

Williams MountainWest & Northwest Pipeline Customer Meeting

EAST DALEY

March 2025 Oren Pilant – Senior Energy Analyst opilant@eastdaley.com

DRIVING TRANSPARENCY IN ENERGY MARKETS

Midstream & Infrastructure Data & Analytics Consulting







Natural Gas



Unique Rig and Well Assignments

Since 2015, we've been assigning producing wells and rigs to gas Gathering and Processing systems on a weekly basis. This extensive historical data provides a foundational data point for our production forecasts, ensuring precision in tracking production trends and infrastructure constraints across the Energy Value Chain

Granular Production Models

We analyze rig counts, well allocations, and forecast production by basin, starting at a regional level (e.g., Permian Basin) and drilling down to individual systems. By tying rig activity to commodity output (Crude Oil, Natural

Gas, NGLs), we create detailed production curves aligned with market forward curves.

Asset-Level Financial Integration

We model Public Midstream companies down to an asset level, incorporating quarterly financial data to refine our volume forecasts. By comparing financial reporting with operational data, we continuously calibrate our models to ensure our volume metrics are both accurate and forward-looking.

System-Level Forecasting

For each Gathering & Processing system, we integrate plant inlet and flow data, capacity announcements, and historical trends. This allows us to forecast individual system performance accurately. Our ability to tag state and county-level data to these systems sets us apart, providing a granular understanding of system-level dynamics.

Comprehensive Pipeline and Plant Data

We map the flow corridors of pipelines, connect them to price dynamics, and analyze constraints to forecast future production and system volumes. Our models account for capacity limits, contract roll-offs, and transportation bottlenecks.

Today's Agenda



Volatility and the Delicate S&D Balance for Natural Gas

- 1. From <u>Surplu</u>s to <u>Deficit</u> Cold Winter Puts Market in Tighter Position
- 2. Power Demand Data Centers, LNG, and Electrification
- 3. Storage and Price Foreseeable Risks and Volatility
- 4. Gulf Coast LNG Emerging Infrastructure and Constraints
- 5. West Coast Growing Demand, Constrained Supply

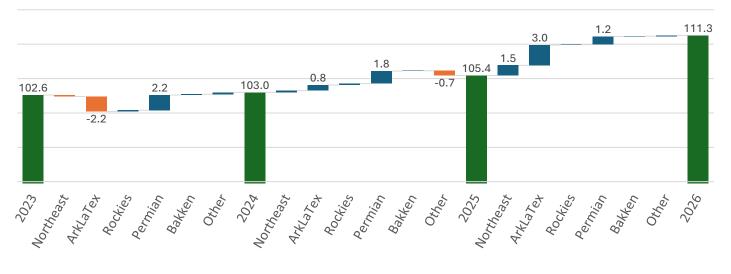


Production – Gains to be Evident Soon

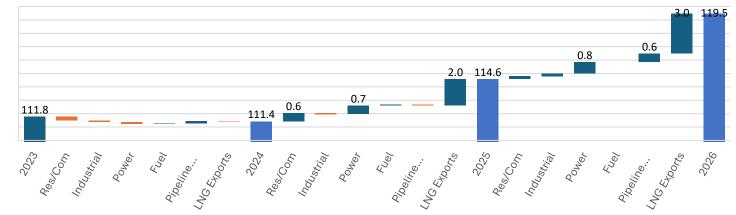
- Production reached 104.1 in July '24 (too much too soon) and could surpass that mark by July '25. With storage in deficit to the 5-year and last year inventory marks, upward price pressure creates a fiscally stable environment for producers.
- Plaquemines and Corpus Christi stage 3 feed-gas ramps will command more production later in the year.
- Real production growth arrives in 2025 led by the Northeast (capacity driven), Haynesville (LNG driven) and Permian (oil driven).

Basin	L48	Perm	HV	NE	EF	Bakken
Rigs End 2024	530	283	34	28	48	36
Rigs End 2025	590	282	63	51	53	35

Lower 48 Production Evolution (Bcf/d, Avg.-Avg.)



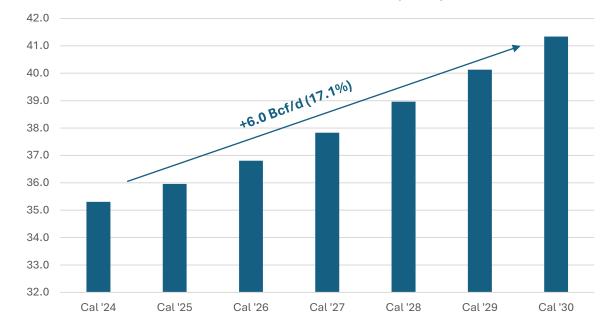
Lower 48 Demand Evolution (Bcf/d, Avg.-Avg.)





Demand Drivers

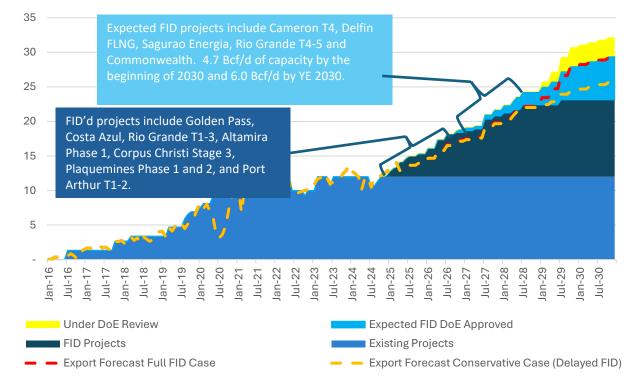
SCALE YOUR INTELLECTUAL CAPACITY



Annual Gas-Fired Power Burn (Bcf/d)

By the time we reach 2030 average power burn will be 41.3 Bcf/d. This represent a 6.0 Bcf/d increase, or 17.1% compared to 2024. Growth is driven by data centers housing AI GPUs, cloud storage, block chain technology and an assortment of other data intensive information. We also attribute some of the gain to electrification initiatives in several states.

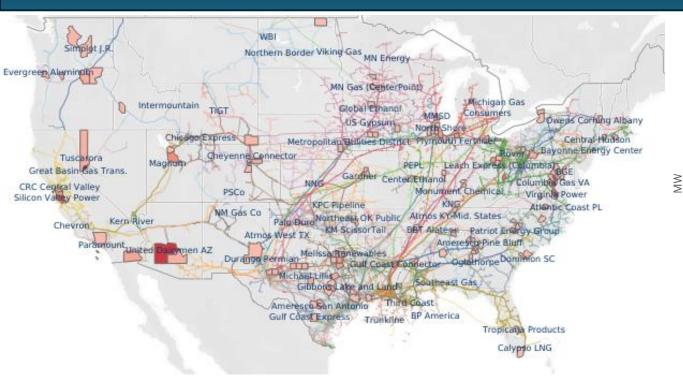
LNG Export Capacity and Forecast (Bcf/d)



Venture Global's CP2 project is the last domino standing in our 2030 LNG export stack. Kimmeridge backed Commonwealth LNG got their DOE non-FTA permit on February 14th and is expected to FID by September '25. CP2 needs 0.9 Bcf/d in SPAs and Commonwealth needs nearly 0.6 Bcf/d of new commitments to reach an 80% threshold that typically locks in FID status.

Gas-Fired Generation Will Continue to be a Big Deal



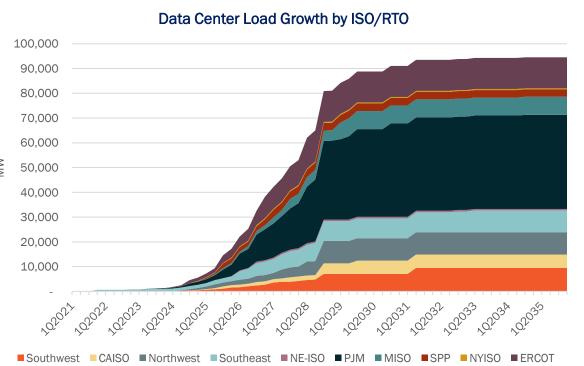


Gas-Fired Power Burn Will Continue to Run on all Cylinders in 2025

2025 power burn will average 36.0 Bcf/d, or 0.7 Bcf/d higher than the cal 2024 average. Summer 2025 will come in hot at 38.9 Bcf/d, or 0.2 Bcf/d higher than summer 2024.

Summer 2025 gas prices will be higher at \$4.40/MMbtu, but we expect load growth and some portion of the scheduled 6 GW in coal retirements to allow modest growth.

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Long Term Prospects are Looking Up

Emerging data center load could reach an incremental 6.0 Bcf/d by 2030. We are monitoring nearly 300 projects with an estimated load of over 81 GW. Data centers are favoring behind-the-grid solutions, often using single-cycle peakers with heat rates of 11–12 MMBtu/MWh. This shift could lead to a 5% increase in our gas demand estimates for every 10% load moved to less efficient onsite generation.

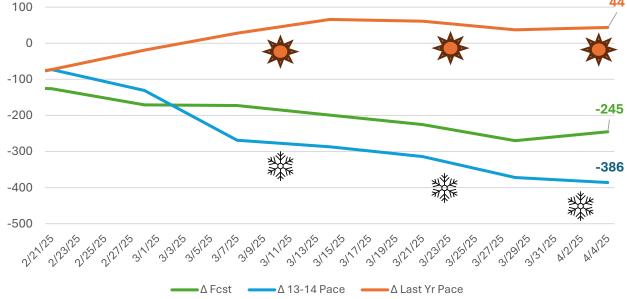




Storage Inventory less 5 Year Average (Bcf)

- Surplus to the 5-year average lasted for a record breaking 24 months. February weather deepened deficit to 200 Bcf+. Deficit conditions will persist through September '26.
- Adequate production levels above 108.0 Bcf/d are necessary by the end of 2025 to ease deficit conditions. Swing supply in the Haynesville will provide much of this growth with Permian also contributing.

End March '25 Surplus/Deficit - Fcst vs. Cold & Warm Pace(Bcf)

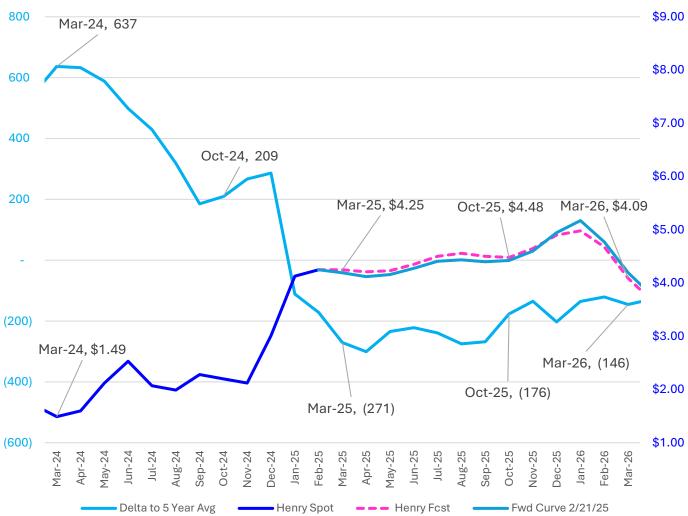


- Base case ten-year normal weather yields a deficit to the five-year average of just under 250 Bcf through the last full week of withdrawal season.
- A cold end to winter like the winter '13-14 season yields a deficit of over 380 Bcf, a level not seen since mid April 2019.
- Warm weather for the balance of March will result in a surplus of just 44 Bcf and could keep a cap on prices at around \$3.50/MMBtu.

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Henry Hub Spot (\$/MMBtu) vs Storage Delta (Bcf)

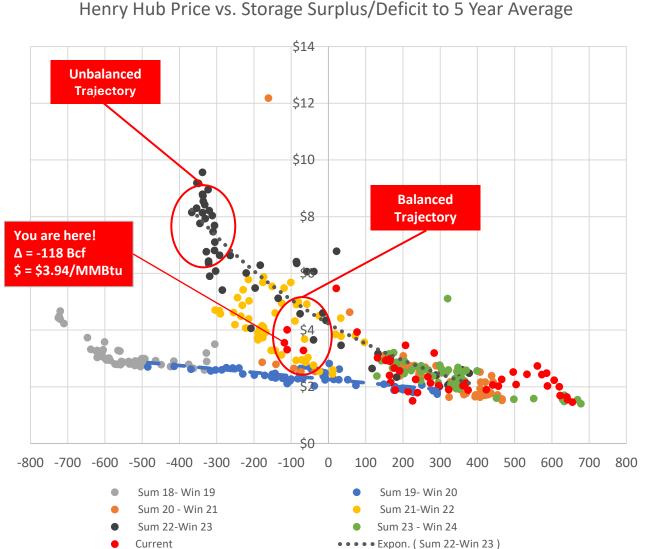


- Summer 2025 prices will average \$4.40/MMBtu or \$0.09 above the forward curve. We see spot prices eclipsing \$4.50 in July '25 as power demand is persistent and new demand from Plaquemines LNG and Corpus Christi Stage 3 combine to push the storage deficit towards the 250 Bcf mark.
- A tighter market will bring more volatility in both cash and forward markets while storage inventories remain in deficit. It's now a common occurrence for the prompt and seasonal strips to move up and down rapidly based on temperature forecasts, pipeline maintenance events and summer hurricanes. Our forecast averages these extremes over the month, but the propensity for a pop in prices on any given day is still very high.

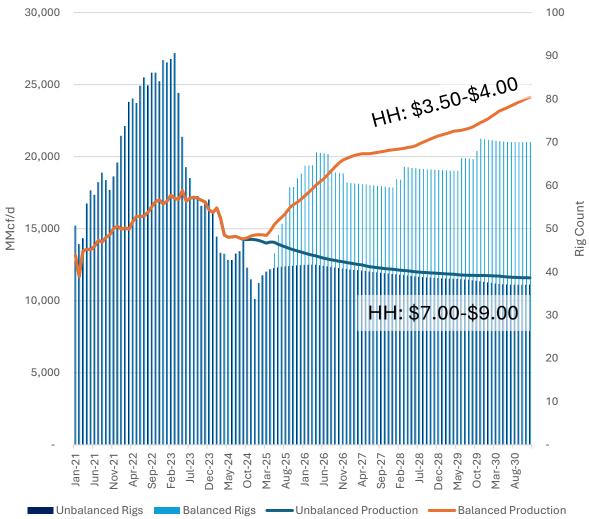
00	Period	2025	2026	Win '24-25	Sum '25	Win '25-26
	Fwd Curve	\$4.36	\$4.21	\$3.54	\$4.32	\$4.74
00	EDA	\$4.42	\$3.94	\$3.55	\$4.40	\$4.66
00	Delta	\$0.06	-\$0.27	\$0.01	\$0.09	-\$0.08

Haynesville Answers the Call





Haynesville Production Forecast



West Coast: Key Takeaways



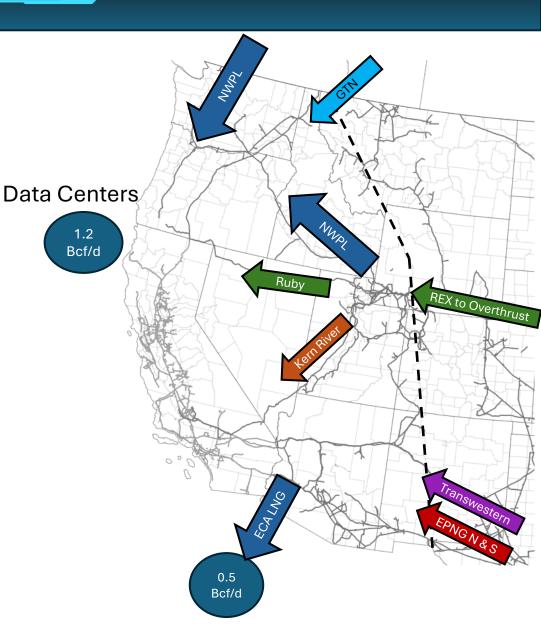
The Western US is tight and getting tighter

- Increased demand from data centers, ECA LNG, and steadily population growth will put significant strain on the region
- Supply uplifts from pipeline expansion projects (NWPL & Overthrust) and increased production in the Western Rockies will provide some relief, but constraints still exist

Even if production increased significantly enough to meet demand, open pipe capacity during peak demand periods is limited, making transportation of additional gas to both the southwest and northwest challenging.

Price reaction can be very strong during peak demand periods and storage withdrawals are called upon to meet high demand

 Necessary storage refills are creating an additional price bump in the summer, lifting prices in a typically down period

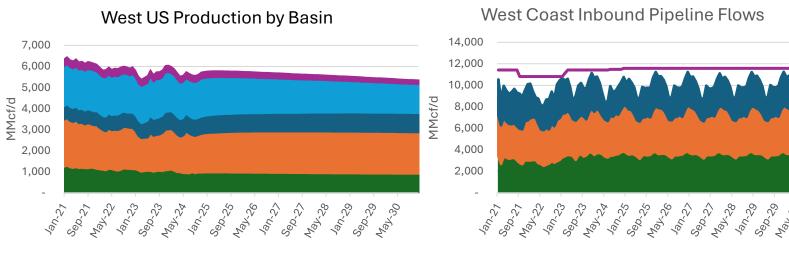


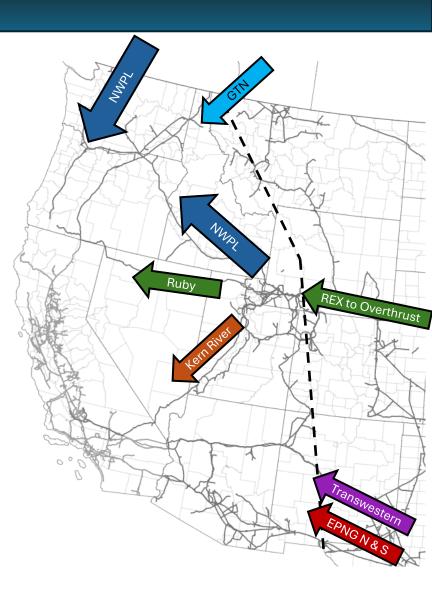




• Production in California and the San Juan basin is expected to decline steadily (-600 MMcf/d) through YE2030

- The Green River, Uinta, and Piceance currently account for ~3.6 Bcf/d of production, which is expected to grow to 3.8 Bcf/d by 2030
- Pipe supply from Canada and the Permian run at full capacity during peak winter demand, pushing up western prices to incentivize supply
- Volumes along Kern River and NWPL from the Rockies also typically hit full capacity in the winter. Incremental expansions on NWPL of 170 MMcf/d will free up capacity into the PNW.





Canada

Demand Outlook: Data Center & LNG Growth

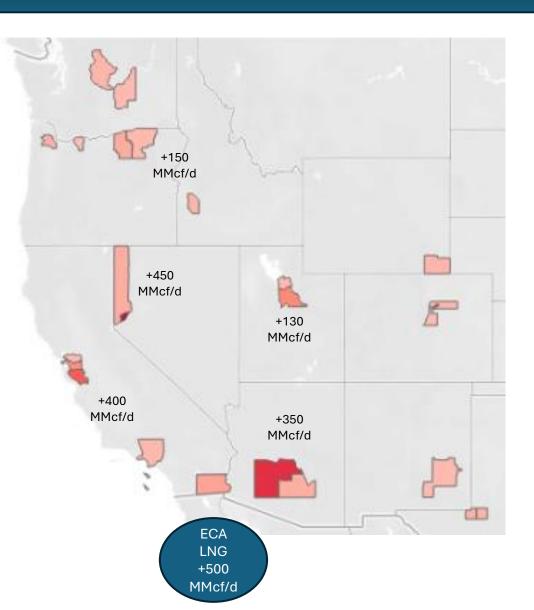


Demand across the Western US is expected to see steady growth in the back half of the decade, peaking at 14.8 Bcf/d for the West Coast states and 4.2 Bcf/d in the Western Rockies.

While cold weather drives demand in the winter, a second demand peak in the summer is forming in the West Coast region as increasingly hot summers and storage refills pull more gas westward.

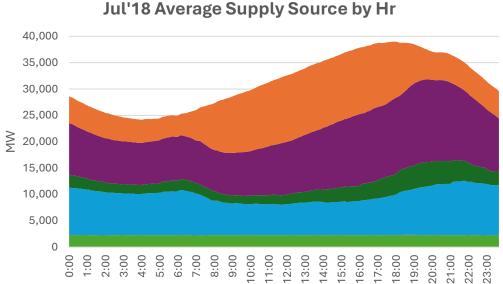
Western US Data Center Demand

State =	EDA Base Case (Mcf/d) =	100% Gas Equivalent (Mcf/d)	Historical Gas Share
Grand Total	1,476,455	3,628,852	33%
Nevada	448,326	1,120,817	44%
California	400,997	1,002,503	26%
Arizona	347,180	867,944	39%
Utah	129,289	323,220	27%
Oregon	87,562	185,513	35%
Washington	26,712	66,779	17%
New Mexico	19,265	19,265	45%
Idaho	17,124	42,811	27%



CAISO Electric Generation by Energy Source

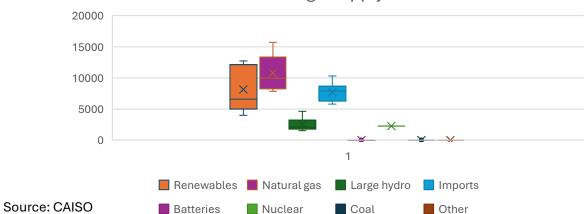




Jul'24 Average Supply Source by Hr

40,000 35,000 30,000 25,000 20,000 МΜ 15,000 10,000 **Batterv** 5,000 Deployment 0 -5,000 00:00 20:00 21:00 22:00 23:00

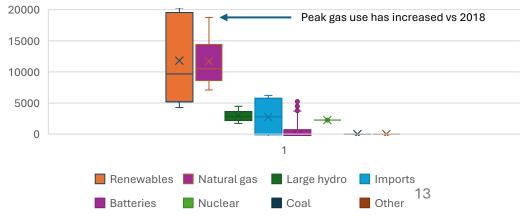
■ Coal ■ Other ■ Nuclear ■ Batteries ■ Imports ■ Large hydro ■ Natural gas ■ Renewables

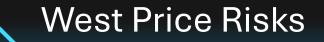


Jul'18 Average Supply Source

Coal Other Nuclear Batteries Imports Large hydro Natural gas Renewables

Jul'24 Average Supply Source

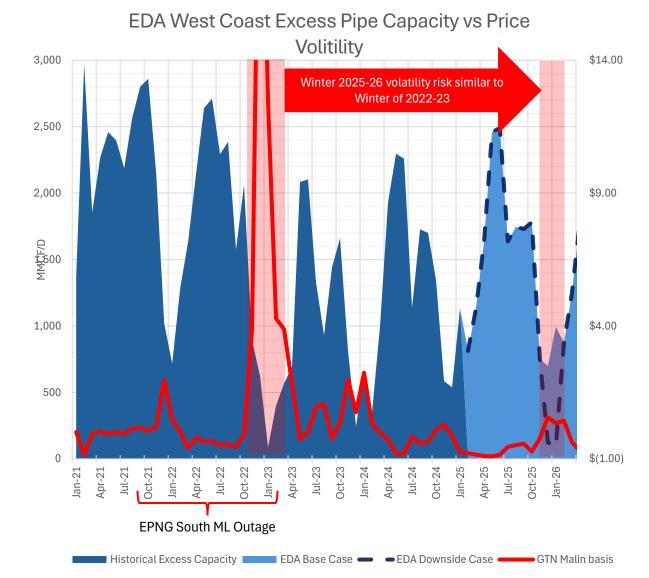






- Historically, available pipe capacity in the West has heavily impacted regional prices
- Without sizeable increases in available pipe capacity, such as through the construction of new pipelines, the West Coast remains susceptible to price blowouts
- EDA is currently modeling Winter 2025-26 with significant risk to West Coast prices
 - Overthrust expansion should provide some relief to avoid historical basis blowouts (ISD December '25).
- If ECA LNG enters service in 2026 and operates at full capacity, subsequent winters remain vulnerable to the same pipe constraints as even the 325 MMcf/d of additional capacity available on Overthrust wouldn't be able to cover the ~500 MMcf/d of additional demand from ECA

Month	NWP Rocky Mtn basis	SoCal Border basis	GTN Malin basis	Sumas basis	Opal basis
Oct-22	-0.63	0.22	-0.10	-0.27	-0.26
Nov-22	0.70	3.70	3.86	4.50	3.42
Dec-22	11.24	23.29	25.25	19.69	22.85
Jan-23	6.11	12.28	12.43	9.48	12.16
Feb-23	0.89	4.33	4.28	3.57	4.62
Mar-23	0.30	2.77	3.88	2.51	3.41









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Dive into our Data Center Demand Monitor



Learn more about our West Coast Supply and Demand Report



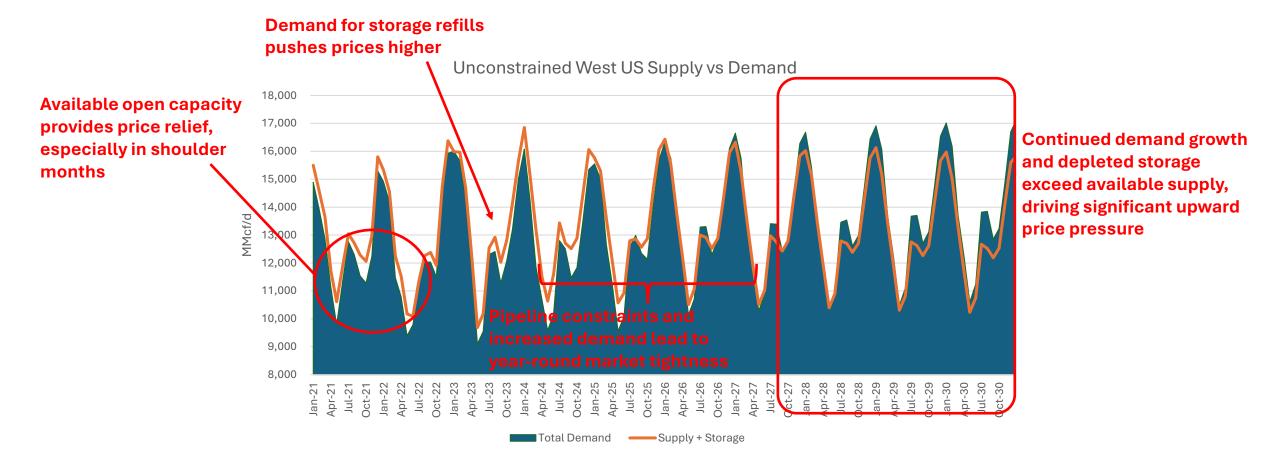


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Appendix

Unconstrained West Picture

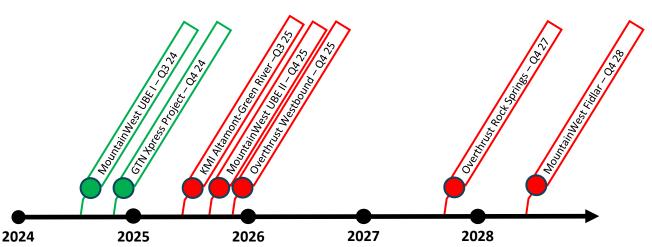


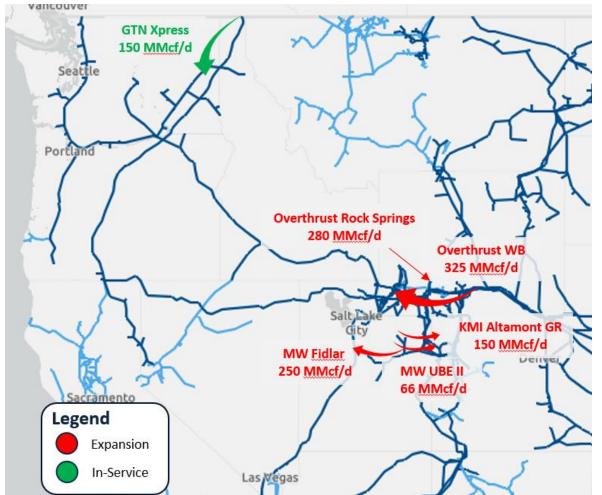


Supply Outlook: Capacity Increases



- In 2024, GTN's Xpress expansion project came online, adding 150 MMcf/d of capacity from Canada
- Both KMI and MountainWest have projects entering service in 2025 to bring more production volumes to WES's Chipeta processing plant in the Uinta basin
- In 4Q25, Overthrust will be able to receive 325 MMcf/d of additional gas from REX, the primary route bringing gas westward over the Rockies
- Additional projects on Overthrust and MountainWest are expected to grow available capacity by ~500 MMcf/d in late 2027 and 2028, respectively





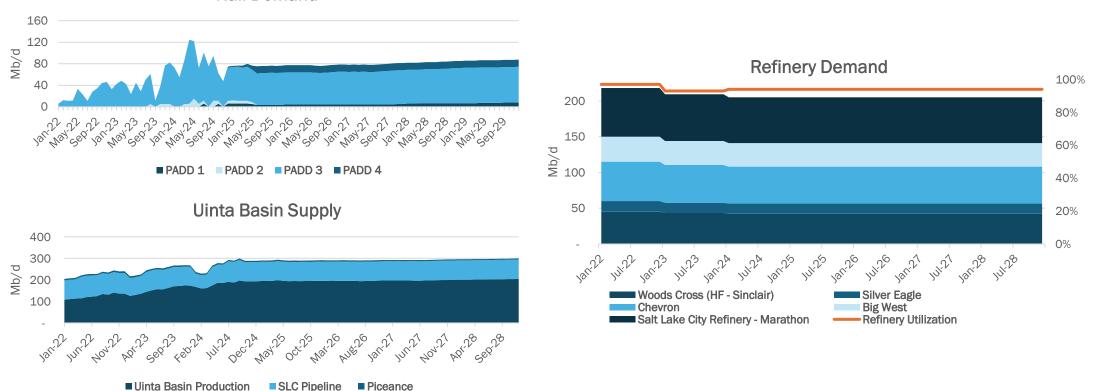
Uinta Dynamics

East Daley forecasts Uinta Basin production to grow 7% (13 Mb/d) in 2025 and average 195 Mb/d. We believe supply delivered to the . Salt Lake City market from the Powder River and Piceance basins will hold steady at ~95 Mb/d with the excess Uinta production delivered to other crude markets by rail.

NESGY

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The lion's share of rail deliveries (~75%) are delivered to PADD 3 (received in St James, LA and Houston, TX) markets for refinery . supply. We believe deliveries to Guernsey in PADD 4 will increase to ~13 Mb/d throughout 2H25.

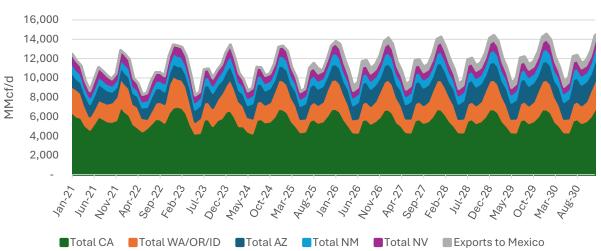


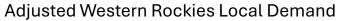
Rail Demand

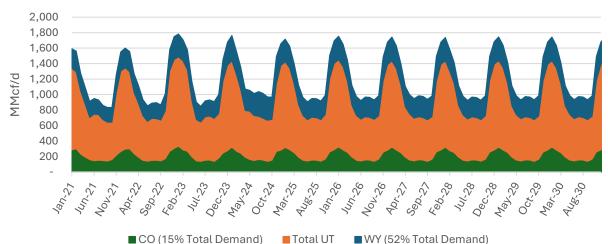




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West Coast Local Demand