listing new vehicle prices as a variable used to estimate scrappage, but not used vehicle prices); *id.* at 4-27 (listing average used vehicle prices as a measure for which there is "no source" and "endogenous" to the model). Instead, it irrationally uses new vehicle prices as a proxy for used vehicle prices, without considering the myriad of factors affecting used vehicle prices. *Id.* at 4-23, 4-27. As the States and Cities and other commenters pointed out in the SAFE II rulemaking, these deficiencies make the scrappage model vulnerable to producing results inconsistent with economic theory.[275] Particularly in light of NHTSA's admitted inability to assess the statistical significance of the model's results, it would be arbitrary and capricious to base the Proposal on claims of projected fatalities resulting from delayed scrappage. *State Farm*, 463 U.S. at 43.

c. NHTSA's analysis regarding fatality rates due to mass changes is neither supportable nor statistically significant, but even if it were sound, NHTSA's own analysis shows that its proposed mass changes will likely make vehicles more dangerous

NHTSA estimates that rolling back fuel economy standards will increase overall highway fatalities by 27 people because vehicle manufacturers will no longer be as incentivized to reduce the mass of certain vehicles under less stringent standards. NHTSA caveats this estimate by explaining:

> The impacts of mass changes are nonlinear and depend on the specific fleet receiving those changes, with mass increases in passenger cars causing a reduction in adverse safety outcomes and mass increases for light trucks causing an increase in adverse safety outcomes. Though the point estimates applied suggest a marginal increase under the regulatory alternatives, NHTSA notes that none

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273 SAFE II Comments, *supra* note 269, at 90–94.

274 *See also* SAFE II Comments, *supra* note 269, at 93.

275 *Id.* (citing David Bunch, An Evaluation of NHTSA's Economics-based Modeling and Implications for Benefit-Cost Analysis in the NHTSA/EPA August 24, 2018 Notice of Proposed Rulemaking, at 7 (Oct. 24, 2018)); *see also* 85 Fed. Reg. at 24,629–33.

> of these safety outcomes due to mass changes can be distinguished statistically from zero.

90 Fed. Reg. at 56,576.

Notably, NHTSA's own analysis acknowledges that its Proposal will likely result in an *increase* in fatalities resulting from mass changes to vehicles. While NHTSA attempts to caveat this figure by highlighting its statistical insignificance, it notably does not provide the same caveat with respect to its estimate that increased fleet turnover and scrappage will result 66 fewer deaths over the course of 26 years. NHTSA's willingness to embrace one insignificant figure, while attempting to disavow another that runs counter to its preferred narrative, only underscores the flawed approach NHTSA has taken to its rulemaking.

Moreover, even if NHTSA considers this estimated increase in traffic fatalities to be sufficiently small, or to be offset by other, positive safety impacts of its Proposal, its analysis is seriously flawed from a statistical standpoint. NHTSA states that none of the specific mass reductions in any of the five vehicle classes show a statistically significant effect on fatalities to a 95% confidence level, and that only two (the point estimates for the heaviest and lightest vehicle types) show an effect at the 85% confidence bound. 90 Fed. Reg. at 56,576; Draft TSD at 7-46, 7-47 n.774. Because this type of analysis requires a 95% confidence level,[276] the results obtained from NHTSA's analysis are statistically insignificant. Indeed, NHTSA explicitly acknowledges this fact, stating "none of these safety outcomes due to mass changes can be distinguished statistically from zero." 90 Fed. Reg. at 56,576.

Because of the statistical insignificance of NHTSA's analysis regarding fatality rates due to mass changes, any attempt to base the Proposal on its purported effects on fatalities due to mass changes (or lack thereof) would be arbitrary and capricious. *State Farm*, 463 U.S. at 43.

C. NHTSA's vehicle reclassification unnecessarily reduces stringency and impacts feasibility

NHTSA's proposed "substantial reclassification" of the light-duty vehicle fleet, 90 Fed. Reg. 56,445, will meaningfully reduce the CAFE standards' stringency—despite the fact that it would be possible to implement such a reclassification without impacting stringency. However, NHTSA fails to consider this reduced stringency in its feasibility analysis.

Reclassifying SUVs and crossover vehicles from the light-truck category into the passenger-car category weakens fuel economy standards for both passenger cars and light trucks because SUVs typically have footprints that are larger than traditional passenger cars but smaller than most light trucks. Gillingham et al. 47. Thus, moving these vehicles into the passenger-car category increases the average footprint of the passenger-car fleet while simultaneously

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[276] *See* SAFE II Comments at 95 (citing R.M. Van Auken, Comments on the Preliminary Regulatory Impact Analysis of the Proposed Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Year 2021 - 2026 Passenger Cars and Light Trucks, NHTSA-2018-0067-11881, at 12 (Oct. 2018), https://www.regulations.gov/comment/NHTSA-2018-0067-11881).

increasing the average footprint of the remaining light-truck fleet. Under footprint-based standards, higher average footprints translate directly into less stringent (higher gal/100 mi) compliance targets. *Id.* As a result, fuel economy standards become weaker for both regulatory classes, even though vehicles are simply reassigned across categories and no changes are made to fleet composition, technology assumptions, or underlying stringency. *Id.* This vehicle reclassification alone weakens required standards by approximately 0.05 gal/100 mi for passenger cars and 0.30 gal/100 mi for light trucks, on a sales-weighted basis across manufacturers in the post-2027 period. Gillingham et al. 47–48, Figure 6. On a representative fleet, reclassification alone would lead to 0.6 mpg reduction in stringency for passenger cars and 1.9 mpg reduction for light trucks. Gillingham et al. 48.

In its Proposal, NHTSA recalibrates the vehicle footprint-based curves that constitute the CAFE standards to account for the reclassification. Draft TSD ch. 1.2.3. NHTSA's methodology may preserve modeled compliance costs, but these updates to the footprint curves are not neutral technical corrections. Rather, they are policy choices that weaken the standards relative to what would otherwise apply. Gillingham et al. 49. NHTSA's updates to the footprint curves lack transparency, as the bundling of vehicle reclassification with curve recalibration and stringency changes obscures the independent effect of the reclassification. Gillingham et al. 49. The overall effect is to reduce the effectiveness of the CAFE program by reducing stringency, and the agency's approach here sets a dangerous precedent for future strategic reclassifications that alter compliance outcomes without improving vehicle efficiency. Gillingham et al. 49.

Finally, NHTSA's redefinition of non-passenger vehicles still risks incentivizing manufacturers to reclassify vehicles to ease their compliance burden, undermining the rationale for this redefinition. *See* 90 Fed. Reg. at 56,444, 56,602. Under the new definition, automakers are still motivated to redesign vehicles that will now be classified as passenger cars, but were historically accepted as light trucks, to regain truck classification if that pathway offers more favorable compliance options. This "gaming" of the definition would still lead these vehicles to accumulate unwanted capabilities (e.g., increased towing capacity on a crossover utility vehicle rarely used for moving cargo) which could adversely impact vehicle affordability and safety. Gillingham et al. 49–51; *see* 90 Fed. Reg. at 56,620. Absent clear justification and a more transparent analysis of these effects, the proposed reclassification risks distorting manufacturer behavior in ways that weaken the effectiveness of the CAFE program. Gillingham et al. 49–51.

V. NHTSA's SAFE III Proposal Is Unlawful in Several Other Respects

A. NHTSA may not promulgate retroactive CAFE standards

"[A] statutory grant of legislative rulemaking authority will not . . . be understood to encompass the power to promulgate retroactive rules unless that power is conveyed by Congress in express terms." *Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 208 (1988). EPCA nowhere authorizes in express terms that NHTSA may retroactively set standards. Thus, NHTSA's claim that "the statute does not contain any language" against amending standards retroactively, 90 Fed. Reg. at 56,582, is not the carte blanche NHTSA takes it as: the statute must *affirmatively* grant retroactive rulemaking power for the agency to have it. NHTSA therefore may not argue that its rulemaking authority gives it a blanket ability to promulgate retroactive rules for MY2022–2026.

And NHTSA is wrong, in any case, given the plain text of 49 U.S.C. § 32902. Both amendment provisions at subsections (c) and (g) (cross-referencing subsection (a)) require that the amended standard be "maximum feasible" for that model year, and the ordinary meaning of "feasible" is forward-looking: "capable of being done." Webster's 3d New Int'l Dictionary 831 (1976); *see also* 42 Fed. Reg. at 33,536. Automakers cannot change what they did in the past, so nothing is "capable of being done" in model years that have already passed. Similarly, the amendment provisions also refer to "prescrib[ing] regulations," 49 U.S.C. § 32902(c), (g), and regulatory rules are generally understood under the APA to be of "future effect." 5 U.S.C. § 551(4); *see also* 49 Fed. Reg. 41,250, 41,255 (Oct. 22, 1984) (noting the use of "rule" in various subsections of 49 U.S.C. § 32902, which "ordinarily refers to prospective agency action"). Retroactive standards also violate EPCA's 18-month lead time requirement, which sets requires new CAFE standards, and any amendments to existing standards, to be prescribed by NHTSA at least 18 months before the beginning of each model year.[277]

NHTSA admits that it is advancing a novel interpretation of the statute when it argues it can set retroactive standards long after model years have passed. 90 Fed. Reg. at 56,582 ("NHTSA is aware that this is a change in its previous interpretation of the statute."). The agency previously interpreted amendment to be prohibited after the beginning of the model year being altered. *See* 49 Fed. Reg. at 41,255; 90 Fed. Reg. at 56,582 n.373.[278] That prior interpretation ensured that NHTSA was advancing Congress' intent to "provide certainty and finality for manufacturers' planning purposes" and "encourage the achievement of particular fuel economy levels rather than simply ratifying past conduct." 90 Fed. Reg. at 56,582 n.373. The past interpretation also acknowledged that "retroactive downward adjustments were inconsistent with the statutory scheme as inferred by congressionally imposed credit and civil penalty provisions, equity considerations, the APA, and . . . perceived theories of Congressional intent." *Id.*; *see also Gen. Motors Corp.*, 898 F.2d at 172–74 (affirming NHTSA's refusal to retroactively amend standards because such amendments would undermine Congressional intent and be inequitable to manufacturers that already complied). These common-sense considerations behind NHTSA's prior position—and the D.C. Circuit's affirmance of that position as reasonable—also favor that prior interpretation as the best reading of the statute under *Loper Bright*.

NHTSA's explanation for its change in position is also arbitrary under *Fox Television Stations*, 556 U.S. at 515. NHTSA claims that it is changing its longstanding practice against retroactive standard-setting because it "does not believe that Congress intended for NHTSA to leave in place codified standards promulgated in violation of [] statutory provisions." 90 Fed. Reg. at 56,582. As explained *supra* Part III., NHTSA is wrong that congressional intent requires

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[277] New standards are subject to the lead-time requirement in 49 U.S.C. § 32902(a). Amendments are governed by section (g)(1), and are permitted only where "the amended standard meets the requirements of subsection (a) or (d), as appropriate." 49 U.S.C. § 32902(g)(1). Section (a), in turn, contains the 18-month lead-time requirement.

[278] Even if the statute were ambiguous as to whether retroactive standard setting is allowed, NHTSA's previous interpretation was longstanding, consistent, and adopted close to the time the statute was adopted, so should be accorded great weight. *Loper Bright Enters. v. Raimondo*, 603 U.S. 369, 386 (2024).

it to reinterpret the EV Restriction, and no court has found the prior standards to violate Section 32902(h). EPCA should not be read to empower NHTSA to upset settled compliance decisions based on the political leadership's changing and unsupported litigation positions.

Finally, NHTSA's failure to consider reliance interests violates the APA. *Dep't of Homeland Sec. v. Regents of the Univ. of Cal.*, 591 U.S. 1, 30 (2020). For example, as explained *infra* Part V.D.2.c., some automakers have made significant investments in technology to comply or overcomply with standards and generated valuable credits, which NHTSA's retroactive revision would devalue or eliminate. In addition, other manufacturers may have already bought credits or carried credits forward to compensate for shortfalls for these prior model years that, under this Proposal, will no longer exist. NHTSA does not acknowledge these reliance interests, much less take them into account in its rulemaking.

B. SAFE III violates EPCA's prohibition on setting standards for more than 5 model years

NHTSA also violates EPCA's provision stating that the Secretary shall "issue regulations under this title prescribing average fuel economy standards for at least 1, but not more than 5, model years." 49 U.S.C. § 32902(b)(3)(B). The Proposal would set standards for ten model years (2022 through 2031)—twice the number permitted by statute. 90 Fed. Reg. at 56,438.

NHTSA argues that the five-year limit does not apply to "amending existing standards." *Id*. at 56,582–83. But NHTSA is impermissibly reading an exemption into the statute. *See Bates v. United States*, 522 U.S. 23, 29 (1997). Nothing in the statute's text indicates that amending a standard should be exempted from the five-year limit. The text imposing the five-year limitation refers only to "prescribing" standards, without regard for whether the agency is prescribing new or amended standards. 49 U.S.C. § 32902(b)(3)(B). "Prescribe" is the verb Congress used to describe the action NHTSA takes both when it sets new standards and amends existing standards. *Id.* at §§ 32902(a), (c), (g). Moreover, the other provision of (b)(3)—the requirement of separate passenger and non-passenger standards expressed as an attribute-based mathematical function—plainly governs both original standards and amendments, and NHTSA never argues otherwise. As a matter of statutory structure, there is no reason why subsection (b)(3)(B) should have a different scope of application than subsection (b)(3)(A). Therefore, NHTSA would violate EPCA by setting standards for a period of more than five model years at a time.

NHTSA argues that the five-year limit should not apply because Congress created the limit so that the agency would not set standards "too far into the future," for a period when NHTSA does not have "reasonably realistic estimates of market conditions, technologies, and economic practicability[.]" 90 Fed. Reg. at 56,582. The statute does not indicate this was Congress' only rationale for enacting the five-year limitation, and the five-year limitation serves other purposes. For example, the limitation allows manufacturers to better prepare to comply with standards—preparation necessary regardless of whether NHTSA changes existing standards or sets new ones, given the work required to recalculate credits for past model years and evaluate how revised standards affect compliance strategies for future model years.

NHTSA also argues that it could simply initiate "multiple concurrent or quickly sequential rulemakings" that would comply with the five-year limitation, that doing so would unnecessarily waste resources to initiate separate rulemakings when they could be consolidated, and that it therefore conducted "two separate analyses . . . for the 2022–2026 and 2027–2031 standards." 90 Fed. Reg. at 56,582–83. NHTSA's objection to Congress's express provision limiting its ability to prescribe CAFE standards is irrelevant. NHTSA also overstates the "separateness" of its analyses for 2022–2026 and 2027–2031 given that both sets of standards are derived from modeling with the same assumptions and range of alternatives considered. *See, e.g.*, Draft TSD at 2-2 (explaining CAFE model procedures); 90 Fed. Reg. at 56,524 (discussing the range of alternatives).

Finally, separate APA-compliant rulemakings would not unnecessarily waste resources. For example, separate rulemakings could be more efficient if they allow commenters to better understand and comment on changes NHTSA is making to its analyses in the 2020 and 2024 final rules to arrive at new MY2022–2026 standards, as compared to its prospective MY2027–2031 standard-setting (e.g., a new interpretation of the subsection (f) factors for a retrospective "feasibility" analysis versus its prospective predictions of feasibility). In sum, NHTSA's Proposal violates EPCA's five-year limit as well as the APA's requirements to explain a change in position and consider reliance interests, discussed above.

C. NHTSA's calculation of the domestic minimum is contrary to statute and arbitrary in light of its application of the reinterpreted EV Restriction

Section 32902(b)(4) requires NHTSA to project the minimum domestic passenger car standard when it promulgates standards for that model year. 90 Fed. Reg. at 56,583. As NHTSA recognizes, "The statute states that any manufacturer's domestically manufactured passenger car fleet must meet the greater of either 27.5 mpg on average or '92 percent of the average fuel economy projected by the Secretary for the combined domestic and non-domestic passenger automobile fleets manufactured for sale in the United States by all manufacturers in the model year.'" *Id.* (quoting 49 U.S.C. § 32902(b)(4)(B)). Yet NHTSA violates the plain text of this provision by basing the domestic minimum not on the projected average fuel economy of the combined passenger fleet, but on the CAFE standard.

NHTSA proposes to calculate the domestic minimum as "92 percent of the average fuel economy standard projected by the Secretary," minus a 0.7 percent offset. 90 Fed. Reg. at 56,583–84. That offset is intended to capture the historical difference between the projected fleet-average standard and the actual fleet-average standard for previous model years, due to NHTSA's projections underestimating sales of larger vehicles with lower target fuel economies on the footprint-based curves. *Id.* at 56,584. But subsection (b)(4) does not say "92 percent of the average fuel economy *standard* projected by the Secretary"; it says "92 percent of the average fuel economy projected by the Secretary." That difference is usually presumed to be meaningful, *see Southwest Airlines Co. v. Saxon*, 596 U.S. 450, 457–58 (2022), and *must* be treated as meaningful in EPCA, which treats "average fuel economy" and "average fuel economy standard" as distinct defined terms with different meanings, 49 U.S.C. § 32901(a)(5), (6). And the term that Congress did use, "average fuel economy," refers explicitly to the achieved fuel economy of the combined passenger fleet, as determined by the Section 32904 calculation. 49 U.S.C. § 32901(a)(5).

The States and Cities recognize that NHTSA has used this "projected standard" methodology for setting the domestic minimum in several rulemakings. 90 Fed. Reg. at 56,583. Under NHTSA's consistent and longstanding interpretation of the EV Restriction, the projected average fuel economy standard (with or without an adjustment) might be a reasonably proxy for what the statute actually requires—the fleet's projected achieved average fuel economy. With NHTSA abandoning that interpretation, the projected *standard* and the projected *achieved* fuel economy significantly diverge, *see id.* at 56,448 (Table I-2), so that the former is no longer a reasonable methodology to determine the latter. Moreover, consistent practice alone cannot overcome a plain directive from Congress. In the first rulemaking to apply this methodology, NHTSA stated it "interprets Congress' reference in the second clause of 32902(b)(4)(B) to the standard promulgated in that model year as indicating that Congress intended 'projected average fuel economy' in the first clause to pertain to the estimated required level, not the estimated achieved level." 75 Fed. Reg. at 25,614 (2010 rulemaking for MY2012–16 standards). That interpretation is plainly wrong, however. The use of "standard" in the second clause of Section 32902(b)(4) plainly speaks only to the timing of NHTSA's publication of the domestic minimum standard—it "shall be published in the Federal Register when the standard for that model year is promulgated," *id.*—and in no way equates the "projected average fuel economy" of the national fleet with the CAFE standard for that model year. Here too, Congress's use of distinct terms ("projected average fuel economy" and "standard") supports the opposite inference, i.e., that Congress considered these distinct concepts.

Moreover, neither subsection (b)(4) nor Section 32904 (incorporated into the term "average fuel economy") make any provision for an offset to accommodate fleet-mix shifts to less efficient vehicles—an accommodation that flies in the face of congressional intent. As NHTSA itself recognized, Congress intended the domestic minimum standard to serve "as a 'backstop,' ensuring that domestically-manufactured passenger cars reached a given mpg level even if the market shifted in ways likely to reduce overall fleet mpg." 75 Fed. Reg. at 25,609. Congress has designed similar backstops by reference to the industry's achieved performance in other statutes.[279] In short, the domestic minimum standard expresses Congress's sense that no automaker's domestic fleet average should be more than 8 percent *worse* than the automotive industry's average as a whole. That 8 percent is the "offset" that Congress provided to accommodate for consumer-driven mix shifts, and NHTSA may not enlarge it.

Finally, NHTSA is mistaken in arguing that it is "inconsistent with the text and structure [of EPCA] to peg the domestic [minimum] standard to vehicles—specifically EVs … —that are different in kind from the gasoline- and diesel-powered vehicle presupposed by EPCA." 90 Fed. Reg. at 56,583. EPCA does not "presuppose" a solely gas- and diesel-powered fleet: as amended by AMFA and the 1992 Energy Policy Act, one its enacted purposes is to incentivize alternative-fueled vehicles. Pub. L. No. 100-494, §§ 2(2), 3(2), 102 Stat. 2441–42; *see supra* Part II.B.2. The text of subsection (b)(4), through the term "average fuel economy," unambiguously requires NHTSA to base the domestic minimum on the Section 32904 calculation, which explicitly includes electric vehicles and their fuel economy values. 49 U.S.C. §§ 32901(a)(5),

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279 *E.g.*, 42 U.S.C. § 7412(d)(3) (ensuring that hazardous air pollutant emission standards for a source category are at least as stringent as the "average emission limitation achieved by the best performing 12 percent of the existing sources" in that category).

32904(a)(2)(B). And the structure of Section 32902 reinforces that conclusion: subsection (b)(4) is not one of the three subsections covered by the EV Restriction, such that there is no basis to extend the prohibition on considering EVs' fuel economy values to the domestic minimum. *See supra* Part II.C.2.

D. Sunsetting intermanufacturer credit trading is unlawful

1. Credit trading was created to provide flexibility and encourage fuel economy improvements, in line with the statute.

Congress authorized intermanufacturer trading in response to requests from several NHTSA administrators for authority to help lower the cost of compliance and encourage continuous fuel-economy improvements. The potential for trading credits was first raised in a congressionally mandated 2002 National Academy of Sciences Report.[280] *See* 73 Fed. Reg. 24,352, 24,359 (May 2, 2008). The report concluded that technologies existed that could significantly reduce fuel consumption by passenger cars and light trucks within 15 years, while maintaining vehicle size, weight, utility and performance so as not to sacrifice safety. *Id.* at 24,359-60. Further, the National Academy of Sciences advocated for the creation of a credit trading system, pointing out that "[i]t would provide incentives for all manufacturers, including those that exceed the fuel economy targets, to continually increase fuel economy, while allowing manufacturers flexibility to meet consumer preferences." *Id.* at 24,462. After receiving the 2002 Report, the Secretary of Transportation wrote to Congress asking for authority to implement all of the Report's recommendations, including credit trading. *Id.* at 24,461. While waiting for that express authority, NHTSA raised the issue of credit trading in a 2002 Request for Comments and a 2003 Advanced Notice of Proposed Rulemaking. *Id.* At that time, the Congressional Budget Office estimated that manufacturers would likely engage in credit trading if it were available, and that such trading "would cut the costs of achieving a combined 27.5 mpg standard by 16 percent." *Id.* at 24,451. During rulemaking that culminated in 2006, NHTSA received comments from Nissan supporting credit trading, noting that trading would "improve overall fuel economy by providing added incentives for the achievement of greater fuel economy improvements" and "would allow greater flexibility," but NHTSA determined its authority to implement a program was unclear without Congressional intervention. 71 Fed. Reg. at 17,653. NHTSA submitted draft bills to Congress and, in an address to the Senate Committee on Commerce, Science, and Transportation on March 6, 2007, the Administrator stated that credit trading was a "natural extension" of the existing EPCA credit framework, and that trading would be "purely voluntary, and … help lower the industry's cost of complying with CAFE." 73 Fed. Reg. at 24,362.

In EISA, Congress answered these requests by providing the Administrator with express authority to adopt regulations that would allow credit trading, which Congress allowed to take effect starting with MY2011.[281] The credit trading provision was "intended to increase flexibility

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280 National Research Council, *Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards* at 92–96 (2002), nationalacademies.org/read/10172.

281 43 U.S.C. § 32903(f)(1) states that "[t]he Secretary of Transportation may establish, by regulation, a fuel economy credit trading program to allow whose automobiles exceed the average fuel economy standards prescribed under section 32902 to earn credits to be sold to manufacturers whose automobiles

for automakers" without "in any way reduc[ing] the oil savings achieved by the standards set for any year." 153 Cong. Rec. 35,928 (2007). When the regulations allowing credit trading were ultimately established in 2009, NHTSA noted that "credit trading gives more flexibility and could potentially lower compliance costs for manufacturers, which should provide an incentive for manufacturers to engage in trading." 74 Fed. Reg. 14,196, 14,387 (Mar. 30, 2009).

The credit trading system worked successfully for nearly a decade before NHTSA sought comment on whether to retain or amend it in 2020. Automakers and others—including Volkswagen, Honda, General Motors, CARB, BorgWarner, Jaguar Land Rover, Fiat Chrysler, Global Automakers, the Auto Alliance—universally responded in favor of retaining the program. 85 Fed. Reg. at 25,223. None of the automakers wanted to change anything about the trading program. *Id.* They noted the program "allows manufacturers to address uncertainty in the market better" and "lowers the overall cost of reducing fuel consumption." *Id.* Fiat Chrysler noted that trading "allows manufacturers to provide more choices for consumers since manufacturers are not required to meet the standard exactly, but rather, they can purchase traded credits and then provide vehicles the public is demanding while still complying with fleet average standards." *Id.*

NHTSA remarked in 2022 that credit trading had become so successful that it "generally replaced civil penalty payments as a compliance mechanism." 87 Fed. Reg. 25,710, 26,031–32 (May 2, 2022); *see also* 85 Fed. Reg. at 24,318 ("NHTSA considers it most likely that manufacturers will shift away from paying civil penalties and toward compliance credit trading."). Manufacturers traded credits amounting to the equivalent of 583,720 gallons of fuel in 2017. 87 Fed. Reg. at 26,032. The limited instances where manufacturers paid civil penalties were due to those manufacturers failing to meet the domestic minimum. *Id.* at 26,031.

2. NHTSA's proposal to eliminate intermanufacturer credit trading is unreasonable and lacks a reasoned explanation

NHTSA has not provided a rational explanation for the proposed elimination of a credit trading program that has successfully functioned for a decade and a half and enjoys broad industry support. NHTSA also entirely failed to consider important aspects of the problem, failed to consider alternatives, and failed to consider serious reliance interests. Those are the hallmarks of arbitrary and capricious agency action that renders such actions unlawful under the APA. *See State Farm*, 463 U.S. at 43.

NHTSA appears to advance two reasons for eliminating trading. First, and primarily, NHTSA seeks to eliminate a "windfall" for "EV-exclusive" manufacturers once "standards increased to levels unattainable for [internal combustion engine] vehicles," 90 Fed. Reg. at 56,443, 56,620; and, second, NHTSA aims to ensure that non-EV manufacturers "stead[ily] improve . . . fuel economy across their fleets over time" and do not spend money on credits when they could use the money to instead improve "the fuel economy performance or other desirable

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fail to achieve the prescribed standards such that the total oil savings associated with manufacturers that exceed the prescribed standards are preserved when trading credits to manufacturers that fail to achieve the prescribed standards."

attributes of their traditional fleets," *id.* at 56,443, 56,445, 56,595. Neither provide a rational ground for eliminating trading.

a. NHTSA has not identified an "EV-exclusive" windfall to justify eliminating intermanufacturer trading

NHTSA's first rationale—to address a supposed "windfall" for "EV-exclusive" manufacturers—is arbitrary and capricious. NHTSA provides no evidence that the credit trading market has given EV manufacturers a "windfall." The credit trading system by design incentivizes and rewards greater fuel-economy improvements by all manufacturers, regardless of whether they make EVs. This is why the National Academy of Sciences recommended the adoption of credit trading in the first place—a recommendation NHTSA itself endorsed, 73 Fed. Reg. at 24,462—and why auto manufacturers of all stripes support the program, 85 Fed. Reg. at 25,223; *see, e.g.*, 71 Fed. Reg. at 17,653 (comments of Nissan). NHTSA in fact indicates that multiple manufacturers were on track to generate credits because their gas-fueled vehicles alone met existing MY2022 standards. 90 Fed. Reg. at 56,593 (singling out Hyundai and Subaru).[282]

Even if it were the case that "EV-exclusive" manufacturers were the primary beneficiaries of credit trading, NHTSA does not adequately explain why this is a problem worthy of jettisoning trading. *Id.* at 56,620. NHTSA is incorrect that such an effect "creates market distortion that undermines EPCA's overarching purposes." *Id.* at 56,621. Rather, allowing EV manufacturers to generate and sell credits furthers the goal of the program to "conserve petroleum," as EVs do not run on petroleum. Congress specifically amended EPCA to promote the production of EVs and other alternative-fueled vehicles (*supra* Part II.B.2.), so NHTSA's premise that EVs are benefitting "too much" is at odds with congressional policy. If Congress intended for the trading program to not include or benefit EV manufacturers, it clearly knew how to set appropriate limits. *See* 49 U.S.C § 32902(h)(1). The fact that Congress created the trading program without any such limitations evidences the opposite of what NHTSA now contends: credit trading *should* benefit EV manufacturers, over-complying automakers, and others in order to "increase flexibility" for all automakers, and doing so helps to achieve the CAFE program's overarching goal of achieving "oil savings." 153 Cong. Rec. 35,928 (2007).

NHTSA's corollary argument, that credit trading benefits EV manufacturers by default since the standards have increased to levels unattainable for gas vehicles, is also not supported by the record. In setting standards for MY2027–2031 in its 2024 final rule, NHTSA set out in detail why those standards were achievable by gas-fueled vehicles, 89 Fed. Reg. 52,540, and affirmed that it was not considering EVs or plug-in hybrids' electric operation in determining maximum feasible fuel-economy improvements, *id.* at 52,591. *See also id.* at 52,583 (same, for credit trading). And in fact, the Proposal itself shows several automakers known for manufacturing

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282 NHTSA's argument that most manufacturers cannot meet the existing MY 2022 standard is wrong for the plethora of reasons articulated elsewhere in this comment. *Supra* Part IV.A.2.a. It is also incorrect for NHTSA to conflate its purported evidence that gas vehicles are not meeting standards with evidence that these vehicles *cannot* meet the standards. NHTSA acknowledges that it is reasonable to expect the real-world fleet to under comply when compliance flexibilities like producing EVs and credit trading are available. 90 Fed. Reg. at 56,596.

primarily gas fleets who overcomply with existing MY2027–31 standards and generate credits in all years. 90 Fed. Reg. at 56,600 (Table V-5, showing gas-only passenger car overcompliance in No-Action Alternative by Mitsubishi, Toyota); *id.* at 56,601 (Table V-6, showing gas-only light truck covercompliance in No-Action Alternative by BMW, KIA, Volvo, Volkswagen).

NHTSA now proposes to eliminate credit trading on the basis that EV manufacturers have been "earning credits that are not representative of real-world fuel savings," creating "market distortion that undermines EPCA's overarching purposes." 90 Fed. Reg. at 56,620–21. But the agency does not explain what this distortion is or how it undermines EPCA. *State Farm*, 463 U.S. at 43 (agency must provide "satisfactory explanation"). An explanation is particularly necessary in this case given that the agency does not consider credit trading in setting fuel economy standards. 49 U.S.C. § 32902(h)(3). Nor does NHTSA explain why, if the issue is caused by inaccurately calibrated credits, the solution is not to recalibrate the credits but to eliminate credit trading altogether. *See Am. Radio Relay League, Inc. v. FCC*, 524 F.3d 227, 242 (D.C. Cir. 2008) ("An agency is required to consider 'responsible alternatives to its chosen policy.'").

b. NHTSA has not shown that intermanufacturer trading inhibits improvements in fuel economy or performance

NHTSA's second reason for eliminating credit trading—to ensure manufacturers steadily improve fuel economy and spend money on improving their fleets rather than on credits—is equally unavailing. As noted above, a primary reason for the creation of the credit trading system was to encourage steady improvements in fuel economy across manufacturers. And Congress already instituted the necessary guardrails to ensure trading would not compromise that steady progress or reduce in any way "the oil savings achieved by the standards set for any year." 153 Cong. Rec. 35,928 (2007). Congress did so by limiting how long credits may be carried forward or back (49 U.S.C. § 32903(a)) and prohibiting manufacturers from applying traded credits to offset a failure to achieve the applicable minimum standard for domestic passenger cars (49 U.S.C. § 32903(f)(2)).

There is no evidence that automakers must sacrifice "the fuel economy performance or other desirable attributes of their traditional fleets" if they elect to spend money on credits. 90 Fed. Reg. at 56,443. Manufacturers have noted that trading actually "allows manufacturers to provide more choices for consumers since manufacturers are not required to meet the standard exactly, but rather, they can purchase traded credits and then provide vehicles the public is demanding while still complying with fleet average standards." 85 Fed. Reg. at 25,223. Moreover, NHTSA's reasoning that manufacturers should choose one compliance pathway over another is directly undercut by statements elsewhere in the rule that markets are the best way for automakers to lower compliance costs. *See, e.g.*, 90 Fed. Reg. at 56,620 ("As fuel economy standards increase, manufacturers generally look for the most cost-effective means of compliance."). Automakers have echoed a preference to retain the credit trading market mechanism to lower costs, increase flexibility, and provide the vehicles that the public demands. 71 Fed. Reg. at 17,653; 85 Fed. Reg. at 25,223. It is not NHTSA's role to decide for automakers how to spend their money. Automakers may choose to continue to comply with CAFE standards and NHTSA itself assumes they will "make maximum practicable efforts to comply," noting this assumption is supported by "longstanding real-world experience." 90 Fed. Reg. at 56,590. If that is the case, manufacturers have already indicated a preference for the flexibility created by the credit trading market over a regulatory scheme that only permits strict compliance or payment of penalties. 87 Fed. Reg. at 26,031–32; 85 Fed. Reg. at 24,318. NHTSA has not provided a reasoned explanation for why it should deprive manufacturers of that choice moving forward.

Relatedly, NHTSA fails to consider an important aspect of the problem when it entirely ignores that credit trading increases the efficiency of the CAFE program, which "lowers the overall cost of reducing fuel consumption." 85 Fed. Reg. at 25,223; *see also* 74 Fed. Reg. at 14,387; 73 Fed. Reg. at 24,362. NHTSA has evidence that credit trading lowers compliance costs for manufacturers. For example, from statements of automakers in prior rules and from the 2008 Congressional Budget Office report estimating credit trading would cut the costs of complying with the proposed standard by 16 percent. 73 Fed. Reg. at 24,451. However, NHTSA refused to evaluate that evidence openly, or address how elimination of trading would affect affordability at all in its rulemaking, in violation of the APA. Indeed, NHTSA altogether fails to consider whether eliminating credit trading will *raise* compliance costs.

NHTSA implies that lowering the cost of compliance is not a consideration for this proposal because its "proposed standards . . . explicitly do not account for manufacturers' use of credits to comply with standards . . . [therefore] adjustments to the fuel economy standards also should limit any potential impacts manufacturers will experience because of NHTSA's proposed programmatic changes." 90 Fed. Reg. at 56,621. This reasoning is perplexing and unreasonable. If NHTSA is setting standards so low that trading could not lower the cost of compliance, then why is that a reason to get rid of trading? Notably NHTSA asserts no administrative cost savings to justify the change.[283]

Finally, NHTSA's explanation ignores the possibility that CAFE standards will become more stringent in the future such that manufacturers will benefit from the flexibility provided by credit trading. NHTSA never examines whether eliminating trading will reduce manufacturer flexibility to meet consumer preferences—a strange omission given NHTSA's extensive reliance on consumer preferences elsewhere in the Proposal. *See, e.g.,* 90 Fed. Reg. 56,594 (the existing CAFE standards "do not preserve . . . consumer choice"). Indeed, given that credit purchases can largely replace civil penalties (other than penalties for not meeting the domestic minimum), NHTSA should evaluate whether the auto industry as a whole would end up responding to more stringent future standards by paying penalties to the Government instead of applying fuel-saving technologies that consumers enjoy.

283 Of course, the Credit Restriction does not restrain NHTSA's decision to eliminate intermanufacturer trading itself. *See* 49 U.S.C. § 32902(h)(3). Thus, it is irrational for NHTSA to ignore the real-world impacts that eliminating trading will have on industry and consumer costs in deciding to make such a drastic programmatic change.

c. NHTSA's analysis of credit trading arbitrarily fails to consider alternatives and reliance interests

NHTSA fails to acknowledge or discuss alternatives to the elimination of credit trading that would mitigate any perceived (but unexplained) market distortions or forgone fuel-economy improvements, such as revisions to the credit trading regulations, working with the U.S. Department of Energy to adjust the petroleum equivalency factor, or elimination of the domestic minimum offset. This failure violates the requirement to demonstrate that the agency has considered "alternatives . . . within the ambit of the existing policy." *DHS v. Regents of the Univ. of Cal.*, 591 U.S. at 30.

Finally, NHTSA failed to adequately consider reliance interests. *Fox Television*, 556 U.S. at 515. NHTSA's only possible consideration of such interests is embedded in its argument that ending trading by MY2028 provides an "adequate transition time." 90 Fed. Reg. at 56,621. But a transition in MY2028 is not "adequate." Manufacturers plan many years into the future[284] because investments in fuel-saving technologies take time. *Id.* Long planning horizons are the reason why Congress created the 18-month lead time requirement and five-year carry-forward period for credits. 49 U.S.C. §§ 32902(a), (g); 32903(a). NHTSA's proposed elimination of credit trading will occur less than two years into the future, in October 2027. Moreover, even that time is largely an illusion. NHTSA is retroactively changing its standards back to MY2022 and has stopped processing compliance notifications in 2025.[285] This means that compliance credits can be recalculated, and NHTSA can issue notifications for MY2022 forward stating that automakers have significantly over complied with the (retroactively revised) CAFE standards. This maneuver would wipe out large revenue streams for manufacturers that *actually* overcomplied with the standards before they were recalculated, including from sales of credits already under contract between automakers.[286] The impacts of NHTSA's actions in relation to credit trading will occur long before MY2028. NHTSA's perfunctory conclusion does not come close to meeting the agency's obligation to examine reliance interests, determine their significance, and weigh them against the "other interests and policy concerns" motivating a change in policy. *DHS v. Regents of the Univ. of Cal.*, 591 U.S. at 32; *see also Fox Television*, 556 U.S. at 515.

3. NHTSA's proposal violates Section 32902(h)

EISA added a subparagraph to the new 49 U.S.C. § 32902(h), providing that NHTSA "may not consider, when prescribing a fuel economy standard, the trading, transferring, or availability of credits under section 32903." 49 U.S.C. § 32902(h)(3). This limitation applies to

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[284] For example, many automakers announced 2030 EV sales targets more than seven years ahead of time. General Motors, Ford, Stellantis, Volkswagen, and Mitsubishi publicly committed to electrifying their fleets by 50% or more by 2030, while BMW, Mercedes-Benz, Volvo, and others have committed to 100% electric vehicle sales by the same year. 88 Fed. Reg. 29,184, 29,192 (May 5, 2023).

[285] Opp. to Motion to Hold Cases in Abeyance at 11, *Zero Emission Transportation Ass'n v. NHTSA*, No. 25-1846 (1st Cir. 2025).

[286] *Id.* at 6.

the "carrying out [of] subsections (c), (f), and (g)"—amending standards and considering the statutory feasibility factors. *Supra* Part III.B.1.

However, several statements in the Proposal appear to suggest that the elimination of intermanufacturer trading is part of NHTSA's rationale for deciding to amend standards, part of its weighing of the feasibility factors in subsection (f), or both. Specifically, NHTSA states that it is setting standards in light of "proposed structural changes," including elimination of credit trading. 90 Fed. Reg. at 56,519 ("the agency tentatively believes the Preferred Alternative(s) represent the maximum feasible fuel economy standards for each model year under consideration when viewed in context of the proposed structural changes"). Moreover, PRIA Appendix 2 explains that the MY2031 standard is set where it is because "[e]liminating trading without changing the standard would raise [marginal cost] and cost." PRIA A2-11. Once the decision to eliminate trading was made, the "value of reducing the standard" became "particularly high." *Id.* The standard was therefore set "so that each manufacturer complies on its own," and would have no reason to engage in credit trading. *Id.* These statements suggest that NHTSA's proposal violates subsection (h)(3), or at least that NHTSA is applying the Credit Restriction more loosely than the EV Restriction. At a minimum, NHTSA must do more to explain how it is applying the Credit Restriction throughout the rulemaking, and how this application is consistent with its interpretation of the EV Restriction.

VI. NHTSA's Proposal Is Otherwise Arbitrary and Capricious

A. NHTSA's Draft Supplemental Environmental Impact Statement Violates the National Environmental Policy Act and is Arbitrary and Capricious

The National Environmental Policy Act (NEPA) requires federal agencies to prepare a "detailed statement" on the impacts of certain actions prior to making decisions. 42 U.S.C. § 4332(2)(C). The NEPA process is not meant to simply document a predetermined action. The environmental impact statement must rigorously analyze the direct, cumulative, and reasonably foreseeable indirect impacts of the proposed action, as well as all reasonable alternatives to the action. 42 U.S.C. § 4332(2)(C)(i). NHTSA is required to perform a NEPA analysis when setting fuel-economy standards and is wrong to question whether it needs to do so under recent Supreme Court precedent. The NEPA analysis that NHTSA did perform through the Draft Supplemental Environmental Impact Statement (DSEIS) has several flaws. First, NHTSA failed to define an accurate and sufficiently broad purpose and need. Second, NHTSA failed to review a reasonable range of alternatives. Third, NHTSA failed to analyze all the reasonably foreseeable effects of its proposed action.

NHTSA is wrong that the Supreme Court's analysis in *Seven County Infrastructure Coalition v. Eagle County*, 605 U.S. 168 (2025), should change NHTSA's preparation of an EIS when it sets fuel economy standards or its consideration of the "upstream" and "downstream" environmental effects of those standards. 90 Fed. Reg. at 56,591–92. The Court explained that the agency in *Seven County* had discretion under NEPA to determine that upstream oil drilling and downstream oil refining were separate projects from the construction and operation of a railroad line, in part because the environmental effects from those upstream and downstream developments were "speculative" and "attenuated," and because the agency possessed "no authority" over the separate projects. 605 U.S. at 179, 187–88. However, the Court cautioned that an agency's choices about the effects to evaluate still must fall into a "zone of reasonableness," such that the "effects of the project at issue may fall within NEPA even if those effects might extend outside the geographical territory of the project or might materialize later in time." *Id.* at 187. Here, it would be unreasonable for NHTSA to exclude the upstream emissions associated with refining and transporting fuel when those activities are so directly related to the fuel-economy standards NHTSA sets. The CAFE standards dictate the amount of fuel consumers will use to power vehicles—the largest end user in the U.S. of petroleum—so the production, refining, and transportation of that fuel is not "attenuated" or "speculative." *See* DSEIS at S-7. In addition, contrary to the situation in *Seven County*, a court has already determined that NHTSA has some authority over the emissions that result from CAFE standards if warranted based on EPCA's statutory factors. *See Ctr. for Biological Diversity*, 538 F.3d at 1216–17 (NHTSA has the power to change the CAFE standards based on information contained in an EIS about emissions impacts). NHTSA's suggestion that it might not be required to undertake *any* NEPA analysis in connection with CAFE standards rulemaking, 90 Fed. Reg. at 56,592; DSEIS at S-2, is foreclosed by that 2008 court decision as well as a plain reading of NEPA, which requires federal agencies to prepare a detailed statement on the environmental effects and alternatives to actions "subject to substantial Federal control and responsibility." 42 U.S.C. §§ 4332, 4336e(10)(A).

Turning to the NEPA analysis NHTSA performed, the purpose and need definition is inaccurate and unreasonably narrow. A fundamental requirement when performing a NEPA analysis is to accurately define the purpose and need of the proposed action. Generally, the purpose and need statement is dictated by "the views of Congress," based on "the agency's statutory authorization to act, as well as other congressional directives." *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991). A federal agency "must look hard at the factors relevant to the definition of purpose," *id.*, and define its objectives broadly enough to avoid unreasonably narrowing the scope of the action and alternatives for consideration. *See, e.g.*, *League of Wilderness Defenders-Blue Mountains Biodiversity Project v. U.S. Forest Serv.*, 689 F.3d 1060, 1069 (9th Cir. 2012). Here, in proposing to roll back MY2022–2031 CAFE standards, NHTSA has abdicated its duty to promote energy efficiency and conservation. Although NHTSA alludes to the statutory factors Congress set out in EPCA as the basis for its rulemaking, its Proposal questions the need to conserve energy at all, and the statutory factors are ultimately overshadowed in the purpose and need section of the DSEIS by a series of assertions that a June 2025 interpretive rule and executive orders—including two orders directing the "eliminat[ion of] the 'electric vehicle (EV) mandate'" and rescission or modification of regulations "based on anything other than the best reading of the underlying statutory authority or prohibition"—led NHTSA to "reset" the program "to bring it into compliance with Administration policy and applicable substantive statutory requirements." DSEIS at 1-3. NHTSA claims that the executive orders and its new statutory interpretation require it to set standards that exclude EVs from the regulatory baseline. NHTSA's exclusion decision, in turn, inappropriately lowered the stringency of all the other regulatory alternatives NHTSA considered, including its preferred alternative. In other words, NHTSA's purpose and need definition improperly cabined the regulatory action by relying on executive orders to declare it was necessary to reset standards for MY2022–2031 rather than an accurate analysis of the purpose and text of the underlying statutes.

NHTSA's alternatives analysis is also flawed. As NHTSA has previously recognized, "[t]he purpose of an EIS is to 'provide full and fair discussion of significant environmental impacts and [to] inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment.'" 83 Fed. Reg. at 43,213. "The agency must look at every reasonable alternative within the range dictated by the nature and scope of the proposal. The existence of reasonable but unexamined alternatives renders an EIS inadequate." *'Ilio'Ulaokalani Coalition v. Rumsfeld,* 464 F.3d 1083, 1095 (9th Cir. 2006); *see also Muckleshoot Indian Tribe v. U.S. Forest Service,* 177 F.3d 800, 812-13 (9th Cir. 1999). Here, the alternatives presented in the DSEIS are wholly insufficient, thereby rendering the DSEIS inadequate. NHTSA has first chosen to unreasonably limit all of the alternatives based on the erroneous reinterpretation of the EV Restriction noted above and other inappropriate modeling assumptions and parameters.[287] NHTSA then chose to analyze a range of action alternatives so weak and narrow that they "lay nearly on top of each other" when presented graphically. 90 Fed. Reg. at 56,569. All three alternatives increase in stringency by the same percentage annually for MY2023–2026 (0.5%); Alternatives 1 and 2 also increase in stringency at the same rate in MY2029–31; and there is less than a 0.5% difference in stringency for the other years. *Id.* at 56,446. A threshold question when evaluating the adequacy of an environmental impact statement is "whether the selection and discussion of alternatives fosters informed decision-making and informed public participation." *California v. Block*, 690 F.2d 753 (9th Cir. 1982). By failing to analyze alternatives that exceed or even approach the stringency of existing standards, the answer to the threshold question posed above is, quite clearly, "no."

The Ninth Circuit's decision *Center for Biological Diversity v. NHTSA* confirms that NHTSA's approach to alternatives is inadequate. In 2005, NHTSA released an Environmental Assessment that analyzed three alternatives to its proposed rule for MY2008–2011. Those alternatives were found to be "hardly different from the option that NHTSA ultimately adopted." 538 F.3d at 1218. The court rejected NHTSA's assertion that it was foreclosed from considering more stringent alternatives by EPCA's requirements to establish standards that are technologically feasible and economically practicable. *Id.* at 1219; *see also id.* at 1212–13 (NHTSA made several discretionary decisions not mandated by the statute, including to "value the benefit of carbon emissions reduction at zero," peg its standard to the least capable manufacturer with a substantial share of the market, apply technologies only until marginal cost equals marginal benefit, reject cost-effective technology, and not adopt a backstop minimum level of average fuel economy). The Ninth Circuit ultimately found the Environmental Assessment to be "markedly deficient," *id.* at 1220, and directed NHTSA to prepare a revised Assessment or EIS. Similarly, here, the alternatives NHTSA considered are too similar to the weak Proposed standard. And NHTSA's decision to limit the alternatives was not dictated by the statute. As discussed elsewhere, NHTSA made several discretionary decisions that artificially lowered the stringency of the standards it considered, including decisions to exclude all EVs and EV sales in its compliance simulations, and imposing arbitrary technology constraints.

287 As noted *supra*, other deficiencies pervade the analysis, including, for example, NHTSA's restriction of its analysis to existing technologies and failure to account for all similar technologies.

Finally, NHTSA failed to analyze all the reasonably foreseeable effects of its proposed action. 42 U.S.C. § 4332(2)(C)(i). NHTSA refused to analyze the environmental impacts associated with revising the MY2022–2026 standards because "no change in manufacturer behavior is possible for MY 2022–2026 passenger car and light truck fleets." DSEIS at S-3. But automakers' change in behavior is not the only possible consequence of revised standards. As explained *supra* Part IV.D.2.c., NHTSA has stopped processing compliance notifications and may issue notifications for MY2022 forward stating that automakers have significantly overcomplied with new (retroactively revised) standards.[288] The dramatic rollback of MY2022–26 standards thus would foreseeably generate large banks of surplus credits and wipe out revenue streams for manufacturers that overcomplied with existing standards.[289] It is reasonable to expect that *this* sudden surplus would lead manufacturers to change their behavior now. For manufacturers that historically overcomplied, recalculating credits would remove an incentive to continue overcompliance and potentially impact the financial viability of vehicle technologies that were developed with an expectation that credit generation would provide revenue to recoup automakers' investments. For manufacturers that historically relied on credits or penalty payments to comply, recalculating credits would remove incentives to improve the fuel economy of their fleets to reduce their credit purchases. Such manufacturers could rely on their new credit surplus banks to avoid improving fuel economy for several years into the future. In addition, regardless of whether manufacturers change their behavior, NHTSA still must analyze the reasonably foreseeable impacts from retroactively changing standards on the environment. This includes consideration of how the new MY 2022–2026 standards depress the baseline fuel economy level relative to existing standards for many years into the future.

Due to the flaws in its NEPA analysis, NHTSA should withdraw the DSEIS.

B. The Proposal's offered rationale is pretextual

The Proposal is arbitrary and capricious because the Administration's actual motivations have been improperly excluded from the administrative record, such that the reasons offered in the Proposal are pretextual. Numerous Executive Orders confirm that the present action, like so many recent regulatory rollbacks and other actions across federal agencies, is part of the current Administration's crusade to reshape the country's energy sector to increase consumption of the fossil fuel resources the Administration prefers, even when such an objective is contrary to the core purpose of the authorizing statute—in this case, the Energy Policy and Conservation Act. NHTSA's approach in the Proposal is thus shaped by the numerous Executive Orders that urge and facilitate greater use of fossil fuels, disfavor zero-emission technologies, and remove pollution abatement and even reporting obligations from pollution sources using fossil fuels.[290]

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288 Opp. to Motion to Hold Cases in Abeyance at 11, *Zero Emission Transportation Ass'n v. NHTSA*, No. 25-1846 (1st Cir. 2025).

289 *Id.* at 6.

290 *See, e.g.*, Exec. Order No. 14261, *Reinvigorating American's Beautiful Clean Coal Industry and Amending Executive Order 14,241*, 90 Fed. Reg. 15,517 (Apr. 14, 2025) (declaring that "[i]t is a national priority to support the domestic coal industry by … encouraging the utilization of coal to meet growing domestic energy demands" and directing agency heads to support coal mining and coal-powered

In particular, the *Unleashing American Energy* executive order (*Unleashing* EO) requires NHTSA to "identify those agency actions that impose an undue burden on the identification, development, or use of domestic energy resources—with particular attention to oil . . . resources." 90 Fed. Reg. at 8354. Statements by President Trump and agency leaders and officials have likewise evinced a desire to promote fossil fuels and discourage the use of competing, alternative-energy technologies—in this case, electric vehicles.[291]

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electricity generation); Exec. Order No. 14262, *Strengthening the Reliability and Security of the United States Electric Grid*, 90 Fed. Reg. 15,521–22 (Apr. 14, 2025) (directing the Secretary of Energy to prevent "critical" generation resources from retiring or converting to a different fuel type, in the context of ongoing coal plant retirements and conversions); Exec. Order No. 14,154, *Unleashing American Energy*, 90 Fed. Reg. 8353, 8353–59 (Jan. 29, 2025) (noting that it is policy of Trump Administration to rescind policies that "function to limit sales of gasoline-powered automobiles," and directing agencies "to identify those agency actions that impose an undue burden on the identification, development, or use of domestic energy resources—with particular attention to oil"); Exec. Order No. 14,213, *Establishing the National Energy Dominance Council*, 90 Fed. Reg. 9945 (Feb. 14, 2025) (equating use of fossil fuels, including crude oil and refined petroleum products, with making America energy dominant); Exec. Order No. 14,156, *Declaring a National Energy Emergency*, 90 Fed. Reg. 8433 (Jan. 29, 2025) (directing agencies to facilitate fossil fuel production, including crude oil and refined petroleum products), Exec. Order No. 14,153, *Unleashing Alaska's Extraordinary Resource Potential*, 90 Fed. Reg. 8347 (Jan. 29, 2025) (directing the Secretary of the Interior to reverse and rescind various policies limiting exploration for and extraction of oil and gas in Alaska, and directing expedition and issuance of permits for exploration, development and production oil and gas from Alaska, including in Arctic National Wildlife Refuge); Exec. Order No. 14,303, *Restoring Gold Standard Science*, 90 Fed. Reg. 22,601 (May 29, 2025); Presidential Proclamation No. 10914, *Regulatory Relief for Certain Stationary Sources to Promote American Energy*, 90 Fed. Reg. 16,777 (Apr. 21, 2025) (providing coal-fired plants two-year compliance exemption from Mercury and Air Toxics Standards); Exec. Order No. 14270, *Zero-Based Regulatory Budgeting to Unleash American Energy*, 90 Fed. Reg. 15,643 (Apr. 15, 2025) (directing regulatory agencies to issue rule terminating existing regulations one year after promulgation and prohibiting enforcement thereafter); Exec. Order No. 14260, *Protecting American Energy From State Overreach*, 90 Fed. Reg. 15,513, 15,513–14 (Apr. 14, 2025) (noting Trump Administration's commitment to "unleashing American energy," "particularly" oil and other fossil fuels, likening State climate change laws that promote use of renewable energy to "extortion," and directing Attorney General to identify all State and local laws "burdening" production and use of fossil fuels such as oil, particularly those addressing climate change or environmental issues); Exec. Order No. 14,236, *Additional Rescissions of Harmful Executive Orders and Actions*, 90 Fed. Reg. 13,037 (Mar. 20, 2025); Exec. Order No. 14225, *Immediate Expansion of American Timber Production*, 90 Fed. Reg 11,365 (Mar. 6, 2025); Exec. Order No. 14162, *Putting America First in International Environmental Agreements*, 90 Fed. Reg. 8455 (Jan. 30, 2025). *See also* Exec. Order No. 14315, Ending Market Distorting Subsidies for Unreliable, Foreign Controlled Energy Sources, 90 Fed. Reg. 30,821 (July 10, 2025) (directing Treasury Department to strictly enforce termination of renewable energy tax credits and restrict their use); Presidential Memorandum of January 20, 2025, *Temporary Withdrawal of All Areas on the Outer Continental Shelf from Offshore Wind Leasing and Review of the Federal Government's Leasing and Permitting Practices for Wind Projects*, 90 Fed. Reg. 8363 (Jan. 29, 2025) (precluding wind leasing on the Outer Continental Shelf, pausing all wind approvals, leases, loans, and rights of way, and putting a moratorium on the Lava Ridge Wind Project).

291 *See, e.g.*, PBS NewsHour, "Watch: Trump says 'we don't allow windmills' after cancelling nearly complete offshore wind project," at 0:00-0:07, 0:19-0:31, 2:02-2:08 (Aug. 26, 2025), https://www.youtube.com/watch?v=sp97kSwaBfQ (President Trump: "Coal is back in this country too by

The NPRM, the Resetting Rule, and the Secretarial memo "Fixing the CAFE Program" (Jan. 28, 2025) all cite the *Unleashing* EO and other of these actions to promote fossil fuel use. Yet NHTSA never discloses in the Proposal how the Administration's overarching policy of promoting the use of petroleum resources and suppressing alternatives—a policy directly contrary to EPCA's express purposes—influenced its weighing the subsection (f) feasibility factors, its determination of maximum feasible standards, its elimination of intermanufacturer credit trading, and any other proposed actions. Accordingly, NHTSA fails to give notice of its true rationale for the Proposal, rendering it arbitrary and capricious.

VII. CONCLUSION

For the foregoing reasons, the Proposal cannot be finalized and must be withdrawn.

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the way. There's a reason they use it, cause it's good. . . . We don't allow windmills. . . . [W]e don't want . . . solar panels. . . . I hope [other countries] get back to fossil fuel. . . . [W]hether we like it or not, fossil fuel is the thing that works."); AP, "'Electric Car Lunacy': A Look at Harsh Things Donald Trump Said About EVs over the Years," *MINT* (Mar. 11, 2025), https://perma.cc/SRT5-QEP7 (noting that during his presidential campaign, President Trump discussed "All Electric Car Lunacy," described EV promotion as a "hoax" and a project of "Radical Left Fascists, Marxists & Communists," and repeatedly claimed, contrary to fact, that electric vehicles cannot travel long distances); Brad Plumer & Lisa Friedman, "With Little Explanation, Trump Throws Wind Industry into Chaos," *N.Y. Times* (Aug. 26, 2025), https://www.nytimes.com/2025/08/26/climate/trump-wind-farms-energy.html ("'The president is not a fan of wind, the economic impacts, the environmental impacts to fisheries,' Mr. Zeldin said on Fox News, adding that the president believes the nation needs more fossil fuels."); *id.* ("'Americans deserve energy that is affordable, reliable and built to last — not experimental and expensive wind projects that are proven failures,' Aubrie Spady, a spokeswoman for the Interior Department, said."); U.S. Dept. of Energy, "Secretary of Energy Chris Wright delivers Keynote Remarks at CERAWeek 2025" (Mar. 10, 2025), https://perma.cc/68X3-R3W3 (alleging that policies promoting the use of EVs had been "wreaking havoc on our auto industry").