

Low Carbon Fuel Standard (LCFS)

Environmental Justice Advisory Committee
9/14/2023





EJAC Role and Goals

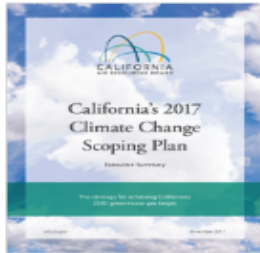
*EJAC will seek to ensure that communities most impacted see **improvements**, have **increased resiliency** in the face of mounting climate impacts, and **do not experience an increase in exposure to air pollutants**.*

Goals

- ★ Provide **actionable recommendations** that can be integrated into the fabric of the State's AB 32 climate programs.



History of EJAC Recommendations on the Low Carbon Fuel Standard



2017 Scoping Plan Update

Achieving California's 2030
Greenhouse Gas Target



2013 Scoping Plan Update

Building on the Framework



2008 Scoping Plan

A Framework for Change

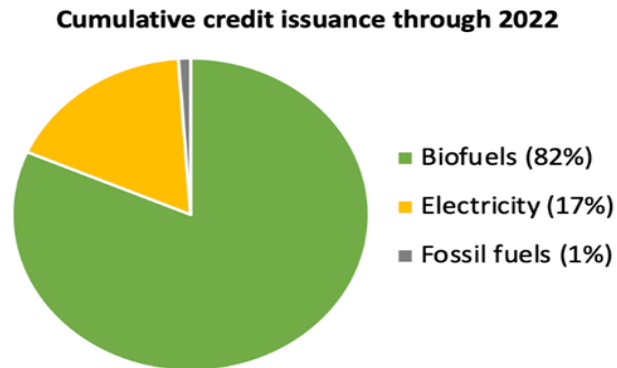
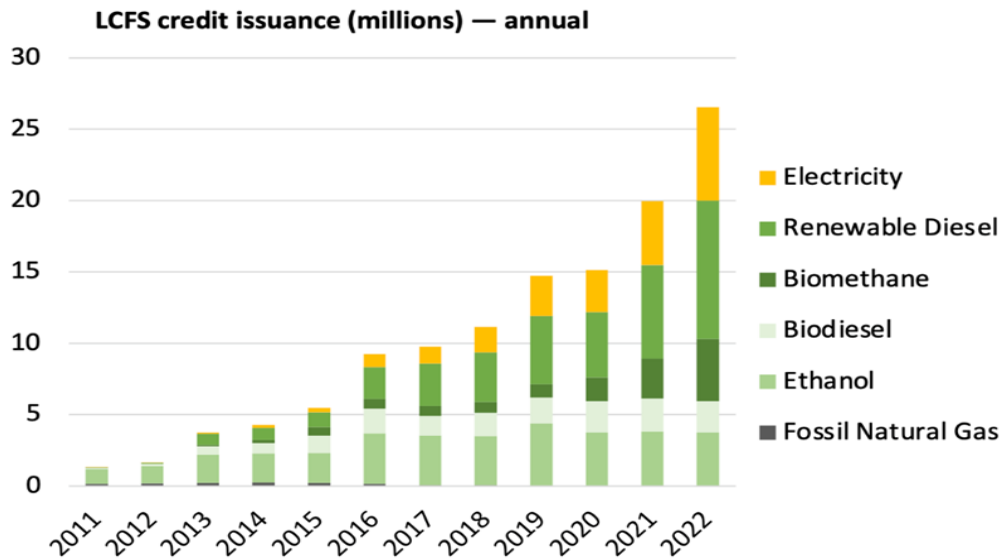
July and August EJAC meetings

How it started...



How it's going...

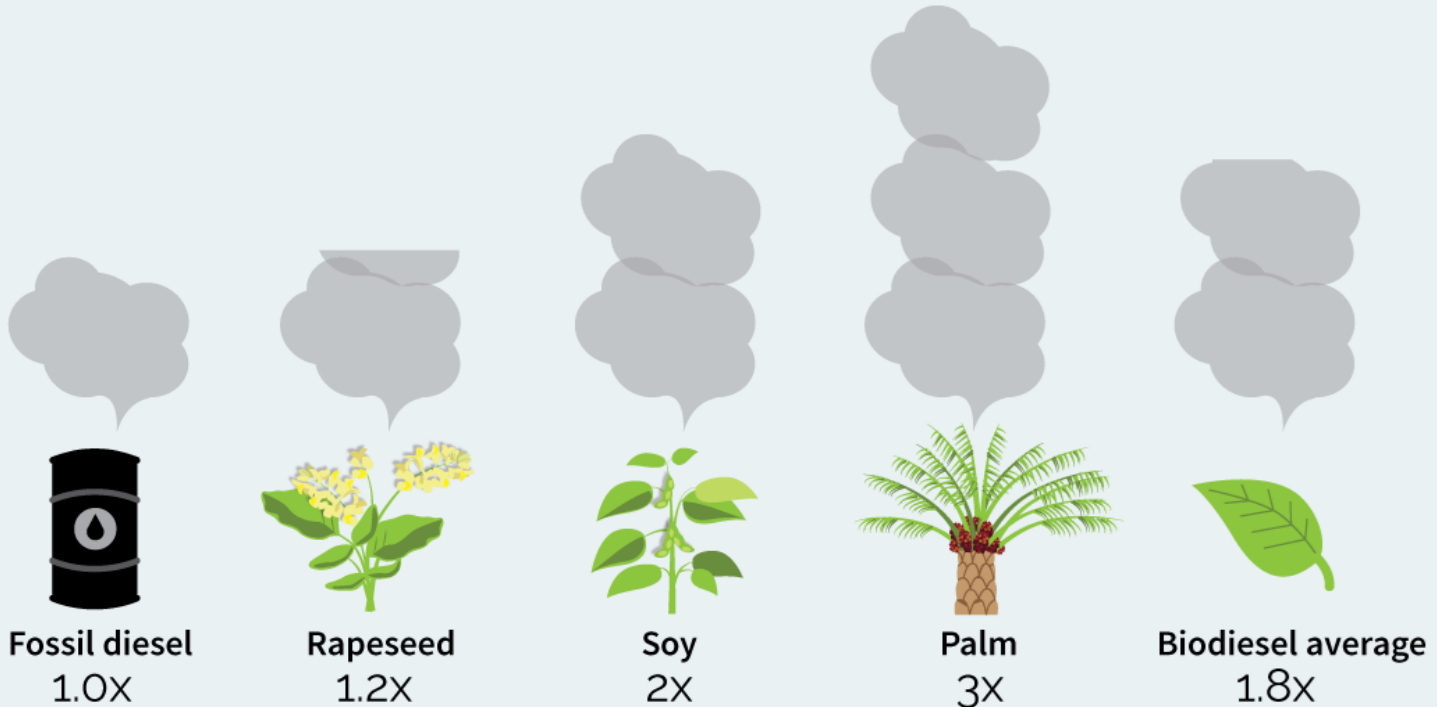
LCFS CREDIT ISSUANCE



(2022 issuance is 75% biofuels, 25% electricity)

Biodiesel: cure worse than the disease

Fossil diesel emissions vs first-generation biodiesel



Resolution





EJAC Resolution

#1: Conduct and incorporate a full life cycle assessment of all air pollution and greenhouse gas (GHG) emissions for all pathways, and their implications for environmental justice communities.

#5: Cap the use of lipid biofuels at 2020 levels pending an updated risk assessment to determine phase out timelines for high-risk, crop-based feedstocks.

Confined Animal Feeding Operations (CAFOs)

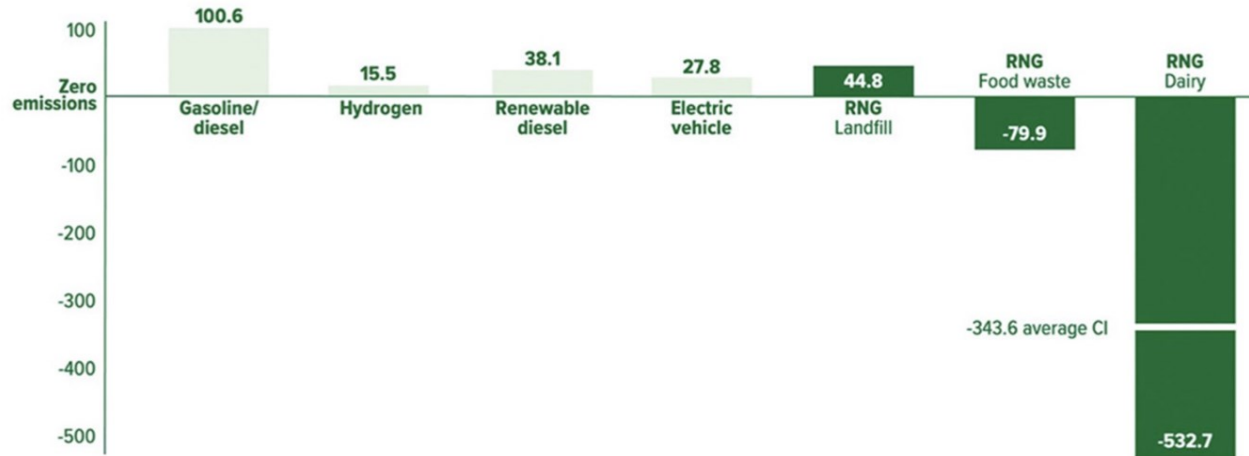


“Unintended Consequences and Missed Opportunities”

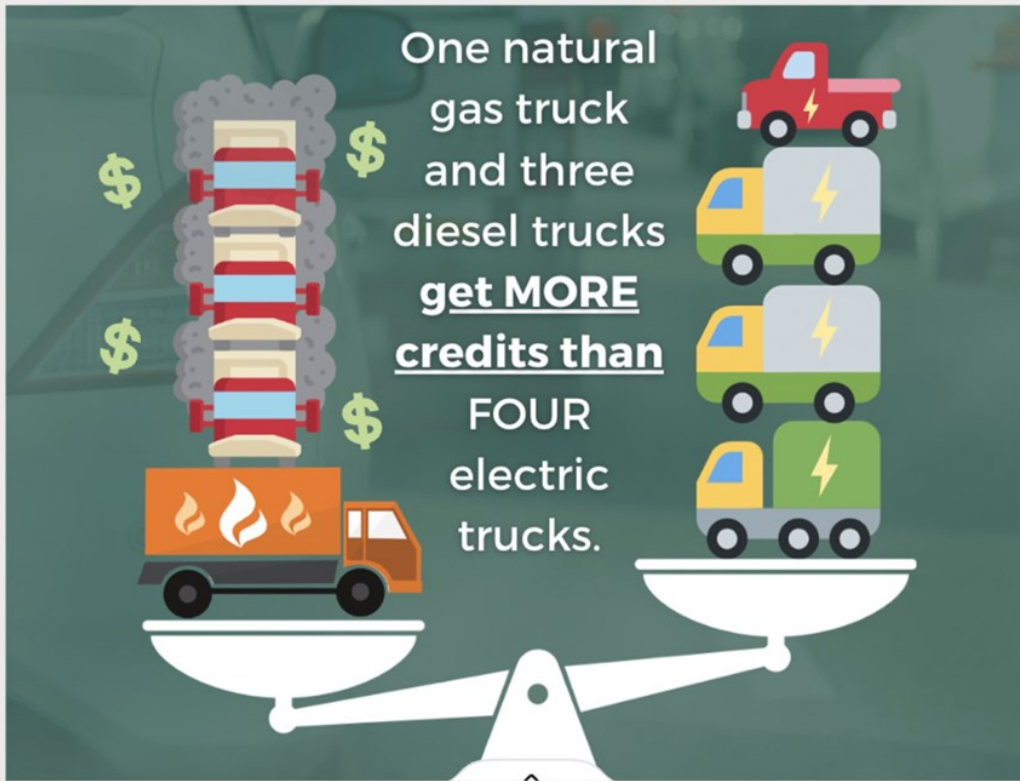
RNG is the lowest carbon alternative fuel



Carbon emission by fuel type (gCO₂e per MJ)



Source: California Air Resources Board, Q4 2021 LCFS data, and certified pathways as of April 19, 2022.



“...natural gas engines are not lower emitting than diesel.”

-Paul Arneja, CARB

(In the Context of the Advanced Clean Fleet Rulemaking)

“Replacing just 25% of a fleet’s diesel trucks with negative carbon intensive RNG from dairy manure can reduce a fleet’s carbon emissions by 100%.”

Greg Roche, VP at Clean Energy Fuels

[California's Top Methane Emitter is a Vast Cattle Feedlot. For Now, Federal and State Greenhouse Gas Regulators Are Giving It a Pass.](#) InsideClimate News, August 18, 2023

[Popular California climate program lets polluters keep harming vulnerable communities](#) Calmatters, August 1, 2023

[Big Dairy is Milking California Dry](#) In These Times, June 19, 2023

[A Rude Awakening with Jamie Katz and Colin Murphy](#) KPFA 94.1, June 9, 2023

[California's Methane Climate Solution Rewards Dairy Gas. Other States Take a Harder Line.](#) Capital & Main, April 26, 2023

[How a California Dairy Methane Project Threatens Residents' Air and Water](#) Capital & Main, April 20, 2023

[Brown gold: the great American manure rush begins](#) The Guardian, February 2, 2023

[Biogas Expansion May Compound Worker Risks](#) Civil Eats, November 16, 2022

[California set off a biofuel boom — but can it manage the fallout?](#) Los Angeles Times, March 24, 2022

[California Dairy Uses Lots of Water. Here's Why It Matters.](#) Civil Eats, June 30, 2022

[California Climate Policy Incentivizes Factory Farm Manure Gold Rush](#) KPFA 94.1, March 4, 2022



EJAC Resolution

#2: Conduct a full accounting of GHG and air pollution emissions associated with pathways relying on the production of fuel from livestock and dairy manure.

#3: Eliminate avoided methane credits effective January 1, 2024.

#4: Eliminate credit generation for pathways relying on the production of fuel from livestock and dairy manure for emissions reductions that otherwise would have occurred or were legally or contractually required to occur.

Conclusions



- Update of assumptions to reflect rapidly changing regulations and EV adoption is critical to LCFS planning.
- Stanford modeling suggests EJ scenario could achieve ARB goals while lowering impacts to EJ communities and potentially improving climate outcome.
- LCFS is a subsidy paid for by California gas purchasers. Need to evaluate internal market dynamics in terms of impacts on low and moderate income households
- We can't improve what we don't measure. Urgent need to better measure methane emissions in agricultural operations for SB 1383 goals.

Aviation and Marine Fuel





EJAC Resolution

#8: Consider the inclusion of intrastate jet fuel and marine fuels as a deficit generator and provide analysis of this option as part of the LCFS.

Zero Emission Vehicles & Infrastructure





EJAC Resolution

#6: Prohibit enhanced oil recovery as an eligible sequestration method.

#7: Do not issue LCFS credits for carbon removal projects such as Direct Air Capture.



EJAC Resolution

1. Conduct and incorporate a full life cycle assessment of all air pollution and greenhouse gas (GHG) emissions for all pathways, and their implications for environmental justice communities.
2. Conduct a full accounting of GHG and air pollution emissions associated with pathways relying on the production of fuel from livestock and dairy manure.
3. Eliminate avoided methane credits effective January 1, 2024.
4. Eliminate credit generation for pathways relying on the production of fuel from livestock and dairy manure for emissions reductions that otherwise would have occurred or were legally or contractually required to occur.
5. Cap the use of lipid biofuels at 2020 levels pending an updated risk assessment to determine phase out timelines for high-risk, crop-based feedstocks.
6. Prohibit enhanced oil recovery as an eligible sequestration method.
7. Do not issue LCFS credits for carbon removal projects such as Direct Air Capture.
8. Consider the inclusion of intrastate jet fuel and marine fuels as a deficit generator and provide analysis of this option as part of the LCFS.