VOLATILITY WILL CONTINUE UNTIL MORALE IMPROVES

Natural Gas Key Takeaways:

East Daley expects developments in the gas market to come in three distinct phases:

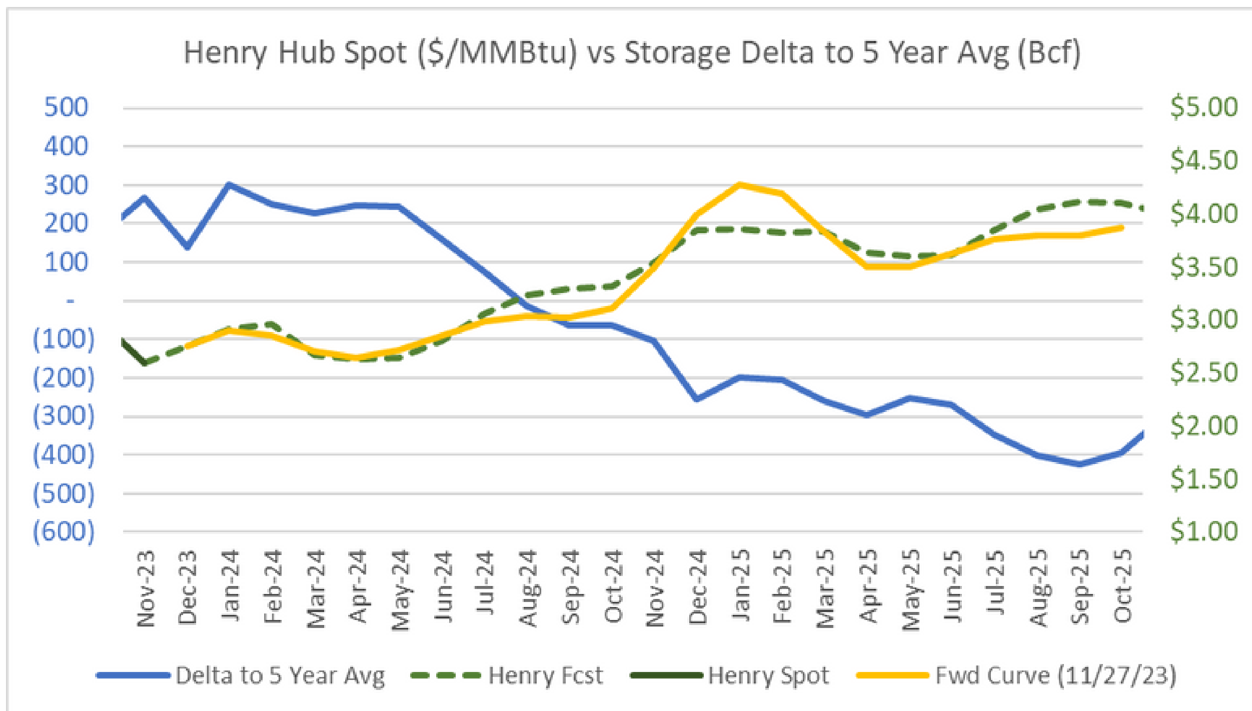
- In the near term, elevated production and high storage inventory will lead to downward pricing pressure through mid-2024.
- New demand from LNG exports and resilient power burn will take center stage from mid-2024 through 2026. Growing supply to meet rapid growth in LNG exports will be an ongoing concern for the market.
- From 2027 to 2030, price volatility will hinge on the completion of liquefaction facilities that may achieve a final investment decision (FID) in early 2024, as well as pipeline infrastructure connecting these facilities to gas supply.

Executive Summary

Tighter macro fundamentals lead to heightened volatility through 2030

Volatility will be a defining theme in natural gas markets through 2030 due to growing LNG demand, limited storage expansions, new infrastructure builds and capital discipline driving a more reactive production response.

As the gas market grows, the risk of imbalances also increases from weather events, infrastructure outages or demand disruptions. East Daley sees a need for more storage capacity to manage the transition. If planned LNG facilities are built on schedule, the call on gas over the next five years will be unprecedented in the industry's history.



LNG demand will drive price movements and infrastructure buildouts.

EDA forecasts over 16 Bcf/d of LNG export growth in our base case, bringing total LNG demand to 34.6 Bcf/d by 2030. While the Eagle Ford, Permian and Haynesville drive most of the producer response to new demand, the Marcellus is also back in play and Tier 2 basins also will need to step up to meet the call on supply.

Local basis markets grow more volatile as markets adapt to LNG growth.

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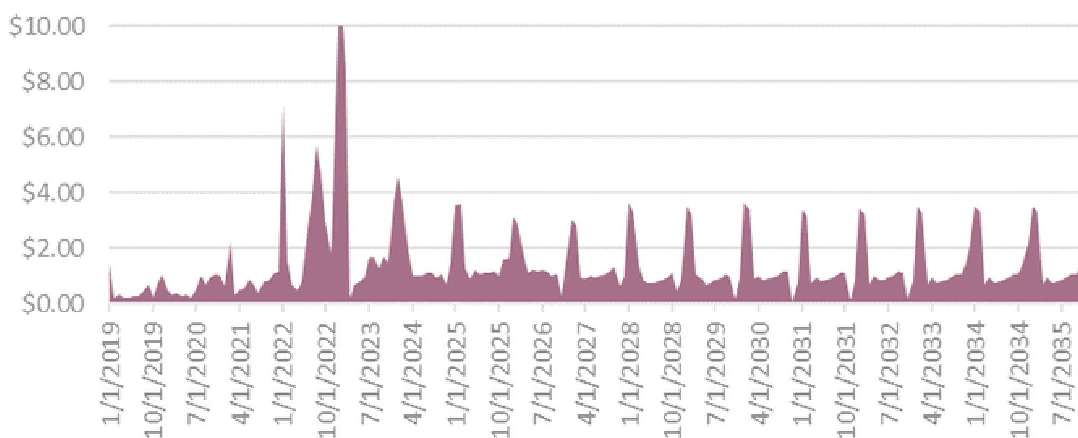
As the gas market grows, local basis markets will become more volatile as operators adapt to new demand and infrastructure routes.

For example, EDA expects the West Coast to be short on natural gas through 2027. The tight regional market will lead to continued price volatility and wider spreads between Rockies and West Coast prices. After 2027, a combination of decreased demand, new pipeline projects, and increased Western Rockies production in response to LNG demand will loosen the market.

Northeast production is also primed to grow again. The region has seen its growth potential stymied for years by pipeline bottlenecks, but the start of the long-delayed Mountain Valley Pipeline (MVP) will change the equation. EDA expects MVP to begin service in the spring 2024. We don't expect shippers to immediately fill MVP's 2 Bcf/d of capacity due to downstream constraints on Transco. Still, MVP will decrease volatility and shrink price spreads between Dominion South to Transco Zone 5 in the near term. Williams (WMB) also held a successful open season for a 1.4 Bcf/d expansion of Transco south of the MVP interconnect that would allow MVP to run full. Transco is targeting 2027 to start the project. Other new pipeline egress could come from a westbound expansion of the Rockies Express Pipeline (REX), or by adding compression to MVP.



Flexible, high-turn storage must be an infrastructure priority.

Storage capacity is not keeping up with the evolution of the Lower 48 market. By 2027 and 2028, storage injection and withdrawal capacity will fall below 100% of demand and production levels, respectively. The situation will be particularly dire in the South Central region of the country. For example, Louisiana will be home to 23 Bcf/d of LNG offtake capacity by 2030. Given the average end-of-season storage fill, it would only take 6.5 days of lost demand from Louisiana liquefaction facilities to completely fill storage in the region.

The value of storage is also increasing as revenue grows and re-contracting rates increase. Over the past five years, revenue from storage has increased by 40% from $500 million to $700 million while contracted storage capacity has stayed roughly the same. Proposed storage capacity expansions in the South Central remain woefully inadequate with just 64 Bcf of proposed salt dome capacity proposed or under development. This quantity would barely cover the amount of total storage capacity taken offline since 2017.