May 31, 2022

Chair Randolph and Members of the Board
California Air Resources Board

1001 I Street
Sacramento, CA 95814

Dear Chair Randolph, Members of the Board, and Staff:

On behalf of Sierra Club California and our more than 500,000 members and supporters throughout California, thank you for the opportunity to comment and to advocate for a strong, equitable Advanced Clean Cars II (ACC II) rule.

California was once a global leader in technology-forcing Zero Emission Vehicle (ZEV) policy (and thus ZEV adoption). Now, the state is lagging behind countries throughout the world. Even as California had an incredibly encouraging first quarter of 2022 as 16.32% of new cars were ZEVs,[1] some European countries are leaving California in the dust. In the fourth quarter of 2021 excluding Plug-In Hybrid Electric Vehicles (PHEVs), Norway (75%), Netherlands (42%), Sweden (33%) and Denmark (22%) have achieved extraordinary ZEV sales.[2]

The ACC II rule is not only an opportunity for California to take back its position as a global ZEV leader, it is also a critically important opportunity to clean the air, especially in the most overburdened communities, and slow the climate crisis.

According to the American Lung Association's most recent State of the Air Report, [3] California is home to seven of the country's top ten most polluted cities for ozone pollution. Further, the most recent IPCC report states "The cumulative scientific evidence is unequivocal: Climate change is a threat to human well-being and planetary health. Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all."[4]

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[1]https://www.gov.ca.gov/2022/05/10/as-statewide-zev-sales-exceed-16-percent-of-all-new-vehicles-california-zev-program-surpasses-250000-point-of-sale-incentives/
[2] *Zero-Emission Vehicles Progress Dashboard*, Slide 4, https://assets.bbhub.io/professional/sites/24/BloombergNEF-Zero-Emission-Vehicles-Progress-Dashboard-May-2022.pdf
[3] https://www.lung.org/research/sota/city-rankings/most-polluted-cities
[4] *Climate Change 2022 Impacts, Adaptation and Vulnerability Summary for Policymakers*, Page 35, https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf

The light duty transportation sector (cars) emits 13% of the state's smog forming NOx emissions and 28% of its greenhouse gas emissions.[5] California therefore must establish a rule that ramps up Zero Emission Vehicle (ZEV) sales requirements and ensures that the benefits of the zero-emission future are not only felt by affluent Californians, but also those in frontline communities that have historically bore the brunt of air pollution and climate impacts.

The Draft Rule Includes Important Measures That Must Be Adopted

We thank CARB staff for proposing a number of measures that we support and believe should be adopted.

First and most importantly, the proposal to achieve 100% ZEV sales by 2035 is historic. This is a milestone that is not only critical, but it is also completely feasible. California's aforementioned 16.12% ZEV sales percentage came during a quarter with historic supply chain shortages generally and specifically for automobiles, a period of unprecedented inflation, and at the tail end of the worst of a global pandemic (hopefully). As the supply chain and economy catches up, ZEV sales will climb even more quickly.

ZEVs are quieter, cleaner and more fun to drive than Internal Combustion Engine (ICE) vehicles, but our optimism for their continued growth is based on more than anecdotes. According to a 2020 survey conducted by Consumer reports, 71 percent of U.S. drivers say they would consider buying one at some point in the future, and nearly one third indicated interest in an EV for their next vehicle purchase.[6] This same survey found that the largest barrier to EV adoption continues to be high upfront cost, but as EV prices continue to drop as projected potentially achieving parity with ICE vehicles by 2025, interest will skyrocket.[7]

Second, we appreciate the proposed emission standards that will continue to drive down pollution from ICE vehicles sold in the state. These cars will be on the road for an average of 11.4 years[8] and, since they are going to be polluting that entire time, it is imperative that they are as clean as possible and their emission controls are long-lasting.

Finally, we support the battery warranty and ZEV assurance proposals as they will ensure that not only that consumers are satisfied with their first ZEV purchase, they will also lead to a robust used ZEV market.

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[5] 2020 Mobile Source Strategy, October 28, 2021 Staff Presentation, Slide 9, https://ww2.arb.ca.gov/sites/default/files/barcu/board/books/2021/102821/21-11-2pres.pdf
[6] https://www.consumerreports.org/hybrids-evs/cr-survey-shows-strong-interest-in-evs-a1481807376/
[7] *The EV Price Gap Narrows*, "EVs still reach price parity in almost all combinations by 2028 in the most pessimistic case, and by 2025 in the most optimistic scenario." https://www.bloomberg.com/news/newsletters/2021-05-25/hyperdrive-daily-the-ev-price-gap-narrows
[8] *Average Age of Automobiles and Trucks in Operation in the United States,* https://www.bts.gov/archive/publications/national_transportation_statistics/table_01_26#:~:text=The%20R.L.%20Polk%20Co.%2C%20Average,as%20of%20May%2026%2C%202015.

California Can and Should Be More Aggressive in the Years Leading Up to 2035

According to CARB's Mobile Source Strategy, for the state to attain the ozone National Ambient Air Quality Standard by 2031, light-duty ZEV sales must achieve 46% by 2026 and more than 70% in 2030 on the way to 100% sales in 2035. Sales targets below these would result in substantially higher NOx and GHG emissions.

Although we appreciate that the staff has increased the sales targets since the beginning of the rulemaking process, the current proposal still falls short of what CARB's Mobile Source Strategy says is necessary. Even if CARB is unwilling to strengthen in the early years - pre 2030 - the sales targets should be increased to at least 75% in 2030, especially given these targets are greater than actual sales given allowable use of ACC I credits and Early Compliance Values. Every year of lower sales requirements means thousands to millions fewer ZEVs on the road and thus more-polluted air and a more dangerous climate.

Higher sales targets leading up to 2035 are not only necessary, they are exceedingly feasible. Figure 6 on page 41 of the ACC II Initial Statement of Reasons (ISOR) shows that higher sales targets are achievable, particularly in 2030. CARB staff explored two key scenarios: an "ASAP scenario" where Original Equipment Manufacturers (OEMs) convert 100-percent of sales of model redesigns after 2026 to ZEVs and a "Slow Phase scenario" where large OEMs convert their models slowly over the next decade based on market share of ZEV models.

In the ASAP scenario (which is reasonable in a technology-forcing rule given recent ramp-ups in other countries and OEMs ZEV announcements), staff found that the state would achieve 90% sales by 2030. Even in the Slow Phase scenario, the state would achieve close to 80% sales by 2030. This Slow Phase scenario essentially represents business as usual with a small push from a regulator towards ZEV redesigns.

It is clear from CARB's own modeling of these scenarios that CARB *can* do more. It is clear from CARB's own modeling in the Mobile Source Strategy that it *must* do more.

The Equity Components of the ACC II Rule Must Be Mandatory (or at Least Strongly Encouraged)

Due to their historically high upfront cost, ZEVs have largely been adopted by affluent Californians, thus concentrating the criteria emission benefits of these vehicles in communities that are already likely to have clean air. While every ICE vehicle replaced with a ZEV is a climate victory, the state must do more to ensure that the communities that are overburdened by air pollution benefit from ZEV adoption as well. This means actually placing ZEVs in these communities.

CARB staff developed some creative ideas to increase ZEV adoption in disadvantaged communities. Each idea involves giving additional values toward the ZEV sales targets for:

1. ZEVs and PHEVs sold to a community-based clean mobility program at a discount

2. ZEVs and PHEVs coming off-lease in California and delivered to a California dealership for purposes of participating in a low-income used ZEV financial assistance program
3. Low MSRP ZEVs and PHEVs (less than or equal to $20,275 for passenger cars and less than or equal to $26,670 for light-duty trucks)

If taken advantage of by OEMs, each of these equity proposals has merit insofar as they would likely result in increased ZEV deployment in Disadvantaged Communities. Unfortunately, all of the proposals have two major flaws. First, none of them are mandatory so if an OEM can choose to ignore them entirely with little or no opportunity cost. Second, if OEMs do take advantage of these options, they would receive extra Values which count against the overall stringency of the rule resulting in few ZEVs on the road and increased GHG and criteria pollution.

Therefore, Sierra Club California - in solidarity with a number of environmental, environmental justice, and equity-focused NGOs - proposes that CARB make these equity provisions mandatory. Though we continue to believe this is a reasonable solution, we understand that CARB staff has expressed concerns with this approach.

Therefore, our organizations have also proposed an alternative. CARB could make the use of ACC I credits or other flexibilities in the rule conditional on participation in the equity proposals described above. This approach has the benefit of encouraging OEMs to place ZEVs in communities that need them the most without compromising the stringency of the Rule. We believe this approach is fair and if OEMs do not want to place their cars into the equity programs, they can simply comply with the ZEV sales targets without use of certain credits and/or values.

A Quick Word on Hydrogen

During a meeting with CARB staff in April, stakeholders were provided with a number of issues in the upcoming rule that were not fully decided. The value of a Fuel Cell ZEV (FCEV) was on this list. We believe that just as one battery-electric vehicle (BEV) counts a one (1) ZEV in staff's proposal, one FCEV should count as one (1) ZEV.

Battery electric vehicles make up the overwhelming majority of ZEVs on the road today and that is not expected to change as BEVs continue to get cheaper and more popular while FCEVs have remained costly and relatively unpopular.

While FCEV have zero tailpipe emissions, the well-to-tank renewable content of the hydrogen fueling these vehicles varies and can have a significant impact on how climate friendly they are.[9] We know that California's electric grid (aka the "fuel" for BEVs) is on a trajectory to achieve 100% renewable energy by 2045, but we have no such guarantee for hydrogen.

[9] Please see *Sierra Club blog: Hydrogen: Future of Clean Energy or a False Solution?* for more detail. https://www.sierraclub.org/articles/2022/01/hydrogen-future-clean-energy-or-false-solution

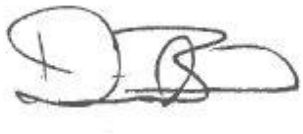
Because of this uncertainty regarding hydrogen and the fact that there is no added benefit of having more FCEVs on the road as opposed to BEVs, CARB should treat all ZEVs the same under this rule.

Going forward, the state should also reconsider how much it wants to support hydrogen for use in the light-duty transportation sector. Green electrolytic hydrogen will play a role in our zero-emission future, but due to the cost of producing it, it will also be limited. Therefore, the state may want to encourage its use in maritime, aviation, long-distance transportation, and other difficult to decarbonize sectors rather than the light-duty sector.

In Conclusion

California must adopt a stronger and more equitable ACC II rule than the one proposed by staff in the ISOR. The light duty transportation sector is one of the easier sectors the state is going to have to decarbonize in its path towards carbon neutrality and we cannot afford to leave any emissions on the table. Thank you for the opportunity to comment.

Sincerely,



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