

<b>DOCKETED</b>	
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# California Energy Commission

Title: Winter Reliability Pricing Assessment

Presenter: Amanda Wong, Electric Generation System Specialist I

Date: 10/30/2024



# **Natural Gas Prices and Winter Reliability in California**

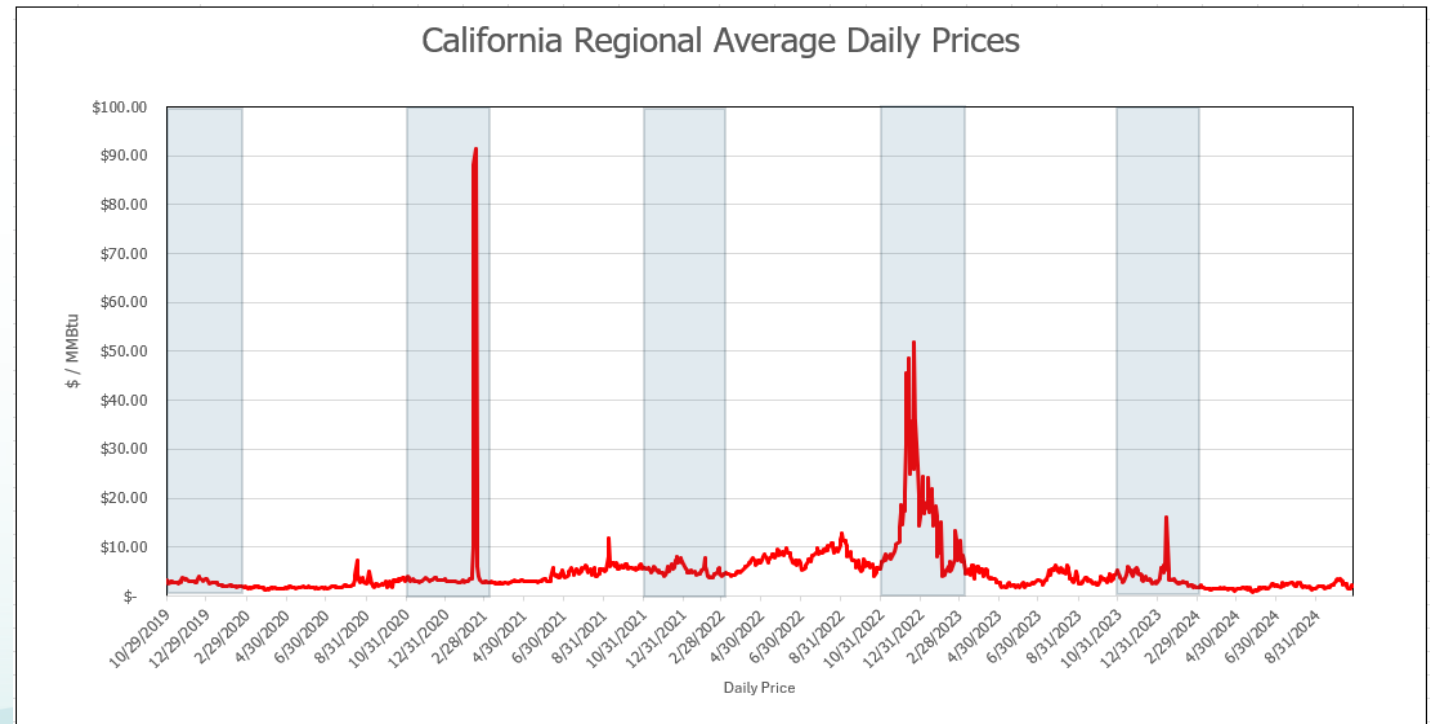


# Summary

## Winter reliability & Natural Gas (NG) price spikes

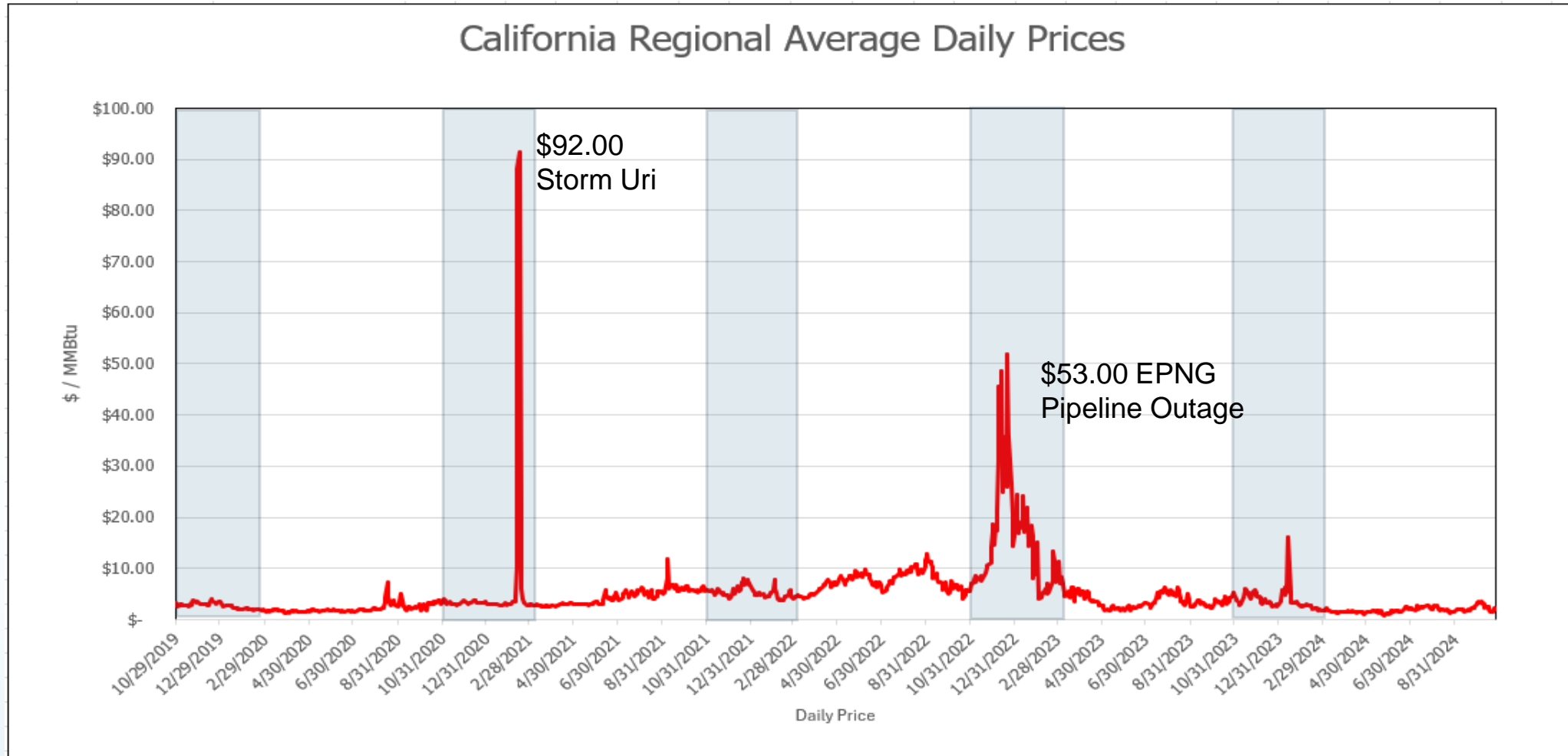
- CA Annual average vs. Winter Months
- Case Studies
  - Storm Uri
  - EPNG Pipeline Outage
  - Winter 2023-24

Year	Average Price
2019	\$3.12
2020	\$2.35
2021	\$5.20
2022	\$8.93
2023	\$5.15
2024	\$2.21





# Winter Price Spikes\*



\*Winter months (November – March) in blue. Daily prices from 2019 until 2024





# Case Study - Winter Storm Uri

Mid-February 2021:

- Extreme Weather Event
- Polar Vortex
  - 73 percent of continental U.S. in snow
  - Some - lowest temperatures in a century\*
- Production loss & energy infrastructure shutdowns
  - Rolling blackouts & outages
  - Widespread disruptions - Electricity & NG supply

Source CNN, CPUC





# Winter Storm Uri - California

California – Supply issues

Prices rose to \$92/MMBtu

Reliant on gas from affected regions

Low demand and mild temps during storm (Feb 12-17)

	Temp Deg F	Demand	BCF	BCF Average
Socal Gas	57	Lower than average	2.26	2.41
PG&E	52	Little over average	3.13	2.67





# Winter Storm Uri - Nationwide



Natural gas hub prices on February 17, 2021.





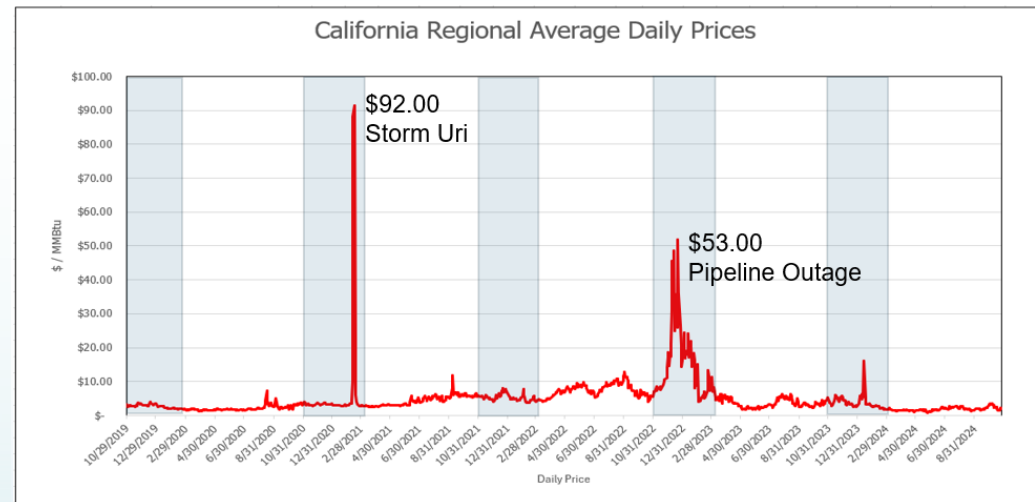
# Case Study - El Paso Line Pipeline Outage

El Paso Line 2000 outage - explosion in Arizona

Southwest gas reliability – supply disruptions

Peak of \$53 - December 2022

Impact ~ 468 MMcfd, or 21 percent





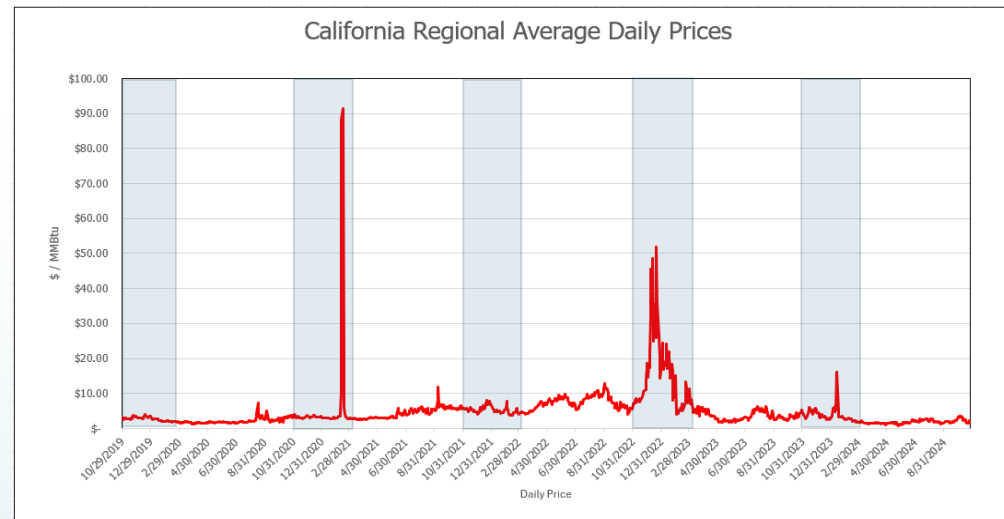
# Case Study - Winter 2023-2024

Warmer than average temps - California and nationwide

NG prices relatively low

Winter prices averaged \$3.90/MMBtu

Significantly lower than previous winter's peak





# Winter 2024-2025 Outlook

## Forecast

Pipelines operating at normal capacity

Storage levels currently elevated

Unforeseen factors could trigger price spikes





**Thank You!**

