

VIA ELECTRONIC POSTING

https://ww2.arb.ca.gov/lispub/comm/bclist.php Comment List: lcfs2024

October 16, 2024

Clerk of the Board California Air Resources Board 1001 | Street Sacramento CA, 95814

Dear Chair Randolph and Board Members:

Kern Energy (Kern) is providing comments on the California Air Resources Board's (CARB) proposed amendments to the Low Carbon Fuel Standard (LCFS) regulation released on October 1, 2024. Kern is specifically providing comments on the following: (1) Restricting Feedstocks for Biomass-Based Diesel is Contrary to LCFS Program Goals; (2) Sunsetting Credit Generation for Hydrogen Restricts Space for Innovation; and (3) Near-term Increase in Program Stringency is Excessively Aggressive.

Kern Energy is an independent, family-owned and operated transportation fuel company in the Southern San Joaquin Valley that has proudly fueled California for 90 years. At a capacity of 26,000 barrels per day, Kern is the only refiner producing both gasoline and diesel between the major refining complexes in the Bay Area and Los Angeles. While California is one of the most challenging operating environments in the world for a small refiner, Kern has thrived while many others have failed. As a renewable fuel pioneer, Kern understands what is needed to address California's climate and environmental concerns. Kern embraced the challenge presented by California's LCFS and the federal Renewable Fuel Standard, becoming just the second refinery in the U.S. to produce renewable diesel by co-processing bio-feed and the first small refiner in California to blend biodiesel. Kern has been an active participant in the development and evolution of the LCFS since program inception, both actively engaging in the policy-making process and reliably serving the California market as a provider of liquid transportation fuels meeting California's strict standards. Kern appreciates CARB Staff's tremendous work throughout the rulemaking process, particularly for demonstrating the significant contributions that lower CI liquid fuels have delivered toward achieving the state's climate goals and the continued need for these fuels for many years to come. It is critical that any changes to the LCFS support logical and attainable CI reduction targets while continuing to incentivize fuel producers

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like Kern to ensure the reliable delivery of ever cleaner and lower carbon transportation fuels to our communities.

1. Restricting Feedstocks and New Pathways for Biomass-Based Diesel is Contrary to LCFS Program Goals

In the first 15-day package released in August 2024, Staff proposed adding new subsection 95482(i) to "provide credits for biomass-based diesel produced from virgin soybean oil and canola oil for up to 20 percent of annual biomass-based diesel" and impose the carbon intensity of the applicable diesel pool benchmark to volumes of fuel produced from these feedstocks in excess of the limit. Packaged as a crediting opportunity rather than the restriction it is, Staff is now proposing to add sunflower oil to the list of restricted feedstocks, further limiting renewable fuel producers' ability to supply needed low-carbon liquid fuels to the market. Placing this cap on feedstocks eligible for crediting will handicap renewable fuel producers' abilities to diversify their feedstock portfolio, creating additional strain on already tight waste feedstock markets and prices and imposing unnecessary uncertainties of feedstock supply.

Kern appreciates the additional runway that Staff is proposing in the second 15-day package, revising the grandfathering mechanism for these identified crop-based feedstocks. Moving away from past production as the qualification to instead allowing for existing certified pathways or pathway applications submitted by the effective date of these changes is pragmatic and helpful. Kern strongly encourages CARB to reconsider extending the proposed January 1, 2028, implementation date for grandfathered facilities. Three years gives only a narrow window to adjust feedstock portfolios and secure sufficient additional volumes to replace these restricted sources. This will create yet another period of intense competition for limited supply of waste oils/fats available again creating immense strain and competition in the market.

Kern has made significant and successive investments in its facility over the years to produce increasing amounts of renewable diesel. Waste feedstocks have become increasingly competitive to source, particularly those higher-quality feedstocks without the need for additional pre-treatment. These conditions will become more severe as additional renewable diesel production capacity comes online. Placing a limit on the amount of any given renewable feedstock could jeopardize Kern's ability to maintain production volumes of lower CI renewable diesel as tallow and waste fats/oil supply become impossible to source. Kern was encouraged during the April 2024 public workshop when Staff acknowledged that renewable and conventional liquid fuels will continue to play a key role in the state's transportation fuel mix for many more years, particularly in the medium and heavy-duty sectors and even as California expands to additional and newer energy sources. Kern acknowledges CARB's preference to prioritize waste feedstocks over Kern Energy October 16, 2024 Page 3 of 5

food-based crop-derived feedstocks, but this proposal is another attempt at picking winners and losers rather than letting the market set the signal.

This proposal to limit liquid renewable fuels is contrary to the agency's stated goals of lowering the carbon intensity of California's transportation fuel pool. CARB should let the market dictate demand for biomass-based fuels, which would naturally follow the actual progress of ZEV adoption rather than setting arbitrary dates around hopeful ambition. Kern's position remains that the proposed addition of Subsection 95482(i) is unnecessary and should be eliminated from the final regulatory amendments. At a minimum, the 2028 grandfathered implementation date should be pushed out three years to afford producers sufficient time to plan and react to such a significant change.

2. Sunsetting Credit Generation for Hydrogen Eliminates Space for Innovation

In the first 15-day package, Staff proposed to add a new subsection 95482(h) to remove LCFS credit generation eligibility for hydrogen produced using fossil gas as a feedstock, effective January 1, 2031. Kern's previous comments expressed opposition to this addition and encouraged CARB to take a comprehensive, inclusive approach to meeting the hydrogen needs of a clean energy future. Kern appreciates Staff's reconsideration and extension of the sunset date to 2035 by adding a runway allowing some crediting from 2031 to 2034. Nonetheless, these new provisions continue to pick winners and losers rather than allowing space for innovation and inclusive solutions.

CARB has consistently acknowledged the need and support for advanced technologies, and a broad portfolio of fuels to meet the state's climate goals. While the projected operational timeline for projects funded under the hydrogen hubs grants may appear to support expanded hydrogen production in California, the elimination of a viable, immediately available option before these projects have been realized is short-sighted and stifles the very innovation that has historically fueled California.

The production of fossil hydrogen with carbon capture and/or other advanced technologies should be seen as a positive contribution to expanding the supply of low-carbon hydrogen in California, able to supplement production via steam electrolysis, biomass gasification, and steam methane reforming of biomethane. Kern does not utilize steam methane reformers to make hydrogen from fossil gas. Instead, Kern's refining operation produces hydrogen as a byproduct from our gasoline production facilities. Currently combusted onsite as fuel gas in industrial heaters, Kern is actively working with innovative partners on an advanced technology that would capture this hydrogen for use in on-site fuel cells to produce electricity – that is, replacing electricity from cogeneration and the state's grid with zero CI electricity produced on-site by effectively using this existing energy source. Further, use of this captured hydrogen would allow for the replacement of diesel-powered engines

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in fixed generators and mobile equipment with clean hydrogen-fueled internal combustion engines or hydrogen-powered fuel cells, supporting the move to zero-emission applications in the heavy duty and industrial sectors.

CARB must remain open to a broad array of technologies and avoid adopting policies that stifle innovation with the imposition of arbitrary timelines. Imposing barriers and prohibitions to the mobilization of existing industry and infrastructure only serves to hamper the development of key solutions and discourage contributors focused on improving our shared climate improvement goals. Kern again urges CARB to eliminate this new subsection before final approval of LCFS amendments.

3. Near-term Increase in Program Stringency is Excessively Aggressive

Staff remains committed to the August 2024 proposal to modify Section 95484 (d) through (f) with an immediate increase in stringency to a 9% CI reduction in 2025, nearly double the 5% year-to-year increase presented in the initially proposed December 2023 amendments. This increase is additive to adjusting the overall CI reduction goal to 30% by 2030 and proposing the addition of an auto-acceleration mechanism that would accelerate the annual CI target by a year when specified market conditions are triggered. Staff note this change as intended to smooth the curve between the 2025 compliance target and the originally proposed 30% reduction in 2030, yet the effect is to create an immediate, near impossible burden to comply. While not specifically addressed in the second 15-day package, Kern is emphasizing its previous comments about this aggressive and immediate reduction to the annual CI, given the severity of the impact.

Kern is one of the smallest refineries in California and is one of only two remaining small refineries in the state producing finished transportation fuels. California Energy Commission data indicates that roughly 30 years ago a dozen small refineries operated in the state. The demise of over 80% of California small refiners over the last 30 years is due in large part to exponentially expanding regulatory burdens and accompanying compliance costs, which disproportionately harms small businesses. Using today's near-record low credit prices in the carbon market, Kern's estimated cost to comply with the newly proposed 10 g/MJ decline (9% stringency proposal) is greater than \$13 million for 2025 alone – more than double Kern's estimate under the previous 5% stringency proposal. These single-year cost-to-comply estimates using current carbon credit prices should be seen as conservative, if not the minimum cost for Kern to comply. The agency's desired result from the layered stringencies in this regulatory action is to drive up the price of carbon, which leaves these compliance estimates nowhere to go but up. Kern expects to see these costs double again if/when the market responds to CARB's signal.

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This additional increase has the effect of front-loading 2025 with an unreasonable compliance burden to refiners with little to no time to prepare, rather than spreading the burden across the full five years to 2030. The CI benchmark for gasoline in 2024 is 87.01 grams CO2 per megajoule (g/MJ). Under the 5% increased stringency scenario initially proposed in the 45-day package, this benchmark would drop to 80.55 g/MJ – a 6.46 g/MJ difference. Under the 9% stringency scenario currently proposed, this benchmark would drop to 76.6 g/MJ – an astounding difference of more than 10 g/MJ. CARB cannot expect refiners to adjust to this dramatic change in less than four months. To place additional context around the magnitude of this CI reduction, even under the current proposal, the next time a benchmark CI decline of 10 g/MJ would be realized is in six years.

CARB is creating an impossible feat for regulated parties to comply even as the agency acknowledges the need for liquid fuels to meet state demand for many years to come. The LCFS proposed amendments already create a layering effect with the incorporation of the auto-acceleration mechanism, limitations to biomass feedstocks, and disincentives toward biomass-based diesel fuels. The longer runway associated with the 5% stringency allows fuel producers the time needed to continue advancing new technologies and innovations in ultra-low CI fuels and implementing projects that are already underway but take five or more years to engineer, construct, and commission. Kern understands that Staff may envision smoothing the curve as beneficial, but the reality is an opposite and detrimental effect. Kern supports requiring reductions in a ratable manner.

Kern urges CARB to recognize the disproportionate regulatory impact on small refineries and consider ways to alleviate that burden. As a smaller company operating a single facility, Kern is less able to absorb regulatory costs. Notably, reduced costs create opportunities to utilize funds for reinvestment in the facility and expanding a low-CI fuel portfolio – investments that are critical for Kern's long-term operation and success and critical to meeting the state's climate goals.

In conclusion, Kern appreciates CARB's consideration of Kern's comments. As always, Kern is committed to working with Staff throughout this regulatory process. Please do not hesitate to reach out to me at (661) 845-0761 with any questions.

Sincerely,

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Melinda Palmer VP – Regulatory & Public Affairs Kern Energy