



October 17, 2022

VIA ELECTRONIC FILING

Craig Duehring
Manager, In-Use Control Measures Section
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Neste Comments on Proposed Advanced Clean Fleets Rulemaking - October 17, 2022

Dear Mr. Duehring,

Neste appreciates the opportunity to provide these comments to the California Air Resources Board (CARB) on the proposed Advanced Clean Fleets (ACF) Regulation posted September 2, 2022. Neste is the world's largest producer of renewable diesel (RD) and sustainable aviation fuel (SAF) refined from waste and residues. During the past ten years, Neste's transformation journey has taken it from a local oil refining and service company to a global leader in renewable and circular solutions. Neste's goal is to achieve carbon neutral production by 2035 and supply California with products that will enable the state to be carbon neutral by 2045. We are in the business of combating climate change by producing effective climate solutions, particularly for hard-to-decarbonize sectors including heavy-duty trucks and aviation, and our vision is to lead the way towards a sustainable future together.

Neste applauds CARB's ongoing commitment to respond to the challenges of climate change and air pollution through regulatory actions across multiple economic sectors, including transportation. CARB has used a range of regulatory approaches from performance standards, to incentives, to more prescriptive requirements. For example, the Low Carbon Fuel Standard (LCFS) – a first-of-its-kind approach developed by CARB – establishes a performance standard of carbon intensity that challenges fuel providers to develop a range of technologies that can reduce greenhouse gas (GHG) emissions. The proposed ACF regulation – combined with the Advanced Clean Trucks (ACT) regulation already in place – takes aim at emissions from medium and heavy duty vehicles with a focus on driving the adoption of specific zero-emission technologies. Each approach can provide benefits in reducing emissions on different timelines and each entails a different set of compliance and implementation costs. Neste would like to offer the following comments on the proposed ACF and to engage as a partner in a longer-term dialogue on regulatory actions aimed at the heavy duty trucking sector.

1. Renewable diesel use, driven by the LCFS, has been (and will continue to be) instrumental in reducing GHG, criteria, and toxic pollutant emissions from heavy duty trucks.
2. Recent research has demonstrated that the use of advanced clean diesel internal combustion engines (ICE) and RD can reduce three times more GHG emissions and reduce criteria pollutant emissions in affected communities faster than shifting to ZEVs between 2022 and 2032.
3. Adding the ACF into the wide range of existing regulations addressing transportation emissions can create challenges in coordination, increased costs, and negative interactions between regulations.

The LCFS, Renewable Diesel, and Emissions Reductions from Transportation

Neste was one of the first major suppliers of renewable diesel into California when it implemented the nation's first LCFS. As an early participant in California's LCFS program, we have supplied California with most of the renewable diesel consumed in the state, thereby reducing the overall carbon footprint of the heavy duty vehicle sector. To date, the introduction of RD into the state's vehicle fleet has driven both GHG and criteria and toxic pollutant emission reductions as noted below.

- Over the course of the life cycle, renewable diesel leads to an 80% reduction in greenhouse gas (GHG) emissions when compared to fossil diesel.
- As a drop-in fuel requiring no additional investment in infrastructure, renewable diesel has been introduced seamlessly into HD vehicle usage and has delivered 28% of the GHG reductions from alternative fuels over the life of the LCFS.
- In addition, as part of the 2018 LCFS rulemaking, CARB projected (see Figures 4-1 and 4-2 below) renewable diesel (and biodiesel) to be the most significant source of NO_x and PM reductions generated by the LCFS program.¹

Figure 4-1: Estimated Statewide NO_x Emissions Impact of the Proposed LCFS Amendments Relative to 2016 Baseline (tons/year)

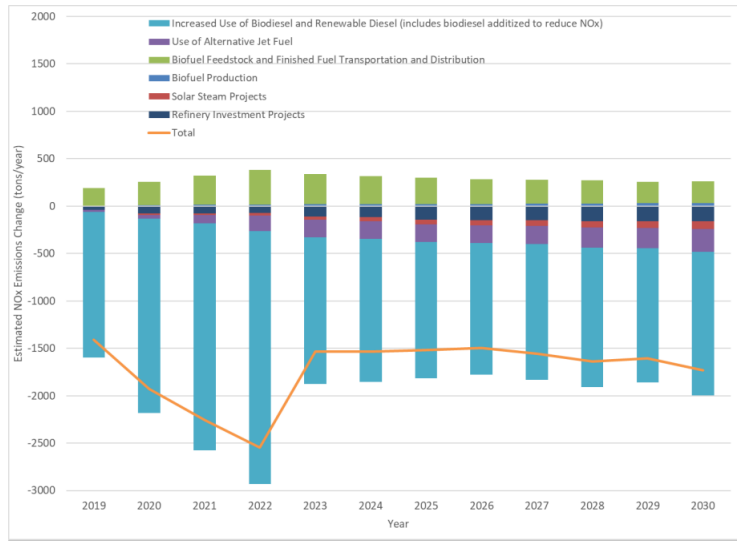
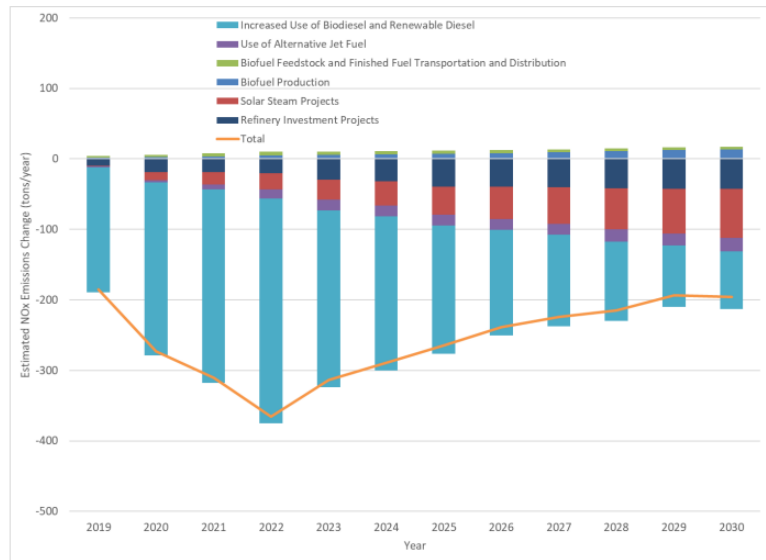


Figure 4-2: Estimated Statewide PM_{2.5} Emissions Impact of the Proposed LCFS Amendments Relative to 2016 Baseline (tons/year)



In summary, RD has been cleaning California's HD vehicle fleets successfully for over 10 years and with broader adoption is poised to deliver significantly more reductions in the future.

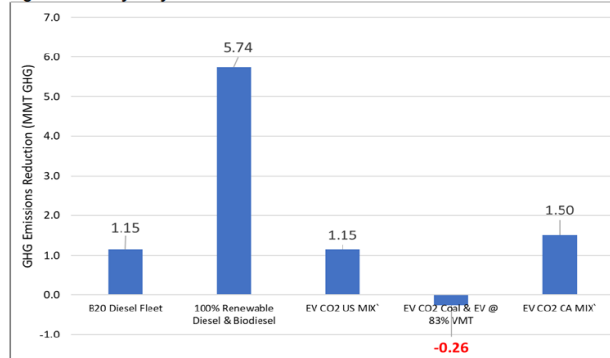
¹https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2018/lcfs18/finalea.pdf?_ga=2.234031006.1245821413.1666038004-1388421127.1643142970

Renewable Diesel Can Help Reduce Emissions from HD Vehicles Faster

Research by the Intergovernmental Panel on Climate Change (IPCC) has consistently highlighted that GHG reductions achieved in the next 10 to 15 years are critical in reaching carbon neutrality by 2045. Increased deployment of zero-emission vehicles (ZEV) in the Medium and Heavy-duty (M&HD) vehicle fleet can contribute to those reductions on a timeline dependent upon several factors including: advances in battery technology, ramp up of M&HD vehicle production, electric charging/fueling infrastructure and renewable electricity generation. In a study of 10,000 HD vehicles in the Northeastern U.S. released in 2022, Stillwater Associates LLC compared the environmental benefits of phasing in new diesel ICE trucks fueled with renewable diesel vs. EV trucks from 2022 to 2032. As shown in the slide graphic below, the ICE/RD scenario delivers three times greater cumulative GHG emissions over the study period.

Biofuels Outperform EV Cumulative GHG Reductions

Figure 13. Heavy-Duty Scenarios 2022-2032 Cumulative GHG Emission Reductions



- By 2032 100% Renewable Diesel provides 3 times more GHG reduction than EV(US Mix)
- By 2032 B20 provides the same GHG reduction as EV (US Mix) migration



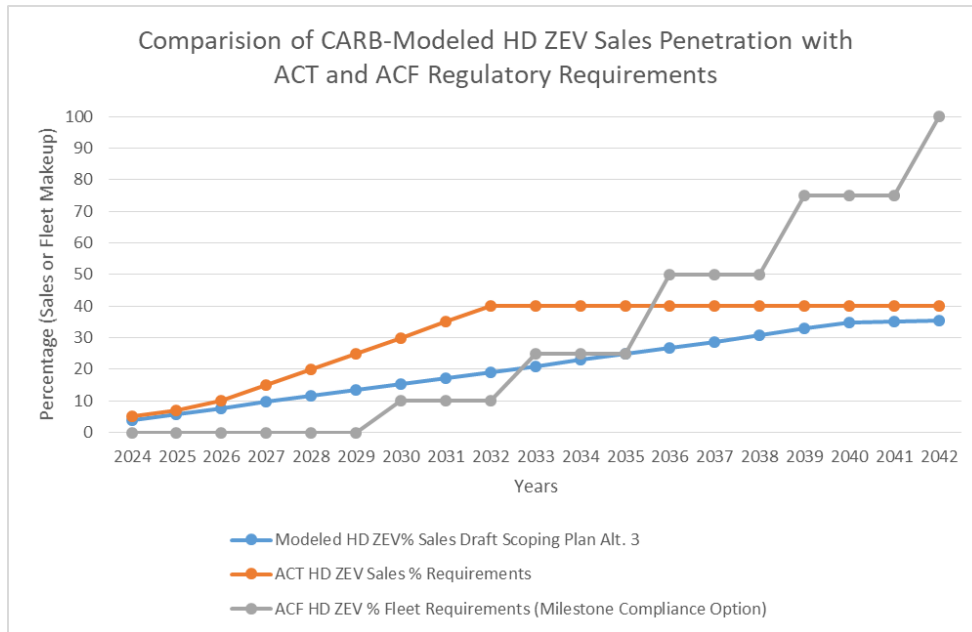
Particularly for HD vehicles where ZEV technology is more difficult and more expensive to deploy, RD can provide a seamless pathway to immediate reductions in GHG, criteria, and toxic pollutant emissions. Neste supports fuel and technology-neutral regulatory policies that recognize the essential contributions of a range of transportation technologies to building a more sustainable future. RD and future advanced liquid low carbon fuels can accelerate our HD emission reductions in the near term and consistently contribute to reductions in this sector for the long term.

Challenges of Coordinating Multiple Transportation Sector Policies

In a 2018 report² the California Legislative Analyst's Office (LAO) highlighted a number of challenges with implementing the state's wide range of regulatory programs addressing emissions from the transportation sector including difficulty in coordinating multiple policies, higher administrative costs, and potential interactions among policies that could limit their effectiveness.

While the ACF rule is designed to complement and support the ACT regulation's goal of an increasing percentage of HD ZEV truck sales, it appears there may be some misalignment (see figure below) between the requirements of both regulations and the current modeling of expected HD ZEV sales being conducted to support the updated Scoping Plan.

² https://lao.ca.gov/Publications/report/3912#Key_Takeaways_From_Review_of_Major_Policies



In addition, while the ACF proposal acknowledges the compliance challenges facing fleet owners by providing a range of compliance exemptions, the administration of those exemptions across potentially hundreds of fleets and thousands of trucks are likely to be complicated and time consuming.

Finally, the Initial Statement of Reasons (ISOR) supporting the draft proposal states that the direct costs of implementing the ACF will be offset by a number of benefits, one of which is LCFS revenue. It appears that this revenue is associated with LCFS credits generated through the construction of ZEV fueling infrastructure. Recent decreases in the LCFS credit prices driven by significant increases in credit generation highlight a potential issue with the interaction of the ACF and LCFS. To the extent that opportunities for credit generation continue to be increased (e.g., for the installation of ZEV fueling/charging infrastructure that may or may not be fueling/charging vehicles) this puts downward pressure on credit prices and, therefore, on the potential for LCFS revenue to offset ACF implementation costs.

Neste looks forward to participating further with CARB as it develops the ACF, updates the LCFS and advances other aspects of its transportation sector regulations. We stand ready to support the Agency's efforts to reduce the impacts of climate change and air pollution across the state and particularly in disadvantaged communities.

Please feel free to contact me if you have any questions regarding this submission.

Sincerely,

Peter Dahling

West Coast Public Affairs Manager
Neste U.S., Inc.