

# **Energy Resources Quarterly Board Update 2023 Q2**

August 21, 2023

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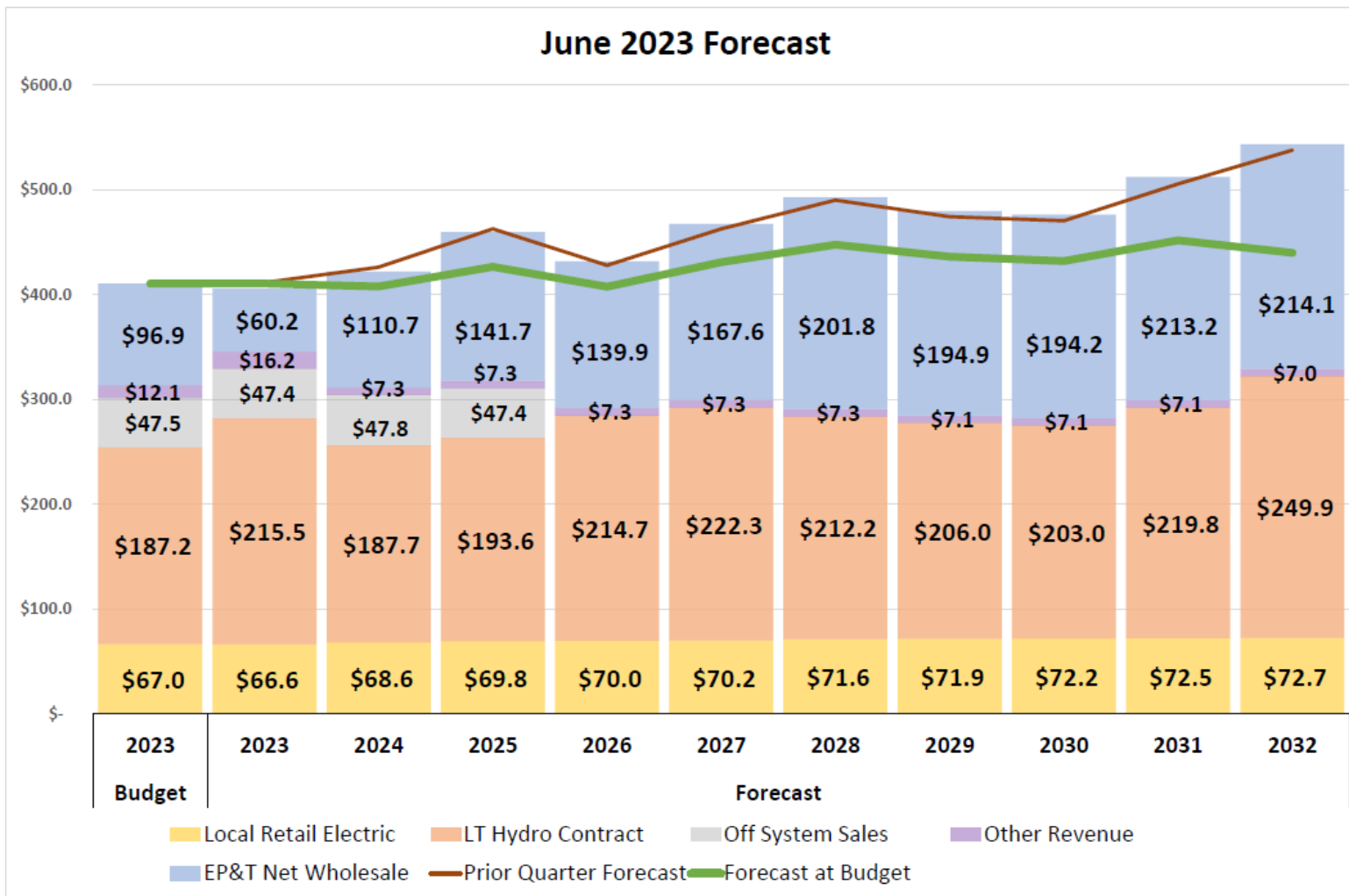
# Why We're Here

- Wholesale and energy-related revenue update
- Western power markets update
- Operations and planning
  - Portfolio overview
  - Pricing update

# Key points

- Below average water year in 2023, higher energy prices
  - NWR and other Energy-Related Revenue projected to be \$160M (\$4M better than budget)
  - Higher wholesale electricity prices, lower generation (below average water), and higher electric loads
  - Grand Coulee water supply (inflow for RR/RI) for January – July was 76% of average
- Climate Commitment Act (CCA)
  - Allowance Price Containment Reserve (APCR) auction held 8/9/2023
  - Q3 Auction scheduled 8/30/2023
  - Allowance prices trading near \$65/metric ton of CO<sub>2</sub>e on secondary market
- Day-Ahead Market Initiatives
  - SPP Markets+ meetings have begun for Phase 1 development (32 participants)
  - Draft CAISO Energy Day Ahead Market (EDAM) language released

# Electric Revenues Forecast - \$ Millions



Other Revenue includes Real Time, LT Contract admin fees, frequency response and load shedding, renewables, and scheduling.

# 2023 NWR and Other Energy-Related Revenue

(\$ Millions)

	Budget	Forecast [1]	Variance	Q1 Variance
<b>EP&amp;T Net Wholesale Revenue (NWR)</b>				
Energy Sales/Purchases	\$ 83.7	\$ 46.9	\$ (36.8)	\$ (32.6)
Specified Source Premium	\$ 13.3	\$ 11.0	\$ (2.3)	\$ (2.3)
Renewables - Bundled	\$ -	\$ 2.3	\$ 2.3	\$ 2.3
NWR Sub-total [2]	\$ 96.9	\$ 60.2	\$ (36.8)	\$ (32.6)
<b>Off System Sales</b>				
Off System end use sales	\$ 47.5	\$ 47.4	\$ (0.1)	\$ 3.1
<b>Other Energy-Related Revenue</b>				
LT Power Contract- Retained Surplus	\$ -	\$ 36.2	\$ 36.2	\$ 30.9
LT Power Contract- Admin Fees	\$ 3.4	\$ 3.4	\$ -	-
Frequency Response & Load Shedding	\$ 1.2	\$ 1.2	\$ -	-
Other [3]	\$ 0.4	\$ 0.4	\$ -	-
Renewables - Unbundled	\$ 0.1	\$ 0.8	\$ 0.7	\$ 0.7
Real-Time Revenue	\$ 7.0	\$ 10.5	\$ 3.5	\$ 2.1
Other Energy-Related Sub-total	\$ 12.1	\$ 52.4	\$ 40.3	\$ 33.7
<b>NWR and Other Energy-Related Revenue</b>	<b>\$ 156.5</b>	<b>\$ 160.0</b>	<b>\$ 3.5</b>	<b>\$ 4.2</b>

[1] 2023 forecast based Jan - June actual and July - Dec estimates (7/06/23 NWR forecast)

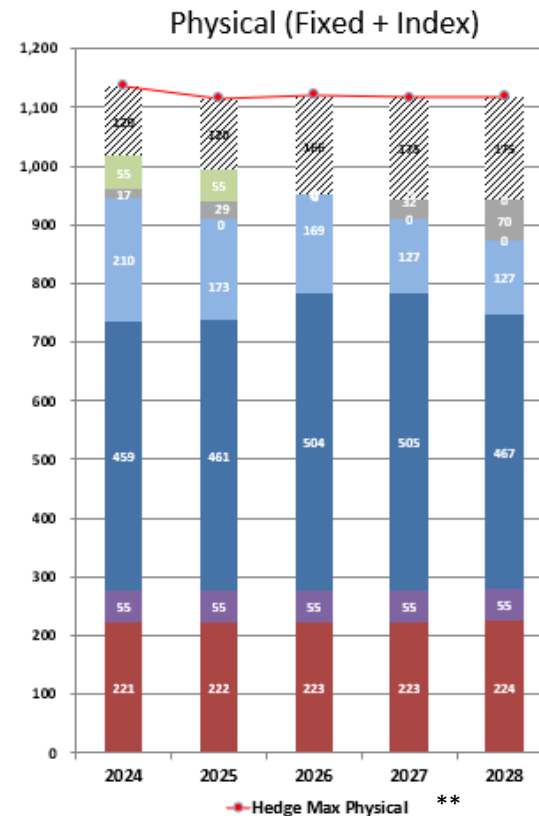
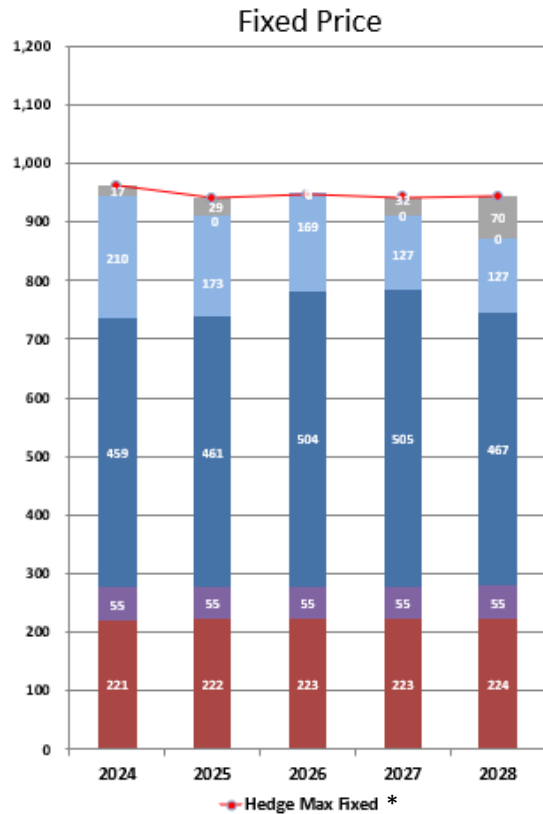
[2] NWR includes PWX specified source sale/full requirements purchase and transmission pass through costs

[3] Other includes scheduling & admin fees and the sale of reserves

# District's energy commitments

Chelan County PUD  
Energy Commitments

(Average MW)



Note: The graphs represent the limits contained in resolution 20-14439 approved by the Board on March 23, 2020.

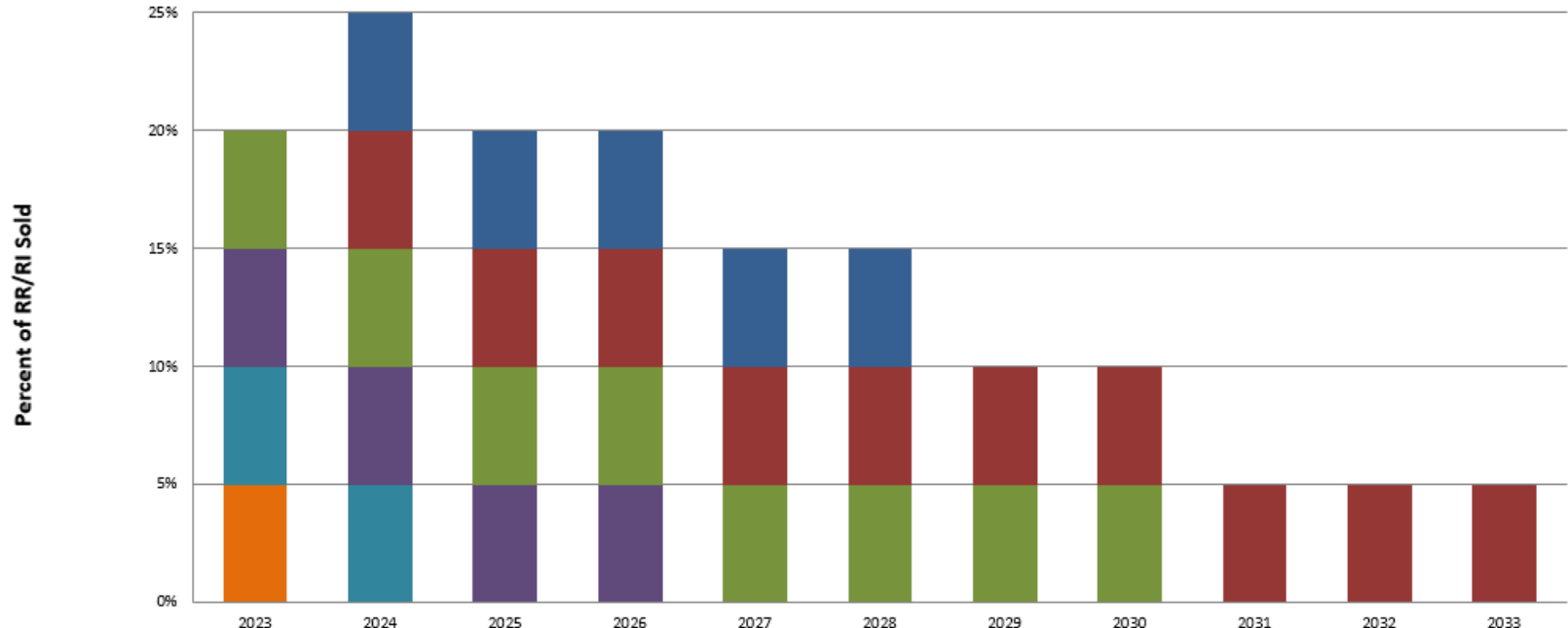
- Available to Sell at Fixed Price
- Fixed Price Block Contracts
- Fixed Price Slice
- Long-term Cost Plus Slice
- Canadian Entitlement
- Local Load

- Available to Sell at Index Price
- Available to Sell at Fixed Price
- Index Price Block Contracts (Includes Off-System End-Use)
- Fixed Price Block Contracts
- Fixed Price Slice
- Long-term Cost Plus Slice
- Canadian Entitlement
- Local Load

\*Hedge Max Fixed = stress water generation

\*\*Hedge Max Physical = stress water generation + 175 aMW

# Fixed Price Slice Contracts



	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
■ Slice Product 38 - Puget Sound Energy		5.0%	5.0%	5.0%	5.0%	5.0%					
■ Long Term Slice 2 - Avista		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
■ Long Term Slice - Avista	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%			
■ Slice Product 35 - Puget Sound Energy	5.0%	5.0%	5.0%	5.0%							
■ Slice Product 34 - Powerex	5.0%	5.0%									
■ Slice Product 30 - Avangrid	5.0%										

# Changes in the western power market

## Western Resource Adequacy Program (WRAP)

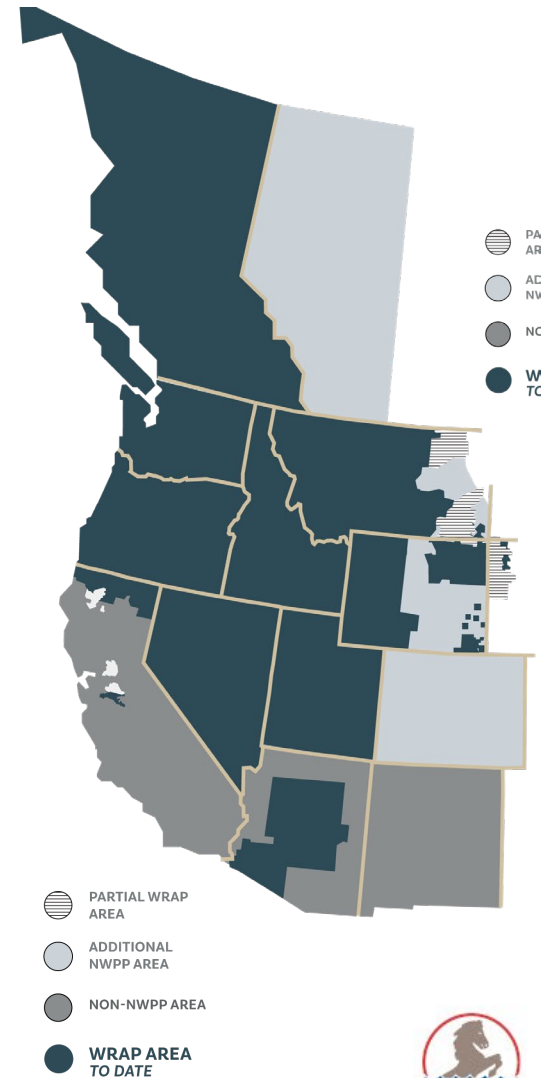
- Testing of operational program begins in November

## Climate Commitment Act (CCA)

- APCR auction held on 8/9/23 – All 1,054,000 allowances available were sold, half priced @ \$51.90 and half priced @ \$66.68
- Next regularly scheduled quarterly auction on 8/30/2023
- Allowances currently trading \$65/metric ton of CO2e in secondary market
- 2022 emissions reporting due to Ecology on 9/1/2023

## Short term markets (within hour → real-time → day ahead)

- SPP Markets+ meetings have begun for Phase 1 development (32 participants)
- Draft CAISO EDAM tariff language released
- Western regulators call for a market that includes California and independent governance

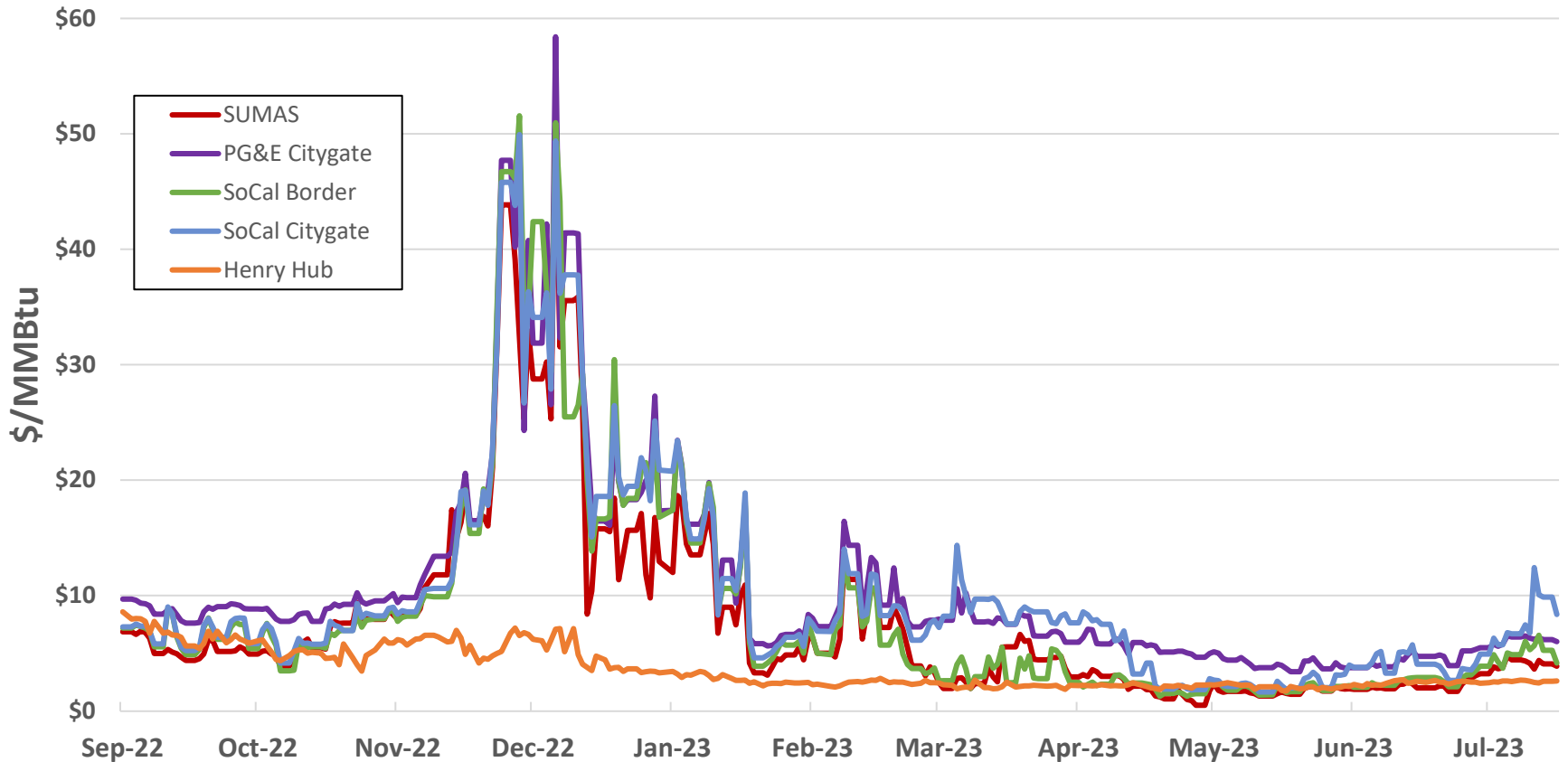




# Daily Natural Gas Prices

Sep 2022 – Jul 2023

Select Western Natural Gas Hubs  
Spot Prices



# Sep 2023 Henry Hub natural gas

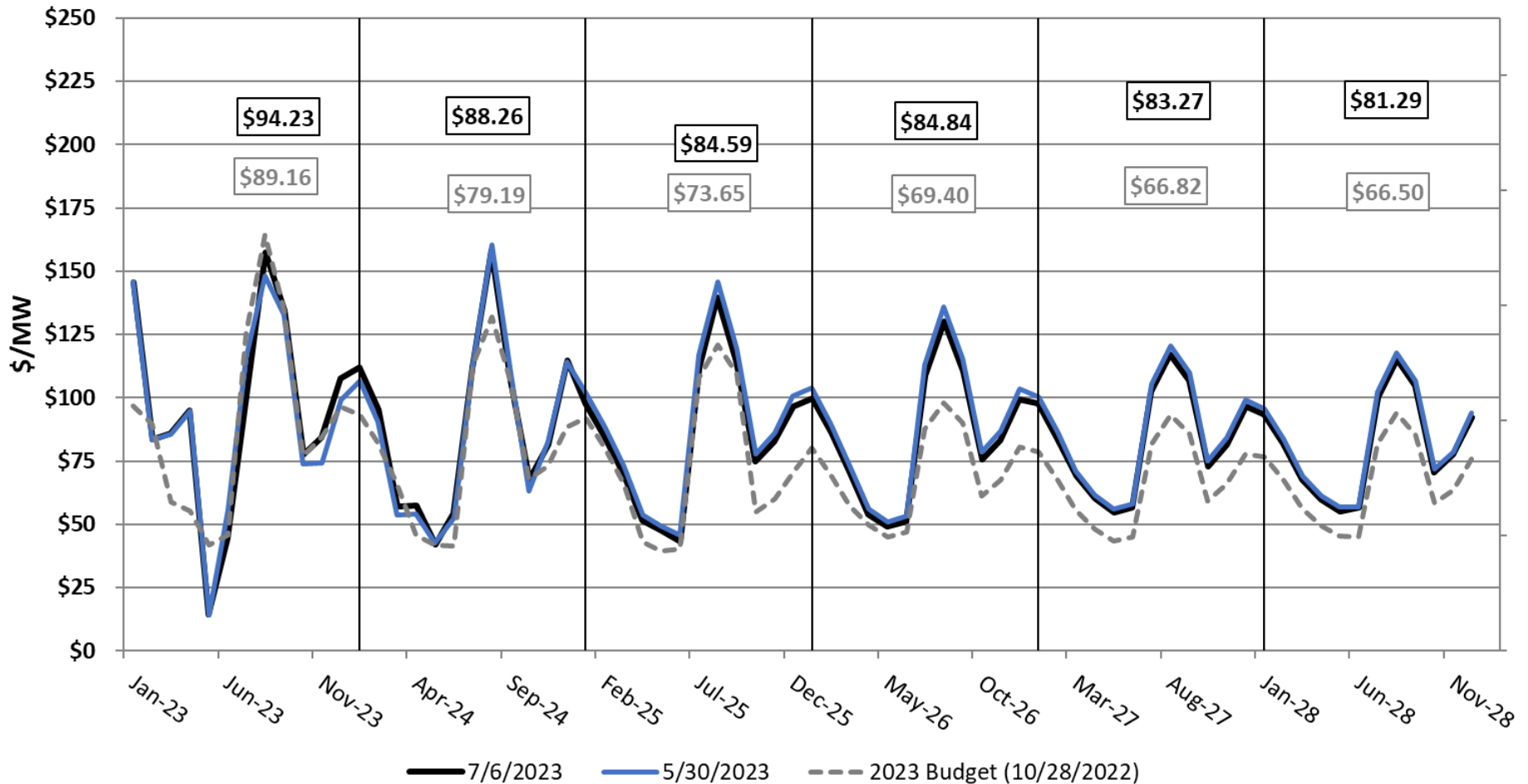


# Sep 2023 Henry Hub natural gas (price history since 2002)



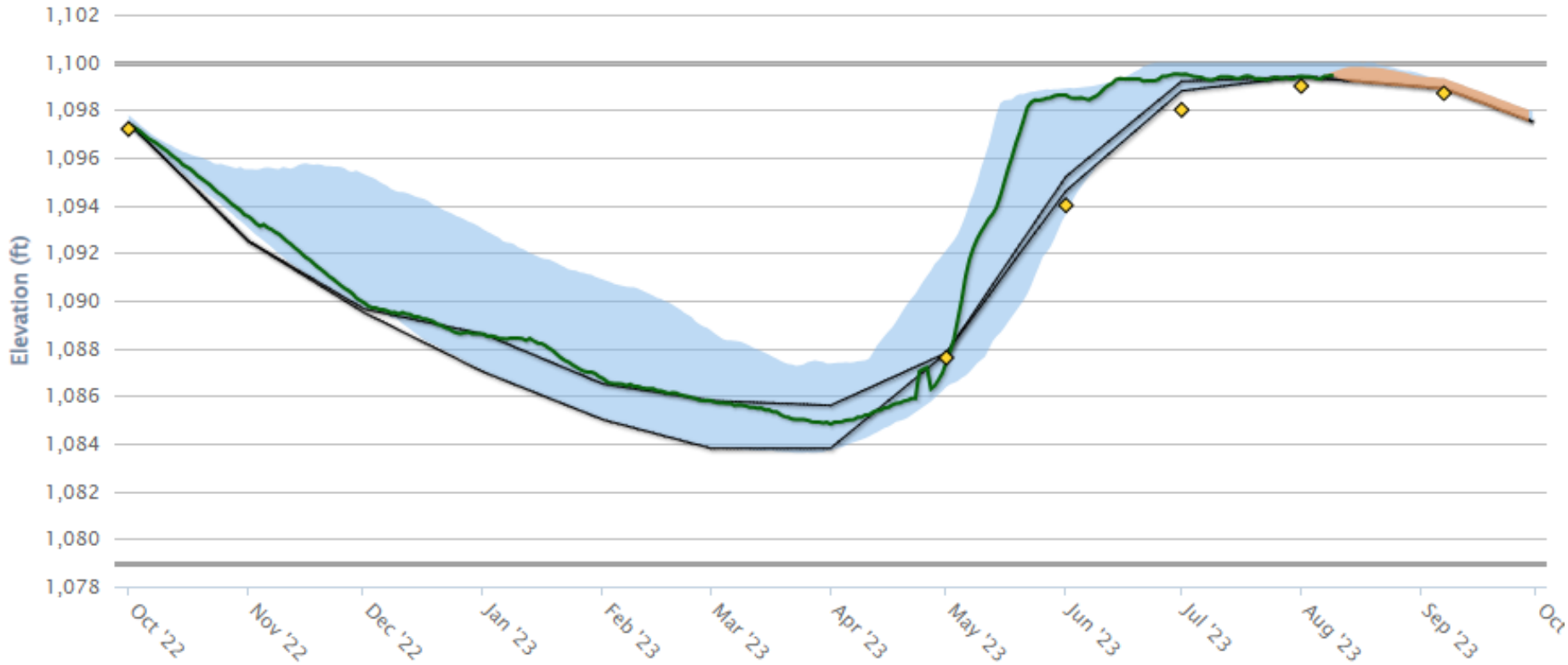
# Mid-C forward price curve

MIDC Flat Forward Price Curve  
(ICE DA index prices for previous months)



# Lake Chelan level webpage

Chelan Lake Levels: Expected Operating Ranges



- Current Year Actual Elevation (ft)
- Previous Year Actual Elevation (ft)
- Current Forecasted Operating Range (ft)
- Current Forecasted Average Elevation (ft) (50% chance of occurring)
- October 1 Forecasted Operating Range (ft)
- October 1 Forecasted Average Elevation (ft)
- Target Curve During Dry and Average Water Years (ft)
- Target Curve During Wet Water Years (ft)
- ◆ Minimum Target Elevation

# Summary

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# Questions?

# U. S. Seasonal Outlooks

August - October 2023

The seasonal outlooks combine the effects of long-term trends, soil moisture, and, when appropriate, ENSO.

