



LNG Outlook 2017: Surplus or balance?



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This year looks set to be an important one for LNG. Global production is forecast to reach 292 mt in 2017, marking an increase of 34 mt from 2016 – an unparalleled year-on-year rise. The lion's share of additional production will come from the ramp-up of liquefaction plants commissioned in the US and Australia in 2016, though a fair amount of extra production is also expected from projects scheduled for start-up in 2017. But as sellers continue to grapple with an already well-supplied market, the crucial question this year is: will demand grow enough to absorb surplus production volumes as it did in 2016? If not, how will the market balance?

Bullish January

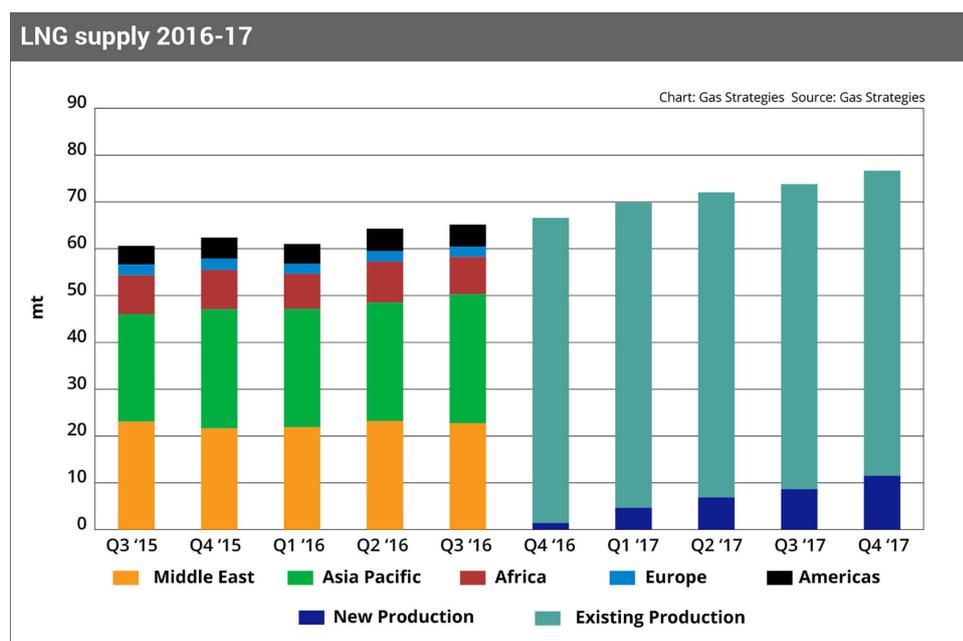
It has been a bullish start to 2017. A cold snap in Japan, Korea, China and most of Europe boosted demand for LNG. In addition, outages at the Chevron-operated Gorgon LNG export plant in Australia reportedly left long-term contracted buyers with the project short.

As a result, Asian spot LNG prices rose to just above USD 9.50/MMBtu in the first half of January – a significant improvement from USD 5.12-7/MMBtu in January 2016 and USD 4/MMBtu in April 2016.

But with global production expected to grow by an unparalleled amount in 2017, chiefly on the back of new US and Australian liquefaction projects ramping up, was January's bullishness just a flash in the pan? Already by the end of January 2017, Asian spot prices had fallen back to USD 8/MMBtu levels, reflecting less tightness in the market.

Calm before the storm

Gas Strategies expects around 141.8 mt of LNG to be produced in the first six months of 2017 – an increase of 16.8 mt from the 125 mt produced in the first half of 2016.



Out of these additional volumes, liquefaction projects commissioned in 2016 – APLNG Train 2 and Gorgon Trains 1 and 2 in Australia and Sabine Pass Train 2 in the US – are forecast to contribute 8.5 mt. Another 0.9 mt is forecast to come from the start-up of Petronas' FLNG Satu and Malaysia LNG Train 9 in Q1 '17 – the latter started up in January – while 0.56 mt is expected from the start-up of Sabine Pass Train 3 in Q2 '17.

On a quarterly basis, new production is expected to stand at 4.7 mt in Q1 '17 and 6.9 mt in Q2 '17.

Assuming their start-ups go according to plan, H1 '17 is also due to see the commissioning of new regas projects around the world, increasing the globe's possible import capacity and opening new markets.

LNG receiving terminals scheduled to start-up in 2017		
Country	Terminal	Capacity in mtpa
China	Shenzhen – Diefu	4
Ghana	WAGL – Golar FSRU	1
India	Mundra LNG	5
South Korea	Boryeong	3
Pakistan	GasPort Limited LNG	4.4
		17.4
Source: Gas Strategies		

Malta became the first new LNG importer of 2017, when the 125,000 cm floating storage unit (FSU) Armada LNG Mediterrana received its maiden cargo on 11 January. The gas imported by Malta will feed a new 215 MW combined-cycle gas turbine power plant and an existing 149 MW unit that will be converted to burn gas rather than heavy fuel oil. Maltese LNG demand is currently forecast at 0.3 mtpa.

By end-June, GasPort is scheduled to finish commissioning Pakistan's second, 4.4 mtpa FSRU at Qasim, while India also is due to see its 5 mtpa Mundra LNG facility commissioned.

Later in the year, LNG receiving terminals also are scheduled to start-up in China – Sinopec's 3 mtpa Tianjin terminal – as well as Ghana, which will be sub-Saharan Africa's first import project.

Assuming that LNG demand remains solid during H1 '17, either from countries going through a colder-than-normal winter, or gas-hungry markets in the Middle East and Asia, a long market is likely to be kept at bay in the first half of 2017.

Waiting for the glut

The cumulative effect of steadily rising production is likely to be felt in the second half of 2017, especially in the middle of the year, when demand tends to be lower in the dominant markets of the northern hemisphere.

Provided that new liquefaction capacity projects scheduled for start-up this year go according to plan, Q3 '17 could see total production at 73.8 mt, up 8.7 mt from 65.1 mt in Q3 '16.

New liquefaction projects scheduled for start-up in Q3 '17 include the 4.45 mtpa Wheatstone Train 1 and Ichthys Train 1 in Australia and the 4.5 mtpa Sabine Pass Train 4 in the US.

In Q4 '17, start-up is scheduled at Australia's 3.6 mtpa Prelude, the 5.3 mtpa Cove Point project in the US and Cameroon's 1.2 mtpa Kribi Floating LNG

However, reports in recent weeks have indicated that start-up for some of these projects – Gorgon Train 3, Wheatstone, Ichthys and Prelude – may slip into 2018. Even in the event that they do – and at the moment there is only press speculation – their combined contribution to 2017's production forecast is, at 3.4 mt, a relatively small fraction of this year's anticipated new production.



Assuming that start-ups in these Australian projects go as planned, Gas Strategies expects 76.7 mt of total production in Q4 '17, bringing the H2 '17 total to 150.4 mt, up 18.7 mt from the second half of the year in 2016. As a result, total LNG production, including ramp-ups, could stand at 292.3 mt in 2017, compared with 258 mt in 2016. If the Australian projects do slip to 2018, H2 '17 production is forecast at 147 mt and 2017 overall at 288.6 mt.

Liquefaction trains scheduled to start-up in 2017			
Country	Facility	Capacity in mtpa	Target start-up date
Australia	Gorgon Train 3	5.2	Q2 '17
Australia	Wheatstone Train 1	4.45	Q3 '17
Australia	Ichthys Train 1	4.45	Q3 '17
Australia	Prelude	3.6	Q4 '17
Cameroon	Kribi Floating LNG	1.2	Q4 '17
Malaysia	Petronas FLNG	1.2	Q1 '17
USA	Sabine Pass Train 3	4.5	Q2 '17
USA	Sabine Pass Train 4	4.5	Q3 '17
USA	Cove Point	5.3	Q4 '17
		34.4	

Source: Gas Strategies

Declining Japan

As was the case in 2016, whether sellers end up using Northwest Europe as a sink market in 2017 will hinge on demand in Asia and the Middle East.

Unfortunately for sellers, demand from Japan, the world's biggest LNG importer, is unlikely to rebound, with buyers there facing further demand decline, leaving them seemingly over-contracted.

Japan LNG imports				
2013	2014	2015	2016*	2017*
87.7	89.1	83.6	81.6	77.3
*projected				

Source: IEEJ

Assuming that Japan's nuclear comeback goes as planned, Japan will see another year of declining imports. Japan's Institute of Energy Economics (IEEJ) said in December 2016 that, according to its reference scenario, a total of 14 nuclear plants could restart by the end of 2017. If that is the case, IEEJ has predicted Japan's imports in 2017 at 77.3 mt, down 5.3% from 81.6 mt in 2016.

With Japan importing less, will demand from China, which demonstrated impressive and somewhat unexpected demand growth in 2016, and from relative newcomers in the Middle East and South Asia, be enough to fend off a bearish price environment, which could lead to surplus volumes being sunk into Northwest Europe in the second half of 2017? Or will the rate of new supply be so high by H2 '17 that any "positive" demand event will be insufficient in doing that?

Chinese cavalry

China's imports rose by 33% in 2016, reaching 26 mt, increasing LNG's share of the Chinese gas market. Some of the growth was due to the programmed start-up of new LNG supply from Australia, boosted by cut-backs in Chinese coal production and cold weather in the latter part of the year.

In 2017 the step-up in Chinese contracted supply will continue, as the big three Chinese LNG players – CNOOC, Sinopec and PetroChina – continue to absorb the large contractual commitments made to Australian projects – for example, Sinopec’s 7.6 mtpa contract with APLNG.

This year, China may well overtake Korea as the world’s second largest LNG importing country. For China to reproduce its 2016 growth rate it would need to absorb a significant amount of the additional LNG forecast to be produced in 2017.

LNG in 2016

LNG production in 2016 was less than had been expected at the beginning of the year because of delays in the start-up and slow build-up of production at some of the new trains, together with declining production at operating plants, including the Atlantic LNG plant in Trinidad and Tobago and Nigeria LNG.

Demand growth was stronger than expected in India, China, the Middle East and Egypt resulting in the global LNG market being more closely balanced, confounding the predictions of those who forecast that prices would collapse under the weight of new supply.

Spot prices in Asia ended the year close to those in oil-indexed long-term contracts. Lower than forecast supply and higher demand meant that the flow of “distressed” LNG cargoes into Europe – which acts as the market of last resort – did not materialise.

The LNG trains commissioned during the year included the two trains at the Sabine Pass plant in Louisiana, the first in the lower-48 states, and the first in the build-

up of US production capacity to around 65 mtpa over the next five years.

Latin America has been the destination for most of the cargoes loaded from Sabine Pass, with some also heading to Asia in the latter part of 2016.

An indication of the increasing role of short-term trade and shattering of traditional market assumptions has been the growth in the number of tenders being issued for both the sale and the purchase of cargoes.

On the buy side, Egypt and Pakistan have excited the attention of sellers by inviting tenders for large numbers of cargoes over multiple years. The emergence of such buyers has underpinned the growth of the LNG business and generated plenty of opportunities for traders.

The availability of regasification capacity has not generally been a constraint on LNG activity, with many terminals operating at low utilisations rates. However, some 27 mtpa of import capacity was added during 2016 including the emergence of Jamaica and Colombia as new importers.

Price sensitive India

Indian LNG demand was also a major growth area in 2016, with demand in the first three quarters of 2016 at 15.3 mt, up over 38% on the previous year.

Indian demand is very price sensitive, with the majority of imports being on short-term and spot bases. How much Indian demand will grow in 2017 will therefore be a function of price. If, as seems quite probable, the build-up of new supply in 2017 causes a fall in LNG spot prices, India may well be one of the markets to profit from that.

MENA growth

A third big growth area in 2016 was the Middle East and North Africa (MENA), where LNG imports grew 94% in the first three quarters of 2016, albeit from a small base in 2015.



There are now six MENA LNG importers – counting Abu Dhabi and Dubai separately – and imports are likely to grow significantly from around 18 mt imported in 2016, as Egyptian imports grow and Abu Dhabi has its first full year as an importer.

Market of last resort

Overall, LNG demand is likely to grow substantially in 2017, but the key test of the global supply balance will be how much LNG ends up in Northwest Europe. As LNG's market of last resort, it is the only LNG-importing gas market with real liquidity to dispose of a surplus.

European LNG imports in fact increased by around 6% in the first three quarters of 2016, pretty much in line with the overall global increase in output. But Europe may end up taking a greater share in 2017 of a larger overall increase in output.

All eyes will be on Q3 '17. With so much new production anticipated by H2 '17, sellers in over-contracted Asia may have to sink surplus volumes in the liquid markets of Northwest Europe. In that case there will indeed be downward pressure on prices.

Should this need to sink volumes coincide with low seasonal demand in Europe, it could lead to a significant European price crash, which in turn could cause Asian spot LNG prices to fall back to April 2016's USD 4/MMBtu levels – or even lower.

Everybody hurts sometimes

Should such a crash occur, LNG projects in Australia – as well as buyers that find themselves long – and US LNG offtakers may be forced to sell LNG below long-run marginal costs, or long-term contract prices, into the global spot markets.

In such a scenario, spot prices may also be below the short-run marginal cost of US LNG production, in which case offtakers will cut back their liftings, leaving plants running below capacity. Whether this flexibility mechanism will come into play will be something to watch in 2017.

UK and European gas suppliers will also feel pain, as they will be hit by low gas prices, as surplus volumes are sunk into Northwest Europe.

Finally, up-stream companies, already reeling from low oil prices, will now also have to deal with bearish gas prices.

But there are two sides to the coin. Low spot LNG prices could encourage countries that buy their volumes on the spot market – out of necessity or design – to maximise their use of gas, boosting LNG imports. Buyers in Europe and elsewhere would of course also benefit from low gas prices.

The long view

2017 will be the year when a large number of 2016 start-ups in the US and Australia ramp up, with additional LNG volumes this coming year forecast at 34 mt. Total production is expected at 292 mt.

Uncertainty over new Australian projects scheduled for start-up in 2017 may act as a break on total supply growth, but the degree to which that happens, and its impact, is challenging to predict.

New markets continue to open, but are unlike traditional, long-term Asian ones, which are shrinking. China and India are by far the most significant for potential growth, but their demand is likely to continue to be influenced by price most of the time.

Usage of US liquefaction capacity is something to keep an eye on. If Australian projects scheduled for start-up in 2017 slip into 2018, US capacity is likely to be utilised in 2017, but may eventually lead to shut-ins in 2018, including for projects starting up that year.

A final word...

For at least two years, the conventional wisdom in the LNG industry has been that the market is poised for a period of surplus, leading to depressed spot prices and the potential shutting in of LNG capacity. However, there are some possible indicators of a future that does not see the LNG market out of balance in the period to 2025 to the extent previously anticipated.

Potential supply-side trends, such as the delay of start-ups of new liquefaction capacity and – perhaps – a more rapid decline of production in mature projects, may reduce forecast supply growth, or at least smooth the curve.

At the same time, the potential for the behemoth markets of China and India to continue to absorb unexpectedly large volumes of LNG, as well as the frequency and pace of new market openings, may indicate a structural underestimation of additional demand growth. Perhaps the LNG market glut, so long predicted, will disappear before it ever starts.

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