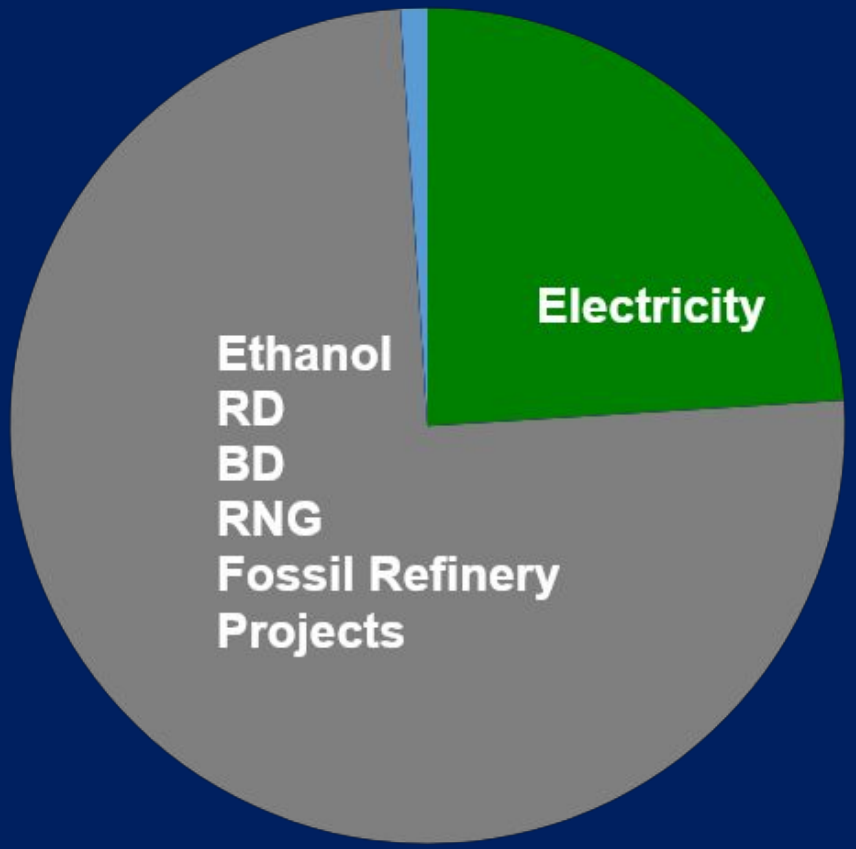
Why Does Most of the $4 Billion in Annual LCFS Revenues Fund Combustion Fuels?



- Nearly 80% of LCFS credits in 2022 went to non-ZEV fuels.
- CARB's Board has roundly supported the ZEV transition by passing ACC II, ACF, and ACT to meet climate AND Clean Air Act obligations.

Continuing to subsidize old, combustion-based technologies works AGAINST CARB'S own priorities.

Based on Data from CARB's LCFS Data Summary for 2022

EARTHJUSTICE

Avoided Methane Crediting

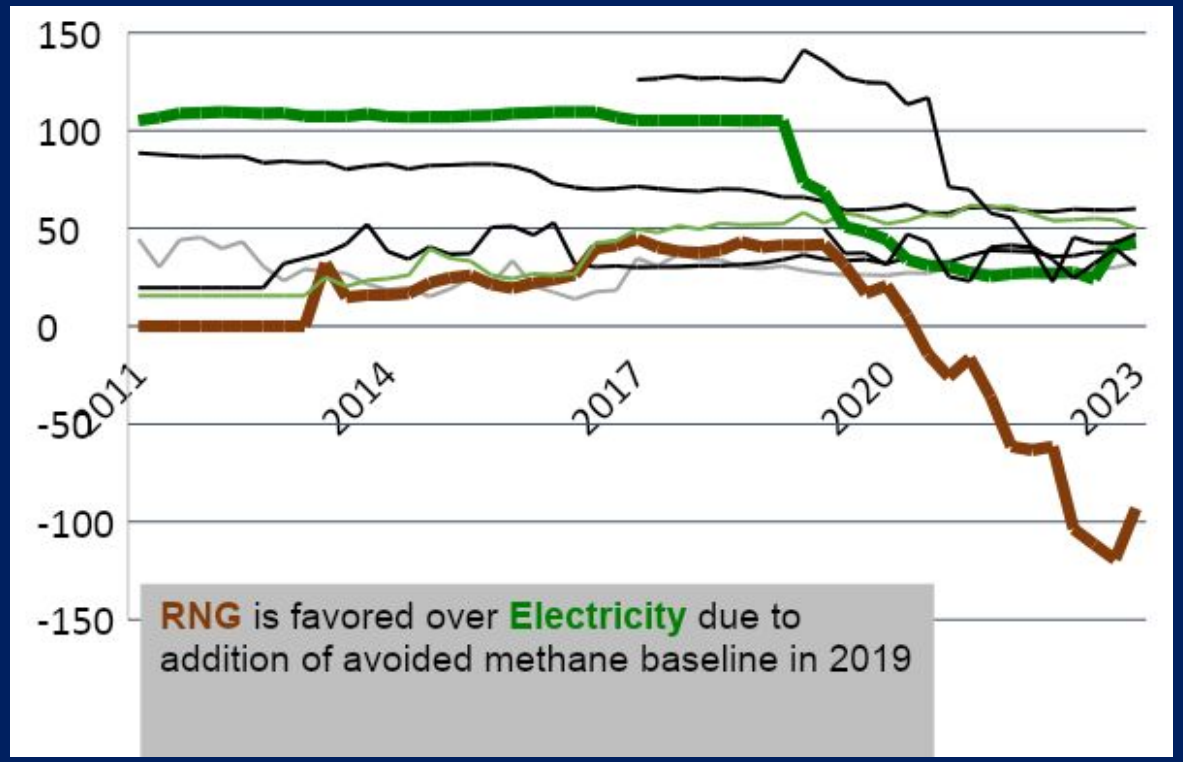
Using transportation subsidies to entice CAFOs to capture methane:

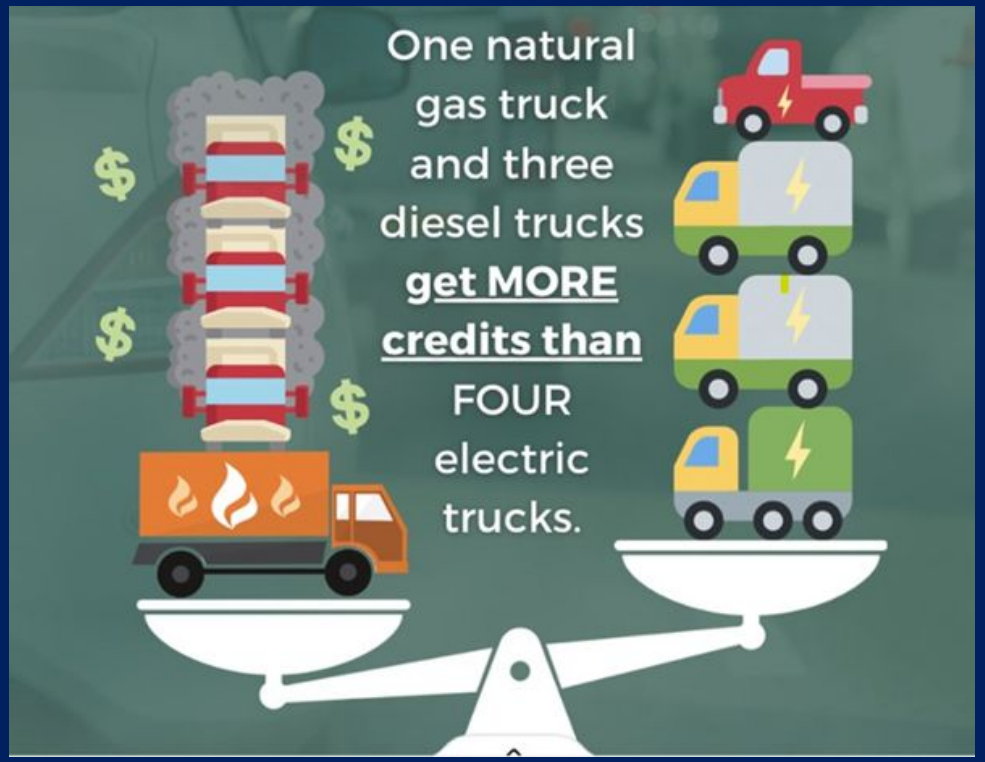
- Rewards poor environmental management
- Harms communities
- Distorts the market signal against ZE pathways

Image Source: LA Times “Why Some People Think California’s Cow Manure Methane Plan Stinks” (Tony Briscoe)

The LCFS Favors Polluting CNG Trucks Over ZEV Trucks

CNG generate **more credits** while displacing **less fossil fuel**





Based on Data from CARB's LCFS Data Summary through Q3 2023

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The LCFS Favors Dirty Hydrogen over Green Hydrogen

Electrolysis in Alameda County, CA, Powered by Local Solar PV

- Carbon Intensity = 0
- LCFS Credit Calculator: $1.40/kg of H2

SMR of Fossil Gas in Wilmington, CA, Paired with Credits from Dairy in Indiana

- Carbon Intensity = -287
- LCFS Credit Calculator: $3.81/kg of H2

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Avoided Methane: Correcting LCFS Assumptions

Problem:

- Unregulated polluters are rewarded with extravagant "avoided methane" credits, causing many market distortions and perverse policy outcomes.

Fix:

- Discontinue credit for avoided methane venting in new pathways.
- The baseline case should **assume mandatory methane control**, e.g. by flaring or alternative manure management, either by authorized regulations or other dedicated investments (similar to landfills, wastewater, oil & gas etc).

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Crop Biofuels

Unrestricted growth in crop biofuel consumption:

- Exacerbates deforestation and global hunger
- Has dubious climate/air quality benefit
- Depresses LCFS credit prices, undermining ZEV goals

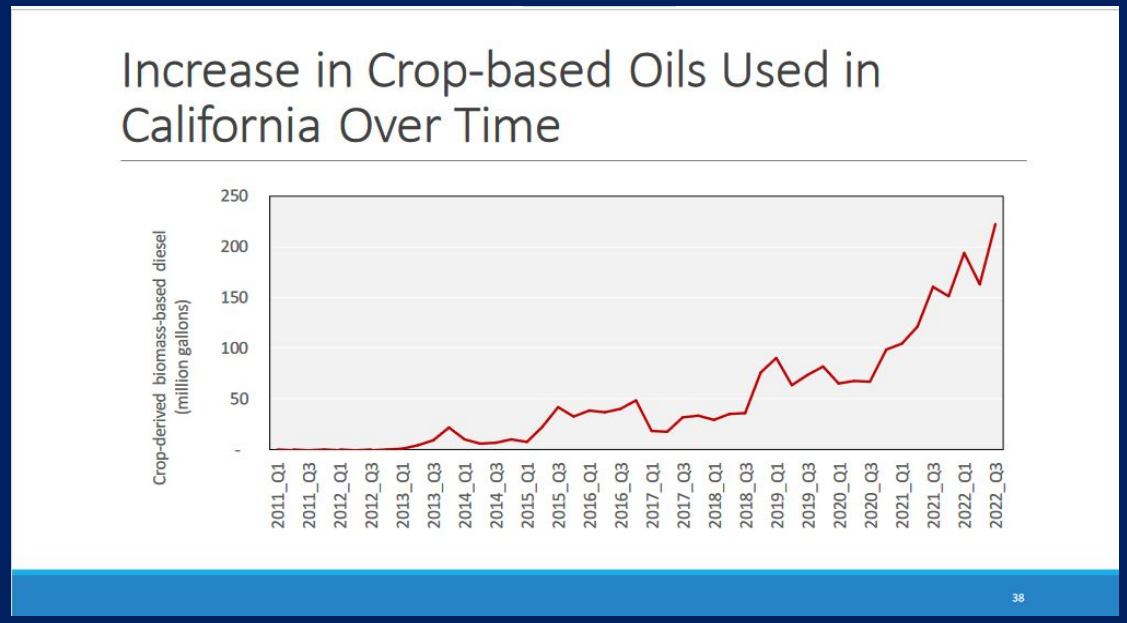
Image: Soy Plantation in deforested portion of Amazon near Santarem, Brazil

(Ricardo Beliel/Brazil Photos/Light Rocket via Getty Images)

CARB's Current Approach to Crop Biofuels Is Insufficient

The LCFS includes a Land Use Change (LUC) "adder" to the CI score, but crop-based feedstock is surging.

- LUC is an inherently dynamic and difficult concept to quantify.
- LUC risks increase substantially with increased consumption.
- Current levels of biofuel consumption wildly exceed levels contemplated by CARB at the time these figures were selected.



CARB LCFS February 22, 2023 Workshop Presentation

EARTHJUSTICE

Crop-Based Biofuels Lead to Deforestation

ARTICLES
https://doi.org/10.1038/s41893-021-00729-z
nature sustainability
Check for updates

Massive soybean expansion in South America since 2000 and implications for conservation

Xiao-Peng Song[1,2]✉, Matthew C. Hansen[2]✉, Peter Potapov[2], Bernard Adusei[2], Jeffrey Pickering[2], Marcos Adami[3], Andre Lima[2], Viviana Zalles[2], Stephen V. Stehman[4], Carlos M. Di Bella[5], Maria C. Conde[5], Esteban J. Copati[6], Lucas B. Fernandes[7], Andres Hernandez-Serna[2], Samuel M. Jantz[2], Amy H. Pickens[2], Svetlana Turubanova[2] and Alexandra Tyukavina[2]

A prominent goal of policies mitigating climate change and biodiversity loss is to achieve zero deforestation in the global supply chain of key commodities, such as palm oil and soybean. However, the extent and dynamics of deforestation driven by commodity expansion are largely unknown. Here we mapped annual soybean expansion in South America between 2000 and 2019 by combining satellite observations and sample field data. From 2000 to 2019, the area cultivated with soybean more than doubled from 26.4 Mha to 55.1 Mha. Most soybean expansion occurred on pastures originally converted from natural vegetation for cattle production. The most rapid expansion occurred in the Brazilian Amazon, where soybean area increased more than tenfold, from 0.4 Mha to 4.6 Mha. Across the continent, 9% of forest loss was converted to soybean by 2016. Soybean-driven deforestation was concentrated at the active frontiers, nearly half located in the Brazilian Cerrado. Efforts to limit future deforestation must consider how soybean expansion may drive deforestation indirectly by displacing pasture or other land uses. Holistic approaches that track land use across all commodities coupled with vegetation monitoring are required to maintain critical ecosystem services.

Crop-Based Biofuels Increase Food Prices and Food Insecurity

OCTOBER 3, 2017

Biofuels policies drive up food prices, say over 100 studies

Europe's biofuels policies do increase global food prices. That's the wide scientific consensus, according to a review of more than 100 economic modelling studies of the impact on food prices from increased demand for biofuels made from food crops. Increased demand for biodiesel has driven the price of vegetable oils in the EU, such as rapeseed, palm oil, soy and sunflower, up 171% per exajoule (EJ) of biodiesel produced, according to the analysis by consultancy Cerulogy for BirdLife Europe and T&E.

See C. Malin (Sept. 2017), https://www.cerulogy.com/wp-content/uploads/2017/09/Cerulogy_Thought-for-food_September2017.pdf.

THE WALL STREET JOURNAL.

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COMMODITIES

Renewable Diesel Booms Despite Concern Over Effect on Food Prices

U.S. production of the plant- and animal-derived biofuel soars

By Bob Henderson Follow

Updated April 7, 2023 9:00 am ET

Share Resize 71 Listen (2 min)

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Lipid Biofuels: Limiting Harms

Problem:

The unrestricted growth in lipid-based biofuels in the LCFS exacerbates global food insecurity, threatens critical ecosystems, provides dubious climate and air quality benefits, and depresses the credit price.

Fix:

Cap the use of lipid-based fuels to prevent compliance shuffling with RFS and reduce global hunger and deforestation risks.

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CARB Must Re-Focus this $4 Billion Program on ZEVs

- Grim budget make this an urgent time to prudently allocate LCFS credits.
- Restricting bogus credits can lift credit prices without needing to increase stringency (makes the program more effective and less expensive).
- Transit deserves additional crediting opportunity.
- Result is more funding for transportation electrification, which provides real benefits to Californians.

CAPITOL ALERT

Newsom proposes cuts to clean energy, electric vehicles as California faces $38 billion deficit

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The Path Forward

Align LCFS policy with the State's climate, air quality, and equity goals.

Stop Subsidizing the Bad

Restrict over-generation of subsidies for polluting fuels

- Cap lipid biofuels.
- Stop avoided methane credits for new pathways.
- Prohibit crediting for Enhanced Oil Recovery activities, consistent with SB 1314.

Enhance Support for the Good

Increase LCFS support for ZE pathways with the greatest EJ benefit

- Allow full credit generation for light rail transit.
- Support VMT reductions with a transit and school bus credit multiplier.
- Unlock billions for transportation electrification without adding costs to consumers.