



**CALIFORNIA
ENERGY COMMISSION**



California Energy Commission

STAFF REPORT

Quarterly Petroleum Supply and Pricing Report

October 2024 Through December 2024

March 2025 | CEC-200-2025-019

California Energy Commission

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ABSTRACT

California Public Resources Code Section 25358 requires the California Energy Commission (CEC) to prepare a report every quarter that summarizes and analyzes petroleum industry supply, production, transportation, delivery and distribution, demand, and prices. This report looks at information collected by the CEC through the Petroleum Industry Information Reporting Act of 1980 and the associated regulations for analyzing trends in liquid fuel production, storage, and distribution. CEC staff developed new metrics using these data to help better inform the California public on the operations of the liquid transportation fuels supply chain. In addition, staff analyzed other data sources to provide a more comprehensive discussion of California's liquid transportation fuel issues.

Topics included in this report:

- California, United States, and world crude oil prices
- Inventories of crude oil at California refineries
- Quantity of crude oil processed at California refineries
- Production of liquid transportation fuels
- Inventories of liquid transportation fuels
- Prices of liquid transportation fuels
- Import and export volumes of liquid transportation fuels for California

Keywords: California Energy Commission, transportation, gasoline, petroleum, diesel, liquid fuels

Please use the following citation for this report:

Neff, Bryan, Andrea Bailey, Kelsie Goff, Foua Moua, Jesten Ruiz, Eric Sanchez, and Alexander Wong. 2025. *Quarterly Petroleum Supply and Pricing Report, October 2024 Through December 2024*. California Energy Commission. Publication Number: CEC-200-2025-019.

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EXECUTIVE SUMMARY

This report describes the trends and relevant issues faced by California's liquid transportation fuels market. Using information from the Petroleum Industry Information Reporting Act of 1980 and associated data collection regulations, as well as from public and proprietary sources, California Energy Commission (CEC) staff details the flows of liquid fuels and volumes of the product that is being moved and produced in California. The following are key observations of market activity in the last quarter:

Crude Oil

- Crude oil prices for the various benchmarks, Brent North Sea, West Texas Intermediate, and California estimated refinery acquisition cost, peaked and declined in October, with a steady average price but significant volatility through the end of the year.
- California estimated refinery acquisition costs ended the fourth quarter higher than it started (\$70.52 compared to \$67.51) but below the quarterly peak of \$73.32 per barrel.
- Crude oil inputs decreased over the quarter, while inventories increased to 13.6 million barrels.
- While in-state production has declined, the percent of crude oil from California oil fields processed by California refineries during 2024 has stayed similar to 2023, 23 percent.

Gasoline

- Gasoline prices generally declined throughout the fourth quarter. California experienced a slight uptick in prices during October and at the end of December, but these were against the overall trend of lower prices.
- Lower average crude oil prices helped lower retail prices. California averaged \$0.19 per gallon less than the previous quarter (\$4.43 during the third quarter to \$4.24 during the fourth).
- The combination of lower crude oil prices and lower gasoline prices helped maintain refiner margins, averaging \$0.60 per gallon in October and \$0.46 in November.
- Production started the first week of the quarter at 5.4 million barrels and ended the last week of the quarter at 5.4 million barrels.
- Inventories started the first week of the quarter at 9.0 million barrels and ended the last week of the quarter at 9.5 million barrels.

Diesel

- Diesel prices declined through the quarter, with a slight increase during the beginning of October. The slight increase is typical behavior as diesel consumption is usually highest during harvest season, which puts upward pressure on prices.
- The overall trend of lower diesel prices illustrates the effect lower crude oil prices have on the price of finished petroleum products.

- Diesel production and inventories varied through the fourth quarter, but ended lower than they began, at 472,000 barrels per week and 1.3 million barrels, respectively.

CHAPTER 1:

Crude Oil

This chapter discusses crude oil market data changes for the quarter, including international and national prices, monthly production at California refineries, volume of crude oil stored at refineries, volume of crude oil used at refineries (referred to as “inputs”), and the movement of crude oil using data collected under Public Resources Code Section 25354 (a) and (f), and Public Resources Code section 25357.

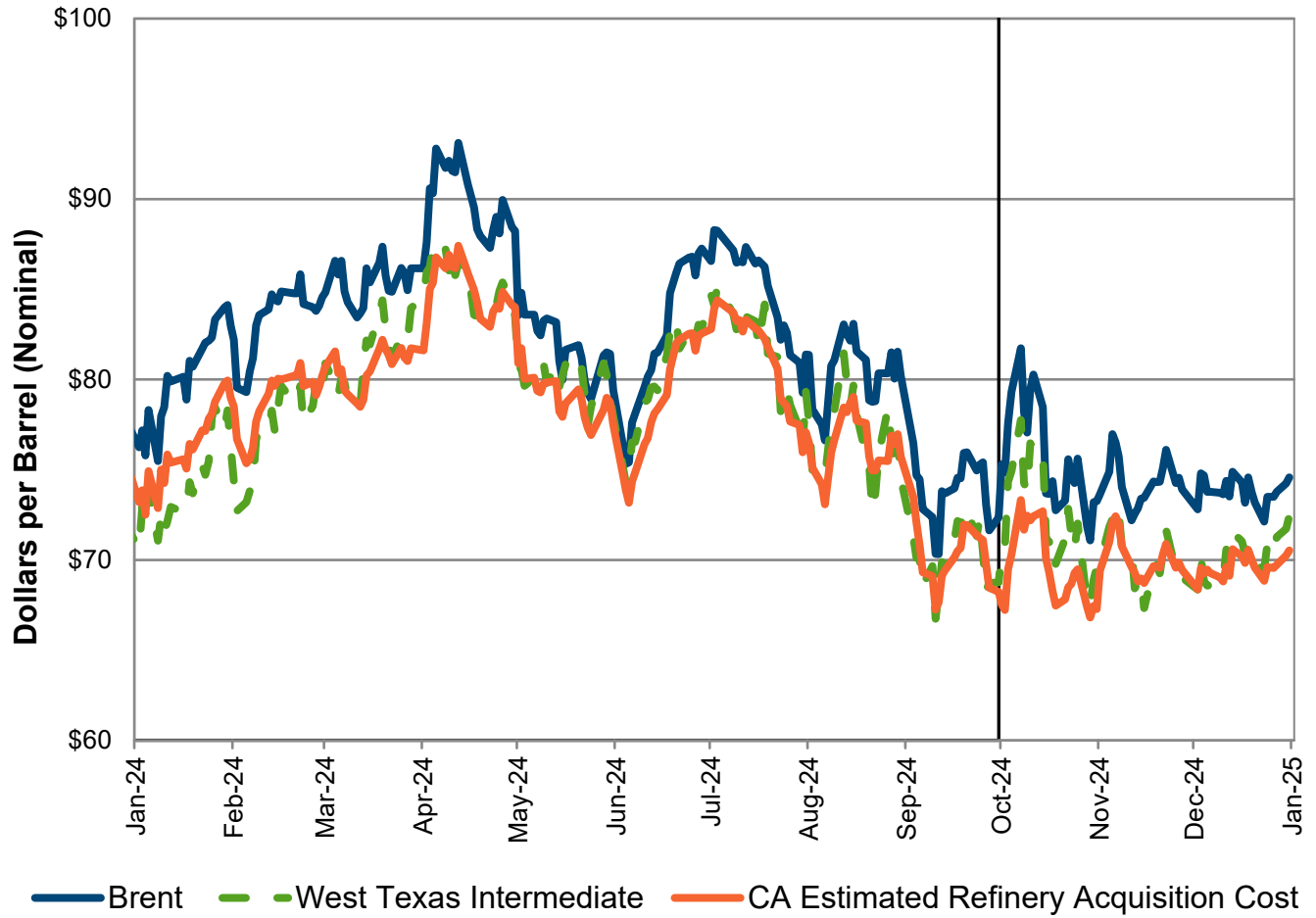
Prices

Figure 1 shows the daily West Coast spot crude oil prices for Brent North Sea (Brent), West Texas Intermediate (WTI), and the California estimated refinery acquisition cost (CA-RAC). Brent crude oil, an international benchmark, is the best surrogate price for foreign sources of crude oil processed at California refineries. WTI is included as it is the domestic benchmark. The CA-RAC is a weighted average of the prices of California (San Joaquin Valley) crude, Alaskan crude, and foreign crude. Crude oil prices for the various benchmarks, Brent North Sea, West Texas Intermediate, and California estimated refinery acquisition cost, trended upward in October before settling down for the last two months of 2024. This quarter had the lowest average prices compared to the rest of year. All three crude oil price benchmarks peaked on the same day, October 7, and followed the similar spikes and lows throughout the fourth quarter.

For the fourth quarter of 2024:

- The Brent price started the fourth quarter at \$75.30 per barrel and ended the fourth quarter at \$74.58, with a peak price of \$81.74 on October 7. Brent performed the strongest during the first month of the quarter, averaging \$75.63 for October with two days trading above \$80. Between November and December, the price averaged \$74.10 and ranged between \$72.12 and \$76.98.
- The WTI price started the fourth quarter at \$70.41 and ended at \$72.44 with a peak price of \$77.76 on October 7. The average difference between WTI and Brent crude was \$3.80 for the fourth quarter and ranged between \$1.50 and \$6.12.
- The CA-RAC price started the fourth quarter at \$67.51 and ended at \$70.52, with a peak price of \$73.32 on October 7. The average difference between CA-RAC and Brent crude was \$4.96 for the fourth quarter and ranged between \$2.58 and \$9.02.

Figure 1: Daily Spot Crude Oil Prices



Note: Black vertical line on graphs indicates end of previous quarter's data. Areas to the right indicate new data since last quarter.

Source: U.S. Energy Information Administration (EIA), Oil Price Information Service (OPIS)

Monthly Production

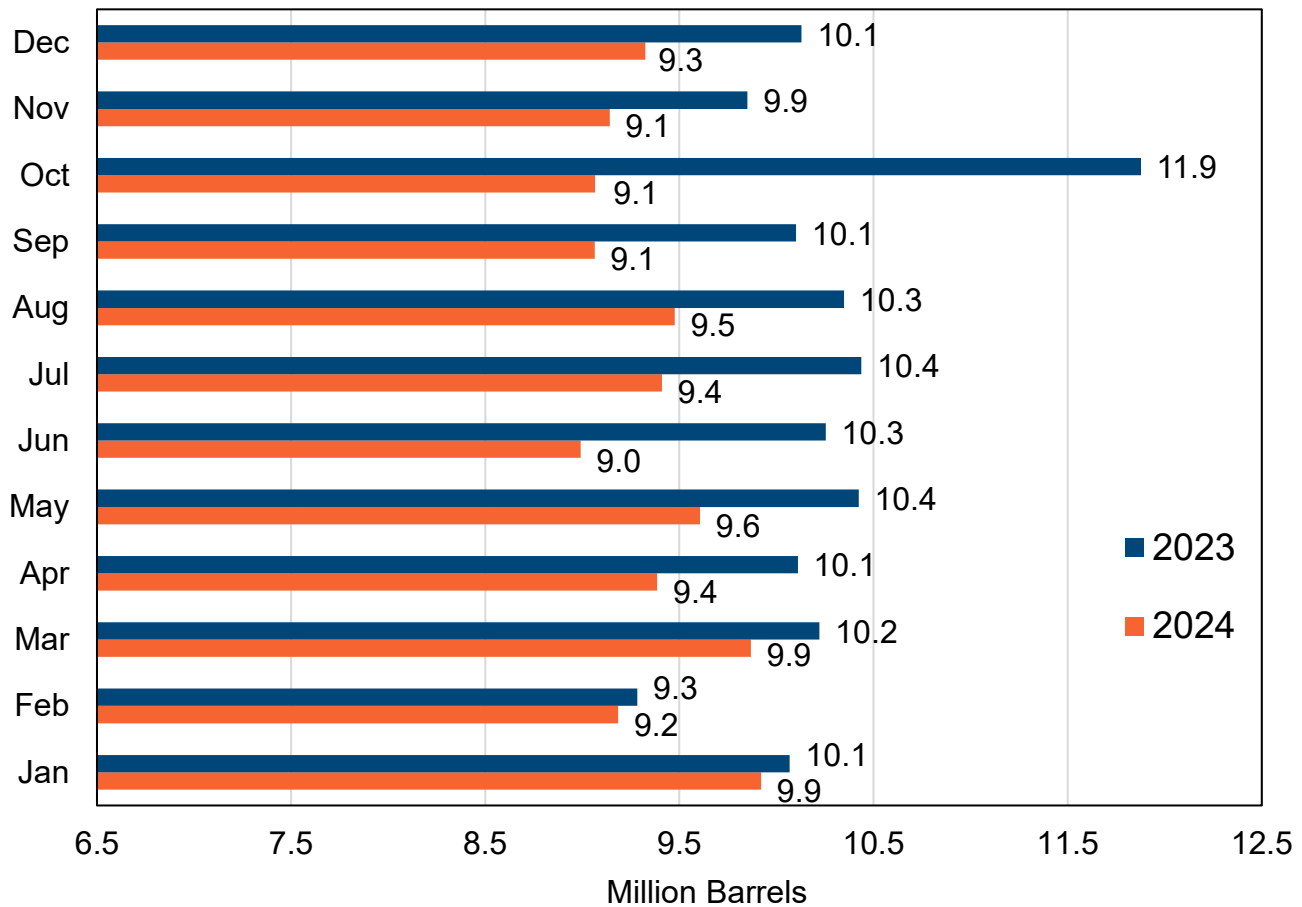
Figure 2 below shows the monthly crude oil production as reported by the State Oil and Gas Supervisor. Monthly production during the fourth quarter of 2024 was 9.1 million, 9.1 million, and 9.3 million barrels, for October, November, and December, respectively. Total production in the fourth quarter of 2024 was 27.5 million barrels, 4.3 million barrels lower compared to the fourth quarter of 2023 (31.9 million barrels). The year-over-year decreases observed in Figure 2 illustrate California's continued crude oil production decline. California crude oil production has been in steady decline since 1985.¹ This decline is due to the geological properties of the crude, the age of the wells, and the associated production costs.² While in-state production has declined, the percentage of crude oil from California oil fields processed by California refineries during 2024 has stayed similar to 2023, 23 percent.³

1 U.S. Energy Information Administration. "[Petroleum and Other Fluids](https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRFPCA1&f=A)," <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRFPCA1&f=A>.

2 Geological properties of crude oil include but are not limited to density, sulfur content, viscosity, hydrocarbon makeup, dissolved gases, salinity, wax content, and trace metals.

3 California Energy Commission, "[Annual Oil Supplies to California Refineries](https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/annual-oil-supply-sources-california)," <https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/annual-oil-supply-sources-california>.

Figure 2: Monthly Crude Oil Production Report



Source: [California Geologic Energy Management Division \(CalGEM\) WellSTAR data dashboard](https://www.conservation.ca.gov/calgem/Online_Data/Pages/WellSTAR-Data-Dashboard.aspx)
(https://www.conservation.ca.gov/calgem/Online_Data/Pages/WellSTAR-Data-Dashboard.aspx)

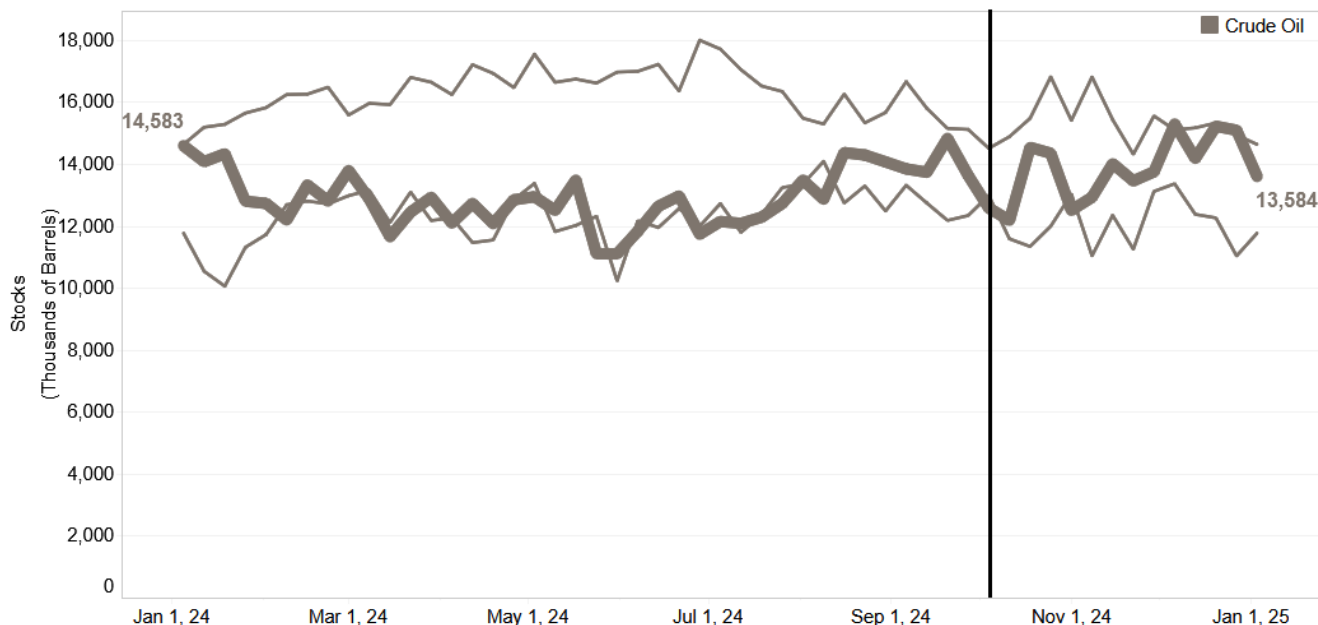
Inventory

Figure 3 shows the volume of crude oil inventories at California refineries. In the fourth quarter of 2024 (October–December), crude oil inventories started the period below the 10-year low and slowly built up to the toward the 10-year high. Inventories were at the quarterly high of 15.3 million barrels on December 6, 3.1 million barrels higher than the quarterly low of 12.2 million barrels on October 11. Crude oil inventories are likely to remain below the 10-year high due to reduced storage capacity following recent refinery conversions, including the P66 Rodeo conversion to renewables.

For the fourth quarter of 2024:

- Crude stocks started the quarter at 12.6 million barrels, 3.0 percent lower than the previous year (13.0 million barrels).
- Crude stocks ended the quarter at 13.6 million barrels, 7.5 percent lower than the previous year (14.7 million barrels).

Figure 3: California Refinery Crude Oil Inventories (With 10-Year High-Low Band)



Note: Inventory, input, and production charts include 10-year high-low bands. These bands provide a rolling average of the highs and lows and allow comparison of the current inventory, input, or production to the highs and lows of the historical trends.

Source: CEC Petroleum Industry Information Report Act (PIIRA) data — [Weekly Fuels Watch](https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-stocks), available at <https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-stocks>

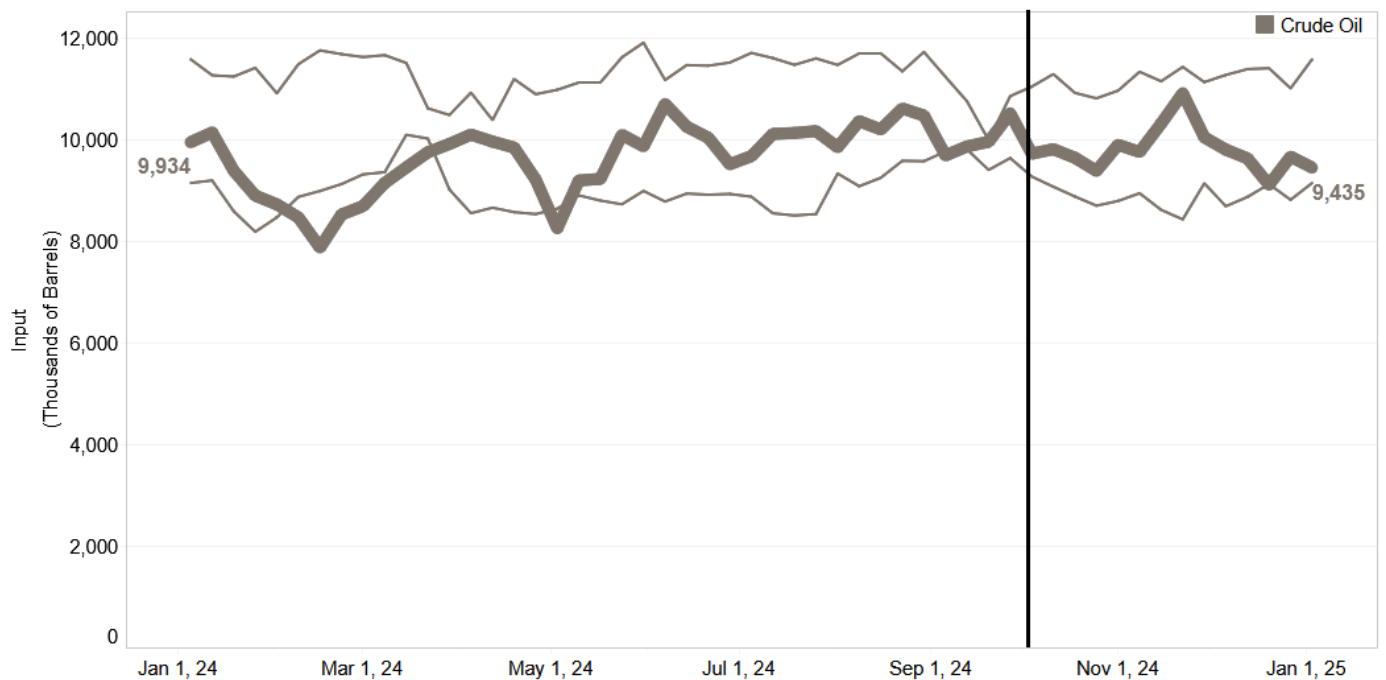
Inputs

Figure 4 shows the volume of crude oil used at refineries, referred to as “inputs.” Crude oil inputs started the quarter above the 10-year low and stayed within the historical range for the entire quarter. The quarterly low of 9.1 million barrels occurred the week of December 20, while the quarterly high of 10.9 million barrels occurred the week of November 22.

For the fourth quarter of 2024:

- Inputs started the first week of the quarter at 9.7 million barrels, 3.2 percent higher than the previous year (9.4 million barrels).
- Inputs ended the last week of the quarter at 9.4 million barrels, 6.0 percent lower compared to the same quarter of the previous year (10.0 million barrels).
- Average weekly input for the quarter was 9.8 million barrels, 4.3 percent higher compared to last year’s quarterly average of 9.4 million barrels per week.

Figure 4: California Refinery Crude Oil Inputs (With 10-Year High-Low Band)



Source: CEC PIIRA data – [Weekly Fuels Watch](https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-inputs-and-production), available at <https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-inputs-and-production>.

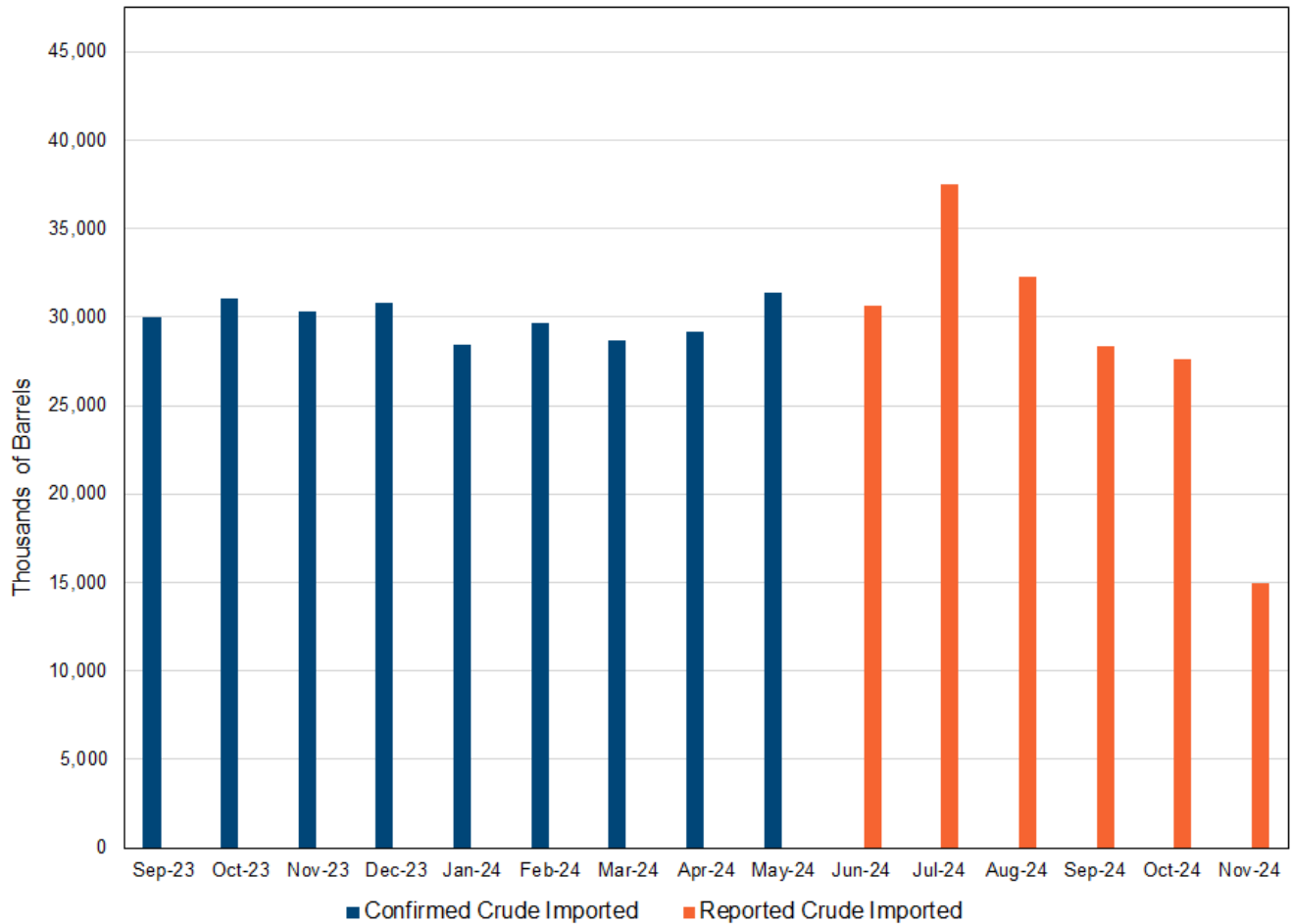
Imports

Figure 5 shows crude oil imports to California refineries. Imports include domestic and foreign sources received by marine and rail. Imports are shown as reported and confirmed. Reported imports are aggregated, or combined, reported raw data from a single form. Confirmed imports are data that have been cross-checked with additional sources of data and represent a more accurate estimate of imports. Delayed reporting prevents discussion of December data.

For the fourth quarter of 2024:

- Reported crude oil imports decreased from October through November. Imports in October 2024 were 27.6 million barrels, followed by 15.0 million barrels in November 2024.
- The two-month period of October and November were below the total from the previous two months. From August 2024 to September 2024, California refineries imported 60.6 million barrels of crude oil compared to the 42.5 million barrels from October to November 2024.
- Reported imports decreased 17.8 million barrels compared to October and November of the previous year, a 29.5 percent decrease.

Figure 5 Crude Oil Imports



Note: “Reported Crude Oil Imported” data are reported directly to the CEC through Form M700. “Confirmed Crude Oil Imported” is Form M700 data that are confirmed with Port Import/Export Reporting Service (PIERS), California State Lands Commission (SLC), and U.S. Energy Information Administration (EIA) data through May 31, 2024.

Source: CEC PIIRA data — California Imports, Exports, and Intrastate Movements Monthly Report, Form M700

Figure 6 shows the routes used to import crude oil into California by rail car. Crude-by-rail imports are driven by refinery orders, and the refineries that have recently ordered crude oil by rail are in Southern California. Crude oil is transferred from rail car to pipeline in Bakersfield to complete the journey to Southern California refineries. These rail lines are not exclusive to crude oil transport but are used to transport all commodities and ferry passengers.

Figure 6: Crude Rail Lines of Southern California



Source: California Department of Transportation, BNSF, CEC

A single rail tank car carries about 700 barrels. Nonfloating crude oil is denser than water, which requires it to have an American Petroleum Institute gravity of 10 or less.⁴ California does not import any nonfloating crude. Since the beginning of 2023, crude oil by rail originates in North Dakota and exclusively travels through Arizona as crude traveling through Nevada dropped to zero. Limited shipments by rail prevent publication of these data to maintain reporter confidentiality.

⁴ American Petroleum Institute gravity is a measurement of how heavy or light a petroleum liquid is compared to water.

CHAPTER 2:

Gasoline

This chapter discusses the volume of California reformulated gasoline (CaRFG) produced at California refineries, inventories of CaRFG and blendstocks, gasoline prices, and movement of gasoline using data collected under Public Resources Code Section 25354 (a), (h), and (i). Since 2011, CaRFG contains 10 percent ethanol, which is included in the production and inventory totals shown in this chapter.

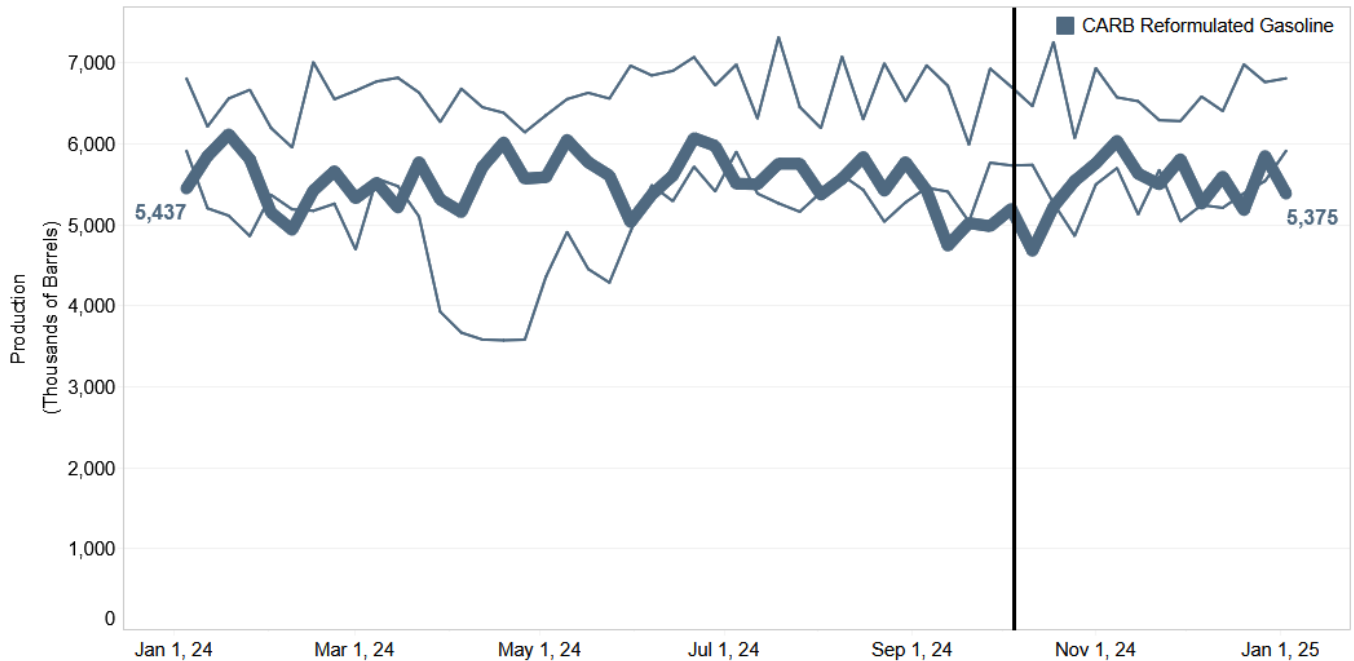
Production

Figure 7 shows CaRFG production for the previous year with the 10-year high-low band. CaRFG production fluctuated throughout the quarter, ending higher than it started, with peaks on November 8 and December 27, and lows on October 11 and December 20. Part of the reason for these lows is the Phillips 66 Rodeo facility conversion from conventional fuel production to renewable fuels in the first quarter of 2024, which has reduced refining capacity and lowered overall in-state gasoline production.

For the fourth quarter of 2024:

- CaRFG production peaked for the quarter at 6.0 million barrels the week ending November 8.
- The quarterly low of 4.7 million barrels occurred the week ending October 11.
- CaRFG production began the quarter at 5.2 million barrels, 10.4 percent less than the previous year's fourth quarter start of 5.8 million barrels.
- CaRFG production ended the quarter at 5.4 million barrels, 1.1 percent less than the previous year's fourth quarter close of 5.4 million barrels.

Figure 7: CaRFG Production (With 10-Year High-Low Band)



Source: CEC PIIRA data — [Weekly Fuels Watch](https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-inputs-and-production) available at <https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-inputs-and-production>

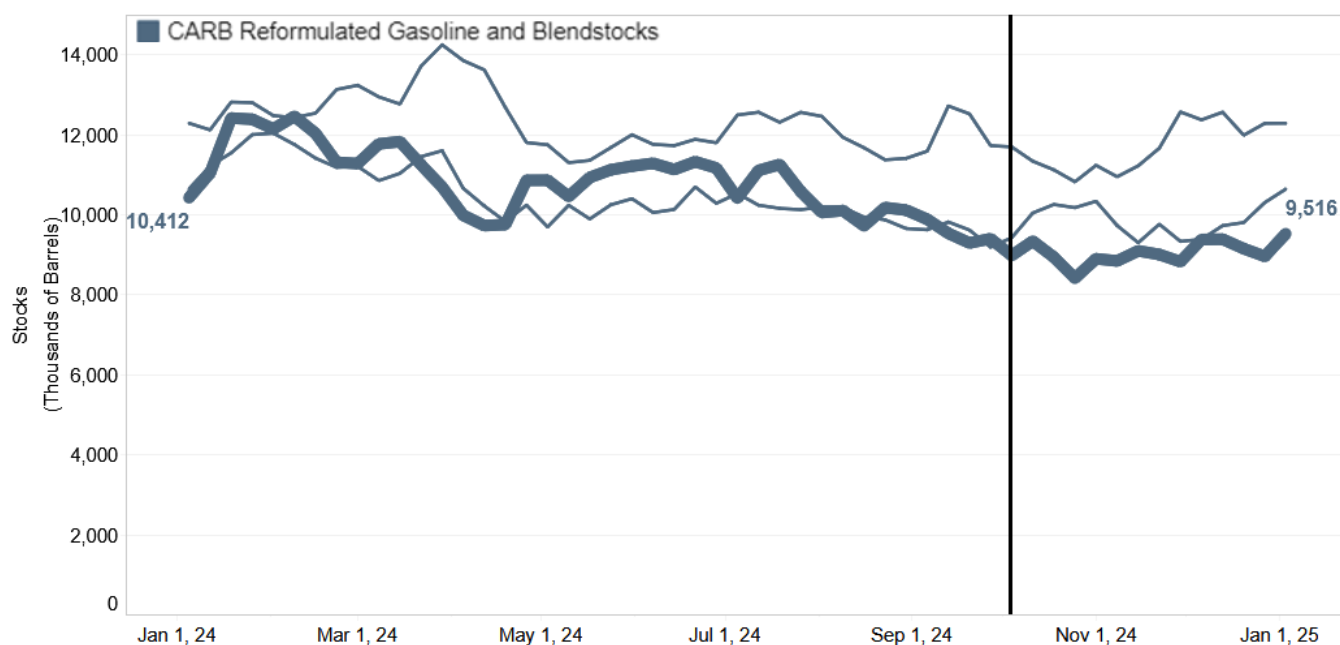
Inventory

Figure 8 shows the CaRFG and blendstock inventories for the previous year with the 10-year high-low band. At the start of the quarter, CaRFG and blendstock inventories were below the 10-year low. Inventories rose to a quarterly high of 9.5 million barrels the last week of the quarter, 1.1 million barrels higher than the quarterly low (8.4 million barrels) the week ending October 25.

For the fourth quarter of 2024:

- CaRFG and blendstock inventories experienced moderate fluctuations during the quarter.
- CaRFG and blendstock inventories ended the quarter higher (9.5 million barrels) than they began (9.0 million barrels).
- CaRFG and blendstock inventories were 896,000 barrels lower than they were a year ago (10.4 million barrels).

Figure 8: CaRFG and Blendstock Inventories (With 10-Year High-Low Band)



Source: CEC PIIRA data — [Weekly Fuels Watch](https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-stocks), available at <https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-stocks>

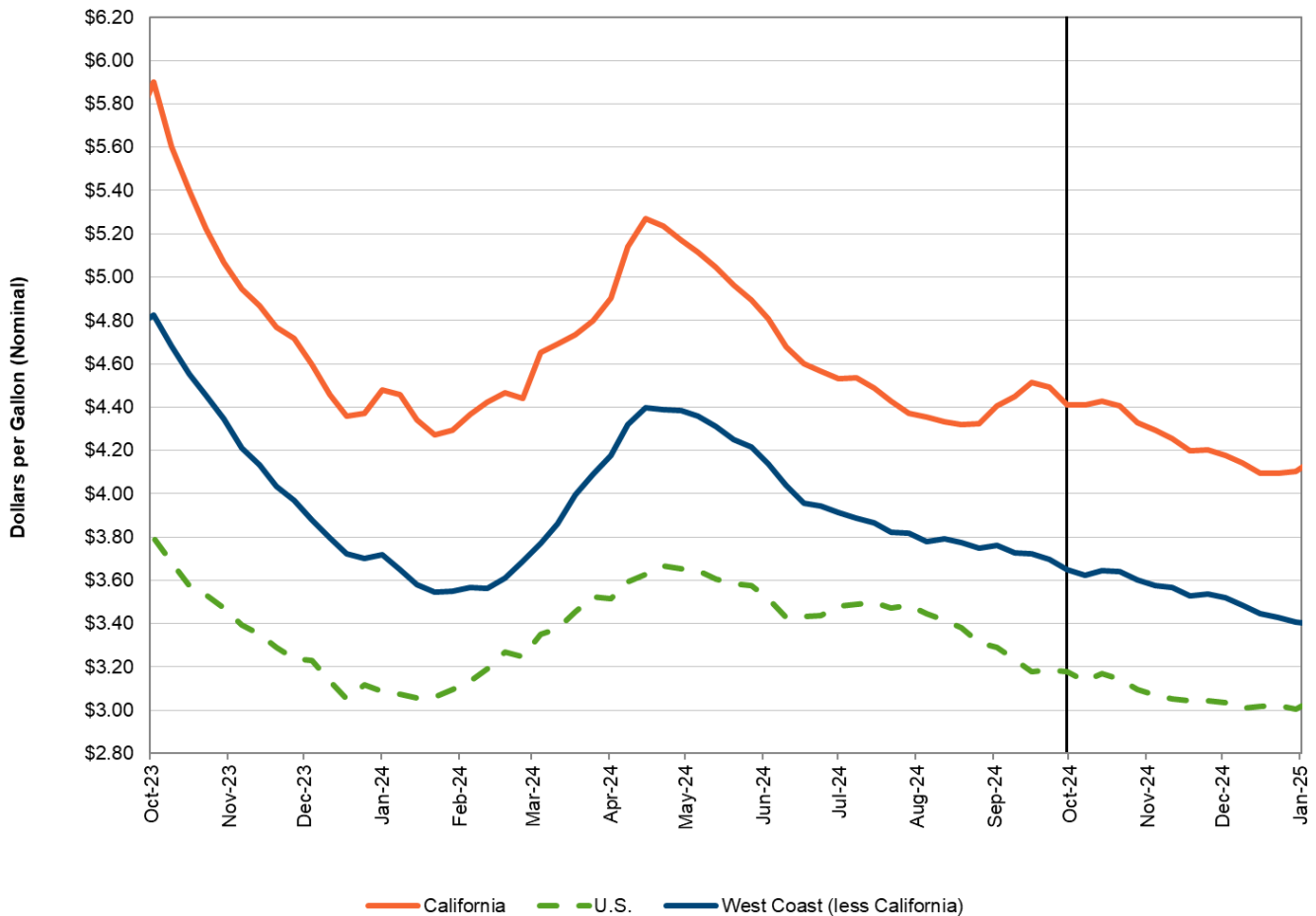
Prices

Figure 9 shows regular grade gasoline retail prices through the fourth quarter. Since CaRFG differs from gasoline sold nationally, all gasoline prices refer to regular grade regardless of specification. Gasoline prices across the United States decreased during the fourth quarter of 2024. California and U.S. region gasoline prices show a slight increase movement during the end of December similar to the ending of 2023.

For the fourth quarter of 2024:

- California gasoline price is the highest among all regions, averaging \$4.24 through the fourth quarter. During the fourth quarter, California gasoline price was \$1.18 more than U.S. at an average price of \$3.07, \$0.70 more than West Coast (less California) average of \$3.54.
- Gasoline prices in all regions followed the same trendline through the fourth quarter, while U.S. remained at the lowest, decreasing to \$3.01 on December 30 from \$3.14 on October 7.
- West Coast (less California) retail prices decreased \$0.21 from the beginning of the quarter on October 7 at \$3.62 to \$3.41 on December 30.

**Figure 9: Regular Grade Gasoline Retail Prices:
California vs. West Coast vs. United States**



Source: U.S. EIA

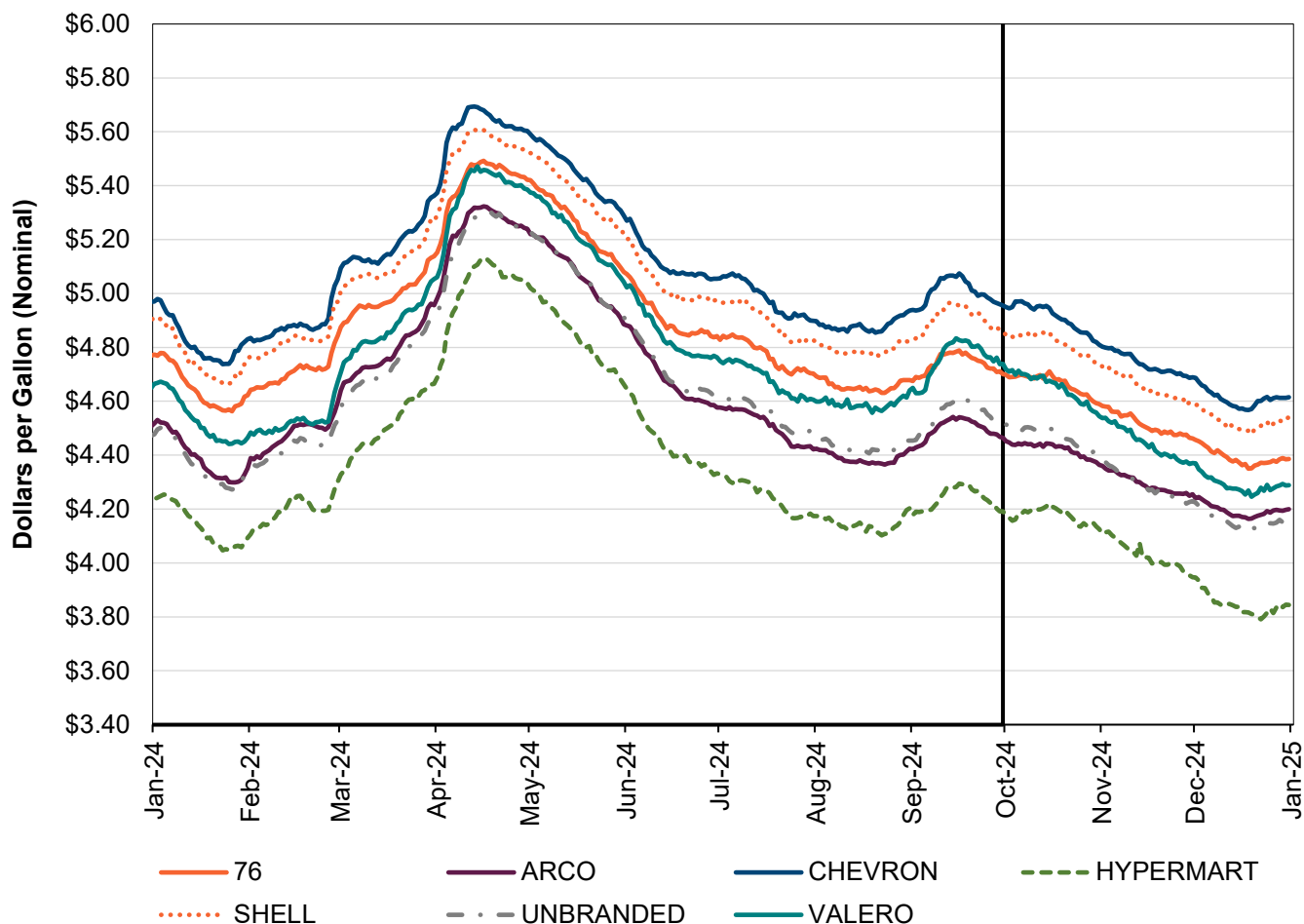
Figure 10 shows California regular grade gasoline retail prices by brand. Chevron continues to be the highest priced brand and Shell the second highest. Hypermarts continue to offer the lowest prices, followed by ARCO and unbranded stations. A *hypermart station* (Costco, Safeway, and so forth) is defined as a station that is company-owned or company-operated by a supermarket or wholesale chain store that sells its own fuel at the same location.

For the fourth quarter of 2024:

- The highest average price during the fourth quarter at Chevron was \$4.97 on October 6, 2024. The lowest average price during the fourth quarter at Chevron was \$4.57 on December 18, 2024.
- The highest average price during the fourth quarter at hypermarts was \$4.22 on October 15, 2024. The lowest average price during the fourth quarter at hypermarts was \$3.79 on December 22, 2024.
- Price difference among various brands ranged between \$0.66 and \$0.81.

- The difference of monthly average price between Chevron and hypermarkets started the fourth quarter at \$0.74 and ended the fourth quarter at \$0.76.

Figure 10: California Gasoline Retail Prices by Brand



Source: CEC analysis of OPIS data

Imports and Exports

Figure 11 shows gasoline imports and exports from July 2023 through September 2024. These imports and exports include CaRFG and non-California specification gasoline. These totals do not include ethanol.⁵ Imports are shown as reported and confirmed. Reported imports are aggregated reported raw data from a single reporting source. Confirmed imports

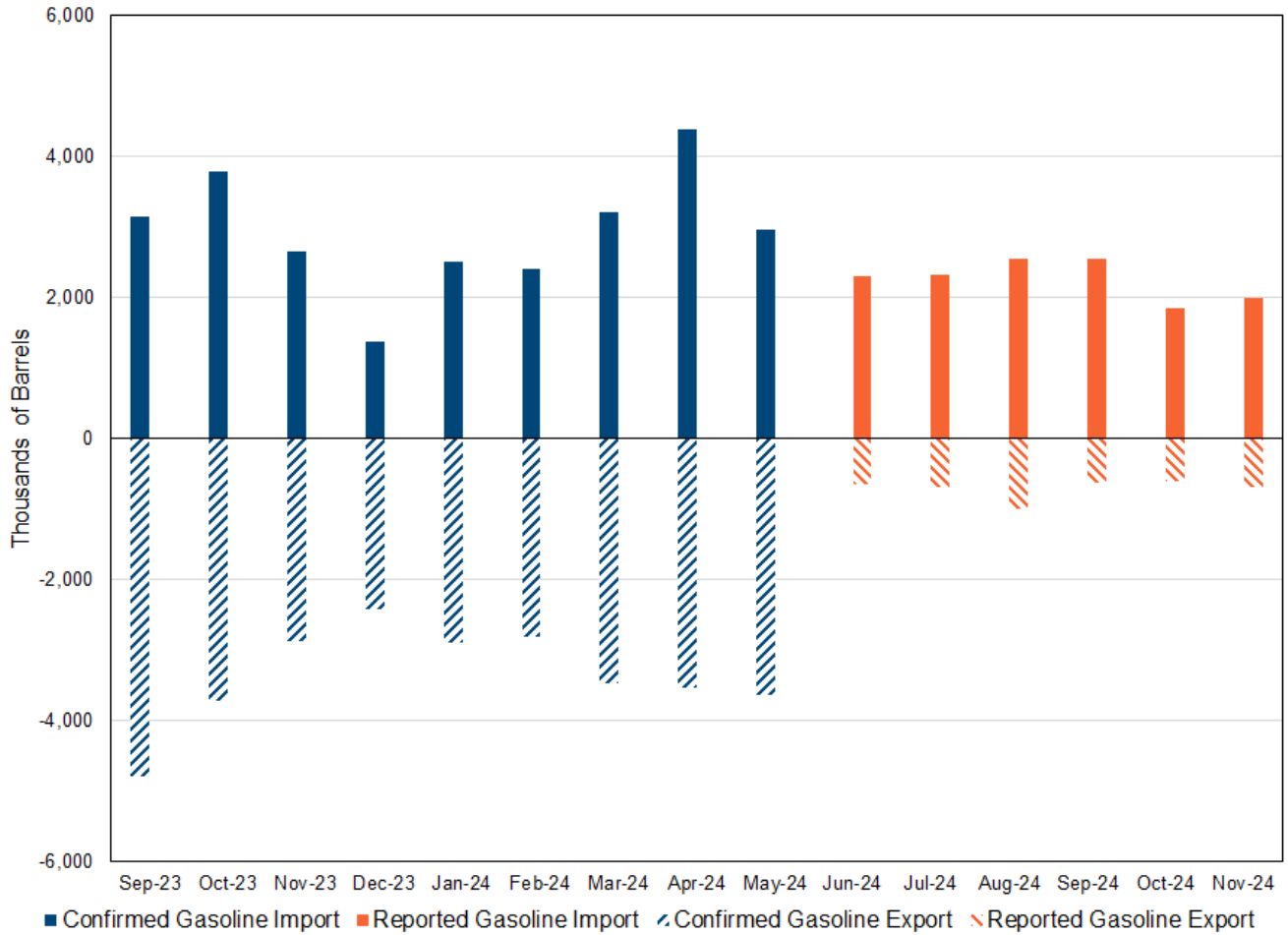
⁵ California Energy Commission. February 2023. [Petroleum Watch: Ethanol Imports](https://www.energy.ca.gov/sites/default/files/2023-03/2023-02_Petroleum_Watch_ada.pdf), https://www.energy.ca.gov/sites/default/files/2023-03/2023-02_Petroleum_Watch_ada.pdf.

are data that have been cross-checked with additional sources of data and represent a more accurate estimate of imports. During the fourth quarter of 2024, gasoline imports decreased in October and increased in November. Delayed reporting prevents discussion of December data.

For the fourth quarter of 2024:

- The volume of gasoline imports over the October and November was lower than the previous two months. Imports during October 2024 to November 2024 totaled 3.8 million barrels, while August 2024 to September 2024 saw 5.1 million barrels of imports.
- The largest year-over-year monthly difference was in October. In October 2023, imports to California totaled 3.6 million barrels, while imports totaled only 1.9 million barrels in October 2024.
- Gasoline exports decreased over October and November compared to the previous two months. California entities exported 1.6 million barrels from August to September compared to 1.3 million barrels from October to November.
- Gasoline exports are down compared to 2023. From October and November 2023, California entities exported 7.0 million barrels compared to the 1.3 million barrels in 2024, a difference of 5.7 million barrels.

Figure 11: California Gasoline Imports and Exports



Note: "Reported Gasoline" data are reported directly to the CEC through Form M700. "Confirmed Gasoline" is Form 700 data that are confirmed with Port Import/Export Reporting Service (PIERS), California State Lands Commission (SLC), and Energy Information Administration (EIA) data through May 31, 2024.

Source: CEC PIIRA data — California Imports, Exports, and Intrastate Movements Monthly Report, Form M700

CHAPTER 3:

Diesel

This chapter discusses the volume of diesel produced at California refineries, inventories of diesel, diesel prices, and movements of diesel using data collected under Public Resources Code Section 25354 (a), (h), and (i). California regulates the amount of sulfur allowed in diesel fuel, and this regulation applies to essentially all diesel fuel supplied, sold, or offered for sale in California.⁶ Therefore, ultra-low-sulfur diesel, No. 2 diesel, and any other diesel products produced and sold in California are referred to in this chapter as “diesel.” The category “other diesel” includes renewable diesel, non-California Air Resource Board specification diesel, and high-sulfur diesel. Production of biodiesel specification B100 cannot be sufficiently aggregated to meet confidentiality requirements and is therefore not included in this report.

Production

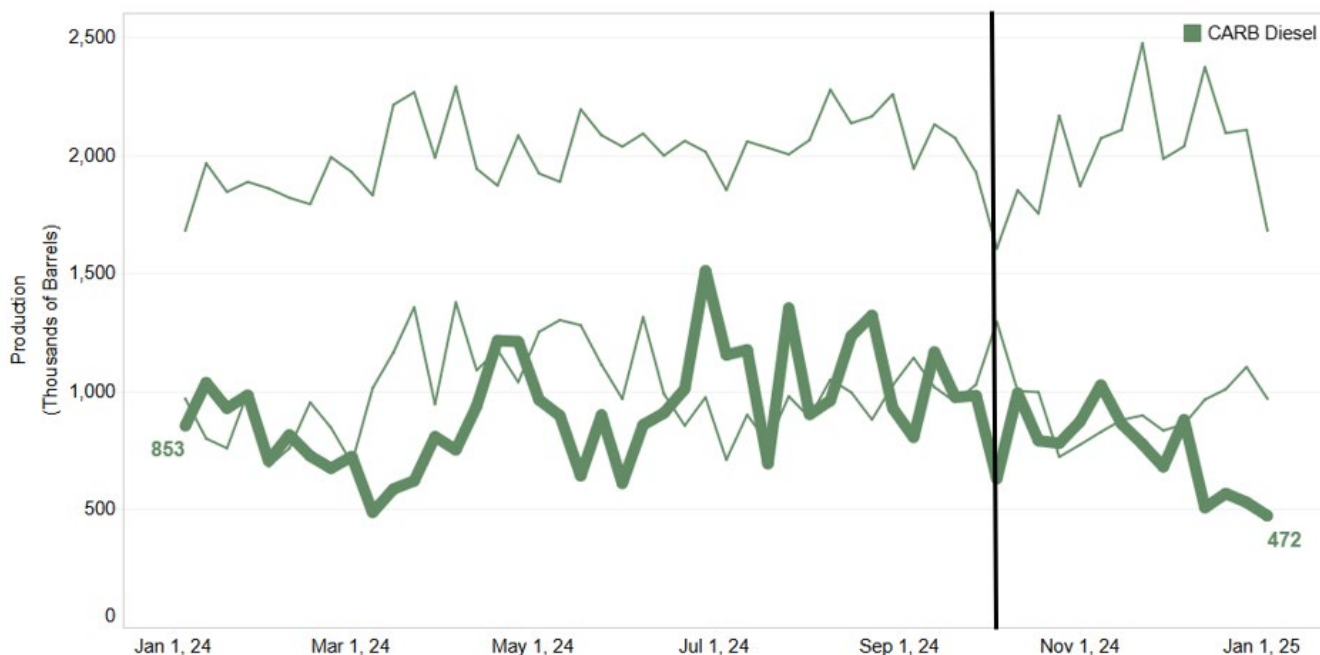
Figure 12 shows diesel production for the previous year with the 10-year high-low band. Diesel production started the quarter below the 10-year low at 629,000 barrels. Production fluctuated significantly throughout the fourth quarter, ending at 472,000 barrels. The permanent idling of Marathon Martinez in August 2020 and the completion of Phillips 66 Rodeo’s conversion from conventional fuel production to renewable fuels in the first quarter of 2024 reduced refining capacity and lowered overall diesel production. Renewable diesel production is not collected nor included in these figures, which substantially increases the amount of fuel available for diesel powered vehicles.

For the fourth quarter of 2024:

- Diesel production fell to a low of 472,000 barrels at the end of the quarter, closing the quarter at 472,000 barrels.
- Diesel production experienced a high of 1.1 million barrels for week ending November 8.
- Diesel production was 472,000 barrels at the end of the quarter, a 44.7 percent decrease compared to the end of the same quarter last year (853,000 barrels).

⁶ California Air Resources Board. [“Diesel Fuel: About,”](https://ww2.arb.ca.gov/our-work/programs/diesel-fuel/about) <https://ww2.arb.ca.gov/our-work/programs/diesel-fuel/about>.

Figure 12: Diesel Production (With 10-Year High-Low Band)



Source: CEC PIIRA data – [Weekly Fuels Watch](https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-inputs-and-production) available at <https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-inputs-and-production>

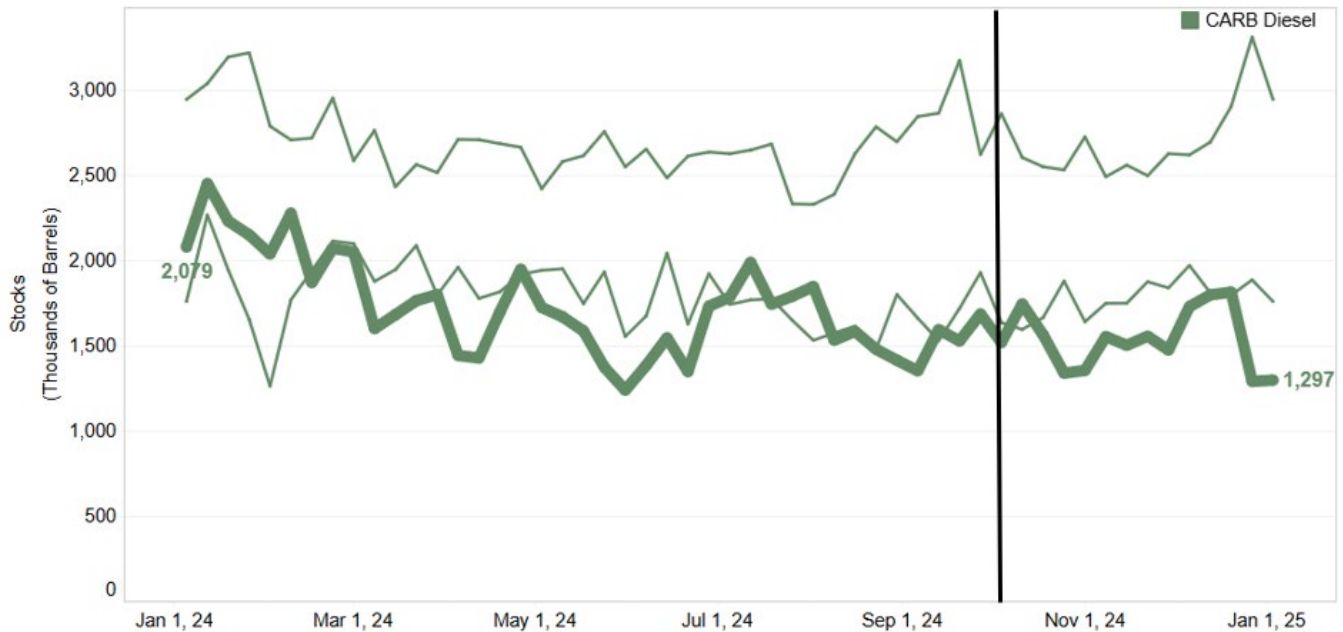
Inventory

Figure 13 shows diesel inventories for the previous year with the 10-year high-low band. At the start of the quarter, diesel inventories were below the 10-year low at 1.5 million barrels. Inventories fluctuated significantly throughout the quarter, ending at 1.3 million barrels, down by 221,000 barrels from the start of the quarter.

For the fourth quarter of 2024:

- Diesel inventories mostly fluctuated below the 10-year low. Part of the reason for these lows is the Phillips 66 Rodeo facility conversion from conventional fuel production to renewable fuels in the first quarter of 2024.
- December 20 marked the fourth quarter high at 1.8 million barrels, while October 25 marked the low at 1.3 million barrels.
- At the end of the quarter, diesel inventories stood at 1.3 million barrels, a decrease of roughly 782,000 barrels compared to the same time last year (2.1 million barrels).

Figure 13: Diesel Inventories (With 10-Year High-Low Band)



Source: CEC PIIRA data – [Weekly Fuels Watch](https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-stocks), available at <https://www.energy.ca.gov/data-reports/reports/weekly-fuels-watch/refinery-stocks>

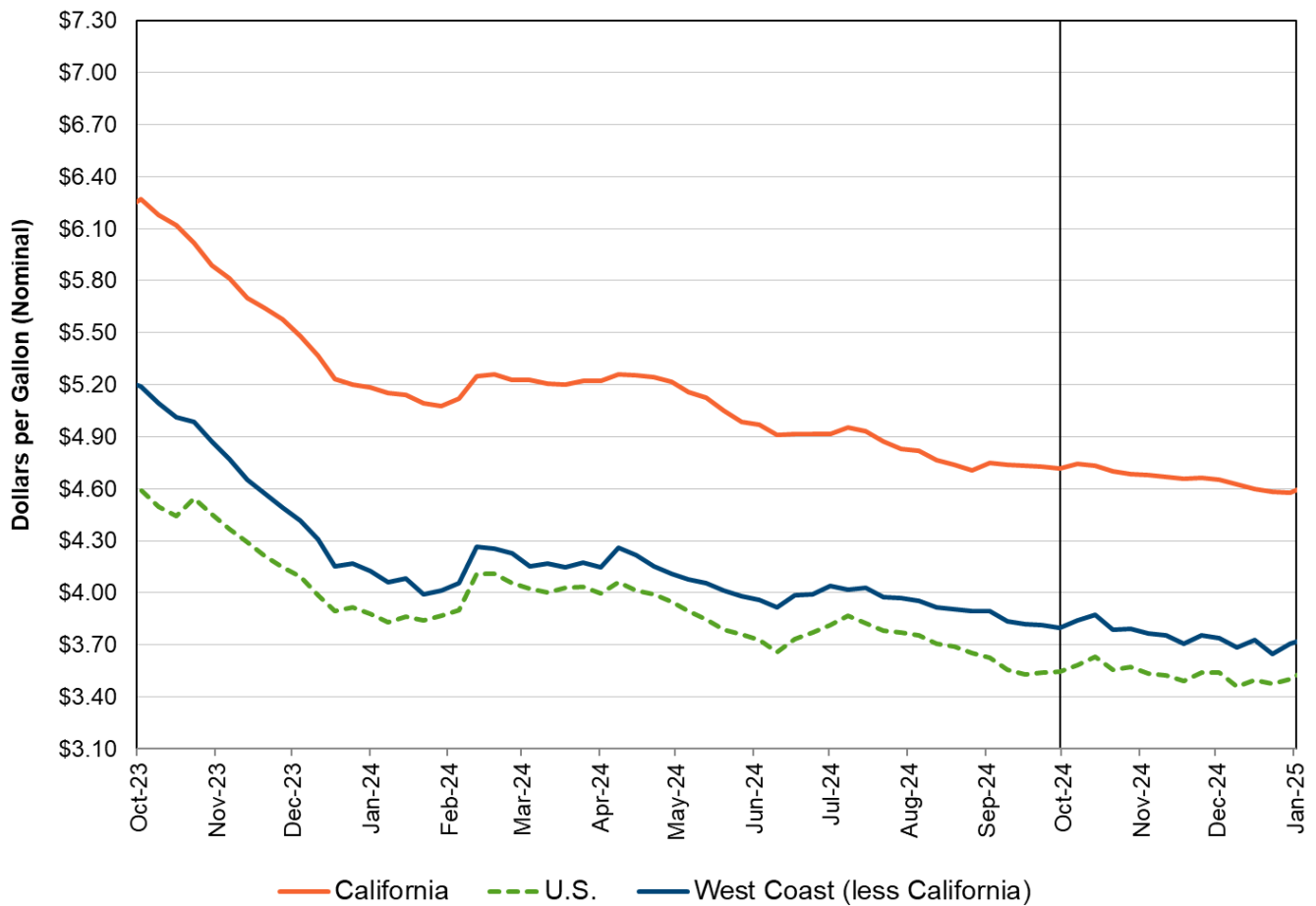
Prices

Figure 14 shows diesel retail prices for the third quarter. California diesel price was steady through the fourth quarter of 2024. Diesel prices in all regions, looking back from the start of 2024, did not have prices spike when compared to gasoline retail.

For the fourth quarter of 2024:

- California diesel prices decreased \$0.16 from October 7 at \$4.74 to \$4.58 on December 30, and the average diesel price for the fourth quarter was \$4.66.
- U.S. diesel prices averaged \$3.53 during the fourth quarter with a high price of \$3.63 on October 10 and a low price of \$3.46 on December 9.
- West Coast less California remained \$0.91 less than California and \$0.22 more than U.S. during the fourth quarter, averaging \$3.75 during the same time.

Figure 14: Diesel Prices: California vs. West Coast vs. United States



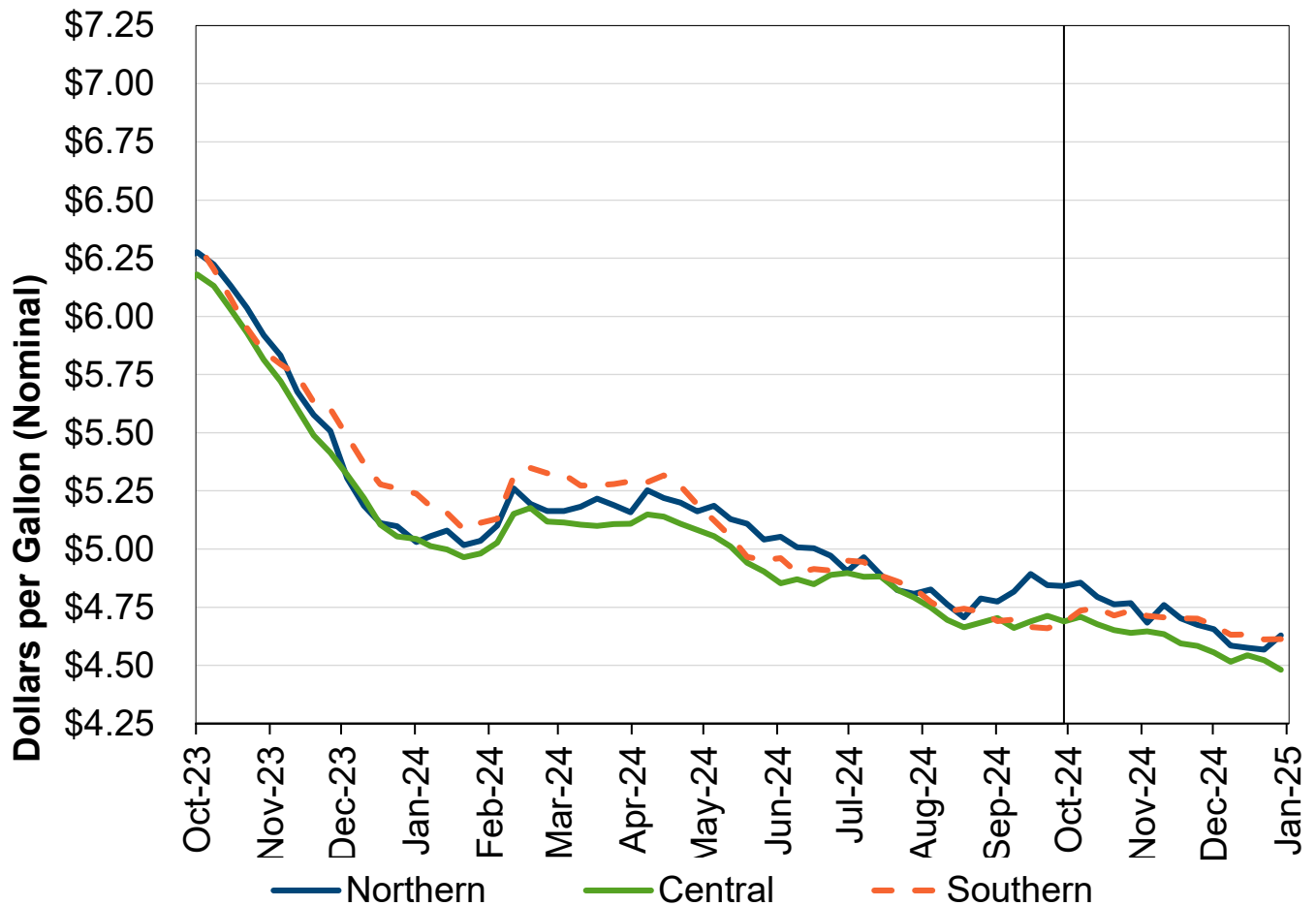
Source: U.S. EIA – Diesel (On-Highway) Ultra-Low-Sulfur (15 ppm and under).

Figure 15 shows diesel retail prices by region. Northern California started the quarter with the highest price of all regions because of premium pricing at the end of third quarter. Prices for all regions during the fourth quarter of 2024 decreased to average lows for the year. As a result, Northern and Southern California each averaged \$4.69 during the quarter.

For the fourth quarter of 2024:

- Central California diesel price was the lowest of all regions, averaging \$4.60 during the quarter at \$0.09 less than Northern and Southern California.
- Northern California diesel prices was \$4.63 on October 6 and decreased \$0.23 to \$4.63 on December 30, averaging a \$0.02 decreased each week.
- Southern California diesel price averaged \$4.69 during the fourth quarter with a high price of \$4.74 during the start of the quarter.

Figure 15: Diesel Retail Prices by Region



Source: CEC analysis of OPIS data

Imports and Exports

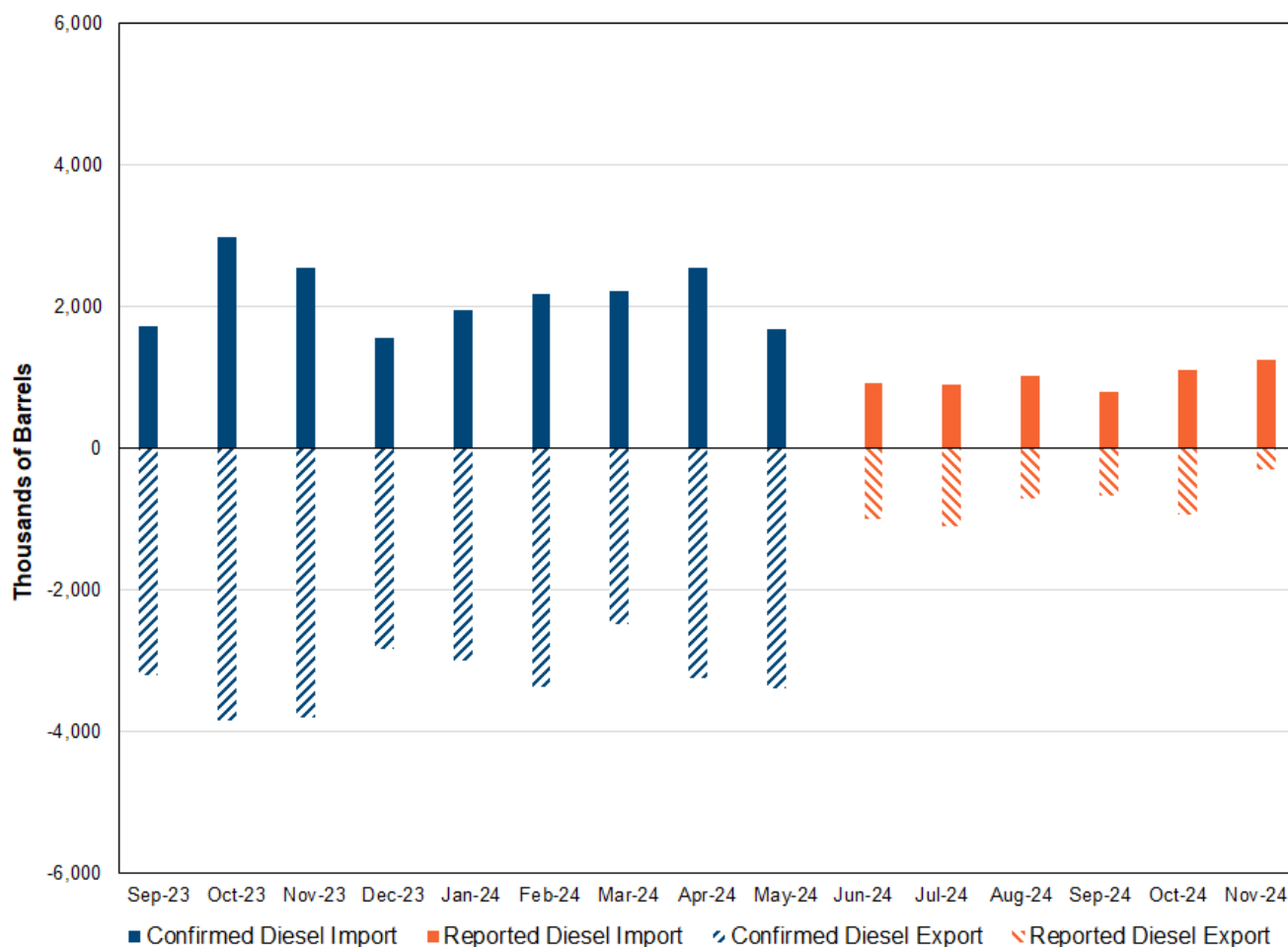
Figure 16 shows California's diesel imports and exports. Imports are shown as reported and confirmed. Reported imports represents the aggregated import data reported to the CEC. Confirmed imports represent reported imports data that have been cross-checked with additional sources of data and represent a more accurate estimate of imports. Delayed reporting prevents discussion of December data.

For the fourth quarter of 2024:

- Diesel imports increased from the previous two months. From August to September 2024, California diesel imports totaled 1.8 million barrels compared to the 2.4 million barrels from October to November 2024.
- October and November diesel imports declined 53 percent year-over-year. Last October and November, imports totaled 5.0 million barrels.

- Diesel exports decreased compared to the two months. From October to November 2024, exports totaled 1.2 million barrels compared to 1.4 million barrels exported from August to September 2024.
- October and November 2024 diesel exports totaled 1.2 million barrels, a 5.6 million barrel decrease over export totals from October and November 2023, which was 6.8 million barrels.

Figure 16: California's Diesel Imports and Exports



Note: "Reported Diesel" data are reported directly to the CEC through Form M700. "Confirmed Diesel" is Form M700 data that are confirmed with Port Import/Export Reporting Service (PIERS), California State Lands Commission (SLC), and Energy Information Administration (EIA) data through May 31, 2024.

Source: CEC PIIRA data — California Imports, Exports, and Intrastate Movements Monthly Report, Form M700

CHAPTER 4: Annual Data

This chapter discusses crude oil and petroleum product storage capacities, transportation methods, pipeline capacities, and thermally enhanced oil recovery at oil fields using data collected annually under Public Resources Code Section 25354 (b). Annual data are collected in February each year, so there are no new data to report for this quarter. The annual data are published in the [first quarterly report of 2024](https://www.energy.ca.gov/publications/2024/quarterly-petroleum-supply-and-pricing-report-january-2024-through-march-2024):

<https://www.energy.ca.gov/publications/2024/quarterly-petroleum-supply-and-pricing-report-january-2024-through-march-2024>.

CHAPTER 5:

Senate Bill X1-2

This chapter discusses new data collected under Senate Bill (SB) X1-2 (Skinner, Chapter 1, Statutes of 2023).⁷ These data include refining margins (CEC M1322), daily spot contracts (CEC Form D354_TRADING, CEC Form D354_SETTLEMENT), refining maintenance and turnarounds (CEC Form EBR1P, CEC Form EBR1U), and 96-hour imports (CEC EBR700) using data collected under Public Resources Code Section 25354 (j), (l), and (m) and Section 25355.

Monthly Refining Margin

Senate Bill 1322 (Allen, Chapter 374, Statutes of 2022) requires all refiners of gasoline products in the state to provide monthly data about various price and volume information. The CEC must publish aggregated, volume-weighted reports of these data within 45 days of the end of each calendar month.

This information is published [online](https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/california-oil-refinery-cost-disclosure) at <https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/california-oil-refinery-cost-disclosure>.

The gross volume-weighted gasoline refining margin for October and November were \$0.60 and \$0.46 per gallon, respectively. Lower crude oil prices helped increase refiner margins.

Daily Spot Contracts

This data set is under review by the Division of Petroleum Market Oversight. Filers on both sides of a deal are responsible for submitting a report at the trade and settlement phases of a transaction. In other words, for every transaction, each party files a separate report for the initial trade and final settlement. Therefore, every deal should be associated with four reports to the CEC. A reporting form may contain any number of separate trade or settlement reports. In October 2024, 21 companies filed a total of 778 reporting forms containing 5,800 trade and settlement reports. In November 2024, 22 companies filed 622 reporting forms containing 5,957 trade and settlement reports. In December 2024, 21 companies filed 681 reporting forms containing 5,523 trade and settlement reports.

⁷ California Energy Commission. "[Senate Bill X1-2 Implementation](https://www.energy.ca.gov/proceeding/senate-bill-x1-2-implementation)," available at <https://www.energy.ca.gov/proceeding/senate-bill-x1-2-implementation>.

California Refinery Planned and Unplanned Maintenance

Refiners conduct maintenance to maintain the safety and reliability of their crude oil processing units. Planned maintenance usually occurs during the spring and fall when refineries switch from winter to summer blend or vice versa. This information is specific to individual refiners and is confidential.

96-Hour Planned Imports

The CEC was already collecting imports in its Form EBR700, California Imports, Exports, and Intrastate Movements Weekly Report. SB X1-2 authorized the collection of this information prospectively and on a smaller time interval. This prospective reporting provides visibility into near-term imports before they occur. These data can also be used as a comparison to data reported after the imports have occurred. However, when used retrospectively, such as in this quarterly report, the 96-hour reporting does not provide significantly different data than what are reported in other chapters. For imports of crude oil, gasoline, and diesel, see Chapters 1, 2, and 3, respectively.

APPENDIX A:

Glossary

Term	Definition
American Petroleum Institute gravity	A measurement of how heavy or light a petroleum liquid is compared to water.
Blendstocks	Any material that is blended in an oil refinery to make a product, especially for making gasoline.
Brent North Sea (Brent)	A blended crude stream produced in the North Sea region that serves as a reference or "marker" for pricing a number of other crude streams.
California Air Resources Board (CARB)	The "clean air agency" in California government. CARB's main goals include attaining and maintaining healthy air quality, protecting the public from exposure to toxic air contaminants, and providing innovative approaches for complying with air pollution rules and regulations.
California Energy Commission (CEC)	The state agency established by the Warren-Alquist State Energy Resources Conservation and Development Act in 1974 (Public Resources Code, Sections 25000 et seq.) responsible for energy policy. The Energy Commission's seven major areas of responsibilities are: • Forecasting statewide energy demand. • Licensing of power plants and transmission lines sufficient to meet those needs. • Promoting energy conservation and efficiency measures. • Promoting the development of renewable energy. • Promoting the transition to clean transportation fuels. • Investing in energy innovation.

Term	Definition
California Energy Commission (CEC)	Planning for and supporting the state's response to energy emergencies. Funding for the Commission's activities comes from the Energy Resources Program Account, Federal Petroleum Violation Escrow Account, and other sources.
California Estimated Refinery Acquisition Cost (CA-RAC)	A weighted average of the prices of California (San Joaquin Valley) crude, Alaskan crude, and foreign crude.
California State Lands Commission (SLC)	The state agency that provides the people of California with stewardship of the lands, waterways, and resources entrusted to its care based on the principles of equity, sustainability, and resiliency, through preservation, restoration, enhancement, responsible economic development, and the promotion of public access.
Hypermart	A station that is a company-owned or -operated supermarket or wholesale chain store that sells its own fuel at the same location
Oil Price Information Service (OPIS)	A company that provides crude oil and petroleum pricing data.
Petroleum Industry Information Reporting Act (PIIRA)	Legislation enacted in 1980 that enables a complete response to possible shortages of fuel or other disruptions. The information also helps develop and administer energy policies in the interest of the state's economy and the public's well-being.
Port Import/Export Reporting Service (PIERS)	A company that provides import and export data at the bill-of-lading level.
United States Energy Information Administration (EIA)	An independent agency within the U.S. Department of Energy that develops surveys, collects energy data, and analyzes and models energy issues. The agency must meet the requests of Congress, other elements within the Department of Energy, Federal Energy Regulatory Commission, the Executive Branch, its own independent needs, and assist the public, or other interest groups, without taking a policy position. See more information about EIA at http://www.eia.gov/about/
West Texas Intermediate (WTI)	A crude stream produced in Texas and southern Oklahoma that serves as a reference

Term	Definition
West Texas Intermediate (WTI)	or "marker" for pricing several other crude streams and which is traded in the domestic spot market at Cushing, Oklahoma.