December 21, 2022

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Shell USA, Inc. Comments on November 9th CARB Workshop on Potential Changes to LCFS

Dear California Air Resources Board:

Shell USA, Inc. ("Shell") has been a fuel supplier in California for over 100 years and also develops, invests, and trades renewable energy products. Shell has been an active participant in the Low Carbon Fuel Standard program ("LCFS") since its inception, and a supporter of clean energy development. Like CARB, Shell and its global affiliates are committed to a just energy transition, by supporting the goals of the Paris Climate Agreement and working toward the target of becoming a net-zero emissions company no later than 2050. Shell and its affiliates include RNG, Hydrogen, Wind, Solar, EV charging, Carbon Capture, Battery Energy Storage, and others, and showcase what we feel is a diversified approach to a zero-carbon future. California is obviously ground-zero for these investments, and we hope others will come to share that view as you adopt and deploy the new scoping plan and refresh the LCFS.

Thank you for the opportunity to provide feedback on the preliminary scenario design assumptions affecting the LCFS modeling.

Scenario Design Options – Provide Assumptions for Credits/Debits

Shell supports adjustments to the LCFS stringency that are aligned with the 2022 final Scoping Plan. However, it is imperative to understand the full scope of assumptions behind each of the Alternatives A, B and C. Understanding the assumed rate of growth for the credits relative to anticipated fossil fuel demand destruction will ground stakeholders in the reality of success for each of these alternatives. Market stability will be directly impacted by the viability of the LCFS program moving forward and its success meeting its intended goals. CARB should provide the full scope of assumptions behind each alternative.

Crop-Based Biofuels – More Data Needed

Shell appreciates the concern raised by stakeholders regarding the potential impact to food supply when crop-based feeds are used for biofuel production. Without data quantifying this impact it is premature, however, to arbitrarily set a limit on these feedstocks. This element should be monitored and integrated into an Annual Review of the LCFS program. If quantifiable data becomes available indicating food shortages or significant deforestation, Shell recommends CARB review the Indirect Land Use Change ("ILUC") as ILUC addresses the concerns with crop-based biofuels by increasing the Carbon Intensity score.

Avoided Methane Crediting – Continue Beyond 2030

Shell supports continuation of avoided methane crediting beyond 2030. The LCFS provides a structure to reduce the carbon intensity of fuels and as the Discussion Draft notes, LCFS "continues to increase diversity and volume of low-carbon fuels." Credit for avoided methane is a necessary component of certain biomethane feedstocks. Failing to continue to capture this value will limit future project

development and reverse a policy that has resulted in reduced emissions that were historically released into the atmosphere or flared. The value of the credit for avoiding the release of methane incents investment in already limited supply projects supporting the policy of increased diversity and volume of low carbon fuels. Further, the suggestion that fuels currently receiving credit for avoided emissions will be used in other markets ignores the fact that the transportation sector still accounts for a significant amount of the State's emissions. Until the State is closer to achieving its goals in the transportation sector all biofuels and crediting mechanisms should be employed to achieve maximum emissions reductions.

The Discussion Draft points to Governor Newsom's July 2022 letter requesting CARB increase the stringency of the LCFS - that request was specifically intended to accelerate "the production of clean fuels." Eliminating biomethane crediting would have the opposite and contrary effect.

Book-and-Claim Accounting – Must be Maintained

Shell supports LCFS book-and-claim accounting; specifically, Shell supports the Discussion Draft Alternative C which provides that all North American RNG projects remain eligible for book-and-claim. In its current form the LCFS creates a powerful economic incentive for major investment in cleaner, more efficient technologies. In contrast, the Discussion Draft proposes regional and feedstock limitations to book-and-claim eligibility. This assumes that there is or could be ample RNG supply in the western U.S. to meet demand. This assumption is contrary to reality in our view; indeed, there will not be sufficient supply if the economics fail to support additional private investment in development.

Additionally, the Discussion Draft suggests the regional limitation better harmonizes book-and-claim policies between electricity and RNG. However, the electricity book-and-claim deliverability requirements are restrictive in that they require the resource to be located within a California Balancing Authority or, if out-of-state, be directly delivered resulting in dramatically increased costs, further limiting supply.

The Discussion Draft proposes that book-and-claim should be allowed for hydrogen production but only if the production facility utilizes landfill gas as a feedstock. Imposing specific renewable fuel eligibility for hydrogen production puts CARB in the position of picking winners and losers, which we feel is never good public policy. The technology-agnostic approach to the LCFS has contributed to its success to date and is consistent with the ethos of innovation that so defines our state.

ZEV Refueling Infrastructure – Support Buildout to Drive Demand

Shell supports including LCFS infrastructure capacity credits for medium- and heavy-duty ("MHD") zero-emission vehicle ("ZEV") fueling. The ZEV infrastructure should cover Direct Current ("DC") Fast Charging Infrastructure ("FCI") and Hydrogen Refueling Infrastructure ("HRI"). California has just started its journey to attain net zero emissions for the MHD vehicle sector and MHD vehicle and fleet operators need ZEV public access to be in place before committing to purchasing MHD ZEVs. California's fueling infrastructure for both electricity and hydrogen should stay ahead of demand for the MHD ZEVs to ensure the trucks can operate and fulfill duty cycles specific to their needs.

Shell is responding to the demand for alternatives to traditional fuels, and we provide a broad range of low carbon fuels and services while endeavoring to meet our own net zero emissions goals. In that respect, it is important to note that the Company continues to supply these traditional fuels while investing in a variety of renewable fuels including the production and supply of RNG. Shell is also committed to playing a role in clean fuel buildout of Hydrogen fueling stations, and with the large-scale deployment of smart charging infrastructure supported by Shell's software and services. None of this will be fully realized, however, unless the policy framework is sound.

Shell urges CARB to maintain and build upon its existing LCFS program to scale up and provide more low-carbon options to accelerate GHG emission reductions. Shell appreciates the opportunity to work with CARB Staff on these important issues and we hope you won't hesitate to contact us if we can be a resource. Thank you for your commitment to comprehensive climate action.

Sincerely,

Steve Lesher

Corporate Relations Manager

U.S. West Coast

Shell USA