#### We need an Energy Transformation away from Fossil Fuels by 2050

This is proven feasible \* & necessary to meet California's 80% greenhouse gas cut goal & protect our health



Phase OUT by 2050: All Oil Refineries, Natural Gas & Coal Power Plant Electricity



Phase IN: Electric Vehicles, Clean Electricity (such as Solar, Wind, Storage), Efficiency

STOP NOW: Extreme Crude Oil & Natural Gas (for example from tar sands & fracking)

# 1. Clean up California's oil refineries & phase them out by 2050



Tar Sands will make already-high sulfur corrosion risk in California refineries even worse - this crude oil has extremely high sulfur content. Even without highest-sulfur crude, the Chevron Richmond refinery in Northern CA exploded Aug. 2012 (at left), narrowly missed killing 19 workers, sending thousands to hospitals. The U.S. Chemical Safety Board found this was due to sulfur corrosion and lack of maintenance.



Wilmington CA neighbors against Phillips

- ▶ Better regulation enforcement / Best Pollution Controls / Inherently Safer systems / Just Transition for workers
- ► Stop dangerous Canadian Tar Sands & North Dakota Bakken crude oil, which cause worsening climate change, spills, explosions, refinery corrosion in the U.S., & damage to people, food, land, & rivers of Canada.

Stop the multiple efforts to bring extreme crude oil to our huge west coast market by rail, ship, & pipeline:

- Valero Benicia (Northern CA) permit proposal in process (Valero SoCal withdrew after public pressure!)
- Phillips 66 Wilmington & Rodeo potential rail projects are in process
- Pittsburg California ship terminal would bring >240,000 barrels/day to port by rail, then to refineries
- Phillips 66 Santa Maria refinery rail spur could also send to ships
- Vancouver Canada & Seattle Washington ship terminal could send crude to any West Coast refinery
- Bakersfield California project could bring tar sands in by rail, then pipe to California refineries
- Canadian Keystone would go to the Midwest, TransCanada pipeline reaches West Coast ship terminals
- Also see CBE Crude Switch factsheet & and CBE Tar Sands factsheet

### 2. Phase-in Electric Vehicles & Public Transit, starting with:

- ► Support <u>Charge Ahead</u> Legislation: A Million Electric Vehicles in California in 10 years Incentives for light, medium, & heavy-duty electric vehicles, charging stations, financing, including for lower income households most impacted by pollution.
- ➤ Support Altern. 7 to the massive LA 710 freeway / Port goods movement expansion: No widening general-purpose lanes, more public transit, Zero-Emission freight, Public/Private Operator, river improvements, safe Pedestrian & Biking, local community benefits. Electrify freight transportation: See Moving California Forward, Zero and Low Emissions Freight Pathways.
- ► Fix the Low Carbon Fuel Standard (LCFS) It transfers dollars from dirty to clean fuels, only allows trading within California fuels, but the money transfer is weak with big loopholes. Unlike the original idea, it doesn't account for cradle-to-grave emissions: it leaves out refinery emissions, dirtiest crude impacts, exports.
- ► Increase funding for Public Transit & Biking improvements Most federal funding goes to highway expansions, but many U.S. mayors want local control to spend it on transit, bike trails, & road maintenance.



<sup>\*</sup> The Technology Path to Deep Greenhouse Gas Emissions Cuts by 2050: The Pivotal Role of Electricity, Williams et al, UC Berkeley, Science, Jan 2012

#### 3. Stop Fracking & Drilling California!

- ► Support your local Moratorium on Fracking See the developing <u>City of LA Moratorium</u>: (Unfortunately the City of Carson 45-day moratorium on all new drilling was recently killed by Gov Brown's pressure.) <u>Statewide efforts</u> had low success but continue.
- ► Fight for public reporting of fracking chemicals & stop dangerous transport of these, including deadly Hydrogen Fluoride; Improve South Coast Air Quality Management District Fracking Reporting Rule 1148.2 so it also *prevents* drilling pollution, and doesn't just report about it (reporting is key, but is not enough)
- ► Publicize drilling impacts: For example High methane leaks were found over LA, including high drilling emissions

## 4. Build Clean Renewables instead of gas-powered electricity

- ▶ Stop building unnecessary & costly new Gas-Fired Power Plants the ratepayers will be stuck with the bill and the air pollution Our detailed analysis shows thousands of megawatts of available clean electricity options have been ignored by regulators and legislators during planning; instead decisionmakers are caving to pressure and approving lots of conventional gas generation.
- ▶ Require a serious shift to available clean electricity, including Energy Efficiency, Demand Response, Local Rooftop Solar, Energy Storage, and Transmission Improvements, that are generally cheaper and hold the CPUC, LADWP, utilities and others accountable in planning.
- ► Support Clean Community Choice Aggregation (CCA alternatives to private electric utilities) http://richmondconfidential.org/2012/11/21/marin-clean-energy-program-to-launch-in-richmond/

## What are the benefits of stopping use of Fossil fuels by 2050?

- We can stop deadly smog:
   Nearly half of the people in the U.S. live in counties that have unhealthful levels of either ozone or particle pollution.
   (American Lung State of the Air 2014 Key Findings). California had 6 out of the top 10 most air-polluted cities in the nation. (Am. Lung Assoc. State of the Air 2014 full report p. 13),
- We can stop the unfair, heaviest burden of pollution impacts on low income & communities of color
   For example, communities of color are exposed to significantly higher levels of NOx (nitrogen oxides from fuel
   combustion) than whites, causing 7,000 additional deaths per year. (Natl Patterns in Envir. Injustice & Inequality:
   Outdoor NO<sub>2</sub> Pollution in the US, Clark et al, U of Minn, 2014.) People living next to freeways are also more likely to
   have heart & lung problems, asthma and increased death rates, with significantly higher risk in communities of color.
- We can stop our fast progression toward catastrophic climate change
   Climate Change due to human emissions of CO2 & other pollutants causes extreme weather, droughts, floods, illnesses and deaths caused by heat waves, increased wildfires, more frequent high energy hurricanes, sea level rise, ice cap & glacier melt, and even more snow from higher precipitation levels. Climate change is leading to animal extinctions, threatens catastrophic change, and the poor are already hurt the worst.
- We can build the new & <u>equitable</u> clean energy economy, ensure that the most polluted and poorest communities have a fair share of health, environmental, and economic benefits, with people instead of monopolies owning distributed energy.
- Also see CBE fact sheet on Health Impacts of Fossil Fuels



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