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Energy Economic Horizons

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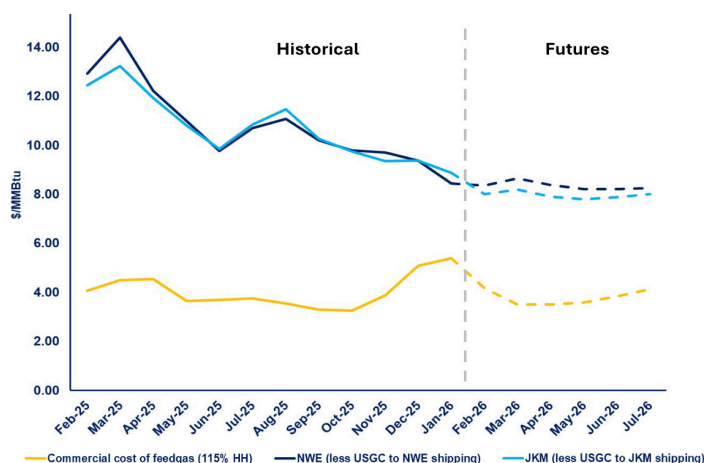
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Economic Horizons for LNG and Gas-Fired Generation

US LNG COMMERCIAL MARGINS



Insights

- US LNG commercial margin compression has occurred over the last twelve months, dropping from a high of \$9.90/MMBtu in March 2025 to \$3.06/MMBtu at present.
- Net of average tolling/sales and purchase agreement (SPA) liquefaction fees of \$2.75/MMBtu, net trading margins declined from a March 2025 high of \$7.15/MMBtu to a current average of \$0.31/MMBtu.
- Margins for European sales were consistent with Asian margins, and seven of the prior twelve months had favorable margins for selling cargoes to Europe.
- Near-term futures prices signal that margins will increase somewhat, primarily due to decreasing commercial feed gas cost and favorable pricing into Europe as compared to Asia.

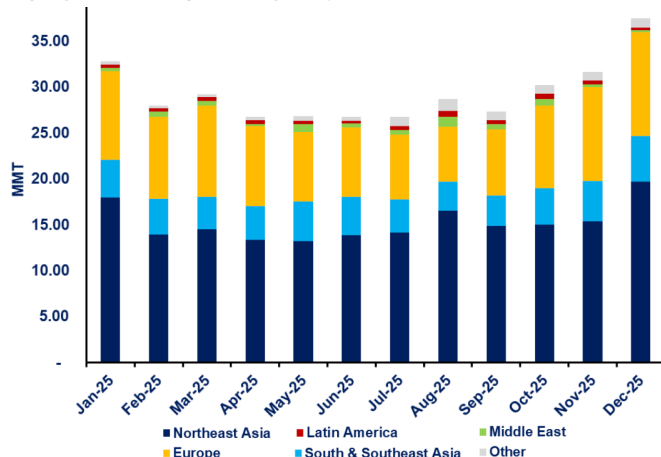
Notes

Commercial cost of feedgas: 115 percent Henry Hub (source: S&P).

Northwest Europe (less USGC to NWE shipping): Platts NWE minus BRG calculated shipping costs (Sabine Pass to Zeebrugge).

JKM (less USGC to JKM shipping): Platts JKM minus BRG calculated shipping costs (Sabine Pass to Futtsu).

GLOBAL LNG IMPORTS



Insights

- Over the trailing twelve months:
 - > Global monthly imports averaged 29.4 million metric tons (MMT)
 - > Northeast Asia—predominantly Japan, Korea, and China—accounted for 52 percent of global imports on average.
 - > Global imports of LNG rose 5.6 MMT (1.6 percent) compared to 2024.

Note

Regional data aggregated based on individual cargo deliveries (source: Kpler).

LNG Supply Boom Launches a New Era for LNG Markets

The liquefied natural gas (LNG) industry is staring down the barrel of a massive supply boom driven primarily by US and Qatari LNG additions, with expected liquefaction capacity growth of almost 40 percent by the early 2030s. Total installed capacity reached roughly 500 million tons per annum (MTPA) in 2025; another 195 MTPA of liquefaction capacity has taken final investment decision (FID) and is slated to complete construction and begin operations by 2031, starting with Golden Pass LNG's train 1 in Q1 2026.

This supply-driven growth is both expanding the size of the global LNG market and transforming its fundamental characteristics in terms of commercial flexibility and pricing. The LNG market has traveled from a point-to-point supply system to a flexible, increasingly commoditized global industry. The ongoing surge of new supply—particularly from the United States—is hastening this transformation in ways that create both opportunities and challenges.

Much of the coming supply growth is already “locked in” through projects that have taken FID and are under construction, but a significant share of capacity has been contracted by aggregators and traders instead of end users. If not met by commensurate demand growth, the mounting LNG supply boom could depress prices and possibly lead to US cargo cancellations. It is also likely to increase short-term trade and enhance commercial flexibility in the market. As a result, the ongoing LNG supply boom may permanently alter the mechanisms that set LNG contract prices. As the swing producer, US LNG will likely drive global prices, and major price indices will likely move in closer correlation.

Therefore, the key question is: where will this new LNG be absorbed?

A Question of Demand

Looking beyond this decade, prospects for further demand growth appear increasingly uncertain. Rarely has the outlook for LNG buyers and sellers been more ambiguous.

Previously, booming natural gas demand—especially from China, India, and Southeast Asia—readily accommodated new LNG volumes. A common hypothesis posited that China's sustained double-digit annual demand growth would provide a “demand sink” capable of absorbing nearly any spare capacity. North America's vast resource base and extensive midstream infrastructure offered an attractive arbitrage opportunity, allowing US developers to target a global price spread of \$6 per MMBtu or more. Companies such as Cheniere and Freeport achieved that spread through long-term contracts, creating a golden era for US LNG development.

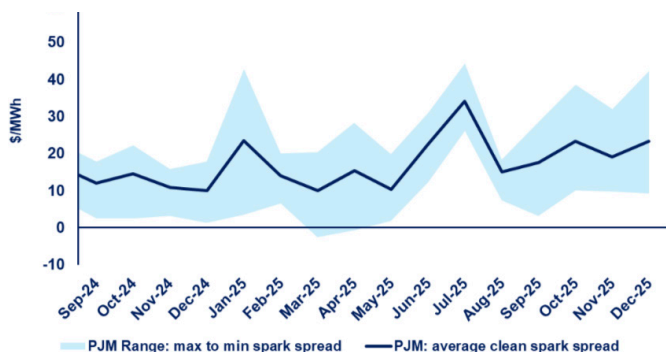
Today's market environment is far more complex.

Recent LNG investment decisions have assumed that global energy demand would continue to rise and that natural gas and LNG demand would rise with it. Relatively open markets with few supply constraints supported that assumption. This expectation might have been true in the past, but a closer assessment suggests that future LNG demand growth may not mirror recent history. Among other challenges to natural gas and LNG demand, the major global markets in Asia and Europe increasingly contend with:

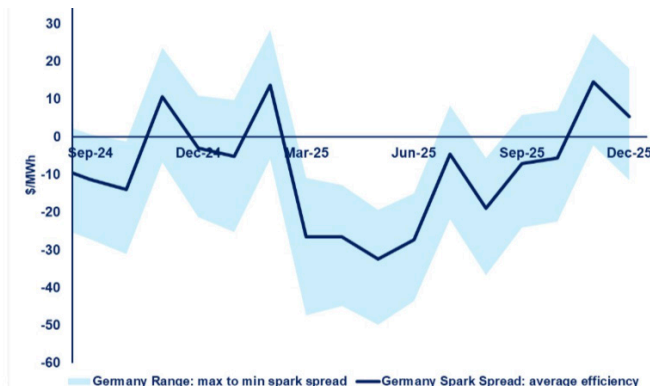
- the growth-dampening effects of global trade policy and escalated tariffs
- geopolitical factors such as the phaseout of Europe's limited remaining Russian gas imports and Russia's sale of LNG to China via sanctioned vessels
- accelerated penetration of renewable (and in some cases nuclear) energy in European and Asian markets, among others
- intensified price competition from distressed coal suppliers

CLEAN SPARK SPREADS FOR CCGT PLANTS

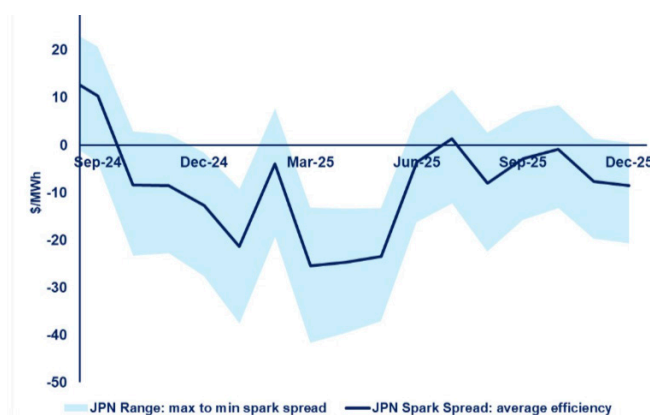
US: PJM



GERMANY



JAPAN



Insights

- Over the trailing twelve months, clean spark spreads:
 - > remained positive in the US PJM region
 - > turned and remained negative for most of the year before returning to positive at the end of 2025 in Germany
 - > remained negative throughout 2025 in Japan
- Over the last six months, clean spark spreads:
 - > increased in the US
 - > trended toward positive in Germany
 - > remained relatively static in Japan
- EU Emissions Trading System prices trended upward throughout 2025. The average annual price was up 19.8 percent in 2025 compared to 2024.
- Looking ahead:
 - > US spreads could remain strong due to decreasing Henry Hub prices.
 - > LNG prices are expected to remain stable, leading to German and Japanese spreads hovering around the break-even point in 2026 (see *US LNG Commercial Margins* graphic).

Notes

Clean spark spreads = electricity prices – natural gas costs – traded carbon prices
 Ranges in clean spark spread prices are based on variation in market prices and plant efficiencies.
 Market data from S&P and Platts.
 Emissions prices from a specified carbon tax (Japan), RGGI (PJM), and ICAP or Trading Economics (Germany).

Insights from our *LNG Horizon* model—which projects global gas and LNG production, demand, trade flows, and prices across regional and international markets—highlight the following dynamics:

1. Growth in traditional LNG markets will stagnate, and future demand growth will come from emerging markets.

Our *LNG Horizon* forecasts suggest that new supply will eventually find buyers, but the nature of those buyers will differ noticeably from the past.

For decades, China, Japan, South Korea, and—since the Ukrainian invasion—Europe drove global LNG demand growth, but this is no longer the case.

- China's LNG consumption has softened due to successful efforts to expand domestic supply, increased pipeline imports from Central Asia and Russia, and slowing industrial activity (all partially in response to trade wars). China imported less LNG during the first three-quarters of 2025 than it did during the same period a year earlier.
- Japan's market is characterized by stagnant economic growth. As more nuclear capacity returns to service and investments in renewable energy continue, its LNG imports will decline further.
- Europe's structural decline in gas demand and decarbonization and energy efficiency policies suggest that, even with a ban on Russian gas and planned phaseout of large amounts of coal from electricity generation, Europe will import less LNG over time.

LNG Horizon forecasts that China, Japan, South Korea, and Europe together will register no total LNG demand growth for the remainder of this decade.

As a result, suppliers will increasingly depend on emerging markets such as India, Bangladesh, Thailand, the Philippines, and several Middle Eastern economies rather than the large, established buyers of the past.

2. Challenges to financing new LNG projects will increase.

The LNG supply–demand dynamics have reversed, and a supply push is underway with producers needing to stimulate demand through lower prices. LNG sellers will have to rely on less-established companies instead of well-capitalized companies such as Tokyo Gas, China National Offshore Oil Corporation (CNOOC), Kogas, or Engie. In many emerging markets, affordability is paramount, and LNG priced at historical averages may not be viable. New buyers often do not have the same commercial credit as more established players in the market, complicating the bankability of projects, with suppliers and/or development institutions needed to absorb some of the credit risk. In addition, new buyers in emerging markets are typically more price sensitive (especially when abundant competitive domestic energy resources are available), and consequently LNG demand may become more price elastic than suppliers and financiers like.

3. Henry Hub will increasingly anchor global LNG pricing.

As US LNG supply grows, global supply becomes more abundant and flexible due to the enhanced commercial flexibility provided by US LNG suppliers, where there is no traditional buyer take-or-pay obligation for the full free-on-board (FOB) LNG price, but rather only a liquefaction capacity fee payment for any cargoes cancelled.

For US supply, the energy majors, utility buyers, and marketing companies that have committed to such FOB purchases can sell their cargoes to any destination on any temporal basis (short-, mid-, or long-term) or cancel cargoes when lifting and selling are unprofitable.

As a result, the mounting supply of US LNG cargoes will likely support a substantially increased volume and market share for short-term LNG trade. In this environment, Henry Hub pricing will play an increasingly central role in shaping global LNG prices. LNG might not ever achieve a single global benchmark akin to Brent in the oil market, but regional price formation will become more interconnected and strongly influenced by US hub pricing. That also means that domestic US price volatility may have ripple effects beyond US borders.

LNG Horizon forecasts that the arbitrage from US Gulf Coast (USGC) to European and Asian markets will narrow and key global price indices will exhibit tighter correlations than in previous decades. As can be seen in the callout charts to the left, these spreads have already declined as Henry Hub has increased while Title Transfer Facility (TTF) and Japan Korea Marker (JKM) have decreased.

This trend is likely to intensify as the Golden Pass LNG terminal and other new terminals come into service over the coming years.

About BRG

BRG combines world-leading academic credentials with world-tested business expertise, purpose-built for agility and connectivity, which sets us apart—and gets you ahead.

Our top-tier professionals include specialist consultants, industry experts, renowned academics, and leading-edge data scientists. Together, they bring a diversity of proven real-world experience to economics, disputes, and investigations; corporate finance; and performance improvement services that address the most complex challenges for organizations across the globe.

Our unique structure nurtures the interdisciplinary relationships that give us the edge, laying the groundwork for more informed insights and more original, incisive thinking from diverse perspectives that, when paired with our global reach and resources, make us uniquely capable to address our clients' challenges.

About BRG's Energy & Climate Practice

BRG's Energy & Climate experts provide integrated business advisory, finance and investment, and dispute resolution services to help energy companies, investors, buyers, and sellers navigate today's policy, economic, market, pricing, and competitive imperatives.

The BRG Energy & Climate team is focused on business, regulatory, and dispute resolution challenges associated with rapid decarbonization and the transformation of energy use across the energy, industrial, and transportation sectors. Our energy business advisory offerings and dispute resolution work are synergistic and mutually reinforcing. Our extensive experience with energy disputes makes us realistic, grounded analysts of long-term opportunity, risk, pricing, and value. Similarly, our cross-disciplinary experience throughout the energy sector, as accomplished advisors, former executives, and financiers, makes us highly credible, effective experts for dispute resolution matters.

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For a deeper conversation and to learn more about how BRG can help you, call or email to arrange a private client briefing.



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