Polluter Pays Climate Superfund Act Supports State Climate Policies

Economic Evaluation of SB 684 & AB 1243

Prof. Clair Brown

Economics, UC Berkeley cbrown@berkeley.edu

Issue of Affordability: Who Pays?



- Affordability Includes Private Costs + Social Costs
 - People pay the market price [private cost]
 - People pay with health problems and property damages [social cost]
 - People pay with higher taxes to deal with wildfires, floods, droughts, heat [social cost]
- Polluters Pass Social Costs to Consumers
 - Makes Oil & Gas Company operations "cheaper"
 - Makes Oil & Gas profits higher

Fee on Past CO2e Emissions Improves Public Welfare



- "Polluter Pays": Fees are based on major fossil fuel company's % contribution to global emissions (1990-2024).
- CalEPA has studies to determine CA damages from those global emissions [attribution] and their costs [assessment] through 2045.
- Economics shows this improves public welfare and makes economy work better.

Does Superfund Fee Increase Gas Prices?

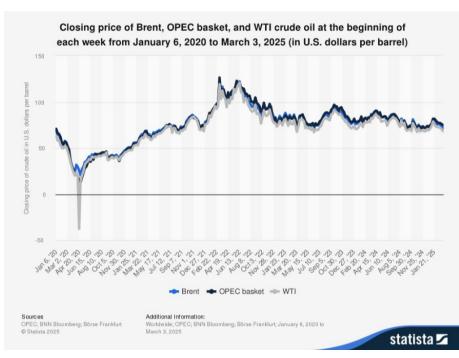
Affordability

- Superfund Fee does not increase gas prices.
- Superfund Fee improves Affordability by reducing costs to taxpayers of climate disasters.
- Government budgets can pay for vital services instead of being drained by disaster relief.
- At-risk communities with high social costs receive 40% revenues to improve residents' wellbeing.



Three Reasons Superfund Fee Does Not Increase Price at the Pump

- 1. No impact on global oil price
 - Global price is volatile [see graph]. No company or country can manipulate the global price.
 - Global price of crude oil sets wholesale price of oil, which is 42-46% of the pump price.



2. Competitions from Unbranded Gas

- Seven responsible Oil Majors have gas stations: Chevron, Shell, ExxonMobil, BP, Marathon, Valero, 76 (Phillips 66)
- Unbranded stations (e.g. Costco, Flyer)
 have lower prices to compete with
 branded.
- Branded stations had 56% market share (2022)

Branded















Unbranded, Hypermart





3. California Refineries Face Legal Constraints on Profits

- Four responsible Oil Majors (Chevron, Marathon, Valero, Phillips 66) operate refineries in California.
- CEC prevents "price gouging" by refineries. (sBx1-2)
 - Cannot legally raise gas prices to pay for fee that is not operational cost.
 - CEC sets a maximum gross gasoline refining margin (with penalty for noncompliance).









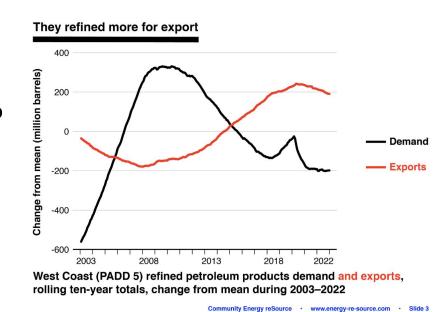
(76, Phillips 66)

How Superfund Fee Helps CA Economy

- Superfund fees are paid by the seven multinational oil companies. No fee is paid local refineries and gas stations.
- Superfund Fee does **not impact cost, output, or jobs in extraction or refineries**.
- Superfund Fee will increase green jobs with investments in renewable energy, energy efficient buildings, and other high return climate programs.
- Good Jobs in community programs for disaster relief and prevention programs.

Employment in Refineries Affected by Domestic Demand and by Exports

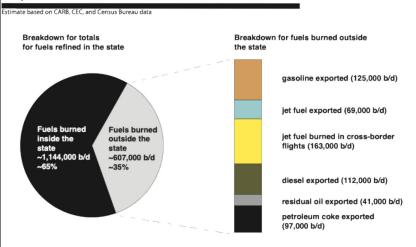
- California extraction of crude oil declining as oil fields age.
 - State crude oil supplies only 24% of refinery crude oil input.
- As California demand for gas and diesel declines, refineries have increased exports to other states and countries.



Exports Keep Refinery Output Higher Than State Demand

- Exports of petroleum products are about 30% of refinery output.
- Company strategy to replace state demand with exports is major determinant of employment, and not a fee on past global emissions.

Disposition of fuels refined in California, 2013-2022



Source: Compiled by Greg Karras from CARB https://ww2.arb.ca.gov/ghg-inventory-data; US Census https://usatrade.census.gov/index.php; CEC data Jan 2007 through November 2023 provided to Karras.

Closure of California Refineries Reflect Management Failures with Toxic Pollution– Not environmental policies

- Phillips 66-Wilmington violated the Clean Air and Clean Water Acts
 - Indicted with six felony counts for dumping 800,000 gallons of oily industrial wastewater. [2024]
 - Sued by their Air Quality Mang. District for persistent toxic emissions violations.
 [2020]



Valero-Benicia had persistent toxic emissions

- Fined \$81M in 2024 for BTEX toxic emissions since 2003 that were known but not reported and no steps taken to prevent them.
- Then a major fire caused by equipment failure in May 2025 increased the harm to the local community.



Valero-Benicia Refinery. Company website.

Big Oil Has Ability to Pay

- Oil companies will be charged based on global emissions (1990–2024) and CA climate damages (1990–2045). Payments can be spread over 20 years.
- Exxon Mobil, Chevron, Shell, TotalEnergies, and BP spent \$113.8
 billion on 2023 dividends, share repurchases (Bloomberg).
- Oil Majors' massive revenues, profits, and assets should be used to pay for external social costs of their operations, instead of investments to expand drilling and refineries, and stock buybacks.

Example: ExxonMobil Profits

\$33.7B in 2024 \$33.0B in 2023 \$55.7B in 2022

Californians Benefit From How Superfund Revenues Are Spent

- Polluters Help Pay No Longer Only the Public Pays
 - Big emitters share the cost of climate-related damages to health, infrastructure, and the environment.
- Supports many programs to pay for and reduce climate damages and improve public health--communities help decide.
 - Plus green jobs through investment in renewable energy and energy efficient buildings and infrastructure.

Consumers do not pay the fee with higher gasoline prices.

In Summary

California can use Superfund revenues to make the state safer, healthier, and more resilient to climate-related damages.

The Superfund will support a stronger economy:

- more affordable with lower costs to taxpayers;
- growth of good jobs.



Looking forward to your questions.

Thank you!

Prof. Clair Brown Economics, UC Berkeley cbrown@berkeley.edu

