

June 6, 2023

Ms. Cheryl Laskowski, Branch Chief
Transportation Fuels Branch
California Air Resources Board
1001 I St
Sacramento, CA 95814

Re: Low Carbon Fuel Standard Workshop May 23, 2023

Dear Ms. Laskowski,

The Renewable Fuels Association (RFA) appreciates the opportunity to comment on the workshop regarding the consideration of potential Acceleration Mechanisms to the Low Carbon Fuel Standard (LCFS) program held on May 23, 2023. The RFA supports the LCFS and looks forward to continued engagement in this process to strengthen and extend the program beyond 2030. The RFA is also working around the country in collaboration with other stakeholders to develop and implement LCFS and other clean fuel programs in other states.

The RFA has commented extensively on the key issues of the LCFS modifications in our letter of August 8, 2022, following the July 27, 2022 LCFS workshop, our letter of December 20, 2022, following the November 9, 2022 LCFS workshop, and our letter of March 15, 2023 following the February 22, 2023 workshop. These new comments should be considered in combination with the earlier comments and are responsive to CARB staff's request at the most recent workshop for stakeholder input on the topics of a potential stepdown in the compliance curve and acceleration mechanisms.

A stepdown in the compliance curve in 2024 is the single most important step CARB can take to strengthen the LCFS.

The LCFS program's outstanding success has resulted in overcompliance, ballooning the credit bank and undercutting credit prices. This is dampening new investment in low- to zero-carbon fuels. A stepdown of at least five percent from the current compliance curve will send the right long-term price signal, while also facilitating a significant strengthening of the 2030 target from the scheduled 20 percent to greater than 40 percent. The RFA is working with a broad coalition of fuel providers who have commissioned ICF to demonstrate both a central and higher ambition case to CARB on what the clean fuels industry is prepared to deliver by way of carbon intensity reductions.

Higher blends of ethanol are a cost-effective and immediate option for maximizing carbon intensity reductions in the LCFS. CARB should include E15 approval in the upcoming LCFS rulemaking package.

At the most recent workshop, the CARB presentation identified the objectives of the new LCFS rulemaking: to support increased low-carbon fuel supply, provide long-term price signals and increase regulatory clarity to support deeper transportation decarbonization, and to leverage new federal programs with complementary LCFS policies.

Consistent with these objectives, CARB should include with the rulemaking an approval of E15 as a legal fuel in California. If E15 had been used in California in 2022 rather than E10, that alone would have allowed the LCFS compliance target to be nearly 2 percent lower. Migration of the market to E15 over the course of this decade would enable a 2.5 percent reduction of the current 2030 target against the 2010 baseline, based on a combination of the expected improvement in ethanol's carbon intensity and the forecast decrease in finished gasoline consumption resulting from the Advanced Clean Cars II regulation. (Please see our calculations at the bottom of this comment letter.)

When the E10 cap is removed from the CATS model, the model immediately selects usage of E15 as a cost-effective way to achieve additional carbon reductions. California and Montana are the only two states not recognizing E15 as a legal fuel. The recently passed IRA includes billions of dollars to support the significant lowering of the carbon intensity of ethanol through CCS, climate smart ag and other efficiency improvements. Not including E15 certification in the current LCFS rulemaking would be inconsistent with the stated goals of the LCFS, sending a contradictory and confusing message to the market on what carbon reduction goals are possible.

It is also important to note that increasing the ethanol blending rate will not result in large increases in ethanol consumption in California but will displace larger volumes of fossil energy use and increase the market share of renewable liquid fuels as overall gasoline volumes decline rapidly with continued electrification. Projected out to 2045 when California has committed to carbon neutrality, there will still be billions of gallons of liquid fuels in the market and these fuels must be ultra-low to zero carbon to achieve that goal. In the gasoline pool, ethanol is the only commercially available fuel that meets this test. Even in emerging renewable gasoline blends, ethanol will still be needed to help raise octane, dilute sulfur, increase oxygen content and provide other desirable properties (e.g., Chevron's new renewable gasoline blend contains 15% ethanol¹).

¹ <https://www.chevron.com/-/media/chevron/newsroom/2023/Q2/renewable-gasoline-blend-factsheet-may-2023.pdf>

A properly constructed Acceleration Mechanism is helpful for sending a consistent market signal for innovation and investment in additional supplies of low carbon fuels.

The current low credit prices under the LCFS are clearly inhibiting new investment in low carbon fuel production. The long period of time (up to three years) to update the LCFS given the regulatory process in California is creating uncertainty as to the longer-term trajectory of the program. In combination with an immediate stepdown of the LCFS program in 2024, an Acceleration Mechanism could address this problem. RFA generally agrees with the concepts presented by AJW and believes that an acceleration formula should incorporate ratios of credit and deficit generation as well as ratios of such generation to the overall size of the credit bank.

It is critically important for CARB to move quickly and concisely in strengthening the LCFS program. Timely and accurate modelling and scenario development, with input from the coalition of stakeholders that are supporting the ICF analysis, is an important and valuable tool in this regard.

Ethanol is a top generator of credits in the LCFS program, accounting for three of every 10 credits generated since the program's inception. But constraining ethanol's use to E10 is sacrificing additional carbon reductions possible today. We urge CARB to include E15 approval as part of the regulatory package for the current LCFS modifications under consideration, which will allow the ethanol industry to help displace more fossil fuel in California and lower carbon emissions now.

An accurate modelling of ethanol's benefits and an integration of CARB fuels policy to incentivize higher ethanol blends will result in immediate reductions of GHG emissions and criteria pollutants while lowering the cost of compliance to obligated parties and California consumers.

RFA looks forward to working with CARB staff and other stakeholders to strengthen and extend the successful LCFS program.

Sincerely,



Scott Richman
Chief Economist

	Based on 2022 Estimates			2030 Projection		
	Actual	If E15 Used	Difference	If E10 Used	If E15 Used	Difference
Volumes (Mil Gal)						
Finished Gasoline	13,700	13,918	218	9,700	9,854	154
CARBOB in:						
E10	12,330			8,730		
E15		11,830			8,376	
Total	12,330	11,830	-500	8,730	8,376	-354
Ethanol in:						
E10	1,370			970		
E15		2,088			1,478	
Total	1,370	2,088	718	970	1,478	508
Carbon Intensity (gCO2e/MJ)						
CARBOB	101.7			101.7		
Ethanol	59.2			35.0		
Gasoline CI Benchmarks/Targets (gCO2e/MJ)	89.5			79.6		
Revised 2010 Baseline	99.4					
Energy Density (MJ/Gal)						
CARBOB	119.53					
Ethanol	81.51					
LCFS Credits (Deficits) (Mil MT)						
CARBOB	-18.0	-17.3	0.7	-23.1	-22.2	0.9
Ethanol	3.4	5.2	1.8	3.5	5.4	1.8
Finished Gasoline Total	-14.6	-12.1	2.5	-19.6	-16.8	2.8
Addl. Gas CI Benchmark Reduction due to E15						
g CO2e/Gal Gasoline	-1,066	-870	196	-2,020	-1,706	314
MJ/Gal Gasoline	116	114		116	114	
Addl. CI Benchmark Reduction (gCO2e/MJ)			1.6			2.5
Reduction as Percentage of:						
2010 Baseline			1.6%			2.5%
Annual Benchmark/Target			1.8%			3.1%

Note: Excludes E85 since volume would not be expected to change due to E15 adoption