

Refinery fuel production shifts

Some oil companies that claim clean air laws threaten a gas shortage are quietly shifting *away* from gasoline production toward greatly increased jet fuel production.^{1,2} *See charts.*

Refineries in California made 6.6 percent *less* gasoline per barrel crude feed while their jet fuel yield on crude rose 9.5 percent. This is from ‘CARBOB’ gasoline blendstock, jet fuel, and crude oil refining rates in the twelve-month period to May 2, 2025, compared with that to May 28, 2021.¹ Jet fuel yield rose more than CARBOB yield fell partly because diesel yield also fell¹ as biofuel displaced more than half statewide diesel use.³

Meanwhile refiners export diesel and jet fuel made in California to other nations.⁴

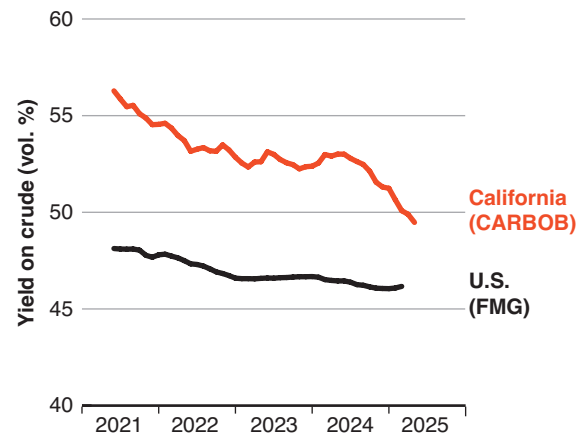
A shift back could help smooth California’s transition from oil.

Refiners here processed crude oil at an average rate of 1.39 million barrels per day in the twelve months ending May 2, 2025.¹ At that rate, a shift from jet fuel and diesel over-production to boost CARBOB yield by five percent could produce roughly 69,500 barrels per day more CARBOB at existing refineries in the state.⁵

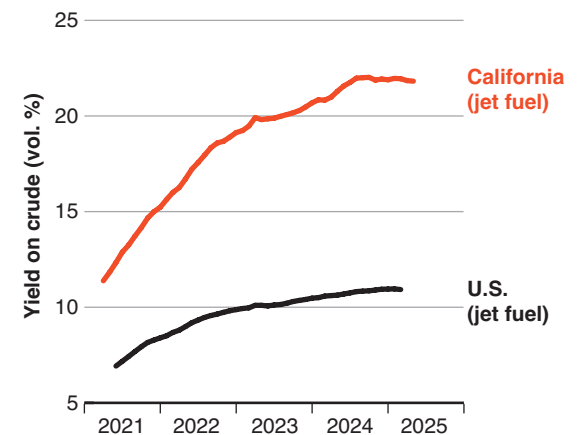
That’s about 3.2 million gallons per day more California reformulated gasoline.⁶

It could nearly match the gasoline production at one of the refineries whose owners say they are considering permanent decommissioning in late 2025 or early 2026.⁷

See next page for references and notes.



Gasoline produced as a percentage of crude oil refined in California¹ and the U.S.²



Jet fuel produced as a percentage of crude oil refined in California¹ and the U.S.²

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continued

References and notes

(1) California refinery production data from *Fuel Watch*, California Energy Commission database; <https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-inputs-and-production>. Figures for twelve-month periods are 52-week means. Figures for California reformulated gasoline blendstock for oxygenate blending (CARBOB) exclude the ten percent of CARB Reformulated gasoline volume that represents ethanol added from sources outside the petroleum refineries.

(2) US refinery data from *Refinery Yield*, Energy Information Administration database; https://www.eia.gov/dnav/pet/pet_pnp_pct_dc_nus_pct_m.htm. Twelve-month means for finished motor gasoline (FMG) are shown.

(3) See *Total Volume* table in *Fuels* tab of the California Air Resources Board *LCFS Quarterly Data Spreadsheet* for its Low Carbon Fuel Standard. Search “lcf’s quarterly data summary” at <https://ww2.arb.ca.gov>

(4) For federal reports on exports see *Harmonized System (HS) District-level Data* for Los Angeles, San Diego, and San Francisco in the US Bureau of the Census *USA Trade Home* at <https://usatrade.census.gov/index.php>

(5) Twelve-month mean CARBOB yield fell from 56.3 to 49.6 percent (note 1 data); adding 5 percent would boost it to 54.6 percent. The estimated 69,500 b/d more CARBOB was based on 5 percent of the current 1.39 million b/d crude rate; $1,390,000 \text{ b/d} \cdot 0.05 = 69,500 \text{ b/d}$

(6) The estimated 3.2 million gallons per day more CARB reformulated gasoline was based on adding ten percent ethanol by volume to the 69,500 b/d more CARBOB estimated to be produced at refineries in California in this scenario: $69,500 \text{ b/d CARBOB} + 6,950 \text{ b/d ethanol} = 76,450 \text{ b/d}$; $76,450 \text{ b/d CARB RFG} \cdot 42 \text{ gal./b} = 3.21 \text{ million gal./d}$

(7) Based on a longterm average CARBOB yield of 51.6 percent on crude from note 1 data, and 100 percent of the rated crude capacities of the 145,000 b/d Valero Benicia and 139,000 b/d Phillips 66 Los Angeles refineries. Using the same analysis in note 5 with these inputs:

$145,000 \text{ b/d} \cdot 0.516 = 74,820 \text{ b/d}$; and

$139,000 \text{ b/d} \cdot 0.516 = 71,724 \text{ b/d}$.

These figures represent operation of refineries with the same crude capacity and typical historic statewide yields. Actual refinery-specific gasoline yields are not public information. The 69,500 b/d estimate in note 5 represents some 93 percent and 97 percent of these figures, respectively. At this writing, Phillips 66 plans to close its LA refinery in the fourth quarter of 2025 and Valero has announced that it is considering closure or restructuring of Benicia refining.