June 24, 2022

VIA ELECTRONIC FILING

Rajinder Sahota
Deputy Executive Officer
California Air Resources Board
1001 I Street
Sacramento, Ca 95814

Re: Neste Comments on Draft 2022 Climate Change Scoping Plan

Dear Ms. Sahota:

Neste appreciates the opportunity to provide these comments to the California Air Resources Board (CARB) on the Draft 2022 Climate Change Scoping Plan (Scoping Plan) dated May 10, 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, and our vision is to lead the way towards a sustainable future together.

Neste reviewed the Draft Scoping Plan and suggests that CARB include a clearer and stronger focus on technologies available today to combat climate change - specifically those driven by the LCFS program to address GHG and criteria pollutant emissions from the heavy duty transportation sector. As CARB well knows, the GHG reductions achieved in the next 10 to 15 years are critical in reaching carbon neutrality by 2045, and the LCFS is poised to deliver those reductions. Neste recognizes that strong market signals are needed to incentivize new technologies for light and medium duty vehicles that are key to reaching carbon neutrality. However, the Scoping Plan should also emphasize the success of technologies available today for the heavy duty vehicle sector and suggest strengthening the LCFS to reduce GHG emissions even further. Technologies such as RD and SAF will be instrumental in reaching carbon neutrality for the GHG-intensive heavy duty vehicle and aviation sectors. These technologies can reduce GHGs across the life cycle by about 80% today and in the immediate future, and more investments are being made in their production, yet the Scoping Plan focuses mostly on technologies that will be fully available in 10 to 20 years.

Neste would like to request that the Scoping Plan adequately focus on today's GHG-reduction technologies, such as renewable diesel and SAF, by including a section that summarizes the following points:

- **Key Role of the LCFS Program** - The LCFS program should serve as an anchor for the Scoping Plan. One to be supported and expanded by increasing targets and including aviation, rail, and maritime transport, and considering other potential applications like back-up generators. Other jurisdictions are already making improvements to their programs and California needs to keep up.
- **CARB's Commitment to Continued Development of Proven Technologies-** Advanced low carbon liquid fuels can deliver GHG and criteria pollutant emission reductions today, and CARB should work to incentivize them wherever possible while other new technologies are being developed.
- **GHG Reductions from Current and Potential Growth in Volume of Liquid Low Carbon Fuels** - Document the importance of renewable diesel and SAF volumes in California to reduce GHGs today and over the next 10 years

Several of these points are already included in the Scoping Plan as part of other discussions, however Neste would like a more complete discussion on the important role today's GHG technologies will play in reaching carbon neutrality by 2045.

Demonstrated Success Supports Stronger Market Signals for Today's GHG Reduction Technologies:

History of Neste's Strong Support for California's LCFS Program:

Neste was one of the first major suppliers of renewable diesel into the state of California when it implemented the nation's first Low Carbon Fuel Standard (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. We were also one of the few investors in technologies that allowed renewable diesel production to meet LCFS volume demands, ensuring California was able to meet its aggressive fuel carbon intensity (CI) reduction goals and the overall success of the program. Neste continues to make significant investments to help states, cities and our customers combat climate change and to create a healthier planet for our children.

Below are some of the benefits renewable diesel has had under California's LCFS program, and most of these benefits were achieved by Neste produced renewable diesel:

- Over the course of the life cycle, renewable diesel leads to an 80% reduction in greenhouse gas (GHG) emissions when compared to fossil diesel
- Per the Draft Scoping Plan, "total [annual] consumption of renewable diesel has skyrocketed from approximately 1.8 million gallons in 2011 to nearly 589 million gallons in 2020".
- As a drop-in fuel, renewable diesel now comprises over 32% of California diesel as of 4th quarter 2021[1]
- Through the end of 2021, renewable diesel use resulted in 28% of the GHG reductions from alternative fuels over the life of the LCFS program[2]
- CARB has shown that renewable diesel use leads to significant reductions in NOx, PM, SOx and toxic air pollutant emissions, generating further co-benefits to disadvantaged communities with heavy diesel truck traffic[3]

The California LCFS Program Has Delivered Significant GHG and Criteria Emissions Reductions:

CARB should clearly state its commitment to the LCFS program given the significant GHG emissions reductions that have been achieved by the transportation sector thus far, and for being one of the principal drivers for new renewable fuel markets in the United States. Below is an overview of some of the successes of the LCFS program.

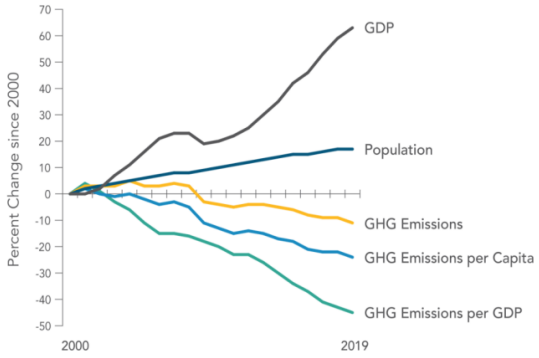
- Since passing their clean fuel standards, California and Oregon have reduced almost ***70 million tons of CO_2***, the equivalent of removing carbon emissions from 21% of all vehicles in the US
- Through the end of 2021, the California LCFS program has displaced the equivalent of ***23.8 billion gallons*** of conventional gasoline, diesel and jet fuels since its inception in 2011[4]. This is the equivalent of 18% of total annual US gasoline consumption as of 2021.
- Per the Draft Scoping Plan, the "LCFS is a key driver of market development for renewable diesel and its coproducts. While the federal renewable fuel standard (RFS) and blenders tax credit also benefit producers, an analysis of their respective contributions to market development, and

[1] https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard
[2] https://ww2.arb.ca.gov/our-work/programs/low-carbon-fuel-standard
[3] https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2015/adf2015/adf15isor.pdf
[4] https://ww2.arb.ca.gov/resources/documents/low-carbon-fuel-standard-reporting-tool-quarterly-summaries

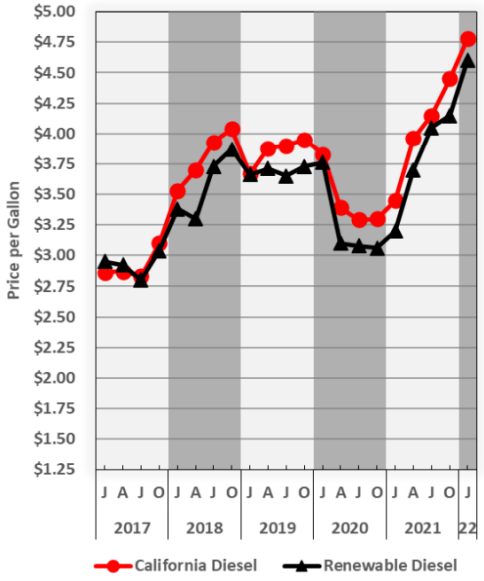
interviews with industry representatives and independent experts, point to LCFS as a more important factor in market development, at least in recent years".

- Figure 1-1 in the Draft Scoping Plan shows that California has been able to reduce its carbon footprint while having strong GDP growth (see below). This is largely due to the success of the LCFS program. In fact, per the US Bureau of Economic Activity (BEA), California has had stronger GDP growth than neighboring states with no LCFS programs.[5]

Figure 1-1: California total and per capita GHG emissions



- Per the US Department of Energy Alternative Fuels Data Center,[6] renewable diesel is now competitive in price with conventional diesel in California. This is largely due to the stable renewable fuels market created by the LCFS program. The LCFS program provides the certainty needed to establish thriving renewable fuels markets.



In addition to delivering GHG emissions reductions, the LCFS has also been instrumental in driving reductions in criteria pollutants from vehicles across the state, including in disadvantaged communities that are disproportionately impacted by air emissions from the transportation sector. As part of its LCFS rulemaking activities, CARB estimated that the LCFS would reduce annual NOx and PM emissions as shown below in Figure 4-1 and Figure 4-2, and that toxic air contaminant (TAC) emissions would similarly go down.

[5] https://www.bea.gov/data/gdp/gdp-state
[6] https://afdc.energy.gov/files/u/publication/alternative_fuel_price_report_january_2022.pdf

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

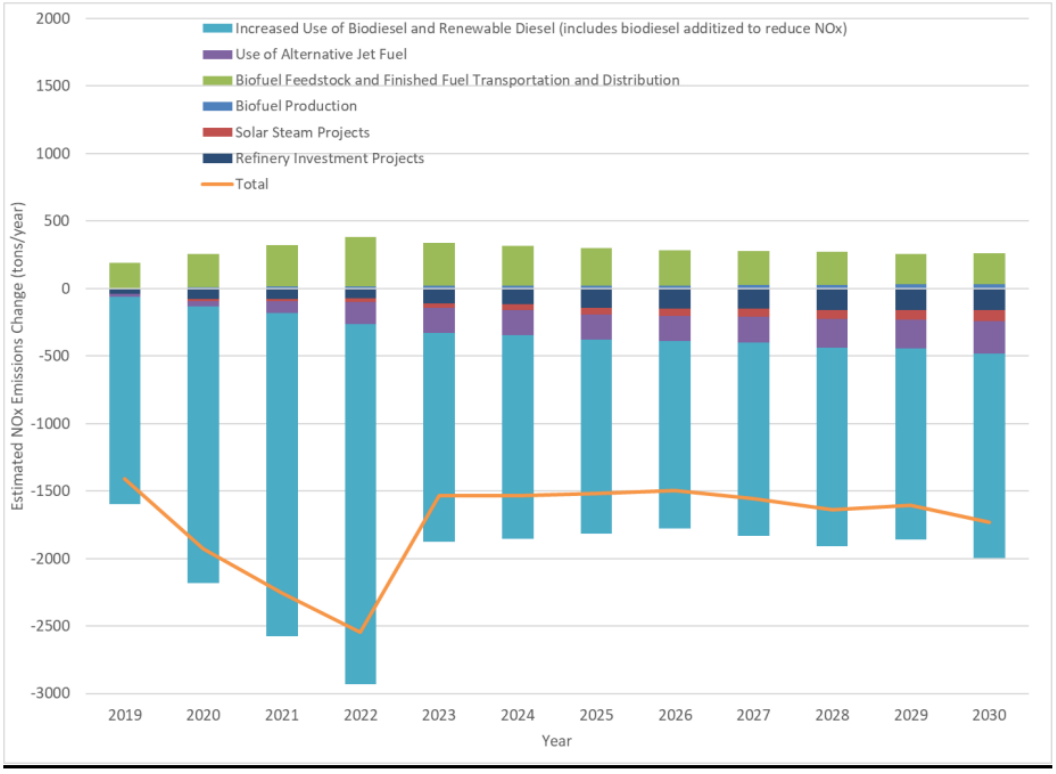
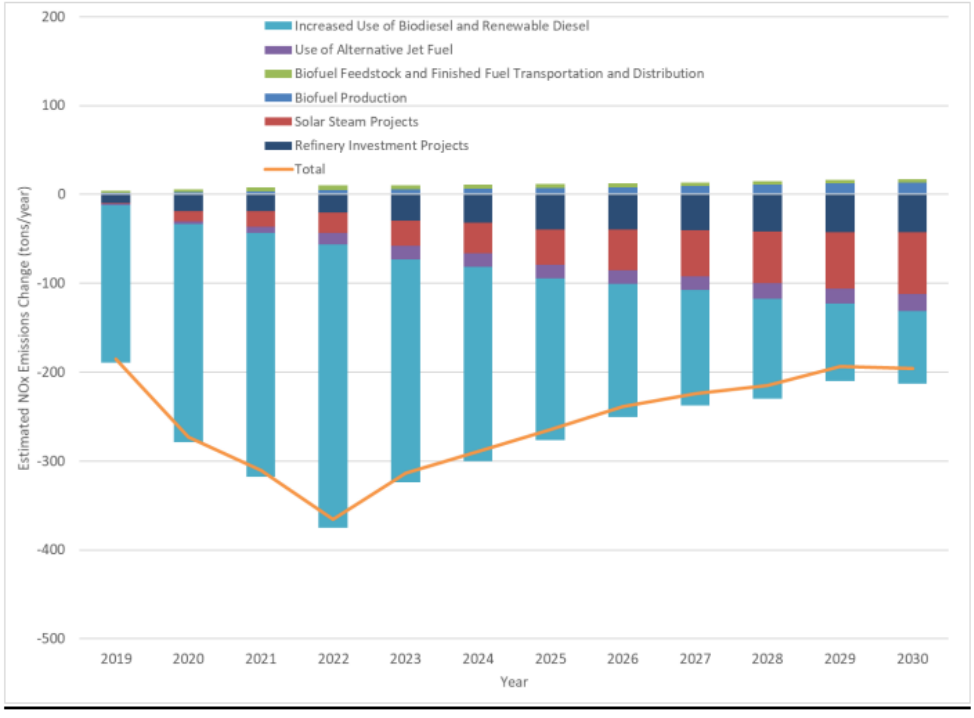


Figure 4-2: Estimated Statewide $PM_{2.5}$ Emissions Impact of the Proposed LCFS Amendments Relative to 2016 Baseline (tons/year)



As shown above in Figures 4-1 and Figure 4-2, renewable diesel (and biodiesel) is projected to be the most significant source of NOx and PM reductions generated by the LCFS program (see light blue sections). In 2022 alone, CARB estimated that renewable diesel (and biodiesel) would reduce NOx by approximately

2,500 tons and PM by 300 tons. In other words, renewable diesel use has resulted in significant NOx and PM reductions across the state, including in disadvantaged communities, and by far the largest reductions among all fuels in the LCFS program. This further highlights the need for CARB to continue making LCFS a top priority and to prioritize currently available technologies such as renewable diesel so that local communities can benefit from reduced emissions immediately.

Renewable Diesel Driving Climate and Air Quality Benefits Locally TODAY

As part of our circular approach to fueling, Neste has partnered with the City of Oakland to collect used cooking oil locally and convert it into renewable diesel for use in the city's fleet. By making waste more valuable and supporting jobs that collect and treat it, this concept helps the local economy in the city while the cleaner-burning Neste MY Renewable Diesel improves the lives of its residents by reducing local emissions from the city's fleet.

By simply switching to Neste MY Renewable Diesel, the city of Oakland's fleet has been able to reduce the following emissions when compared to fossil diesel:

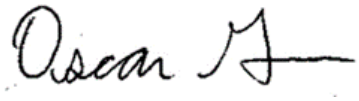
- GHG emissions by 74 percent
- Fine particulates by 33 percent
- Carbon monoxide emissions by 24 percent
- Nitrogen oxide emissions by 9 percent

This concept creates a win-win-win for the city, its businesses and its residents. It helps the local economy in and around Oakland, improves air quality in the city, and, of course, ensures that used cooking oil does not end up as waste. Neste hopes that CARB continues to incentivize these circular solutions that are having real impacts in local communities TODAY.

Neste looks forward to continued participation in the Scoping Plan update, and being a leader in the fight against climate change.

Please feel free to contact me if you want additional information or have questions regarding our submission.

We appreciate your consideration.



Oscar Garcia

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