The New Dynamics of Global LNG Industry

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FGE Long-Term Price Forecast

Among the many variables affecting crude prices, four key scenarios drive our price outlook range:

- **Base Case (US$/bbl Nominal) – Most Likely Path**
- **OPEC Reacts: OPEC Cuts But Then Problems Return**
- **Political Outages: Low-Cost Producers Stay Constrained**
- **Lower for Longer: Politically Shut-in Supplies Return**
While Asia’s LNG Demand Continues to Dwarf Other Regions

Global LNG Demand by Region

Declining domestic production requires increasing LNG imports

Growing LNG needs as domestic supplies cannot keep up with elevated economic growth

Note: The above units are in mmt of LNG

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Asia is *Potentially* Over-Supplied for Several Years From 2017

**Asia's Potential LNG Supply/Demand**

*Excludes portfolio volumes*

Note: Only SPAs and equity volumes are taken into consideration under contracted supplies

(Source: FGE estimates)
Asia Long-Term and Spot LNG Price Outlook

Japanese Contract Prices Vary With Oil Prices, While Spot Prices Remain Suppressed This Decade

Japan Gas Price Forecasts

Spot prices remain disconnected from oil-linked pricing this decade as the market remains over-supplied due to new liquefaction project startups.

From 2022, market becomes less over-supplied, due to a lack of liquefaction FIDs, resulting in gradually closer correlation between spot and contract prices.

Both prices rise to around US$10.5/mmBtu by 2025 as oil price rises, giving a reasonable return to the next tranche of LNG supply.

Note: The above prices are in 2016 real terms.
Global Gas/LNG Price Outlook

The Japan/UK Spot Price Differential Narrows Dramatically From 2015

Global Gas/LNG Price Forecasts

Japan spot/NBP price differentials narrow to ~ US$1/mmBtu as large increase in flexible US LNG exports erodes Qataris’ ability to restrict Asian LNG supplies.

Asian prices converge to ~US$11/mmBtu around 2025.

Note: The above prices are in 2016 real terms
For Buyers and Sellers to Meet, LNG Price Levels and Contractual Flexibilities Need to be Adjusted

Pricing Adjustments

- Lower price expectations
- Balance between slope and constant
- Re-emergence of ‘S’-curve
- More regular price review (~5 years)
- Increased acceptance of hybrid pricing

Non-Pricing Adjustments

- Destination flexibility
- Volume flexibility (higher DQT)
- Buyers’ equity investments
- Buyers given more risk protection
- Sellers manage LNG quality issues
- Sellers manage credit issues
- Potential alliances within buyers/sellers
- More multi-duration sales contracts
Massive Pre-FID LNG Supplies are Planned Post-2019

Global Liquefaction Capacity and LNG Demand

- Speculative
- Possible
- Planned
- Under Construction
- Operating

World LNG Demand

Source: FGE Online Data Service (ODS)
Global LNG Supply and Demand

Many Planned Projects in Australia and Canada May Not Happen Until After 2025

Global LNG Supply/Demand Balance

Source: FGE estimates
Uncommitted Qatari LNG
~30-43 mmt

Buyers Performing Below Contract Levels*
~3-4 mmt

Australian LNG Looking for a Home**
~25-32 mmt

Unsold US LNG
~32-40 mmt

*Only for high priced contracts (slope >15%)
**Uncommitted volumes, equity offtake, and potential volumes re-entering market from ‘middle-men’ buyers
Note: Range of volumes presented span across the 2020-2025 timeframe
A Prolonged Loose Asian Market till 2028? – Something’s Gotta Give!

*In operation and under construction projects
**Including selected contracts with slopes of 15% or above from Asian and Middle Eastern supplies.
†Assuming buyers take minimum volumes for contracts with slopes of 15% or above.

Source: FGE estimates
Thank You

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