

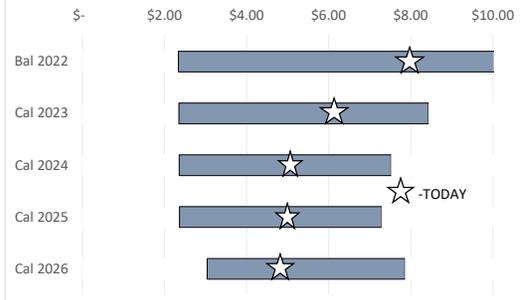


Wednesday, September 21, 2022

Natural Gas Commentary

- Intra-day volatility in the natural gas market has reached near unprecedented levels with daily price swings of +/- \$0.50 per MMBtu becoming the new normal. While price backwardation remains, forward strips from 2024-2028 continue to march higher, tightening the gap between near- and longer-term natural gas prices.
- EU leadership has proposed several steps to help mitigate the rising cost of electricity and natural gas that have left many industrial facilities unable to continue operations. Russian oil and gas deliveries remain uncertain ahead of winter as war continues in Ukraine.
- A tentative deal has been struck to avoid labor unrest between freight rail companies and unions. Natural Gas prices pushed over \$1.00 per MMBtu higher as it became uncertain whether coal stocks would be delivered to baseline generation plants. Since news of the settlement, prices have retreated accordingly.
- More than 10% of Natural Gas extracted in the U.S. is exported in the form of LNG. This figure is expected to increase to above 15% in the next 3 years as additional export terminals are being built to help meet global demand.
- Natural Gas storage levels are 11.3% below the 5-year average and 7.4% below the same week in 2021.

NYMEX Natural Gas 5-Year Price Ranges (\$/MMBtu)

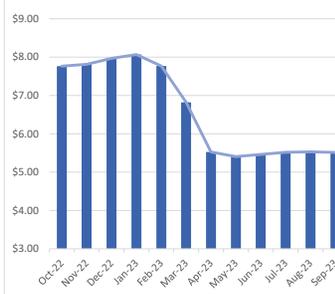


NYMEX Natural Gas Futures

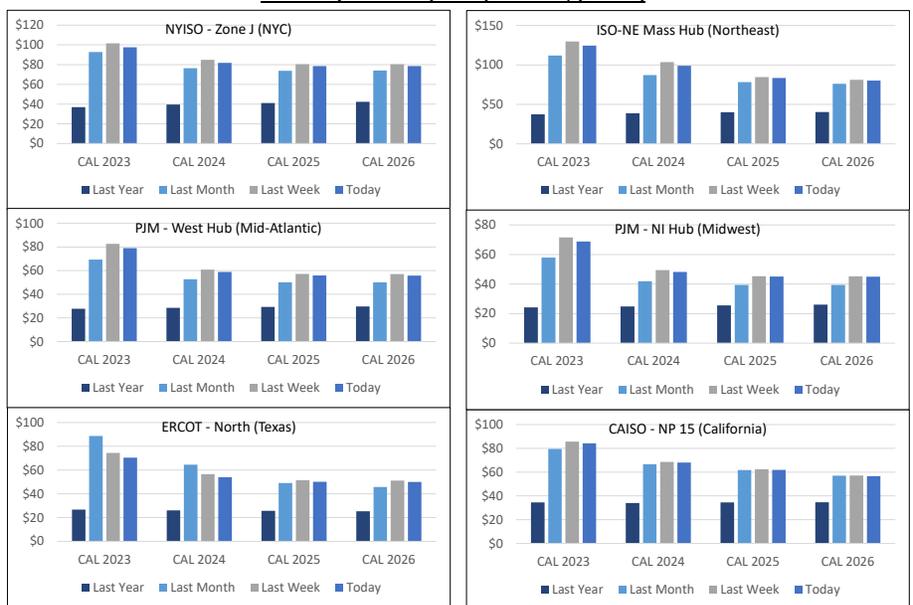
Month	\$/MMBtu	% Δ
Oct-22	\$ 7.764	-12.5%
Nov-22	\$ 7.811	-11.9%
Dec-22	\$ 7.966	-10.9%
Jan-23	\$ 8.067	-10.9%
Feb-23	\$ 7.767	-14.7%
Mar-23	\$ 6.820	-20.8%
Apr-23	\$ 5.526	-21.9%
May-23	\$ 5.405	2.9%
Jun-23	\$ 5.460	7.4%
Jul-23	\$ 5.517	7.5%
Aug-23	\$ 5.531	6.8%
Sep-23	\$ 5.513	6.2%

Note - Δ is change in price over past 30 days.

NYMEX Natural Gas Futures



Electricity Market Update (Prices in \$ / MWh)



Bullish Factors Creating Market Support

- Uncertainty around the Russia-Ukraine war and its impact on winter fuel delivery to Western Europe.
- Continued deficit in U.S. Natural Gas inventories.
- General uncertainty around weather and the consolidation of global Natural Gas prices.

Bearish Factors Creating Market Resistance

- Freeport LNG export terminal remains offline into November.
- Domestic Natural Gas production continues at record-setting pace.
- Technical support at \$7.75 per MMBtu has been breached, setting the possibility for further losses in the short term.
- Temps on the West Coast have finally cooled.

Electricity Market Commentary

- Forward power prices have moved lower in NYISO but higher in New England and PJM. While weather forecasts remain neutral, electric markets seem poised to react quickly to any bullish news. October is typically the time for seasonal maintenance at nuclear power plants, and any delays coming back online will be met with strong support from speculators.
- West coast power costs have finally dropped from historic levels following weeks of intense heat and dry weather. Solar and battery storage generators capitalized on high-price late afternoon prices while some regulators argued those assets would most effectively be deployed later in the day.
- Most of Puerto Rico remains without power according to Luma Energy, which operates the island's power grid. While the U.S. Atlantic and Gulf Coasts have avoided major storms so far in 2022, it remains a reminder of how weather can impact both supply (off-shore drilling) and demand (end-user consumption) as peak hurricane season approaches.

Oil Prices

	\$/Bbl	% Δ
WTI Crude	\$ 84.19	-3.7%
Brent Crude	\$ 93.29	-1.6%

	\$/Gal	% Δ
RBOB (Gasoline)	\$ 2.93	-15.9%
No. 2 Heating Oil	\$ 3.21	1.3%

U.S. Temperature Forecasts

