Bridging the Gap: Refinery Community Just Transition Planning & State Policymaking

Presented at the 2025 California Climate Policy Summit
Breakout: Designing California's Transportation Transition Fuels Plan for Success
April 22, 2025

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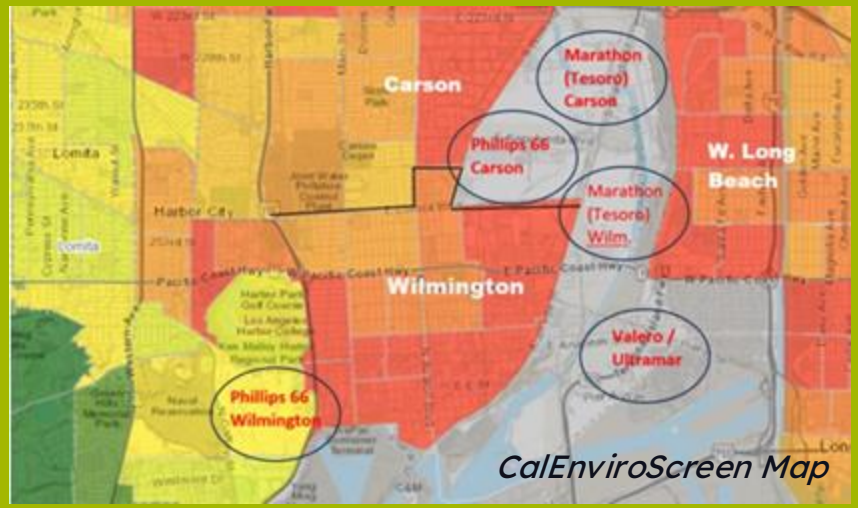
Senior Policy Advisor
Asian Pacific Environmental Network

A Legacy of Environmental Racism: Health Inequities in Refinery Communities



CalEnviroScreen annotation credit: Julia May, CBE Senior Scientist

"The communities near refineries frequently comprise **low-income families and people of color**, who bear the brunt of the air pollution from refinery operations. Additional health risks of compromised air quality can lead to a **higher incidence of respiratory issues, cardiovascular diseases, and other health problems**."

CEC Transportation Fuels Assessment (2024), p. 52

Frontline communities are **regularly exposed** to toxic refinery pollutants known to **cause cancer**, **reproductive** and **developmental harms**, and more.

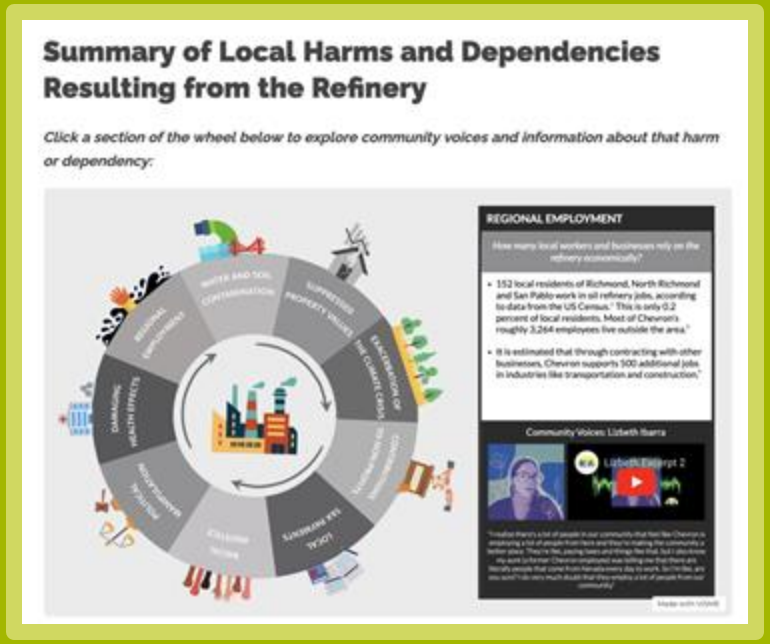
OEHHA, Analysis of Refinery Chemical Emissions and Health Effects (2019) p. 20–27

2012 Chevron Richmond Refinery Fire Sends 15,000 to Hospital

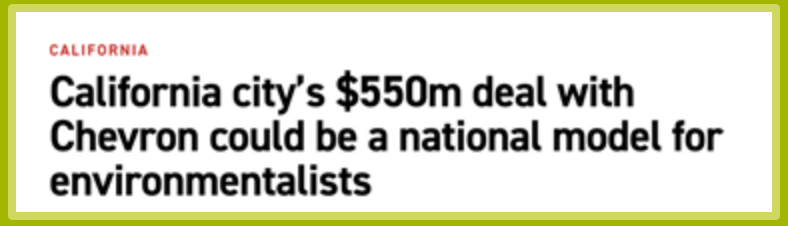
Chevron Richmond Refinery: 2012 Fire
“Had the crude unit been shut down when the leak was first noticed, the massive fire would not have occurred, the 19 workers would not have been in danger, and the community would’ve been protected.”

- US Chemical Safety Board

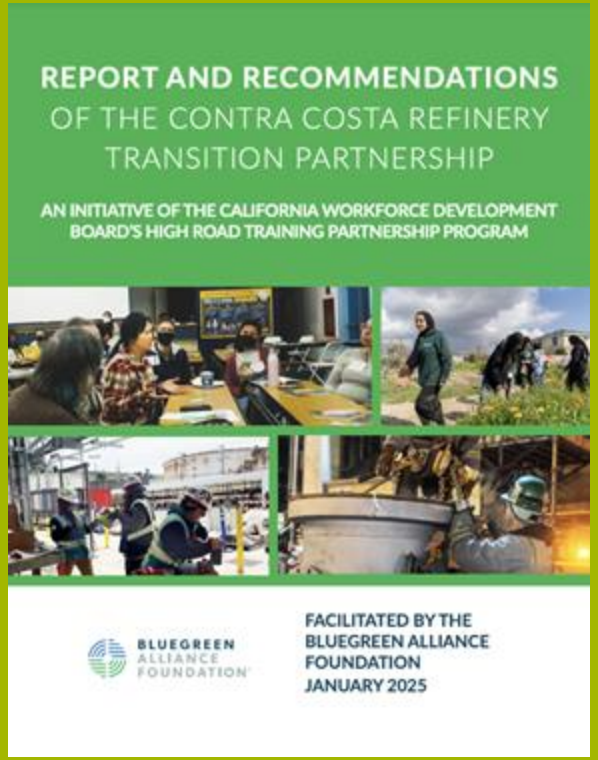
Local Visioning, Analysis, and Organizing in Richmond



Taking Stock: Visioning Beyond the Refinery, UC Berkeley Othering and Belonging Institute, August 2022.



Contra Costa County High Road Training Partnership (HRTP)



Published in January 2025

Labor and EJ in Contra Costa County

- Partnership formed in 2020.
- Building on decades of trust and collaboration on refinery safety and accountability advocacy.
- 3+ years to develop Worker and Community-Centered Regional Policy Recommendations

Los Angeles Just Transition Task Force (Oil Extraction)

City and County-Led Strategy

In 2021, the Just Transition Task Force was established by the City and County of LA Chief Sustainability Offices to implement their 2019 "fossil fuel free" sustainability plans.

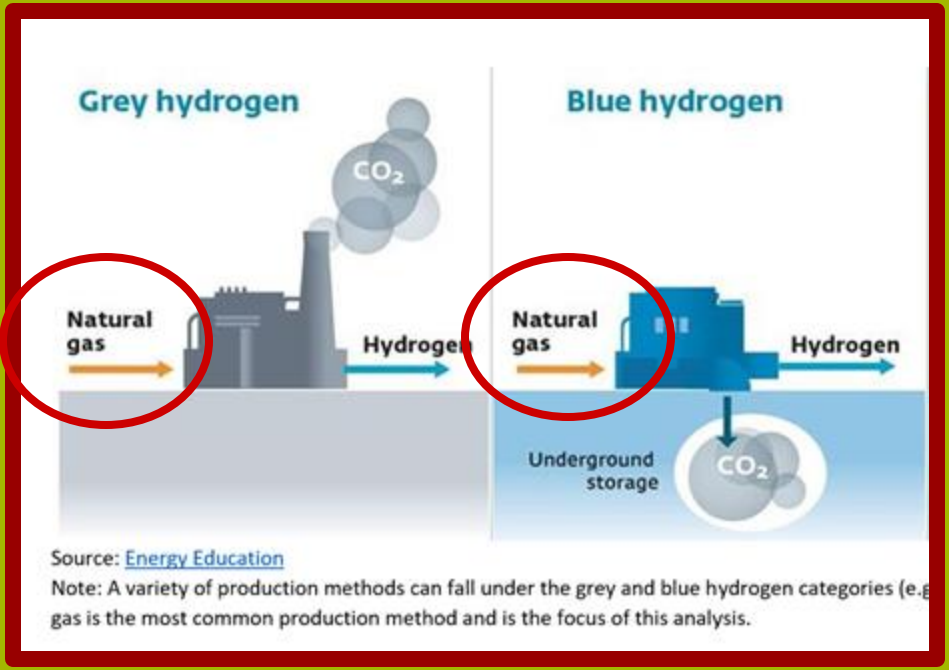
The strategic planning effort was funded by the Just Transition Fund, from their experience supporting economic transition in coal-supported communities.

LA County-City Just Transition Task Force

TASK FORCE MEMBERS

Dilay Akcora *Student* University of Southern California	**Joël Barton** *Business Manager/Financial Secretary* IBEW 11	**Mijin Cha** *Assistant Professor, Urban and Environmental Policy* Occidental College
Mary Collins *Program Manager: Just Transition* Governor's Office of Planning and Research	**Ted Cordova** *Vice President* E&B Natural Resources	**Monica Embrey** *Senior Associate Director of National Energy Campaigns* Sierra Club
Bahram Fazeli *Director of Research and Policy* Communities for a Better Environment; Co-Chair, STAND LA	**Chris Hannan** *Executive Secretary* LA/OC Building & Construction Trades Council	**Lisa Hart** *Board Member* City of Los Angeles Neighborhood Council Sustainability Alliance
Vince Holguin *Councilman* Gabrieleno-Tongva Indian Tribe	**Miguel Luna** *Environmental Project Director* Fernandeño Tataviam Band of Mission Indians	**Angela Mooney D'Arcy** *Executive Director* Sacred Places Institute for Indigenous Peoples
Ryan Nordness *Cultural Resource Analyst* Yuhaaviatam of San Manuel Nation	**Uduak-Joe Ntuk** *Oil and Gas Supervisor* CA Geologic Energy Management Division	**Marcela Oliva** *Professor* Los Angeles Trade Technical College
Heather Pearce *Director of Land Development* Sentinel Peak Resources	**Michele Prichard** *Senior Director of Strategic Initiatives* Liberty Hill Foundation	**Amisha Rai** *Managing Director* Advanced Energy Economy
Norman Rogers *2nd Vice President* USW Local 675	**Eric Romann** *STAND-LA Coalition Coordinator* Physicians for Social Responsibility Los Angeles	**Joe Shea** *Assistant Cabinet Deputy* Office of the Governor
Patty Senecal *Director, Southern California Region* Western States Petroleum Association	**Taylor Thomas** *Co-Director* East Yard Communities for Environmental Justice	**Melanie Traxler** *Contract Project Manager/Planner* Culver City; Principal at Planning PLUS/P+
Veronica Wilson *California Organizer* Labor Network for Sustainability	**Pete Wohlgezogen** *President* UA Local 250	**Carol Zabin** *Director, Green Economy Program* UC Berkeley Labor Center

Fossil-Derived Hydrogen by Any Other Name…



“NATURAL” GAS = FOSSIL GAS

Fossil-Derived Hydrogen by Any Other Name…

"Renewable Hydrogen" *via* purchase of "environmental attributes"

CALIFORNIA AIR RESOURCES BOARD

LOW CARBON FUEL STANDARD
Tier 2 Pathway Application

Application: 80145 — Updated: 12/31/2020 (See Underlined Text)

Staff Summary

FirstElement Fuel
Air Products & Chemicals Inc., Wilmington
Dairy Manure Biomethane to Gaseous Hydrogen

Intermediate Facility: Fair Oaks Upgrader (Site #3 Digester)
and Jasper Upgrader (Windy Ridge Digester)
Fair Oaks, Indiana

Joint Applicant: Generate Indiana RNG Holdings, LLC
Deemed Complete: 11/30/2020
Posted for Comment: 12/11/2020
Certified and Posted: 12/31/2020
CI Effective: 10/01/2020
Fuel Pathway Code: See Below

Pathway Summary

FirstElement Fuel (FEF) seeks certification of four renewable hydrogen pathways produced by steam methane reformation at the Air Products & Chemicals Wilmington facility using book-and-claim accounting for biomethane (RNG).[1] Environmental attributes of dairy manure-derived RNG are procured from Fair Oaks Upgrader (Digester Site #3) and Jasper Upgrader (Windy Ridge Digester) located at Fair Oaks, Indiana. The upgrading facilities are owned by Generate Indiana RNG Holdings, LLC (F00016) which is registered as a joint applicant. The RNG pathways used for book-and-claim accounting were previously certified in 2019 as CNG pathways as follows:

A017101: Fair Oaks Upgrader, Digester Site #3 (71001) (CI=-329.76)
B005803: Windy Ridge Digester to Jasper Upgrader (71002) (CI =-257.78)

Gaseous hydrogen is produced in Wilmington, California and transported as gaseous hydrogen by truck to hydrogen fueling stations for dispensing into fuel cell vehicles in Southern California.

The pathways are consistent with the Lookup Table Gaseous H_2 pathway produced in California from central steam methane reforming of biomethane (HYB)[2] with two notable

[1] All citations to the LCFS Regulation are found in Title 17, California Code of Regulations (CCR), section 95480-95503. Book-and-claim accounting is primarily addressed in 95488.8(i) of the LCFS regulation.
[2] CA-GREET3.0 Lookup Table Pathways Technical Support Documentation. Available at: https://ww3.arb.ca.gov/fuels/lcfs/ca-greet/lut-doc.pdf

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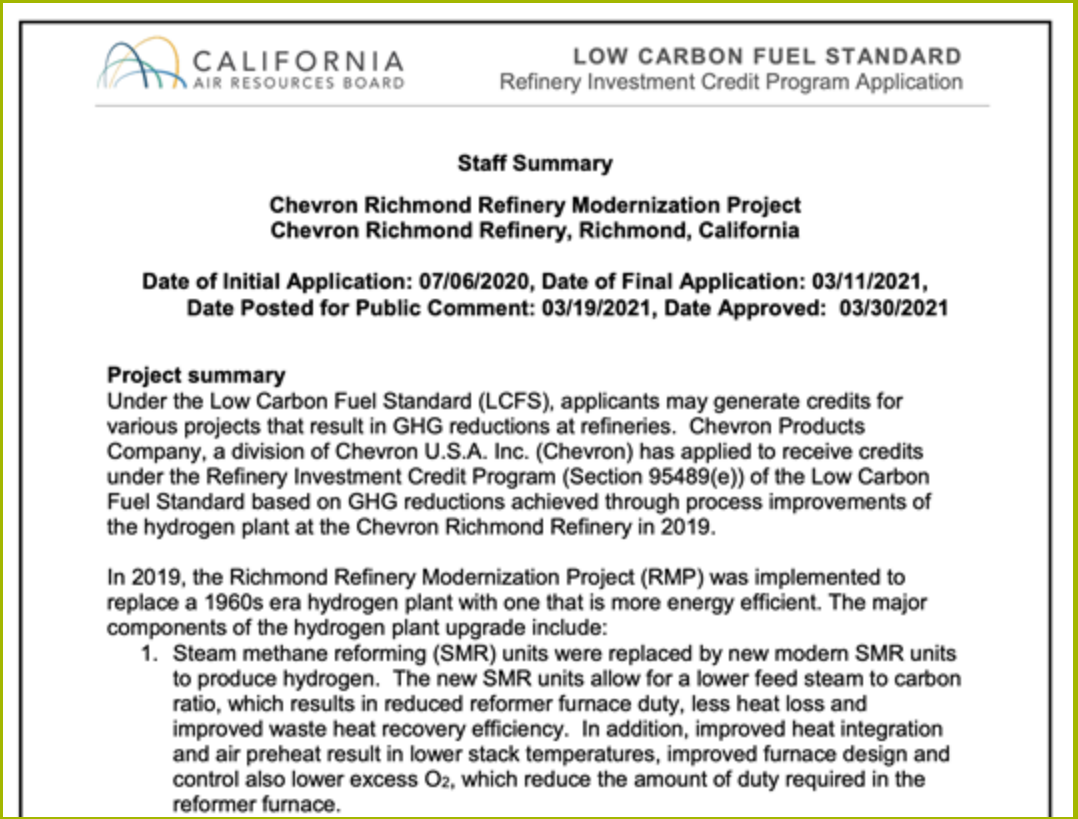
"Renewable hydrogen pathways produced by **steam methane reformation** at the Air Products & Chemicals Wilmington facility *using* book-and-claim ***accounting*** for biomethane (RNG)"

Fossil-Derived Hydrogen by Any Other Name…

Low Carbon Fuel Standard (LCFS) Refinery Investment Credit Program



CALIFORNIA AIR RESOURCES BOARD

LOW CARBON FUEL STANDARD
Refinery Investment Credit Program Application

Staff Summary

Chevron Richmond Refinery Modernization Project
Chevron Richmond Refinery, Richmond, California

Date of Initial Application: 07/06/2020, Date of Final Application: 03/11/2021, Date Posted for Public Comment: 03/19/2021, Date Approved: 03/30/2021

Project summary
Under the Low Carbon Fuel Standard (LCFS), applicants may generate credits for various projects that result in GHG reductions at refineries. Chevron Products Company, a division of Chevron U.S.A. Inc. (Chevron) has applied to receive credits under the Refinery Investment Credit Program (Section 95489(e)) of the Low Carbon Fuel Standard based on GHG reductions achieved through process improvements of the hydrogen plant at the Chevron Richmond Refinery in 2019.

In 2019, the Richmond Refinery Modernization Project (RMP) was implemented to replace a 1960s era hydrogen plant with one that is more energy efficient. The major components of the hydrogen plant upgrade include:

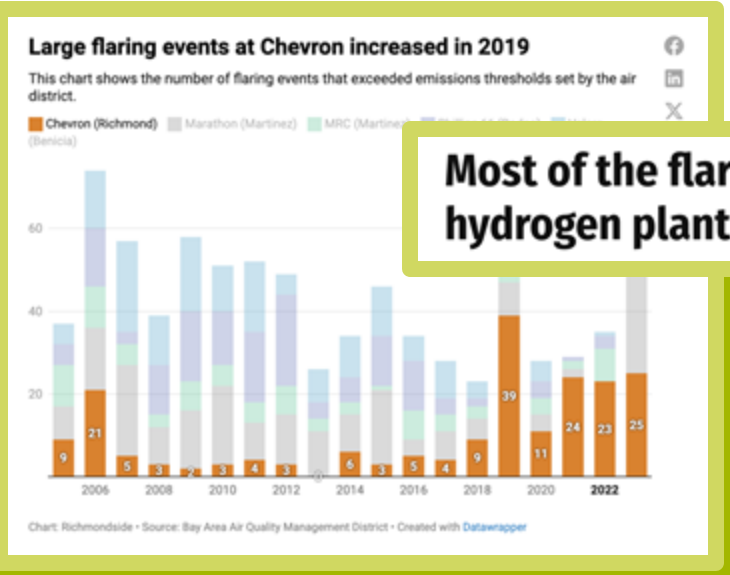
1. Steam methane reforming (SMR) units were replaced by new modern SMR units to produce hydrogen. The new SMR units allow for a lower feed steam to carbon ratio, which results in reduced reformer furnace duty, less heat loss and improved waste heat recovery efficiency. In addition, improved heat integration and air preheat result in lower stack temperatures, improved furnace design and control also lower excess O_2, which reduce the amount of duty required in the reformer furnace.

Fossil-Derived Hydrogen by Any Other Name…

THE CALIFORNIA REPORT

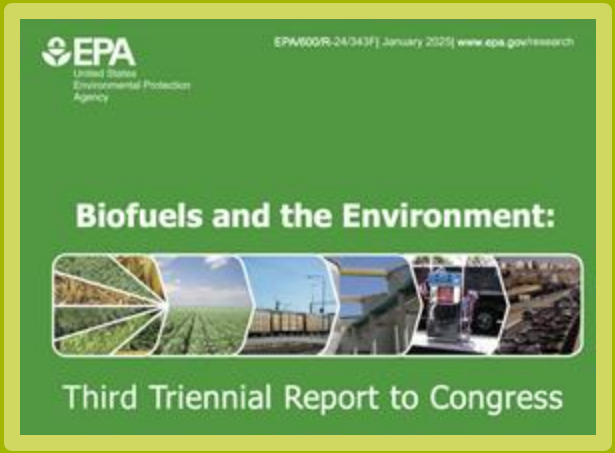
Chevron Flaring Incidents Already Double Last Year's Total — Which Was Highest in a Decade

By Ted Goldberg Jun 4, 2019

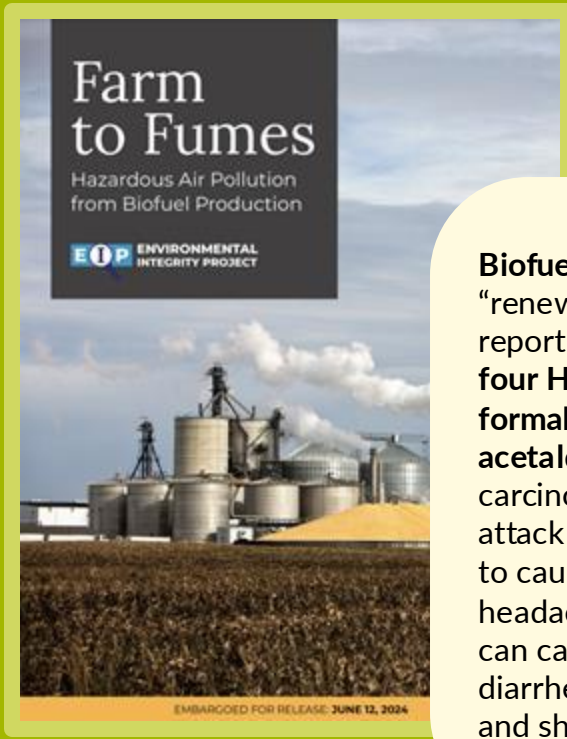


Most of the flaring is at Chevron's new hydrogen plant

Biofuels are a Hazardous Environmental Health Threat



"The Third Report concludes [the effect of the RFS]...had a modest negative effect on the environment [including] air and water quality, water quantity, ecosystem health and biodiversity, soil quality, invasive species, and international impacts..."



Biofuel manufacturing plants (incl. "renewable diesel" conversions) reported releasing **4X more of four Hazardous Air Pollutants**: **formaldehyde** (a carcinogen), **acetaldehyde** (a probable carcinogen), **hexane** (which can attack the central nervous system to cause dizziness, nausea, and headaches) and **acrolein** (which can cause nausea, vomiting, diarrhea, lung and eye irritation, and shortness of breath.

State Transportation Fuels Transition Plan: Still Pending

"While the impact of short-term policies to address price spikes on the longevity of refinery operations remains uncertain, **it is imperative to acknowledge and consider the public health and safety risk of prolonged refinery activity and increased production**."

– Transportation Fuels Assessment, p. 52

Photo credit: Communities for a Better Environment (CBE), taken from the school playground of CBE members in Wilmington

Summary: EJ Strategies for a Just Refinery Transition

Early Investments

- **Making polluters pay for one-time, short/medium-term investments to support long-term, climate resilient public infrastructure and economic diversification to reduce dependence; proactive savings for tax base decline and replacement**
- **Fund pilots, collaborative forums, and locally-rooted partnerships between community, labor, and all levels of government**
- **Prioritize *increased* funding for *equitable demand-side* strategies**

Regulatory Action Needed

- **Coordinated, whole-of-government approach to empower communities+workers with clear timelines, notice, resources in the transition away from fossil fuels**
- **Immediately enact policies to empower community voice in redevelopment of their neighborhood, and secure financial transition support for workers;**
- **Strengthen regulations to reassess site contamination with enforceable and adequate financial assurances for land and groundwater remediation;**
- **Strengthen health and safety protections during refinery transition periods;**
- **Reject polluting industries and/or remove subsidies that would entrench disproportionately high cumulative pollution burdens.**