

# Quarterly Energy Resources Review

for the quarter ended September 30, 2023



## November 6, 2023

Mike Bradshaw and Janet Jaspers

# What We Will Cover Today

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

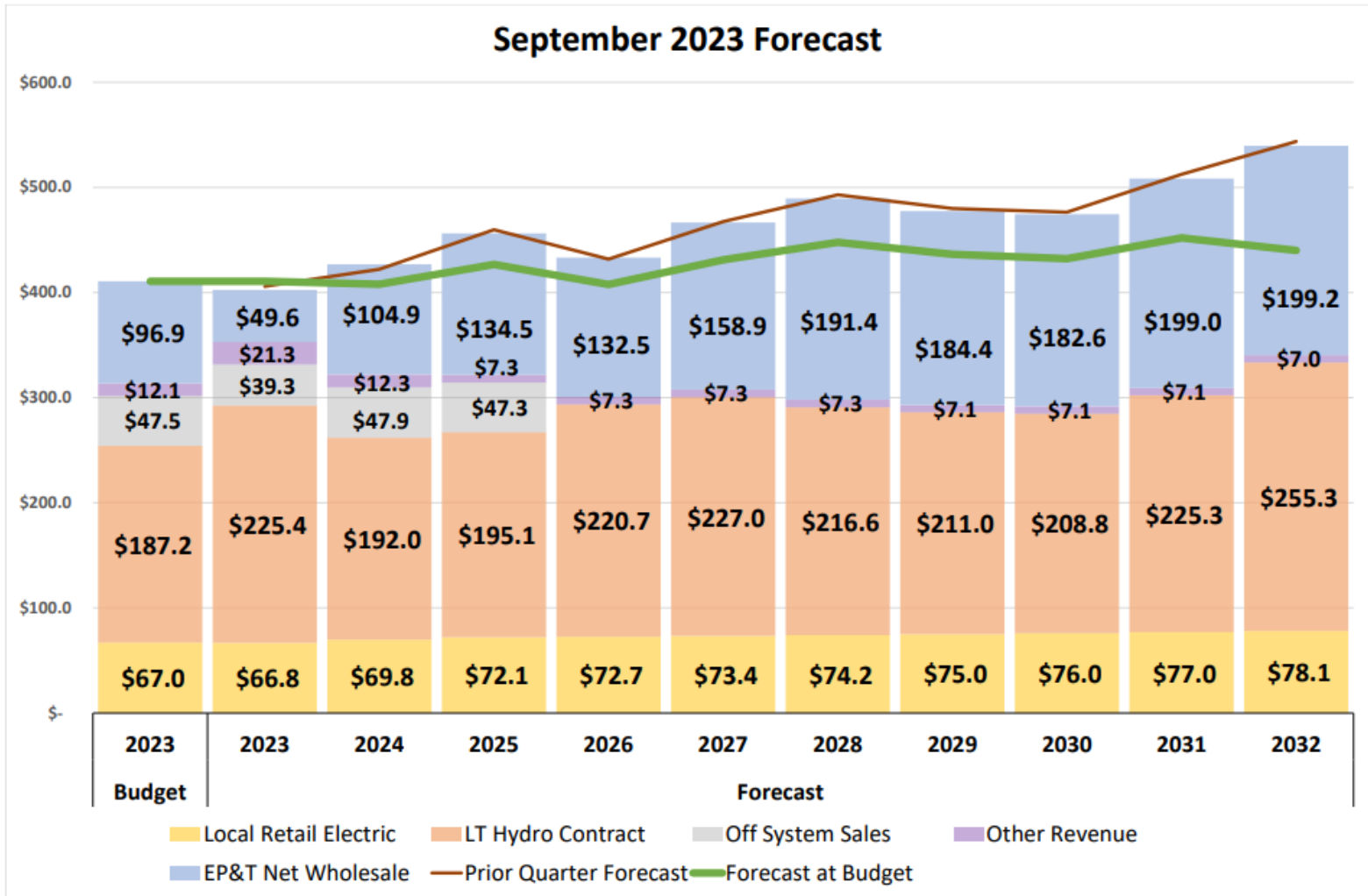
**Update only, no action required**

**Appendix: Additional detailed information not covered today**

# Key Highlights

- Below average water year in 2023, lower energy prices
  - NWR and other Energy-Related Revenue projected to be \$165M (\$8M better than budget)
  - Lower 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
  - Q4 Auction scheduled 12/06/2023
  - Current allowance pricing ~\$52/metric ton of CO<sub>2</sub>e
- Day-Ahead Market Initiatives
  - SPP
  - CAISO
  - Pathways Initiative

# 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	Q2 Variance
<b>EP&amp;T Net Wholesale Revenue (NWR)</b>				
Energy Sales/Purchases	\$ 83.7	\$ 36.3	\$ (47.3)	\$ (36.8)
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	\$ 49.6	\$ (47.3)	\$ (36.8)
<b>Off System Sales</b>				
Off System end use sales	\$ 47.5	\$ 39.3	\$ (8.2)	\$ (0.1)
<b>Other Energy-Related Revenue</b>				
LT Power Contract- Retained Surplus	\$ -	\$ 54.7	\$ 54.7	\$ 36.2
LT Power Contract- Admin Fees	\$ 3.4	\$ 3.4	\$ -	\$ -
Frequency Response & Load Shedding	\$ 1.2	\$ 1.2	\$ -	\$ -
Other [3]	\$ 0.4	\$ 3.4	\$ 3.0	\$ -
Renewables - Unbundled	\$ 0.1	\$ 0.9	\$ 0.8	\$ 0.7
Real-Time Revenue	\$ 7.0	\$ 12.3	\$ 5.3	\$ 3.5
Other Energy-Related Sub-total	\$ 12.1	\$ 75.9	\$ 63.8	\$ 40.3
<b>NWR and Other Energy-Related Revenue</b>	<b>\$ 156.5</b>	<b>\$ 164.8</b>	<b>\$ 8.3</b>	<b>\$ 3.5</b>

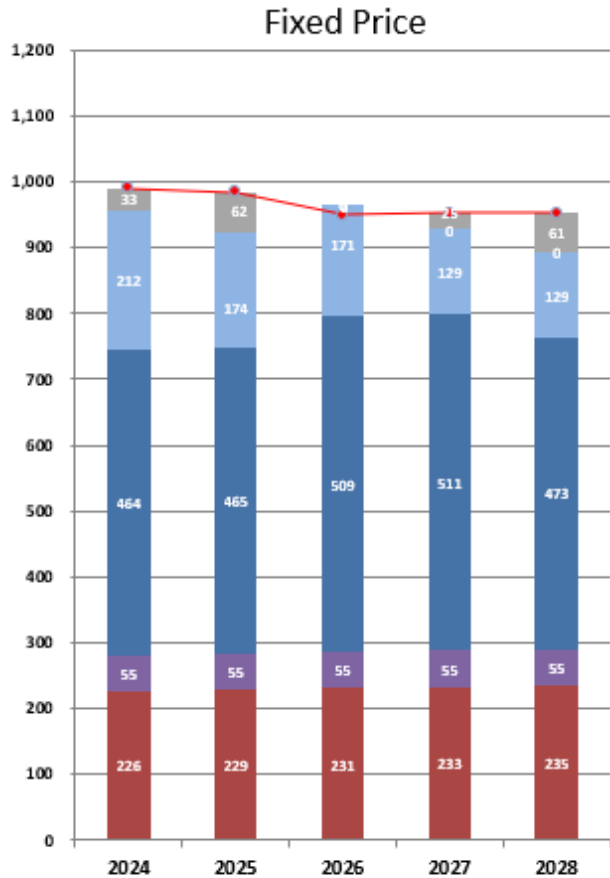
[1] 2023 forecast based Jan - Sep actual and Oct - Dec estimates (10/5/23 NWR forecast)

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

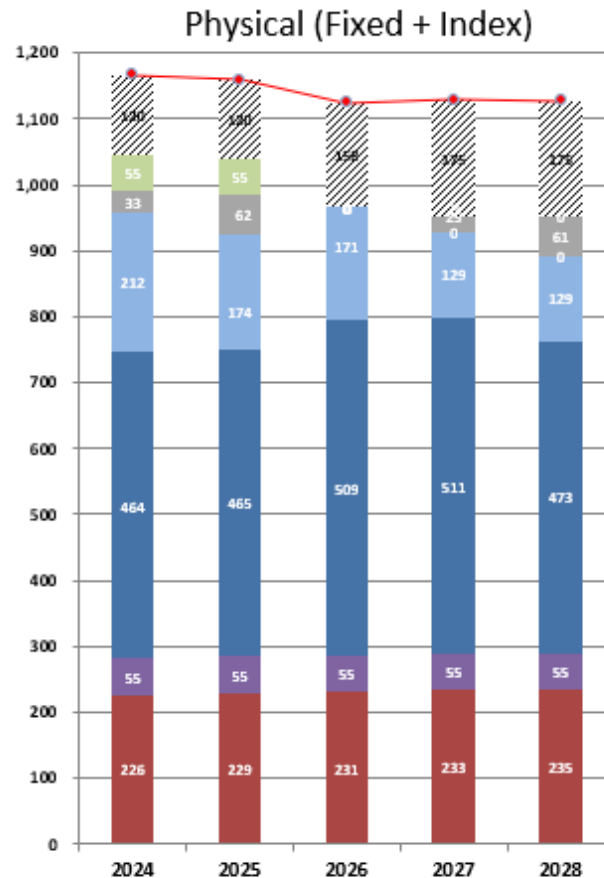
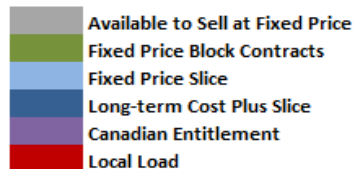
[3] Other includes scheduling, carbon allowance proceeds & admin fees and the sale of reserves



# District's Energy Commitments



◆ Hedge Max Fixed \*



◆ Hedge Max Physical \*\*



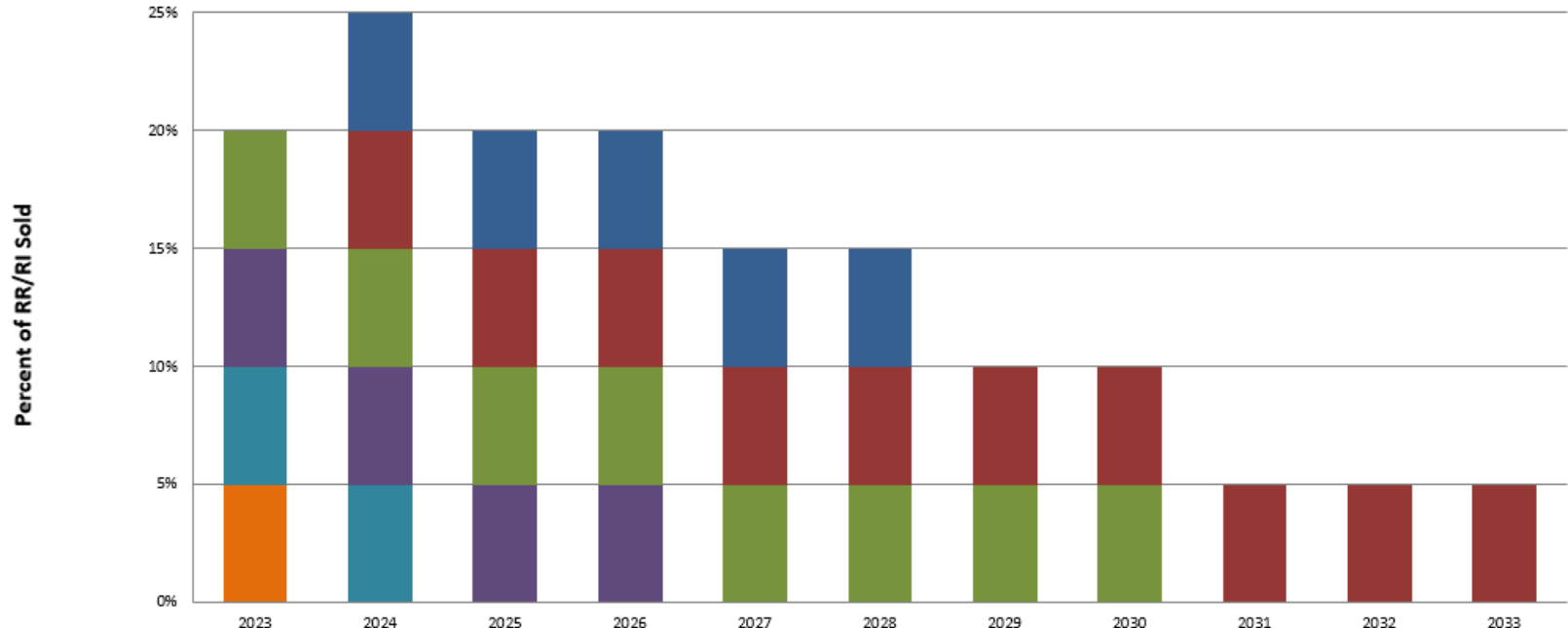
(Average MW)

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

\*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)

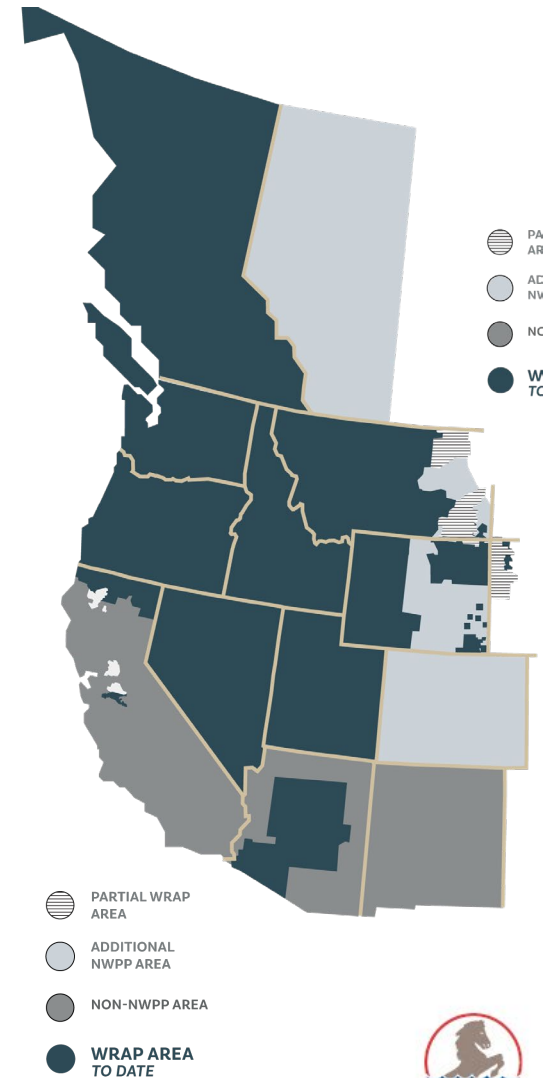
- Nonbinding Forward Showing submittals
- Testing of nonbinding operational program began 11/1/23

## Climate Commitment Act (CCA)

- Next regularly scheduled quarterly auction on 12/6/2023
- Allowances currently trading \$52/metric ton of CO<sub>2</sub>e in secondary market
- Electric utilities received 2024 no cost allowances

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

- SPP Markets+ meetings continue for Phase 1 development – tariff filing expected early 2024
- CAISO EDAM tariff filed at FERC for approval
- Western regulators Pathways Initiative (Independent governance and west wide market including California) meetings have begun

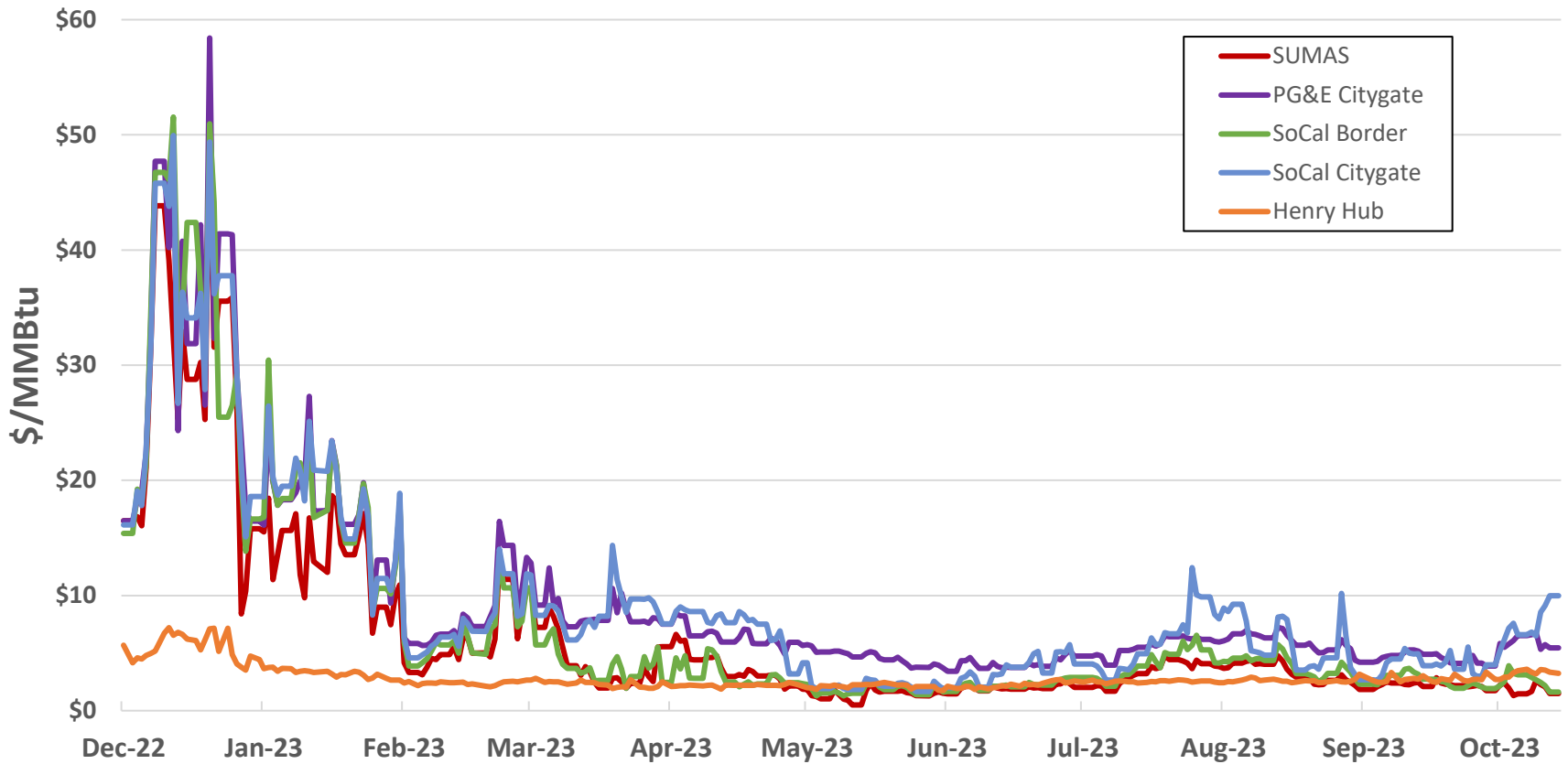




# Daily Natural Gas Prices

Dec 2022 – Oct 2023

Select Western Natural Gas Hubs  
Spot Prices



# Dec 2023 Henry Hub natural gas

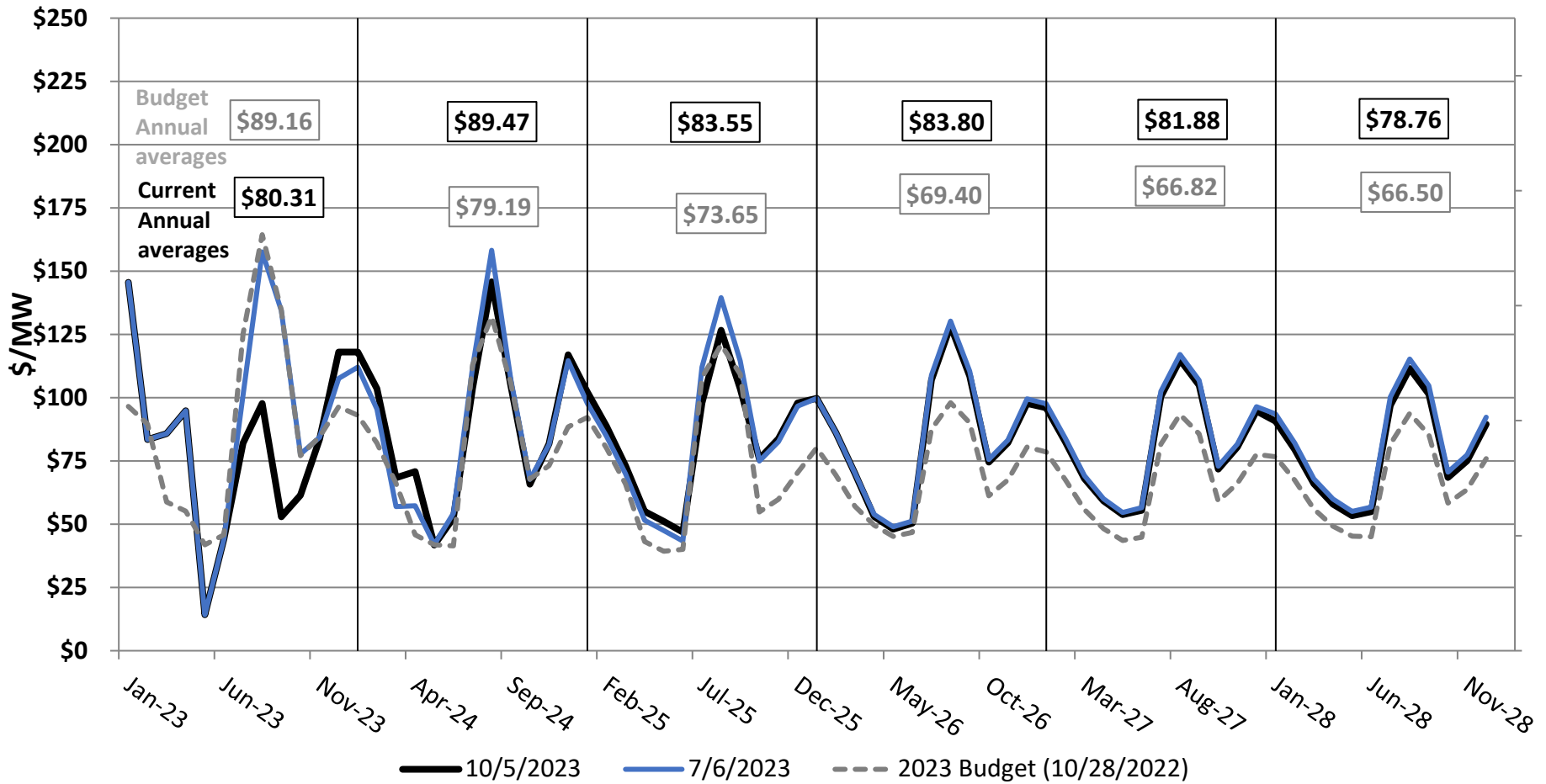


# Dec 2023 Henry Hub natural gas (price history since 2002)



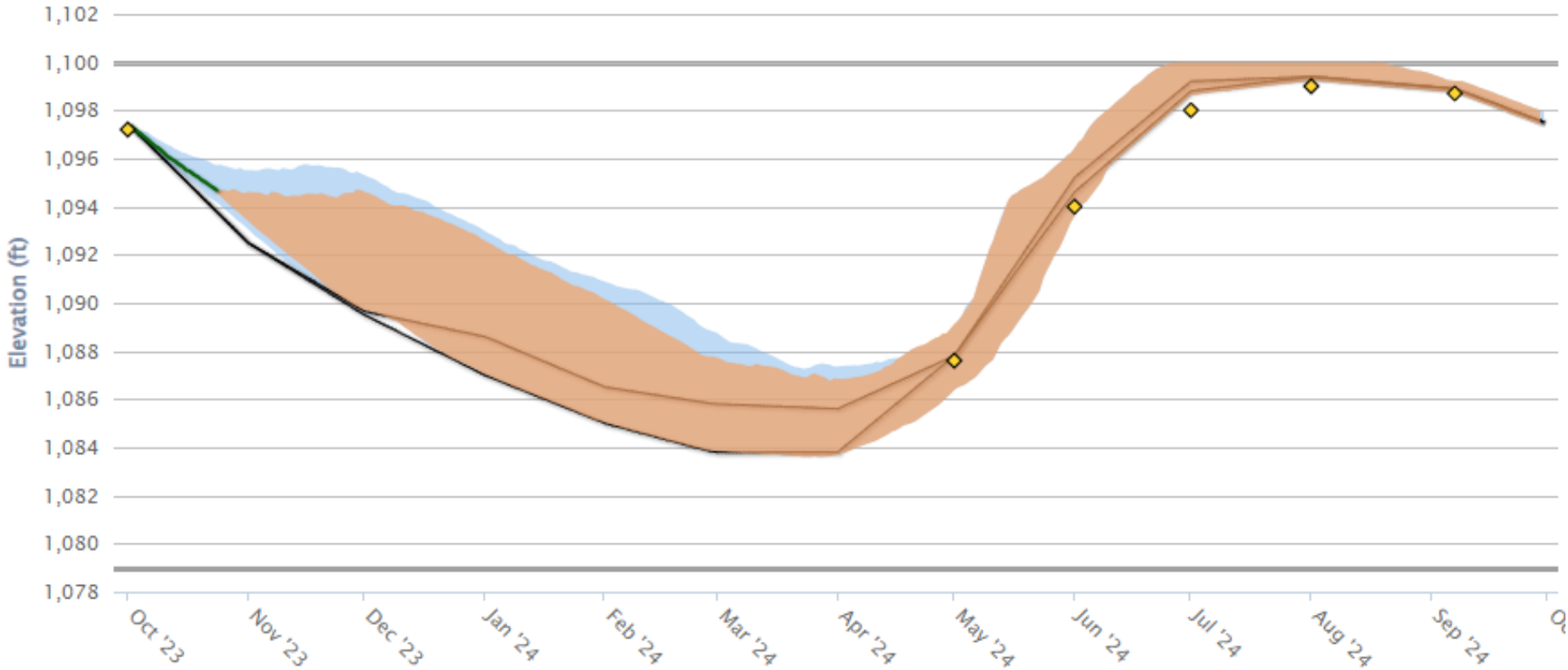
# Mid-C forward price curve

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

# Q3 2023 Summary

- Below average water year in 2023, lower energy prices
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# Questions?

# U. S. Seasonal Outlooks

November 2023 - January 2024

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

