



May 17, 2024

Mr. Drew Bohan
Executive Director
California Energy Commission
715 P St.
Sacramento, CA 95814

Re: SBX1-2 – Transportation Fuels Assessment and Transportation Fuels Transition Plans – Docket #23-SB-02

Dear Mr. Bohan,

The Renewable Fuels Association (RFA) appreciates the opportunity to comment on the workshop of May 3, 2024, regarding the Fuels Assessment Draft report and the introduction of the Transportation Fuels Transition Plan presented as part of the SBX1-2 implementation process.

The RFA is the leading trade association for America's ethanol industry. Our mission is to drive growth in sustainable low-carbon renewable fuels and bioproducts for a better future.

Higher blends of ethanol represent an immediate way to increase clean fuel supply in California, displacing petroleum, while also reducing GHG and criteria pollutants, all at a lower cost to consumers. The RFA supports the inclusion of E15 (gasoline containing 15 percent ethanol) at the top of the list for increasing fuel supply in Production Enhancement Strategies in the Draft Fuels Assessment report.

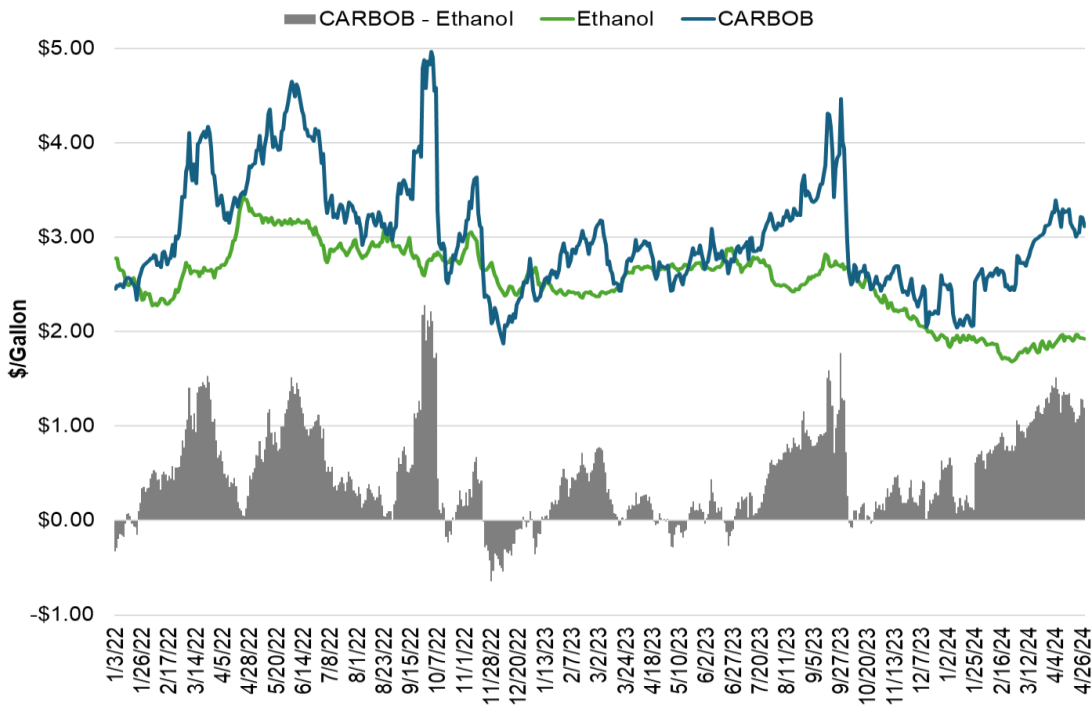
The EPA approved the use of E15 nationwide in 2011 and currently California is the only state in the country that does not allow the sale of E15. All that needs to occur to facilitate the introduction of E15 in the state is for the California Air Resources Board (CARB) to approve the use of E15 in CA RFG.

Since the Transportation Fuels Assessment is a joint program between CEC and CARB, this is an important forum for accelerating an E15 rulemaking. The Multimedia Evaluation (MME) on E15, required by state law for new fuels, is complete, awaiting final approval from the California Environmental Policy Council.¹ The MME and associated E15 emissions testing on 20 vehicles by the University of California, Riverside, show significant environmental benefits.

¹California Multimedia Evaluation of E10-E15 Gasoline Ethanol Blends
https://drive.google.com/file/d/19TwGFY19Z1JP_6YqYAHgwV7J5cHUR-ry/view?usp=sharing

CEC states in the draft report that E15 is “likely to lower the price of CA fuel due to additional supply.” While it is true that extending the fuel supply with a renewable fuel puts downward pressure on fuel prices, it is also the case that wholesale ethanol in California historically trades at a material discount to wholesale CARBOB, providing further opportunity for lowering fuel prices to California consumers in addition to the price effect of introducing incremental supply. With an octane rating of 114, ethanol also displaces higher cost and toxic octane components in gasoline (e.g., aromatics) further adding to its economic, environmental and equity value.

Los Angeles Gasoline Blendstock (CARBOB) vs. Ethanol Prices



Sources: OPIS (ethanol), U.S. Energy Information Administration (CARBOB)

The infrastructure to implement E15 in California is largely in place today and RFA encourages CEC to amend the “cons” section of the E15 discussion accordingly.

In 2015 a major study was conducted by U.S. DOE's National Renewable Energy Laboratory (NREL) focused on the E15 readiness and compatibility of fuel supply chain infrastructure.² The study is highly regarded and has been used by thousands of retailers and state and federal agencies to document best practices for E15 adoption. Notable findings in the study are:

- E15-compatible equipment is already broadly deployed in the marketplace. There are at least 56 major equipment manufacturers that offer various E15-compatible equipment and parts. Companies include but are not limited to, Franklin Fueling, Gilbarco, OPW, Emco, Wayne, NOV, and Bravo.
- Over 720 parts are identified that were directly built for compatibility with up to 25 percent ethanol (E25) or up to pure ethanol (E100).
- 90% of the 720+ parts were listed by Underwriters Laboratory (UL) and 35% were specifically UL listed for use with up to E25.

The report is a well-documented analysis on how the U.S. fuel system and infrastructure is already largely compatible with E15 and, in many cases, E100.

In addition, California's Underground Storage Tank (UST) infrastructure requirements are superior to those of most states. The existing UST infrastructure in California is highly compatible with, and ready for, the introduction of E15. As of 2019, some findings in the California UST database³ included:

- More than 99% of the piping installed in California post-1989 is double walled
- More than 99% of the underground storage tanks installed in California post-1989 are double walled.
- Of the over 30,000 UST records provided by the California Water Board, 78% have been installed post-1989.

All underground tanks and piping in California are legally required to be compatible with up to E100 as of 12/31/25. The Department of Water Resources estimated last year as part of the E15 MME analysis that nearly 95% of the underground tanks in CA have already complied with the current UST requirements including E100 compatibility.

The major manufacturers of fuel dispensers have explicitly approved the use of E15 in their standard equipment since 2010 or earlier. Gilbarco and Wayne together account for virtually all the fuel dispensers sold in the U.S. New

² NREL study link - https://afdc.energy.gov/files/u/publication/e15_infrastructure.pdf (referred to as NREL E15 Study)

³ https://www.waterboards.ca.gov/ust/adm_notices/final_accessibility_california_ust_leak_prevention_report-Jan-June2019.pdf

Gilbarco dispensers have been compatible with E15 since around 2008, while Wayne dispensers have always been E15 compatible. Below are the statements from both dispenser manufacturers with regards to E15 compatibility.



DISPENSER COMPATIBILITY WITH ETHANOL

Warranties on higher blends of ethanol are increasingly important as blender pumps and ethanol dispensers are installed across the country to give consumers more choice at the filling station. Gilbarco dispensers have been compatible for E15 since around 2008, while Wayne dispensers have always been E15 compatible.

According to a March 31, 2010 press release, Gilbarco-Veeder Root upgraded the warranty on its standard fuel dispensers to cover use of fuels with an ethanol content of 15%, known as E15.



**GILBARCO
VEEDER-ROOT**

"We are pleased to lead the market with the expansion of our current warranty from E10 to E15, ensuring that our customers are covered if the current E10 standard is broadened to E15," said Richard Browne, vice president of marketing for North America at Gilbarco Veeder-Root. "Our customers can be confident that Gilbarco and Gasboy will honor warranty claims and otherwise support the dispensers they have recently purchased or are considering, should the blending standards change to E15." The standard fuel dispenser models - currently UL listed to 10 percent ethanol - will now carry a warranty for up to 15 percent ethanol. The change is retroactive to Gilbarco dispensers manufactured or commissioned in North America since April 1, 2008, and models include the Gilbarco Encore and Legacy series dispensers, as well as the Gasboy Atlas product line.



On May 19, 2010, Dresser Wayne announced that all of their standard dispensers have always, and will continue to, cover the use of ethanol blends up to 15 percent ethanol.

In a letter to their partners, Scott Negley, Director, Alternative Fuel Products for Dresser Wayne said, "You may have heard recent industry announcements regarding warranty coverage on E10 and E15 dispensers. Based on some of the questions we have been receiving it is apparent that this announcement is creating some confusion in the market place. . . One of the most important points that I would like to make is that all standard Dresser Wayne dispensers have always been warranted up to E15. That said, we understand that navigating the Underwriters Laboratory (UL) approvals and dispenser warranty is supported up to E15, the UL approval only applies to E10. Nothing has changed there. It is unknown whether UL will change their position to reflect the increased ethanol allowance for standard equipment which is expected to be announced by the EPA this summer."

www.ethanolRFA.org

The fuel distribution system in California is handling approximately 1.5 billion gallons per year of ethanol, most of which goes into E10 blends. The system is overbuilt with rail infrastructure, tankage, and terminals that could support E15 blending today. When considering tankage needs and terminal storage space, it is important to remember that E15 replaces E10—it is not additive. In other words, a tank that holds E10 today can be used to hold E15 once the fuel is approved. Further, as petroleum consumption declines, tankage can be readily converted to ethanol and other low carbon renewable fuels without any new infrastructure required.

Essentially all the cars on the road today in CA are approved by the U.S. EPA for E15 use.⁴ The economic, environmental, and equity benefits of higher ethanol blends call for an expedited rulemaking to certify E15 as a legal fuel in the state. This should be a key objective from the findings of the Fuels Assessment component of the SBX1-2 process.

At the May 3rd workshop, CARB staff made a presentation on the Transportation Fuels Transition Plan which is also a component of the SBX1-2 process. The work for this Plan is just beginning and only an outline of the work ahead was presented, so we look forward to workshops and findings for more specific feedback and comments.

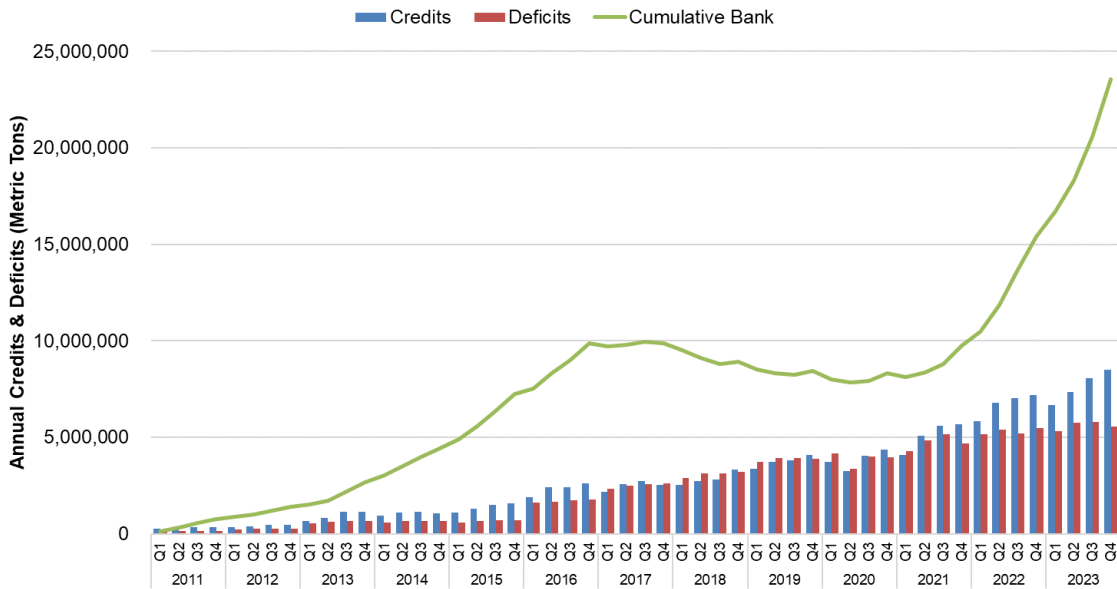
Generally, higher ethanol blends are critical to any transition away from petroleum and consistent with the stated objective in the CARB presentation of ensuring a supply of transportation fuels that is affordable, reliable, equitable and adequate to meet the demand described in the 2022 Scoping Plan.

The LCFS has been an overwhelming success in reducing petroleum consumption and GHG emissions. The program to date has displaced over 25 billion gallons of petroleum with renewable fuels and in 2022 alone reduced GHG emissions by 26 million metric tons, the equivalent of taking 5.8 million gas powered cars off California's roads.

The problem is that a disproportionate amount of the GHG benefits are coming from the diesel sector where renewable diesel and renewable natural gas have displaced approximately two thirds of all petroleum diesel. As shown in the following two charts, the LCFS program overall has generated significant surplus credits (24 million metric tons), but on the gasoline side alone the program to date has generated massive net deficit balances of nearly 60 million metric tons. At some point in the near future, credit generation from replacing petroleum diesel with lower-carbon, renewable alternatives will “max out,” and GHG reductions will be needed in the gasoline pool to continue California's progress in slashing carbon emissions.

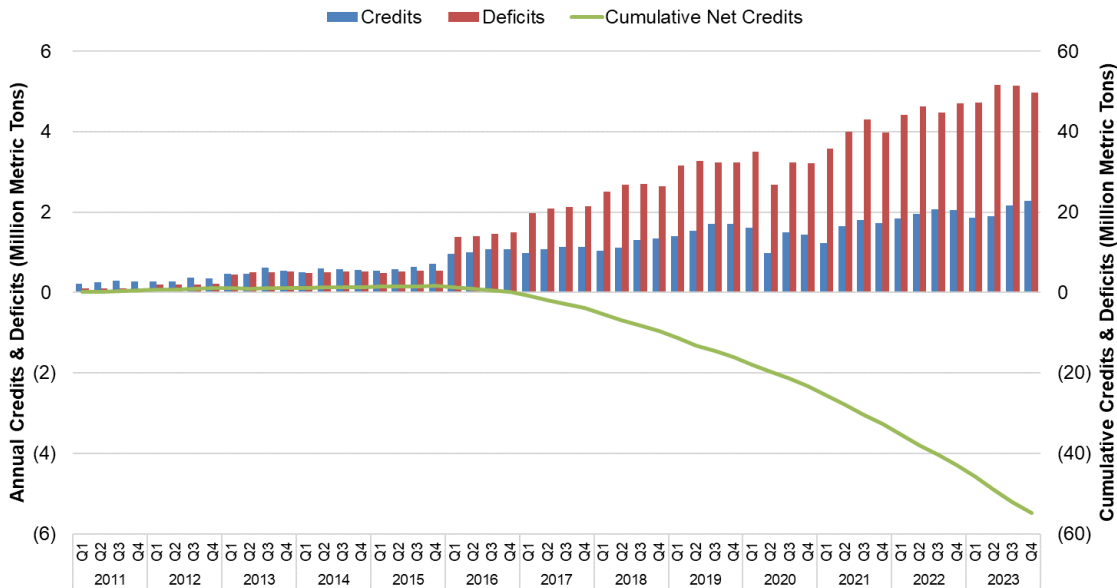
⁴ EPA approved the use of E15 in light-duty vehicles manufactured in 2001 or later. EPA's approval did not extend to pre-2000 vehicles simply because those older vehicles were not included in EPA's materials compatibility testing.

CA LCFS Credits & Deficits for All Fuels



Source: California Air Resources Board

CA LCFS Credits & Deficits from Gasoline and Gasoline Replacements



Source: California Air Resources Board

Note: Includes CARBOB, ethanol, and electricity for on-road light- and medium-duty vehicles

The electrification of the light duty fleet is accelerating but is not slowing the excess deficit generation from the gasoline pool given the immense volume of gasoline consumed in California. With all projections showing substantial volumes of liquid fuels in the system for decades to come, displacing petroleum gasoline with low- to zero-carbon renewable fuels is the only way of meeting carbon neutrality goals by 2045 and providing for an affordable, reliable, and equitable transportation energy transition.

The only practical and cost-effective way to achieve net-zero by 2045, while rebalancing LCFS credits and deficits in the gasoline pool in the near term is through adoption of E15, continued growth in E85 usage, and consideration of mid-level blends like E20-E30.

The RFA looks forward to working with CEC and other stakeholders in developing a fuels strategy that can meet the climate, criteria pollutant, and energy goals of California while at the same time addressing the important objectives of consumer choice and affordability.

Sincerely,

A handwritten signature in black ink, appearing to read "N. M. Koehler". The signature is fluid and cursive, with a prominent initial "N" and a long, sweeping underline.

Neil M. Koehler
Policy Advisor