U.S. WINTER MARKET UPDATE WEBINAR
After the call summary

Compiled: Sept. 30, 2024

Important highlights at a glance

The following is an overview of some important elements of the September 2024 U.S. Winter Market Update presentation.

Weather

Summer 2024 and Winter 2023/24 recap

- **Winter 2023/24** was the warmest all-time since 1950, with normal to above-normal precipitation across the U.S. and in line with El Niño weather patterns. December and February temperatures were the 2nd warmest.
- **Summer 2024** was the 2nd warmest on record (since 1950) when looking at population-weighted cooling degree days, with the warmest June on record.

Current climate models

- Cooler sea surface temps (SSTs) are bringing El Niño Southern Oscillation (ENSO) to a **La Niña state by October, reaching moderate status by December.** La Niña winters tend to favor warmer and drier conditions, but an increased risk of volatility in weather patterns.
- Climate models and the NOAA winter forecast for Dec-Jan-Feb are both calling for **broad, above-normal warmth, with a dry south and normal/above-normal precipitation in the north**.

Climate trends

Some trends to keep in mind when considering what's to come for winter 2024/25:

- Since 2000, winters on average have decreased in the number of heating degree days by almost 14 and the top 6 warmest winters have all occurred since 2011.
- Seven of the last nine La Niña winters have decreased by less than 14 heating degree days/been colder.

Market Fundamentals

Natural gas

The U.S. natural gas market is currently experiencing a low-price environment, mostly due to flat demand and healthy underground storage levels.

Production: producers announced plans to curtail production in the Sept/Oct timeframe, with the intent of tightening the supply/demand balance. Production has been at ~100 Bcf/day (down 2-3 Bcf/day) since early August—which is where it was during initial curtailments in early 2024.

Demand:

- Power burn demand YTD has remained mostly elevated vs. historical trends. This could continue as much of the U.S. is experiencing above-average temperatures.
- LNG demand has remained flat at 13 Bcf/day after hitting an all-time high of 15.2 Bcf/day in November.
- Underground storage levels throughout Europe are approximately 93% full, which could keep a cap on short-term LNG export demand.
- Several LNG facilities are experiencing delays or outages in reaching full capacity, leading to short-term lower demand.

Storage: we came out of last winter with an abundance of gas in storage. Despite most of the weekly injections this summer coming in below historical benchmarks, we are still 6% higher than last year and 8.6% higher than the 5-year average. This has helped cap near-term price volatility.

Pricing: Since Spring 2023, NYMEX monthly settlements have continued to clear low and are close to the lowest we've seen over the last two years. As summer demand fell flat of expectations, calendar strips 2025-2028 are trading near two-year lows when compared to the last 24 months of their trading history.

Gas bulls v. bears:

- Production cuts combined with high demand
- Winter weather prompting increased residential/commercial demand
- Global economics and capacity growth prompting increased LNG exports, which are expected to double by 2028
- Global market competition among LNG suppliers (Qatar), which could cause over-saturation and shut-ins

Power

Over the last 3-5 years, the grid has increasingly displaced coal generation with natural gas and renewables. Although natural gas is the most widely used form of generation, solar power continues to lead the pack for planned generation additions. This transition of the grid makes the risk of price elasticity more dependent on resource availability than demand.

Demand: Over the last decade, demand has been relatively flat but that is set to change with a forecasted 2.5% demand growth by 2030, largely from data centers. This growth is particularly compelling in ERCOT and PJM and is playing a large part in longer-term fundamentals.

Pricing: Although the nation experienced mostly above-average temperatures, real-time pricing continued to average relatively low, compared to the past couple of summers.

Power bulls v. bears:

- Growing demand against increased renewables (intermittent generation resources) in the generation mix—especially during peak demand periods

Market fundamentals (con't)

Power bulls v. bears (con't):

- Whether infrastructure investments to support increased demand, such as transmission and pipeline capacity to get natural gas to generators, materialize
- Increases in non-commodity costs, such as capacity, ancillaries, and renewables

Regional concerns

PJM/MISO: healthy gas storage and growing pipeline capacity (Mountain Valley); generation outages; capacity rates

ISO-NE: softened global LNG prices; pending Algonquin gas rate increase; Inventoried Energy Program; growing RPS requirements; Vineyard Wind project offline

ERCOT/CAISO: gas storage surplus; Costa Azul LNG facility delayed; renewable output and battery storage; significant load growth

Strategy considerations

Natural gas purchasing

Natural gas prices for calendar strips 2025 through 2028 are currently *at or* hovering near 2-year lows. The market is in contango, with longer-term prices higher than near-term.

- Consider a longer-term contract, with the outer years so close to 2-year lows and the upside risk of longer-term supply-demand fundamentals.
- For hybrid product structures, consider hedging a % of your volume, such as 25 or 50 percent—if not more—since there could be more upside risk in the future.
- Consider managing commodity and basis separately to lock in a lower basis for the term, while executing separate % volume commodity purchases for various terms.
- Consider floating basis products, where you can float your basis price until a market opportunity makes it worth locking in. This is particularly helpful in regions where basis prices are volatile or have large swings.

For hybrid strategies, whereby you're executing multiple hedges, you can set strike prices so you're ready to execute when the market moves in your favor.

Electricity purchasing

Many of the fundamentals that have contributed to bearish natural gas pricing in 2024 have also impacted power prices for the near terms. As such, multiple power markets are experiencing contango conditions.

- Consider a hybrid product structure, that gives you the ultimate flexibility to take advantage of favorable market index pricing, while protecting against market volatility through layered fixed price purchases.
- Consider hedging a larger % of your requirements for 2025 and smaller % hedges for the future years. As you consider future purchases, you can also set price alerts so you know when to transact and can act quickly when market conditions align with your risk tolerance.
- Capacity costs, which are impacted by the generation resources available to meet predicted grid peaks, continue to be a significant portion of retail supply costs in PJM/NYISO/ISO-NE. Learn more about the recent PJM BRA results and their impact.

Energy cost management

To help lower or offset energy costs, you may wish to consider load management. If you can reduce your usage on a short notice, significant value is available.

- **Peak load management** can help you actively lower your capacity obligation, which can help lower costs (note: this is only applicable to product structures that pass through capacity costs). ***How it works:*** We provide alerts on days when peak demand is expected so that you know when to lower or curtail consumption. We can also help you determine how to achieve reductions based on your operations.
- **Demand response** can help you earn money for your ability to curtail when called upon. ***How it works:*** We provide free metering equipment/installation, a real-time energy management dashboard tool, and individualized reduction action plans to help you achieve your desired curtailment levels and payouts. Examples of what 1 MW of curtailment could earn you:

PJM Zone	Estimated Annual Revenue
ATSI, ATSI-C, COMED, AEP, APS, DAY,DEOK, DUQ, DPL, AECO, JCPL,PECO,RECO, METED, PENELEC, PPL, PEPCO, PSEG, PSEG-N, DPL-S, DUKE	**$56,156**
BGE	**$97,024**
DOM	**$92,428**

Based on a 75% customer split/100% seasonal performance. Revenue is estimated based on 2025/26 pricing available.

NYISO Zone	Estimated Annual Summer Revenue	Estimated Annual Winter Revenue
NYC	**$47,515**	**$39,000**
Long Island	**$16,454**	**$10,856**
Rest of State	**$13,055**	**$9,133**
GHI	**$13,770**	**$9,413**

Based on a 75% customer split (split will vary by customer). Revenue is estimated based on Summer '24 pricing (Summer '25 pricing not available).

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