

No. 24-7

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IN THE  
**Supreme Court of the United States**

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

*Petitioners,*

*v.*

ENVIRONMENTAL PROTECTION AGENCY, *et al.*,

*Respondents.*

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ON PETITION FOR A WRIT OF CERTIORARI TO THE  
UNITED STATES COURT OF APPEALS FOR THE  
DISTRICT OF COLUMBIA CIRCUIT CASE NUMBERS  
22-1081, 22-1083, 22-1084, 22-1085

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**BRIEF OF *AMICI CURIAE*  
CALIFORNIA BUSINESS ROUNDTABLE  
AND CALIFORNIA MANUFACTURERS &  
TECHNOLOGY ASSOCIATION  
IN SUPPORT OF PETITIONERS**

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**INTEREST OF *AMICI CURIAE*<sup>1</sup>**

The California Business Roundtable (“CBRT”) is a nonpartisan organization comprised of senior executive leadership of major employers throughout the state of California, with a combined workforce of over 750,000 employees. For more than 40 years, CBRT has identified the issues critical to a healthy business climate and provided the leadership needed to strengthen California’s economy and create jobs. Among other things, CBRT concerns itself with policies and conditions that undermine economic efficiency and structural stability, diminish the total economic surplus created by California’s economy for the collective benefit of all its participants, and place California at a competitive disadvantage in the U.S. and global economies. Of particular importance to CBRT are the (often overlooked) economic implications and consequences of various public policies and laws.

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1. Under Rule 37.6, CBRT and CMTA affirm that no counsel for a party authored this brief in whole or in part, and that no person other than amici or their counsel contributed money intended to fund preparing or submitting this brief. Petitioners Valero Renewable Fuels Company, LLC and Diamond Alternative Energy, LLC are subsidiaries of Valero Energy Corporation. Another subsidiary, Valero Services, Inc., is a member of CBRT and pays annual membership dues to the organization. Neither Valero Services, Inc. nor Valero Energy Corporation, nor any counsel for those companies, authored this amicus brief in whole or in part or made a monetary contribution intended to fund the preparation or submission of this brief, and they did not participate in CBRT’s decision to submit this amicus brief. CBRT and CMTA provided notice of this brief pursuant to Rule 37.2 to all counsel of record and did not receive any objections as to this filing.

The California Manufacturers & Technology Association (“CMTA”) is a non-profit statewide trade association representing the manufacturing and technology sectors in California. CMTA works to improve and enhance a strong business climate for California’s 30,000 manufacturing, processing and technology-based companies. Since 1918, CMTA has worked with the state government to develop balanced laws, effective regulations and sound public policies to stimulate economic growth and create new jobs while safeguarding the state’s environmental resources. CMTA represents 400 businesses from the entire manufacturing community – an economic sector that generates more than \$300 billion every year and employs more than 1.3 million Californians.

Among their responsibilities, CBRT and CMTA file amicus briefs in cases of importance to their members, such as the pending action.

Amici submit this brief to assist the Court in its review of Petitioners’ Petition for Writ of Certiorari and the U.S. Environmental Protection Agency’s (EPA) action entitled *California State Motor Vehicle Pollution Control Standards; Advanced Clean Car Program; Reconsideration of a Previous Withdrawal of a Waiver of Preemption; Notice of Decision*, 87 Fed. Reg. 14,332 (Mar. 14, 2022), with reference to the “major questions doctrine” that mandates “Congress to speak clearly if it wishes to assign to an agency decisions of ‘vast economic and political significance.’” In short, and as discussed below, EPA’s assertion of authority under Section 209(b) of the Clean Air Act to allow the deliberate and directed restructuring of major sectors of the California economy (itself, the world’s fifth largest economy) has economic



and associated political implications that are deep, multi-layered, comprehensive, and unprecedented.

Amici submit this brief not as an argument about the appropriate public policy to address air quality or climate change, but simply to assist the Court in its review by explaining why Petitioners' injuries are redressable (thereby establishing Article III standing) and why the "major questions doctrine" must be applied here to examine the scope of EPA's statutory authority. Indeed,

"None of this is to say that the policy the agency seeks to pursue is unwise or should not be pursued. It is only to say that the agency seeks to resolve for itself the sort of question normally reserved for Congress. As a result, we look for clear evidence that the people's representatives in Congress have actually afforded the agency the power it claims."

*West Virginia v. EPA*, 142 S. Ct. 2587, 2622 (2022) (Gorsuch, J., concurring).

### **SUMMARY OF ARGUMENT**

Section 209(a) of the Clean Air Act generally preempts States from setting their own emission standards for new motor vehicles. 42 U.S.C. § 7543(a). But under Section 209(b) of that Act, EPA may grant California a waiver from federal preemption to enforce its own vehicle-emission standards. In 2022, EPA granted California a waiver to set its own standards for greenhouse-gas emissions and to adopt a zero-emission-vehicle mandate.

Petitioners (also referred to herein as the “Fuel Producers”) are entities and associations of entities that produce or sell liquid fuels and the raw materials used to make them. They immediately sued EPA in 2022, challenging EPA’s waiver as contrary to the text of Section 209(b). EPA’s waiver controlled for the next four years, through the 2025 model year.

In denying the Fuel Producers underlying action before the D.C. Circuit, the court rejected Fuel Producers’ challenge without reaching the merits, concluding that Fuel Producers’ injuries were *not redressable*, and therefore they did not have standing to challenge the regulation under Article III.

Specifically, the D.C. Circuit held that Fuel Producers had not presented evidence affirmatively demonstrating that vacating the EPA waiver (even in 2022, shortly after it was granted) was “substantially likely” to cause automakers to produce fewer electric vehicles or alter their prices so that fewer would be sold before the end of the 2025 model year. Therefore, according to the D.C. Circuit, Fuel Producers failed to show that their financial injuries would be redressed if the EPA waiver was vacated. Most significantly, the D.C. Circuit faulted Fuel Producers for not submitting evidence in the form of affidavits *from the regulated automakers* showing precisely how vacating the regulation in 2022 would have affected the automakers’ production or prices. That is, it appears the only form of evidence the D.C. Circuit would have found sufficient to demonstrate redressability would be affidavits from automakers themselves promising to produce and sell more liquid fuel vehicles in California if EPA’s waiver was vacated.

Fuel Producers argue (and Amici agree) that it is a matter of common sense that if the EPA waiver were set aside and California was unable to require automakers to produce electric vehicles instead of liquid fuel vehicles, at least one more liquid fuel vehicle would be sold over the four-year period. Indeed, Fuel Producers argue that their standing is “self-evident” because California’s EPA waiver is expressly intended and designed to reduce the demand for and consumption of their liquid fuel products.

By disregarding this common sense logic and other precedent, and seemingly requiring affidavits from the directly-regulated parties [automakers], Fuel Producers and Amici contend that the D.C. Circuit’s decision will erect an often-insurmountable barrier to any third party seeking to challenge an administrative regulation in the federal courts of appeal. In sum, and as a result of the D.C. Circuit’s decision, under various scenarios regulations with sweeping financial impacts across multiple non-regulated parties would be effectively insulated from challenge.

Separately, Amici assert that EPA’s underlying action raises the major question doctrine and the EPA’s assertion of authority under Section 209(b) of the Clean Air Act to allow the deliberate and directed restructuring of major sectors of the California economy (itself, the world’s fifth largest economy) has economic and associated political implications that are deep, multi-layered, comprehensive, and unprecedented. EPA’s action cannot be removed from these real world questions and implications.

**ARGUMENT****I. PETITIONERS SATISFIED ARTICLE III  
STANDING REQUIREMENTS INCLUDING  
REDRESSABILITY****A. Article III Standing is Established as Evidenced  
by the Wide Breadth of Economic Participants  
Adversely Affected by EPA's Waiver.**

One need look no further than this case to understand that major agency decisions affect numerous layers of economic participants outside those directly regulated by the agency decision. The Fuel Producers in this case are representative of such industries including, but not limited to, corn and soybean farmers, developers of biorefining capabilities, manufacturers of biomass derived liquid fuels, refining and petrochemical companies, energy marketers, and convenience and fuel retailing stores.

In addition, although they may not be (as the D.C. Circuit stated) “directly regulated,” there are entire industries impacted by EPA’s waiver. For example, there is an industry entirely focused on the collection of used cooking oils for delivery to rendering and processing plants for the generation of biodiesel fuels. These activities also benefit restaurants by giving restaurants value for this waste rather than having to pay to dispose of used cooking oils as they did in the past. In California, this is particularly relevant given that restaurants are currently facing cost pressures from the state’s \$20 an hour wage (both the fast food chains directly affected and others

since they compete with each other).<sup>2</sup> Similarly, cattle and calves were California's fourth largest agricultural commodity in 2022,<sup>3</sup> but this industry has always been at a cost disadvantage due to the need to import feed from other states and related shipping and transportation costs. Ethanol production in California has provided an option that reduces the feed cost. Corn is imported to produce ethanol for fuels. The remainder rather than treated as a waste has been sold as cattle feed. However, without ethanol, feed costs and meat prices would continue to increase.

Other indirect industries involved in the production (refineries), transportation, and sale of liquid fuels in California, but which are directly impacted by EPA's waiver, include, but are not limited to gasoline stores, trucking and other transportation businesses, warehousing and storage locations, automotive repair and maintenance, and transportation support businesses.<sup>4</sup>

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2. For additional information on current employment numbers and impacts to soaring costs in the restaurant industry, please see the Center for Jobs and the Economy's recent Jobs Report, available here: <https://centerforjobs.org/ca/job-reports/full-june-2024-jobs-report>.

3. See California Department of Food and Agriculture, 2022-2023 California Agricultural Statistics Review, available here: [https://www.cdfa.ca.gov/Statistics/PDFs/2022-2023\\_california\\_agricultural\\_statistics\\_review.pdf](https://www.cdfa.ca.gov/Statistics/PDFs/2022-2023_california_agricultural_statistics_review.pdf).

4. See generally Industry Contribution analysis using IMPLAN® model, 2022 Data for California, IMPLAN Group LLC, IMPLAN System (data and software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078, [www.IMPLAN.com](http://www.IMPLAN.com).

In light of the foregoing, and as Fuel Producers argue (and Amici agree), it is a matter of common sense that if the EPA waiver were set aside and California was unable to require automakers to produce electric vehicles instead of liquid fuel vehicles, at least one more liquid fuel vehicle would be sold over the four-year period. Standing is “self-evident” because California’s EPA waiver is expressly intended and designed to reduce the demand for and consumption of their liquid fuel products.

In addition, and as further cited and highlighted by Fuel Producers:

- Redressability is ordinarily established when a plaintiff [here, Fuel Producers] can show that a favorable decision [vacating EPA’s waiver] would remove a regulatory barrier to a third-party’s [automakers] conduct that would benefit the plaintiff. *Energy Future Coalition v. EPA*, 793 F.3d 141, 144 (D.C. Cir. 2015) (Kavanaugh, J.);

- Redressability also exists when a plaintiff [Fuel Producers] alleges an injury produced by the “determinative or coercive effect” of a challenged regulation upon the action of a third party [automakers]. *Bennett v. Spear*, 520 U.S. 154, 169 (1997).

- Even without a determinative or coercive effect, redressability can also be established by the “predictable effect” of a regulation on the decisions of a third party [automakers]. *Department of Commerce v. New York*, 588 U.S. 752, 768 (2019). For example, it is predictable that government regulation of one business “may cause downstream or upstream economic injuries to others in

the chain.” *FDA v. Alliance for Hippocratic Medicine*, 602 U.S. \_\_ (2024) (slip op., at 12).

By disregarding the above-referenced industries and this precedent, and seemingly requiring affidavits from the directly-regulated parties [here, automakers], the D.C. Circuit’s decision will erect an often-insurmountable barrier to *any* third party seeking to challenge an administrative regulation in the federal courts of appeal.

This Court should grant the Fuel Producers’ Petition for Writ of Certiorari.

**B. Upholding the D.C. Circuit’s Limited View of Redressability Will Close the Courthouse Door to a Variety of Future Injured Parties that are Negatively Impacted by Major Agency Actions.**

As detailed above, the Fuel Producers already satisfied Article III standing requirements, including in relation to redressability. Even apart from this however, allowing the D.C. Circuit’s decision to stand with respect to the redressability prong will chill and prevent future injured parties from challenging major agency actions. This is evident by examining other sectors of the U.S. economy in which the same scenario is likely to play out, including where parties that are directly regulated by a major agency action may have different incentives from an injured plaintiff.

For example, both State of California and federal regulations impose a de facto tax on consumers buying liquid fuel vehicles. All automobile manufacturers do not

need to have actually made an electric vehicle (EV) to comply with the rules. They can still produce the more profitable internal combustion engine (ICE) and cover the regulatory requirements instead by purchasing credits from others such as Tesla that produces electric vehicles in amounts greater than the required minimums. These costs, then, add to the costs of producing those internal combustion engine vehicles, in essence acting as a tax. By way of example, even as its sales fell in the second quarter, Tesla made *more than half its profit* from the sale of those credits.<sup>5</sup>

Consumers would also benefit by having more of the types of vehicles available that they want to buy. Data from California New Car Dealers Association (California Auto Outlook Covering 2nd Quarter 2024 and prior issues) indicate that sales of fully electric vehicles (battery electric vehicles or BEVs) in California have essentially peaked over the past 7 quarters at a market share of about 21% of all light duty vehicle sales in spite of declining BEV prices. This static market share is largely consistent with a recent national poll from Pew Research Center that found only 29% of U.S. adults were very or somewhat likely to seriously consider buying an electric vehicle, down from a high of 42% in 2022.<sup>6</sup>

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5. How Government Programs Help Fuel Tesla Profit, Wall Street Journal (July 25, 2024), available here: <https://www.wsj.com/business/autos/how-government-programs-help-fuel-tesla-profit-c9887cdf>.

6. How Americans View National, Local and Personal Energy Choices, Pew Research Center, available here: <https://www.pewresearch.org/science/2024/06/27/how-americans-view-national-local-and-personal-energy-choices/>.



Finally, current auto workers would also benefit. According to a 2020 United Auto Workers white paper:<sup>7</sup>

Electrification presents an opportunity to create innovative products, but the nature of EV production could also threaten employment levels in the automotive industry. This is due to the much lower mechanical complexity of EV powertrains. A UBS-commissioned teardown of a Chevy Bolt found that the EV powertrain had over 80% fewer moving parts than a comparable ICE powertrain and improved technology and design will allow for greater EV powertrain integration, leading to even fewer parts.

This simplicity could reduce the amount of labor, and thus jobs, associated with vehicle production. Even if OEMs choose to produce EV powertrains in-house, which remains an open question, there could still be a reduction in employment at automakers. Ford has acknowledged this, telling its investors that the product simplification that comes from EVs can lead to a 50% reduction in capital investment and a 30% reduction in labor hours per unit compared to ICE production. Similarly, Volkswagen CEO Herbert Diess has said that “The reality is that building an electric car involves some 30% less effort than one powered

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7. Taking the High Road, Strategies for a Fair EV Future, UAW Research Department, available here: <https://region1d.uaw.org/system/files/ev-white-paper-revised-january-2020-final.pdf>.

by an [internal combustion engine]. That means we will need to make job cuts.”

The impact could be even worse if the mechanical simplicity of the components leads OEMs to outsource the work to low-road suppliers that compete primarily on cost-reductions. This would reduce the quality of jobs in the value chain and the positive impact that auto employment has on the rest of the economy.

If a plaintiff can show that a favorable decision “would remove a regulatory hurdle” to third-party conduct that would benefit the plaintiff, that is ordinarily “enough to demonstrate redressability.” *Energy Future Coalition*, 793 F.3d at 141; see *Corner Post, Inc. v. Board of Governors of the Fed. Rsrv. Sys.*, 603 U.S. \_\_\_\_ (2024) (Kavanaugh, J., concurring) (slip op., at 8) (“[E]ntire classes of administrative litigation . . . have traditionally been brought by unregulated parties.”).

In summary, a potential plaintiff who is not directly regulated may be injured by the determinative or coercive effect of a challenged regulation upon the action of a regulated third party; and/or the predictable effect of a regulation on the decisions of a regulated third party may cause downstream or upstream economic injuries to other, not directly regulated, participants in the chain. This is sufficient to satisfy Article III standing.

This Court should grant the Fuel Producers’ Petition for Writ of Certiorari.

## **II. THE VAST ECONOMIC AND POLITICAL IMPACT OF EPA’S ABILITY TO GRANT A WAIVER RAISES THE MAJOR QUESTIONS DOCTRINE.**

In addition to erring on Article III standing requirements, the D.C. Circuit failed to address EPA’s underlying action on the merits. As detailed below, EPA’s action necessarily implicates the major question doctrine.

### **A. The Major Questions Doctrine.**

The challenged action of EPA – granting California a waiver of federal preemption under Section 209(b) of the Clean Air Act for California’s 2012 greenhouse-gas emission standards and its zero-emission-vehicle sales mandate – has effectively mandated, as one of the means of addressing global climate change, that there be a rapid and comprehensive transformation of the vehicles driven by Californians from those vehicles which are powered by the internal combustion engine to electric vehicles primarily powered by lithium-ion batteries.

The economic and political implications of such a deliberate and directed restructuring of major sectors of the California economy, and the economic risks that are created thereby, are unprecedented in the state’s history. Construing Section 209(b) to authorize California to regulate in this manner raises issues of vast economic and political significance. Under the “major questions doctrine,” courts “expect Congress to speak clearly if it wishes to assign to an agency decisions of ‘vast economic and political significance.’” *Utility Air Regul. Grp. v. EPA*, 573 U.S. 302, 324 (2014) (quoting *FDA v. Brown &*

*Williamson Tobacco Corp.*, 529 U.S. 120, 159 (2000)); see *West Virginia*, 142 S. Ct. at 2605.

The obvious effects of EPA’s decision on California’s automobile market, petroleum industry, agricultural sectors, and electric grid, are themselves of “vast economic and political significance.” But even those effects only scratch the surface. As an illustrative example of the deep and multi-layered nature of the economic and political impacts, Amici here discuss the critical role of a single chemical element – cobalt – in a restructured vehicle economy based on lithium-ion batteries.

Furthermore, as the largest economy of any of the United States and fifth largest economy in the world, the impacts on the California economy *alone* are sufficiently vast to invoke the major question doctrine. The subsequent adoption of California’s standards and policies by other states and the District of Columbia only reinforces that conclusion.

Nor are these observations surprising. Globally:

“The economic transformation required to achieve net-zero emissions by 2050 will be massive in scale and complex in execution. The transition would bring substantial shifts in demand, capital allocation, costs, and jobs, which will be challenging to a wide range of stakeholders, not least because they will be distributed unevenly.”<sup>8</sup>

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8. The net-zero transition: What it would cost, what it could bring, McKinsey Global Institute (January 2022), p. 50, available at: <https://www.mckinsey.com/capabilities/sustainability/our-insights/the-net-zero-transition-what-it-would-cost-what-it-could-bring>.

“Reaching net-zero emissions will thus require a transformation of the global economy.”<sup>9</sup>

### **B. Cobalt’s Role in a Transformed Vehicle Economy Based on Lithium-Ion Battery Technology**

While a range of vehicle technologies are viable to reduce greenhouse-gas emissions, EPA has effectively allowed California to select electric vehicles powered primarily by lithium-ion batteries to be the state’s predominant technology, and to rapidly force manufacturers to produce such electric vehicles in place of traditionally-powered vehicles.

Cobalt is the raw material most critical to the lithium-ion battery technology that is presently commercially available in electric vehicles, and which will be for the foreseeable future.<sup>10</sup> While battery technologies that are less dependent on cobalt will likely develop over time, they will not be sufficiently prevalent in electric vehicles to meet California’s aggressive timelines.<sup>11</sup> That makes the existing lithium-ion battery technology – and its cobalt dependence – the de facto technology on which electric vehicle sales in California will be based.<sup>12</sup>

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9. *Id.*, p. 11.

10. “A Closer Look At California’s Cobalt Economy,” California Center for Jobs & the Economy (January 2019), <https://www.cobalt-economy.centerforjobs.org/>, pp. 3, 9, 16, 20, 52. The California Center for Jobs & the Economy ([centerforjobs.org](http://centerforjobs.org)) provides an objective and definitive source of information pertaining to job creation and economic trends in the United States.

11. *Id.*, pp. 4, 5, 8, 16, 20, 91.

12. *Id.*, pp. 8, 29, 88.

California's reliance on this specific vehicle technology that depends on a single energy source has widespread consequences for the broader California (and by extension, national) economy, and significant, associated social and political consequences.<sup>13</sup>

### **C. The Economic Consequences of Other Industries' Competing Demand for Available Cobalt Supplies**

Cobalt is widely used across numerous sectors of the California economy. Therefore, as electric vehicles and electricity storage batteries ramp up their demand, they will be competing against other, also expanding, uses of cobalt, including:

- Traditional chemical applications such as animal feed additives, catalysts, paint drying agents, pigments, polyester, recording media, tires, and vitamin B12.<sup>14</sup>
- Emerging and rapidly expanding use of rechargeable and non-rechargeable batteries in smartphones, tablets, laptops, tools, equipment such as forklifts, household

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13. Automakers have continued to support development of alternative chemistry batteries. The current predominant alternative currently being used is lithium-iron-phosphate (LFP), which is both cobalt and nickel free. These only have about half the energy density of cobalt/nickel batteries and consequently are used only in vehicles with a shorter range. Batteries using cobalt, however, are still the dominant choice in vehicles offering the range consumers are looking for, and demand is expected to continue to grow.

14. *Id.*, pp. 3, 11, 83, 91.

equipment, other consumer products, and medical applications.<sup>15</sup>

- Metallurgical applications such as superalloys for aerospace parts, defense, power generation, and prosthetics; high-speed steel for cutting tools and maraging steels; carbide and diamond tools; and magnets including those used in electric vehicles, alternative energy generation, and a wide range of other product applications.<sup>16</sup>

Indeed, by 2025, cobalt use for *non*-battery applications alone is projected to grow to a level that exhausts the total amount of cobalt mined in 2017.<sup>17</sup> And by 2025, the demand for cobalt for battery applications *other than* electric vehicles and electricity storage batteries is, by itself, estimated to be 5-30% higher than total mining production in 2017.<sup>18</sup>

#### **D. The Economic Consequences of Expected Cobalt Supply Shortages**

Cobalt shortages are expected by 2025.<sup>19</sup> A substantial expansion of mining will be required to meet most of the

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15. *Id.*, pp. 3, 11, 83, 91.

16. *Id.*, pp. 3, 11, 83, 91.

17. *Id.*, pp. 53, 83.

18. *Id.*, pp. 53, 83-84.

19. *Id.*, pp. 6, 10, 12, 69-70, 86-87, 91.

massive increase in demand for cobalt.<sup>20</sup> Even if presently-planned mining expansion proceeds without delay and without encountering unanticipated barriers, this increased and accelerated demand for cobalt for electric vehicles will likely result in supply and price pressures on *other*, non-vehicle manufacturing, sectors of the California economy, with the most significant impacts likely to be in those industries where cobalt is also an especially critical element – consumer electronics, metallurgical, and medical applications.<sup>21</sup> In the manufacturing sector alone (*i.e.*, excluding related wholesale, retail, and service businesses), the non-vehicle industries most likely to be negatively affected employed over 560,000 Californians as of 2017.<sup>22</sup>

If there are significant cobalt supply shortages they will likely result in production delays of those products and applications where cobalt is a critical component, and such production delays have the greatest potential to result in significant price increases to consumers and other end users.<sup>23</sup> Even without a significant supply shortage, any cobalt price increase will increase product prices and result in higher costs for consumers, businesses, and public services such as transportation, facilities, and healthcare.<sup>24</sup>

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20. *Id.*, pp. 5, 11, 84.

21. *Id.*, pp. 84-85.

22. *Id.*, pp. 84-85.

23. *Id.*, p. 85.

24. *Id.*, p. 85.



Of course, the effect on individual California companies will vary depending on the extent to which they rely on cobalt-dependent components. For consumers, the most significant impact would likely be the prices for consumer electronics.<sup>25</sup>

It is estimated that a 1% increase in the prices for consumer electronics would cost California consumers around \$400 million annually.<sup>26</sup> While some consumer electronics companies would absorb higher costs in the short run, longer term cobalt supply issues would be more likely to translate into higher consumers prices.<sup>27</sup>

#### **E. The Economic and Political Consequences of Reliance On, and Expansion of, Existing Cobalt Supplies**

Cobalt is the battery-critical material that is most likely to be in short supply.<sup>28</sup> As of 2019, mining in the Democratic Republic of the Congo (DRC) supplied more than half of the world's cobalt, and it is expected to supply three-quarters by 2025.<sup>29</sup> Because, as discussed above, projections through 2025 indicate that all or more of the world's current mining output will be required to meet the cobalt demands of *non-vehicle* applications, the additional cobalt necessary to supply electric vehicles will have to

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25. *Id.*, p. 86.

26. *Id.*, p. 86.

27. *Id.*, p. 86.

28. *Id.*, pp. 10, 52.

29. *Id.*, pp. 5, 11, 58-60, 86, 91.

depend on expanded mining, almost all of which will also be located in the DRC.<sup>30</sup> However, decades of civil unrest and war in the DRC, which shows no sign of abating, have led to frequent disruption of mining operations and global minerals supplies.<sup>31</sup> While China-based companies have moved to invest and assert increasing control over DRC mines, that circumstance introduces a different risk of harm to the California (and by extension) U.S. economy if China's national policies lead to monopolistic practices.<sup>32</sup>

Further, the unavoidable reliance on DRC-based mines as the critical supplier of cobalt necessarily entails acceptance of, if not tacit support for, the prevailing mining conditions in the DRC. A substantial component of the DRC's cobalt production comes from subsistence, artisanal mining in unsafe working conditions utilizing child labor, which are also associated with other worker and human rights abuses.<sup>33</sup> While foreign governments and companies may make efforts to get future cobalt from the DRC under "ethical" and child-labor-free conditions, the effectiveness of these efforts will depend on the unlikely emergence of administrative and political conditions in the DRC, including control of corruption, that have not existed for several decades.<sup>34</sup> Corruption, in particular, has drained the DRC of mineral revenues necessary for basic mine maintenance, leading to the physical collapse

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30. *Id.*, pp. 5, 60, 64, 69, 91-92.

31. *Id.*, pp. 13, 75-76, 86-87, 92.

32. *Id.*, pp. 64, 70-73, 87.

33. *Id.*, pp. 3, 5, 13, 66-67, 92.

34. *Id.*, pp. 6, 11, 67, 76-77, 92.

of mines.<sup>35</sup> And with two-thirds of the DRC population living in extreme poverty (with income of less than \$1.50 a day), and with most other income options having been destroyed by decades of civil unrest and war, the economic incentives to retain the DRC's cobalt supply industry in its present form will only increase.<sup>36</sup>

Further compounding the risks of cobalt reliance, is the fact that cobalt is mined as a co-product of copper and nickel.<sup>37</sup> Therefore, an additional, significant barrier to the expansion of cobalt mining capacity is the influence of global price and supply conditions for nickel and copper. Even large increases in cobalt prices will likely have little effect on the total amount produced by mines.<sup>38</sup> Illustrating this phenomenon, production of cobalt declined in 2017 due to a slump in Chinese demand for copper and nickel, even as the prices for cobalt rose dramatically.<sup>39</sup>

#### **F. The Economic and Political Consequences Undermining Protection of Marine Resources, Human Rights, Energy Independence, and National Security**

While ample, alternative cobalt resources exist to meet the needs of electric vehicles, they are located in deep

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35. *Id.*, pp. 6, 13, 86.

36. *Id.*, pp. 6, 11, 65, 67, 85, 92.

37. *Id.*, pp. 58, 63.

38. *Id.*, pp. 11, 63-64, 91.

39. *Id.*, pp. 11, 63, 64, 91.

seabed deposits.<sup>40</sup> Even if those marine resources could be tapped on an economical basis (which they presently cannot be), any such efforts on or near the California coast would most certainly generate, and have to overcome, considerable environmental opposition.<sup>41</sup>

Ironically, the electric vehicle policies that California set in motion have now caused other nations to consider exploiting marine cobalt deposits in the same sorts of marine environments that California has historically sought to protect.<sup>42</sup>

California, like other states, has long been willing to passively consume products that have been produced elsewhere under conditions – humanitarian and environmental – that California would not allow to occur within its jurisdiction. But cobalt supply for electric vehicles will present a dramatically different scenario where it is actually California’s own policies that drive the occurrence of these objectionable practices around the globe.

California’s mandated sales targets for electric vehicles will not only require expanded mining, but also the expansion of the capacity to refine the materials and produce battery cells. Such facilities will need to be quickly sited, permitted, and constructed – on expedited timelines that California does not allow for even its most

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40. *Id.*, pp. 12, 61-63, 93.

41. *Id.*, pp. 12, 93.

42. *Id.*, pp. 12, 63, 93.

urgent economic problems, such as housing.<sup>43</sup> Battery cell production has become highly concentrated in East Asia countries as a result of aggressive industrial policies to develop that capacity, including government subsidies.<sup>44</sup> Thus, while China and the other East Asian nations are expanding their materials refining and battery cell capacity, California has yet to even consider changes to its California Environmental Quality Act (CEQA), permitting, and other regulations to shorten delays.<sup>45</sup>

The cost efficiencies that have been created in East Asia's battery supply clusters likely means that this concentration of the battery cell industry in East Asia will endure, if not expand.<sup>46</sup> The net result of this unprecedented commitment to, and impending reliance on, a single and increasingly-foreign energy source is to reverse the U.S.'s steady progress towards energy independence and greater national security.<sup>47</sup> By comparison, when U.S. dependence on OPEC oil production peaked in 1977 it accounted for only one-third of U.S. consumption, and it had dropped to only 17% by 2017.<sup>48</sup>

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43. *Id.*, p. 93.

44. *Id.*, pp. 4, 8, 18, 20-23, 92.

45. *Id.*, p. 92.

46. *Id.*, pp. 8, 21, 23-25.

47. *Id.*, pp. 25, 92.

48. *Id.*, pp. 6, 86.

### **G. The Economic Consequences of Mineral Shortages are Not Limited to Cobalt**

Finally, it should be noted that while this amicus brief has focused on cobalt as a key battery-critical mineral, similar production constraints and impacts also exist for other minerals. A study by the International Energy Agency (IEA) anticipates that by 2026 for copper and 2028 for lithium (as well as cobalt) demand will exceed production from both current mining operations and those now under construction. “The Role of Critical Minerals in Clean Energy Transitions,” International Energy Agency (March 2022) (“IEA Study 2022”), p. 119.<sup>49</sup> Other assessments expect nickel demand (Class 1 nickel) to also exceed supply as soon as 2026. “Nickel shortage spells trouble for EVs – report,” E&E News (October 13, 2021).<sup>50</sup> The IEA study further noted:

Our analysis suggests that it has taken on average over 16 years to move mining projects from discovery to first production. These long lead times raise questions about the ability of suppliers to ramp up output if demand were to pick up rapidly. If companies wait for deficits to emerge before committing to new projects, this could lead to a prolonged period of market tightness and price volatility.

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49. <https://iea.blob.core.windows.net/assets/ffd2a83b-8c30-4e9d-980a-2b6d9a86fdc/TheRoleofCriticalMineralsinCleanEnergyTransitions.pdf>.

50. <https://www.eenews.net/articles/nickel-shortage-spells-trouble-for-evs-report/>.

**CONCLUSION**

For the foregoing reasons, this Court should grant Petitioners' Petition for Writ of Certiorari.

August 7, 2024

Respectfully submitted,

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