Energy Resources Quarterly Board Update 2022 Q3

November 21, 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

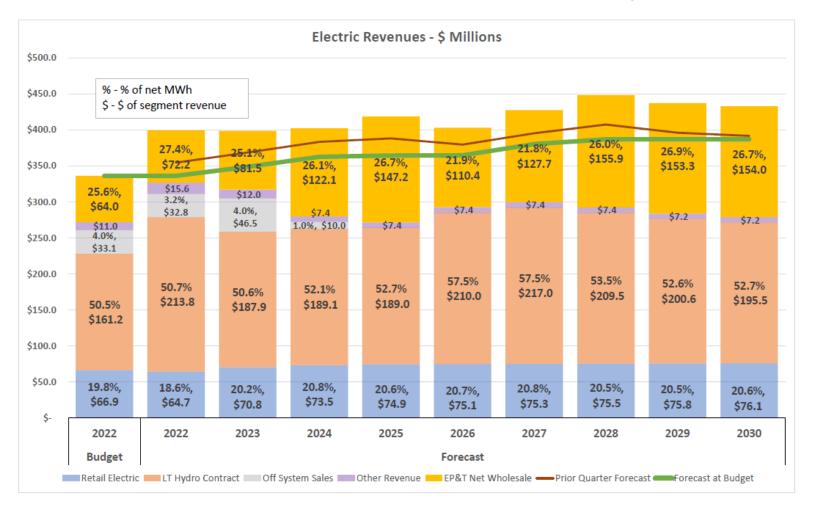


Key points

- Higher wholesale electricity prices and retained surplus proceeds from long-term power contracts are the primary contributors to the strong energy-related revenues
 - Net wholesale revenue is forecasted to top \$72 million which is \$8 million above budget due to higher electricity prices and production
 - Other energy related revenue is forecasted to total \$68 million, \$57 million better than budget, primarily due to \$52.5 million of retained surplus proceeds from cost-based contract
- Climate Commitment Act (CCA)
 - Becomes effective January 1, 2023
 - Trading at Mid-C hub impacted, two products trading, carbon price unknown
 - Potential carbon cost uncertainty is influencing higher 2023 Mid-C forward wholesale electricity prices



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	\$	62.4	\$	8.0
Specified Source Premium	\$	9.6	\$	9.8	\$	0.2
Renewables - Bundled	\$	-	\$	0.0	\$	0.0
NWR Sub-total [2]	\$	64.0	\$	72.2	\$	8.2
Off System Sales						
Off System end use sales	\$	33.1	\$	32.8	\$	(0.3)
Other Energy-Related Revenue						
LT Power Contract- Retained Surplus	\$	-	\$	52.5	\$	52.5
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	\$	10.9	\$	3.9
Other Energy-Related Sub-total	\$	11.1	\$	67.8	\$	56.8
NWR and Other Energy-Related Revenue	\$	108.1	\$	172.8	\$	64.7

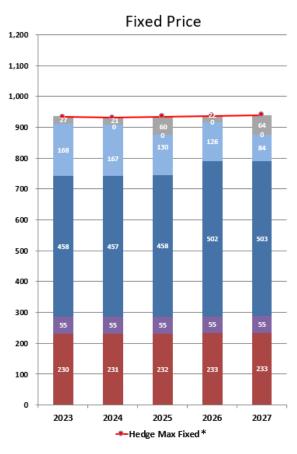
^{[1] 2022} forecast based Jan - Sep actuals and Oct-Dec estimates (10/11/22 NWR forecast), actual retained surplus and specified source premium through Sep



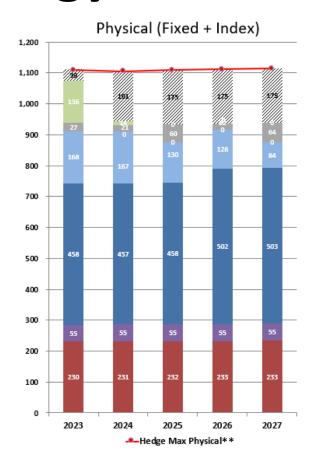
^[2] NWR includes PWX specified source sale/full requirements purchase and transmission pass through costs

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

District's energy commitments







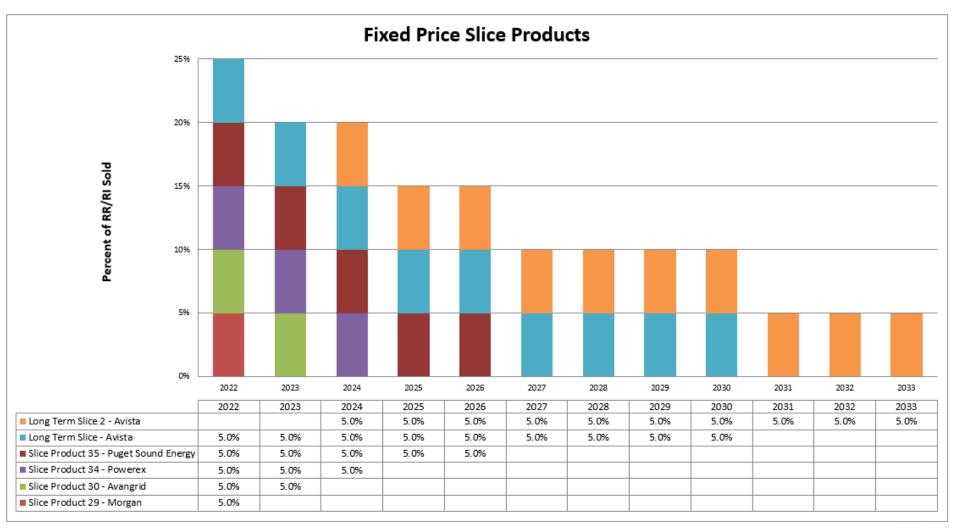
(Average MW)

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





Fixed Price Slice Contracts





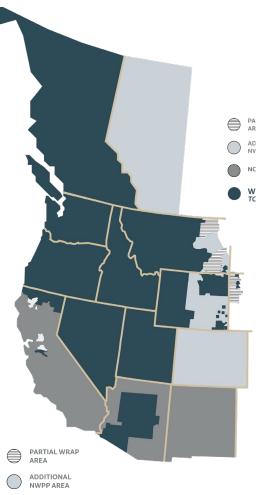
Changes in the western power market

Western Resource Adequacy Program (WRAP)

- Look for binding program to start in 2025
- Decision for entities to join WRAP set for mid December 2022.

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

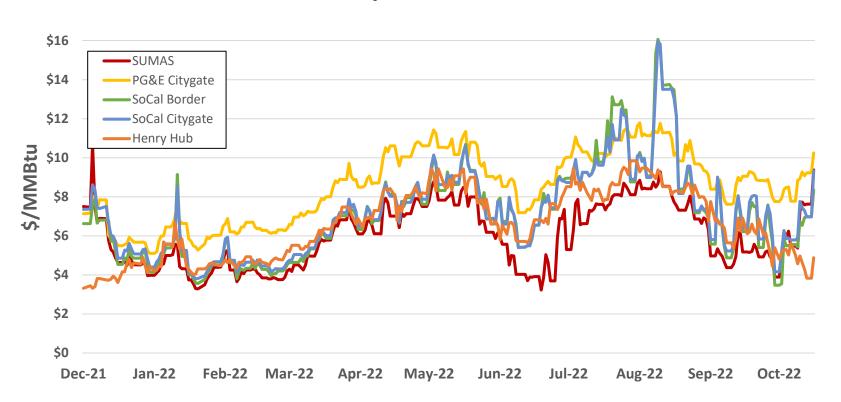
- Climate Commitment Act (CCA) is causing a lot of uncertainty in MID-C markets.
 - Carbon obligations / tracking starts 1/1/2023
 - WA no-cost Carbon Allowances have not been allocated
 - First WA Carbon Allowance auction in late Feb 2023 so no indication of Allowance pricing.
 - Still many questions on Dept. of Ecology rules for 'true-ups'
 - Affecting liquidity for 2023 at Mid-C hub



Daily Natural Gas Prices

Dec 2021 - Oct 2022

Select Western Natural Gas Hubs Spot Prices





Dec 2022 Henry Hub natural gas





Dec 2022 Henry Hub natural gas

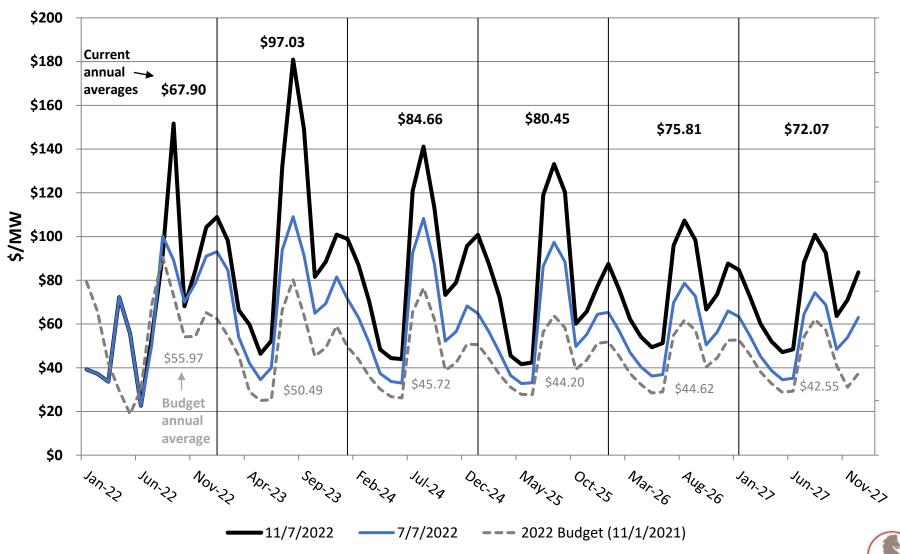
(price history since 2002)



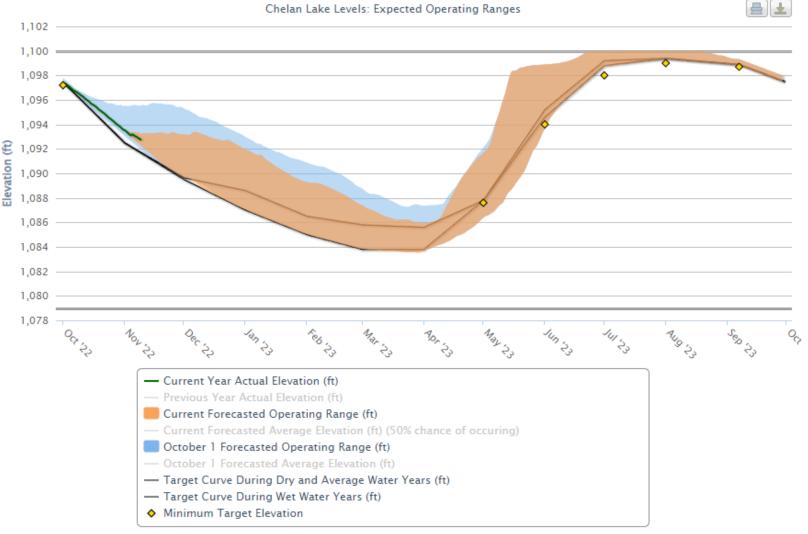


Mid-C forward price curve

(ICE DA index prices for previous months)



Lake Chelan level webpage





Summary

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Questions?



U. S. Seasonal Outlooks

November 2022 - January 2023

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

