October 22, 2021

Ms. Rajinder Sahota
Deputy Executive Officer - Climate Change & Research
Air Resources Board
1001 I Street
Sacramento, CA 95814

Subject: 2022 Scoping Plan Update

Dear Ms. Sahota,

The Alliance for Automotive Innovation (Auto Innovators)[1] appreciates the opportunity to provide comments on the California Air Resources Board's (CARB's) September 30, 2021, Scoping Plan workshop presentation. We appreciate the work by CARB staff to develop the scoping plan and understand the value of scoping plans as a yardstick to assess what could be required to meet various carbon neutrality timelines. However, the value of this yardstick is severely diminished without a rigorous analysis of the feasibility, costs, and impacts of various alternative scenarios.

Automakers are committed to net-zero carbon and electrification of the vehicle fleet. Today, automakers offer over 50 electric vehicles (EVs)[2] in every shape and size, from small cars to large cars, economy cars to luxury cars, minivans to SUVs, powered by fuel cells, batteries, and plug-in hybrid powertrains. This is just the beginning; we expect over 130 models in just the next few years. These vehicles are reliable, safe, efficient, affordable, and fun to drive.

Virtually every automaker has announced broad electrification plans, with several setting aspirational targets of 100% ZEV in the 2035 to 2045 timeframe. Automakers will invest over $330 billion by 2025. However, make no mistake: this is a dramatic transformation that will impact a vast swath of the U.S. economy – labor, home builders, automakers, suppliers,

[1] The Alliance for Automotive Innovation members include vehicle manufacturers (BMW, Ferrari, Ford, GM, Honda, Hyundai, Isuzu, Jaguar Land-Rover, Karma, Kia, Maserati, Mazda, Mercedes-Benz, Mitsubishi Motors, Nissan, Porsche, Stellantis, Subaru, Suzuki, Toyota, Volkswagen, and Volvo) that produce about 99% of the new vehicles sold in the United States, original equipment suppliers, technology companies, and other automotive-related companies and trade associations. The Alliance for Automotive Innovation is headquartered in Washington, DC, with offices in Southfield, MI and Sacramento, CA. For more information, visit our website http://www.autosinnovate.org.

[2] Unless otherwise noted, ZEVs or EVs in this document refers to fuel cell electric vehicles (FCEVs), battery electric vehicles (BEVs), and plug-in hybrid electric vehicles (PHEVs).

commercial builders, dealers, utilities, the oil industry, battery manufacturers, public and private fleets, hydrogen providers, and most importantly, customers.

Transformation will not come without a comprehensive approach that includes all sectors. The auto industry alone is projected to invest over $330 billion by 2025.[3] Of course, the $330 billion is only a down payment from automakers – it gets automakers to the 2026 ACC 2 start line, but it in no way provides compliance to the levels approaching 100 percent of new vehicle sales by 2035. Moreover, most of these investments – in vehicle assembly plants, battery manufacturing plans, mining and processing of critical minerals for battery production, and battery recycling – will take years to develop in the best of circumstances.

The preceding just gets the vehicles to the market. Successfully electrifying the entire new vehicle fleet by 2035 requires far more than just building cars. It requires a robust infrastructure for electric vehicle charging and hydrogen fueling. However, after a decade of hard work and dedication by CARB, the California Energy Commission (CEC), the California Public Utility Commission (CPUC), the Governor's office, and industry, we are still falling behind the infrastructure needed even in 2025 on the current trajectory toward 2035.

For example, the CEC's most recent electric vehicle charging report[4] concludes that California will need 1,164,000 public and private shared chargers across the state by 2030. As of January 4, 2021, there were about 70,000 shared chargers. An additional 123,000 are planned by 2025, leaving a gap of 971,000 chargers. Thus, California only has about 17 percent of the shared chargers needed by 2030 to be on a trajectory of 100 percent ZEVs by 2035.

Hydrogen refueling is not better where the state has 48 operational public fueling stations, less than half of what was expected 2 years ago, and less than one-fourth of the 200 hydrogen stations in Governor Brown's Executive Order B-48-18. Moreover, additional hydrogen supply and station redundancy are needed even for the 48 stations in operation.

A robust infrastructure is essential for a successful transformation to an all-electric fleet that is available, affordable, and accessible to all of California. As with vehicle production, achieving this will require years even in the best of circumstances.

Meeting the 2035 goal of a 100 percent ZEV new vehicle fleet will be incredibly challenging on every level if everything goes as planned, which it rarely does. Meeting that goal 5 or 10 years

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[3] See Alix Partners, *Automakers and Suppliers Need to Adopt 'All-New Ways Of Doing Business' to Master the Conversion to Electric Vehicles, Materials Shortages, the Rise of New Entrants and Other Disruptors such as Autonomy and Connectivity, says AlixPartners Analysis*, June 2021, Retrieved from https://www.alixpartners.com/media-center/press-releases/2021-alixpartners-global-automotive-outlook/ on September 1, 2021.

[4] Alexander, Matt, Noel Crisostomo, Wendell Krell, Jeffrey Lu, and Raja Ramesh. July 2021. Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment: Analyzing Charging Needs to Support Zero-Emission Vehicles in 2030 – Commission Report. California Energy Commission. Publication Number: CEC-600-2021-001-CMR.

earlier (as considered in Alternatives 1 and 2) simply does not seem feasible without stranding large parts of California and the California economy.

We are working with CARB staff to develop Advanced Clean Cars 2 (ACC 2). This rulemaking should include a rigorous analysis of the costs, feasibility, and impacts of meeting the 2035 goal of 100 percent ZEV. We believe the ACC 2 rulemaking is the appropriate venue and is consistent over a half century of CARB regulatory work.

We sincerely appreciate the work and thought that CARB staff has put into the 2022 scoping plan update and look forward to working with you. If you have any questions or need additional information, please don't hesitate to contact me.

Sincerely

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