

<b>DOCKETED</b>	
<b>Docket Number:</b>	23-SB-02
<b>Project Title:</b>	SB X1-2 Implementation
<b>TN #:</b>	258639
<b>Document Title:</b>	Presentation - CEC - Gasoline Supply Reliability Workshop
<b>Description:</b>	SB X1-2: Market Liquidity and Gasoline Supply Considerations Jeremy Smith Deputy Director, Energy Assessments Division August 22, 2024
<b>Filer:</b>	Xieng Saephan
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	8/22/2024 1:26:47 PM
<b>Docketed Date:</b>	8/22/2024



# SB X1-2: Market Liquidity and Gasoline Supply Considerations

Jeremy Smith

Deputy Director, Energy Assessments Division

August 22, 2024



# Housekeeping

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- Meeting is being recorded.
- Attendees may participate today by:
  - Making comments during public comment period
  - Submitting written comments, **due by 5 p.m. September 10.**



# Purpose of Today's Workshop

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- Provide insight into DIR's role in refinery maintenance, worker safety, and the type of data they collect.
- Provide an update on supply, demand, and price trends observed in the data collected under SB X1-2.
- Present impact of supply conditions on prices.
- Present conceptual frameworks for refinery maintenance resupply and minimum inventory requirements.



# Agenda

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- Welcome
- Opening Comments from the Dais
- Presentations
  - Zohra Azim, Department of Industrial Relations
  - Jeremy Smith, Energy Assessments Division
  - Varsha Sarveshwar, Division of Petroleum Market Oversight
- Comments from the Dais
- Public Comment
- Adjourn



# Opening Comments from the Dais





# Public Safety and Refinery Maintenance

Zohra Azim

Senior Safety Engineer, Department of Industrial Relations



# **Market Liquidity and Gasoline Supply Considerations**

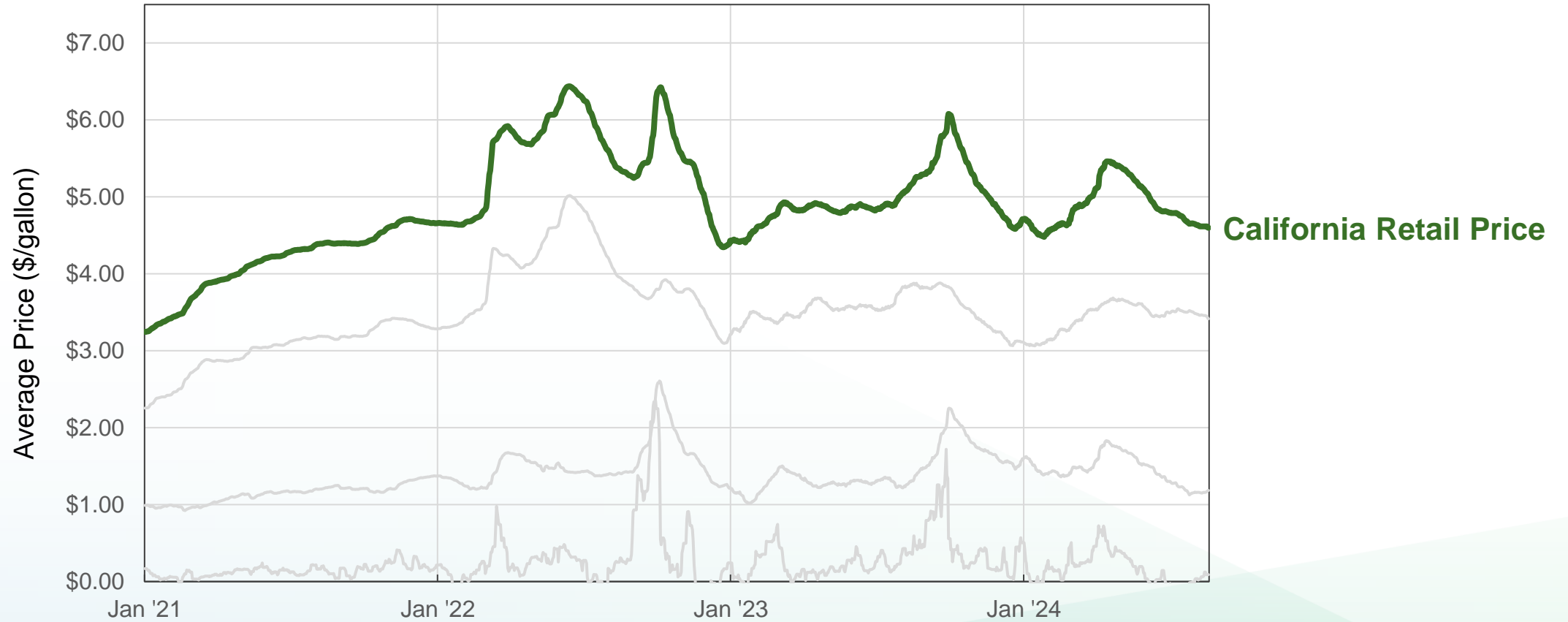
Jeremy Smith  
Deputy Director, Energy Assessments Division





# California Retail Price

## Gasoline Price Trends (2021-Current)

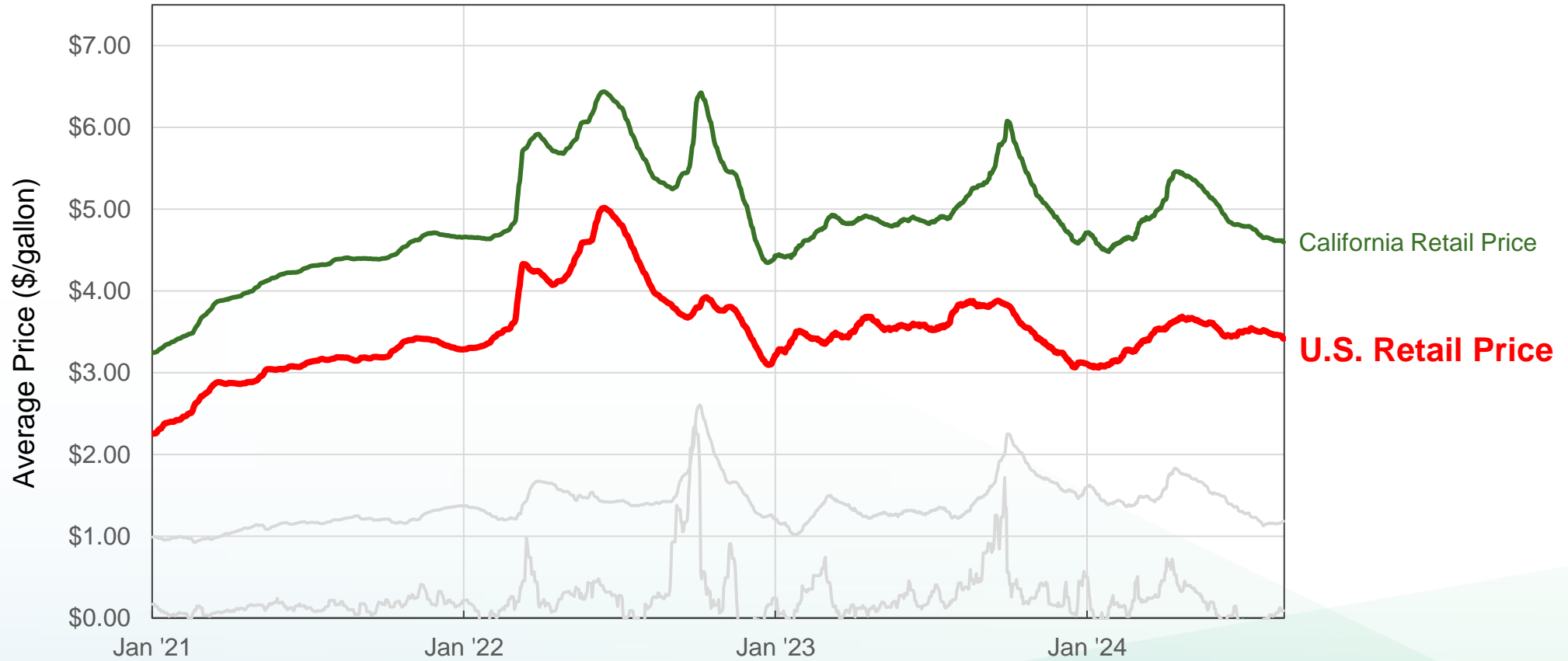


Source: CEC Analysis of OPIS data



# U.S. Retail Price

## Gasoline Price Trends (2021-Current)

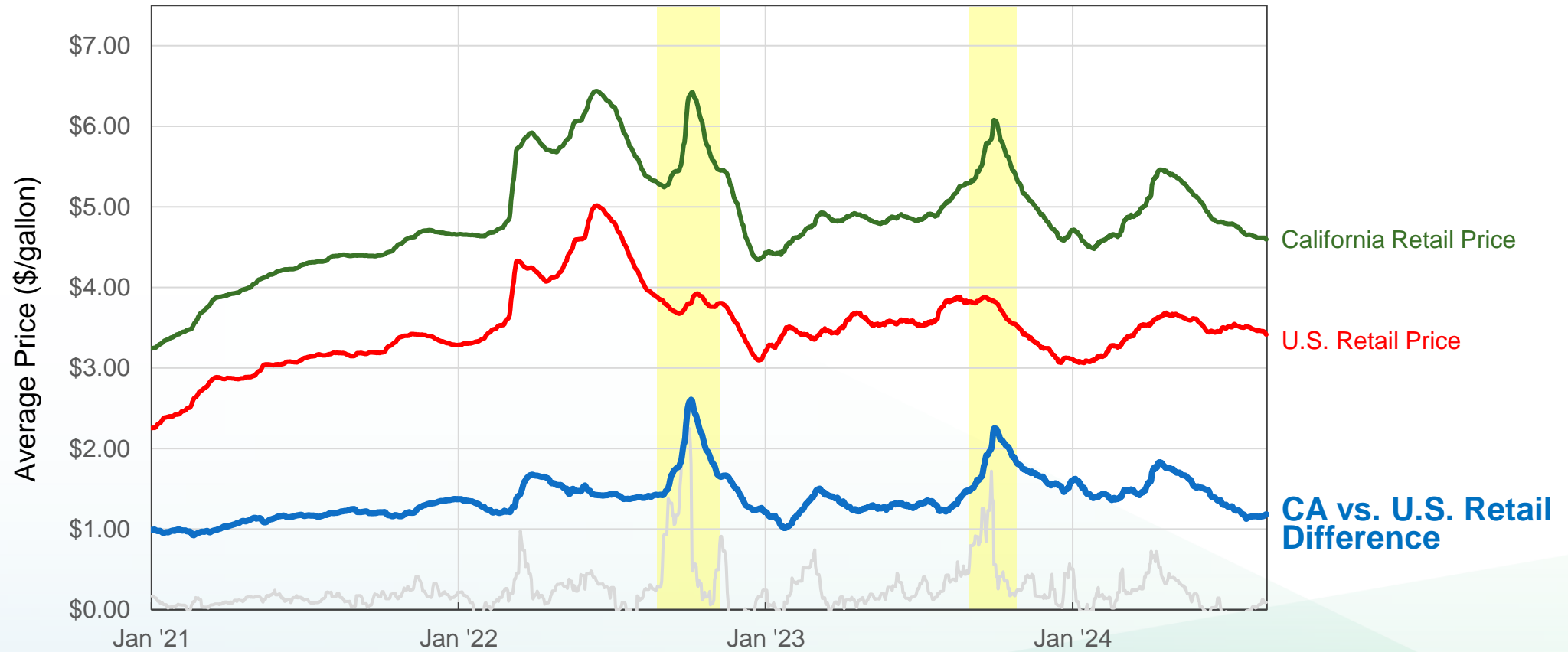


Source: CEC Analysis of OPIS data



# CA vs. U.S. Retail Price

## Gasoline Price Trends (2021-Current)

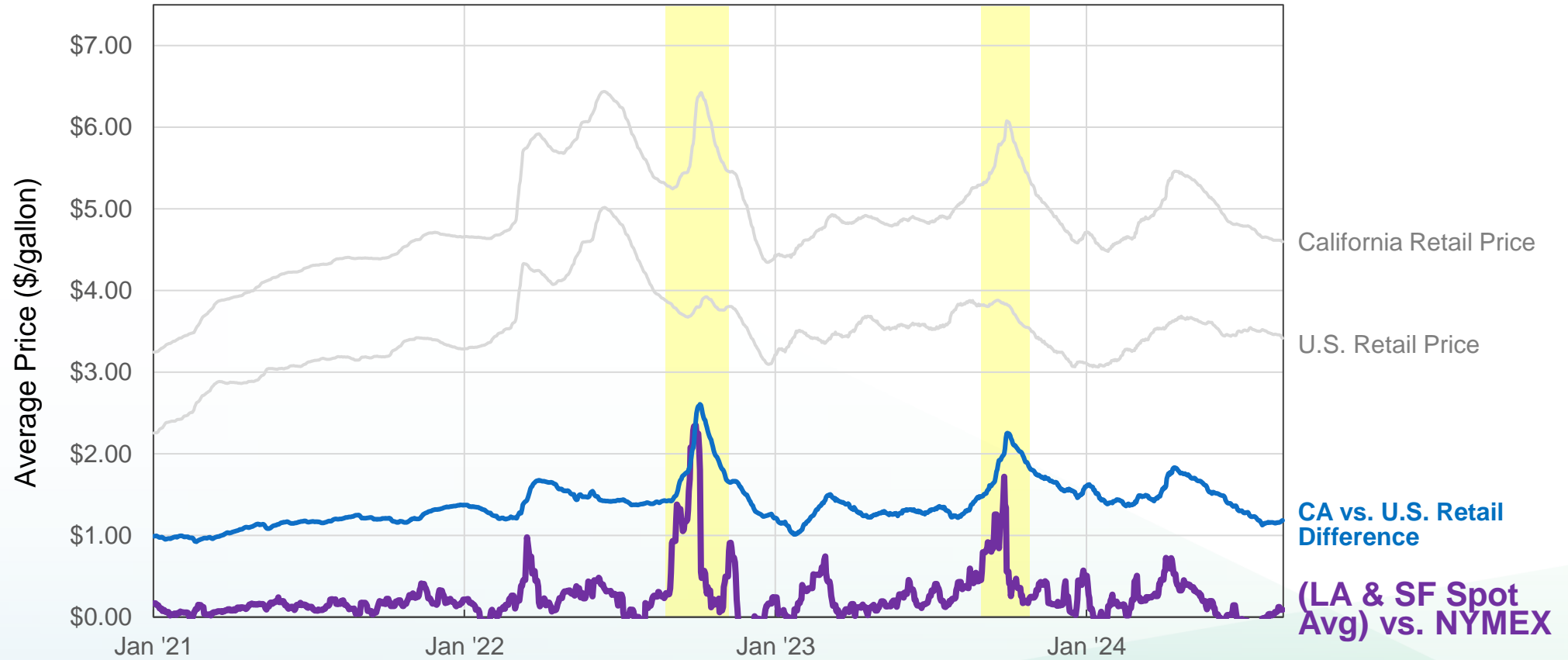


Source: CEC Analysis of OPIS data



# California Gasoline Spot Price

## Gasoline Price Trends (2021-Current)



Source: CEC Analysis of OPIS data

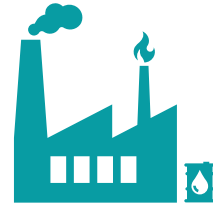


# California-Specific Market Dynamics

## SUPPLY



Gasoline Inventories



Refinery Production



Marine Imports

## DEMAND



Gasoline Demand



# Days of Supply Metric

Stocks at beginning of week

Expected build or drawdown in stocks in current and next two weeks

$$DOS_{t=0} = \frac{Stocks_{t=-1} + \sum Exp. Supply Balance_{t=0,1,2}}{Demand_{daily}}$$

Common metric to measure market tightness

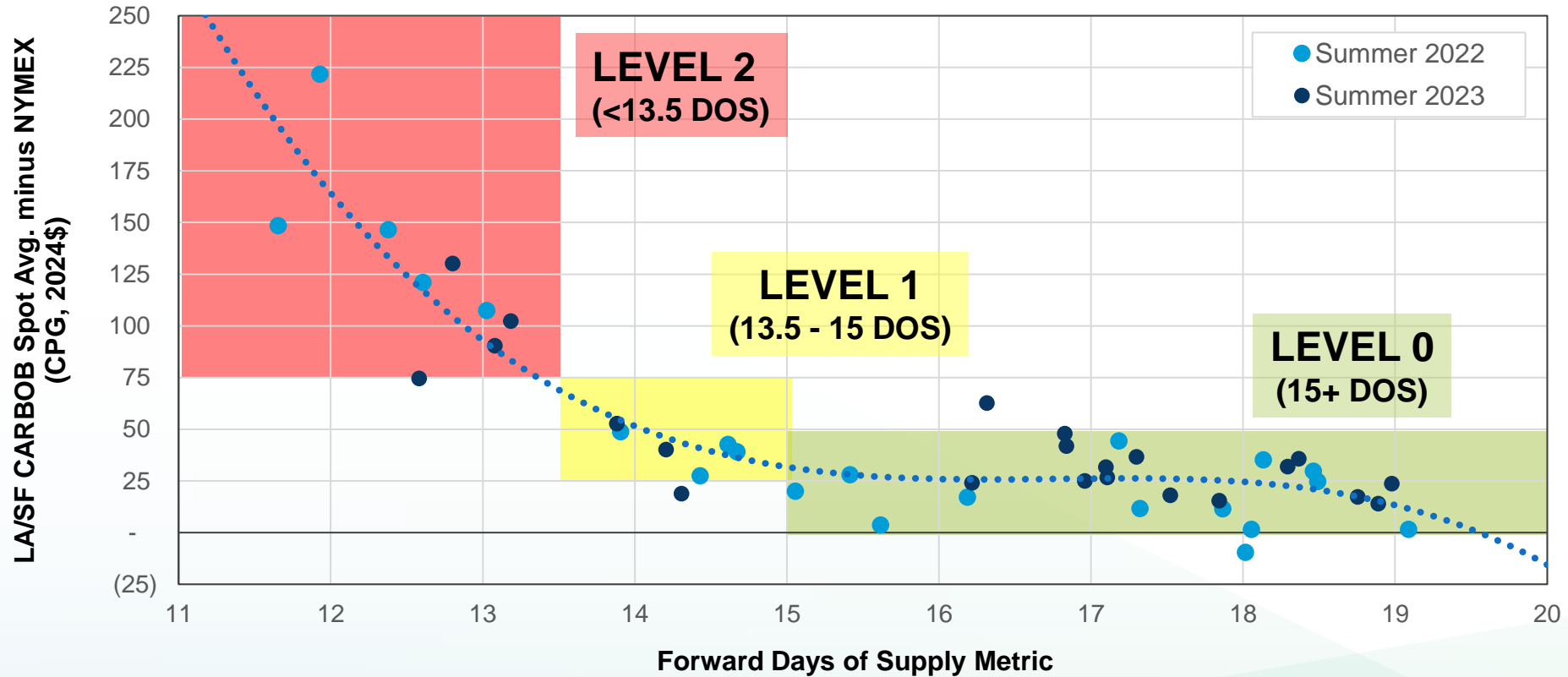
Avg. daily motor gasoline sales in month \* 90%



# Establishing Price Risk Levels

...Price spreads increase

Summer 2022 and 2023 Price Spread vs. Days of Supply



As Days of Supply fall...



# Supply/Demand Changes

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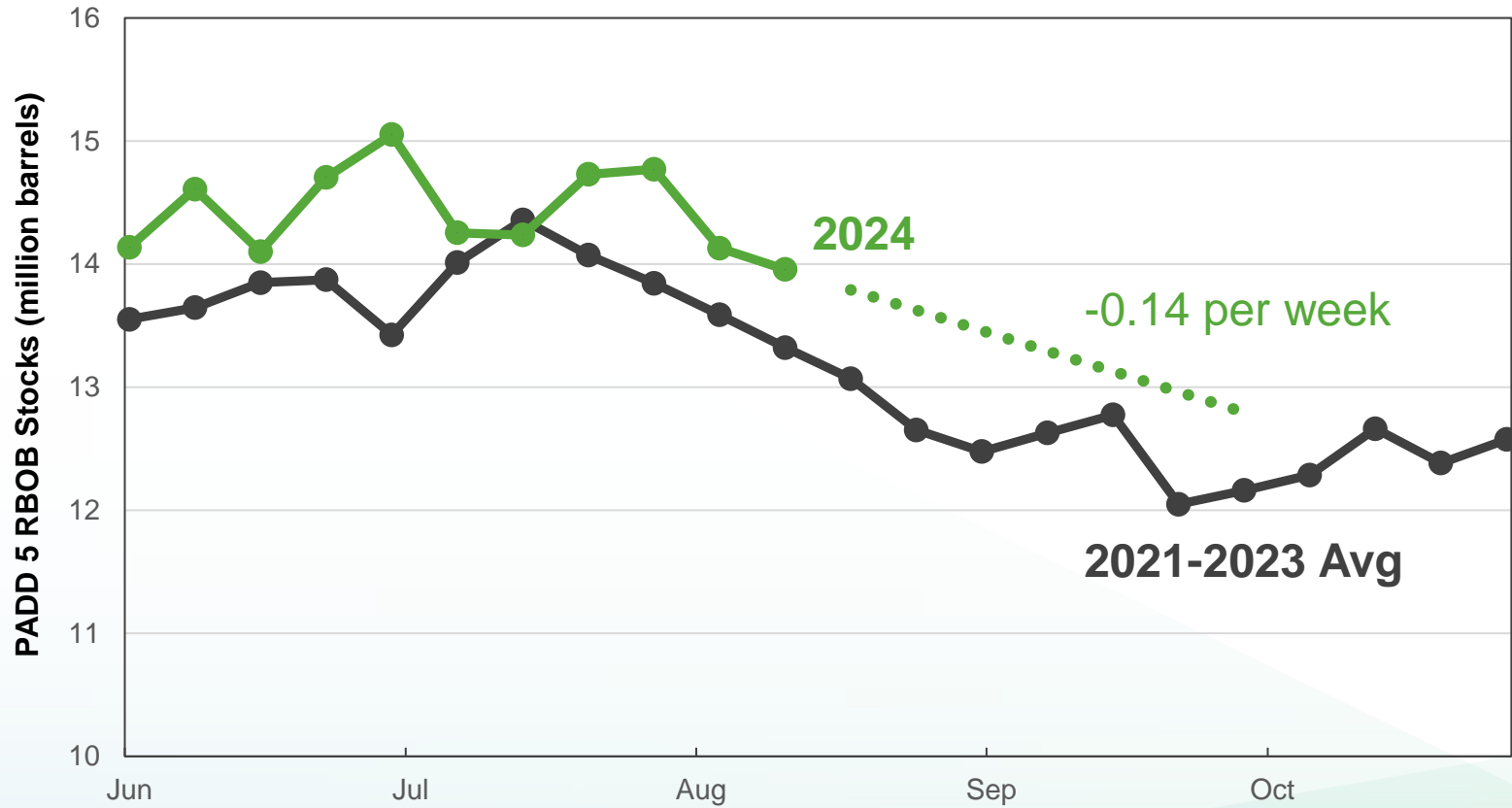
- Refinery conversions to renewable diesel
- Seasonal (summer) demand increases
- ZEV adoption (long-term demand decrease)
- Refinery outages





# Summer Inventory Trends

Average Summer Gasoline Stocks by Week (2021-Current)

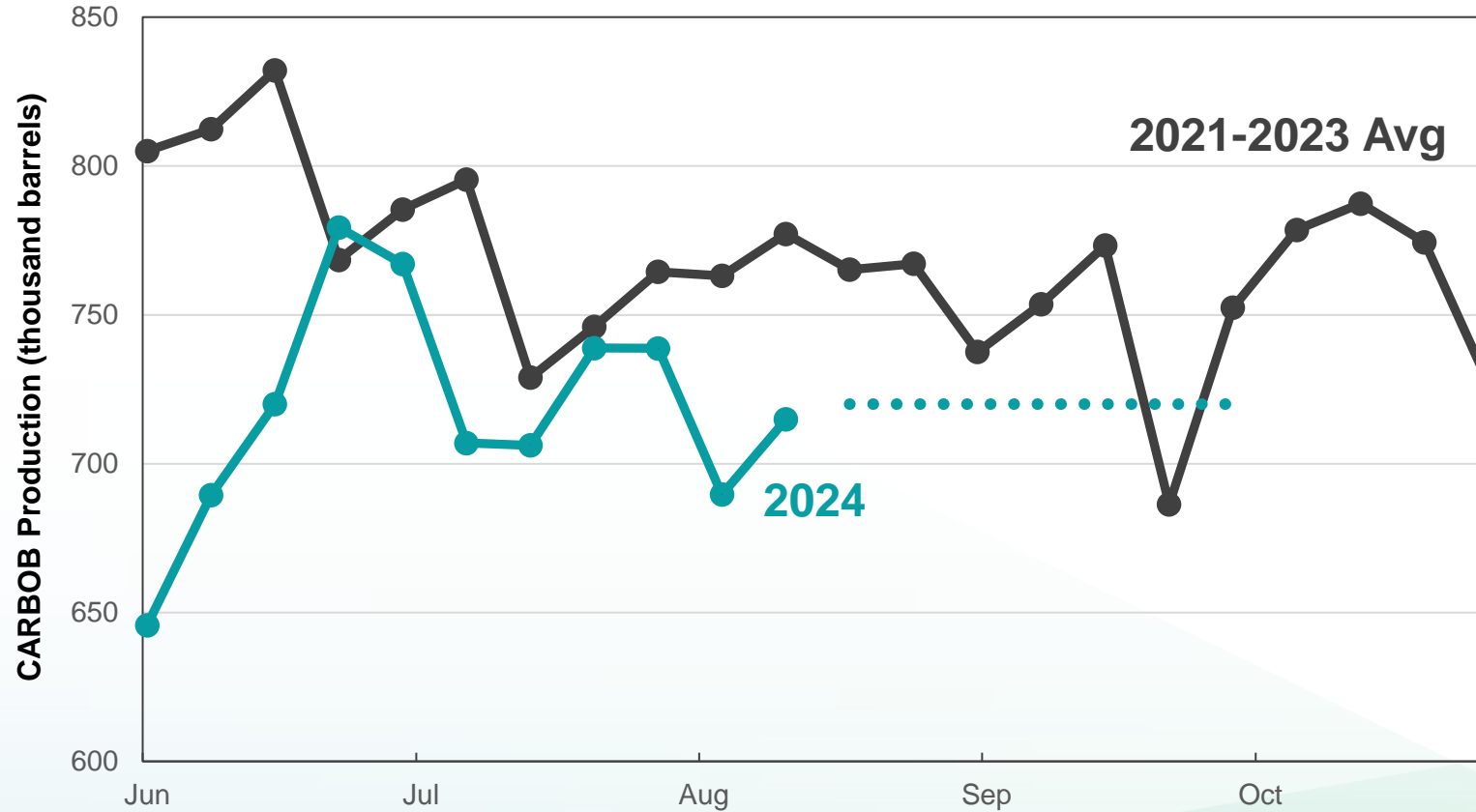


Source: Gasoline stocks from EIA [West Coast \(PADD 5\) Stocks of Crude Oil and Petroleum Products \(eia.gov\)](https://www.eia.gov/west-coast/padd-5-stocks-of-crude-oil-and-petroleum-products)



# Summer Production Trends

Average Daily Summer CARBOB Production by Week (2021-Current)

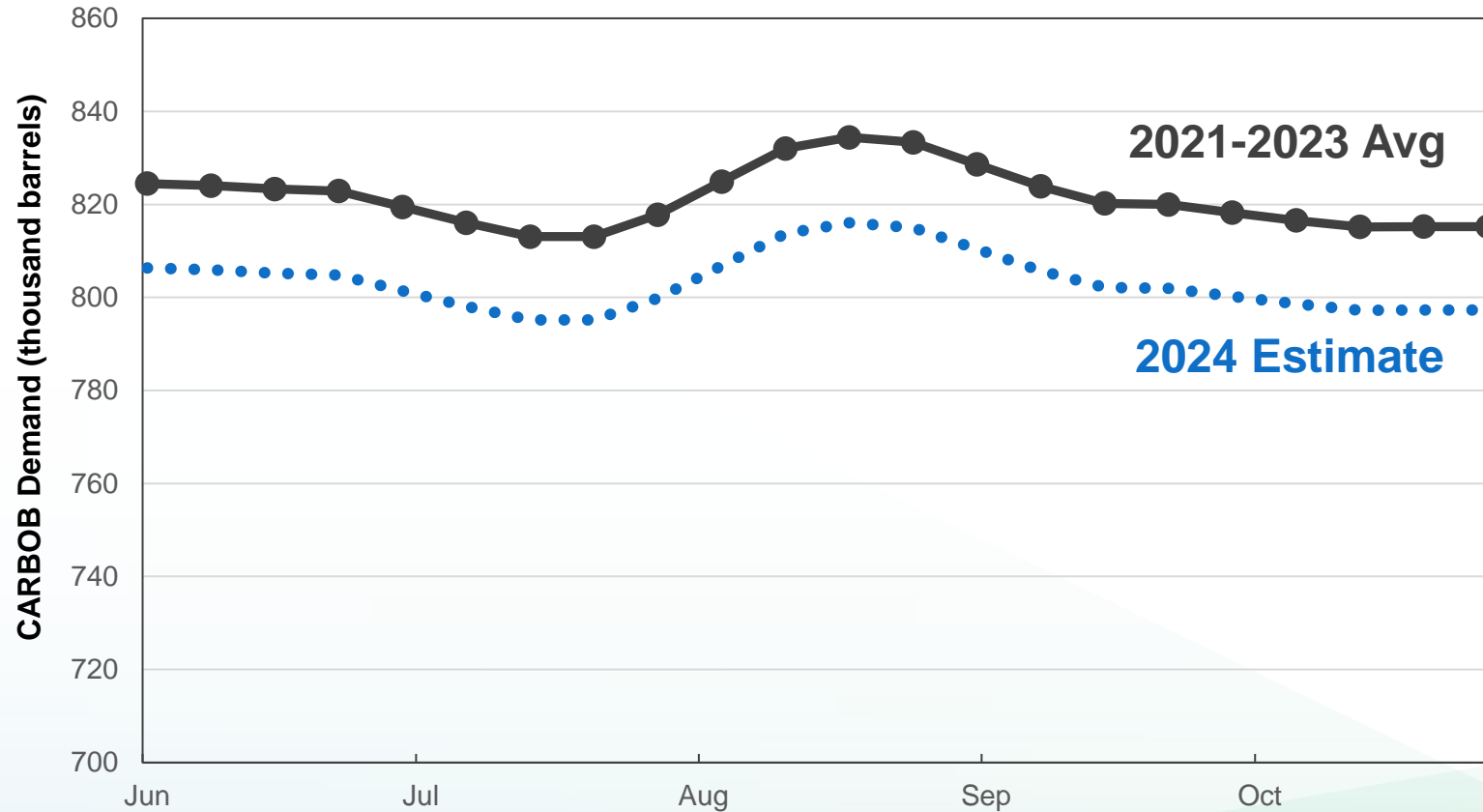


Source: Production from CEC [Weekly Fuels Watch Dashboard](#).



# Summer Demand Trends

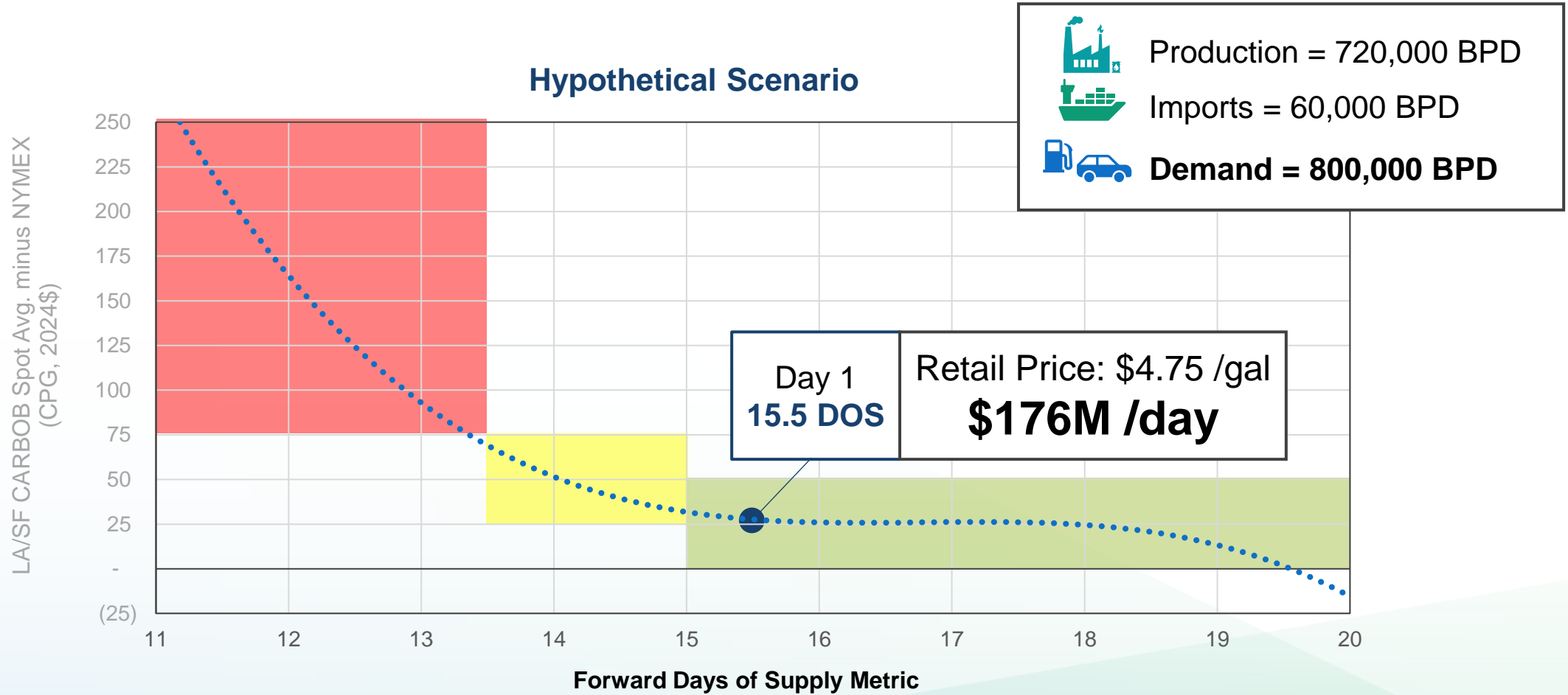
Average Daily Summer CARBOB Demand by Week (2021-Current)



Source: California Department of Tax and Fee Administration (CDTFA) [Fuel Taxes and Statistics Report](#)  
Note: Inferred CARBOB is an estimate of CARBOB using 90% of total gasoline (without Aviation Gasoline).



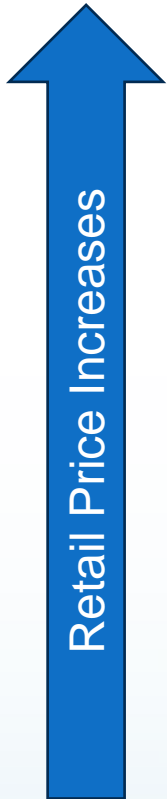
# Maintaining Market Liquidity



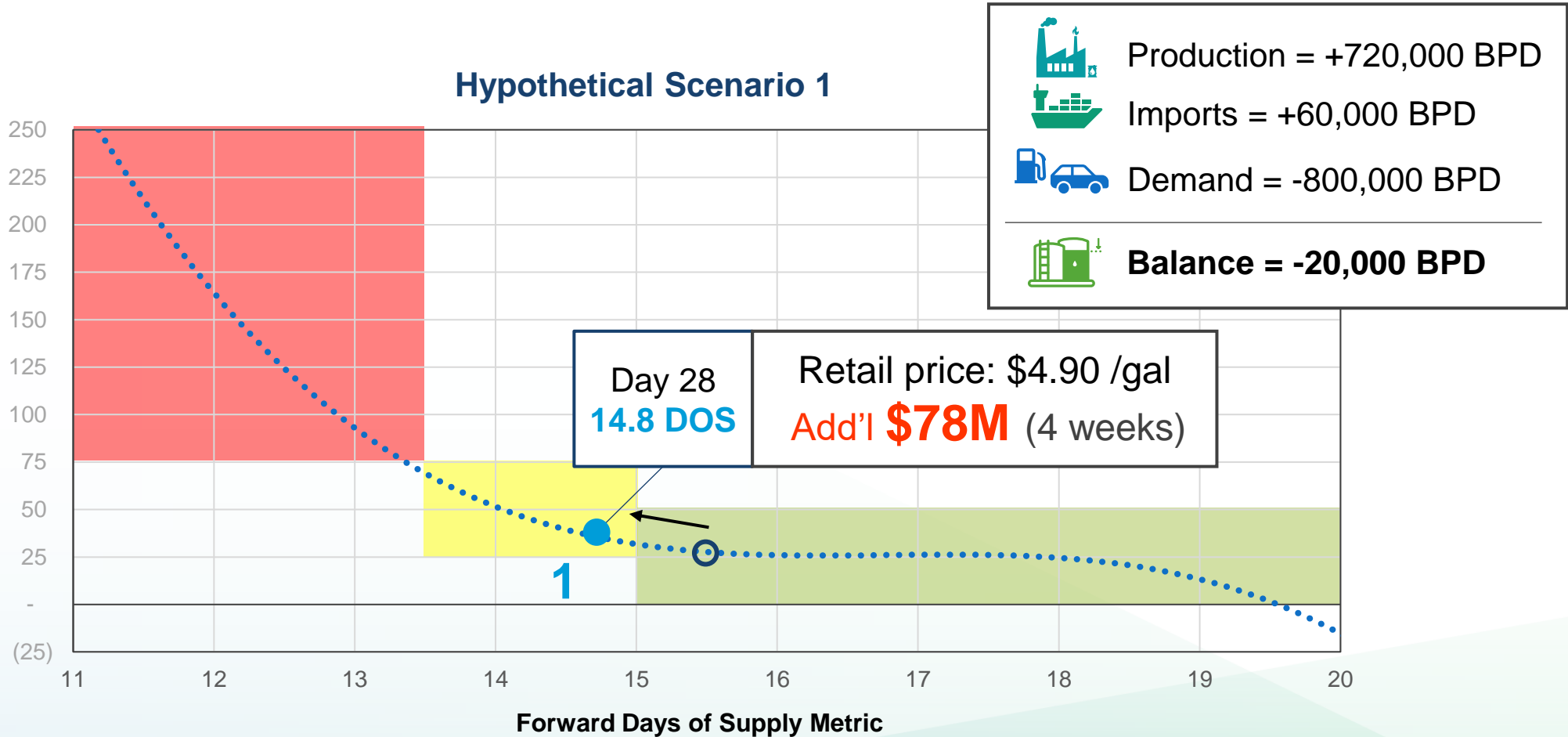
Prices, supply, and demand conditions are hypothetical and used for illustrative purposes.



# Maintaining Market Liquidity



LA/SF CARBOB Spot Avg. minus NYMEX  
(CPG, 2024\$)



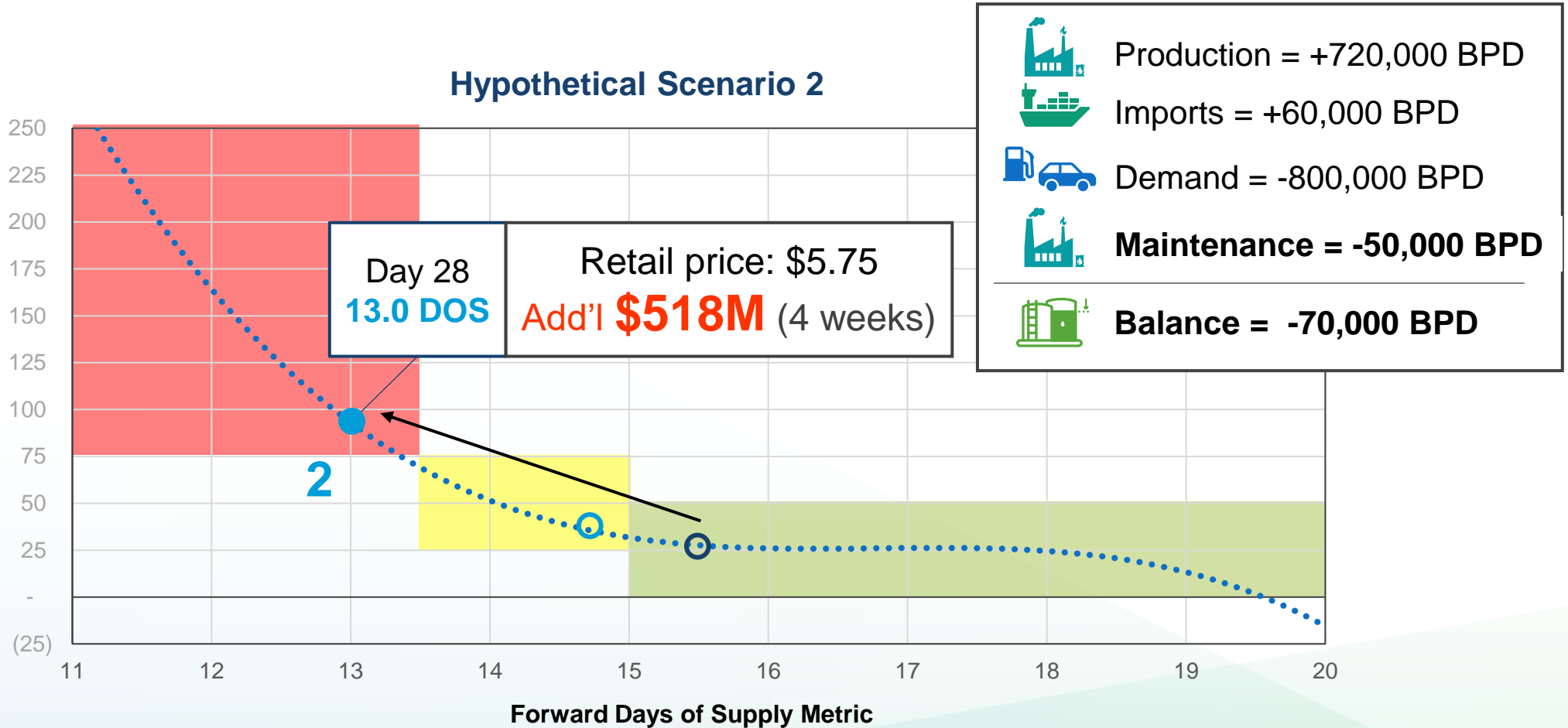
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# Maintaining Market Liquidity



LA/SF CARBOB Spot Avg. minus NYMEX (CPG, 2024\$)



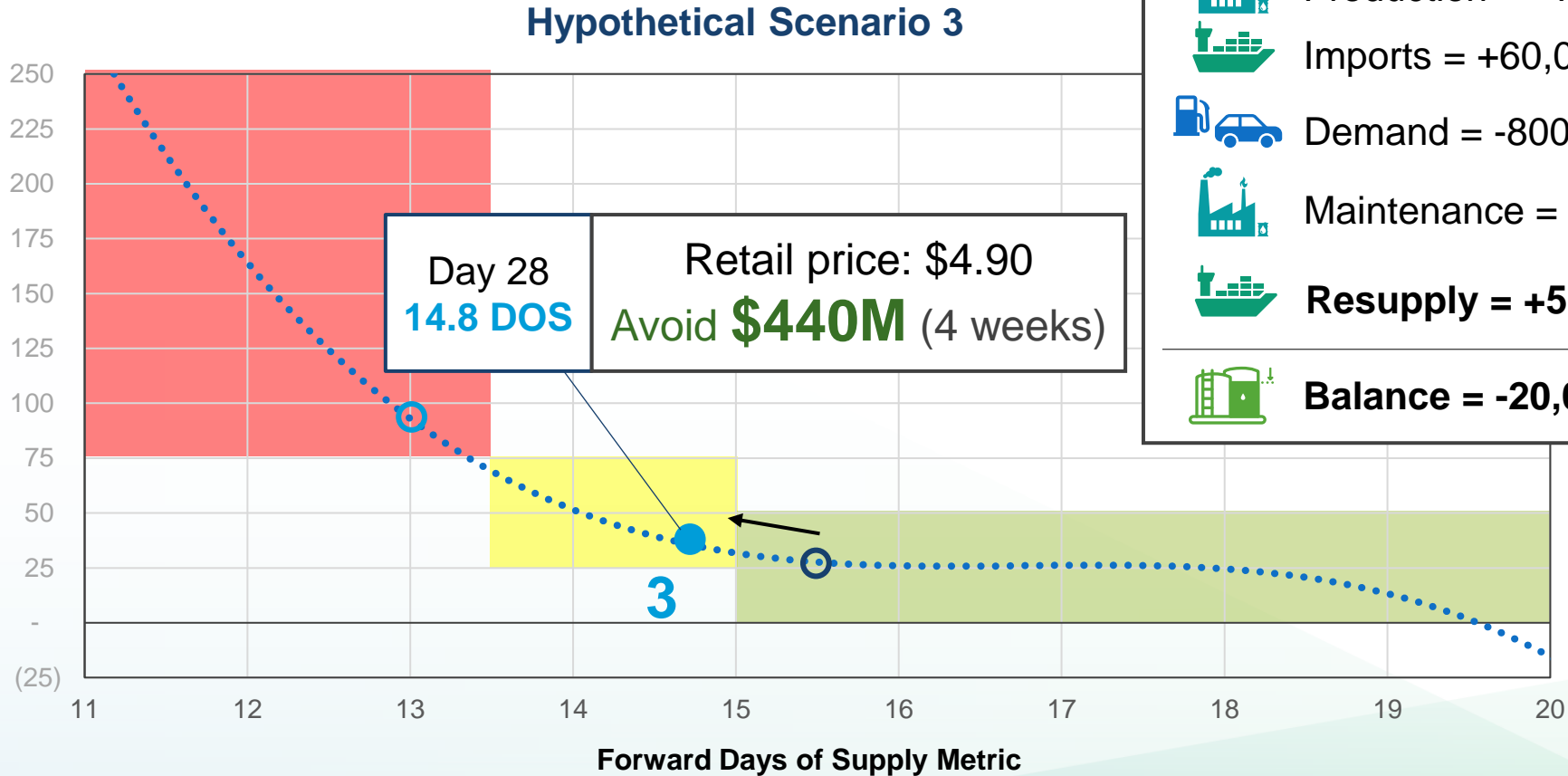
Prices, supply, and demand conditions are hypothetical and used for illustrative purposes.



# Maintaining Market Liquidity



LA/SF CARBOB Spot Avg. minus NYMEX (CPG, 2024\$)



- Production = +720,000 BPD
- Imports = +60,000 BPD
- Demand = -800,000 BPD
- Maintenance = -50,000 BPD
- Resupply = +50,000 BPD
- Balance = -20,000 BPD

Prices, supply, and demand conditions are hypothetical and used for illustrative purposes.



# Other Considerations

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- Actual supply and demand balance requires careful planning.
- Resupply can be accomplished through **inventory build-up** prior to a planned maintenance event or **additional marine imports**.
- Maintaining higher inventory levels should help mitigate the impact of **sudden unplanned maintenance**, which is common and can occur on short notice.





# Thank you

Jeremy Smith  
Deputy Director, Energy Assessments Division



# Comments from the Dais





# Written Comments

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Submit written comments to:

- Docket No. **23-SB-02**
- Due by **5:00 PM** on **Tuesday, September 10.**



# Public Comments

## Zoom:

- Use the “raise hand” feature.

## Telephone:

- Dial \*9 to raise your hand.
- Dial \*6 to mute/unmute your phone line. You may also use the mute feature on your phone.

## Zoom/phone participants, when called upon:

- Your microphone will be opened.
- Unmute your line.
- State and spell your name for the record, and then begin speaking.

**Limited to one representative per organization.**

## Three-Minute Timer





## Zohra Azim

Senior Safety Engineer  
Division of Occupational Safety And Health  
Department of Industrial Relations



## Jeremy Smith

Deputy Director  
Energy Assessments Division  
California Energy Commission



## Varsha Sarveshwar

Senior Policy Advisor  
Division of Petroleum Market Oversight

**Thank You**