

Energy Resources Quarterly Board Update 2022 Q2

August 15, 2022

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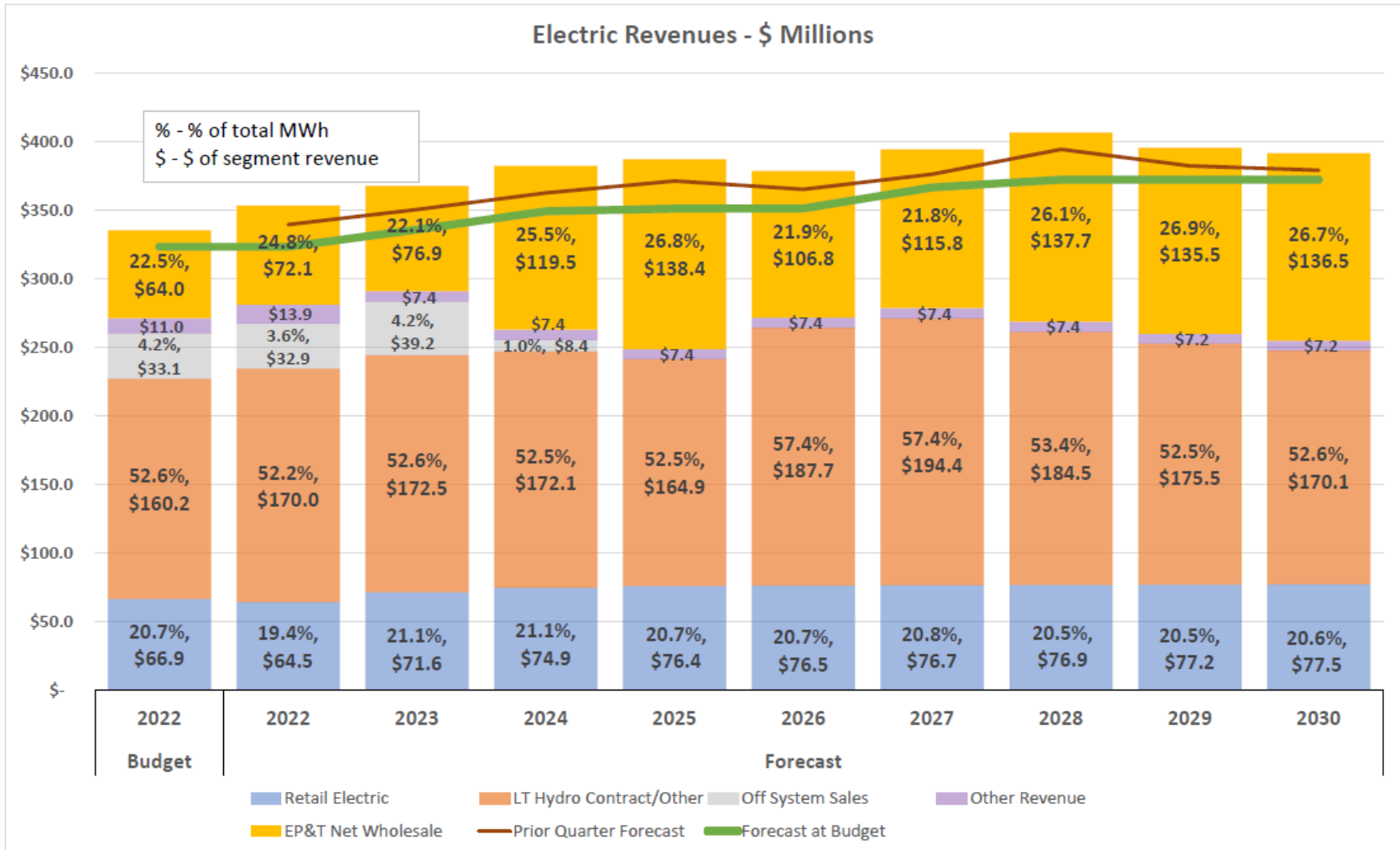
Why We're Here

- 2022 net wholesale revenue forecast update
- Western Power Markets update
- Operations and planning
 - Portfolio overview
 - Pricing update

Key points

- The 2022 net wholesale revenue forecast is \$72 million and is \$8 million better than budget. After adding in other energy related revenue, the revenue forecast is \$135 million and \$27 million better than budget
- Western Resource Adequacy Program (WRAP) continues to advance
- Western Market update
 - California Independent System Operator (CAISO) Extended Day Ahead Market (EDAM)
 - Southwestern Power Pool (SPP) Markets+

Electric Revenues Forecast - \$ Millions



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

2022 NWR and Other Energy-Related Revenue

(amounts in millions)

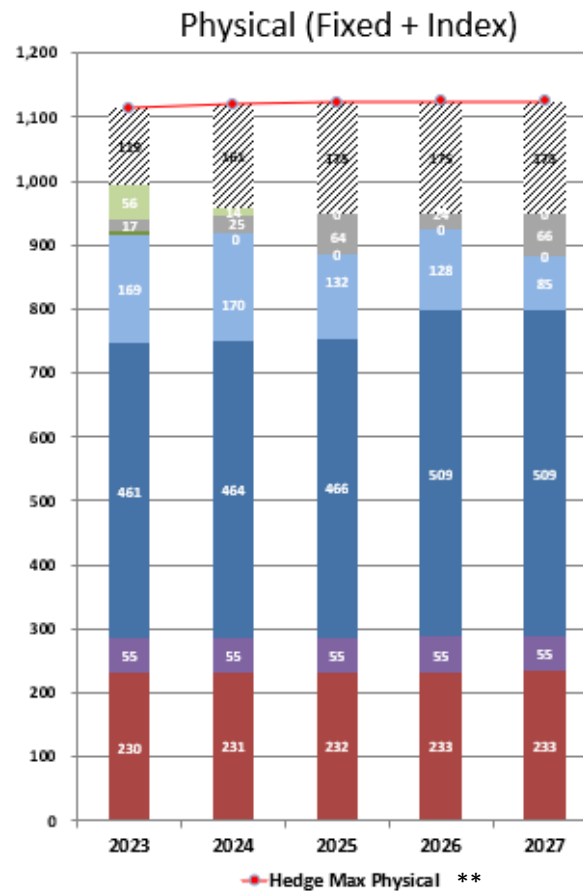
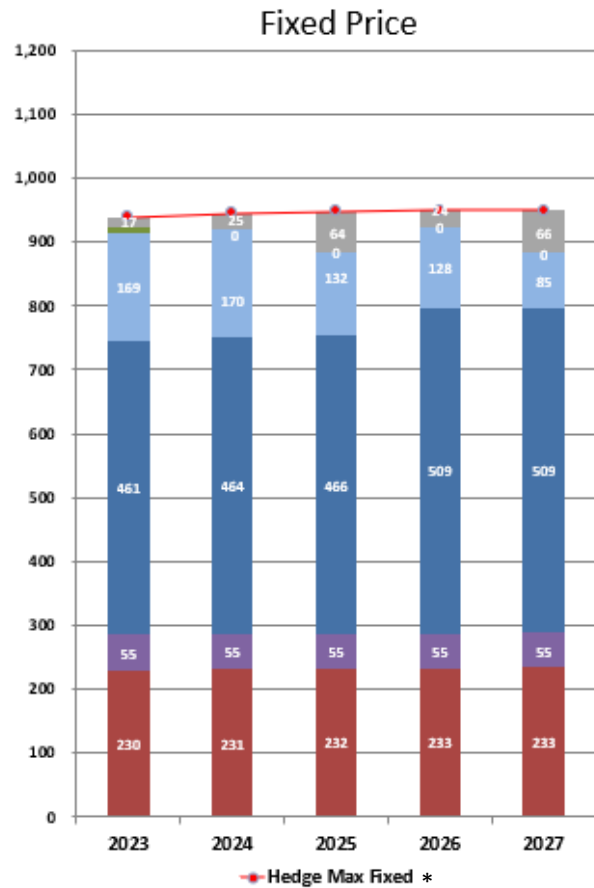
	Budget	Forecast [1]	Variance
EP&T Net Wholesale Revenue (NWR)			
Energy Sales/Purchases	\$ 54.4	\$ 62.5	\$ 8.0
Specified Source Premium	\$ 9.6	\$ 9.6	-
Renewables - Bundled	\$ -	\$ 0.0	\$ 0.0
NWR Sub-total [2]	\$ 64.0	\$ 72.1	\$ 8.1
Off System Sales			
Off System end use sales	\$ 33.1	\$ 32.9	\$ (0.2)
Other Energy-Related Revenue			
LT Power Contract- Retained Surplus	\$ -	\$ 16.2	\$ 16.2
LT Power Contract- Admin Fees	\$ 2.8	\$ 2.8	-
Frequency Response & Load Shedding	\$ 1.0	\$ 1.0	-
Other [3]	\$ 0.2	\$ 0.2	-
Renewables - Unbundled	\$ 0.1	\$ 0.5	\$ 0.4
Real-Time Revenue	\$ 7.0	\$ 9.1	\$ 2.1
Other Energy-Related Sub-total	\$ 11.1	\$ 29.8	\$ 29.8
NWR and Other Energy-Related Revenue	\$ 108.1	\$ 134.7	\$ 26.6

[1] 2022 forecast based Jan - Jun actuals and Jul-Dec estimates (7/7/22 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



(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

Fixed Price Slice Products



	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
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%	5.0%			
Slice Product 35 - Puget Sound Energy	5.0%	5.0%	5.0%	5.0%	5.0%							
Slice Product 34 - Powerex	5.0%	5.0%	5.0%									
Slice Product 30 - Avangrid	5.0%	5.0%										
Slice Product 29 - Morgan	5.0%											

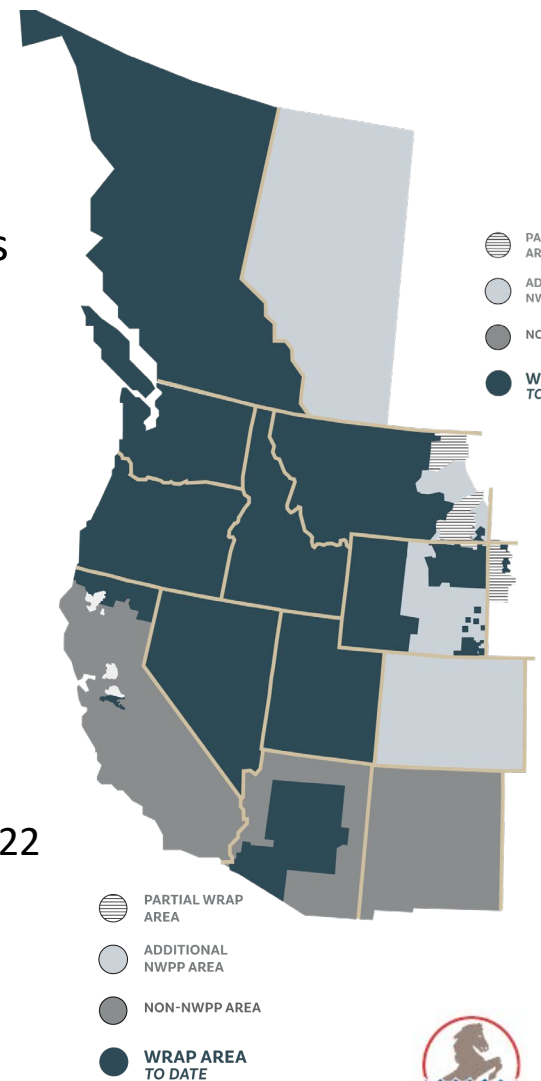
Major changes in the western power market

Western Resource Adequacy Program (WRAP)

- Look for binding program to start in 2025
- Potential to limit 10% of long-term contracting because of our high winter peak without mitigations

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

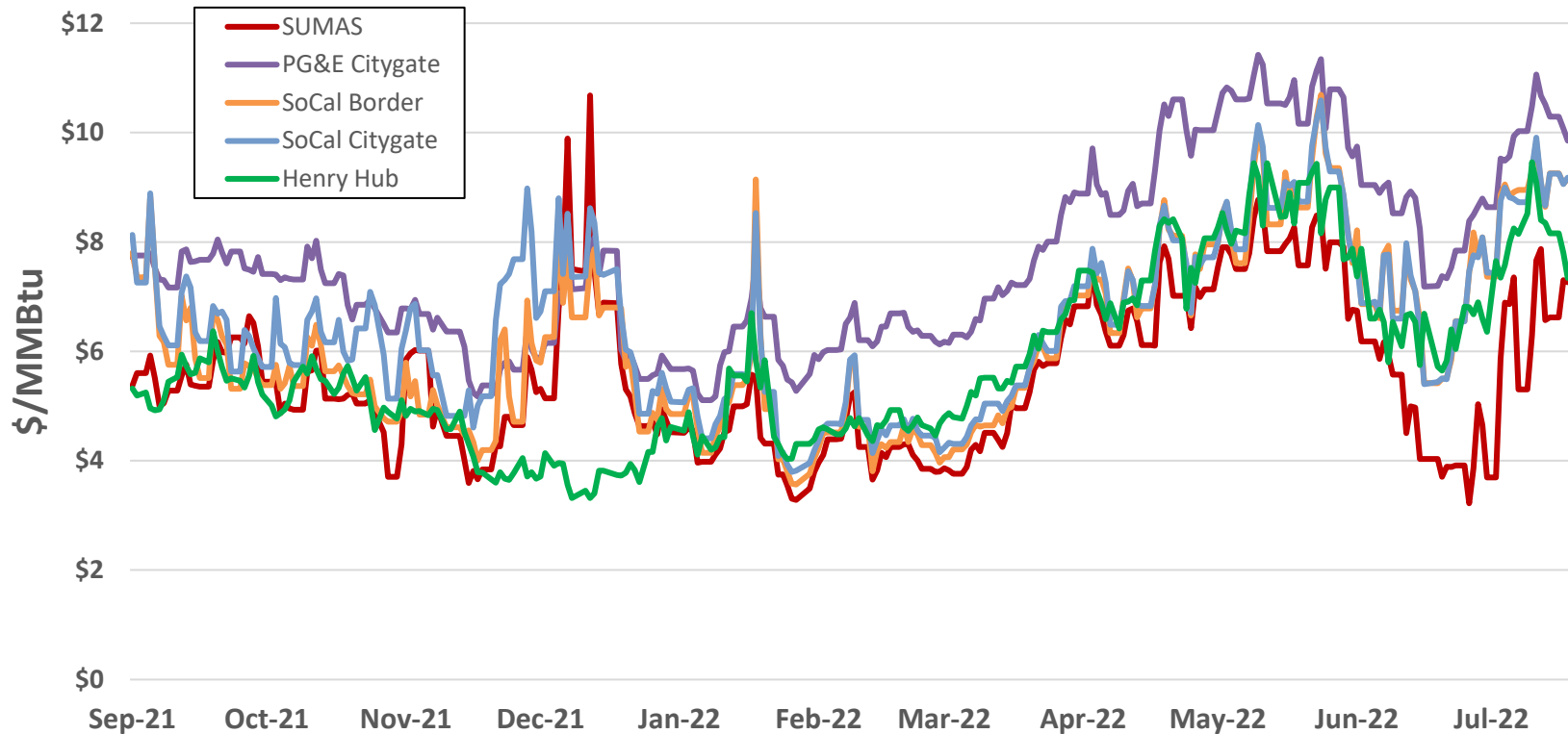
- The District joined the Western Market Exploratory Group (WMEG) to study market options
- CAISO EDAM
 - Continued development of CAISO EDAM market design
 - Aiming for EDAM 2024 go-live
- SPP Markets+
 - Markets+ Draft Service Offering expected September 2022
 - Markets+ Commitment to Investigate Q1 2023
- May decide to join a market based on illiquidity at Mid-C or based on economics



Daily Natural Gas Prices

Sep 2021 – Jul 2022
at selected hubs

Select Western Natural Gas Hubs
Spot Prices



Sep 2022 Henry Hub natural gas

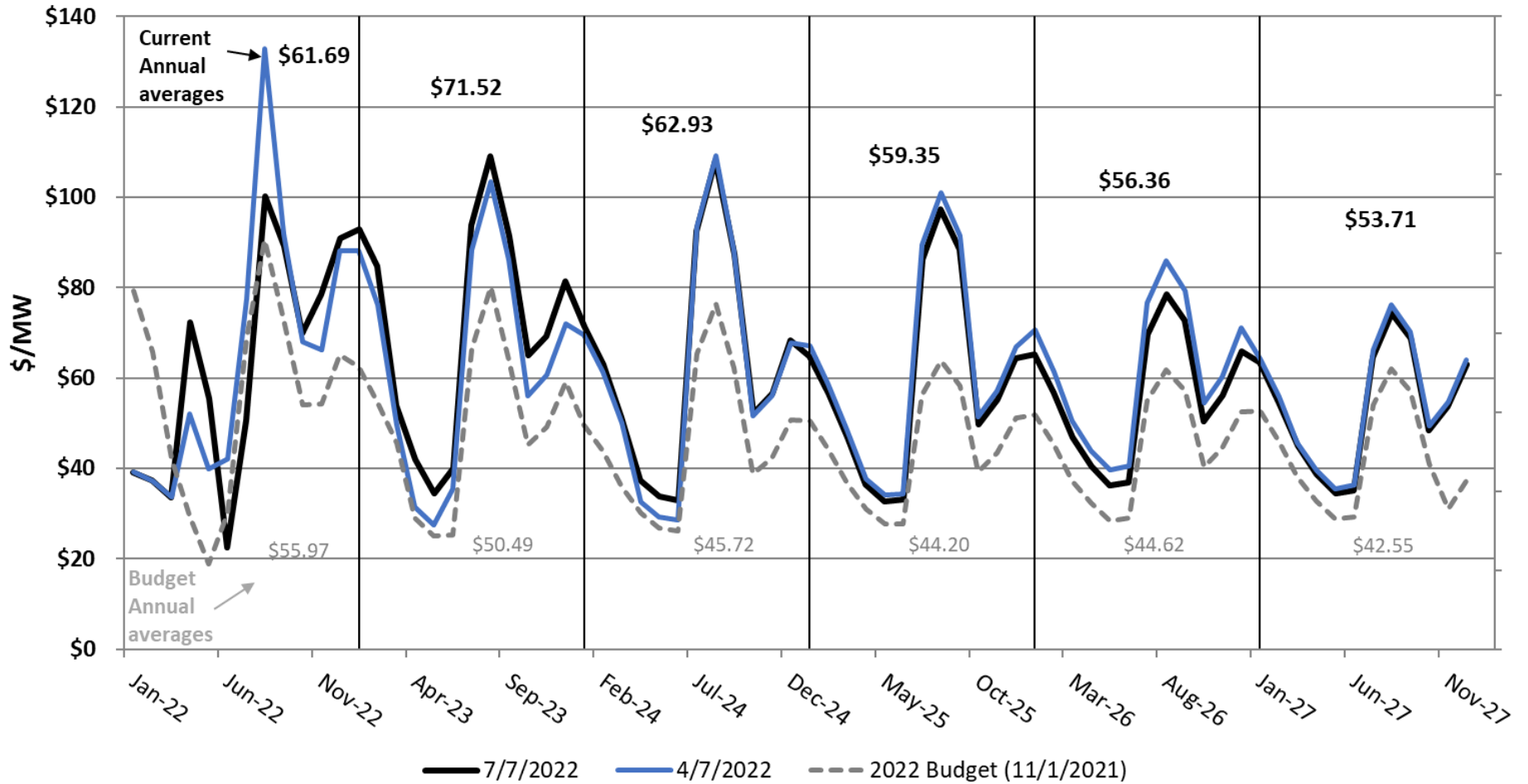


Sep 2022 Henry Hub natural gas (price history since 2002)



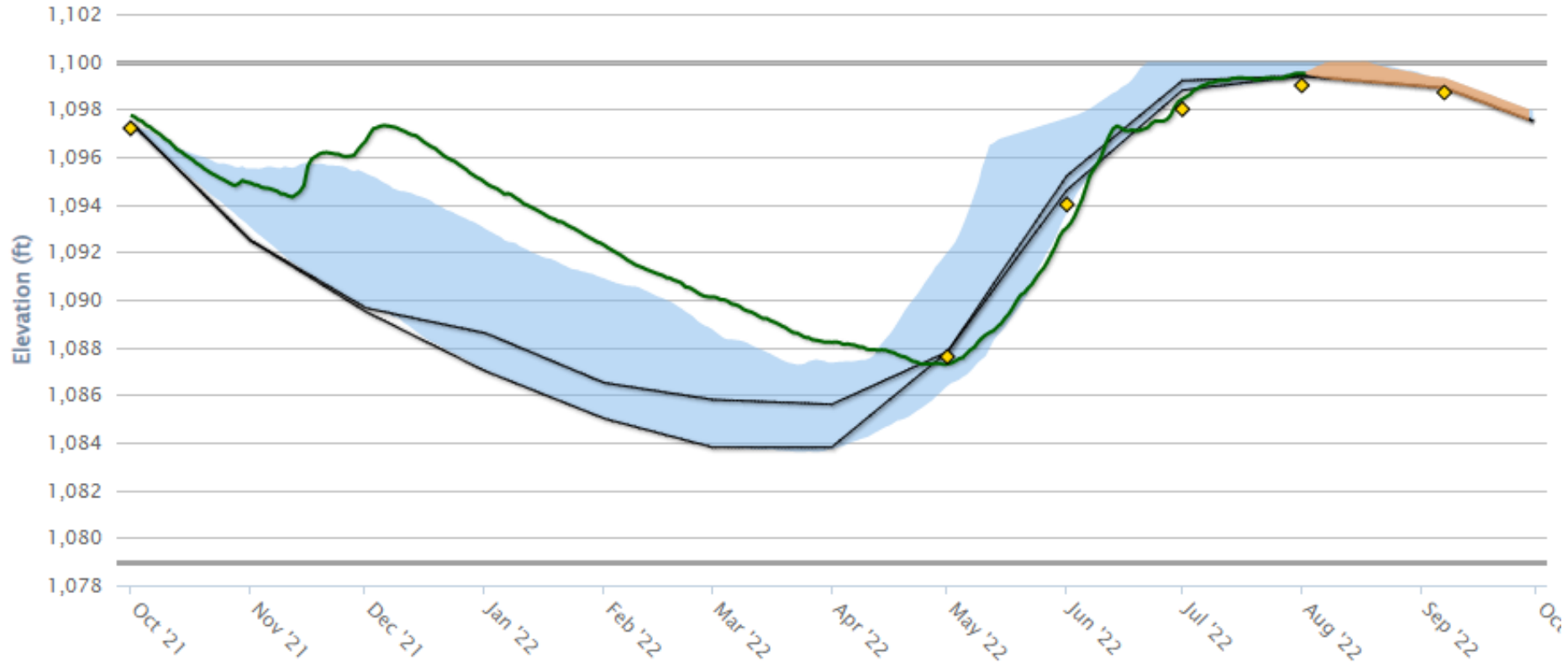
MIDC forward price curve

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

- The 2022 net wholesale revenue forecast is \$72 million and is \$8 million better than budget. After adding in other energy related revenue, the revenue forecast is \$135 million and \$27 million better than budget
- Western Resource Adequacy Program (WRAP) continues to advance
 - Could impact our long-term contracting without mitigation
- Western Market momentum continues
 - CAISO EDAM and SPP Markets+ day ahead markets in process
 - May decide to join a market based on illiquidity at Mid-C or based on economics

Questions?