



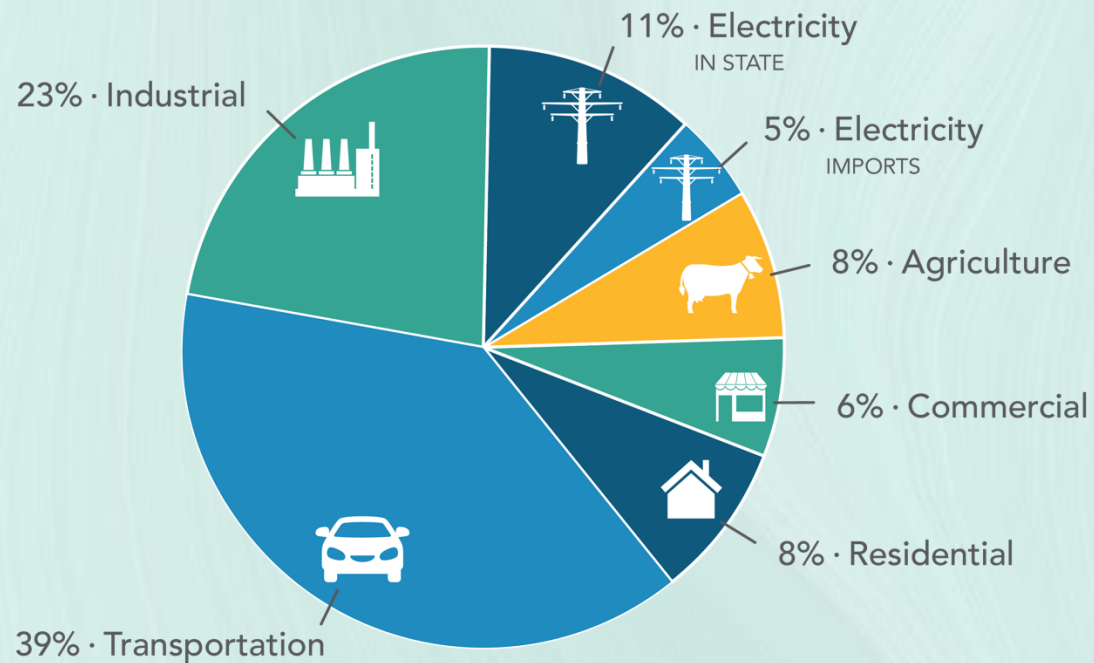
Low Carbon Fuel Standard

October 25, 2024

Mission statement

"CARB's mission is to promote and protect public health, welfare, and ecological resources through effective reduction of air pollutants while recognizing and considering effects on the economy. CARB is the lead agency for climate change programs and oversees all air pollution control efforts in California to attain and maintain health-based air quality standards."

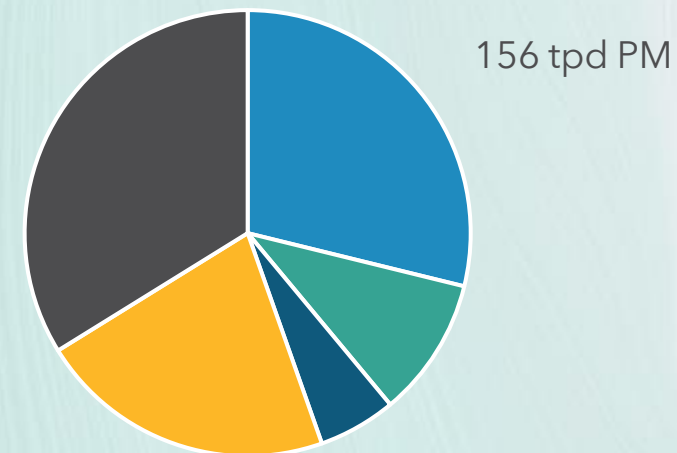
Air Pollution from Transportation



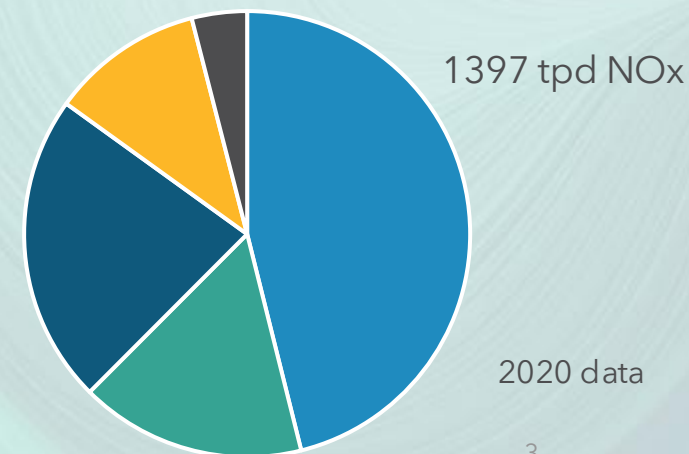
371.1 MMT CO₂e
2022 TOTAL CA EMISSIONS

- On-Road Mobile
- Off-Road Mobile
- Primarily Federally Regulated Mobile
- Stationary (Combustion)
- Areawide (Combustion)

PM Emissions



NOx Emissions



2020 data

The Road to Zero Emissions

CARB has put a roadmap in place to drastically reduce our dependence on petroleum in the transportation sector by 2045.

AB 32

Requires we cut GHGs.
To reach goals, fuel use must be cut by 94%.

How cuts happen?

Zero emission cars, trucks and fuels.



ACT

ACC

ACF

CARB rules that make that possible:

Advanced Clean Trucks, Advanced Clean Cars, Advanced Clean Fleets

- ACT: Phases out sale of most fuel-powered trucks by 2035
- ACC: 100% ZEV sales requirement by 2035
- ACF: Requires that trucks in CA be zero emissions by 2045

LCFS

All together, these actions will help us build a cleaner, healthier California for current and future generations.

Governor Newsom creates new oversight committee to monitor oil companies



Makes fuel less polluting and encourages production of cleaner alternatives

How it works:

Dirty Fuel



Cleaner Fuel



And LCFS is Accelerating the Transition

15.3% reduction in the carbon intensity of California's transportation fuels

Over 31 billion gallons of petroleum fuels displaced by low-carbon fuels

60% of fossil diesel displaced by biomass-based diesel in 2023, resulting in PM and NOx benefits

\$4 billion annually to support low-carbon investments and \$341M cumulative for public transit

Supports many State programs and goals, including cars and trucks going to zero-emission vehicles

Financial assistance for vehicle purchases at the state and local level

LCFS proposal

- Raises carbon intensity reduction target from 20% to 30% in 2030 and to 90% by 2045
- Provides enough support to meet zero-emissions infrastructure needs through mid- 2030s
- Provides an essential funding stream for transit
- Incentivizes zero-emissions innovation for sources regulated by CARB
- Limits credit generation for virgin oil feedstocks and prioritizes waste-based fuels; puts in safeguards for deforestation and to support smart agriculture
- Phases out avoided methane credits from dairies that provide fuel for combustion trucks and buses

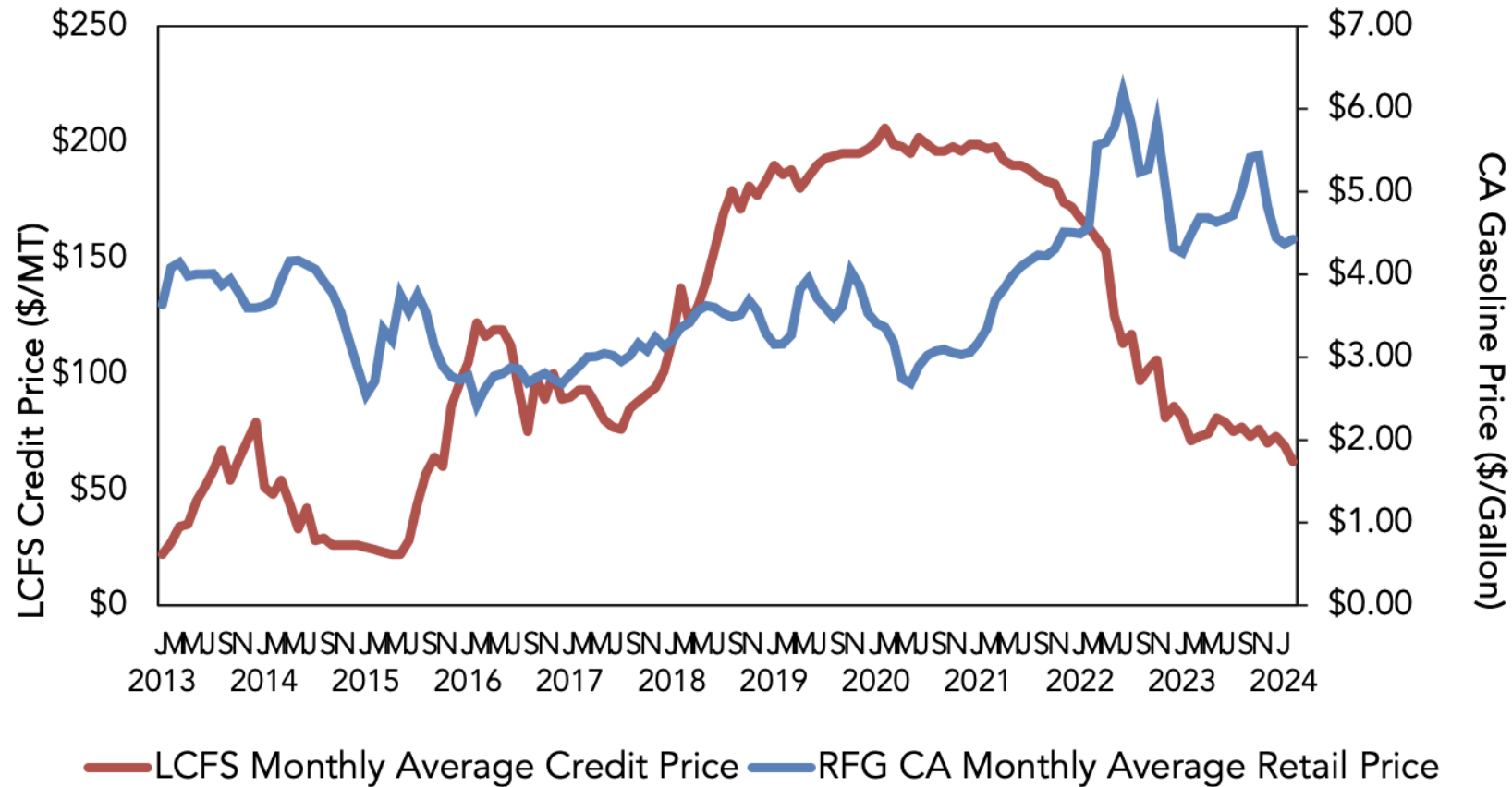
Reasons for amendments

- CARB is responsible for finding cost-effective solutions to achieve legislatively mandated climate and air quality targets
- Increased stringency is needed to achieve required emissions reductions
- The proposal was shaped by more than a year of public engagement with various interested parties.
- Leverages credit system to address zero-emission infrastructure needs and support transit, which are all essential to future carbon neutrality goals

Gas prices

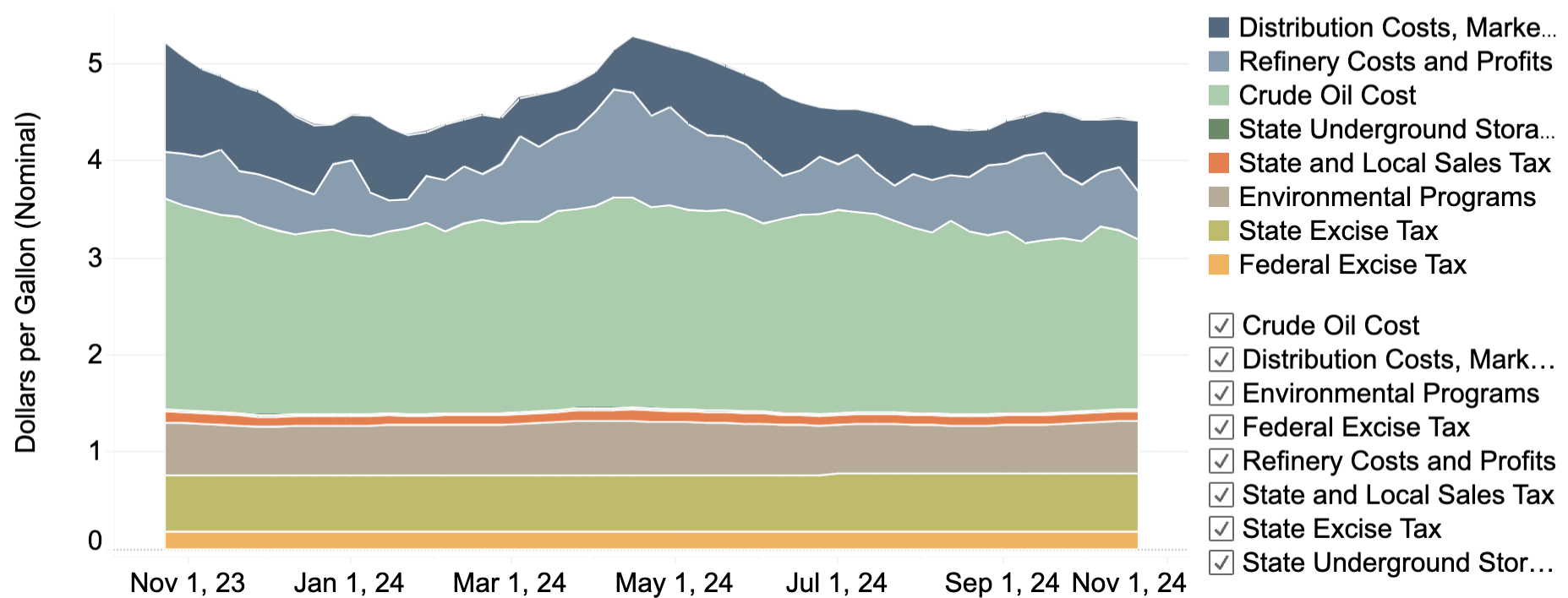
- CARB policy comparison model does not predict gas prices
- LCFS requires that polluters pay for their pollution – and how they pass down compliance costs is a business decision they make
- We do not repeat the SRIA analysis because its required early in process
 - not for purposes of predicting retail prices
 - does not include comprehensive analysis of benefits
- LCFS has been in public discussion for more than a year and we have made multiple efforts to address this question
- A more comprehensive analysis was included in the Initial Statement of Reasons posted in early 2024
- LCFS provides consumers options and makes state less dependent on oil industry and its associated supply and cost volatility – in addition to its climate and air quality benefits

No relationship between LCFS credits and retail gas prices



What drives gas prices

California Gasoline Price Breakdown and Margins



Source: ca.gov/gasfacts



Thank you!