California Business Roundtable

May 31, 2022

Chair Laine Randolph and Members
California Air Resources Board
1011 I Street
Sacramento, CA 95814

RE: Advanced Clean Cars II Regulation

Working Californians continue to struggle with a cost-of-living crisis that is driving our worst-in-the-nation poverty rate and denying a generation of residents the opportunity of upward economic mobility. Much of the increased costs facing families comes directly from increased energy and transportation costs, especially electricity and gasoline prices. We strongly support the state's climate change goals and are proud of the leadership California businesses have demonstrated in moving forward a national and international dialogue on reducing greenhouse gas emissions. However, it is important as we work toward achieving these goals, we do not do so on the backs of California's working families and those who can least afford it.

Unfortunately, in reviewing the Advanced Clean Cars II Regulation, this proposal will do just that—force those who can least afford it to pay the most, creating a de facto regressive tax. It will also do economic harm, further erode economic upward mobility, and cost the state well-paying jobs. If other states are going to follow California's ambitious lead on these regulations to address climate change, we must lead in a way that shows we can balance economic growth, create jobs, drive economic opportunity, and control costs for working families. The Advance Clean Car II Regulation does not accomplish these goals.

A Regressive Tax on Working Families
The Advanced Clean Cars II Regulation would further drive-up energy and transportation costs, which disproportionately affect those who can least afford them. The Advanced Clean Cars II Regulation would be a de facto regressive tax on working families.

According to the Center for Jobs and the Economy's April 2022, State Progress on Zero Emissions Vehicle Goals: Q4 2021, "Using data points from the state's recent announcement of the one millionth ZEV sold in the state, direct state and federal subsidies have enabled **only 3% of these ZEVs (broadly defined) to be purchased by low income households**, while all households—low, medium, and high income—pay for those subsidies directly through higher costs of energy and other goods subject to the greenhouse gas credits, the cost of tax credits and other subsidies, and indirectly through higher vehicle prices (new and used) incorporating the cost of the state and federal regulatory credits."

Beyond the direct cost of ZEV vehicle purchases, the Advanced Clean Car II Regulation fails to recognize the diverse needs of the state and its residents. Due to the state's housing crisis, lower-income families have been forced farther and farther away from their workplace to find affordable housing. These families pay higher transportation costs and higher electricity costs—up to 70 percent higher than affluent coastal residents who can afford to live in more temperate climates and closer to work hubs.

The Advanced Clean Cars II Regulation will impact lower-wage workers in two ways: first, the Regulation ignores the transportation demands on working families by eliminating vehicle options with higher travel ranges; second, it will drive up the cost of ZEVs further out of reach. In fact, the California Department of Finance found that, "the regulations are expected to increase the cost of vehicle ownership by an average of just under $6,000 per car between 2026 and 2035," largely driven by the higher purchase price of ZEVs and by increased power consumption. Forcing these families to remain in affordable traditional vehicles while gas prices rise even higher will drive up their cost-of-living even higher.

A Significant Loss of Jobs and Economic Output

The Advanced Clean Car II Regulation will likely cost California more than 85,000 jobs and result in lower household incomes. Given the myriad other regulations and barriers to business investment in this state, ZEV component manufacturing is not siting or growing in our state. There will be little to no replacement "green jobs" to account for this significant economic loss. Again, according to the recent *Center for Jobs* report:

> *California does have the original Tesla plant, but Tesla chose that location because the closure of NUMMI spun off a vacant automotive plant capable of quick retrofitting, thereby avoiding the state's long and litigious approval processes that otherwise could have delayed the company for years. As the company has expanded, greenfield facilities instead have gone to Nevada, China, Germany, and Texas. Faraday Future continues activities related to opening production at another former automotive parts plant in Hanford, but the company has been proposing capacity in California or Nevada since at least 2014 and continues to encounter both financial issues and turnover in its key management. The company instead now appears to be pursuing high volume production through a subcontractor in South Korea. Karma Automotive continues to produce luxury electric vehicles in California, but its overall volume is small compared to other producers and even former Karma executives seeking to launch their own company by resurrecting the DeLorean as a ZEV have chosen to build in Texas instead.*
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> *Other California-based companies while maintaining their headquarters here for now, have placed the production side of their operations and its far more numerous jobs and larger tax base elsewhere, including Lucid (Arizona), Mullen (Tennessee), Rivian (Illinois and Georgia), VinFast (Kentucky), Battle Motors (Ohio), Xos (Tennessee), and Fisker (Austria and India) as are suppliers such as CellLink (Texas) and Simwon America (Texas) as they expand to be near the new electric vehicle production centers in the Southeastern and Southwestern states. Others have moved their full operations, including Canoo (Texas and Oklahoma), Noodoe EV (Houston), REE Automotive (Austin), and Envirotech (Arkansas). Still other manufacturers are bypassing California altogether, including Ford (Tennessee and Mexico), GM (Michigan), Hyundai (Alabama), Honda (Ontario, Canada), and Arrival Automotive (North Carolina), along with related facilities such as the Tritium DCFC Ltd. charging station factory (Tennessee) recently showcased by the White House and ZEV parts manufacturers TEKLAS (Georgia) and GEDIA Automotive Group (Georgia). Even electric tugboats intended to comply with the electrification mandates on the state's ports are now being produced in Alabama.*
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> *The anywhere-but-California trend extends as well to the batteries that constitute a third or more of the total ZEV cost base. Other than Tesla's Gigafactory in Nevada, current battery pack production is heavily concentrated in China, while battery cell production is heavily concentrated in Japan and South Korea along with China. In 2021, the top three producers—CATL (China), LG Energy Solution (South Korea), and Panasonic (Japan)—accounted for 68.7% of global electric vehicle battery production, while all producers within these three countries produced 93.9%.*

This situation is about to change as a number of new battery plants are now being completed (Tesla in Texas) or have been recently announced in the North American market. In addition, Mullen just announced it will begin battery pack assembly at its California facility in Monrovia to fulfill its own needs, but its most recent 10-K filing also states that it intends to eventually consolidate all manufacturing at its Tennessee facility after that expansion is complete.

As California continues to transform its economy through energy policy, we must ensure that the state is investing in helping employers grow wage-comparable jobs. For example, we cannot replace high-wage energy sector jobs with lower-wage and short-term solar installation jobs. Otherwise, we are eliminating important rungs in the economic ladder, further eroding middle-wage jobs and creating even more instability in our economic outlook.

Further Exacerbates Reliance on Foreign Energy Sources

Lastly, the mandate for electric-only vehicles will further increase the state's reliance on foreign countries and a destabilized supply chain structure. The shift to ZEVs not only eliminates a domestic jobs base, it substantially increases dependence on minerals mostly produced in other countries, not only those needed for ZEV batteries but as well for expansion of generation, transmission, and charging capacity to keep them running. As recently acknowledged by President Biden, *"China controls most of the global market of these minerals, and the fact is that we can't build a future that's made in America if we ourselves are dependent on China for the materials, the power, the products."*

China by itself produces few of these energy-critical minerals other than rare earths and graphite, but mining production currently is concentrated within a few countries to the point that, with the primary exception of nickel, it has been possible for Chinese companies to centralize access to a large portion of current global exported supplies. More critically, processing of those ores consequently is even more concentrated within China.

As stated in the Center for Jobs report:

The key minerals [for ZEVs] are far more concentrated and consequently carry an elevated risk stemming from future trade disruptions, problems arising at the centralized mining and processing locations, and supply chain interruptions such as the current war in Ukraine. As an example, the collapse of a single cobalt mine (Kobato mine in Democratic Republic of the Congo (DRC)) in 1990 as the result of corruption caused prices to nearly double, moderated only by recession in that period. Cobalt prices again nearly doubled in 1992 as riots and looting affected a larger cobalt mining region in the DRC. The risk from centralized commodities is both that prices can rise and that supplies will not flow.

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The current strained supply conditions from clean energy shifts exacerbated by supply disruptions stemming from pandemic shutdowns in China and from Russian sanctions due to its war on Ukraine have already sent prices soaring for the affected materials. These price spikes in turn have already caused Tesla, other ZEV producers, and vehicle producers overall to add to inflationary pressures through higher prices. ***The more narrowly traded but battery critical graphite alone has risen more than a third so far this year****. And while recent rises in gasoline prices have renewed concerns over national energy policies,* ***the inflation potential from materials prices—which have ranged up to 10 times higher for lithium than for crude oil****—has so far been moderated only by the low national and global market share to date for ZEVs and related vehicles.*

The world is feeling the ripple effects of supply chain disruptions that will likely last for years. Beyond the backlog at our ports, shutdowns in China have left hundreds of ships waiting to offload raw materials needed for the production of critical component parts and batteries needed to meet the mandates in the Advance Clean Cars II. This uncertainty and long-term inability to predict market conditions and raw material supply have already caused some ZEV manufacturers to reduce 2022 production projections. We have all seen the impact of supply chain disruptions and the ongoing war in Ukraine have had on inflation and the cost of living. Mandating transportation options that are acutely vulnerable to this short- and long-term instability will only create future unpredictability in the cost, availability and feasibility of ZEV vehicles and supporting technologies and infrastructure.

These risks are all exacerbated by the fact that both the mining and processing of materials essential to the fulfillment of the proposed regulation are concentrated to an extraordinary degree in only a few nations, including copper, class 1 nickel, lithium, cobalt, graphite, rare earth elements, and others. This situation is in sharp contrast to the current environment, in which fuels for the state's overall transportation fleet considered as a whole are far more diversified and to a far greater extent are produced from more stable and more reliant domestic sources.

Adding to these risks, California is not the only entity pursuing these changes. Consequently, there are considerable uncertainties over whether the required materials will be available and at what cost. The International Energy Agency in their May 2021 report The Role of Critical Minerals in Clean Energy Transitions, anticipates that demand just from their lower range projections will exceed production from both current mining operations and those now under construction by 2028 for lithium and cobalt, and by 2026 for copper. Other assessments expect nickel demand to exceed supply in 2026 as well. Another recent analysis from BloombergNEF expects cumulative demand to exceed known reserves for lithium, cobalt, and nickel by 2045 under their Net Zero scenario.

If California is going to lead, we have to ensure we are allowing employers to create not just green jobs, but a green job ladder that allows for economic upward mobility seen in the traditional energy, manufacturing and other industry sectors.

For these reasons, we strongly encourage you and your colleagues to re-evaluate the Advanced Clean Cars II Regulation, which, as written, will drive up the cost of living and force those who can least afford it to pay the most for the state's climate change policies.

Thank you,

ROBERT C. LAPSLEY
President