June 23rd, 2022

VIA ELECTRONIC FILING

California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Draft 2022 Climate Change Scoping Plan

Dear Chair Randolph and Members of the Board,

On behalf of the undersigned companies, we are pleased to provide comments on the development of California's 2022 Climate Change Scoping Plan (the "Scoping Plan"). We appreciate the opportunity to engage with the Air Resources Board ("ARB") during this process and commend ARB staff and other agency partners on the thoroughness of consideration leading to the draft alternative proposals. As described within the Overview of the 2022 Scoping Plan, "it is paramount that we continue to build on California's success by… doubling down on implementation activities" and building on and integrating efforts already underway to reduce the state's GHG emissions. As such, many of our comments relate to the Low Carbon Fuel Standard ("LCFS") program. We intend to provide ARB more detailed recommendations regarding the LCFS when it begins stakeholder engagement on the LCFS later this year; to support future investments, innovation, and the pursuit of carbon neutrality, California's LCFS program requires meaningful adjustments.

Introduction

We believe that ARB should set aggressive goals and pursue ambitious policies that continue to put California at the forefront of the fight against climate change while also considering costs in order to guide the State to viable implementation strategies.

ARB proposes that its "Alternative 3" of the Scoping Plan best balances these dual objectives and is the appropriate path to carbon neutrality. We do not take a specific position on ARB's proposal or the alternatives but note the significant dependency in Alternative 3 on carbon dioxide removal ("CDR") technology to meet ARB's stated goals. While it is reasonable to expect that CDR will be an important component in any strategy to achieve California's climate goals, it is a novel technology. Maximizing emissions reductions when possible reduces the inherent risks associated with relying on deploying novel technologies, and we would therefore encourage ARB to reconsider emissions reductions goals above 78.1% by 2045.

As an example, emissions from the transportation sector are particularly important, and we believe our goal should be to reduce emissions from transportation by between 80% and 100% by 2045 at the latest. Many aspects of ARB's proposal for transportation align with this goal, including a target for 100% light-duty zero emissions vehicle (ZEV) sales in 2035 and a full transition of medium and heavy-duty sales to 100% ZEV by 2045. The automotive industry has collectively committed to investing over $500 billion dollars in electric and other low carbon vehicle technologies to help reduce emissions from transportation[1], but we believe the State can and should better leverage the LCFS as part of its strategy for achieving carbon neutrality in transportation.

The Low Carbon Fuel Standard

California's LCFS program has helped the State successfully reduce emissions from transportation[2] and has encouraged investment in low carbon fuels technology and new collaborations between disparate industries[3,4].

However, the long-term success of the LCFS program and its potential impact on transportation emissions is at risk if ARB does not move quickly to make several changes consistent with the goals of the Scoping Plan. The undersigned strongly support a "public process focused on options to increase the stringency and scope of the LCFS", as suggested in the draft of the Scoping Plan. ARB must ensure that: the stringency of the LCFS program sufficiently incentivizes future investments and innovations; stakeholders that are contributing to emissions reductions and poised to invest in California have sufficient opportunity to participate; and, the program is scientifically accurate.

1. **ARB should accelerate and extend the LCFS emissions reductions targets to be consistent with the goal of carbon neutrality by 2045.** We believe ARB should make changes to the LCFS emissions reductions targets with several specific objectives. Those changes and objectives are as follows:

   - ***New targets should stop the growth in the LCFS credit "bank" immediately and result in a bank that is fully depleted in 2030.*** The LCFS credit bank has grown significantly over the last 18 months. Based on modeling of LCFS fundamentals, including forecasts for declining high-carbon fuel consumption and increasing low-carbon fuel consumption, we anticipate that the bank will continue to grow, unless ARB updates the pre-2030 targets. ARB should both signal to market participants its intent to increase targets and set targets that result in two specific outcomes.

     First, the new targets should prevent the credit bank from growing further. Significant growth in the credit bank indicates that the market can meet the emissions reductions targets, which means the LCFS program has been successful but also strongly suggests that the stringency and scope of the program should be

[1] https://www.reuters.com/business/autos-transportation/exclusive-global-carmakers-now-target-515-billion-evs-batteries-2021-11-10/
[2] https://ww2.arb.ca.gov/resources/documents/lcfs-data-dashboard
[3] https://www.pge.com/en_US/about-pge/media-newsroom/news-details.page?pageID=3f587805-62e1-4ed3-95d8-16202b18175d&ts=1646763171385
[4] https://www.getcruise.com/news/farm-to-fleet-how-cruise-powers-its-self-driving-cars-with-clean-energy

increased and expanded. Clearly ARB can and should set a significantly more aggressive target for the first year that new targets become effective.

Second, the new targets should fully deplete the bank by 2030, if not sooner. A depleted or nearly depleted credit bank in 2030 would represent a successful phase of the program: the targets would have been aggressive but achievable, balancing the dual objectives of significantly reducing emissions from transportation while minimizing economic impact when possible. While ARB should err on the side of ambition, it should not set targets that industry cannot conceivably meet.

- ***ARB should adjust the pre-2030 targets to be more aggressive, beginning with the target for 2024.*** Setting more aggressive targets beginning with 2025 or 2026 will result in continued growth in the bank that will put consistent downward pressure on price and investment in low carbon transportation technologies now, when those investments are needed most. CARB should set new targets for the remainder of the decade, including for 2024.

- ***Communicate ARB's intent to align targets beyond 2030 to the Scoping Plan.*** While it may be difficult to set specific annual emissions targets decades in advance, ARB should make clear that it intends to align the LCFS program to its goal of carbon neutrality by targeting between an 80% and 100% carbon intensity reduction by 2045.

We believe that these new, more aggressive targets between 2024 and 2030 are particularly important to motivate investments, including in EV deployment and EV infrastructure, that will yield high dividends later, contributing to carbon neutrality in 2045.

2. **<u>ARB should consider several technical changes to how the LCFS functions that will improve the efficacy of the Program.</u>** We believe ARB can improve how the LCFS motivates investment in the State through technical changes to how the program functions.

- ***Expand the role of electric vehicle manufacturers in LCFS credit generation.*** EV manufacturers play a core role in enabling and accelerating the transition to EVs. Manufacturers enjoy comparatively strong relationships with consumers and act as primary distributors of information regarding the consumer and environmental benefits of EVs. Manufacturers also guide consumer preferences by providing compelling EV products, which are primarily responsible for the emissions reductions associated with EV adoption.

  The enhanced efficiency of EVs compared to internal combustion engine ("ICE") vehicles contributes to as much as a 70% reduction in energy use and, all else being equal, emissions associated with vehicle miles traveled[5]. These emissions reductions would not be possible without the significant investments EV manufacturers have made in battery system and electric motor technology that make inherently more efficient EVs a viable and desirable alternative to ICE vehicles.

Despite this significant and unique role in the transition to EVs, EV manufacturers may only generate limited "incremental" LCFS credits, and only if other stakeholders have not already registered to generate such credits. Furthermore, the value of the incremental credits structurally depreciates as improvements are made to the carbon intensity of California's electric grid.

This structure provides only a weak and diminishing incentive for EV manufacturers to make additional allocations to- or investments in- California based on LCFS, and it does not reflect the relative contributions of different stakeholders in the transition to EVs. As such, we believe ARB should establish a structure that enables EV automakers to share in base credit generation for residential EV charging, creating a more inclusive program in which the roles of different stakeholders are more evenly balanced while still ensuring programmatic goals are met.

Such a change would directly reward EV manufacturers for the *use* of their products—a powerful complement to the existing ZEV sales mandate and an incentive to invest in more capable and desirable EVs that are highly utilized by customers. In a portfolio-based policy approach to addressing climate change, it is important to implement policies that work in concert and are mutually reinforcing. The LCFS can and should help ensure that ZEVs sold in California are highly utilized products that actually displace fossil fuels.

- ***Expand the geographic boundaries for the book-and-claim accounting system.*** To generate incremental LCFS credits, EV manufacturers and others must purchase and retire Renewable Energy Certificates ("RECs"). The price of the RECs has been largely uncorrelated with the value of the incremental LCFS credits since ARB introduced the book-and-claim accounting mechanism in its 2018 rulemaking. As such, the cost of CA-sited RECs required to generate incremental LCFS credits may ultimately exceed the value of the incremental credits, particularly as the value of the incremental credits continues to decline.

  ARB could consider eliminating the requirement that RECs purchased and retired from outside the State for LCFS purposes be associated with electricity that is scheduled into the California market. In doing so, ARB would enable incremental credit generators to access a larger supply of RECs.

[5] See: 1) US Department of Energy, Office of Energy Efficiency and Renewable Energy, "Where the Energy Goes: Electric Cars". 2) Kelly, C., Pavlenko, N. "Assessing the potential for low-carbon fuel standards as a mode of electric vehicle support" International Council on Clean Transportation (ICCT), 2020.

- ***Other technical changes.*** We believe there are other technical changes that ARB should consider, which include updating the Energy Efficiency Ratio ("EER") assigned to light and medium-duty EVs, given that those EVs are far more efficient today; reducing the "geofencing radius" used to eliminate non-residential EV charging from the data EV manufacturers report for residential EV charging; eliminating the "hierarchy" of incremental credit generators for residential EV charging and therefore eliminating the need for Vehicle Identification Numbers to register vehicles; and more.

We encourage ARB to continue to pursue aggressive policies that support California's climate goals. As the transportation sector is the largest sector contributing to emissions, reducing emissions from transportation is critical to achieving carbon neutrality, and the LCFS is an important tool. But ARB must make changes to preserve and enhance the efficacy of the LCFS.

We thank you again for the opportunity to provide comments regarding the development of California's Scoping Plan, and we look forward to continued engagement with ARB staff. If we can provide additional information or further support your efforts, please contact any of the undersigned.

Sincerely,

W. Spencer Reeder
Director, Government Affairs and Sustainability
Audi of America

John (Jack) Barrow
Chief Executive Officer
Bridge to Renewables

Tom Van Heeke
Senior Policy Advisor
Rivian Automotive

Thad Kurowski
Senior Policy Manager
Tesla