

ORAL ARGUMENT NOT YET SCHEDULED**No. 22-1031**

Consolidated with Nos. 22-1032, 22-1033, 22-1034, 22-1035,
22-1036, and 22-1038

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

STATE OF TEXAS, ET AL.,
Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, ET AL.,
Respondents,

ADVANCED ENERGY ECONOMY, ET AL.,
Intervenors.

On Petitions for Review from the United States
Environmental Protection Agency

**BRIEF OF THE BUCKEYE INSTITUTE
AS *AMICUS CURIAE* IN SUPPORT OF PETITIONERS**

Bryan Weir
Tiffany H. Bates
ANTONIN SCALIA LAW SCHOOL
ADMINISTRATIVE LAW CLINIC
CONSOVOY MCCARTHY PLLC
1600 Wilson Blvd., Suite 700
Arlington, VA 22209
(703) 243-9423

Robert Alt*
David C. Tryon
THE BUCKEYE INSTITUTE
88 East Broad St, Suite 1300
Columbus, OH 43215
(614) 224-4422
robert@buckeyeinstitute.org

*Counsel of Record

Dated: November 10, 2022

Counsel for Amicus Curiae

CERTIFICATE OF PARTIES, RULINGS, AND RELATED CASES

Counsel for *amicus curiae* certifies the following:

A. Parties and *Amici*

All parties, intervenors, and *amici* appearing in this Court are listed in State Petitioners' Opening Brief at i-ii, in Private Petitioners' Opening Brief at i-iv, and on the docket.

B. Rulings Under Review

The final action of the Administrator of the United States Environmental Protection Agency is found at 86 Fed. Reg. 74434 (Dec. 30, 2021) and is entitled "Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards."

C. Related Cases

This case was not previously before this Court or any other Court. This case is consolidated with *Competitive Enterprise Institute v. EPA*, No. 22-1032; *Illinois Soybean Ass'n. v. EPA*, No. 22-1033; *American Fuel & Petrochemical Manufacturers v. EPA*, No. 22-1034; *Arizona v. EPA*, No. 22-1035; *Clean Fuels Development Coalition v. EPA*, No. 22-1036; and *Energy Marketers of America v. EPA*, No. 22-1038.

There are three related cases challenging a related rule promulgated by the National Highway Traffic Safety Administration: *Natural Resources Defense Council v. NHTSA*, No. 22-1080; *Texas v. NHTSA*, No. 22-1144; and *American Fuel & Petrochemical Manufacturers v. NHTSA*, No. 22-1145.

November 10, 2022

/s/ Robert Alt

CERTIFICATE PURSUANT TO CIRCUIT RULE 29(D)

Pursuant to D.C. Circuit Rule 29(d), undersigned counsel for *amicus curiae* certifies that a separate brief is necessary to provide the unique perspective of The Buckeye Institute and to highlight important issues not addressed by the parties.

CORPORATE DISCLOSURE STATEMENT

Pursuant to Rules 26.1 and 29(c) of the Federal Rules of Appellate Procedure, *amicus curiae* states as follows:

The Buckeye Institute has no parent company. No publicly held company owns 10% or more of its stock.

TABLE OF CONTENTS

TABLE OF AUTHORITIES.....	vi
INTEREST OF <i>AMICUS CURIAE</i>	1
SUMMARY OF ARGUMENT.....	2
ARGUMENT.....	5
I. EPA’s cost-benefit analysis is deeply flawed.	5
A. EPA wrongly relied on an alleged “market failure” in the demand for electric cars to justify the extraordinary costs of the rule.....	5
B. EPA improperly included alleged global damages in its cost- benefits analysis.	11
II. Forced electrification will harm American consumers.	14
CONCLUSION	20
CERTIFICATE OF SERVICE	221
CERTIFICATE OF COMPLIANCE	22

TABLE OF AUTHORITIES

CASES

<i>Am. Pub. Gas Ass’n v. United States Dep’t of Energy</i> , 22 F.4th 1018 (D.C. Cir. 2022)	7, 9
<i>RJR Nabisco, Inc. v. Eur. Cmty.</i> , 136 S. Ct. 2090 (2016)	12
<i>West Virginia v. EPA</i> , 142 S. Ct. 2587 (2022)	3

STATUTES

5 U.S.C.	
§ 706	13
12 U.S.C.	
§ 635g	6
22 U.S.C.	
§ 9621	6
42 U.S.C.	
§ 7401	4, 12
§ 7521	2, 6, 12

OTHER AUTHORITIES

Craig D. Dillard & Elizabeth P. Nevle, <i>Supply Chain Disruptions in the Energy Industry: Challenges with the Supply of Lithium-ion Batteries</i> (Sept. 1, 2022), bit.ly/3TG09Yt	18
Abigail Bassett, <i>Electric Vehicles Have a Charging Access Problem. These Companies are Working to Solve It</i> , <i>Fortune</i> (Oct. 17, 2022), bit.ly/3UvW8pZ	19
Alcott & Wozny, <i>Gasoline Prices, Fuel Economy, and the Energy Paradox</i> , <i>Rev. of Econ. & Stats.</i> 96, 779-794 (2014)	10

Allison Doyle, <i>Median Salary in the U.S.</i> , The Balance (Sept. 19, 2022), bit.ly/3E6IuEI	16
Busse, Knittel, & Zettelmeyer, <i>Are Consumers Myopic? Evidence from New and Used Car Purchases</i> , Am. Econ. Rev. 103, 220-256 (2013).....	10
Circular A-4, bit.ly/3FXXSo1	6
Editorial Board, <i>Forced Electric Cars Harm Our Planet and Humanity</i> , The Denver Gazette (Sept. 4, 2022), bit.ly/3FRknuS ...	17
Feilding Cage, <i>The Long Road to Electric Cars</i> , Reuters (Feb. 7, 2022), tmsnrt.rs/3NwCfwO	19
Jon Witt, <i>Costs of Electric Car Battery Replacement</i> , Recurrent (Aug. 25, 2022), bit.ly/3h9RZKf	17
Kelley Blue Book, <i>Eight Straight: New Vehicle Prices Mark Another Record High in November 2021</i> , CISION (Dec. 10, 2021), prn.to/3T2c2aA	14
Leard, Linn, Zhou; <i>How Much Do Consumers Value Fuel Economy and Performance? Evidence from Technology Adoption</i> , Rev. of Econ. & Stats. at *9 (2021).....	10
Mike Winters, <i>Here's Whether It's Actually Cheaper to Switch to an Electric Vehicle or Not—and How the Costs Break Down</i> , CNBC (Dec. 29, 2021), cnb.cx/3fCQF21	14
Mimi Drozdetski & Samir Qadir, <i>Social Cost of Carbon: Seven Takeaways About the Most Important Climate Policy Metric You've Never Heard Of</i> , PHE (Aug. 24, 2022), bit.ly/3WLRuew	13
National Automobile Dealers Association Comment (Sep. 27, 2021).....	9
Patrick Whittle, <i>U.S. Seeks New Lithium Sources as Demand for Clean Energy Grows</i> , PBS Newshour (Mar. 28, 2022), to.pbs.org/3DUCu1z	18
Phil LeBeau, <i>EV Battery Costs Could Spike 22% by 2026 as Raw Material Shortages Drag On</i> , CNBC (May 18, 2022), cnb.cx/3h1WhTH	17

Phillip Kampshoff et al., <i>Building the Electric-Vehicle Charging Infrastructure America Needs</i> , McKinsey & Co. (Apr. 18, 2022), mck.co/3TgY98Q	19
Ryan Bourne, <i>How ‘Market Failure’ Arguments Lead to Misguided Policy</i> , Cato Institute Policy Analysis No. 863 (2019), bit.ly/3WE4gGR	7
Sissi Cao, <i>Gas Prices Are Surging But the Cost of Owning Electric Vehicles Is Rising Even Faster</i> , Observer (June 28, 2022), bit.ly/3E33Jan	15
Stephen Edelstein, <i>Study: Two-Thirds of Americans Don’t Want and EV Yet, and Half Won’t Pay Extra for Electrified</i> , Green Car Reports (Jan. 11, 2022), bit.ly/3E6q1rS	14
Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide, Interagency Working Group on Social Cost of Greenhouse Gases (Feb. 2021)	11
Tesla Model X, bit.ly/3zH7K1L	15
Tesla, bit.ly/3UkVGLl	15
The White House, <i>Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth</i> , 13, 21 (June 4, 2021), bit.ly/3hAuaeU	18
Zachary Shahan, <i>Tesla Scores 77% of US Electric Auto Sales In November</i> , CleanTechnica Report, (Dec. 13, 2019), bit.ly/3U2IhrB	15

INTEREST OF AMICUS CURIAE¹

The Buckeye Institute was founded in 1989 as an independent research and educational institution—a think tank—whose mission is to advance free-market public policy in the states. The staff at The Buckeye Institute accomplish the organization’s mission by performing timely and reliable research on key issues, compiling and synthesizing data, formulating free-market policy solutions, and marketing those policy solutions for implementation in Ohio and replication throughout the country. The Buckeye Institute is a nonpartisan, non-profit, tax-exempt organization as defined by I.R.C. section 501(c)(3). The Buckeye Institute’s Legal Center files and joins *amicus* briefs that are consistent with its mission and goals.

Consistent with its mission, The Buckeye Institute seeks to protect individual liberties—especially those liberties guaranteed by the Constitution of the United States—against government overreach.

¹ No party’s counsel authored this brief in whole or in part, and no person other than *amicus* and their counsel contributed money intended to fund the preparation or submission of this brief. The parties have consented to its filing.

Government overreach increasingly comes in the form of agency rules and regulations imposed by unelected bureaucrats. The result is the insulation of important public policy decisions from any political or judicial accountability. This is incompatible with the representative democracy guaranteed by the Constitution. In this case, the Environmental Protection Agency exceeded its statutory authority and ignored key facts and issues to justify a regulatory scheme that American consumers do not want, which Congress has not authorized, and which harms Ohioans and Americans.

SUMMARY OF ARGUMENT

The Environmental Protection Agency has attempted to restructure the American car market by forcing electric vehicles on American consumers. EPA purports to do this under Section 202 of the Clean Air Act, 42 U.S.C. §7521, by setting greenhouse gas emission standards for light-duty vehicles. But those incredibly stringent standards amount to a de facto electric-vehicle mandate. Such a mandate is an unwelcome change for American consumers and EPA simply has no authority make it.

Amicus agrees with Petitioners that the “question of whether and how internal-combustion vehicles should be phased out in favor of electric vehicles is hugely consequential: it involves millions of jobs, the restructuring of entire industries, and the Nation’s energy independence and relationship with hostile powers.” Private Pet. Br. 4. *Amicus* also agrees with Petitioners that “Congress has never delegated those policy judgments to EPA.” *Id.* Those major national policy questions are for Congress itself to decide. *See West Virginia v. EPA*, 142 S. Ct. 2587 (2022).

Amicus writes separately to highlight that EPA’s cost-benefits analysis is deeply flawed and to explain how forced electrification will harm American consumers. First, EPA wrongly relied on an alleged market failure in the demand for electric cars to justify the extraordinary costs of the rule. EPA found it perplexing that American consumers have not widely adopted electric vehicles despite the potential fuel savings associated with doing so. Yet instead of acknowledging the myriad reasons why consumers prefer traditional gas-powered cars, EPA labeled that lack of demand a market failure and rested much of its cost-benefit

analysis on that conclusion. 86 Fed. Reg. 74501. But Congress never authorized EPA to use this nebulous concept to impose the government's will upon consumers and manufacturers.

Second, EPA improperly relied on an inter-agency report that included alleged global rather than the domestic costs of greenhouse gas emissions. By including those global costs, EPA ignored the well-established presumption that congressional statutes are primarily concerned with domestic application and that the “purpose[]” of the Clean Air Act is “to protect and enhance the quality of *the Nation's* air resources so as to promote the public health and welfare and the productive capacity of *its population*.” 42 U.S.C. §7401(b)(1) (emphasis added). EPA also failed to explain the drastic disparity in costs that results from including alleged global costs of greenhouse gas emissions.

Finally, EPA ignores the harms of forced electrification. Electric vehicles are extremely expensive and cost prohibitive for most Americans. And concerns about performance, range, and charging capabilities outweigh the benefits of electric vehicles for many Americans. EPA largely ignored these concerns.

At bottom, the final rule exceeds EPA's statutory authority by inventing a market failure and improperly considering, *inter alia*, alleged global cost in its cost-benefits analysis. The rule also purports to force unwanted electric vehicles on American consumers. The Court should hold unlawful and set aside the rule.

ARGUMENT

I. EPA's cost-benefit analysis is deeply flawed.

A. EPA wrongly relied on an alleged "market failure" in the demand for electric cars to justify the extraordinary costs of the rule.

A "significant question" undergirding EPA's impact analysis was its misguided conclusions about demand for electric vehicles. 86 Fed. Reg. 74500. EPA found it puzzling that American consumers have not widely adopted electric vehicles despite claims that "fuel savings quickly outweigh the costs in the absence of standards." *Id.* at 74501. "If the benefits to vehicle buyers outweigh the costs to those buyers of the new technologies," EPA explains, "conventional economic principles suggest that automakers would provide them, and people would buy them." *Id.* at 74500. Yet instead of crediting the many reasons why consumers prefer traditional gas-powered cars, EPA concluded that the lack of

demand for electric cars is due to an “apparent market failure.” *Id.* at 74501.

But Congress never authorized EPA to use this nebulous concept to impose the government’s will upon consumers and manufacturers. Congress specifically limited EPA’s considerations to “cost, energy, and safety factors associated with the application of [available] technology.” 42 U.S.C. §7521(3)(A)(i). And the only statutes that even reference “market failures” do so in the context of industry annual reports or foreign investments. *See e.g.*, 12 U.S.C. §635g(1) and 22 U.S.C. §9621. As a result, an alleged market failure is an inappropriate concept for EPA to consider when it analyzes “costs” under its statutory authority to regulate vehicle emissions.

To be sure, the Office of Management and Budget (OMB) purports to authorize agencies to evaluate market failures when conducting the economic-impact analysis. *See* Circular A-4, bit.ly/3FXXSo1. But that directive’s application is limited. It applies to the economic analysis required by Executive Order 12866 for all new agency actions that are reviewed by OMB. It does not apply to whether EPA can *substantively*

force a phase-out of combustion-engine vehicles in favor of electric ones. An executive directive, of course, cannot override Congress's choice to limit EPA's analysis to certain factors. And a market failure is not one of those factors.

In any event, OMB's directive itself warns against relying heavily on market failures as EPA has done: "Government actions can be unintentionally harmful, and even useful regulations can impede market efficiency," which is why the order imposes "a presumption against certain types of regulatory action" on that basis. *Id.* There is good reason for that warning. Government officials often "point to instances of apparently imperfect markets and assume that government ... regulation can seamlessly perfect them." See Ryan Bourne, *How 'Market Failure' Arguments Lead to Misguided Policy*, Cato Institute Policy Analysis No. 863 (2019), bit.ly/3WE4gGR. And "economists have long doubted this way of thinking." *Id.*

At any rate, EPA's market failure analysis here is wrong on its own terms. EPA "provided no[] actual evidence" of a market failure. *Am. Pub. Gas Ass'n v. United States Dep't of Energy*, 22 F.4th 1018, 1027 (D.C. Cir.

2022). OMB has identified three types of market failure: (1) externality, (2) market power, and (3) inadequate or asymmetric information. Circular A-4, *supra*. EPA fails even to identify the alleged market failure category upon which it relies. It instead contrives a market failure by discounting the documented preferences and considered analysis of individual American consumers. There is a market failure, EPA contends, because Americans are not taking advantage of the fact that “fuel savings quickly outweigh the costs in the absence of standards.” 86 Fed. Reg. 74501. EPA’s conclusion rests on the notion that consumers do not understand how electric vehicles work. *Id.* Yet there is no shortage of information of the pros and cons of electric vehicles in the Internet age. A simple Google search reveals countless studies and news articles explaining that information.

That means EPA’s market failure conclusion boils down to a suggestion that American consumers are not smart enough to put adequate “emphasis on future fuel savings compared to up-front costs (a form of ‘myopic loss aversion’)” because they do “not hav[e] a full understanding of potential cost savings, or [are] not prioritizing fuel

consumption in the complex process of selecting a vehicle.” *Id.* But that “is not enough to justify” EPA’s market failure analysis. *Am. Pub. Gas Ass’n*, 22 F.4th at 1027. Assertions of consumer ignorance do not meet an accepted statutory or regulatory definition of market failure. And they ignore the alternative explanation that consumers value “other vehicle attributes” over fuel efficiency. 86 Fed. Reg. 74500; *see also* Part II, *infra*.

Indeed, EPA disregarded comments and studies showing that consumers generally value performance (bigger, faster, stronger vehicles) over more fuel-efficient vehicles. For example, the National Automobile Dealers Association raised concerns that vehicle buyers must forgo enhanced performance to get improved fuel economy. *See* National Automobile Dealers Association Comment (Sep. 27, 2021). It explained that “consumers of any product will accept product improvements if they are free”; but “when consumers are asked about paying for fuel economy, they largely are unwilling to do so.” *Id.* According to one study, “consumers are willing to pay just \$94 for a 1% increase in performance arising from fuel saving technology adoption. This contrasts with a willingness to pay \$1,100 for a 1-second reduction in 0-60 acceleration

time.” *Id.* (citing Leard, Linn, Zhou; *How Much Do Consumers Value Fuel Economy and Performance? Evidence from Technology Adoption*, Rev. of Econ. & Stats. at *9 (2021); see also Alcott & Wozny, *Gasoline Prices, Fuel Economy, and the Energy Paradox*, Rev. of Econ. & Stats. 96, 779-794 (2014); Busse, Knittel, & Zettelmeyer, *Are Consumers Myopic? Evidence from New and Used Car Purchases*, Am. Econ. Rev. 103, 220-256 (2013). That tradeoff doesn’t mean there is a market failure; it just shows that consumers prefer one thing over another.

Americans simply have different priorities than what EPA would prefer. EPA also ignored the significant harm American consumers will suffer if forced to go electric, such as the high up-front costs of electric vehicles, the cost to replace or properly and legally dispose of lithium batteries, the limited range of electric vehicles, and the lack of at home charging capabilities and the costs to upgrade home electrical service. See Part II, *infra*. EPA apparently did not even consider if Americans had evaluated the harms of “going electric.” Instead, EPA jumped to the conclusion that Americans do not know what’s good for them and labeled that perceived ignorance as a “market failure.” There is no market

failure—only EPA’s inability or unwillingness to understand the average American consumer.

B. EPA improperly included alleged global damages in its cost-benefits analysis.

EPA’s cost-benefit analysis suffers from other significant flaws. *See* Private Petitioners’ Br. at 64-69. One of those flaws was EPA’s inclusion of the alleged global (rather than domestic) costs of greenhouse gas emissions. To that end, EPA explicitly relied on the Interagency Working Group’s Technical Support Document on the Social Cost of Greenhouse Gases. *See* Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide, Interagency Working Group on Social Cost of Greenhouse Gases (Feb. 2021). And the Interagency Working Group’s conclusions rest on the global metrics. For example, the Interagency Working Group believes that global impacts “will have a direct impact on [overseas] U.S. citizens and the investment returns on those assets owned by U.S. citizens and residents;” that global issues “impact the welfare of individuals and firms that reside in the United States through their effect on international markets, trade, tourism, and other activities;” and that using global metrics “allows the U.S. to continue to

actively encourage other nations, including emerging major economies, to take significant steps to reduce emissions.” *Id.* at 15, 16; *see also* Missouri Attorney General Comment (Sept. 27, 2021).

These may be admirable objectives, but it was error for EPA to rely on the Interagency Working Group’s global-impact directives because “Congress generally legislates with domestic concerns in mind.” *RJR Nabisco, Inc. v. Eur. Cmty.*, 136 S. Ct. 2090, 2100 (2016). This includes the Clean Air Act. Congress declared that one of the “purposes” of the Clean Air Act is “to protect and enhance the quality of *the Nation’s* air resources so as to promote the public health and welfare and the productive capacity of *its population*.” 42 U.S.C. §7401(b)(1) (emphasis added). That directive extends to the Administrator’s authority to prescribe “standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. §7521(a)(1). OMB likewise has issued a universal instruction that

an agency's analysis "should focus on benefits and costs that accrue to citizens of the United States." Circular A-4, *supra*.

Despite all this, EPA determined that the Interagency Working Group's interim "estimates are appropriate for use" but "likely *underestimate*" the global costs of greenhouse gas emissions. 86 Fed. Reg. 74504 (emphasis added). But including global impacts produces drastically different calculations. The initial Interagency Working Group Report estimated that the social cost of greenhouse gases ranged from \$30 to \$46 per ton for 2025. See Mimi Drozdetski & Samir Qadir, *Social Cost of Carbon: Seven Takeaways About the Most Important Climate Policy Metric You've Never Heard Of*, PHE (Aug. 24, 2022), bit.ly/3WLRuew. But the former Administration, which "only factored in domestic damages as opposed to global impacts," estimated costs to range from \$1 to \$7 per ton. *Id.* EPA fails to address that remarkable disparity.

Thus, considering global perspectives was "in excess of statutory [] authority" under the APA. 5 U.S.C. §706.

II. Forced electrification will harm American consumers.

Electric vehicles are extremely expensive and cost prohibitive for most Americans. Nearly 70 percent of Americans do not want them. *See* Stephen Edelstein, *Study: Two-Thirds of Americans Don't Want and EV Yet, and Half Won't Pay Extra for Electrified*, Green Car Reports (Jan. 11, 2022), bit.ly/3E6q1rS. For these consumers, concerns about cost, range, and charging stations vastly outweigh any benefits they perceive. *Id.* Yet EPA ignored these concerns and the enormous consequences that forced electrification will have on consumers.

Electric vehicles come with a large price tag—one that is unaffordable for most Americans. On average, electric vehicles cost nearly \$10,000 more than the overall industry average. *See* Kelley Blue Book, *Eight Straight: New Vehicle Prices Mark Another Record High in November 2021*, CISION (Dec. 10, 2021), prn.to/3T2c2aA. That means, “[i]n terms of pricing, an [electric vehicle] is equivalent to an entry-level luxury car.” Mike Winters, *Here's Whether It's Actually Cheaper to Switch to an Electric Vehicle or Not—and How the Costs Break Down*, CNBC (Dec. 29, 2021), cnb.cx/3fCQF21.

Average Americans cannot afford such luxury. Like food, gas, and other goods, the cost of vehicles dramatically increased during the COVID-19 pandemic. In November 2021, Kelley Blue Book data showed that the average transaction price for vehicles increased by 13.2% from a year earlier. Kelley Blue Book, *supra*. And electric vehicles were no exception. In 2020, “automakers across the spectrum ... hik[ed] up prices for their most popular electric vehicles at an unprecedented pace” due to component costs. Sissi Cao, *Gas Prices Are Surging But the Cost of Owning Electric Vehicles Is Rising Even Faster*, Observer (June 28, 2022), bit.ly/3E33Jan. As of May 2022, the cost of electric vehicles was up “22 percent from a year ago.” *Id.*

Take Tesla for example. It boasts a 77 percent share of the U.S. electric vehicle market. See Zachary Shahan, *Tesla Scores 77% of US Electric Auto Sales In November*, CleanTechnica Report, (Dec. 13, 2019), bit.ly/3U2IhrB. After factoring in a 20 to 30 percent increase in component parts, the brand’s most popular electric car currently starts around \$47,000. *Id.*; see also Tesla, bit.ly/3UkVGLl. Tesla’s next most popular model more than doubles in price at \$126,000. See Tesla Model

X, bit.ly/3zH7K1L. On top of that, electric vehicles with a consumer-desired range of 500 miles have been only “recently achieved by the Lucid Air, in a version that starts at \$139,000.” Edelstein, *supra*. Meanwhile, the median salary for U.S. workers is just \$54,132. Allison Doyle, *Median Salary in the U.S.*, The Balance (Sept. 19, 2022), bit.ly/3E6IuEI.

EPA papers over all of this. It suggests that “[o]ver time, reductions in fuel consumption will offset the increase in upfront costs.” 86 Fed. Reg. at 74511. That claim is dubious given that more recent research suggests that owning an electric car “costs \$200 more per month” than the average non-electric car. Cao, *supra* (citing Tyson Jominy, head of data and analytics at J.D. Power). But even if EPA’s claim were true, it is little comfort for those Americans who can’t afford those upfront costs. One of EPA’s responses is to claim that lower-income individuals can just buy *used* electric vehicles and save on those upfront costs. 86 Fed. Reg. at 74512-13. But cars cannot enter the market as used cars. Someone must buy the new electric vehicle for it to be resold as a used car.

Even then, used electric cars still come with huge price tag. The replacement of batteries alone makes electric cars cost prohibitive for

many Americans. Unlike internal combustion engines, batteries degrade over time regardless of use. Jon Witt, *Costs of Electric Car Battery Replacement*, Recurrent (Aug. 25, 2022), bit.ly/3h9RZKf. “An electric car’s range decreases with each drive,” and a “battery dies at about 60,000 miles.” Editorial Board, *Forced Electric Cars Harm Our Planet and Humanity*, The Denver Gazette (Sept. 4, 2022), bit.ly/3FRknuS. Since average car owners “drive more than 12,000 miles each year,” “[t]hat puts the viability of each battery car at about five years before the need for substantial reinvestment ... for a replacement battery.” *Id.* In 2019, “the cost of an out-of-warranty 100kWh battery, as is common in Tesla long-range vehicles, would be at least \$16,100 before labor [and] taxes.” Witt, *supra*. Simply put, that cost alone “will put used vehicles out of range for low-income buyers.” The Denver Gazette, *supra*.

These costs keep rising. Lithium is the primary resource needed to produce these batteries. As of May 2019, the price of lithium increased 900% over the previous 18 months. Phil LeBeau, *EV Battery Costs Could Spike 22% by 2026 as Raw Material Shortages Drag On*, CNBC (May 18, 2022), cnb.cx/3h1WhTH. Demand for lithium is projected to grow by

another 600% by 2030. Patrick Whittle, *U.S. Seeks New Lithium Sources as Demand for Clean Energy Grows*, PBS Newshour (Mar. 28, 2022), [to.pbs.org/3DUCu1z](https://www.pbs.org/3DUCu1z). Nothing in EPA's rule explains how low-income families—or Americans generally—can afford these rising costs.

Beyond normal economic concerns, lithium extraction and production (along with other vital resources) has its own sensitive geopolitical considerations. Most of these raw materials for electric cars, including lithium, come from “insecure” locations. The White House, *Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth*, 13, 21 (June 4, 2021), bit.ly/3hAuaeU. Specifically, “China currently dominates the global lithium-ion battery supply chain, producing 79% of all lithium-ion batteries[;] ... 61% of global lithium refining for battery storage and electric vehicles and 100% of the processing of natural graphite used for battery anodes.” Craig D. Dillard & Elizabeth P. Nevle, *Supply Chain Disruptions in the Energy Industry: Challenges with the Supply of Lithium-ion Batteries* (Sept. 1, 2022), bit.ly/3TG09Yt.

Moreover, electric vehicles are useless for many Americans due to a lack of charging stations. There are only about 104,000 public charging stations in the United States today. *See* Feilding Cage, *The Long Road to Electric Cars*, Reuters (Feb. 7, 2022), tmsnrt.rs/3NwCfwO. “[T]hat is simply not enough.” *Id.* And although Congress’s 2021 infrastructure bill included a \$7.5 billion dollar appropriation to install a half million more, most of those chargers will be placed along “major highway locations” to the exclusion of millions of Americans. *Id.* Yet even if Congress succeeds in placing these new charging stations, the U.S. will still need “almost 20 times more chargers than it has now.” *See* Phillip Kampshoff et al., *Building the Electric-Vehicle Charging Infrastructure America Needs*, McKinsey & Co. (Apr. 18, 2022), mck.co/3TgY98Q. Even “[i]n a scenario in which half of all vehicles sold are zero-emission vehicles” by 2030 (the federal target), researchers estimate that the country “would require 1.2 million public [electric vehicle] chargers and 28 million private [electric vehicle] chargers by that year.” *Id.*

Nor can many Americans charge their cars at home. *See* Abigail Bassett, *Electric Vehicles Have a Charging Access Problem. These*

Companies are Working to Solve It, Fortune (Oct. 17, 2022), bit.ly/3UvW8pZ. For those who rent their homes or apartments—as nearly one-third of all Americans do—there is little opportunity to obtain at-home charging, and little incentive for landlords to fill in the gaps. *Id.*

In the end, EPA ignored these concerns and the enormous consequences that forced electrification will have on American consumers.

CONCLUSION

The Court should hold unlawful and set aside the rule.

Respectfully submitted,

/s/ Robert Alt

Robert Alt*

David C. Tryon

THE BUCKEYE INSTITUTE

88 East Broad St, Suite 1300

Columbus, OH 43215

(614) 224-4422

robert@buckeyeinstitute.org

*Counsel of Record

Counsel for Amicus Curiae

Bryan Weir
Tiffany H. Bates
ANTONIN SCALIA LAW SCHOOL
ADMINISTRATIVE LAW CLINIC
CONSOVOY MCCARTHY PLLC
1600 Wilson Blvd., Suite 700
Arlington, VA 22209
(703) 243-9423

Dated: November 10, 2022

CERTIFICATE OF SERVICE

I hereby certify that on November 10, 2022, I electronically filed the foregoing with the Clerk of the United States Court of Appeals for the District of Columbia Circuit via the Court's CM/ECF system, which will send notice of such filing to all counsel who are registered CM/ECF users.

/s/ Robert Alt

CERTIFICATE OF COMPLIANCE

I certify that this brief complies with the type-volume limitations because it contains 3,537 words. This brief also complies with the typeface and style requirements because it has been prepared in a proportionally spaced typeface using Microsoft Word in Century Schoolbook 14-point font.

/s/ Robert Alt