

Quarterly Energy Resources Review

for the quarter ended June 30, 2024



August 5, 2024
Mike Bradshaw

What We Will Cover Today

- Net wholesale revenue (NWR) and other energy-related revenue update
- Western power markets update
- Operations and planning

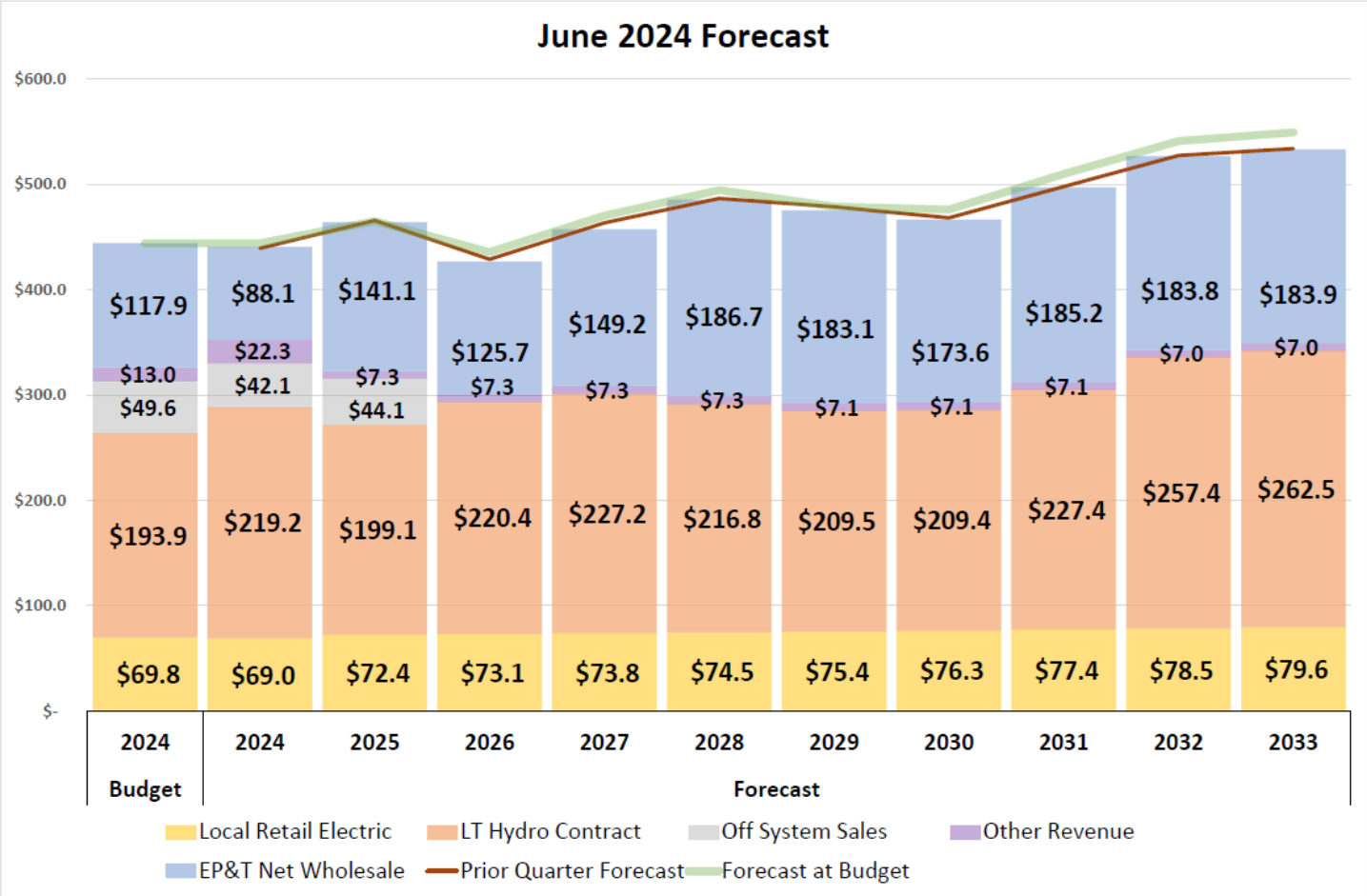
Update only, no action required

Appendix: Additional detailed information not covered today

Q2 2024 Key Highlights

- Revenue forecast above budget, water forecast below average
 - NWR and other energy-related revenue is forecasted to be \$183M (~\$3M above budget)
 - Columbia River water supply forecast is 76% of normal for Jan – Jul
- Climate Commitment Act (CCA)
 - WA allowance prices dropped drastically in past 6 months – WA initiative 2117
- Day-Ahead Market Initiatives
 - SPP Markets+
 - Planning to fund Phase 2 if Board approves
 - California Independent System Operator (CAISO) Extended Day Ahead Market (EDAM)
 - Pathways Initiative

Electric Revenues Forecast - \$ Millions



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

2024 NWR and Other Energy-Related Revenue

(\$ Millions)

	Budget	Forecast[1]	Variance
EP&T Net Wholesale Revenue (NWR)			
Energy Sales/Purchases	\$ 91.8	\$ 60.7	\$ (31.1)
Specified Source Premium	\$ 25.4	\$ 26.8	\$ 1.4
Renewables - Bundled	\$ 0.6	\$ 0.6	\$ -
NWR Sub-total [2]	\$ 117.9	\$ 88.1	\$ (29.7)
Off System Sales			
Off System end use sales	\$ 49.5	\$ 42.1	\$ (7.4)
Other Energy-Related Revenue			
LT Power Contract- Retained Surplus	\$ -	\$ 30.4	\$ 30.4
LT Power Contract- Admin Fees	\$ 4.1	\$ 4.1	\$ -
Frequency Response & Load Shedding	\$ 1.2	\$ 1.2	\$ -
Other [3]	\$ 0.6	\$ 7.2	\$ 6.6
Renewables - Unbundled	\$ 0.1	\$ 1.2	\$ 1.1
Real-Time Revenue	\$ 7.0	\$ 8.6	\$ 1.6
Other Energy-Related Sub-total	\$ 13.0	\$ 52.7	\$ 39.7
NWR and Other Energy-Related Revenue	\$ 180.3	\$ 182.9	\$ 2.6

[1] 2024 forecast based Jan - Jun actuals Jul-Dec estimates (7/9/24 NWR forecast)

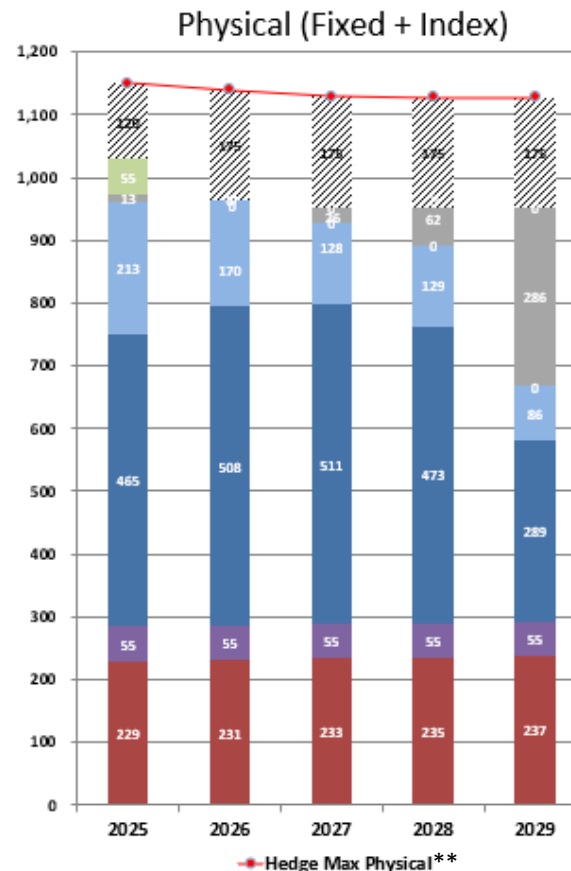
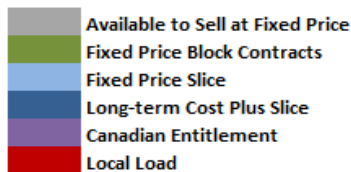
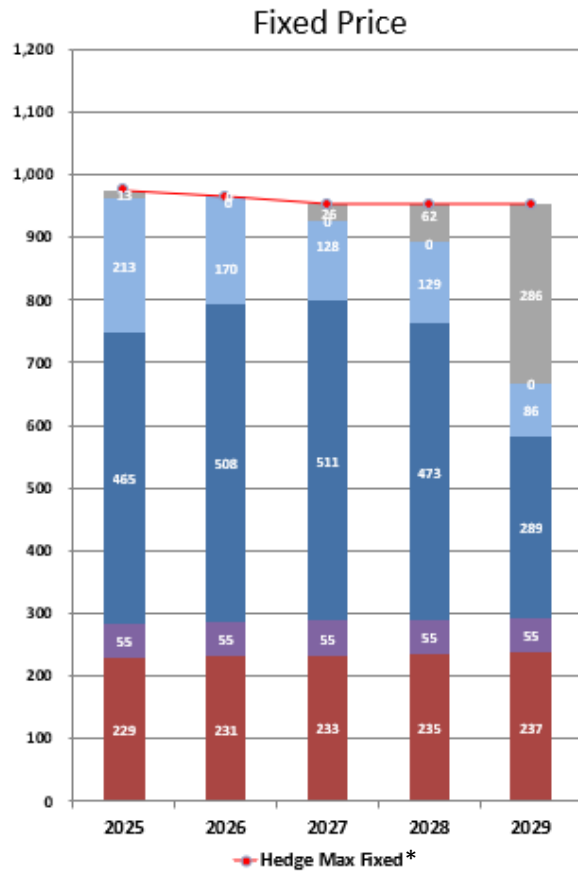
[2] NWR includes PWX specified source sale/full requirements purchase and transmission pass through costs

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



District's Energy Commitments

(Average MW)

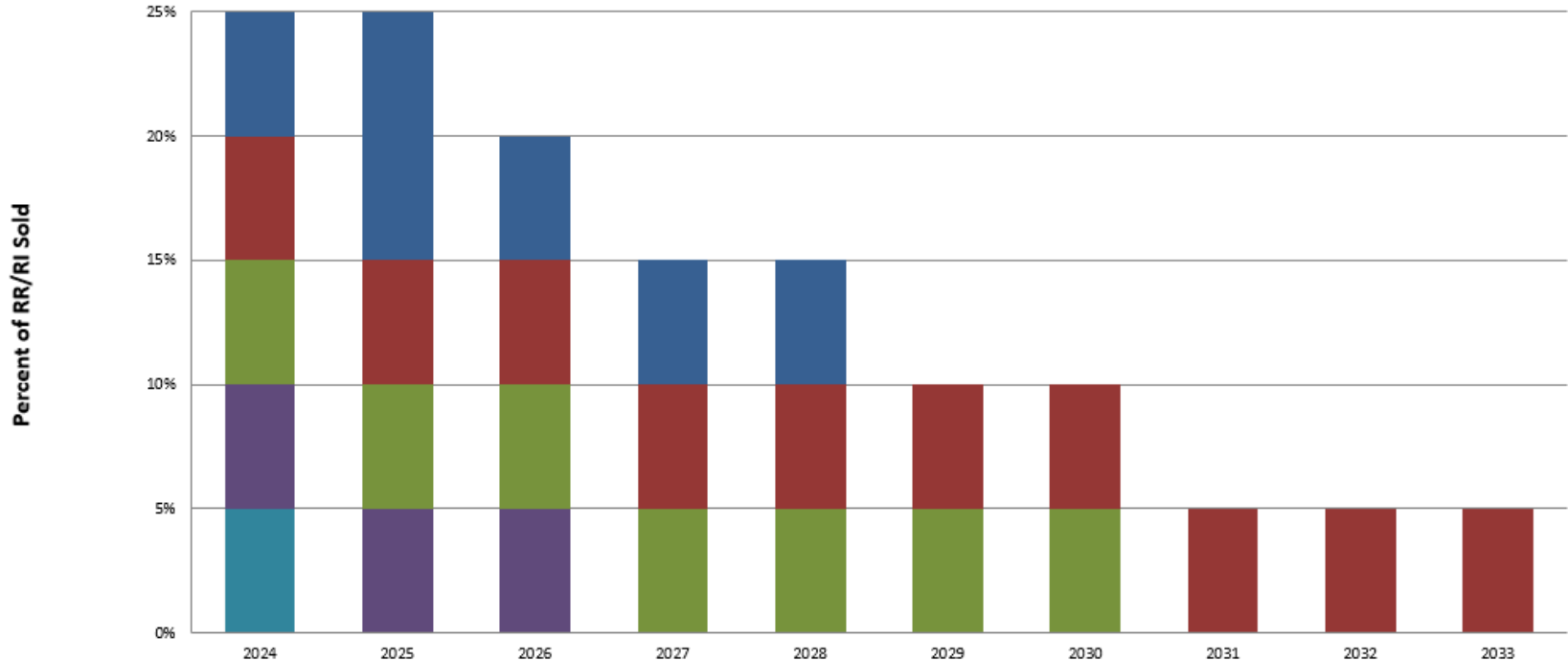


Note: The graphs represent the limits contained in resolution 20-14439 approved by the Board on March 23, 2020.

*Hedge Max Fixed = stress water generation

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

Fixed Price Slice Contracts



	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
■ Slice Product 38 - Puget Sound Energy	5.0%	10.0%	5.0%	5.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%
■ 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%	0.0%	0.0%	0.0%
■ Slice Product 35 - Puget Sound Energy	5.0%	5.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
■ Slice Product 34 - Powerex	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

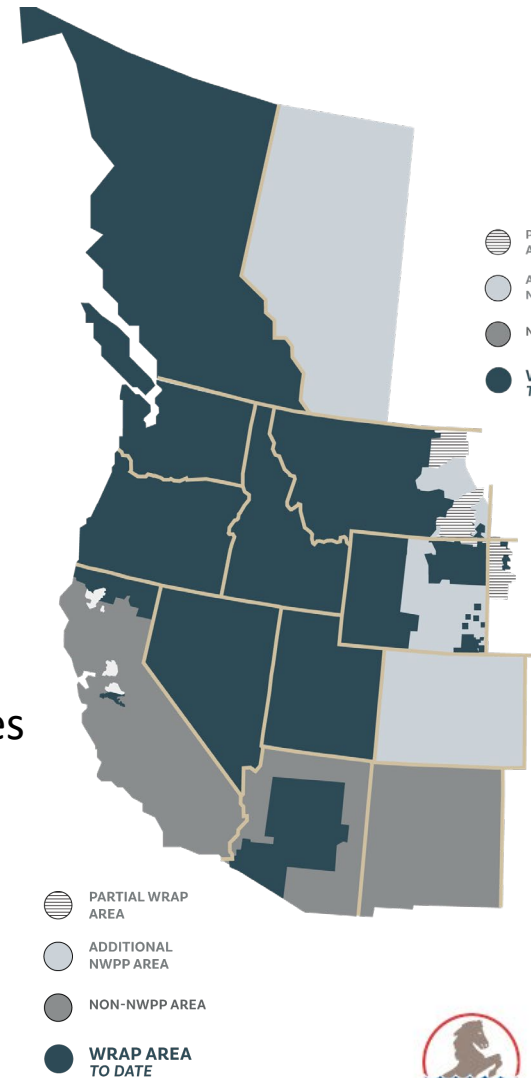
Changes in the Western Power Market

Western Resource Adequacy Program (WRAP)

- Western Power Pool assessing how program may have performed during cold snap in Jan 2024
- Continue non-binding Forward Showing submittals & operational program
- Business Practice Manuals being drafted/approved

Climate Commitment Act (CCA)

- Next regularly scheduled quarterly auction on 09/04/2024
- Allowances currently trading \$35/metric ton of CO₂e in secondary market
- Electric utilities have submitted updated cost burden estimates in July 2024

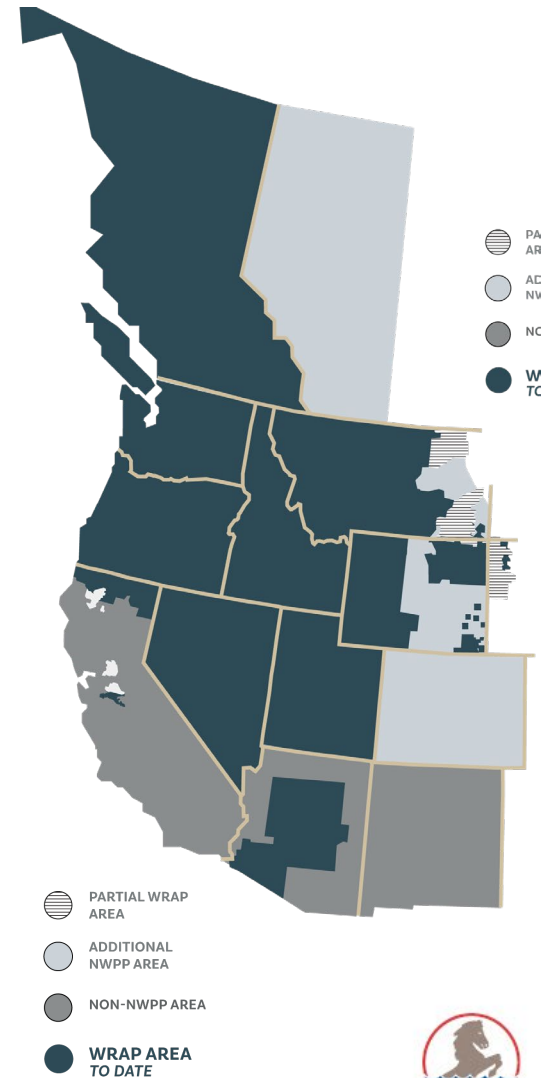


Changes in the Western Power Market

(Continued)

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

- SPP Markets+ tariff filed on March 29th
 - Chelan plans to fund Phase 2 pending BOC approval
 - Chelan staff working on M+ protocol development
- CAISO EDAM tariff approved by FERC
- Westwide Governance Pathways Initiative (WWGPI or Pathways) Effort continues work to scope out new regional organization that would govern market operated by CAISO



WRAP Planning Reserve Margin (PRM)

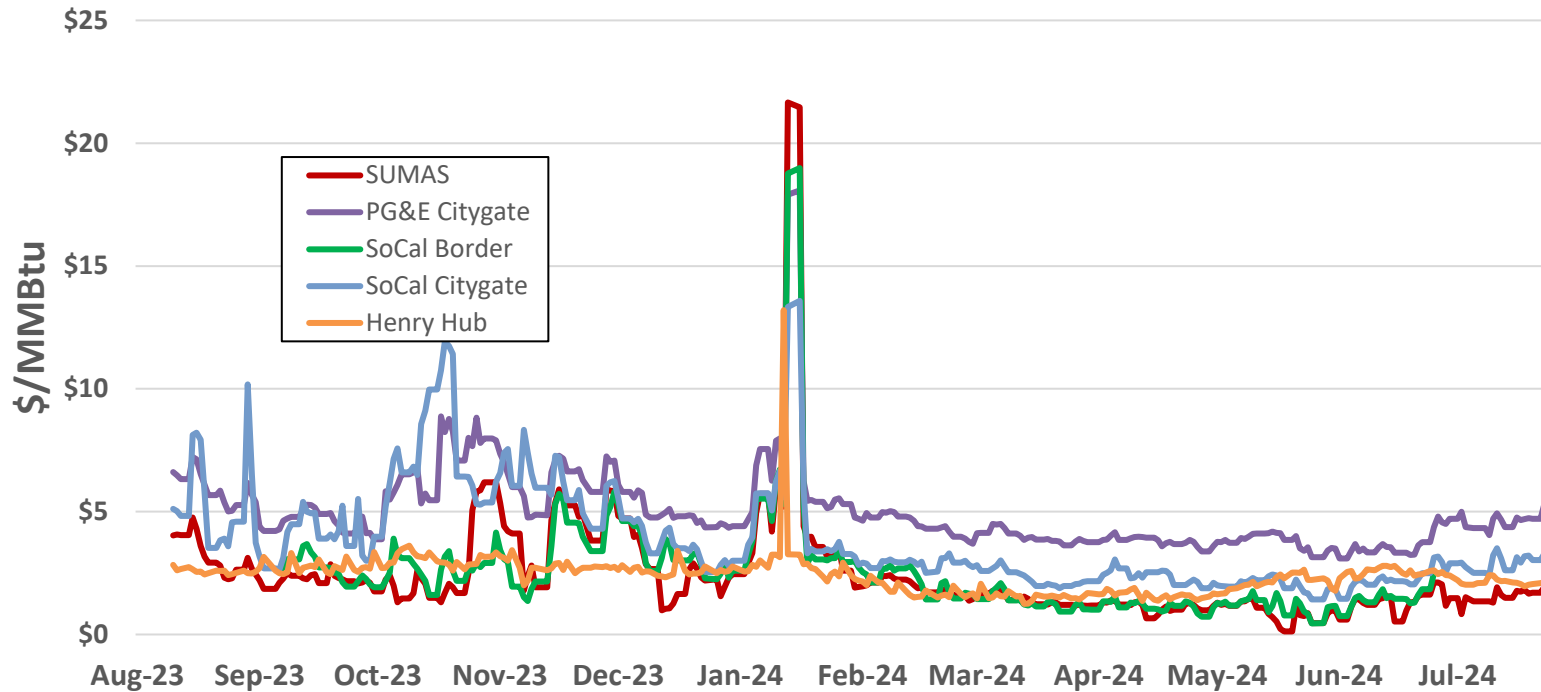
Season	Subregion		June	July	August	September	November	December	January	February	March
Winter 2023-2024	MidC	Not Advisory					21.6%	17.7%	19.0%	19.9%	26.9%
	SWEDE	Not Advisory					20.1%	16.8%	16.9%	21.5%	21.9%
Summer 2024	MidC	Not Advisory	16.5%	10.4%	10.3%	17.9%					
	SWEDE	Not Advisory	17.8%	12.1%	12.8%	20.3%					
Winter 2024-2025	MidC	Not Advisory					19.7%	17.1%	17.5%	18.4%	26.1%
	SWEDE	Not Advisory					19.2%	17.7%	18.0%	23.1%	21.2%
Summer 2025	MidC	Not Advisory	26.2%	14.5%	16.1%	16.2%					
	SWEDE	Not Advisory	18.6%	14.4%	13.7%	26.1%					
Winter 2025-2026	MidC	Not Advisory					TBA by 6/30/2024	TBA by 6/30/2024	TBA by 6/30/2024	TBA by 6/30/2024	TBA by 6/30/2024
	SWEDE	Not Advisory					TBA by 6/30/2024	TBA by 6/30/2024	TBA by 6/30/2024	TBA by 6/30/2024	TBA by 6/30/2024
Summer 2026	MidC	Not Advisory	TBA by 1/31/2025	TBA by 1/31/2025	TBA by 1/31/2025	TBA by 1/31/2025					
	SWEDE	Not Advisory	TBA by 1/31/2025	TBA by 1/31/2025	TBA by 1/31/2025	TBA by 1/31/2025					
Winter 2026-2027	MidC	Not Advisory					TBA by 6/30/2025	TBA by 6/30/2025	TBA by 6/30/2025	TBA by 6/30/2025	TBA by 6/30/2025
	SWEDE	Not Advisory					TBA by 6/30/2025	TBA by 6/30/2025	TBA by 6/30/2025	TBA by 6/30/2025	TBA by 6/30/2025
Summer 2027	MidC	Not Advisory	TBA by 1/31/2026	TBA by 1/31/2026	TBA by 1/31/2026	TBA by 1/31/2026					
	SWEDE	Not Advisory	TBA by 1/31/2026	TBA by 1/31/2026	TBA by 1/31/2026	TBA by 1/31/2026					
Winter 2027-2028	MidC	Not Advisory					TBA by 6/30/2026	TBA by 6/30/2026	TBA by 6/30/2026	TBA by 6/30/2026	TBA by 6/30/2026
	SWEDE	Not Advisory					TBA by 6/30/2026	TBA by 6/30/2026	TBA by 6/30/2026	TBA by 6/30/2026	TBA by 6/30/2026
Summer 2028	MidC	Not Advisory	TBA by 1/31/2027	TBA by 1/31/2027	TBA by 1/31/2027	TBA by 1/31/2027					
	SWEDE	Not Advisory	TBA by 1/31/2027	TBA by 1/31/2027	TBA by 1/31/2027	TBA by 1/31/2027					



Daily Natural Gas Prices

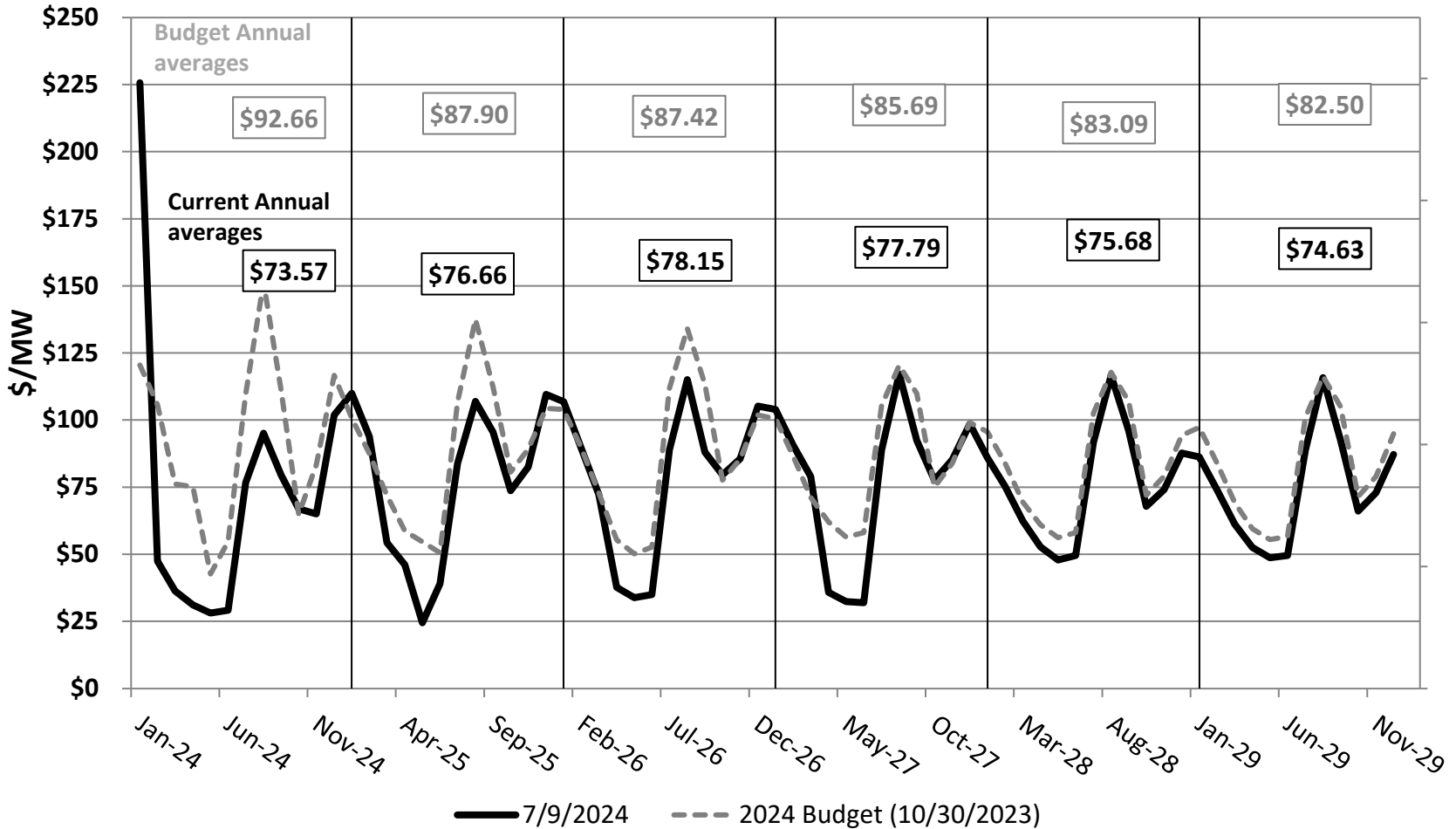
Aug 2023 – Jun 2024

Select Western Natural Gas Hubs Spot Prices



Mid-C forward price curve

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



Water Year 2024: Water Supply forecast

Water Supply Forecasts COLUMBIA - GRAND COULEE DAM Period JAN to JUL – Water Year 2024

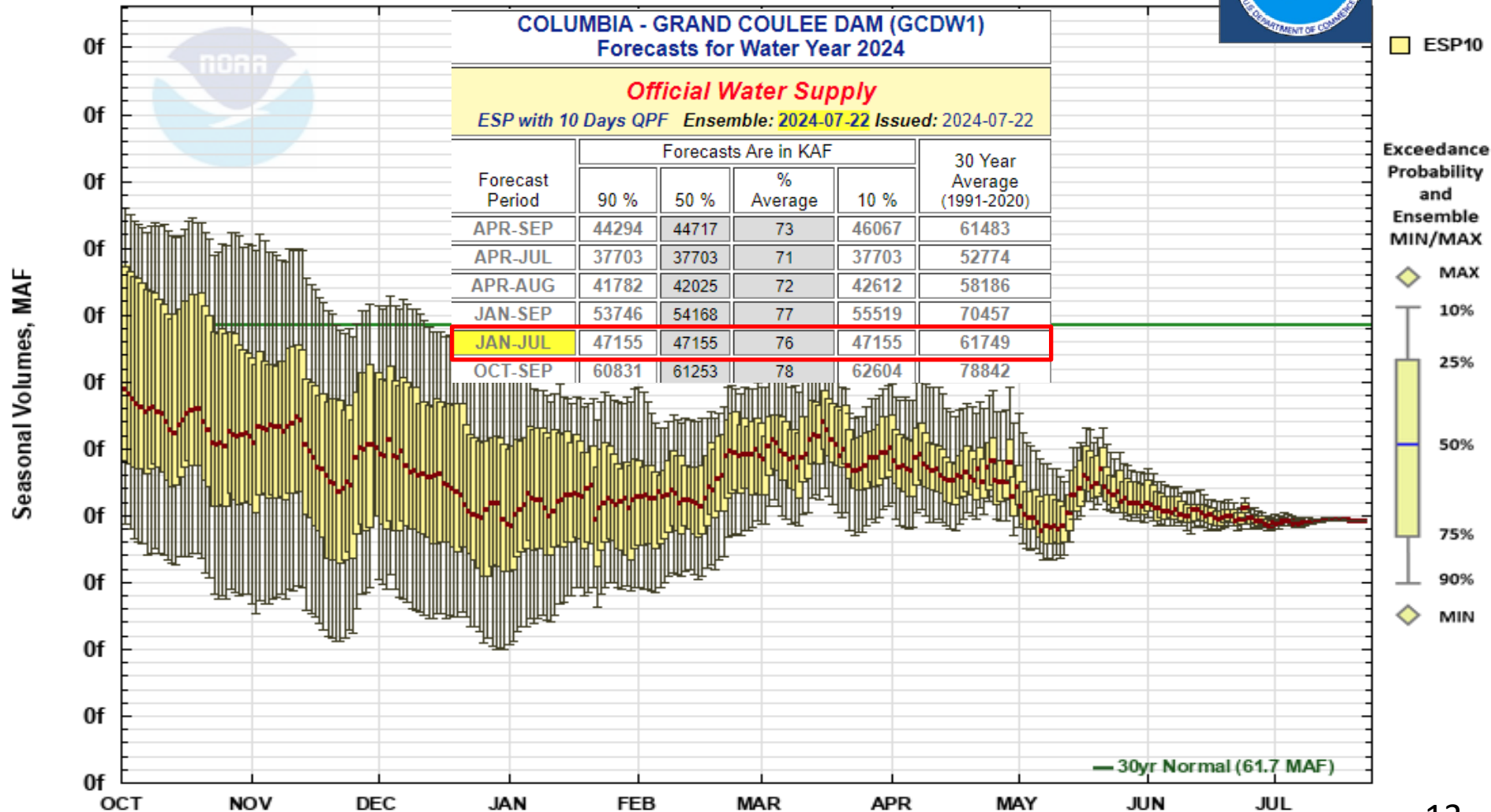


COLUMBIA - GRAND COULEE DAM (GCDW1) Forecasts for Water Year 2024

Official Water Supply

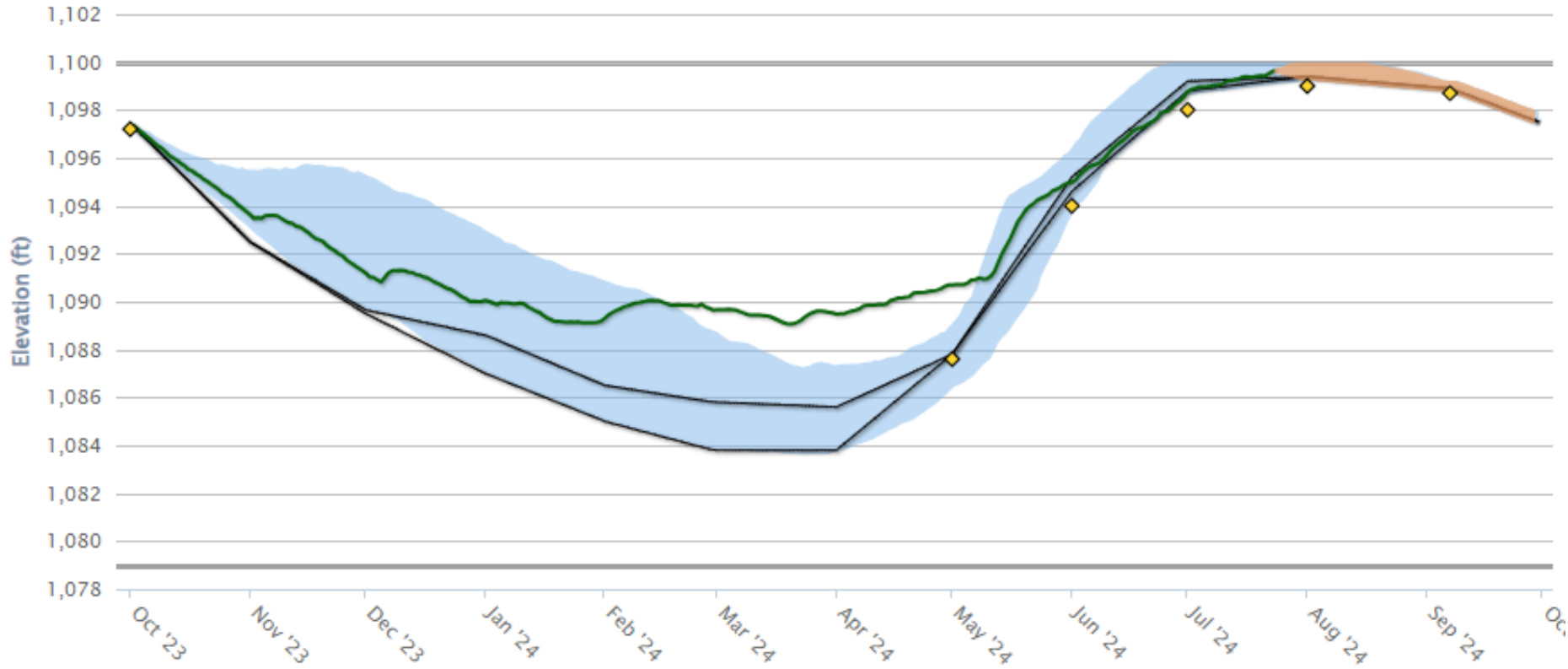
ESP with 10 Days QPF Ensemble: 2024-07-22 Issued: 2024-07-22

Forecast Period	Forecasts Are in KAF				30 Year Average (1991-2020)
	90 %	50 %	% Average	10 %	
APR-SEP	44294	44717	73	46067	61483
APR-JUL	37703	37703	71	37703	52774
APR-AUG	41782	42025	72	42612	58186
JAN-SEP	53746	54168	77	55519	70457
JAN-JUL	47155	47155	76	47155	61749
OCT-SEP	60831	61253	78	62604	78842



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

Q2 2024 Key Messages

- Net Wholesale Revenue and other energy-related revenue slightly above budget mainly due to retained surplus proceeds from Long-Term Power Contracts
- Monitoring I-2117 for future of Climate Commitment Act
- Monitoring Day-Ahead organized market developments
 - Plan to fund Phase 2 of SPP Markets+

Questions?