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**DIVISION OF PETROLEUM  
MARKET OVERSIGHT**

# Planned Maintenance and Gasoline Prices

*Gasoline Summer Outlook Workshop  
June 6, 2024*

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# Agenda

- ✓ SBX1-2 Transparency Tools
  - ✓ 2023 Retrospective
  - ✓ Insights from New SBX1-2 Data
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# My Background and Perspective

**Hello**  
my name is

*Gigi*

- Economics, Markets and Measurement
- Natural Resources and Climate Change
- Equity and Regional Economic Development

# California's Top 4 Producers Control 90% of Refining Capacity

<b>Company</b>	<b>Total Crude Refining Capacity (BPD)</b>	<b>Percent of Total Crude Oil Refining Capacity</b>	<b>Cumulative Share of Refining Capacity</b>
Chevron (El Segundo, Richmond)	514,271	32.4%	32%
Marathon (Los Angeles)	363,000	22.8%	55%
PBF (Torrance, Martinez)	316,400	19.9%	75%
Valero (Wilmington, Benicia)	230,000	14.5%	90%
Phillips (Los Angeles)	139,000	8.7%	98%
Kern (Bakersfield)	26,000	1.6%	100%
Total	1,588,671		

Notes and Sources: CEC California Refineries, U.S. EIA. Table includes refineries with CARB Gasoline capacity, excludes refineries that do not produce CARB Gasoline and the Phillips 66 Rodeo facility, which converted to renewable fuel in March 2024.

# Planned maintenance reduces gasoline production

- Timing and magnitude controlled by refiners
- Increasing market concentration will exacerbate impacts
- Constrained supply and price volatility makes the market more susceptible to manipulation



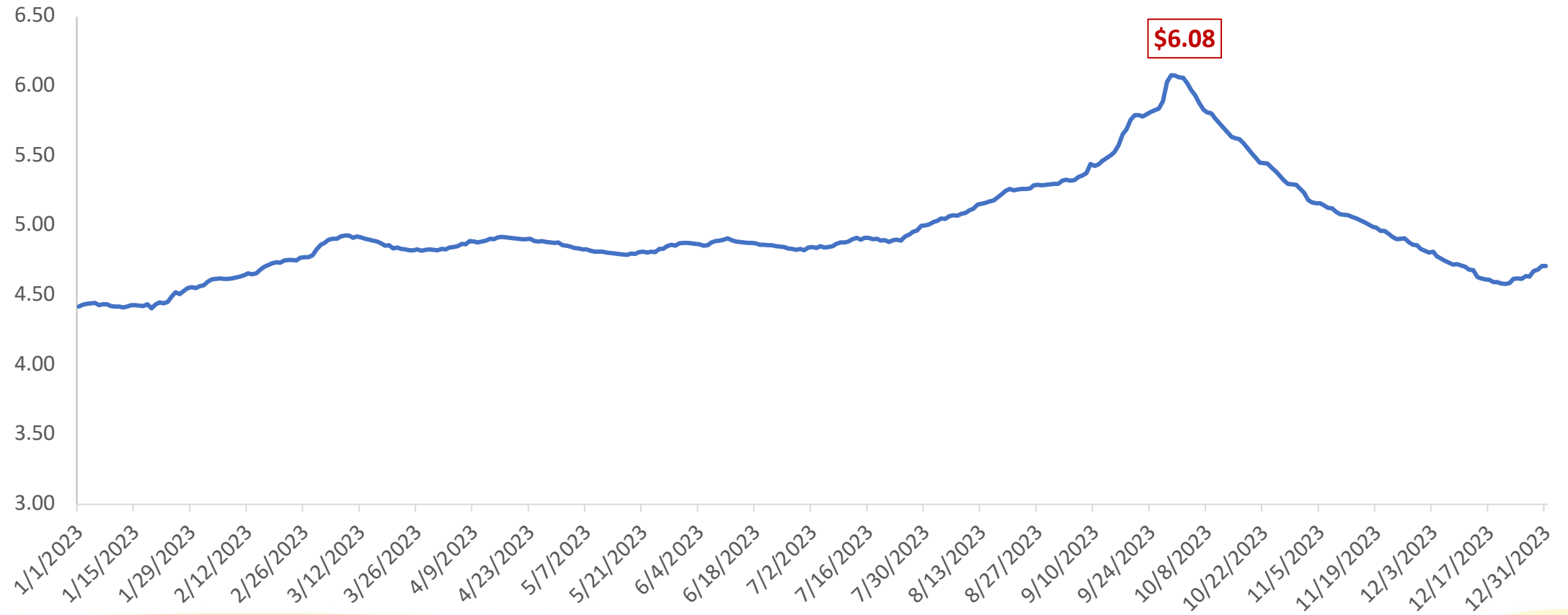
# SBX1-2 Data Collection Informs Understanding of Market Dynamics

- Timing of maintenance
- Impact on supply due to maintenance
- Resupply by source
  - Imports
  - In-state



# Summer 2023 Retrospective

Average Daily Gasoline Prices in California Reported by AAA and OPIS (\$/gallon)

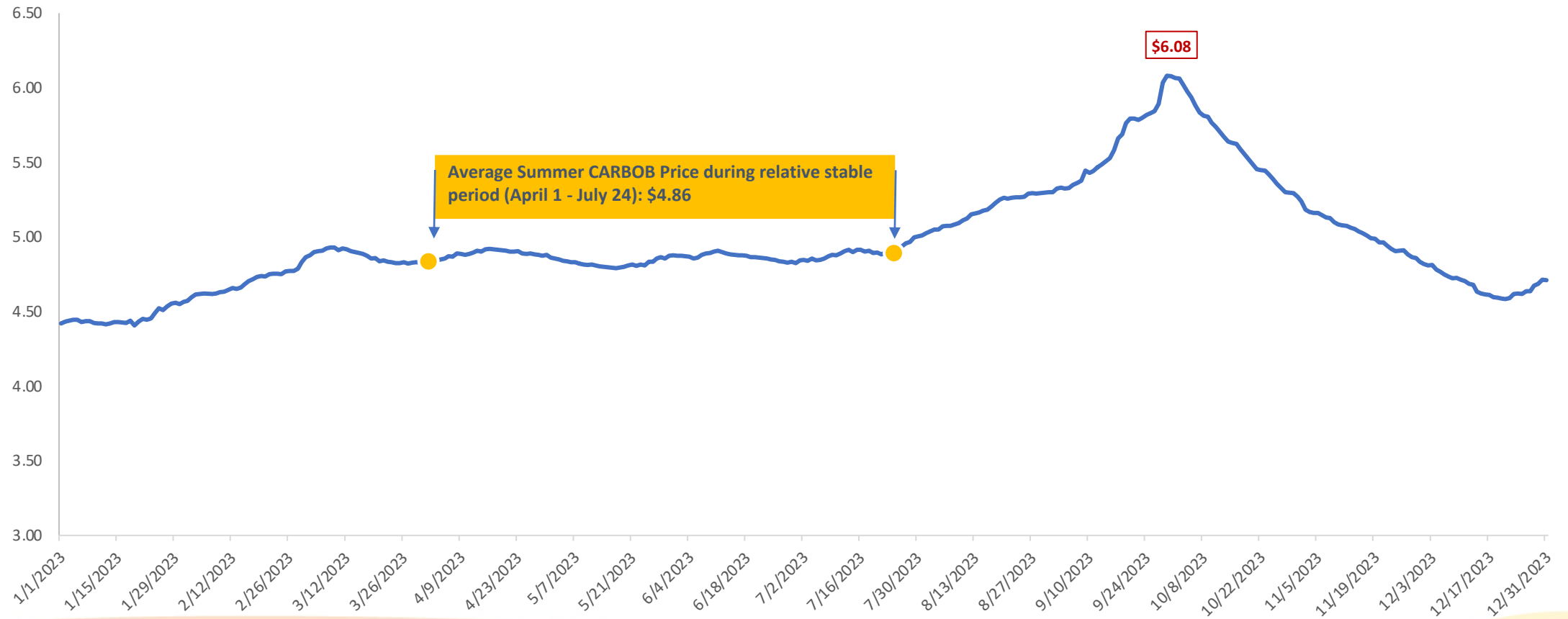


Sources: AAA Gas Prices, OPIS.



# Summer 2023 Retrospective

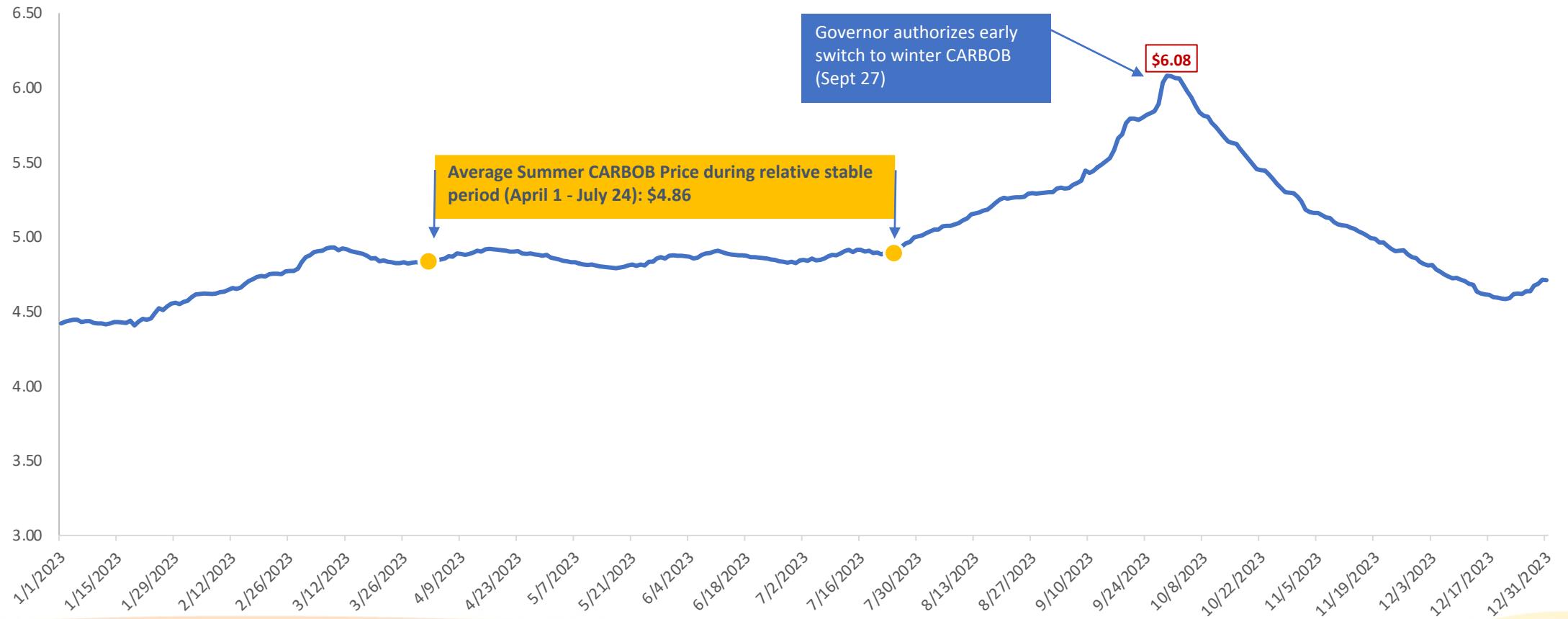
Average Daily Gasoline Prices in California Reported by AAA and OPIS (\$/gallon)



Sources: AAA Gas Prices, OPIS.

# Summer 2023 Retrospective

Average Daily Gasoline Prices in California Reported by AAA and OPIS (\$/gallon)

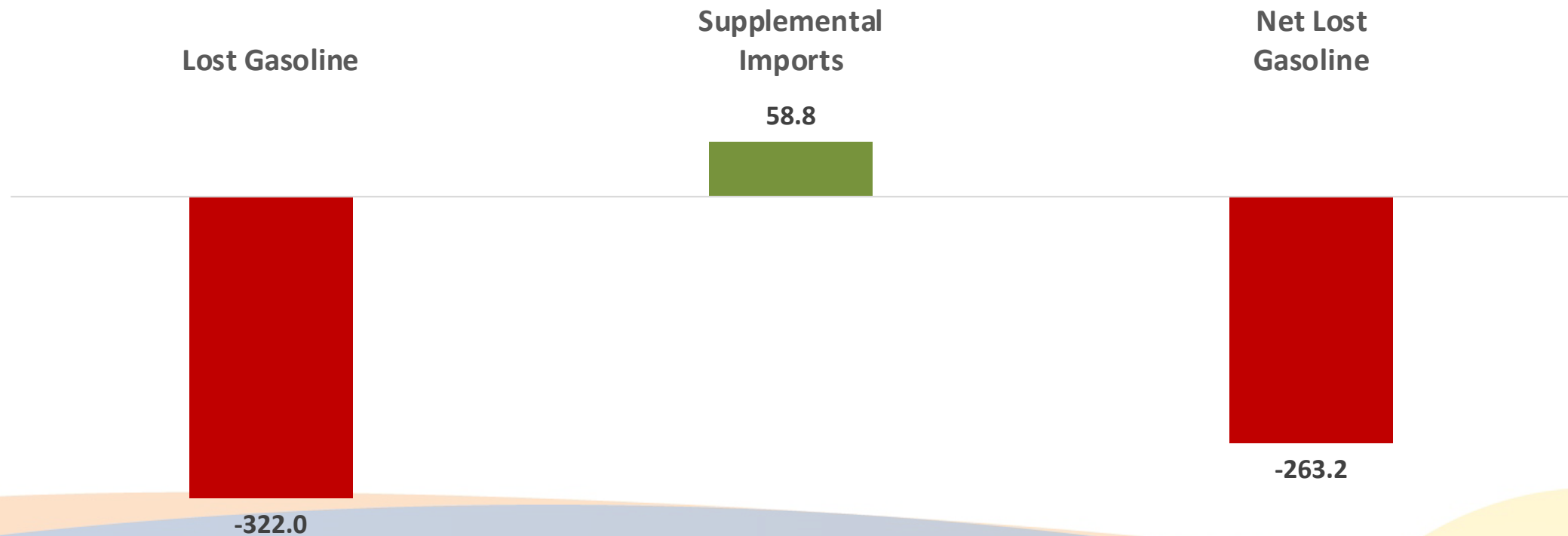


Sources: AAA Gas Prices, OPIS.

# Industry Reported Large Supply Reductions and Few Supplemental Supplies

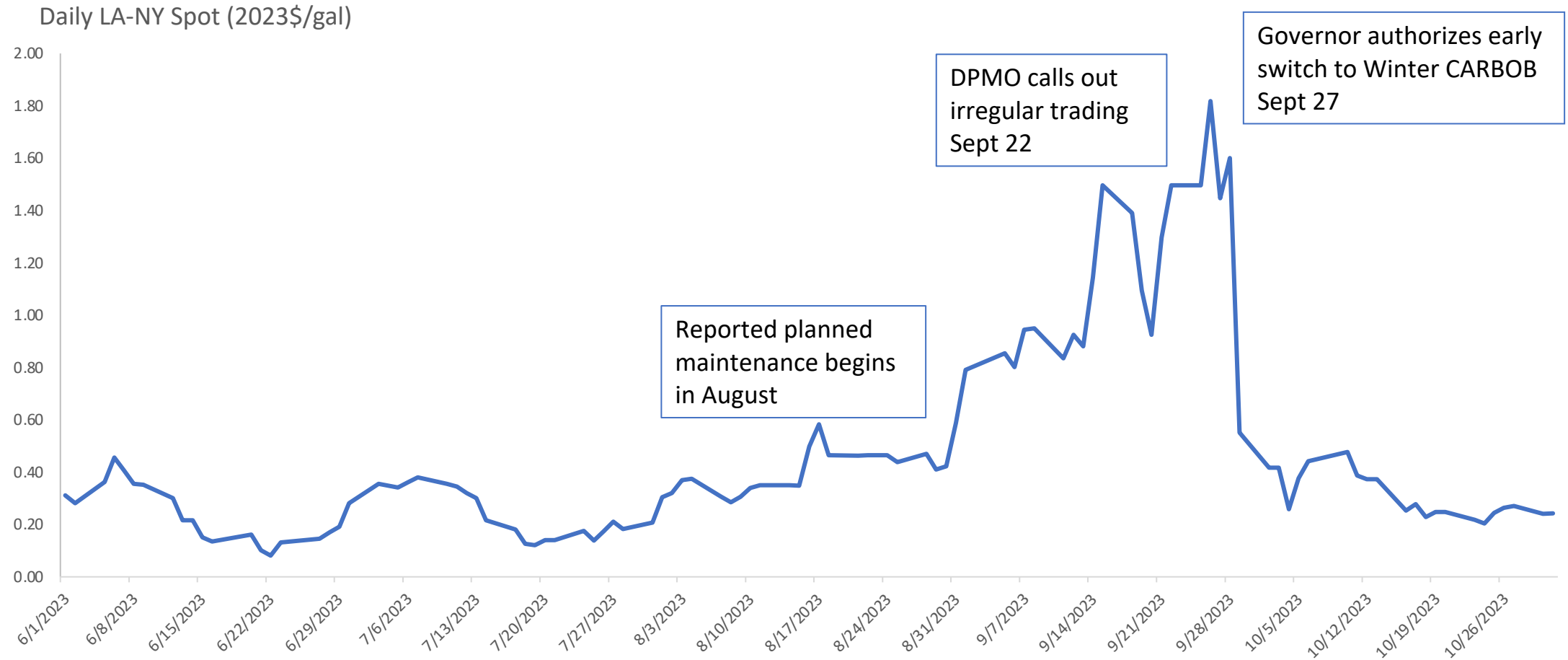
Planned Maintenance Supply Impact, June 27- December 2023 (Preliminary Data)

*Millions of Gallons*



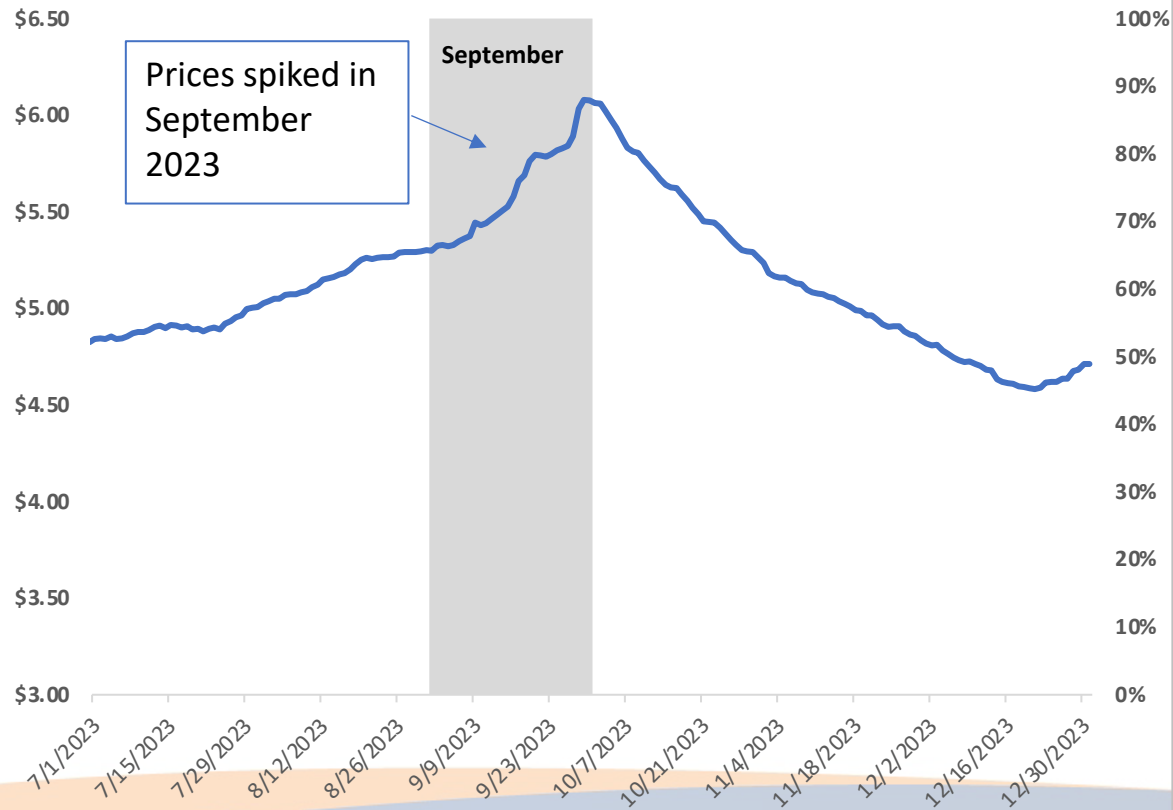
Sources: California Energy Commission, June 27, 2023-May 18, 2024.

# Spot Market Prices in Summer 2023

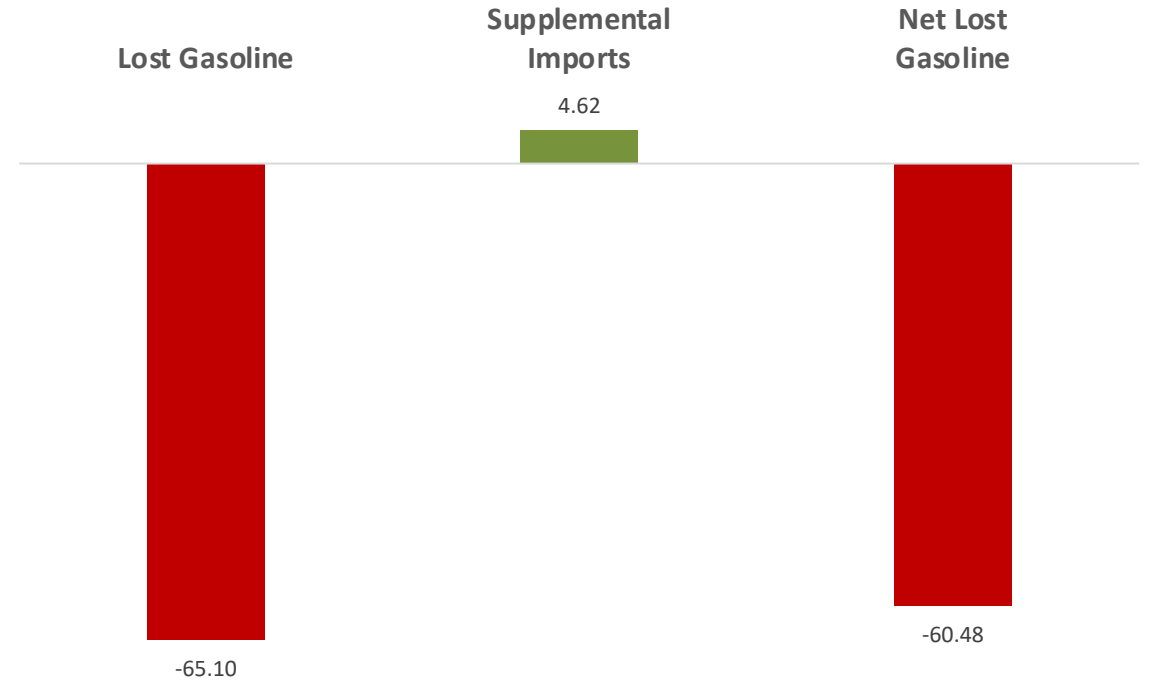


# Focus on September 2023

Daily Average Retail Price Reported by AAA and OPIS (\$/gal)

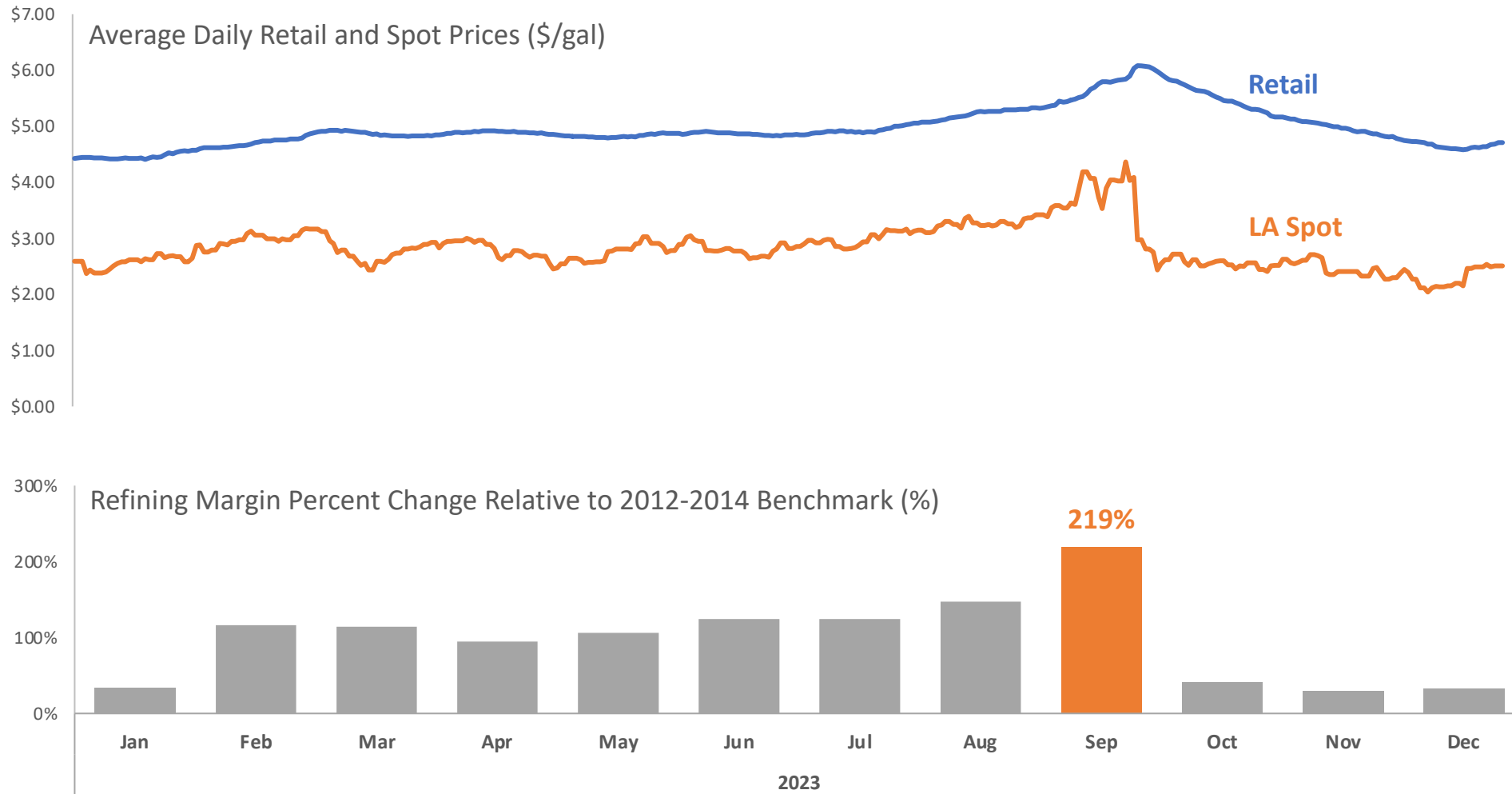


Planned Maintenance Supply Impact in Sept 2023  
Millions of Gallons



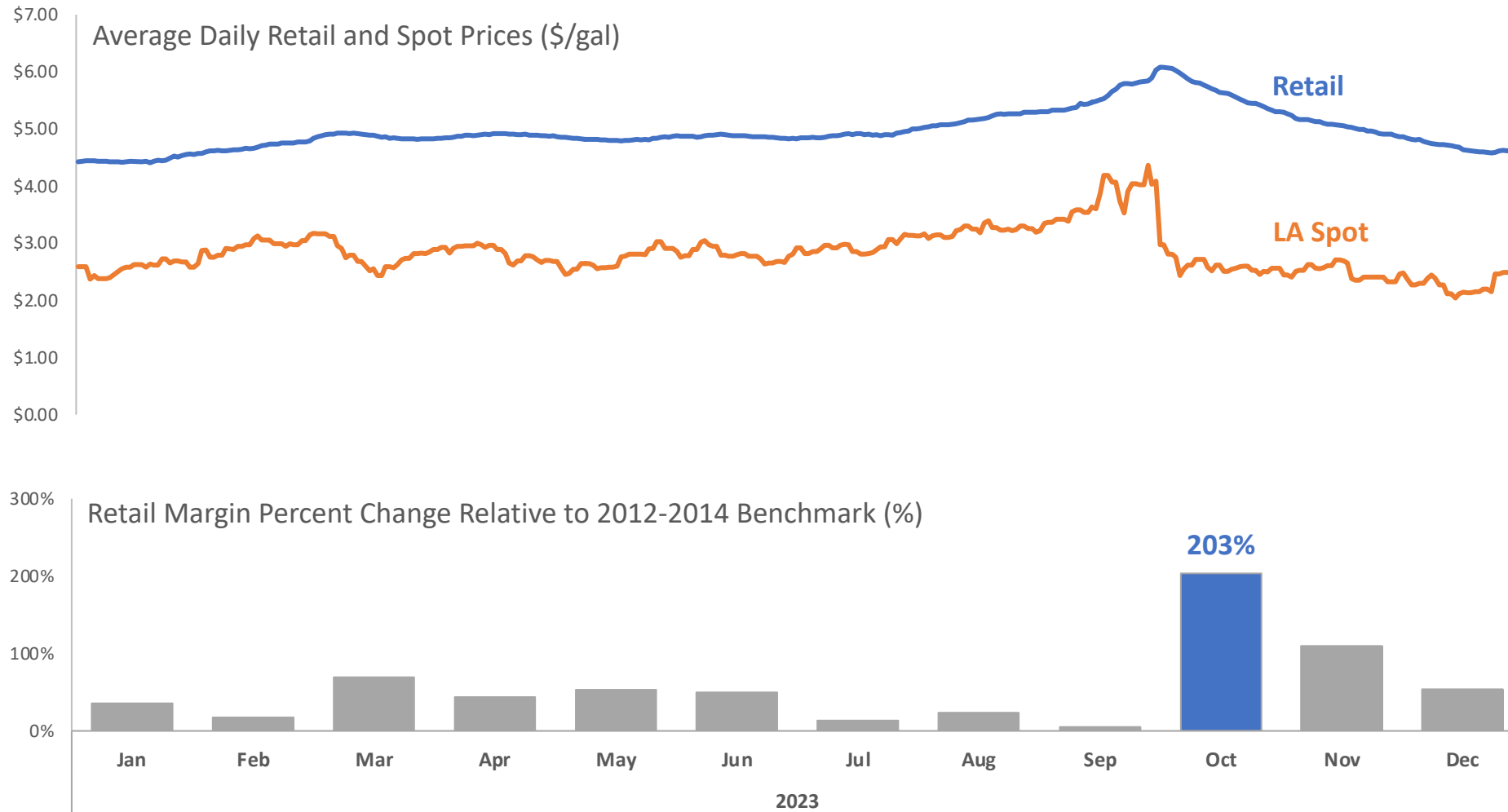
Sources AAA, OPIS, California Energy Commission.

# Refinery Margin Spiked as Spot and Retail Prices Spiked



Sources: California Energy Commission, U.S. Bureau of Labor Statistics

# Retail Margins Spiked and Persisted Long After Spot Prices Normalized



# Refiner Margins Explain Price Increase Between July and September

Retail Prices and Components of Price Increase between July 24 and Sept 25  
2023\$/Gallon

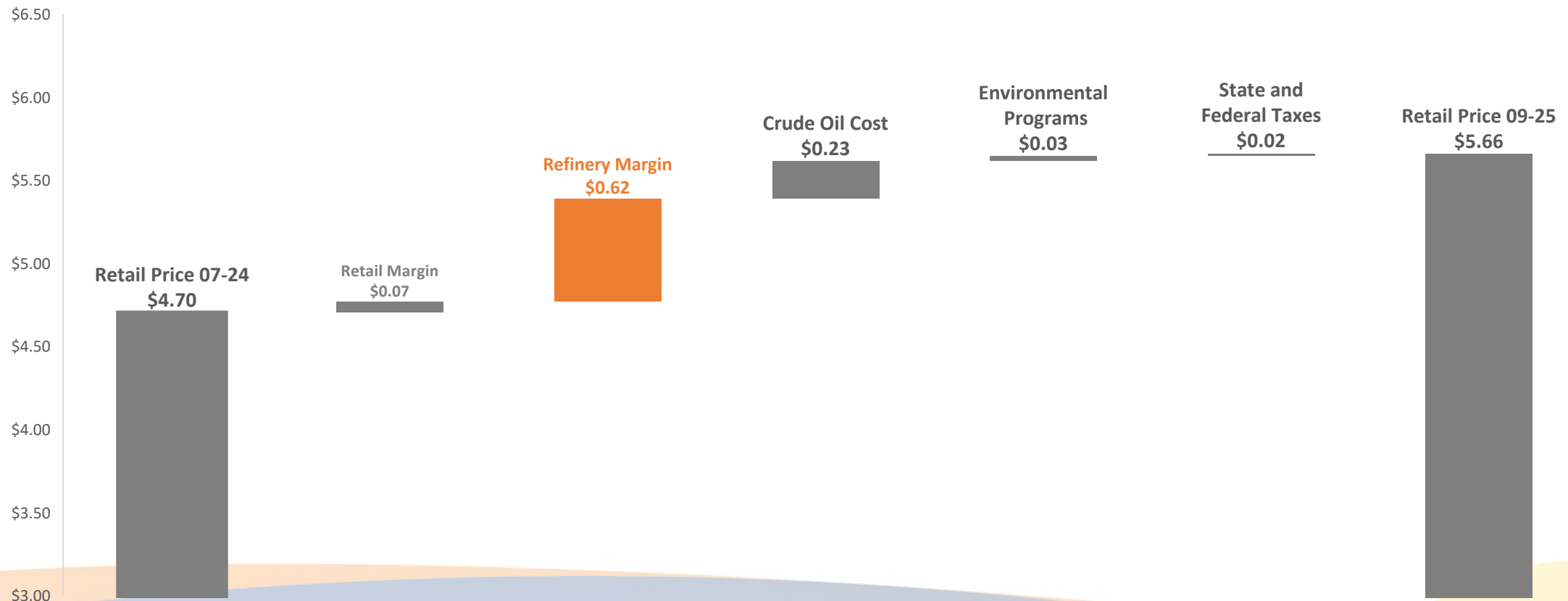


Sources: California Energy Commission, U.S. Bureau of Labor Statistics



# Refiner Margins Explain Price Increase Between July and September

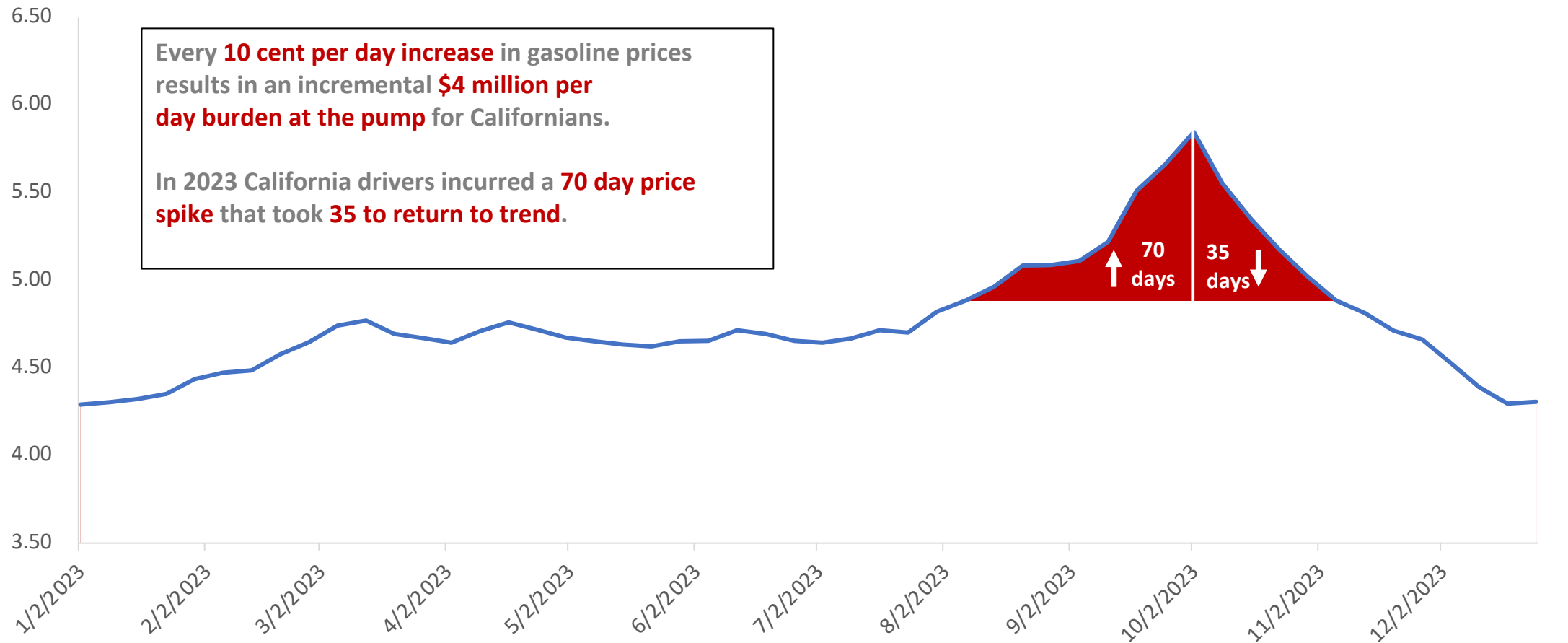
Retail Prices and Components of Price Increase between July 24 and Sept 25  
2023\$/Gallon



Sources: California Energy Commission, U.S. Bureau of Labor Statistics

# Consumers Burdened with Elevated Prices for 105 days in Summer 2023

Weekly Retail Gasoline Prices (2023\$/gal)



# Takeaways

- Reliable gasoline supply is key determinant of gasoline prices.
- Planned maintenance decreased supplies and impact gasoline supplies and price volatility, and makes the market more susceptible to opportunistic and illegal trading
- Impacts of planned maintenance likely magnified with increased concentration
- Responsible resupply plans are critical component of planned maintenance impacts on price stability



# Sources

- AAA Gas Prices, [AAA Gas Prices](#)
- California Energy Commission, "California's Oil Refineries," Sept. 1, 2023, <https://www.energy.ca.gov/data-reports/energy-almanac/californias-petroleum-market/californias-oil-refineries>
- California Energy Commission, California Gasoline Price Breakdown and Margins, <https://www.energy.ca.gov/estimated-gasoline-price-breakdown-and-margins>
- California Energy Commission, EDR\_m1, EDR\_m4A, and EDR\_m4B summed across all reporters and anonymized, June 27, 2023-May 18.2024.
- OPIS Gasoline Prices, [Gasoline Market Pricing & Analysis | OPIS Products \(opisnet.com\)](#)
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- U.S. Energy Information Administration (EIA), Refinery Rankings 2023, [Refining crude oil - refinery rankings - U.S. Energy Information Administration \(EIA\)](#)