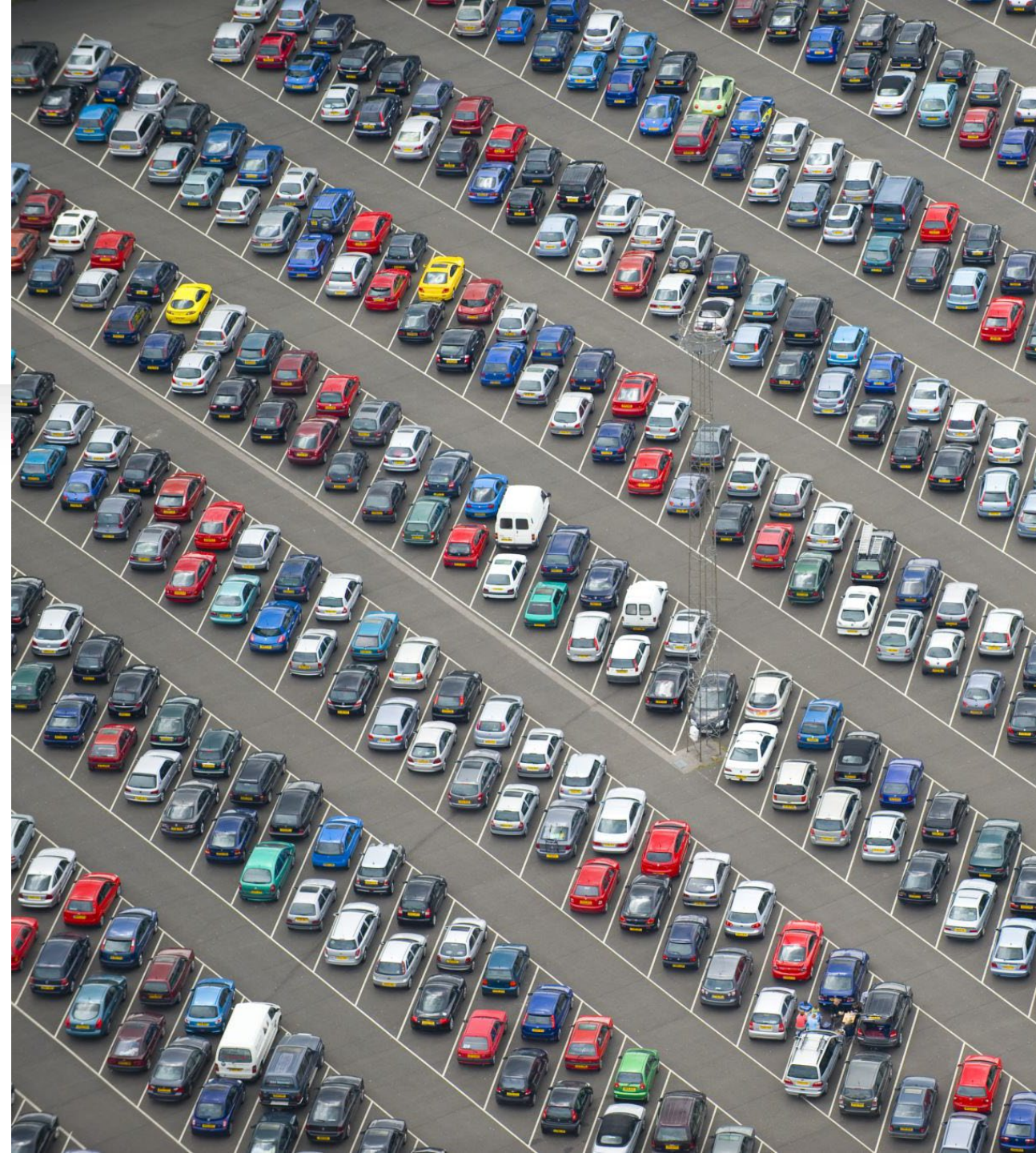


NHTSA Final Rule:  
Corporate Average Fuel Economy Standards for Passenger  
Cars and Light Duty Trucks for Model Years 2027-2032 and  
Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and  
Vans for Model Years 2030-2035

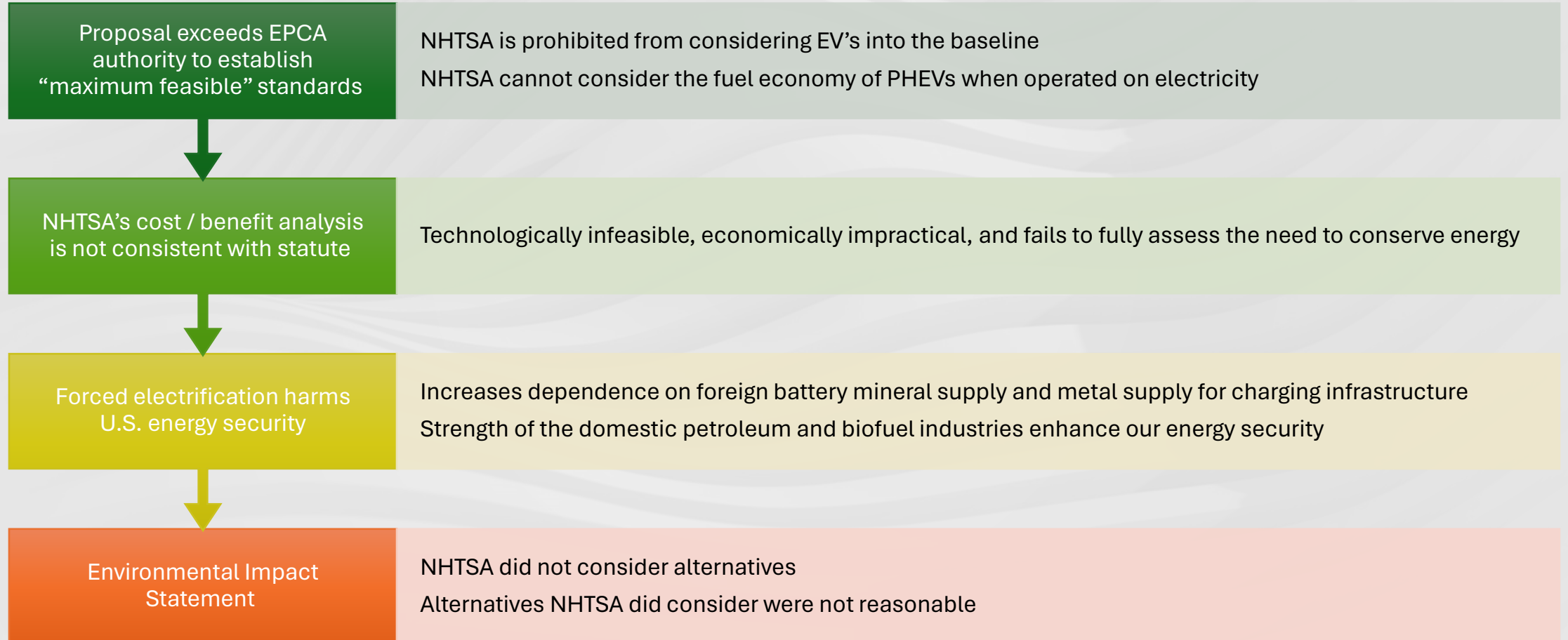
American Fuel & Petrochemical Manufacturers  
June 3, 2024

# What We Support

- Technology neutral policies that reduce greenhouse gas emissions and improve the fuel efficiency of our nation's transportation fleet.
- CAFE standards grounded in the legal authority granted by Congress.
- Technically and economically feasible fuel economy standards that are accurate and achievable by internal combustion engine vehicles (ICEVs).
- Maintaining the energy and national security.



# NHTSA Final Rule





# The Final Standards Exceed EPCA Authority

NHTSA inappropriately incorporated EV's into the baseline, which inflates the alternatives evaluated and standards to effectively establish an EV mandate. In setting fuel economy standards, NHTSA

- “May not consider the fuel economy of dedicated automobiles” (i.e., EVs). 49 USC 32902(h)(1).
- “Shall consider dual fueled automobiles to be operated *only* on gasoline or diesel fuel. 49 USC 32902(h)(2).

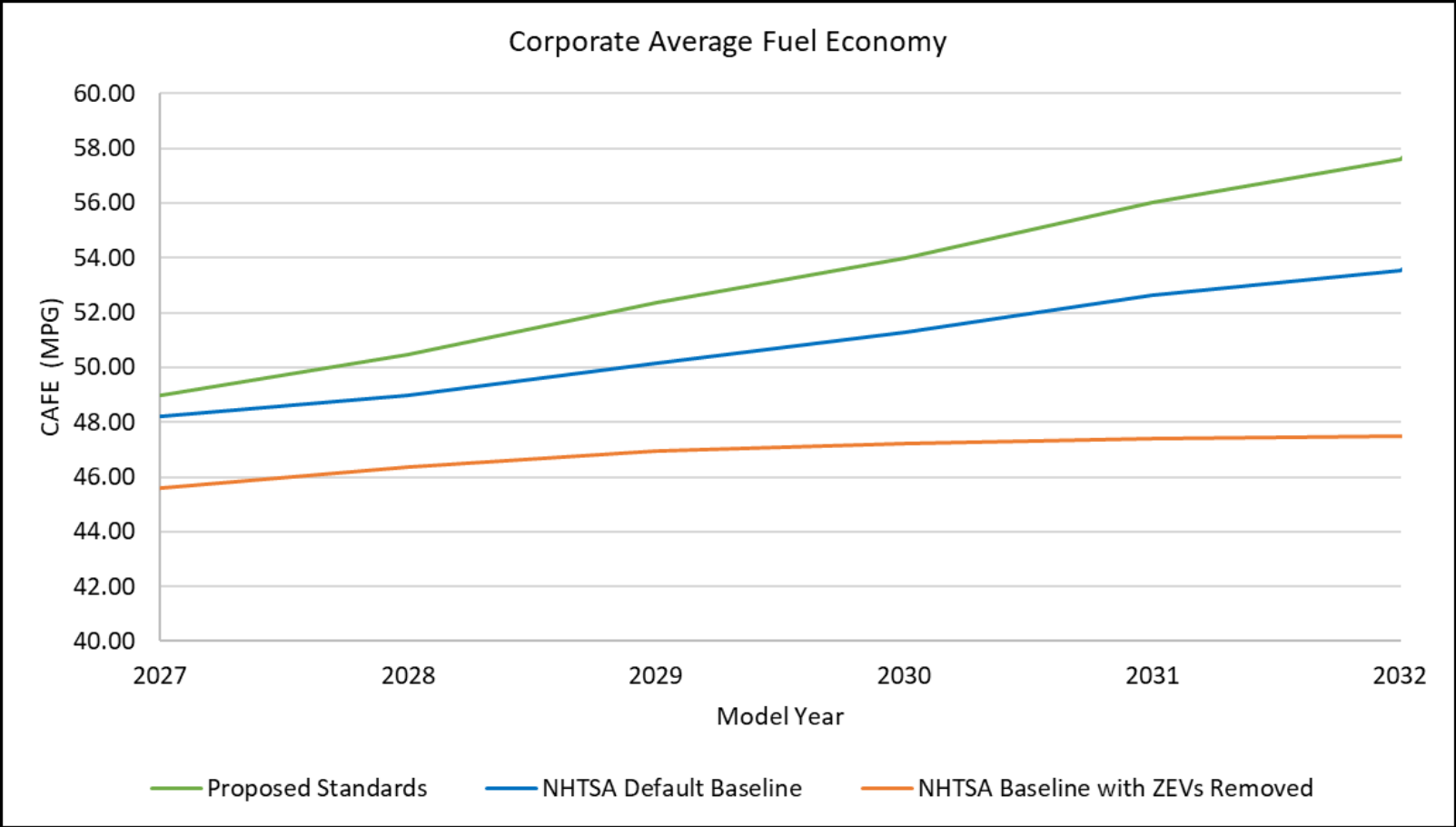
When considering the statutory factors in 49 USC § 32902(f), NHTSA improperly included the fuel economy of EVs when deciding maximum feasible average fuel economy and applied overly optimistic EV penetration rates

NHTSA acknowledged it “has not taken the additional step of removing BEVs from the baseline fleet.” 88 Fed. Reg. 56,319.

- Inexplicably, NHTSA complies with Section 32902(h)(2)’s matching requirement by considering dual-fueled vehicles (e.g., plug-in hybrid electric vehicles or (PHEVs)) to operate *only* on gasoline or diesel fuel and *excluded* from the baseline the electric portion of PHEV operation.
- The resulting proposal is not achievable with ICEV’s alone.

Congress intended dedicated vehicles like EV’s to be a compliance flexibility, not a requirement

# Trinity Consultant's Analysis of Eliminating EVs from the Proposed Baseline Fleet Fuel Economy



# NHTSA Failed to Establish “Maximum Feasible” Standards

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- The final CAFE standards are
  - Technically infeasible within the standard setting years
    - Critical mineral supply for batteries and metals for charging infrastructure may be inadequate
    - The US electrical generation and grid, as well as charging infrastructure are not sufficient
    - Changes to the Department of Energy’s (DOE) final rule changing to the petroleum equivalency factor (PEF) impact feasibility and were not evaluated or subject to public comment
  - Economically impracticable
    - Consumers will face significantly higher vehicle costs by grossly understating battery and EV costs
      - In the near term, OEMs will cross-subsidize the higher production costs of EVs by increasing the price of ICEVs
      - In the long-term, the de facto EV mandate will raise EV costs due to the loss of cross-subsidization
    - Failure to account for costs to upgrade and expand the electric grid
    - No accounting for loss of fuel tax revenue (Highway Trust Fund)


# NHTSA Failed to Establish “Maximum Feasible” Standards (cont’d)

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- Contrary to the plain language of the statute, NHTSA improperly considered
  - California’s Advanced Clean Cars II “zero emissions vehicle” mandate that has not received a preemption waiver.
  - EPA’s MY 2024-2026 GHG standards
- The statutory requirement to conserve energy is not appropriately addressed
  - NHTSA assesses the fuel economy of ICEVs and EVs differently (ICEVs evaluated at speeds up to 80 mph, in varying temperatures, and higher acceleration rates) using the Federal Test Procedures-75, the Highway Fuel Economy Test, and High-Speed Driving, while EVs are tested at speeds never exceeding 60 mph, a lower acceleration rate, and at optimal battery performance temperatures of 75 degrees.
  - NHTSA underestimated energy consumption of EVs by failing to evaluate them on a lifecycle basis
  - Assumptions regarding EV driving patterns are inaccurate and fail to account for the fact that many EV owners buy second cars, wiping out supposed fuel efficiency savings



# Deficient Cost / Benefit Analysis

- NHTSA assumed unrealistically lower costs to produce batteries and EVs
    - Higher purchase prices will dampen EV penetration rates and reduce fleet turnover, resulting in higher emissions from older vehicles
  - The final standards will lead to cross-subsidization in the near term and dramatically higher vehicle costs in the long-term
  - NHTSA did not account for the true total cost of EV ownership
  - The cost to upgrade and expand the grid not satisfactorily considered
  - The public did not have an opportunity to assess new PEF's the cost impacts (e.g., compliance penalties and cross-subsidization)
- 



# The Final Standards for heavy-Duty Pickup Trucks and Vans (HDPUVs Violate NHTSA's Statutory Authority

- The HDPUV standards are not appropriate
  - NHTSA ignored national and energy security
  - NHTSA overestimated energy conservation
  - The environmental benefits of HDPUVs over-estimated, while HDPUV ICEVs are underestimated
- The final standards are not cost-effective
- The standards are not technically feasible within the standard setting years

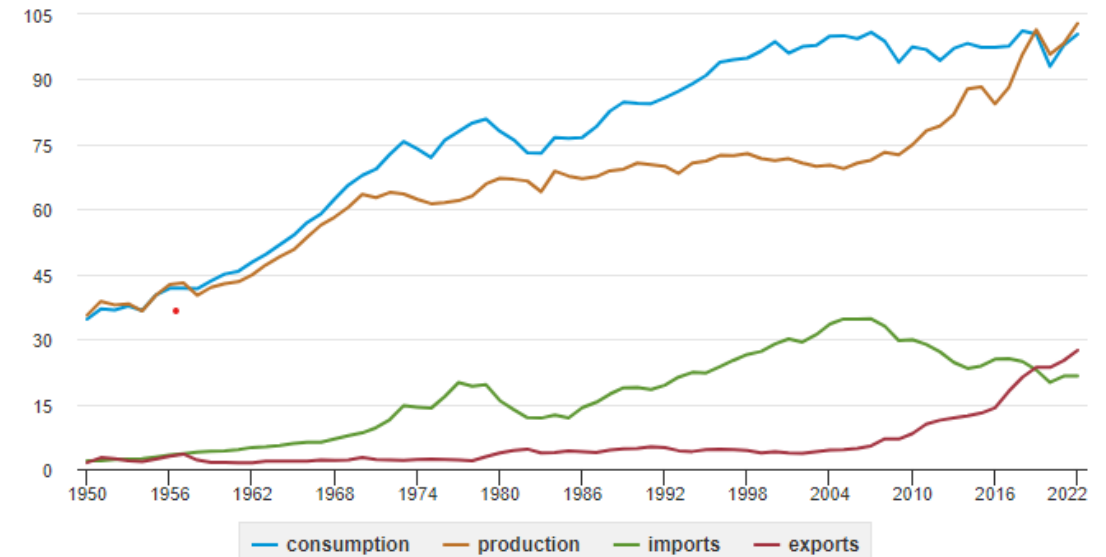


# North America is Energy Independent

- EIA reports the United States has been an annual net total energy exporter since 2019
- Strength of the domestic crude, refining, and biofuel industries improves our energy security
  - U.S. is a net exporter of crude oil and petroleum products.

U.S. primary energy overview, 1950-2022

quadrillion British thermal units



Data source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 1.1, April 2023, preliminary data for 2022

# The Final CAFE Standards Forfeit National Security

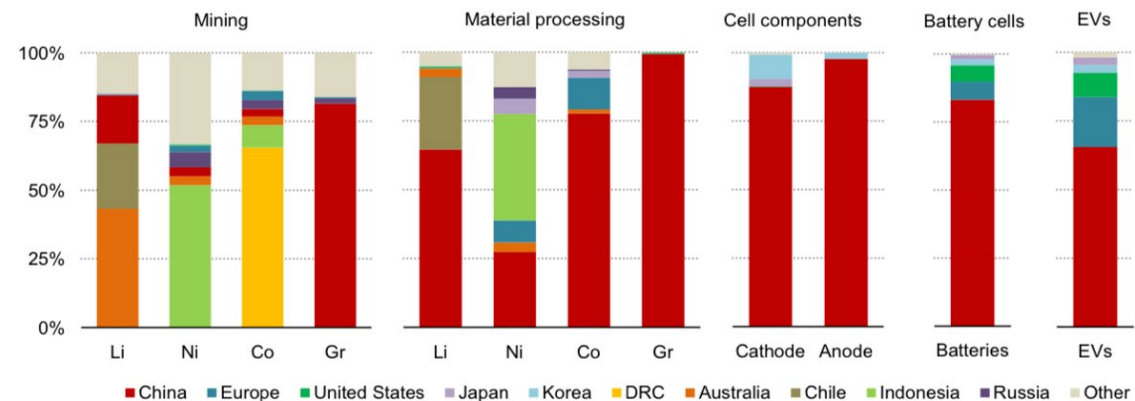
- OEMs likely to be dependent on foreign suppliers for battery minerals
  - China has a controlling position in the material extraction, processing, and battery production necessary to produce EVs.

Global Critical Minerals Outlook 2024

1. Market review

## China dominates the downstream and midstream global EV battery supply chain

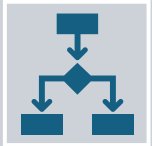
Geographical distribution of the global EV battery supply chain, 2023



IEA. CC BY 4.0.

Notes: Li = lithium; Ni = nickel; Co = cobalt; Gr = graphite; DRC = Democratic Republic of the Congo. Geographical breakdown refers to the country where the production occurs. Mining is based on production data. Material processing is based on refining production data. Cell component production is based on cathode and anode material production capacity data. Battery cells are based on battery cell production capacity data. EVs are based on electric cars production data. For all minerals mining and refining shows total production not only that used in EVs. Graphite refining refers to spherical graphite production only.  
Sources: IEA analysis based on EV Volumes; Benchmark Mineral Intelligence; BloombergNEF.

# The Draft Environmental Impact Statement Was Inadequate



Failed to consider “reasonable alternatives” as required by the National Environmental Policy Act, 42 USC § 4321 et seq.

All alternatives violated EPCA because they included EVs in the baseline

Two alternatives are infeasible within the standard setting years

None of the alternatives can be achieved by ICEVs



The DEIS overestimates energy conservation potential

Different vehicle testing protocols

Unsupported assumptions about vehicle miles traveled

Ignores fact that EV owners may buy a second, larger car



The DEIS underestimates the environmental consequences of the final standards

Overestimates EV range and EV useful life

Battery disposal and scrappage not adequately considered

Lifecycle analysis of operating EVs (e.g., buildout of the grid and charging infrastructure) ignored

Resource depletion resulting from providing reliable and affordable electricity must be accounted for



Thank You