Chevron

December 15, 2022

Via E-mail/Facsimile

Cheryl Laskowski
Branch Chief
Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Dr. Laskowski:

Re: November 9 LCFS Workshop

Chevron appreciates the opportunity to review and comment on the subject Low Carbon Fuel Standard workshop.

Chevron is a major refiner and marketer of petroleum products and renewable fuels in the state of California and a regulated party under the Low Carbon Fuel Standard (LCFS). With the recent acquisition of Renewable Energy Group, Inc., Chevron is also an international producer of lower carbon intensity fuels with a global integrated procurement, distribution and logistics network and 11 biorefineries in the U.S. and Europe. In 2021, Chevron Renewable Energy Group produced 480 million gallons of renewable fuels, resulting in 4.1 million metric tons of CO2 reduction, and is helping lead the energy transition to a lower carbon future.

Following are our comments on the topics discussed during the November 9 workshop.

<u>Scenario Modeling</u>
CARB staff discussed three modeling scenarios during the workshop. While the assumptions made in these scenarios were covered, there was no discussion of the feasibility of the targets presented, the impact of the individual assumptions, or the results returned by the model. In addition, CARB introduced a new California Transportation Supply (CATS) model on the day of the workshop, allowing no time for review prior to the discussion. Unfortunately, due to the time constraints, we are unable comment in this letter on the efficacy of the reduction targets presented or the effectiveness of

the model itself. We will focus our comments on the variables discussed during the workshop. Going forward, transparency around the function of the model and ample time for review will be critical to enable an inclusive process with meaningful stakeholder input. We strongly encourage CARB to hold focused workshops on each of the model variables and direct engagement with individual stakeholders and trade associations. We particularly cannot comment on the 90% target proposed for 2045 without additional details on how CARB proposes to get there.

Before we discuss the variables below, a common theme we heard during the workshop was a desire to get a rule done as soon as possible in order to encourage the investments needed to hit future targets. However, many of the proposals for these different variables would instead discourage investment. Furthermore, the lack of regulatory details behind these high-level policy proposals makes it difficult to assess the challenges and feasibility of implementation. This creates significant uncertainty at a point in the rulemaking process where we typically have seen more fully formed proposals.

<u>Limits on Crop-Based Fuels</u>
It is apparent from the discussions to date that CARB lacks meaningful data demonstrating that crop-based biofuels present a risk to food supplies or increased rates of land conversion. These continue to be speculative concerns voiced by some groups, without the analysis to back them up. These concerns have been adequately addressed by the land use change factors included in CARB's carbon intensity calculations. CARB should not seek to fix an unproven problem with an arbitrary limit on available biofuels. Under a program that is intended to be technology-neutral, there is no need for arbitrary limits on participating fuels or feedstocks.

The focus on diesel fuels from virgin oils is particularly unnecessary. The data on the LCFS website demonstrates that diesel fuels from soybean and canola oils represent approximately 20% of the credits generated from bio-based diesel fuels over the last few quarters. The bulk of the growth over the past few years has come from tallow and used cooking oil. CARB's assumption that future growth in biomass-based diesel fuels will be driven by increased consumption of virgin oils is speculation, and until demonstrated, should not be the basis regulatory requirements.

<u>Biomethane Crediting</u>
The potential changes to crediting for methane avoidance and book-and-claim treatment presented are similarly arbitrary and damaging to the LCFS Program. The credit for methane avoidance represents real reductions in greenhouse gas emissions and eliminating this credit is contrary to the goals of the LCFS. We share the concerns expressed during the workshop around

the impact this would have on continued digester operations. The LCFS has proven to be a highly successful incentive for the capture and use of methane from dairies and landfills. Removing this incentive is likely to lead to cancellations of future digester projects. A comment was made during the workshop that incentives cannot last forever. While that is certainly true, any phase-out of incentives should be applied evenly to California's transportation fuels in general. CARB should not be choosing individual fuels or technologies to disincentivize, while continuing to provide credits for others. This is contrary to the design of the LCFS as a technology-neutral, market-based program.

The potential changes to book-and-claim treatment for biomethane are similarly concerning and would represent a step backward for the program. Currently, the LCFS encourages methane capture and digestion across the country and is the only such incentive in many jurisdictions. As mentioned during the workshop, this should not change until we see a comprehensive federal incentive for methane capture. The current design provides a market-based incentive that allows for the most efficient greenhouse gas reduction over a broad geographic range. Excluding some geographies does nothing but limit the effectiveness of the LCFS and will limit the development of new projects. Similarly, CARB's proposal that book-and-claim treatment for landfill gas be limited to hydrogen production is an arbitrary and capricious constraint. The product should be allowed to compete equally for the markets where it can have the most impact.

Infrastructure Credits

We continue to support the expansion of hydrogen and electric vehicle infrastructure crediting to include medium- and heavy-duty vehicles. We encourage staff to work closely with the individual companies and trade associations involved in developing their approach.

Fuel Pathways

The continued discussion on improving the fuel pathway approval process is much appreciated. We are happy to see CARB's recognition of the challenges and opportunity cost that the significant delays in this process cause for regulated parties. During the workshop, there were multiple comments that producers are willing to pay third parties to support CARB staff in the pathway approval process. CARB management discussed support for staffing up at the agency. While we would not object to increased support for this area within CARB, the focus should be on finding ways to leverage external service providers. Much like the LCFS verification process, outside engineering firms can be empowered to carry out the bulk of the review of fuel pathway applications, with CARB staff providing a governance role in the process. This would better distribute the workload and create a more flexible structure that can grow organically as the number of fuel pathways continues to increase.

Project-Related Credits
CARB included the phase out of fossil fuel project-related credits in all three scenarios described during the workshop. This is the wrong approach to targeting greenhouse gas reduction in transportation. While recognizing that reduced reliance on fossil fuels is a stated goal of the state, eliminating recognition of emission reductions in the production of those fuels while still part of the transportation fuel mix misses an opportunity to achieve real incremental change during the transition. Project-related crediting has not presented a threat to alternative fuel growth since its introduction but has incentivized a number of projects explicitly focused on emissions reduction.

Intrastate Jet
Please see our previous comments on the complexity and ineffectiveness of introducing deficits for intrastate jet. This proposed change would simply add a challenging compliance element to an already complex program, with little material impact on the adoption of alternative jet fuel.

Electric Forklifts
CARB included the elimination of credits for electric forklifts in all three scenarios. As discussed, eliminating credits for specific fuels or technologies will only serve to hamper continued adoption, and it could set a bad precedent, discouraging investment in emerging technologies, for fear that expected credits would be suddenly withdrawn.

Self-Ratcheting Mechanism
While appreciating that CARB has not proposed to add an "automatic self-ratcheting" mechanism to the LCFS, it is necessary to comment on this concept, given that several commenters spoke in support of it during the workshop. If CARB were to set targets that automatically change based on credit prices or the status of the credit bank (or establish price floors), the LCFS would cease to be a market-based program. We are also concerned that such an approach could be seen as price manipulation. The focus should be on conducting the analysis necessary to set achievable targets that will encourage growth and innovation, with continued regular rulemakings to consider potential changes through a deliberative, transparent process.

Rulemaking Timeline
At this point, we are concerned about the status of this rulemaking, given that we are just over a year from the planned implementation date. While there have been workshops over the last two years on the proposed changes to the LCFS, these updates are still being presented as high-level concepts. We would normally be reviewing draft regulatory text at this point, and it is

becoming difficult to see how proposed regulatory changes will be developed in time for Board approval in successive hearings in 2023. We encourage CARB to hold focused, specific workshops as soon as possible in the new year to accelerate this work. It is critical that changes to a program as complex as the LCFS are made with substantive stakeholder input.

Thank you for the opportunity to comment on these matters. If you have any questions regarding our comments, please contact me at (925) 842-8903 or DGilstrap@chevron.com.

Sincerely,

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Scott Hedderich
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