

# Senate Transportation Committee: Clean Transportation Technology Informational Hearing

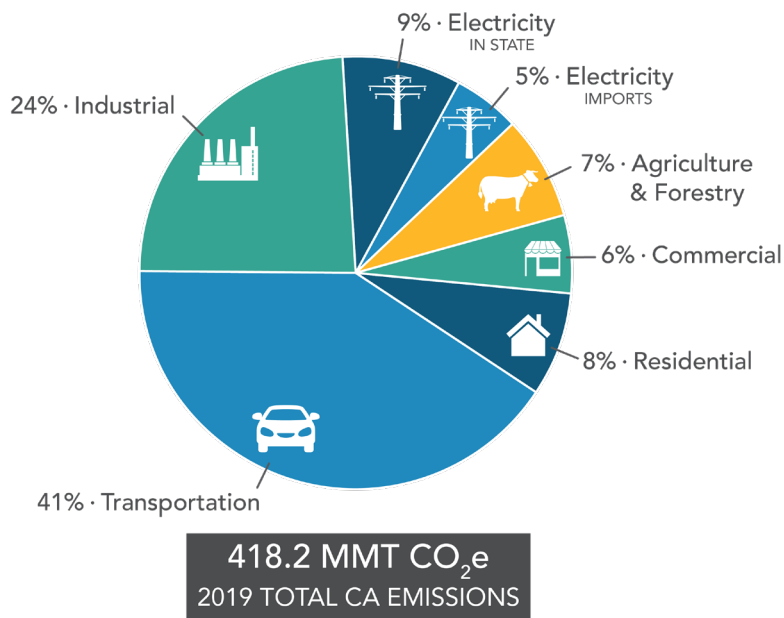
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CHAIR RANDOLPH

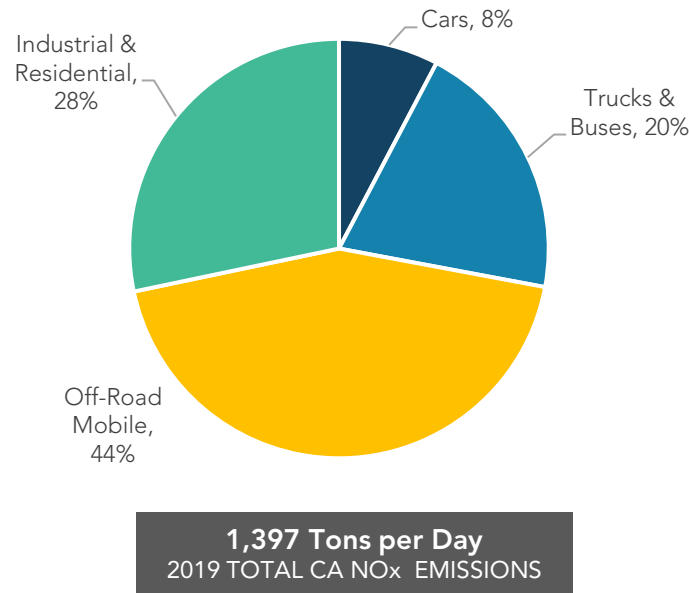
FEBRUARY 15, 2022



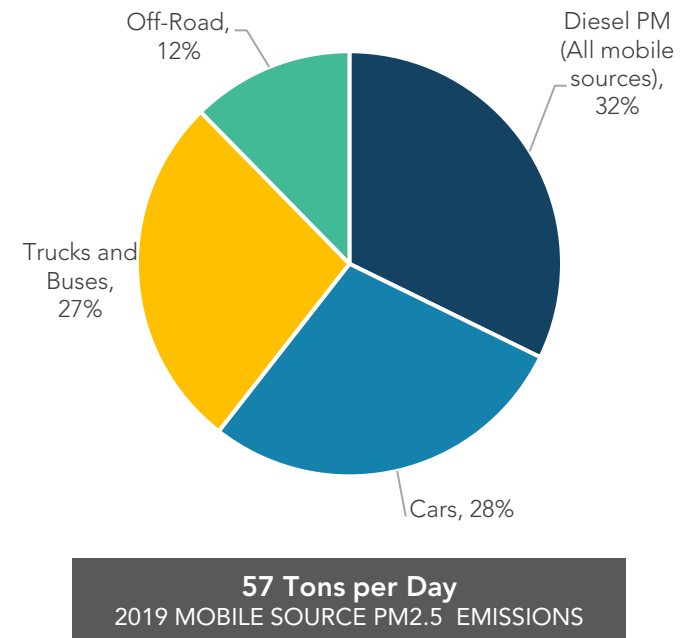
# Transportation Sector: Largest source of GHG and NOx Emissions



Source: 2021 Edition, California Greenhouse Gas Emission Inventory: 2000-2019



Source: CARB Emission Inventory



Source: CARB Emission Inventory

# *Reducing Emissions from Passenger Vehicles*

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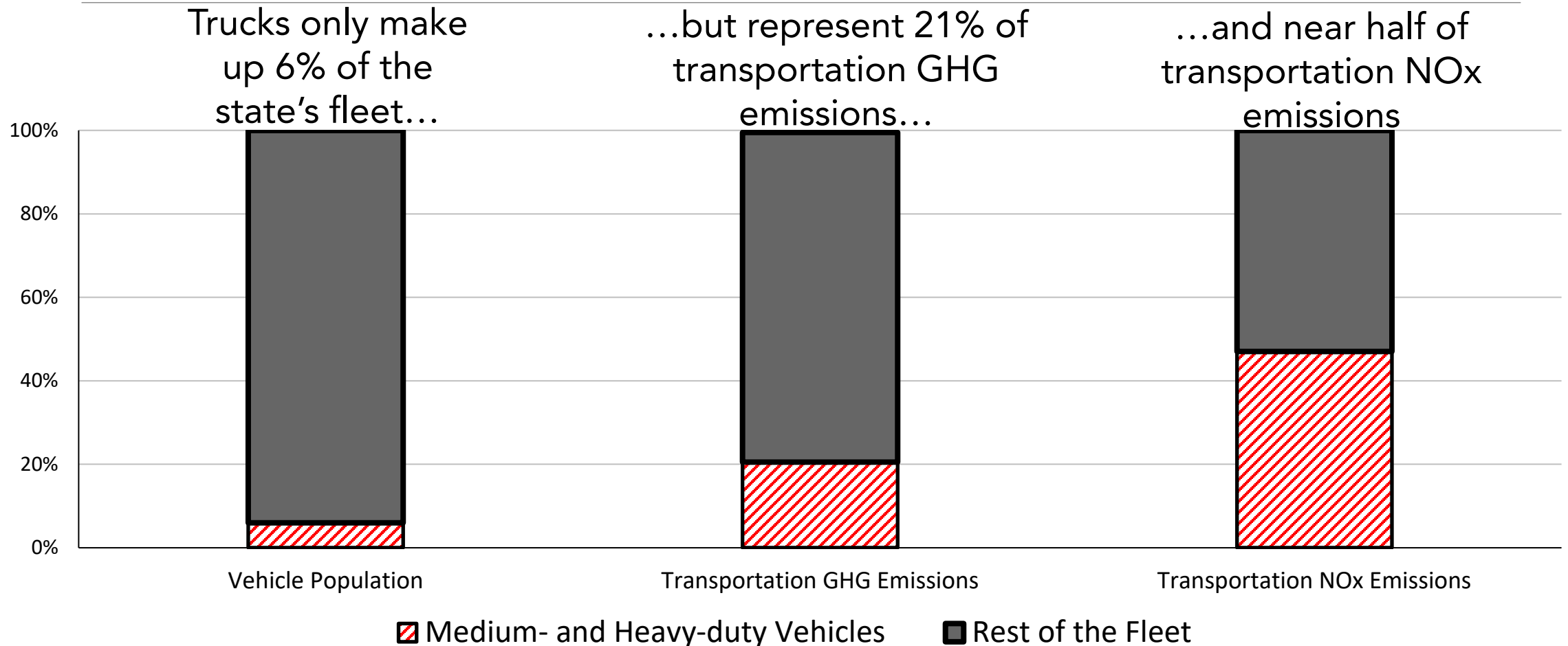
Fraction of total tailpipe emissions from passenger vehicles (2019)

- 28% GHG
- 9% NO<sub>x</sub>

Light-duty vehicle programs to address emission challenge

- Advanced Clean Cars II, building on current ZEV and LEV regulations
- Clean Mile Standard for ride hailing vehicles
- SB 375 Sustainable Communities Strategies
- Vehicle Incentives - Clean Vehicle Rebate Project, Clean Vehicle Assistance Program, Clean Cars 4 All, Sustainable Transportation Equity Project

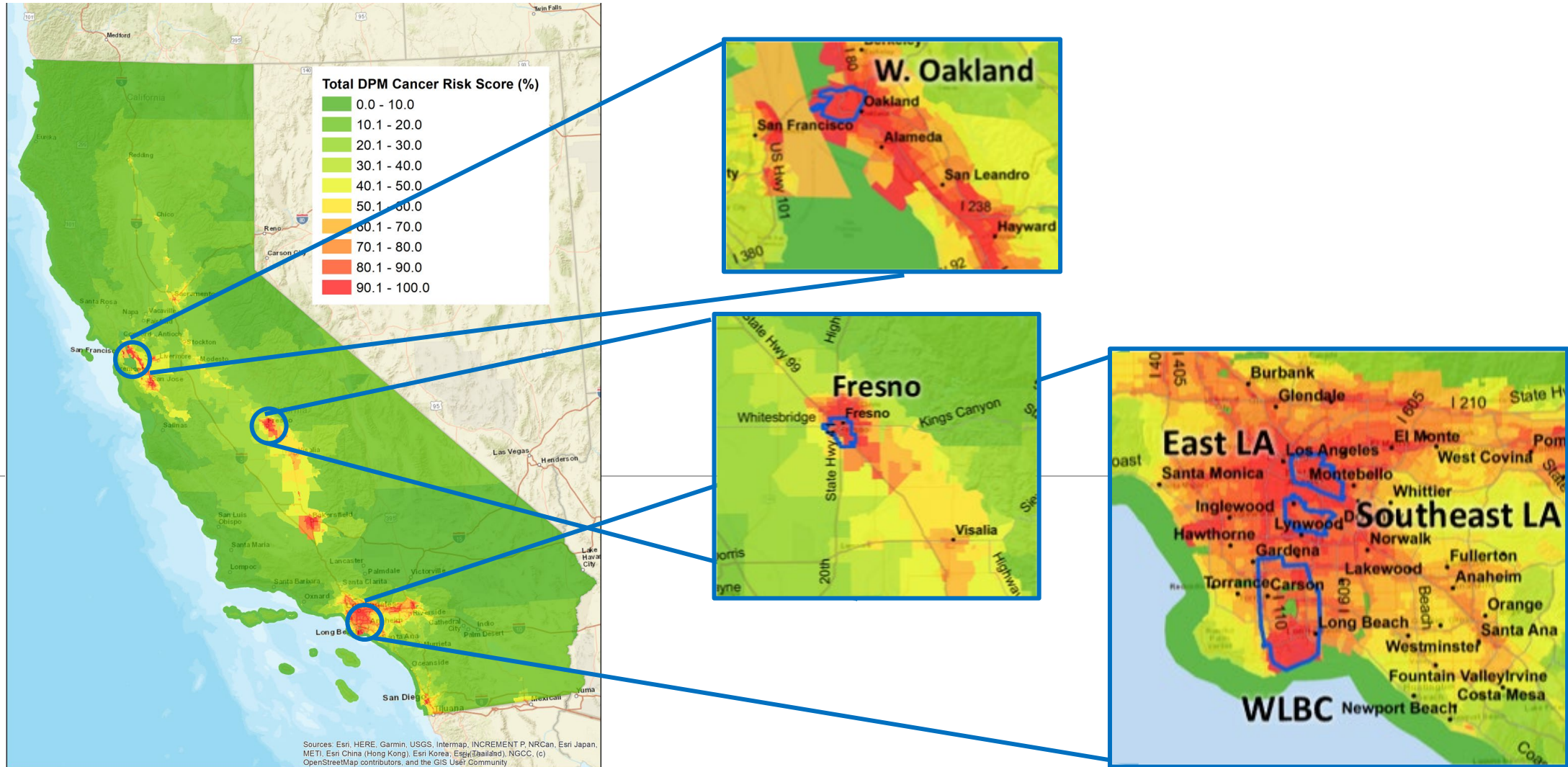
# The Importance of Addressing Truck Emissions



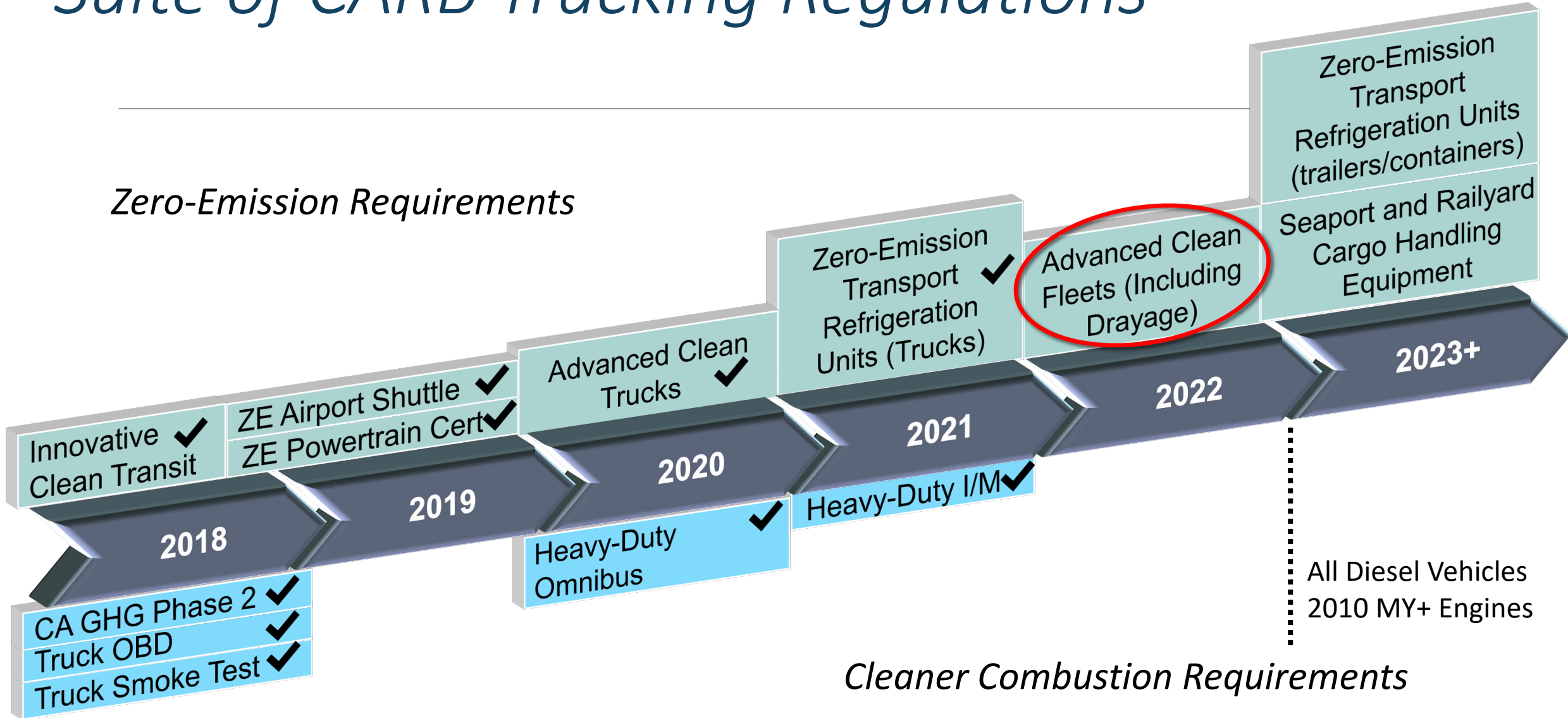
SOURCE: EMFAC 2021

NOTE: "TRUCK" REFERS TO ALL VEHICLES ABOVE 8,500 LB. GVWR

# Diesel Emissions are a Major Contributor to Risk Around Our Most Burdened Communities



# Suite of CARB Trucking Regulations



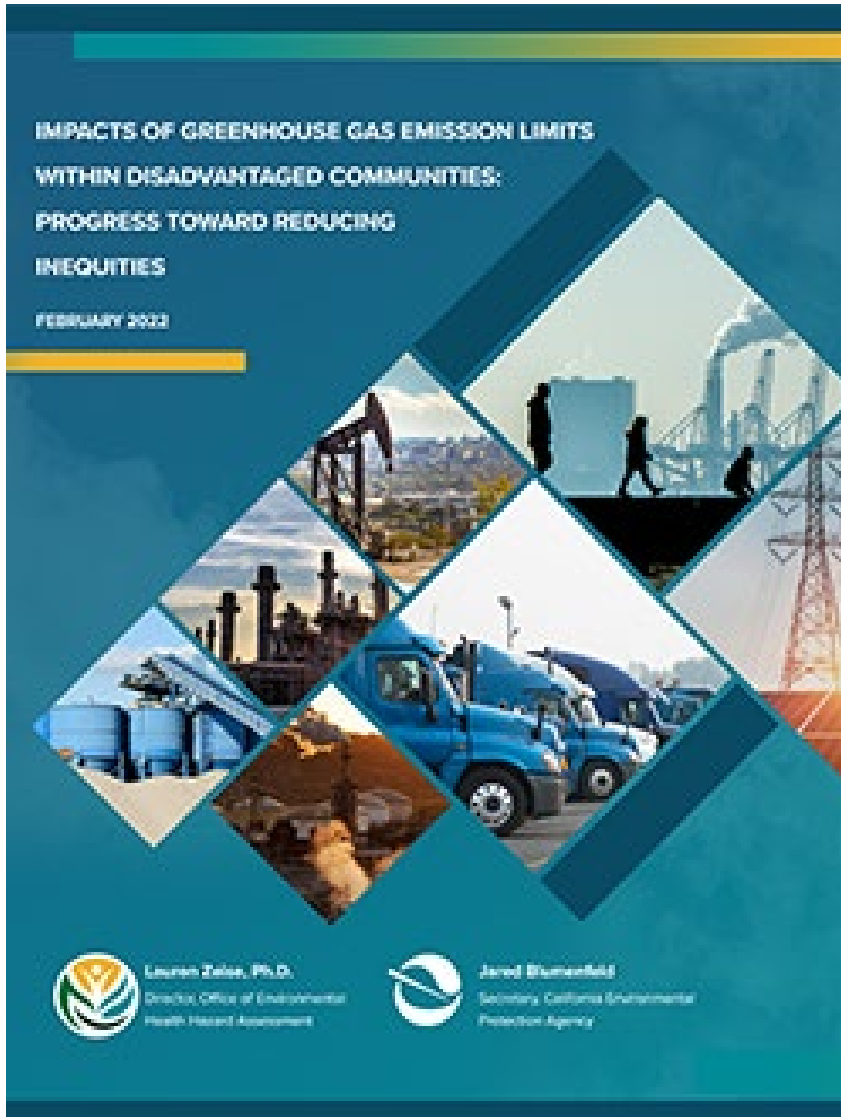
# *Benefits and Impacts of Greenhouse Gas Limits on Disadvantaged Communities*

Diesel particulate concentrations from heavy-duty vehicles decreased between 2000 and 2019.

- The greatest decreases were in communities of color and disadvantaged communities, with a 75 percent reduction in diesel PM levels.

Governor Newsom's mandate to use only zero-emission heavy-duty vehicles by 2045 is expected to reduce diesel particulate concentrations by 58 percent.

- These reductions could avoid up to 3,800 premature deaths, mostly people of color.



# *Decarbonizing Transportation Fuels*

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- Executive Order N-79-20\* requires continued reductions in carbon intensity of transportation fuels while transitioning to zero emission technology.
- Low carbon alternative fuels will be needed for certain sectors (aviation) and through the transition away from petroleum fuels.
- Low Carbon Fuel Standard (LCFS) is State's primary mechanism for decarbonizing transportation fuels and supporting use of low-carbon alternatives.
- Hydrogen produced via low-carbon, renewable sources such as zero carbon electricity or biomethane generates credits under the LCFS when used in hydrogen fuel cell electric vehicles.

\* EO N-79-20: <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>



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Thank you