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**DIVISION OF PETROLEUM
MARKET OVERSIGHT**

Conceptual Frameworks for Resupply and Minimum Inventory Requirements

Varsha Sarveshwar

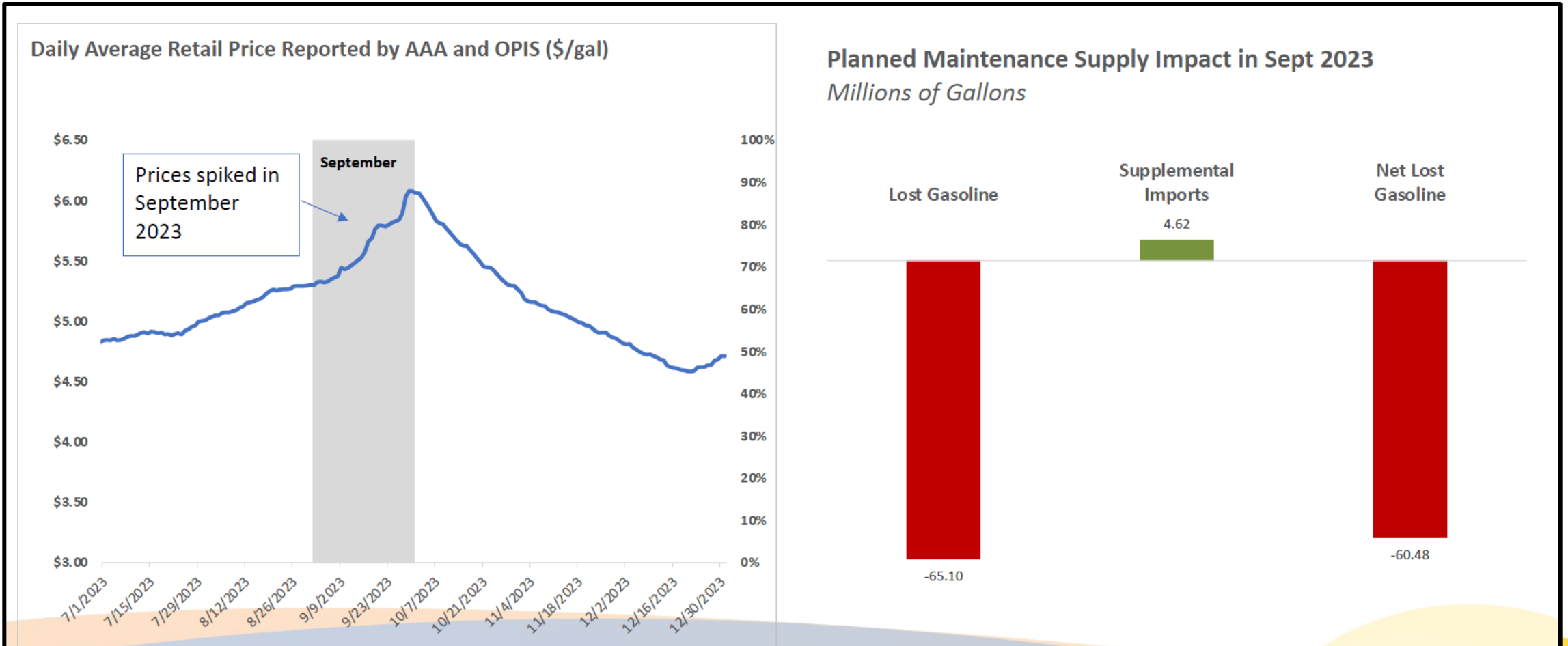
Senior Policy Advisor, Division of Petroleum Market Oversight

Gasoline Supply & Price Spikes

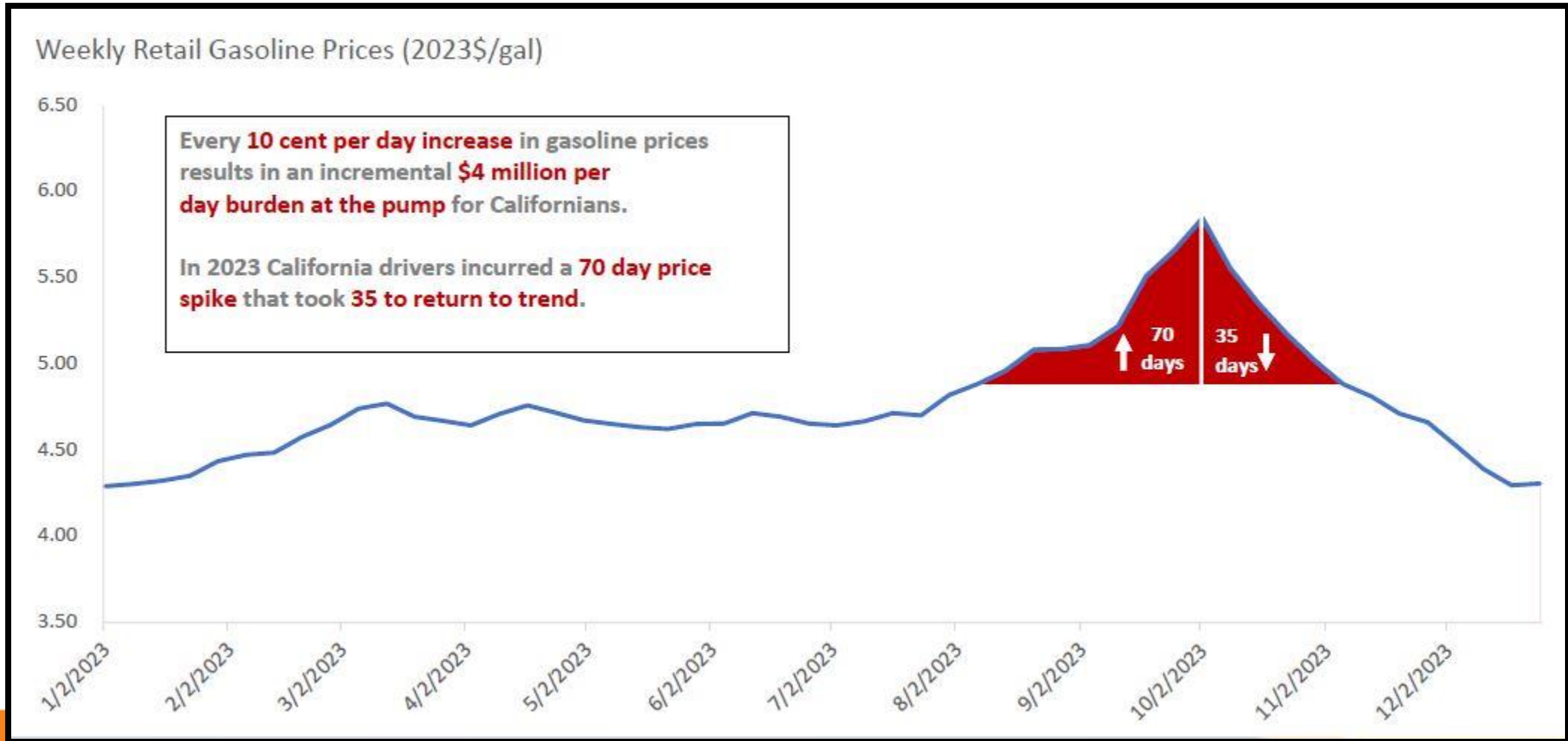
- **Immediate Problem:** Refinery decisions to take production offline for planned maintenance during the busy driving months leads to price spikes.



Gasoline Supply & Price Spikes




Gasoline Supply & Price Spikes



Gasoline Supply & Price Spikes

Scenario: Percentage of Price Spike Averted	<i>Average Change in Retail Price (July-Nov. '23)</i>	<i>Savings to Californians Per Day</i>	<i>Savings to Californians Per Week</i>	<i>Savings to Californians, Total</i>
100% (fully averted)	\$0.00	\$20.8M	\$146M	\$2.19B
75% (mostly averted)	\$0.15 ↑	\$15.6M	\$109M	\$1.63B
50% (half averted)	\$0.29 ↑	\$10.3M	\$72.0M	\$1.08B
25% (mostly not averted)	\$0.43 ↑	\$5.00M	\$35.0M	\$525M
0% (no avoidance)	\$0.56 ↑	\$0	\$0	\$0

Gasoline Supply & Price Spikes

- **Immediate Problem:** Refinery decisions to take production offline for planned maintenance during the busy summer months leads to price spikes.
 - **Broader Problem:** Refiners do not have enough of a buffer against the unexpected – including unplanned maintenance and other disruptive events.
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Our Proposals

- **Our goal:** Ensure that Californians have a safe, affordable, and reliable supply of gasoline.
- **Proposal #1:** Require refiners to **resupply** the market during planned maintenance events.
- **Proposal #2:** Require refiners to maintain **minimum inventories** to buffer against unplanned maintenance or other disruptions.



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"?

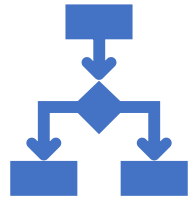
Only a fraction of all the cleaner-burning CARBOB³ gasoline consumed in California every day is traded on the spot market, but it plays an important role in setting prices across the state. The spot market can be a first trading stop as gasoline flows from refineries, cargo ships, and

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."

Conceptual Framework for a Resupply Requirement



Refiners should resupply the market during planned maintenance.



The requirement may consider if planned maintenance is during peak or off-peak months, incentivizing responsible timing.



Refiners can meet this obligation through importing products or selling from their inventories.*

**Intersects with the minimum inventory requirement.*

Conceptual Framework for an Inventory Requirement



Refiners should maintain minimum inventories of transportation fuels.



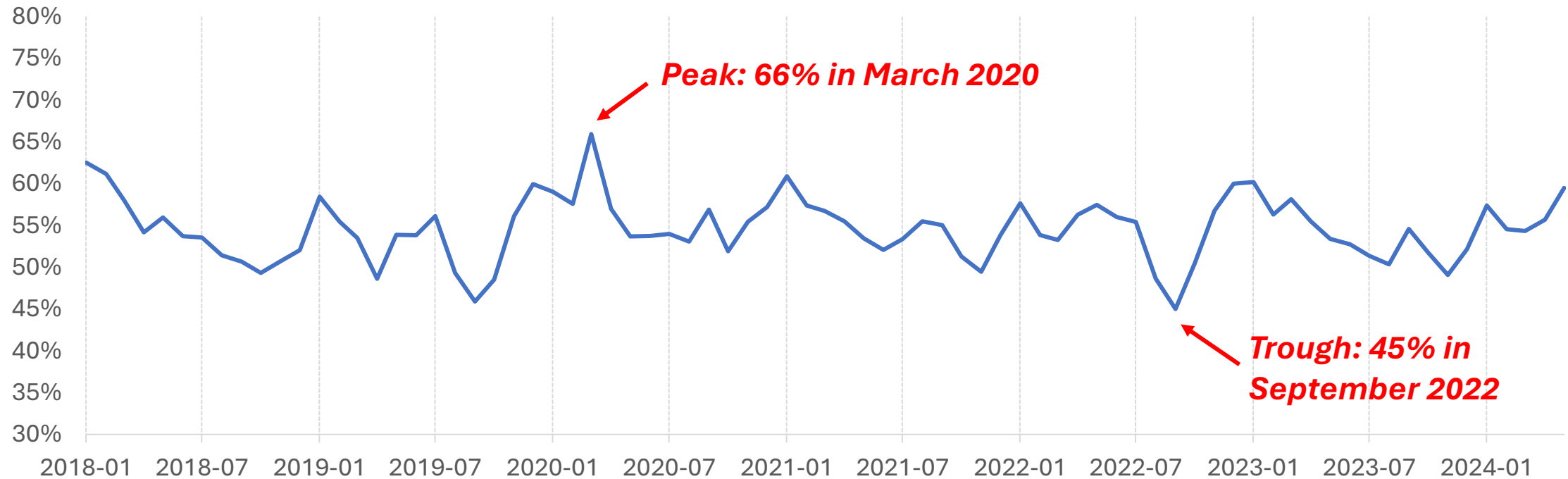
These minimum inventories would be sufficient for refiners to weather a short-term disruption.



California would authorize or require these inventories to be drawn down when needed.

West Coast Storage Capacity

PADD 5 Storage Utilization Rate: 2018-2024

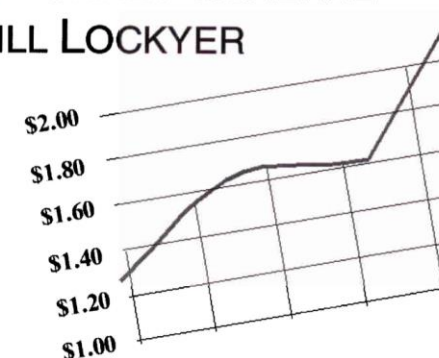


Previous Proposals in California

- In 2000, the Attorney General convened a task force on gasoline pricing in California. This task force explored a state gasoline reserve and an inventory requirement.
- AB 2076 (2000) required the CEC to examine the feasibility of a state fuel reserve. This report was published in 2002.
- In 2017, California's Petroleum Market Advisory Committee published a report that also explored a state gasoline reserve and an inventory requirement.



ATTORNEY GENERAL
BILL LOCKYER

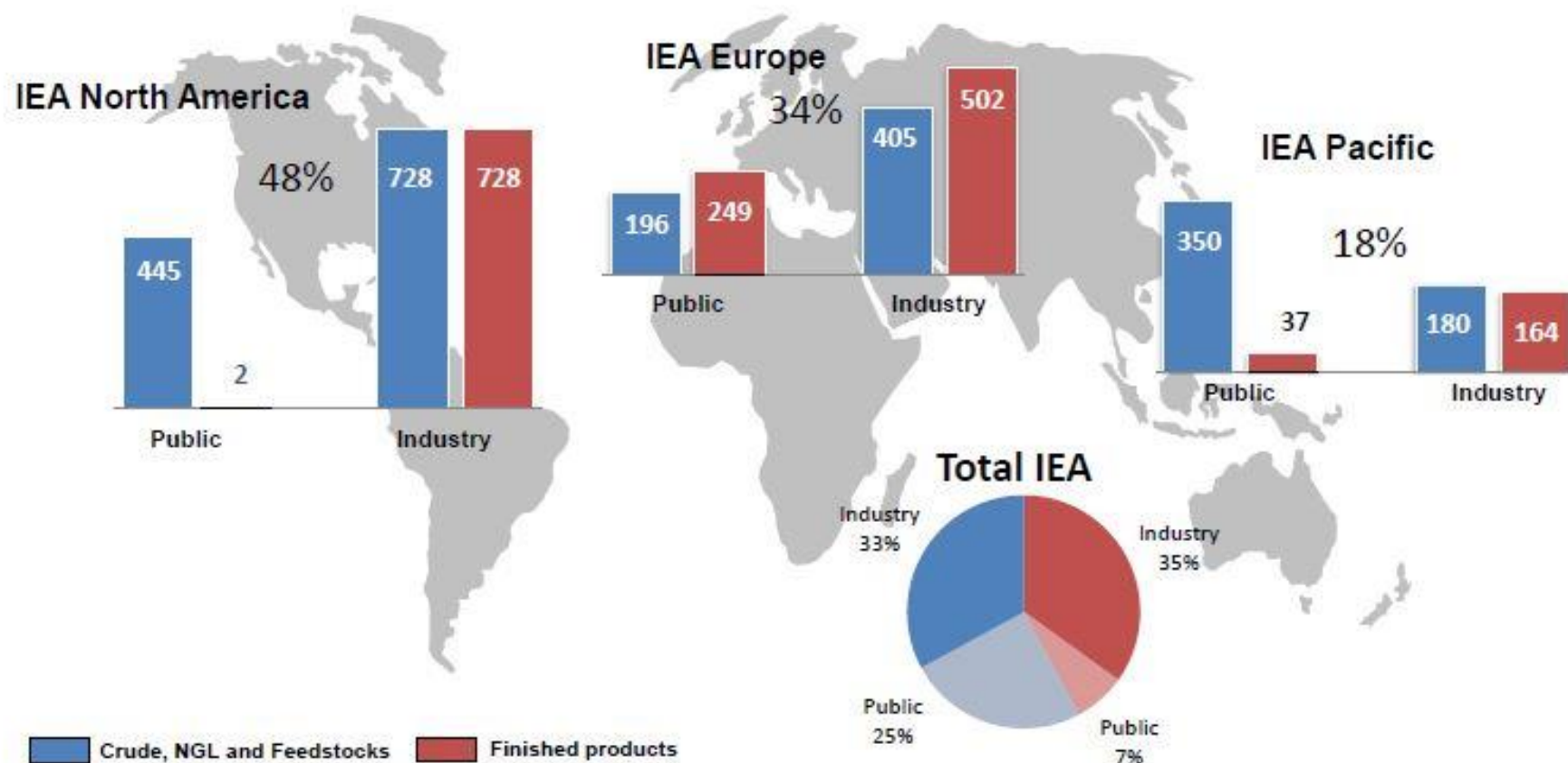


**REPORT ON
GASOLINE PRICING
IN CALIFORNIA**

May 2000

Stocks levels by type in the IEA

Oil stocks of IEA member countries by region in million barrels, end-August 2022



4 billion barrels of oil stocks in IEA countries, including 1.3 billion barrels of public stocks

Case Study: U.S. Strategic Petroleum Reserve

- The U.S. can store up to 714 million barrels of crude oil in its Strategic Petroleum Reserve (SPR), which is located in Texas and Louisiana.
- After Russia invaded Ukraine in 2022, the U.S. released roughly 180 million barrels of oil from the SPR in coordination with IEA partners. This is estimated to have lowered the price of gasoline by \$0.17-\$0.42/gallon.
- Also in 2022, the U.S. Department of Energy began using fixed-price forward contracts to buy oil for the SPR. This was intended to incentivize domestic producers to invest by reducing downside risk.



SPR storage sites. U.S. Department of Energy (<https://www.energy.gov/ceser/spr-storage-sites>).

Case Study: U.S. Northeast Gasoline Supply Reserve

- In 2014, in the aftermath of Hurricane Sandy, the U.S. created the Northeast Gasoline Supply Reserve (NGSR). The reserve can store up to 1,000,000 barrels of gasoline blendstocks.
- In May 2024, the U.S. Department of Energy announced the sale of all 1,000,000 barrels, which effectively closes the reserve. According to the DOE, this sale was timed to ensure supply during the peak summer months.



NGSR storage sites. From the U.S. Department of Energy (<https://www.energy.gov/ceser/northeast-gasoline-supply-reserve>).

Case Study: Australian Minimum Stockholding Obligation

- In 2021, Australia enacted the Fuel Security Act, which includes a minimum stockholding obligation (MSO) to blunt future shortages.
- The MSO requires major fuel importers and refiners to hold 24 days of petrol (27 days for importers), 20 days of diesel fuel (32 days for importers), and 24 days of jet fuel (27 days for importers).
- The Australian government estimated the average consumer price increase at AU \$0.0015 per liter, or about US \$0.0037 per gallon.



Takeaways

- Resupply and minimum inventory requirements can ensure market liquidity, strengthen our energy security, and avert harmful price spikes.
 - A resupply requirement will ensure supply during planned maintenance events and, in the long term, shift planned maintenance toward the least disruptive times of the year.
 - A minimum inventory requirement will ensure supply during unplanned maintenance and other short-term disruptions – reassuring the market, even if not needed.
 - **These proposals are win-wins for California consumers, refinery operators, workers, and communities.**
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