

No. 24-7

IN THE
Supreme Court of the United States

DIAMOND ALTERNATIVE ENERGY, LLC, *et al.*,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, *et al.*,

Respondents.

ON PETITION FOR A WRIT OF CERTIORARI TO THE
UNITED STATES COURT OF APPEALS FOR THE
DISTRICT OF COLUMBIA CIRCUIT

**BRIEF FOR *AMICUS CURIAE*
CONSERVAMERICA IN SUPPORT
OF PETITIONERS**

TODD JOHNSON
CONSERVAMERICA
1455 Pennsylvania Avenue,
N.W., Suite 400
Washington, D.C. 20001
(202) 664-9297

JOHN A. SHEEHAN
Counsel of Record
BRENT FEWELL
EARTH AND WATER LAW, LLC
1455 Pennsylvania Avenue,
N.W., Suite 400
Washington, D.C. 20001
(301) 980-5032
john.sheehan@
earthandwatergroup.com

Counsel for Amicus Curiae

117032



COUNSEL PRESS

(800) 274-3321 • (800) 359-6859

TABLE OF CONTENTS

	<i>Page</i>
TABLE OF CONTENTS.....	i
TABLE OF CITED AUTHORITIES	ii
INTEREST OF <i>AMICUS CURIAE</i>	1
SUMMARY OF ARGUMENT.....	2
ARGUMENT.....	3
I. Electric Vehicles Do Not Provide An Advantage In Full Lifecycle Greenhouse Gas Emissions And Cannot Justify Granting California’s Waiver.....	3
II. A Rapid Switch To Electric Vehicles May Cause Other Detrimental Environmental Impacts.....	7
CONCLUSION	9

TABLE OF CITED AUTHORITIES

	<i>Page</i>
Statutes	
42 U.S.C. § 7543(b)(1)(B).....	4
Other Authorities	
Guelfo, J.L., Ferguson, P.L., Beck, J. <i>et al.</i> Lithium-ion battery components are at the nexus of sustainable energy and environmental release of per- and polyfluoroalkyl substances. July 8, 2024, <i>Nat Commun</i> 15, 5548 (2024). https://doi.org/10.1038/s41467-024-49753-5	8
Heywood, J., MacKenzie, D. (2015). “ <i>On the Road Toward 2050: Potential for Substantial Reduction in Light-Duty Vehicle Energy Use and Greenhouse Gas Emissions,</i> ” Massachusetts Institute of Technology. http://web.mit.edu/sloan-auto-lab/research/beforeh2/files/On-the-Road-toward-2050.pdf	5
McKinsey Consulting “Lithium and cobalt: A tale of two commodities”; June 2018 Report https://www.mckinsey.com/industries/metals-and-mining/our-insights/lithium-and-cobalt-a-tale-of-two-commodities	7, 8
National Academy of Sciences (NAS), <i>Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy—2025-2035</i> (2021 publication copy), NAS p. 13-416.....	5

Cited Authorities

	<i>Page</i>
Steffen Mueller, <i>High Octane Low Carbon Fuels: The Bridge to Improve Both Gasoline and Electric Vehicles</i> (Mar. 22, 2021), https://erc.uic.edu/wp-content/uploads/sites/633/2021/03/UIC-Marginal-EV-HOF-Analysis-DRAFT-3_22_2021_UPDATE.pdf . . .	4, 6, 7
The Guardian, 18 Dec 2019 03.00 EST “How the Race for Cobalt Risks Turning it From Miracle Metal to Deadly Chemical”	8
Todd Johnston, “Slow Down: The Case for Technology Neutral Transportation Policy”, ConservAmerica (Dec. 10, 2020), https://static1.squarespace.com/static/5d0c9cc5b4fb470001e12e6d/t/5fd1580999fe644e8a504a54/1607555090612/CA+Tech+Neutral+Paper+-+12.20+%281%29.pdf	4, 6

INTEREST OF *AMICUS CURIAE*

ConservAmerica Inc. is a 501(c)(3) organization focused on addressing conservation, environmental, and energy challenges through market-based solutions.¹ Our core mission is to advocate for sound laws and public policies that produce clean air, clean and safe water, and healthy public lands. ConservAmerica promotes wise management of our nation's public lands and resources through responsible stewardship, rule of law, and holding polluters responsible for environmental pollution and degradation.

ConservAmerica promotes sound energy policies based on sound science and an understanding that policies that too narrowly focus on one goal or one market may not make sense or may be counterproductive when viewed and analyzed from a holistic environmental perspective. The most efficient way to achieve the nation's environmental goals is through policies that encourage competitive markets, private investment, and expanded trade. ConservAmerica opposes policies and approaches that impose centralized regulations that place an undue burden on the economy without delivering measurable environmental benefits.

1. Pursuant to Supreme Court Rule 37.2, *amicus curiae* states that more than 10 days before the filing of this brief, counsel of record before this Court were notified of the intention of *amicus curiae* to file an *amicus* brief and received said notice. Pursuant Rule 37.6, *amicus curiae* states that no part of this brief was authored by counsel for any party and no person or entity other than *amicus curiae* made any monetary contribution to the preparation and submission of the brief.

SUMMARY OF ARGUMENT

The United States Environmental Protection Agency (“EPA”) and the State of California have worked in concert to promote a policy to engineer a wholesale shift in the nation’s vehicle fleet from traditional gas-powered vehicles to electric vehicles. ConservAmerica submits this *amicus curiae* brief to urge the Court to recognize the negative impacts of EPA’s decision waiving federal preemption of two California regulations under the Clean Air Act. Allowing EPA’s decision to stand will have serious and widespread implications for energy policy, environmental conditions, and the economy. Left undisturbed, EPA’s order will allow California to force a statewide mandate requiring all vehicles to be electric vehicles.

EPA’s order fails to recognize that when the full lifecycle of a vehicle and its energy source is taken into account, including GHG emissions during the fuel production, manufacturing, operation, and disposal stages, advanced internal combustion engine vehicles (ICEVs) and hybrid electric vehicles (HEVs) are capable of achieving comparable or better reductions in GHG emissions as similarly equipped, full battery electric vehicles (BEVs or EVs). EPA’s decision supporting the California waiver is based upon the assumption that the rapid move to electric vehicles will account for greater emission reductions, but that assumption is flawed, not supported by the record and not grounded in fact.

In addition to its concerns about the impacts to the environment and energy policy of the 2022 decision by EPA waiving federal preemption of two California regulations, ConservAmerica also supports the arguments submitted

by Petitioners recognizing that EPA overstepped the authority granted to it under Section 209(b) of the Clean Air Act and upset the proper balance between federal and state governments. ConservAmerica recognizes the principles of federalism and supports the rights of states as partners in the federal scheme to carry out important goals Congress has enacted.

ARGUMENT

I. Electric Vehicles Do Not Provide An Advantage In Full Lifecycle Greenhouse Gas Emissions And Cannot Justify Granting California's Waiver.

As part of the basis for the 209(b) waiver, California contended that it “needs” the authority to regulate vehicle greenhouse gas emissions because the regulations it seeks to adopt are necessary to meet its climate change related goals. However, the available science does not show that the rapid increase in the use of electric vehicles in place of gas-powered vehicles – the goal of California’s “zero-emission” vehicle mandate – is “needed” to reduce California’s greenhouse gas emissions. The emerging scientific consensus is that even a wholesale shift to electric vehicles will not meaningfully impact greenhouse gas emissions in the state of California when the full lifecycle of an electric vehicle and its energy source is taken into account. A full life cycle analysis takes into account GHG emissions during fuel production, manufacturing, operation, and disposal stages. Moreover, advanced internal combustion engine vehicles and hybrid electric vehicles are capable of achieving comparable or better reductions in GHG emissions as similarly equipped, full

battery electric vehicles.² Thus, the waiver is not “needed” “to meet compelling and extraordinary conditions” as required by 42 U.S.C. § 7543(b)(1)(B).

ConservAmerica recognizes that fully electric vehicles will likely play an important role in reducing emissions and fighting climate change but cautions that a rapid, wholesale move away from gasoline powered vehicles to fully electric vehicles may not achieve the benefits frequently touted.³ In the short term, gasoline powered vehicles achieve similar reductions to electric vehicles when the impacts of the additional emissions that occur in the production of electric vehicles is considered, as is discussed below. Additionally, picking one technology now over all other technologies forecloses the possibility of more technological breakthroughs – through efficiency and fuels – that could have significant long-term impacts.

It is important to recognize exactly what electric vehicles are and what emissions are associated with both their use and their production. California’s use of the term “zero-emission vehicle” is a misnomer, and this vernacular has been criticized by many including the National Academy of Sciences, as “incentivizing the deployment

2. Steffen Mueller, *High Octane Low Carbon Fuels: The Bridge to Improve Both Gasoline and Electric Vehicles*, (Mar. 22, 2021), https://erc.uic.edu/wp-content/uploads/sites/633/2021/03/UIC-Marginal-EV-HOF-Analysis-DRAFT-3_22_2021_UPDATE.pdf.

3. See Todd Johnston, “Slow Down: The Case for Technology Neutral Transportation Policy”, ConservAmerica (Dec. 10, 2020), <https://static1.squarespace.com/static/5d0c9cc5b4fb470001e12e6d/t/5fd1580999fe644e8a504a54/1607555090612/CA+Tech+Neutral+Paper+-+12.20+%281%29.pdf> (reviewing multiple studies).

of zero-emission vehicles but misrepresenting the actual carbon emissions.”⁴ Indeed, while electric vehicles may have zero tailpipe emissions, the activities necessary to produce electric vehicles generate significant greenhouse gas emission over their full lifecycle – meaning the emissions generated from mining metal ores to vehicle salvage.⁵

A full lifecycle emissions-based analysis approach requires reframing the comparison between gasoline and electric vehicles. *See*, NAS report, p. 12-385. As renewable resources supply only 20 percent of the country’s electricity needs and the remaining 80 percent are generated by fossil fuels such as coal and natural gas, the comparison is really between burning gasoline or a mix of coal and natural gas to move the vehicle. (*See* Mueller; Mackenzie). This comparison reveals that the proposed rapid electrification of the transportation sector would not in fact significantly reduce GHG emissions but instead would shift and impose significant costs and impacts to other sources.

Once full life cycle emissions are considered, it becomes apparent that increasing the number of electric vehicles and reducing the number of internal combustion

4. *See*, National Academy of Sciences (NAS), *Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy—2025-2035* (2021 publication copy), NAS p. 13-416.

5. *See Id*; Heywood, J., MacKenzie, D. (2015). “*On the Road Toward 2050: Potential for Substantial Reduction in Light-Duty Vehicle Energy Use and Greenhouse Gas Emissions*,” Massachusetts Institute of Technology. <http://web.mit.edu/sloan-auto-lab/research/beforeh2/files/On-the-Road-toward-2050.pdf>.

vehicles cannot justify California’s claim of “need” for independent authority to regulate vehicle greenhouse gas emissions. The findings of multiple lifecycle analyses by the International Energy Association, Argonne National Labs and MIT among others have found that hybrid vehicles emit about the same or lower levels of carbon dioxide than electric vehicles. These studies by unbiased experts comparing the full environmental profile of electric vehicles versus advanced hybrids were not adequately considered by EPA.

In fact, based on the greenhouse gas intensity of today’s electric grid, hybrid vehicles often outperform all other vehicle types – including electric vehicles.⁶ Research into alternative fuels suggests that gasoline internal combustion engines have the potential for even greater reductions in greenhouse gas emissions.⁷ The studies show a variety of automotive technologies and powertrains deliver comparable emission reductions and demonstrate the importance of taking a technology-neutral approach in setting transportation policies to obtain the most efficient reductions in greenhouse gas emissions.

6. *See* Todd Johnston, “Slow Down: The Case for Technology Neutral Transportation Policy”, ConservAmerica (Dec. 10, 2020). <https://static1.squarespace.com/static/5d0c9cc5b4fb470001e12e6d/t/5fd1580999fe644e8a504a54/1607555090612/CA+Tech+Neutral+Paper+-+12.20+%281%29.pdf>

7. *See* Mueller. Finding that under the current electric grid infrastructure, ethanol-based fuels outperform electric vehicles throughout the Midwest.

Additionally, these studies reveal variables such as the geographic variation of the electric grid across the United States can have significant impacts in determining lifecycle emissions.⁸ This means that the carbon intensity associated with charging an electric vehicle will vary depending on where the electricity used to charge the vehicle is generated, what time of year it is, and even what time of day it is charged.⁹ Accordingly, California's approach is misguided.

II. A Rapid Switch To Electric Vehicles May Cause Other Detrimental Environmental Impacts.

The electric vehicle mandate California sought did not justify granting California a waiver because the rapid adoption of electric vehicles will have detrimental environmental implications that were not fully vetted by EPA.

Evidence of the widespread environmental impacts from meeting even the current demand for electric vehicles can already be seen. An electric vehicle mandate would require sharply increasing the demand for the raw materials needed in their production which could have detrimental global environmental impacts. Lithium and cobalt, the two minerals essential for the manufacture of these batteries, are found in only a limited number of locations globally.¹⁰ More than 65 percent of global

8. *See Id.*

9. *See Id.*

10. *See* McKinsey Consulting "Lithium and cobalt: A tale of two commodities"; June 2018 Report <https://www.mckinsey.com/>

production of cobalt is concentrated in the Democratic Republic of the Congo. However, less than 10 percent of cobalt supply occurs as a primary product, with the remainder produced as a by-product of mining primarily copper and nickel. Cobalt-production has created a host of environmental problems for the nations that produce it without laws and other protections to minimize the impacts. Countries that produce the materials without restrictions and protections are more likely to experience water pollution, contaminated crops and loss of soil fertility, and increased risks of cancer.¹¹

China dominates the global production of lithium-ion batteries and their precursor materials, especially graphite.¹² Pollution from graphite dust is damaging to the environment and public health whether through direct inhalation or atmospheric deposition. More pollution results from the hydrochloric acid used to process mined graphite into a usable form. Hydrochloric acid is highly

industries/metals-and- mining/our-insights/lithium-and-cobalt-a-tale-of-two-commodities.

11. *See*, The Guardian, 18 Dec 2019 03.00 EST “How the Race for Cobalt Risks Turning it From Miracle Metal to Deadly Chemical.”

12. Published on July 8, 2024, a peer-reviewed study also recognized that toxic per- and polyfluoroalkyl substances (PFAS) used in lithium ion batteries that are essential to the clean energy transition present a threat to the environment and human health as the nascent industry scales up. Guelfo, J.L., Ferguson, P.L., Beck, J. *et al.* Lithium-ion battery components are at the nexus of sustainable energy and environmental release of per- and polyfluoroalkyl substances. July 8, 2024, *Nat Commun* 15, 5548 (2024). <https://doi.org/10.1038/s41467-024-49753-5>

corrosive and can cause great environmental damage when leaked into groundwater or streams. Besides the localized environmental impacts due to lax standards and enforcement, relying on countries that are potentially unstable and adversarial for critical supply chain items is problematic for both national and economic security.

In summary, the full lifecycle environmental impacts from electric vehicle production should have been considered by EPA. California's zero-emissions vehicle policy cannot be justified on environmental grounds. California's reduced tailpipe emissions do not justify the widespread global environmental and societal impacts that will likely result if EPA's federal preemption waiver for California is upheld.

CONCLUSION

The petition for writ of certiorari should be granted.

TODD JOHNSON
CONSERVAMERICA
1455 Pennsylvania Avenue,
N.W., Suite 400
Washington, D.C. 20001
(202) 664-9297

Respectfully submitted,
JOHN A. SHEEHAN
Counsel of Record
BRENT FEWELL
EARTH AND WATER LAW, LLC
1455 Pennsylvania Avenue,
N.W., Suite 400
Washington, D.C. 20001
(301) 980-5032
john.sheehan@
earthandwatergroup.com

Counsel for Amicus Curiae