

Energy Resources Quarterly Board Update 2021 Q2

August 16, 2021

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Why We're Here

- Portfolio overview
- Operations and planning
 - » Pricing update
 - » Net wholesale revenue forecast update
- Market update

Key points

- The District's 2021 Net Wholesale Revenue is forecast: \$64.4 million which is \$2.9M less than budget
- Other energy-related revenues are forecast to be \$21.4 million which is \$11.3 million more than budget
- Together, the forecasted revenues are \$85.9 million and \$8.4 million above budget for 2021

Major changes in the western power market

Resource Adequacy

- Northwest Power Pool detailed design phase almost completed. Stakeholder input underway on detailed design.
- The Interim Resource Adequacy is in effect for summer 2021. It was used in late June and also in late July during extreme heat wave.

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

- FERC approved CAISO's new wheel-through policies on June 25. The changes protect native load and puts a new "priority" wheel-through category on equal parity with internal transfers. Southwestern states rely on the CAISO transmission system to access Northwest hydropower.
- CAISO President and CEO Elliot Mainzer has said that the grid operator is working on a more long-term solution to the wheel-through issue.

Major changes in the western power market

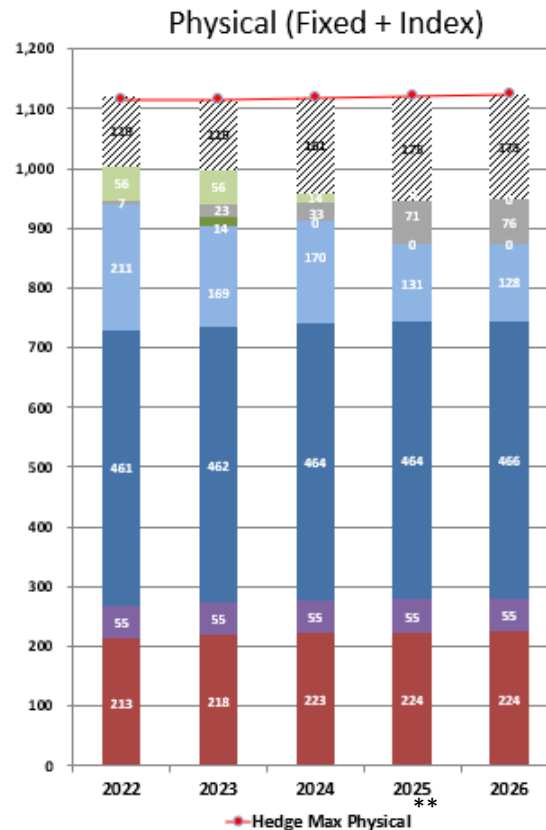
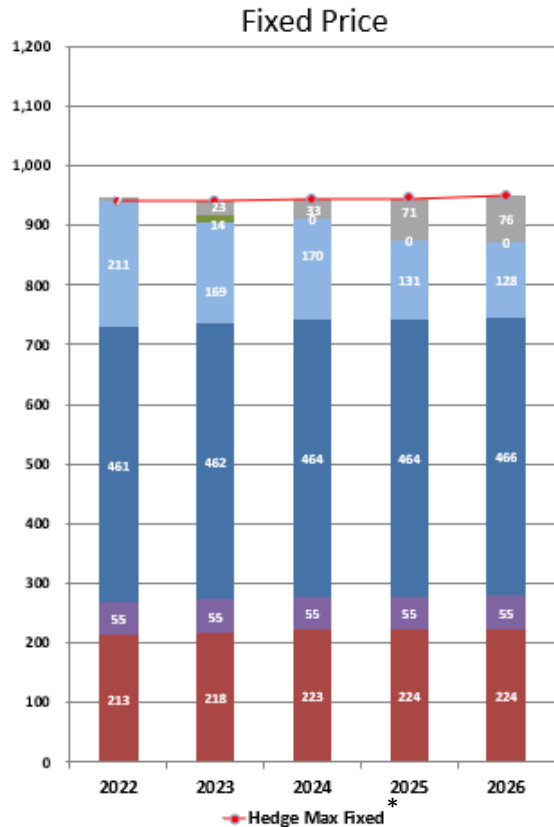
State carbon policies

- Clean Energy Transformation Act (CETA) rulemaking efforts are ongoing—Clean Energy Implementation Plan (CEIP) to be submitted to Commerce by Jan. 1, 2022.
- Tentative CEIP schedule with the Board of Commissioners:
 - Oct. 18 Study Session – Introduce CEIP
 - Nov. 15 Study Session –Present final draft CEIP
 - Dec. 6 Business Meeting – Public Hearing – Approval of Draft CEIP by resolution

New products and services

- Southwest Power Pool began offering Western Energy Imbalance Service (WEIS) on Feb. 1, 2021
- Southwest Power Pool plans to expand its RTO footprint into the Western Interconnection by 2024

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
 Market Based Slice
 Long-term Cost Plus Slice
 Canadian Entitlement
 Local Load

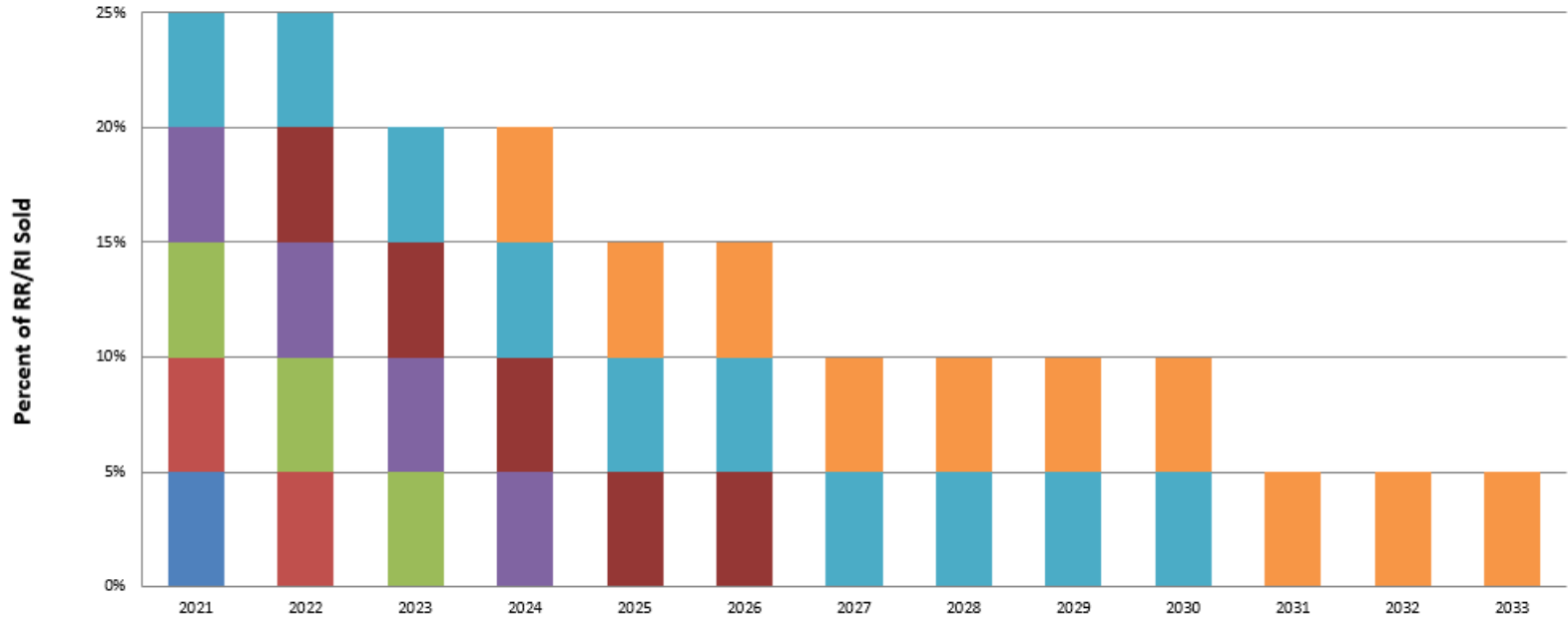
Available to Sell at Index Price
 Available to Sell at Fixed Price
 Index Price Block Contracts (Includes Off-System End-Use)
 Fixed Price Block Contracts
 Market Based Slice
 Long-term Cost Plus Slice
 Canadian Entitlement
 Local Load

*Hedge Max Fixed = stress water generation

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

Market-based slice contracts

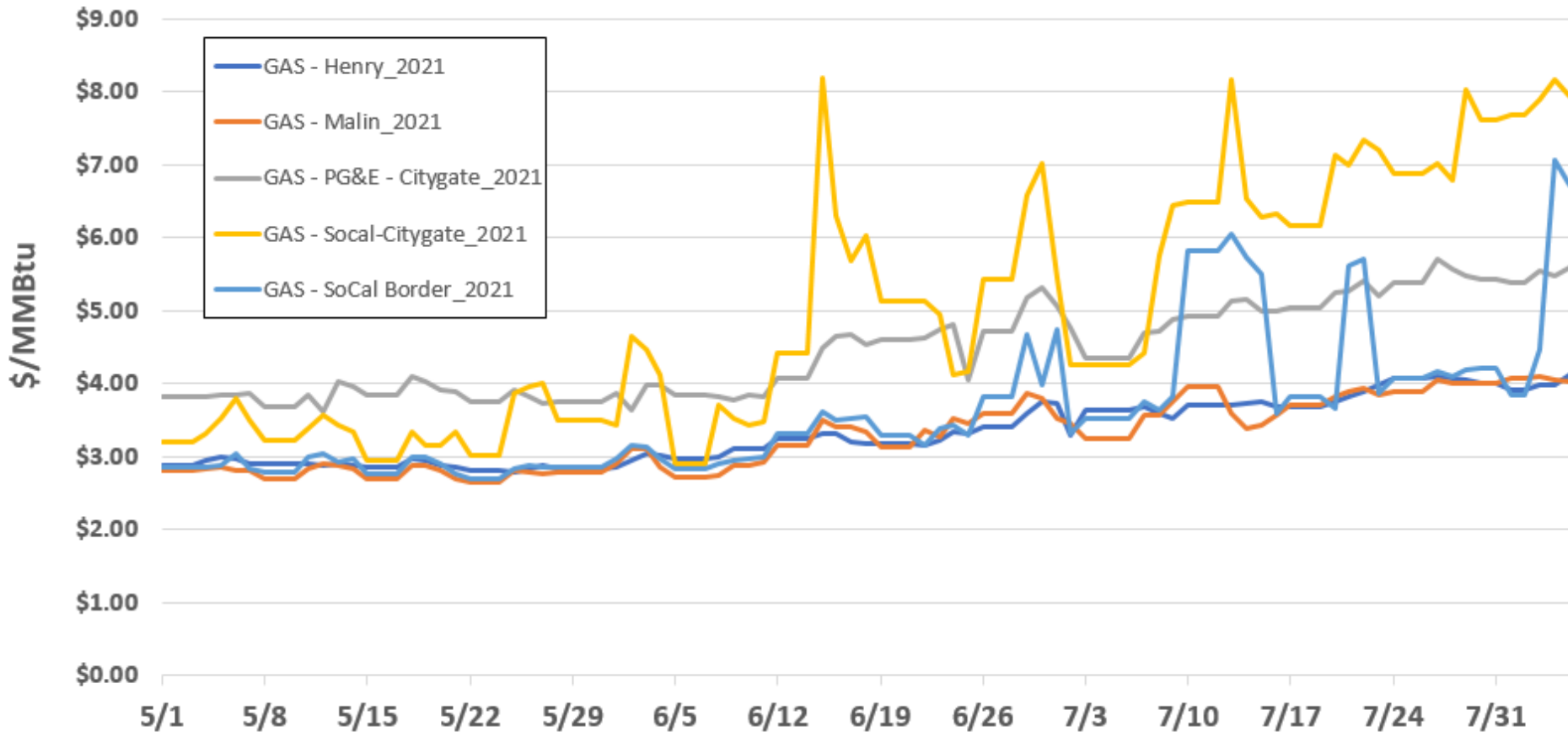
Market Based Slice Products



	2021	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%	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%	5.0%									
Slice Product 30 - Avangrid	5.0%	5.0%	5.0%										
Slice Product 29 - Morgan	5.0%	5.0%											
Slice Product 26 - Morgan	5.0%												

2020 Daily Natural Gas Prices

May 1st – Aug. 5th
at selected hubs



Sep. 2021 Henry Hub natural gas

ENGU21 ~ Daily Wed Aug 4 2021 1:58:47 PM H:4.205 L:4.056 O:4.066 T:4.175 +0.148 +3.68%



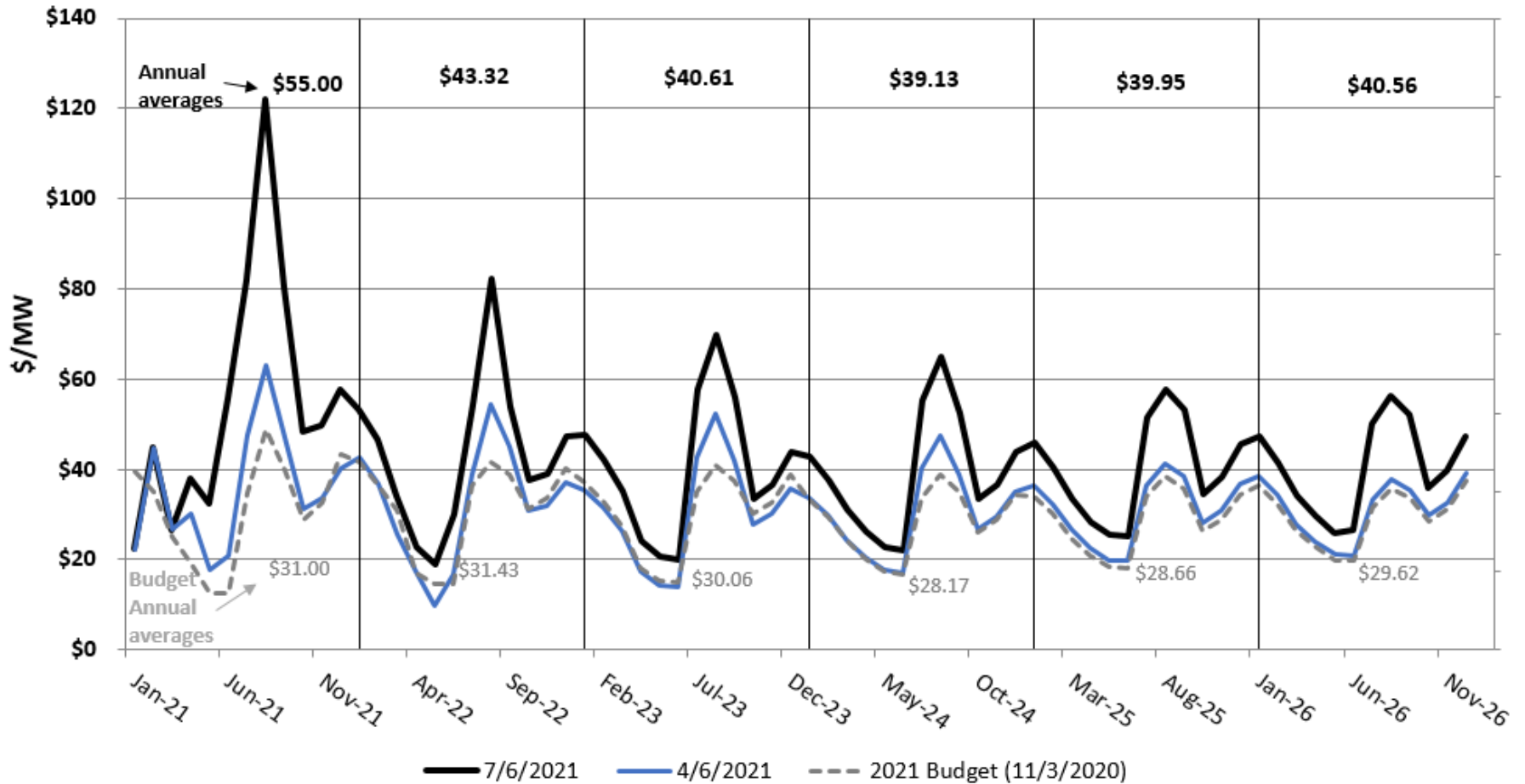
Sep. 2021 Henry Hub natural gas

(price history since 2002)



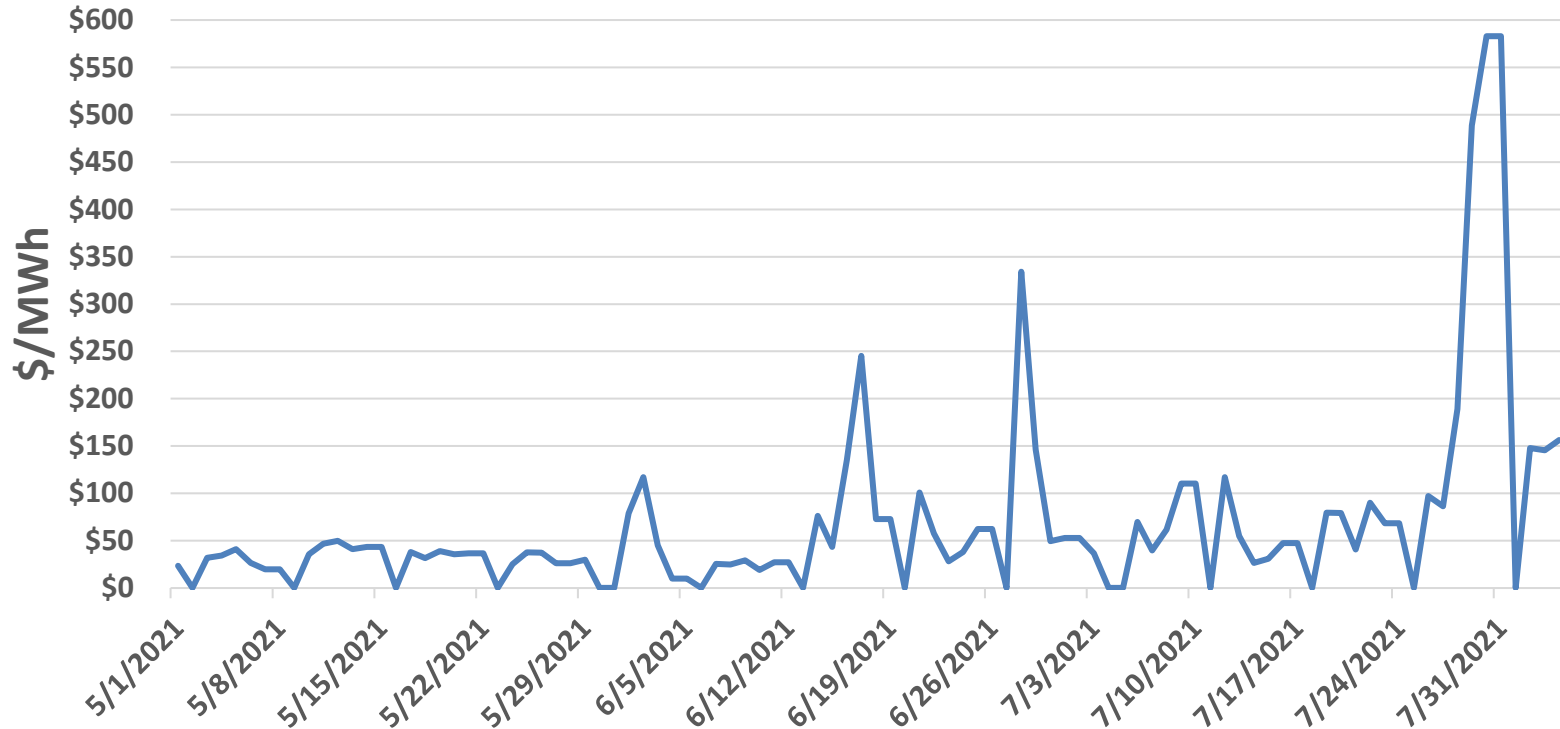
MIDC forward price curve

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



Daily MIDC Power Pricing

MIDC HL Daily Prices
5/1 - 8/4



2021 NWR and Other Energy-Related Revenue

(amounts in millions)

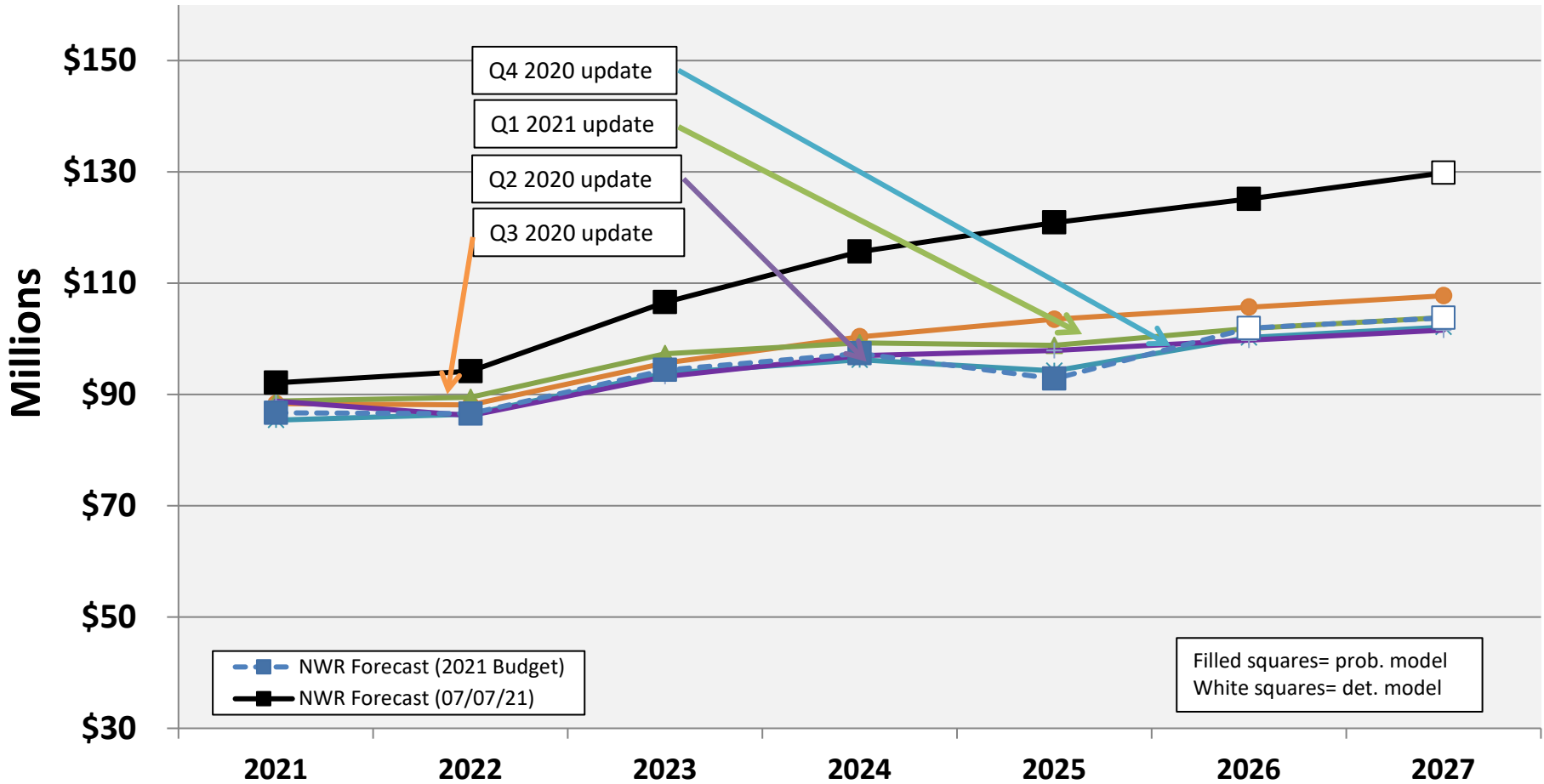
	Budget	Forecast [1]	Variance
Net Wholesale Revenue (NWR)			
Energy Sales/Purchases	\$ 59.9	\$ 57.0	\$ (2.9)
Specified Source Premium	\$ 7.2	\$ 7.2	\$ -
Renewables- Bundled	\$ 0.2	\$ 0.2	\$ 0.0
NWR Sub-total [2]	\$ 67.3	\$ 64.4	\$ (2.9)
Other Energy-Related Revenue			
LT Power Contract- Retained Surplus	\$ -	\$ 9.6	\$ 9.6
LT Power Contract- Admin Fees	\$ 2.4	\$ 2.4	\$ -
Frequency Response & Load Shedding	\$ 0.5	\$ 0.8	\$ 0.2
Other [3]	\$ 0.2	\$ 0.2	\$ -
Renewables- Unbundled	\$ 0.1	\$ 0.2	\$ 0.1
Real-Time Revenue	\$ 7.0	\$ 8.3	\$ 1.3
Other Energy-Related Sub-total	\$ 10.2	\$ 21.4	\$ 11.3
NWR and Other Energy-Related Revenue	\$ 77.5	\$ 85.9	\$ 8.4

[1] 2021 forecast based on Jan-Jun unaudited actuals and Jul-Dec estimates (7/7/21 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.

Net Wholesale Revenue + Off System End-Use Sales Forecast



Market info

- CAISO sought bids by 7/7 for capacity available at least during the hours of 4 p.m. to 9 p.m. For imports, it sought resources that are both deliverable by firm transmission (or reasonably equivalent) rights to the delivery intertie.
- Offer price cap is \$6.31/kW-month

Summary

- The District's 2021 Net Wholesale Revenue is forecast to be \$64.4 million which is \$2.9M less than budget for the year
- Other energy-related revenues are forecast to be \$21.4 million which is \$11.3 million higher than budget
- Together, the forecasted revenues are \$85.9 million and \$8.4 million above budget for 2021

Questions?