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May 26, 2020

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

RE: NBB and CABA Comments on the Advanced Clean Trucks rulemaking

Dear Chair Nichols and Members of the Board:

Thank you for the opportunity to comment on the proposed Advanced Clean Trucks (ACT) regulation. We recognize the Board's desire to achieve electrification to the extent feasible in the heavy-duty vehicle (HDV) sector. Our comment on this rulemaking is simply to encourage CARB to find ways to facilitate the use of biodiesel and renewable diesel (collectively "biomass-based diesel") in those HDV applications where the transition to electrification is not yet feasible. There is no need to continue using petroleum diesel in such applications when drop-in, sustainable biomass-based diesel is available now -- in blend ratios comprising up to 100% renewable content -- for achieving significant environmental and public health benefits.

The National Biodiesel Board (NBB) is the national association for the U.S. biodiesel and renewable diesel industries; our members produce over 90 percent of the nation's biodiesel and renewable diesel. The California Advanced Biofuels Alliance (CABA) is a not-for-profit trade association promoting the increased use and production of advanced biofuels in California. CABA has represented biomass-based diesel (BMBD) feedstock suppliers, producers, distributors, retailers, and fleets on state and federal legislative and regulatory issues since 2006. As longtime supporters of the Low Carbon Fuel Standard (LCFS), we strongly support clean air and climate protective policies. Accordingly, we believe policies like the ACT should be developed holistically so that environmentally-protective, biomass-based diesel fuel is encouraged in applications where electrification is not yet feasible.

As shown in the figures below, biodiesel and renewable diesel¹ play a critical role in the success of the LCFS. Biomass-based diesel volumes have increased from a mere 14 million gallons in 2011 to 830 million gallons in 2019² (Fig. 1) and are expected to reach 1 billion gallons by the end of 2020. These high-performing diesel replacements have transitioned from modest credit generators to mainstays of the program, accounting for 45% of LCFS credits in 2018 and 2019

¹ Biodiesel and renewable diesel are made from the same organic feedstocks but through different processes. Biodiesel is produced through a catalyzed reaction with alcohol in a process called transesterification, while renewable diesel is produced through more energy-intensive hydrotreating of the feedstock in what is essentially the same process used to make conventional petroleum diesel.

² Fig. 1 derived from <u>LCFS Quarterly Data Summary (updated April 30, 2020)</u>, accessed May 15, 2020.

(Fig. 2)³. As such, biomass-based diesel fuels have provided the lion's share of the LCFS credits to date (cumulatively 41% of all credits generated since 2011) and have therefore been a key contributor to the LCFS' success. Biomass-based diesel fuels have displaced so much petroleum diesel in eight years that biodiesel and renewable diesel now comprise nearly 22% of each gallon of diesel fuel used in California (Fig. 3)⁴.





³ Fig. 2 derived from <u>LCFS Quarterly Data Summary (updated April 30, 2020)</u>, accessed May 15, 2020.

⁴ Fig. 3 derived from <u>LCFS Quarterly Data Summary (updated April 30, 2020)</u>, accessed May 15, 2020.



Moreover, biomass-based diesel provides significant environmental and public health benefits that accrue immediately upon use. Relative to petroleum diesel, biomass-based diesel fuels reduce greenhouse gas emissions (GHG) upwards of 71%, diesel particulate matter⁵ (diesel PM) by 25% or more depending on blend levels, and carbon monoxide, polycyclic aromatic hydrocarbons (PAH), and other noxious compounds by a substantial degree. Also, each gallon of biomass-based diesel consumed helps keep multiple gallons of petroleum crude oil in the ground⁶, which advances the Governor's objectives for reducing California's dependence on fossil fuel by 50% by 2030 and achieving carbon neutrality by 2045.

⁵ CARB identified diesel PM as a toxic air contaminant in 1998, "with no safe threshold of exposure, which means that any diesel PM exposure may increase lifetime cancer risk for affected communities." Proposed Regulation on the Commercialization of Alternative Diesel Fuels, Staff Report: Initial Statement of Reasons, p. 50, https://ww3.arb.ca.gov/regact/2015/adf2015/adf15isor.pdf, accessed Feb. 10, 2020.

⁶ As a general rule, each barrel (42 gallons) of petroleum crude oil yields about 19-20 gallons of gasoline, about 11-12 gallons of diesel, and about 4 gallons of other products. See

https://www.eia.gov/tools/faqs/faq.php?id=327&t=9, last accessed Feb. 20, 2020.

Since widespread electrification of the medium- and heavy-duty fleet in California is not expected to happen until after 2040⁷, biomass-based diesel fuels can provide immediate public health benefits and help meet important policy objectives during the intervening years while electrification ramps up in the state. These sustainable diesel replacements can provide benefits to all Californians, but particularly for those vulnerable populations in disadvantaged communities near heavy freight activities and facilities.

Conclusions

We appreciate the good working relationship we have developed with CARB over many years and look forward to collaborating with CARB in ways that ensure biomass-diesel fuels continue playing a strong role in California's efforts toward a much lower carbon future.

Sincerely,

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Shelby Neal Director of State Governmental Affairs, NBB

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Rebecca Baskins Executive Director, CABA

⁷ CARB staff's own projections for electrification in the heavy-duty vehicle (HDV) sector suggests fleet penetration of electrified HDVs would not grow beyond single digits until sometime after 2040. See Appendix F, Figs. 1-5, "Staff Report: Initial Statement of Reasons," released October 22, 2019, https://ww3.arb.ca.gov/regact/2019/act2019/appf.pdf, pp. 7-9, accessed Feb. 20, 2020.