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## Biodiesel, renewable diesel fuel largest-ever reductions in California's transport GHG emissions

New data from the California Air Resources Board's (CARB) Low Carbon Fuel Standard (LCFS) programme has revealed that biodiesel and renewable diesel have delivered the largest-ever reduction in transport-related greenhouse gas (GHG) emissions in the state.

According to the figures for 2018, California's use of biodiesel and renewable diesel reduced carbon dioxide emissions (CO<sub>2</sub>) by 4.3 million tons, which was higher than the reductions made through the use of ethanol fuel.

Biodiesel and renewable diesel have removed over 18 million tons of CO<sub>2</sub> from California's roads since the LCFS programme began in 2011, CARB added.

"The pairing of biofuels with new-generation diesel engines is, hands down, one of the most effective – and underrated – ways to reduce greenhouse gas emissions from heavy-duty transportation sources," said Allen Schaeffer, executive director of the Diesel Technology Forum. "Even though battery electric technologies dominate the headlines, electric cars and trucks in California resulted in only 1.2 million tons of CO<sub>2</sub> reductions in 2018 – one third of the emissions reductions delivered by diesel biofuels."

The use of biodiesel or renewable diesel in new and existing diesel engines can reduce GHG emissions by 50-85%, without the need for investments in new fuelling infrastructure or vehicle technologies.

"These new, advanced fuels offer state and city leaders new opportunities to put existing and readily available equipment to work, and still deliver on clean air and climate goals," added Schaeffer. "It's exactly the type of innovation demonstrated by companies developing advanced diesel fuels that underscore why it is so important to remain technology-neutral when states and cities institute these kinds of goals and standards."

"If it weren't for these advanced diesel fuels in the Low Carbon Fuel Standard, California would not have achieved its 2020 climate goals in 2018. Had California depended only on emerging, alternative technologies to deliver on these goals, the state would still be waiting."

A number of cities across the state of California, including Oakland, San Francisco, Sacramento and San Diego, exclusively use renewable diesel in city-owned heavy-duty trucks, buses and equipment, according to the release from CARB.

As evidence of the CO<sub>2</sub> emission reductions being achieved through this programme, the San Francisco Metropolitan Transportation Agency reported the removal of over 10,000 tons of CO<sub>2</sub> in just one year, thanks to the use of renewable diesel in 632 transit buses.

### Reaction from industry players

"This study from CARB is a welcome confirmation of what we already knew: biodiesel and renewable diesel are ready to make an immediate contribution to the reduction of California's carbon footprint," noted Jeremy Baines, vice-president of North American sales for renewable diesel producer Neste.

"With transportation currently the leading cause of carbon emissions, it is the most conspicuous starting point for change. As this study demonstrates, diesel operators can reduce their lifecycle greenhouse gas emissions tomorrow, simply by switching to biomass-based diesel. At Neste, we believe so strongly in renewable diesel as a long-term solution, we have made significant investments to nearly double our production capacity by 2022."

Cynthia J. Warner, CEO of Renewable Energy Group (REG) – the largest producer of biodiesel in North America – said: "At REG, we are committed to delivering high quality biodiesel, renewable diesel and REG Ultra Clean™ Diesel that California consumers want. Our low carbon, readily available fuels provide practical, simple and very beneficial GHG reduction results."

Highlighting the potential for biodiesel to cut emissions nationwide, Don Scott, director of sustainability at the National Biodiesel Board, commented: "As a whole, biomass-based diesel reduces well over 20 million metric tons of CO<sub>2</sub> nationwide annually, while still allowing fleets to utilize their existing and new diesel vehicles without modification. That truly represents a win-win, for the transportation sector, and for the environment."

The data from the Low Carbon Fuel Standard programme can be accessed [here](#).

