

# Contra Costa Refinery Transition Partnership

*A California Workforce Development Board-Sponsored  
High Road Training Partnership*

Overview: Research & Recommendations  
October 18, 2024

# Agenda

1. Context
2. Research Summary
3. Summary of Proposed Policy Recommendations
4. Just Transition Economic Development Framework
5. What's Next?
6. Questions and Discussion

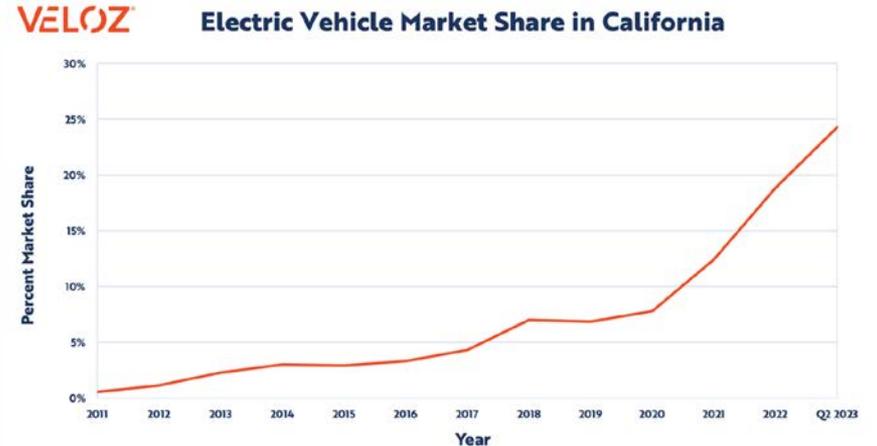
# California to Ban the Sale of New Gasoline Cars



California unveils a plan to zero out greenhouse gas emissions by 2045



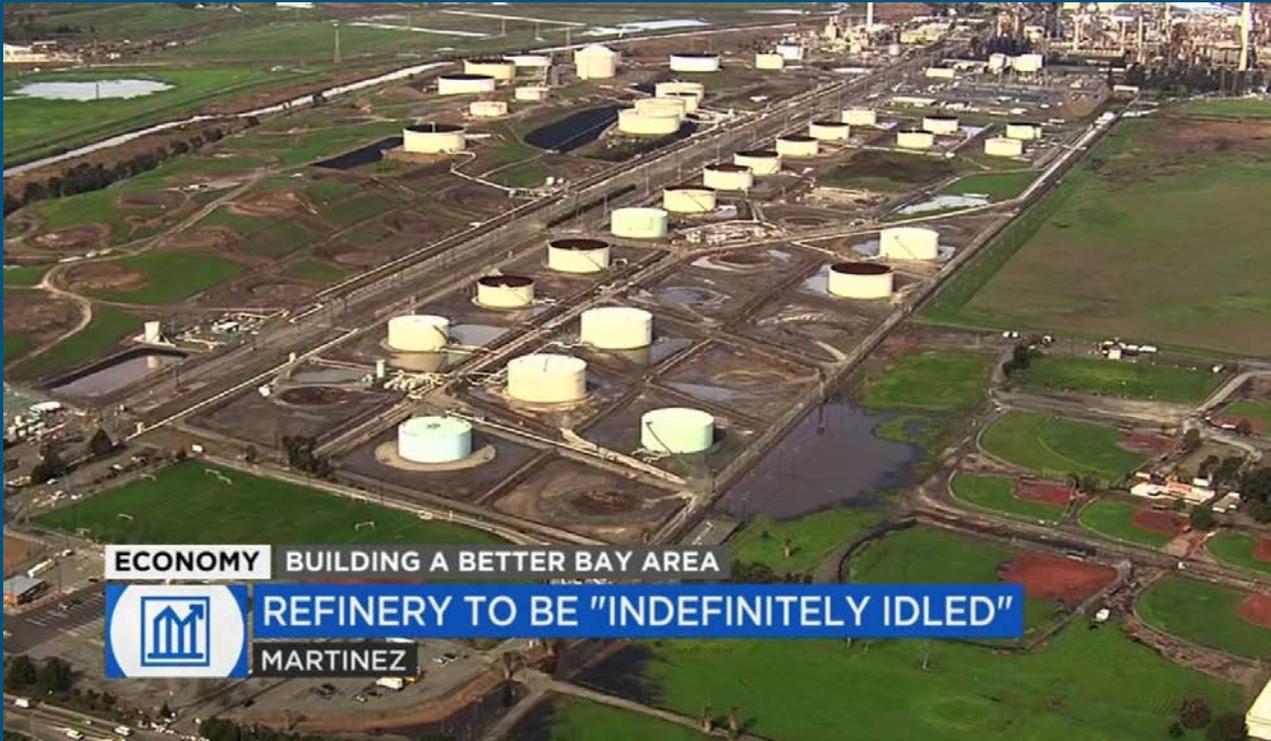
CA hits EV target ahead of schedule. It's not the first place to do so, and won't be the last



Data source: California Energy Commission Light-Duty ZEV Sales Data (July 2023)

Q2 2023 data update: Cumulative data from 2011 - 2023

# Marathon Martinez Refinery - “Indefinitely Idled” in 2020

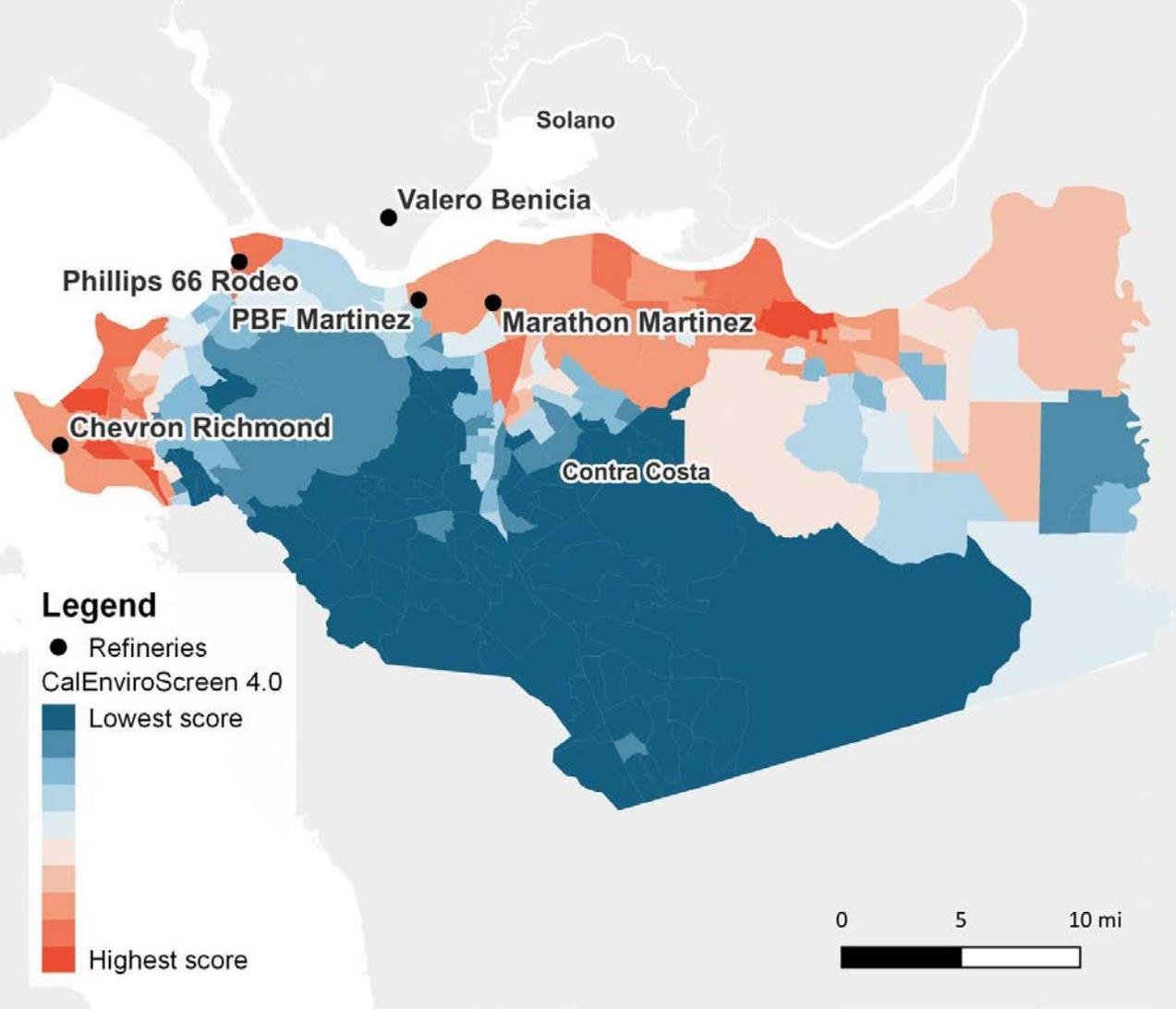


- “Indefinitely Idled” in 2020, citing reduction in gasoline demand at the start of the COVID pandemic
- Later announced a transition to renewable fuels
- 700+ workers laid off, including 350 members of United Steelworkers Local 5
- Terminal and renewable fuel refinery only has 25% of former employment

# Contra Costa Refinery Transition Partnership



# Legacy of Pollution & Environmental Injustice



# Goals of the Partnership

1. Build relationships between impacted workers and frontline community organizations
2. Complete detailed research to provide a shared base of understanding for the impact, pace and scale of refinery transition, to inform policy actions
3. Develop package of recommendations for meeting the needs of refinery workers and communities in the fossil fuel transition
4. Develop High Road Economic Development strategy to envision a new high road economy, and chart action steps
5. Implement our recommendations

# Commissioned Research

1. Economic Impacts of Petroleum Refining Industry in Contra Costa and Solano Counties (*Inclusive Economics*)
2. Bay Area Refinery Transition Analysis (*Dr. Christina Simeone and Dr. Ian Lange*)
3. Fossil Fuel Layoff: The economic and employment effects of a refinery closure on workers in the Bay Area (*Dr. Virginia Parks*)
4. High Road Economic Development Strategy (*Dr. Jessie Hammerling, et al., UC Berkeley Labor Center*)  
\* includes Refinery Worker Crosswalk Analysis
5. Refinery Decommissioning and Clean-Up Analysis (*APEN*)

# Research Overview



# Fossil Fuel Layoff: The economic and employment effects of a refinery closure on workers in the Bay Area

## **Authors:**

Virginia Parks, PhD, University of California, Irvine  
Ian Baran, PhD Student, University of California, Irvine

# Key Findings of Marathon Martinez Study

- **26%** of workers were still unemployed 1 year following layoff.
- **24%** average wage cut for workers who secured new employment.
- **81%** of workers affected were homeowners. **82%** chose not to relocate.
- Just **28%** of workers stayed in fossil fuels. The primary industries refinery workers moved into were: utilities, chemical treatment, manufacturing.
- **1/3** of workers reported falling behind financially following layoff.
- **32%** of workers took early retirement withdrawals. Many spent down savings, selling cars, and cutting back on expenses like children's sports.
- **91%** of workers were willing to enroll in a training program, but they would like to see those programs subsidized with a clean pathway to new employment at the end.

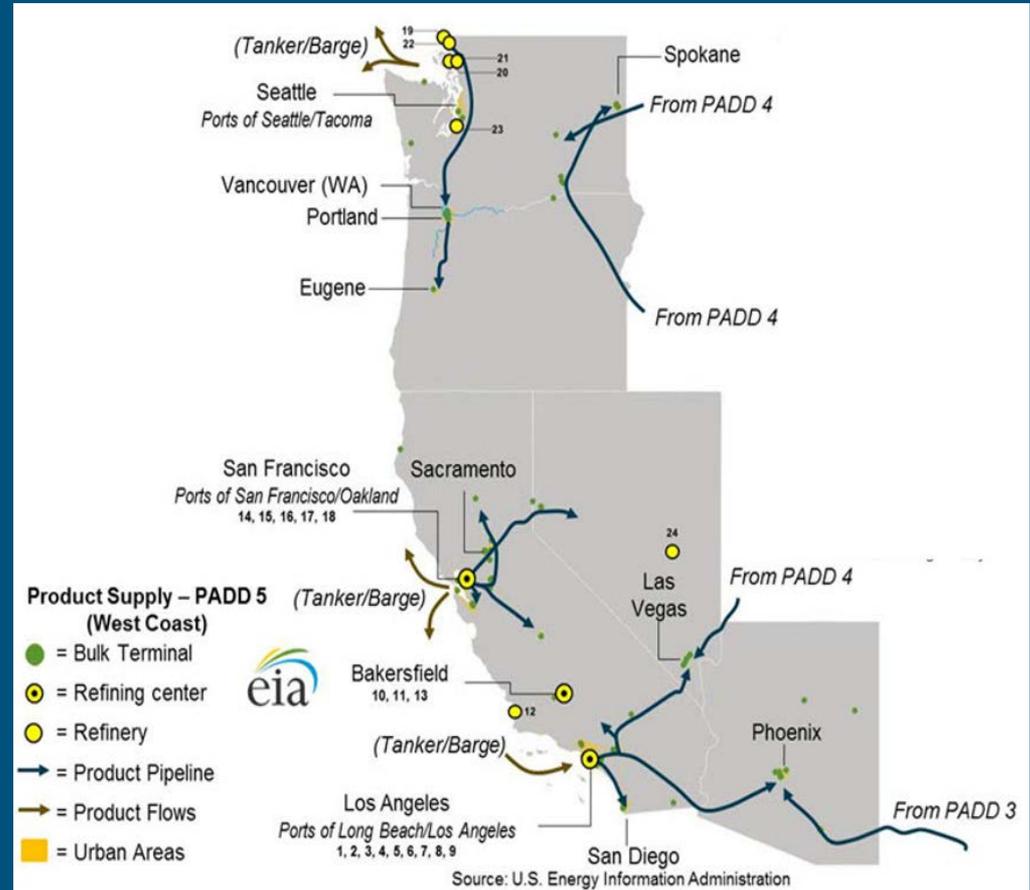
# Bay Area Refinery Transition Analysis

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Dr. Christina E. Simeone, Dr. Ian Lange

# California's Petroleum Refining Market

- California's Petroleum Refining Market is considered an "island" with California refineries primarily producing for in-state consumption
- Higher refined product prices due to multiple factors, including meeting higher CARB emissions standards
- Contra Costa is the production hub for the "Northern California - Northern Nevada" market



Graphic: U.S. EIA, "PADD 5 Transportation Fuels Markets", Sept 2015

# Change in California Transportation Fuel Consumption

Source: Simeone & Lange analysis of CARB 2022 Scoping Plan data

- Transportation fuels in 2045:
  - EVs / Electricity (42%)
  - Hydrogen (22%)
  - Renewable Diesel (16%)
  - Gasoline (13%)
  - Renewable Jet Fuel (6.5%)

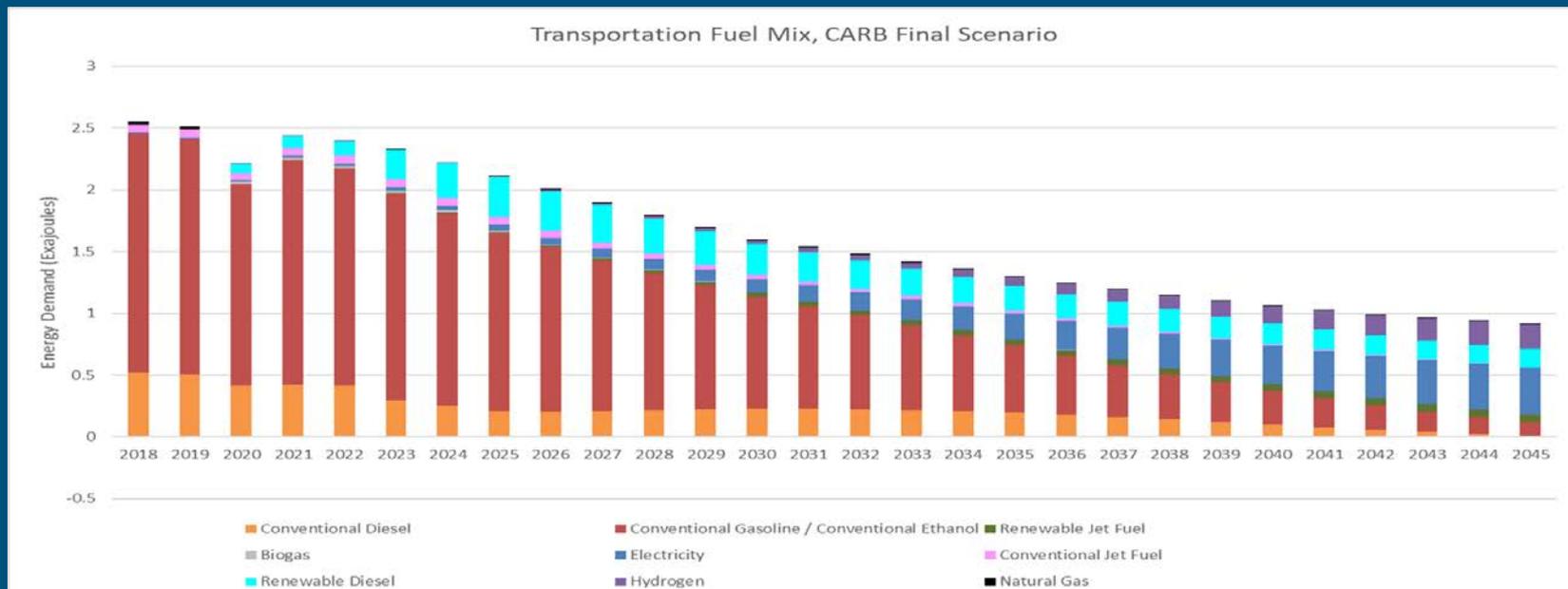
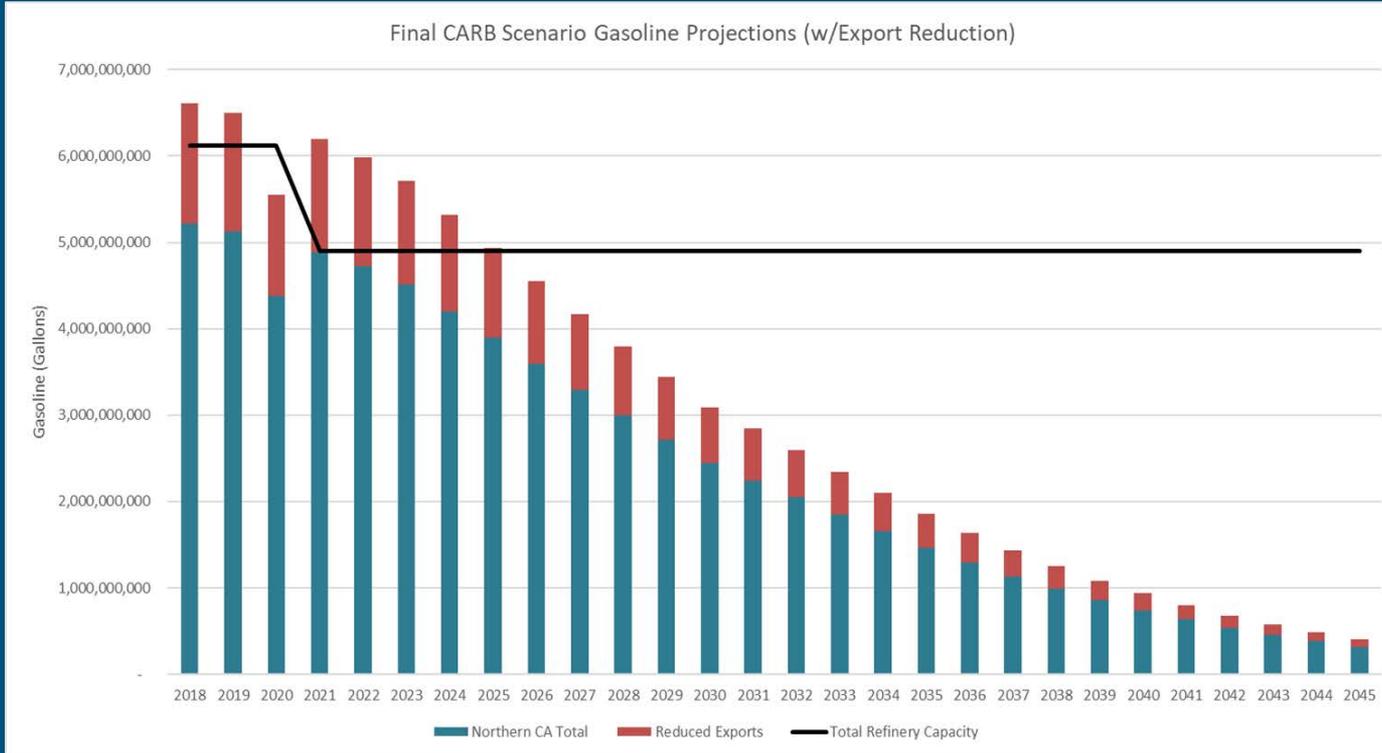


Figure 11 - Transportation Fuel Mix in Exajoules (EJ) Associated with the CARB Final Scenario [29]

# “Demand Destruction” – Northern California Refinery Market



Simeone & Lange’s economic analysis, based off CARB Scoping Plan data shows:

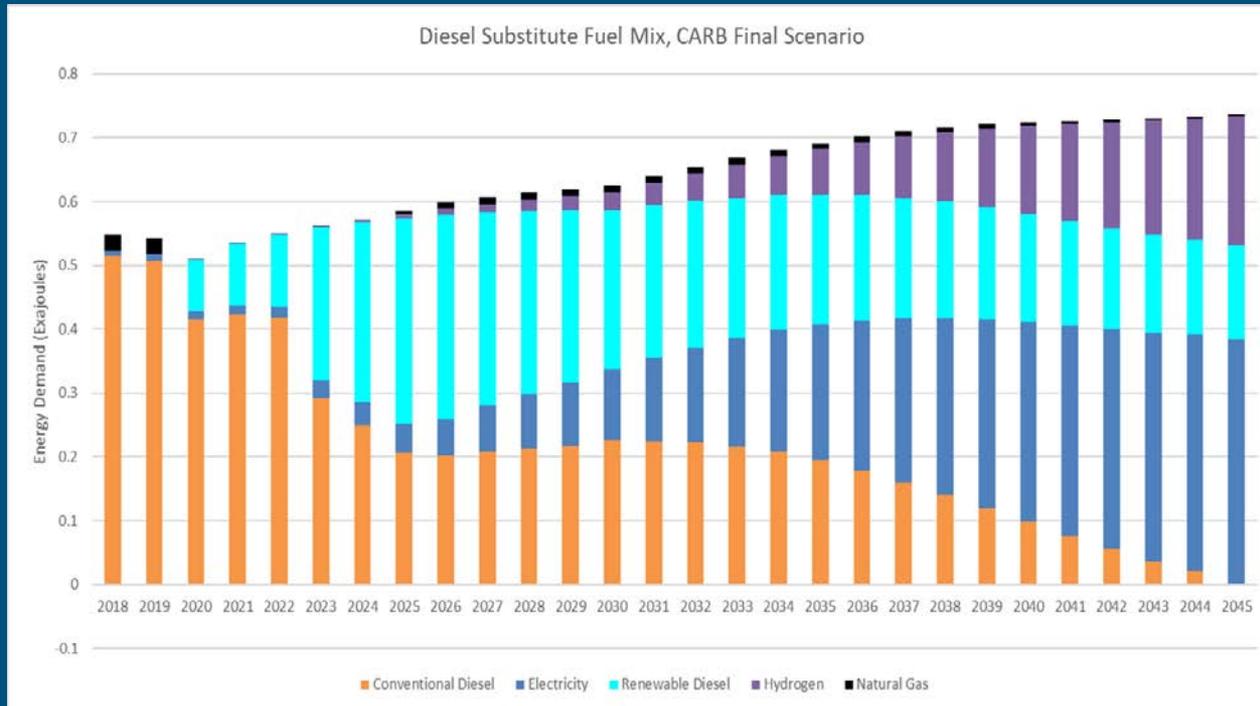
**92% reduction** in Northern California gasoline production needs (if exports reduced at same rate)

Or **65% reduction** in Northern CA refinery capacity need (if exports stay constant - unlikely)

*(Black line represents 2022 gasoline refining capacity for the Bay Area’s five refineries)*

# Renewable Fuels: A Bridge Fuel

- Renewable diesel demand **grows until 2025**, when hydrogen and electricity demand begin to erode renewable diesel share.



Source: Bay Area Refinery Transition Analysis (Simeone & Lange) based on CARB 2022 Scoping Plan Data.

# Potential Outcome: Bay Area 2045

- 1 large, or two smaller oil refineries
  - Some amount of CCS
  - Increased imports
  - Decreased exports
- Significant acreage of refinery lands in process of redevelopment or already put to new “highest and best” use.
- Some amount of renewable fuel (e.g., diesel, jet) capacity, with imports.
- Ramp up of hydrogen capacity, perhaps with some located at refineries.

# Economic Analysis

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# Refineries' job impacts

- The refinery industry is an important source of well-paying jobs for workers without a college degree.
- 3,000 direct jobs; 15,000 indirect jobs
  - E.g. manufacturing, construction, transportation
- Top refinery occupations earn upwards of \$50/hr plus benefits
- Jobs with comparable education requirements outside the refineries typically earn under \$20/hr.
- Non-refinery manufacturing jobs earn around \$25/hr.

# Refineries' tax impacts

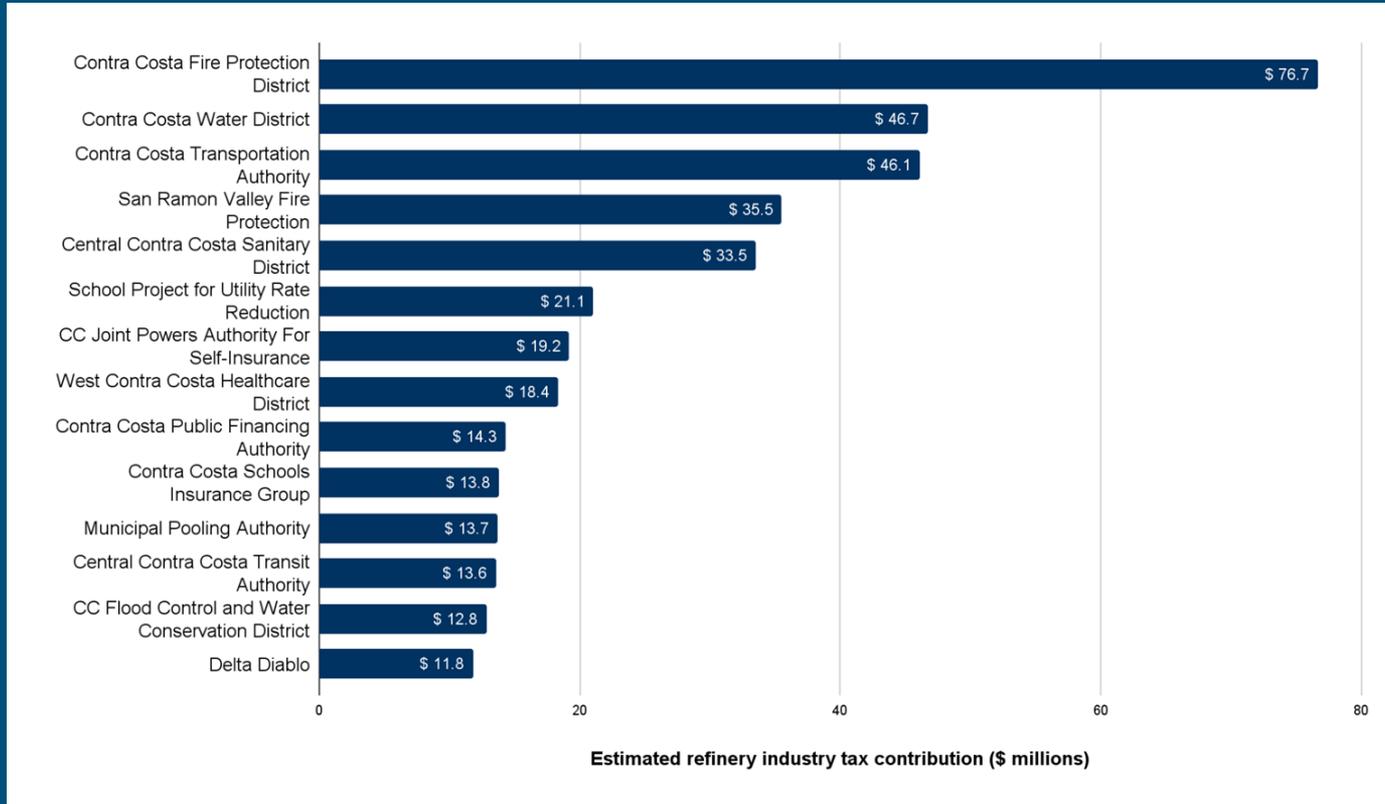
- **44%** of total economic output for Contra Costa County
- **\$1B** in cumulative local tax revenue
- **36%** of Contra Costa County tax revenue; **32%** of Special Districts tax revenue

# Estimated local tax impact of the refinery industry in Contra Costa (2022)

Local tax on production and imports	County	City	Special District	Total Local Taxes
Sales tax	\$16,524,330	\$90,587,386	-	\$107,111,716
Property tax	\$269,182,338	\$100,461,484	\$416,332,748	\$785,976,570
Other taxes	\$28,694,398	\$52,507,282	\$14,317,173	\$95,518,853
Special assessments	\$319,591	\$4,867,054	\$13,797,882	\$18,984,527
<b>TOTAL</b>	<b>\$314,720,658</b>	<b>\$248,423,206</b>	<b>\$444,447,802</b>	<b>\$1,007,591,666</b>

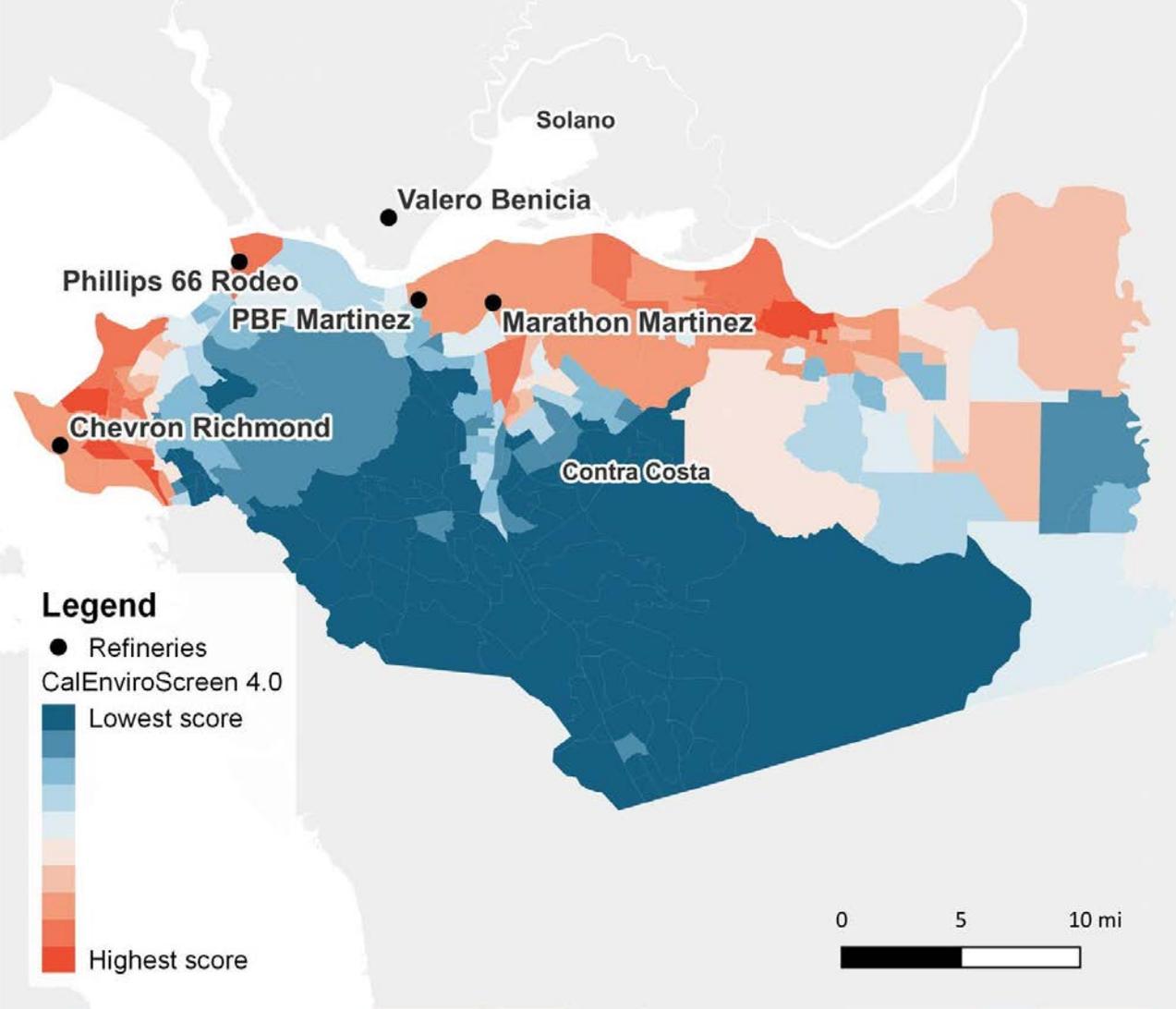
\*Cumulative impact: direct, indirect, and induced

# Estimated refinery industry contribution to Contra Costa County Special District expenditures, in millions (2022)

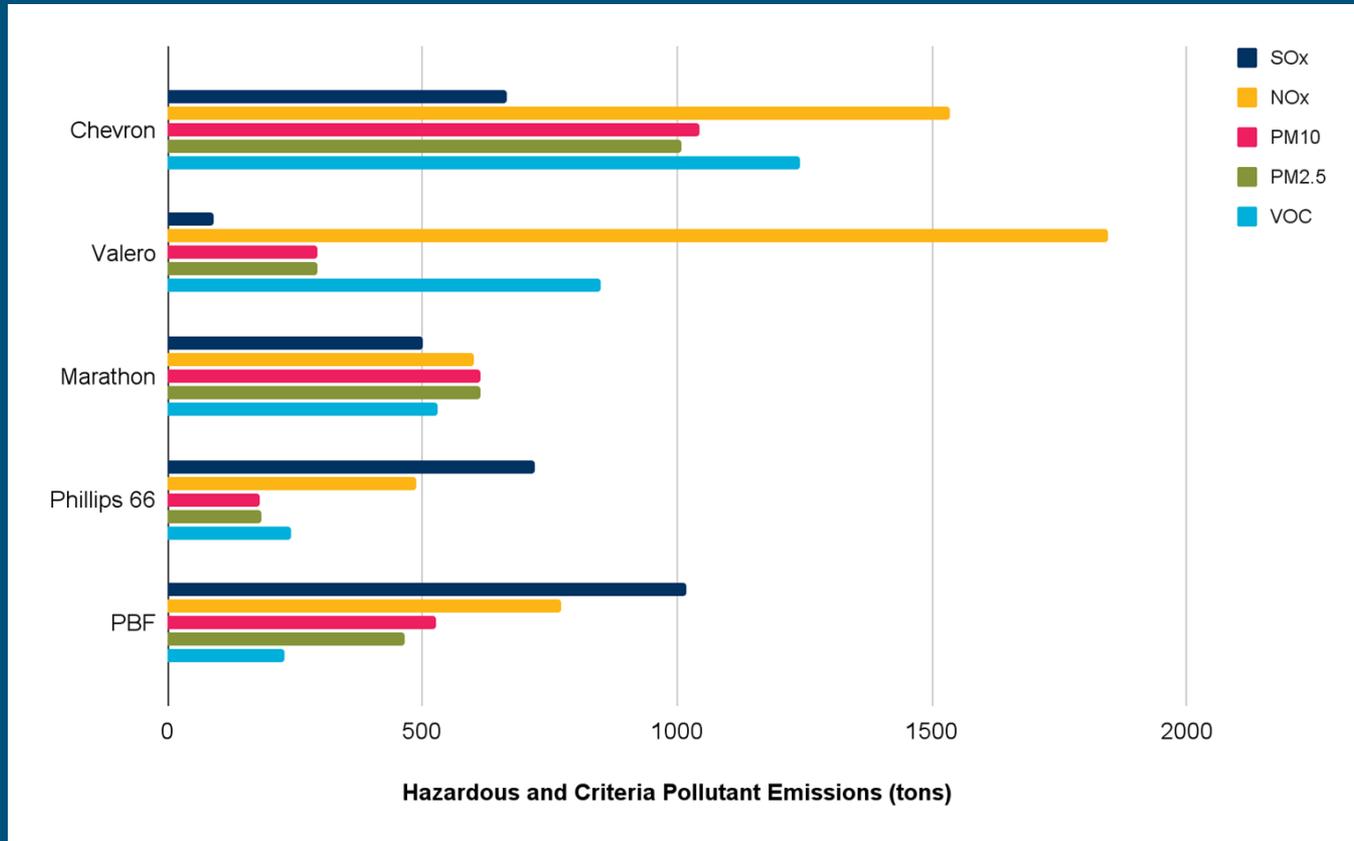


# Refineries' pollution and public health impacts

The U.S. Environmental Protection Agency (EPA) estimates the pollution-related economic impact of the oil refining industry in Contra Costa County to be between **\$290 Million** and **\$560 Million** annually, when accounting for the value of increased mortality, hospital admissions, asthma, cancers, lost school and work days and other impacts.

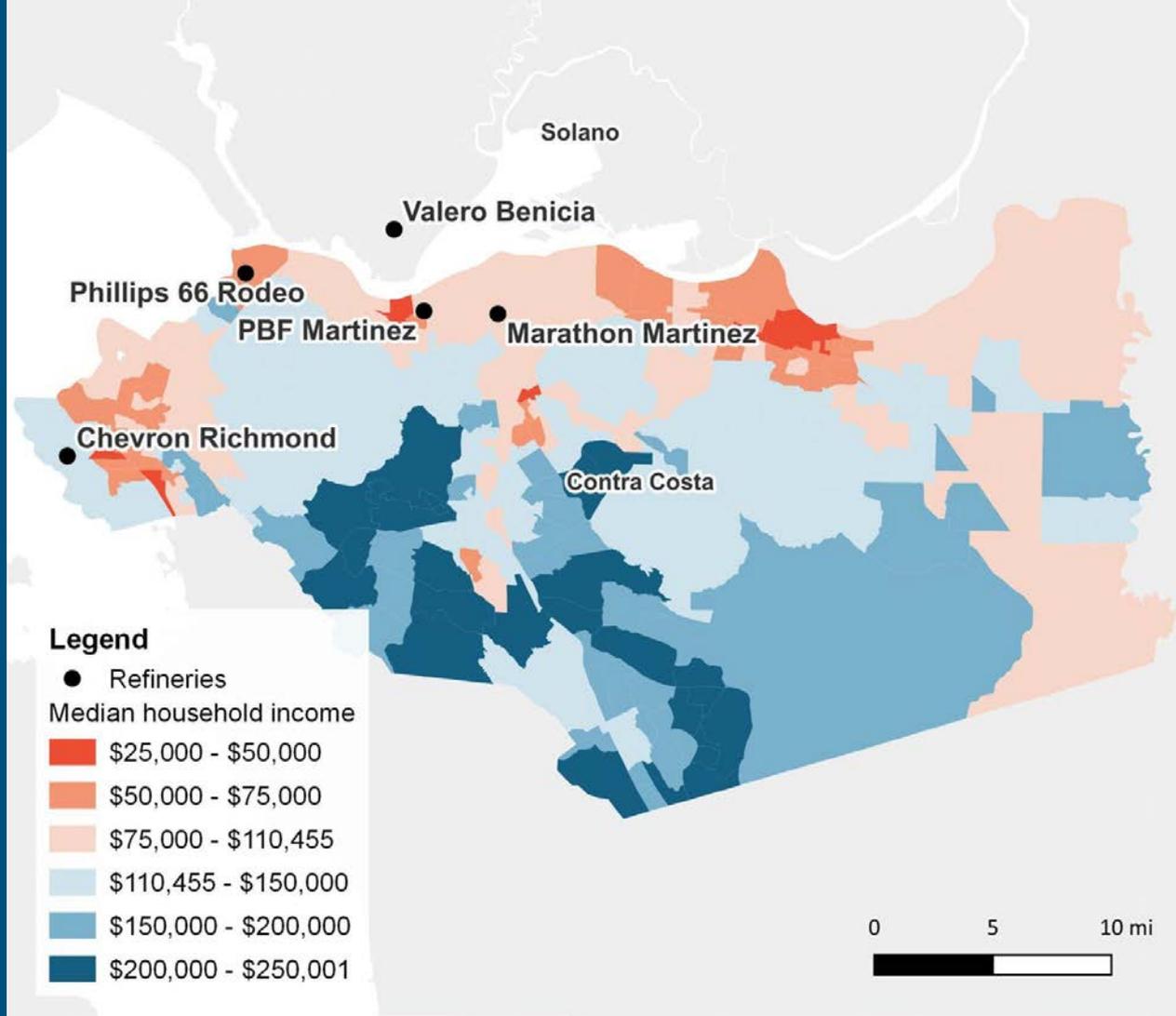


# Criteria Pollutant Emissions from Bay Area Refineries (2019)



# Income Inequality in Contra Costa County

*Median household income by census tract, Contra Costa, 2021*



# Decommissioning & Clean Up

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# Land Use / Decommissioning Takeaways

- **Refinery lands all have significant contamination** in soil, soil vapor, surface water and groundwater systems, that will be exacerbated with rising sea levels. This includes hazardous waste, with examples such as arsenic, benzene, hydrocarbons, chromium
- **There are real public health impacts of unabated contamination**, with studies identifying risks related to respiratory illnesses, cardiovascular diseases, cancer, immunity system damage, negative birth outcomes, and other negative health impacts

# Land Use / Decommissioning Takeaways

- **There are existing state and federal laws around clean-up of contaminated industrial lands** that will govern clean-up of refinery lands in the circumstance of a facility closure.
  - Resource Conservation and Recovery Act (RCRA)
  - California Hazardous Waste Control Act
  - California Porter Cologne Act
  - SB 1082 (1993), which specifically identified the Water Board as the lead agency for refinery clean-up.
- **There are numerous agencies with overlapping jurisdiction that would be responsible** for the clean-up of refinery lands in the Bay Area.
  - Most significant roles played by the San Francisco Bay Regional Water Quality Control Board (Water Board) and CA Department of Toxic Substances Control (DTSC)
  - DTSC responsible for overseeing clean-up of hazardous waste sites, and the Water Board responsible for overseeing the rest.

# Land Use / Decommissioning Takeaways

- **There is inadequate current publicly-accessible information** on the extent of contamination on Bay Area refinery sites, that makes estimating potential clean-up costs difficult.
- **The *Bay Area Refinery Transition Analysis* identifies this significant clean-up cost is a potential major economic factor** for refinery owners to seek to delay or postpone full facility closures, such as through indefinitely idling, or converting a portion of refinery lands to other uses.
- **There is also significant risk and concern about oil companies seeking to avoid or minimize clean-up** responsibilities, such as through bankruptcy, and/or negotiating with regulators and land-use agencies for reduced clean-up standards.

## **Major takeaway:**

Communities, regulators and local government must prepare ahead for facility closures and conversions, both to ensure proper clean-up takes place in event of a facility closure, and to ensure that the community has the opportunity to re-envision the use of valuable refinery lands in the event of a closure, rather than have that determination be made through a bankruptcy proceeding, or sale of a facility to a new entity with a proposal that may or may not be in alignment with community interests and values.

# Recommendations Overview

# Summary of Policy Recommendations

- ***Refinery Transition Planning and Oversight*** - Creating more oversight in the refinery transition process and ensuring worker and community needs are centered
- ***Worker Safety Net & Transition*** – Building a meaningful safety net and transition support for refinery industry workers who experience layoff
- ***Land Use, Decommissioning & Clean-Up*** - Ensuring communities aren't left with the cost of cleaning up highly contaminated lands, so lands can be repurposed for new development and community needs
- ***Refinery Community Support & Transition*** - Supporting frontline refinery communities recover from disproportionate health impacts, loss of tax revenue, and have a voice in future economic development
- ***Just Transition Economic Development*** - Ensuring Contra Costa takes swift action, and receives state/federal support, for building a diversified high-road economy for the future that can replace the economic benefits of the refining industry, centered around job quality, equity and environmental justice

# Refinery Transition Planning & Oversight

1. Require 2 Year Notification of a Refinery Closure/Idling/Downsizing

Require Quarterly Maintenance Planning with Impacted Labor Representatives

2. Require Employers Develop Workforce Transition Plans w/ Impacted Labor Unions due 6 Months Prior to Closure

3. Establish a Contra Costa Refinery Transition Oversight Commission

# Worker Safety Net & Transition

## ***Defining a Meaningful Worker Safety Net:***

A meaningful safety net for workers requires the establishment of programs and services, as well as direct financial assistance, administered by a Transition Navigator / Peer-to-Peer Case Management programs and includes:

- Wage replacement or a wage differential
- Healthcare support to allow workers to keep their plan or secure similar coverage
- Education benefits provided to cover postsecondary education for affected workers or their spouses
- Subsidized short-term training for workers or their spouses
- Mental health counseling for workers and their families
- Financial counseling and planning for workers
- Wraparound services such as childcare support, transportation stipends and other benefits that provide comprehensive support to workers during transition

# Worker Safety Net & Transition

4. Establish Financial Support for Worker Transition – State and Federal
5. Establish Third Party-Certification for Refinery Workers
6. Require Verification of Employment from Employers
7. Explore Policy Mechanisms for Refinery Industry to Fund Worker & Community Safety Net
8. Establish and Fund Transition Navigator / Peer-to-Peer Case Management Programs for Impacted Oil Refinery Workers
9. Create a Bridge to Retirement Program for Impacted Refinery Workers
10. Complete a Contra Costa Supply Chain Analysis
11. Establish Statewide Severance Standards & Employee Protections
12. Establish Incentives for Employers to Hire Impacted Refinery Workers
13. Create an Outreach Program for Employers to Hire Impacted Oil Refinery Workers
14. Complete a Statewide Study Assessing Long-Term Health Impacts of Refinery Workers

# Land Use, Decommissioning & Clean-Up

15. Initiate Land-Use Visioning Process Upon Notification of a Refinery Closure/Idling/Downsizing/Conversion
16. Establish Refinery Decommissioning/Clean-Up Standards
17. Require Site-Specific Plans to Meet Refinery Decommissioning and Remediation Standards
18. Secure Enforceable Financial Assurances for Environmental Remediation
19. Require Labor Standards for Refinery Decommissioning & Clean-Up
20. Promote Maximum Environmental Restoration of Refinery Lands Upon Closure
21. Ensure Proper Remediation of Contaminated Soils

# Refinery Community Support & Transition

22. Establish Local Community Recovery & Transition Fund with State/Federal Support
23. Improve and Update Contra Costa Community Warning System
24. Prevent Displacement with Renter Protections, Housing Preservation, New Homeowner Programs
25. Complete a Detailed Contra Costa County Tax Impacts Analysis
26. Pursue Establishment of a Federal Energy Transition Tax Remediation Fund

# Just Transition Economic Development

27. Adopt a Uniform Just Transition Standards Policy for Public Investments in Contra Costa
28. Develop a Contra Costa County Just Transition Economic Development Plan
29. Integrate Community-Centered Principles into Contra Costa County Economic Development Planning Processes
30. Advocate for State/Federal Prioritization of Economic Development Investment in Contra Costa
31. Advocate for Aligning & Embedding Just Transition Standards in All State and Federal Investments

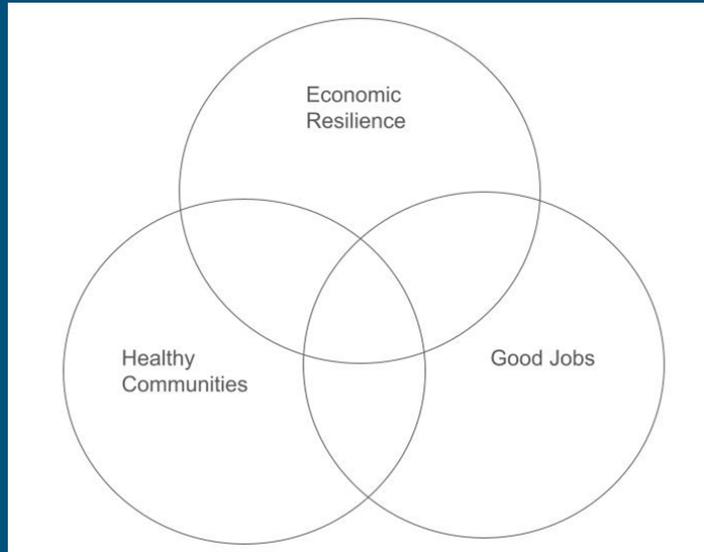
# Economic Development for a Just Transition

# Just Transition Economic Development

*“A just transition approach to economic development planning: One in which the quality of growth matters as much as the quantity, and local communities are at the center of shaping the county’s vision for its future economy. In a just transition approach, environmental justice and economic justice are not oppositional forces to growth; instead they are necessary, complementary strategies for achieving a certain quality of growth.”*

– UC Berkeley Labor Center

# Priorities for a Just Transition



- **Good jobs:** Increase quality jobs and ensure those jobs are accessible to those who need them most, including displaced refinery workers and workers from historically marginalized communities.
- **Healthy communities:** Stop polluting land, air, and water in communities that have had disproportionate pollution burdens, and target environmental and health improvements in these areas.
- **Economic resilience:** Reduce economic dependency on fossil fuel production by diversifying and increasing other sources of tax revenue.

# Just transition economic development framework

<b>Priorities</b>	<ul style="list-style-type: none"><li>● Good jobs</li><li>● Healthy communities</li><li>● Economic resilience</li></ul>
<b>Principles</b>	<ul style="list-style-type: none"><li>● Commit to democracy</li><li>● Pursue demand-driven strategies that ensure just transition outcomes</li></ul>
<b>Policy tools</b>	<ul style="list-style-type: none"><li>● <b>Game plan:</b> Tools to ensure communities and workers are at the table, identifying shared priorities for investment.</li><li>● <b>Goal posts:</b> Tools to direct growth and investment at activities that support shared priorities</li><li>● <b>Guard rails:</b> Tools to ensure community and worker-defined outcomes are achieved</li></ul>
<b>Strategies</b>	<ul style="list-style-type: none"><li>● Invest in <b>infrastructure</b> that supports just transition priorities</li><li>● Invest in <b>industries</b> that support just transition priorities</li></ul>
<b>Next steps</b>	<ul style="list-style-type: none"><li>● Adopt a just transition framework to guide planning and implementation, and align local efforts</li><li>● Leverage opportunities to grow a green economy</li></ul>

# What's Next?

- Finalize reports (October)
- Release & publicize reports (November - Winter 2025)
- Pivot towards implementation of recommendations (2025)

# Questions & Discussion