



DIVISION OF PETROLEUM MARKET OVERSIGHT



January 31, 2024

The Honorable Gavin Newsom
Governor
1021 O Street, Suite 9000
Sacramento, CA 95814

Re: Core Options for Reforming the California Gasoline Spot Market

Dear Governor Newsom:

On September 22, 2023, the Division of Petroleum Market Oversight ("DPMO") provided an interim update pursuant to its independent market oversight function described in Public Resources Code, section 25372.2(a)(1).¹ When we provided the interim update, California was experiencing a price spike on the gasoline spot market and at the retail level that was not explained by the supply-and-demand fundamentals. In that update, DPMO identified several *"market flaws that make the California gasoline prices vulnerable to price spikes, including:*

- *Spot market volatility and its outsized impacts on prices.*
- *Lack of spot market liquidity.*
- *Inadequate inventories of gasoline and blend stocks.*
- *Refinery undersupply during maintenance."*

By letter dated September 27, 2023, the Governor directed DPMO to provide "initial proposals for reforming the spot market in California to protect Californians from the market-distorting behavior between refiners and traders that the current structure of that market may allow."²

What Is the "Spot Market"?

Only a fraction of all the cleaner-burning CARBOB³ gasoline consumed in California every day is traded on the spot market, but it plays an important role in setting prices across the state. The spot market can be a first trading stop as gasoline flows from refineries, cargo ships, and

¹ DPMO's Interim Update on California's Gasoline Market, September 22, 2023.

² Governor Newsom's September 27, 2023, Letter to the California Air Resources Board and Energy Commission, at p. 2.

³ CARBOB is an acronym that stands for "California reformulated blendstock for oxygenate blending."

pipelines to the “racks” where gasoline trucks are loaded and on to retail gasoline stations.⁴ Traders in the spot market include some California refiners, large wholesalers and retailers, and international trading firms who buy and sell relatively large quantities of gasoline, often tens of thousands of barrels (with each barrel containing 42 gallons). The function of the gasoline spot market is to provide buyers and sellers the opportunity to trade large quantities of gasoline for near-term delivery in California.

The spot market in California is currently an unregulated, over-the-counter market. Spot market deals are negotiated directly between buyers and sellers or mediated by brokers. California has two spot markets: one for Los Angeles (LA) and one for the San Francisco Bay Area. Other U.S. spot market locations include the Pacific Northwest (Portland), Houston, Chicago, and New York. The LA spot market is more active than the San Francisco market and the LA spot price impacts the largest portion of retail gasoline prices across the state.

Spot market transactions and average prices for the LA market are published by price reporting agencies (“PRAs”). PRAs have an outsized influence on market dynamics through their assessment of current market prices. Buyers and sellers negotiate the contract price for individual deals, but only some of those deals are voluntarily (or selectively) reported to the PRA. The PRA then publishes what it assesses to be the current market price for California gasoline.⁵ The Oil Price Information Service (“OPIS”), a for-profit company, is the industry-leading PRA in California and on the West Coast.

⁴ See, generally, [California Energy Commission \(CEC\) Petroleum Watch, February 2022](https://www.energy.ca.gov/sites/default/files/2022-02/2022-02_Petroleum_Watch_ADA.pdf), available: https://www.energy.ca.gov/sites/default/files/2022-02/2022-02_Petroleum_Watch_ADA.pdf. Jet fuel and diesel fuel are also traded on the spot market but are not examined herein.

⁵ The most common way that spot contracts are priced is an “exchange of futures for physical” or “EFP” trade, which are contracts that are priced relative to the New York Mercantile Exchange (“NYMEX”) futures RBOB contract at the close of a specific day. RBOB — which stands for “reformulated blendstock for oxygenate blending” — is a common benchmark for gas sold in other parts of the United States. In an EFP transaction, the spot market parties agree to a differential to the NYMEX RBOB price. This differential is the measure of the difference between the L.A. spot market and the NYMEX. This differential is a key benchmark for observers to determine if the L.A. market is experiencing supply/demand issues.

Why Is Spot Market Reform Important?

Spot market prices are the biggest driver of statewide gasoline prices, even though they represent a small portion of gasoline sales each day. According to OPIS: “Nearly every gallon of gasoline, diesel and jet fuel sold on the West Coast references OPIS spot prices.”⁶ That is because many other spot, bulk, rack, and marine cargo transactions, including high-volume transactions between refiners and distributors or retailers under long-term contracts, set their pricing by reference to the OPIS-assessed spot market price that can change daily. As a result, the prices for relatively small trades (compared to statewide volumes) on the spot market have a magnified or exaggerated effect on retail gasoline prices across the state.

Unfortunately, California has been experiencing more frequent and extreme price spikes that seem to be driven by price swings in the spot market. More than twenty years ago, the Attorney General's Office produced a *Report on Gasoline Pricing in California*, which examined the unique volatility of the state's gasoline market.⁷ In the years since that initial appraisal, the market has seen gasoline price spikes in 2012, 2015, 2019, 2022, and 2023. It appears that price spikes have become more common over time, with gasoline price spikes occurring in three of the last five years, with the exceptions being during the COVID pandemic.⁸ These spikes have been generally driven by periodic episodes of undersupply of gasoline (in the form of reduced refinery production, lower inventories of stored gasoline, or both) that are exacerbated — and sometimes exploited — by the dynamics of trading and reporting on the spot market.

Looking at recent gasoline price spikes in California, it appears that spot market volatility, illiquidity, and lack of transparency may all be contributing to and exacerbating price spikes during periods of undersupply and refinery maintenance.

- **Volatility.** As flagged in DPMO's initial update, a single trade on September 15, 2023 — the only trade reported by OPIS that day —

⁶ [OPIS West Coast Spot Market Report website](https://www.opisnet.com/product/pricing/spot/west-coast-spot-market-report/)

(<https://www.opisnet.com/product/pricing/spot/west-coast-spot-market-report/>).

⁷ Office of the California Attorney General. [Report on Gasoline Pricing in California](#). May 2000. gasstudy2.pdf (ca.gov)

⁸ While there were no price spikes in California in 2020 or 2021, that may have been attributable to reduced gasoline demand during the COVID pandemic.

moved the market up by nearly \$0.50 per gallon. This one trade caused prices to soar statewide because of the way that many high-volume gasoline transactions peg prices to current spot market prices, as noted above. Price spikes in previous years saw prices soar in similar magnitudes as a few trades caused extreme price fluctuations.

- **Illiquidity.** There were zero reported spot market trades on the next two trading days following the market-spiking trade on September 15, 2023, meaning prices stayed high. For much of the summer of 2023, the OPIS spot market price assessment was based on one trade or zero trades on the spot market. This is part of a larger trend; as the result of market consolidation, there are fewer refineries and other entities trading on the spot market. This leads to fewer trades and less liquidity, especially during periods of reduced supply and refinery maintenance.

- **Lack of transparency.** As discussed above, private parties voluntarily report trades to OPIS. As a result, traders can selectively report trades to OPIS that support their financial positions and not report unhelpful trades, which may have contributed to market manipulation during previous price spikes.⁹ OPIS itself is part of a for-profit company that provides its market report to subscribers for a significant fee. As a result, much of the spot market operates in the dark and is not visible to the public.

In evaluating potential policy options, DPMO is focusing on near-term measures that could reduce volatility, increase liquidity, and provide greater transparency on the spot market while helping avoid supply conditions that appear to lead to price spikes. These near-term options are (1) publishing a California spot market report and (2) establishing minimum inventory and resupply obligations on refiners.

⁹ In May 2020, the Attorney General sued two international trading companies for manipulating the California spot market during the 2015 price spike. According to the allegations, the trading firms reported trades to OPIS for moving up the spot market price to inflate the value of other contracts pegged to the OPIS-reported price. See Complaint, *The People of the State of California v. Vitol Inc., et al.*, No. CGC-20-584456 (S.F. Super. Ct.).

Core Spot Market Policy Options

1. **Publishing a California spot market price report.** As noted above, the current spot market pricing structure relies on pricing information that is voluntarily reported by market participants and sold for a substantial fee by OPIS, a privately owned PRA. This results in an opaque market with incomplete and sometimes selective price reporting by parties who may be interested in influencing prices in their favor. Thanks to California's Senate Bill (SB) X1-2, the California Gas Price Gouging and Transparency Law, traders and related parties are required to report their spot market transactions to the California Energy Commission (CEC) within 24 hours. With this information, the CEC could compile and publish the daily trading information to create a more complete and accurate report of spot market activity.

2. **Imposing minimum inventory and resupply requirements for refiners.** Historically, price spikes in California have occurred during periods of planned or unplanned refinery maintenance. Thanks to the new transparency measures of SB X1-2, refiners are required to report critical supply information during both planned and unplanned maintenance events. Based on reviewing this new data, DPMO reported in the interim update that it appeared *"refiners did not maintain adequate levels of inventory of refined gasoline and blendstocks or import additional supplies to sufficiently backfill production shortfalls or to protect against the impact of unplanned maintenance or potential spot market distortion."* This lack of supply was foreseeable and preventable, but California's refiners are not under a legal obligation to maintain sufficient supply to adequately protect Californians from price spikes. Through minimum inventory and resupply requirements for refiners, California could have a stronger buffer to protect against price spikes during circumstances when refineries are undergoing maintenance or when supplies are otherwise constrained.

Conclusion

Based on DPMO's evaluation, the policy options discussed above are the best near-term solutions to address spot market dysfunction and the recurring supply conditions that lead to price spikes. Each potential solution will require further study, as well as building additional technical capacity at DPMO and the CEC. DPMO is assessing each of these options and plans to explore the feasibility of them in conjunction with the CEC

and other relevant federal and state agencies. In addition, DPMO is also analyzing other potential short-, medium-, and long-term policy options to promote market transparency and steady functioning within existing regulatory authority, including playing a more active role in obtaining and maintaining CARBOB supplies to protect Californians from price spikes during supply disruptions.

As described above, the gasoline spot market is a critical component of the broader gasoline market in California. It is not, however, the only aspect of California's gasoline market that merits further study and may require reform.¹⁰ Leveraging the CEC's public process, DPMO intends to continue to explore these and other policy options to make the California gasoline market more efficient, transparent, and fair for California consumers as we transition to a growing portfolio of clean fuels. We are available at your convenience to discuss this work and our related efforts to address the market dynamics in the refining and retail sectors.

Sincerely,

A handwritten signature in black ink, appearing to read "Tai S. Milder".

Tai S. Milder
Director
Division of Petroleum Market
Oversight

CC: The Honorable Toni Atkins, Senate President pro Tempore
The Honorable Robert Rivas, Speaker
Members, Senate Committee on Energy, Utilities, and Communications
Members, Assembly Committee on Utilities and Energy
David Hochschild, Chair, California Energy Commission
Siva Gunda, Vice Chair, California Energy Commission

¹⁰ The spot market is upstream from the retail gas stations that California drivers visit every day. According to a previous analysis conducted by the California Energy Commission, increasing profit margins at retail are suggestive of potential market power. See [Additional Analysis on Gasoline Prices in California](https://www.energy.ca.gov/sites/default/files/2019-11/Gas_Price_Report.pdf), California Energy Commission (Oct. 21, 2019) (https://www.energy.ca.gov/sites/default/files/2019-11/Gas_Price_Report.pdf). While this report is focused on the spot market, DPMO is also working to analyze competition at the retail segment and across the market more broadly.

Miranda Flores, Deputy Secretary for Legislation, California Natural Resources Agency

Kip Lipper, Chief Policy Advisor, Office of the Senate President pro Tempore

Chase Hopkins, Policy Consultant, Office of the Speaker of the Assembly

Nidia Bautista, Chief Consultant, Senate Committee on Energy, Utilities, and Communications

Laura Shybut, Chief Consultant, Assembly Committee on Utilities and Energy