

February 2022

# 2022 ICIS LNG Global Supply & Demand Outlook



# INTRODUCTION

Global gas and LNG wholesale prices rocketed to never-before-witnessed heights in 2021, as market tightness and concern over supply gripped the market. The increasing interconnectedness of the gas markets in Europe, Asia and the Americas, via LNG, led the European benchmark – and arguably global index – the *ICIS TTF* to peak at \$60/MMBtu.

Although the northern hemisphere's winter still has two months to go, market participants are already looking to the subsequent winter, starting in October 2022. There is a very real probability that European conventional storage will start the new withdrawal period with low stocks again, indicating tightness in LNG and gas markets lasts well into 2023.

LNG's ability to respond to price movements to help balance regional tightness – already playing out in January 2022 – will play a crucial role in the market's preparations for the next winter. But granular forecasting of LNG supply and demand by ICIS Analytics clearly shows that underlying demand for LNG through this year outstrips supply.

According to the *ICIS Global LNG Supply & Demand Forecast*, demand in 2022 is set to reach 389.4m tonnes, up just 3.7% year on year. LNG supply at source is predicted to climb to 390.6m tonnes, but once shipping is accounted for this will be closer to 384.9m tonnes, up just 1.5m tonnes. This could leave a shortfall of 4.5m tonnes of LNG that the market will need to address.

In this first *ICIS LNG Global Supply & Demand Outlook*, ICIS looks to highlight how every part of the market is set for 2022 and how, when each is considered, this impacts the global LNG balance.

The outlook's findings are based on the near real-time updates to the associated forecast, which predicts every exporting plant, and every importing market individually, on a rolling 24-month horizon.

## LNG supply

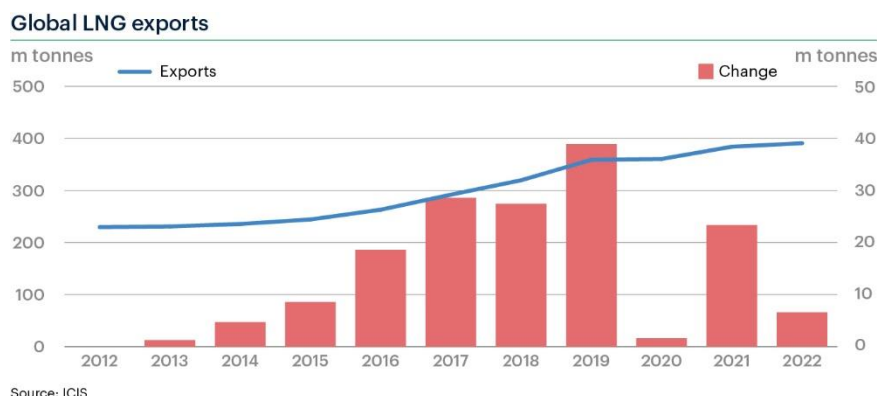
The wave of new supply additions to the global LNG market seen during 2015-2020 is slowing down considerably. During 2017-2019 actual production rose 25-40m tonnes/year – a result of investment decisions made earlier in the decade.

Growth in 2020 was minimal, as the oversupply resulting from this surge and the pandemic's effect on demand crushed prices, leading plants in the US and elsewhere to turn down. Production grew around 24m tonnes in 2021, as prices recovered and newer plants reached their full potential.



However, additions to global supply will be limited in 2022, with production forecast to increase only 5.3m tonnes (1.4%) from 2021, despite record spot gas prices at the turn of the year.

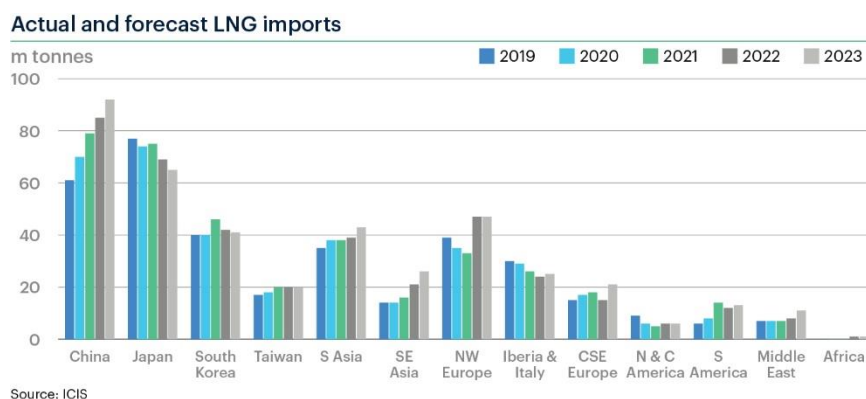
The main new facilities to watch for this year are US Sabine Pass train six, US Calcasieu Pass and Mozambique's Coral South project.



## LNG demand

Global LNG demand in 2022 is set to rise just 13.8m tonnes year on year, down from the 18.8mt added in 2021 over 2020. Gain of the magnitude seen before the pandemic will not reoccur for some time, with expected 2023 additions predicted at 21.1m tonnes in a global market of 410.5m tonnes.

China overtook Japan as the world's largest LNG importing market in the last year. Into 2022, China's growth is predicted to continue unopposed as Japan's consumption of LNG is forecast to fall. South Korea, as the world's third largest market, is also expected to reduce imports of liquefied gas, while Taiwan is forecast to expand further.



Pipeline market tightness in Europe will mean the continent's thirst for LNG will remain strong. The Americas, collectively, are expected to draw in similar amounts of LNG in 2022 as in 2021, while Middle Eastern demand is set to rise. Africa is once again expected to be an LNG importing continent, with the start-up of a number of small projects.



## GLOBAL LNG SUPPLY

### **The rise of the United States**

The US was the world's biggest LNG exporter in December 2021, the first time it had taken that monthly record, overtaking Australia and Qatar.

ICIS Analytics expects the US, for the first time, to be the biggest supplier in the world overall for the full year 2022. The US could export some 79.8m tonnes, up 9.9% from the previous year. The country's first major LNG export plant, Sabine Pass, has added its sixth and final 4.5mtpa train, which produced its first cargo in December 2021. The train was shut-down briefly in early January 2022 likely for final commissioning checks, but feedgas rates of 4.9 billion cubic feet (bcf)/day later in January showed all six trains back in full production.

Venture Global is due to bring on its 10.0mtpa Calcasieu Pass project in 2022. There had been some hopes it might produce a first cargo late in 2021, but as of early January 2022 the facility was still not taking in any feedgas. It is still expected to build up over the course of the year though. Calcasieu Pass is a modular plant with 18 small trains of 0.6mtpa each, so its output will likely build up gradually.

Downside output risks include the possibility of cold weather disrupting US gas production in February and March, as happened during the freezing weather in Texas in February 2021, and the possibility of hurricane disruptions to operations at the end of the year, as in October and November 2020. Hurricanes can block shipping channels and disrupt plant power supplies.

### **Qatar 2022 supply to remain flat**

We expect little change to Qatar's output in 2022 as the formerly-top LNG producer slips, what will likely be temporarily, into second or third place. Qatar will maintain production around its nameplate rates of 77.0m tonnes. The expiry of some long-term contracts with Japanese buyers could see increased flows to newer buyers such as China and South Asian countries instead.

Qatar is taking action to return to the top position in global exports later in the decade, however, with an expansion project ultimately aimed at boosting its annual output to 126mtpa by 2027.

Engineering firm McDermott was awarded a major contract in October 2021 to construct and install offshore pipelines and facilities at Qatar's North Field East, which will provide feedgas to the new trains being planned.



## Australia's steady supply depends on maintenances

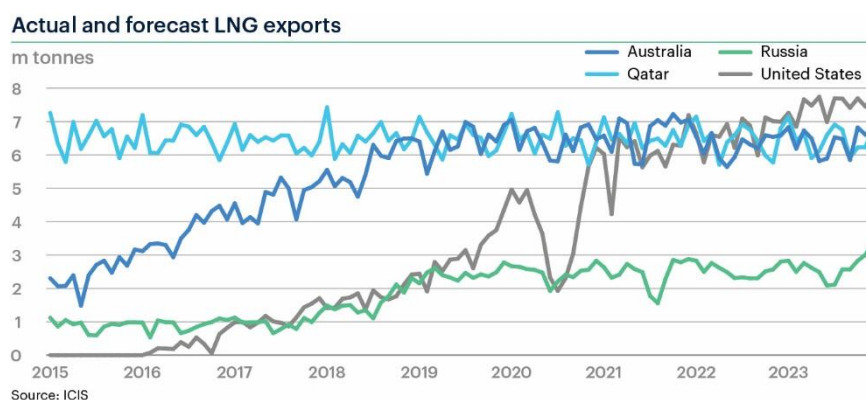
Australia will likely be the second or third largest LNG exporter in 2022, depending on the impact of maintenance outages and the rate of feedgas decline at older facilities. We forecast output could slip to 75.4m tonnes, down from a record 80.2m tonnes, which put Australia as the top LNG exporter in 2021. There could be upside potential for production if there are fewer outages than we currently forecast.

The 3.6mtpa Prelude floating LNG plant offshore northwest Australia shut down after an electrical fault in December 2021. It must reassure regulators it is safe to restart, which could lead to a prolonged outage in 2022. The facility was previously shut for almost a year between February 2020 and January 2021.

Chevron's Wheatstone plant is due for planned maintenance of around a month in April, affecting both trains at the 8.9mtpa facility. The east coast APLNG and QCLNG plants have planned maintenance in April, June, July and October.

Output from the 3.7mtpa Darwin LNG is expected to fall on declining feedgas availability, although the new Barossa field should boost output in later years following an investment decision in March 2021.

North West Shelf LNG could also see feedgas decline in 2022, although the new Waitsia field is due to start in 2023.



## Russia's 2022 LNG exports to hold firm

Russia is and will remain the fourth biggest exporter, although volumes are less than half the top three producers.

Exports in 2022 of around 30.3m tonnes are expected to be little changed from the previous year as the east coast Sakhalin LNG and the Arctic Yamal LNG continue with a steady performance.

Sakhalin carried out some extensive maintenance in summer 2021, postponed from 2020 due to the pandemic-related delays. This should reduce the chance of further maintenance impact on Sakhalin's output in 2022.



Partners in the Arctic LNG 2 project are developing a facility near Yamal LNG with a further three 6.6mtpa trains, but the first of these is not expected to come into operation until 2023.

The Northern Sea Route through the Arctic eastwards to Asia closed a little earlier at the end of 2021 than the winter before. It could re-open around May or June 2022 allowing Yamal cargoes to take the direct route to Asia again in the second half of the year.

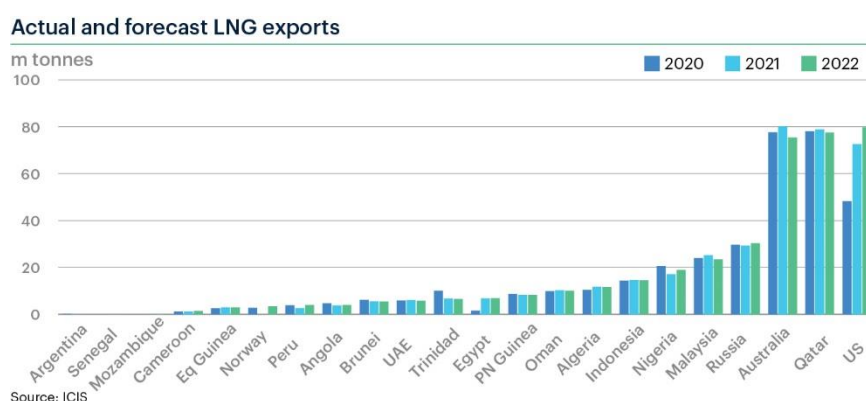
### Little change expected in Asia-Pacific

There are no major changes expected elsewhere in the Asia-Pacific region in 2022, with relatively steady exports expected from key producers such as Malaysia, Indonesia and Papua New Guinea.

BP is planning a third 3.8mtpa train at its Tangguh plant in Indonesia, but while this was originally due onstream in 2020, it is not now expected on until the very end of 2022 at the earliest.

Output from Malaysia's Bintulu plant saw some reductions in the second half of 2021 due to mercury contamination of upstream gas fields that supply the liquefaction facilities. New treatment equipment is being installed to address the problem in 2022. We forecast Malaysia to produce around 23.5m tonnes in 2022, down slightly from 25.2m tonnes the year before.

Indonesia is forecast fairly steady at around 14.5m tonnes in 2022, while Papua New Guinea is forecast at 8.3m tonnes, unchanged from the year before.



### African production to nudge higher

Italian company ENI's 3.4mtpa Coral South floating LNG project could start producing offshore Mozambique in late 2022. The production vessel arrived offshore the country in early January 2022 after being towed there from its South Korean shipyard. The project is unlikely to make a major impact on 2022's exports, however.

The region's biggest exporter, Nigeria, saw exports drop significantly in second half of 2021 on the back of various maintenance outages on production trains at Bonny. Assuming the work is



successful, output could increase in 2022 above this heavy maintenance level. We forecast Nigerian exports of 18.9m tonnes, up from 17.1m tonnes in 2021.

There is potential supply upside from Egypt if both the Idku and Damietta liquefaction plants run at strong levels. Damietta returned to action in early 2021 after having been offline since 2012 on the back of low gas availability and a legal dispute amongst its owners.

### **Improvements expected in Europe and South America**

Norway's 4.3mtpa Hammerfest LNG plant, operated by Equinor, should return to production in 2022 after closing due to a fire in September 2020. At the start of the year the outage was updated to last until mid-May, having previously been scheduled to finish at the end of March.

The ongoing outage of Hammerfest throughout 2021 shut Europe's only LNG production facility and meant Equinor had to source alternative cargoes from the market to supply long-term customers.

Trinidad & Tobago's output has been declining in recent years due to reduced feedgas availability. We forecast exports in 2022 at 6.5m tonnes.

Peru's 4.5mtpa Pampa Melchorita plant had a major maintenance outage in July-August 2021 for work on a compressor, but has been performing well in late 2021 since returning to action. We forecast exports in 2022 at 4.0mtpa, up from 2.6mtpa the year before.



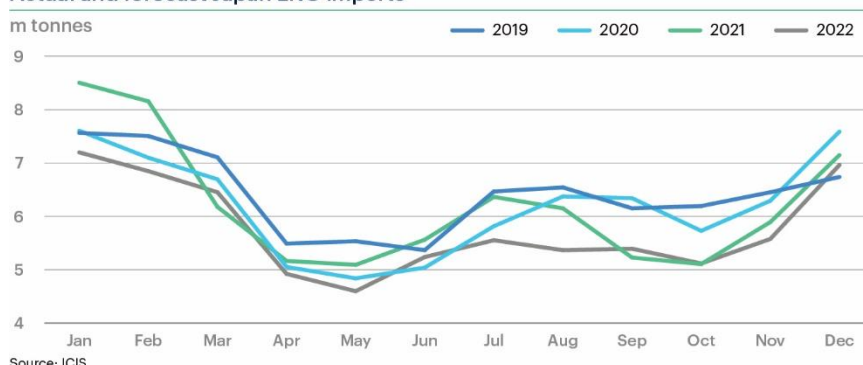


## GLOBAL LNG DEMAND

### Japan's power mix diversification to weigh on LNG imports

Japanese LNG demand is expected to shrink to 69.2m tonnes in 2022, with high storage levels and increased nuclear availability at the start of the year pushing imports in January and February significantly down compared to the same period in 2021. This is expected to force imports lower, year on year, by around 2.5m tonnes in the first two months alone.

Actual and forecast Japan LNG imports



Nuclear generation is scheduled to decrease in the summer but this should be covered by higher coal plant availability, rather than LNG, though some doubts remain regarding the start-up of new capacity.

The 650MW Kobe 3 coal plant in Kansai was scheduled to begin commercial operations in late 2021, but it appears power producer Kobelco only ramped-up operations at the end of January 2022. JERA's 1,070MW Taketoyo 5 coal plant in Chubu was scheduled to begin commercial operations in March 2022, but this has been pushed back to early August of the same year.

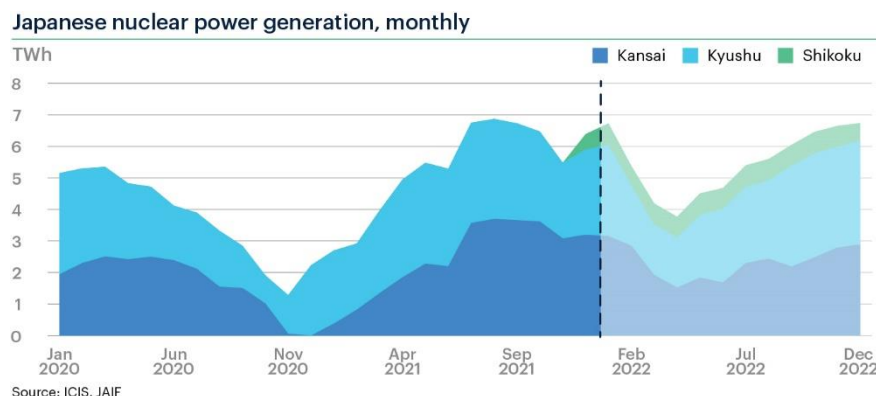
The delay has been flagged as a factor that could reduce supply margins in the summer of 2022, indicating that start-up is still off by several months. Lastly, Chugoku Electric plans to begin commercial operations of its 1GW Misumi 2 coal plant in November 2022, suggesting a possible transmission start in May or June. In terms of nuclear generation, output is expected to decrease by about 4% year on year as a whole; but will still be higher in some of the peak demand periods, including January through March and in December.

Four reactors are scheduled to complete anti-terrorism facilities in 2022. Of these, only the 1,180MW Ohi 3 is expected to miss its deadline, but the requirement may be the reason behind the relatively longer maintenance periods scheduled for Ohi 4 and Genkai 3-4 this year. The start-up of reactors idled since 2011 are still unconfirmed, but ICIS Analytics will continue to keep a close eye on permitting for Tohoku Electric's Onagawa 2 and Chugoku Electric's Shimane 2.





Japanese buyers are expected to continue to keep LNG storage inventories at above-average levels to prevent a run on stocks during peak demand periods. This is likely to impact flows in the months up to summer and into next winter.

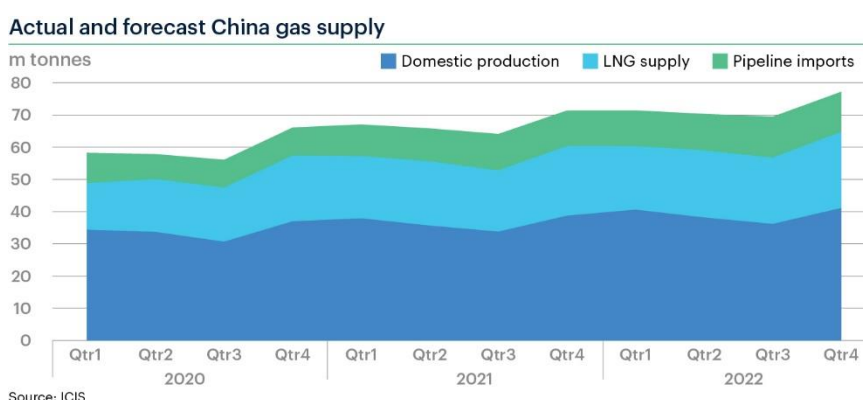


### China's continued gas policy to support growth in LNG demand

China imported 79.2m tonnes LNG in 2021, surpassing Japan as the world's largest importer. Into 2022, ICIS Analytics expects China's LNG imports to reach 84.8m tonnes, up 7% year on year, remaining a crucial supply source to meet the country's growing natural gas demand.

LNG, due to its higher attainability and flexibility when compared to domestic production, is expected to be relied upon should China face supply shortfall from Kazakhstan, Uzbekistan, or any other pipe gas exporting countries.

A total of 13.6m tonnes of long-term contracts will start in 2022, reflecting China's increasing reliance on term contracts in times of high spot prices and the country's expanding regassification capacity.



ICIS Analytics expects eight new LNG import terminals, with the combined capacity of 23mtpa to be start operations in 2022. We expect the LNG market will open-up further to second-tier buyers this year, as over 60% of the new terminal capacity will be owned by these market participants.



During 2021 and with storage capacity increased, ICIS Analytics observed a flatter LNG import profile during the winter as some volumes shifted to months of lower demand. We expect this trend to continue in 2022, as yet more storage capacity becomes available.

#### *Sectoral demand, domestic production and pipe imports*

We expect that residential and industrial gas consumption will continue to be the key drivers behind China's growing gas demand – estimated to reach 388 billion cubic meters (bcm) in 2022, up 7% year on year. Coal-to-gas switching will continue at a moderate pace compared to previous years, targeted at industrial and heating sectors, while last-mile connectivity will boost residential gas consumption, especially in the southern regions.

In the power sector, installed gas-fired generation capacity will reach 114GW by the end of the year, which we expect will result in an 8.6% year-on-year growth in gas-to-power offtake. LNG will play a key role in replacing hydro-power generation in coastal regions, should precipitation dwindle again this summer.

ICIS Analytics estimates Chinese domestic production will increase to 219bcm in 2022, a 7% rise year on year. Pipe gas imports are expected to reach 67bcm, up 12%. Most of this growth will come from Russia, Turkmenistan and Myanmar.

Kazakhstan and Uzbekistan are predicted to reduce their exports to China due to growing domestic consumption. The recent Uzbekistan gas export ban will have limited impact since it only accounts for 1% of China's total gas supply.

We expect the overall pipe gas import dependency to increase slightly to 17% this year.

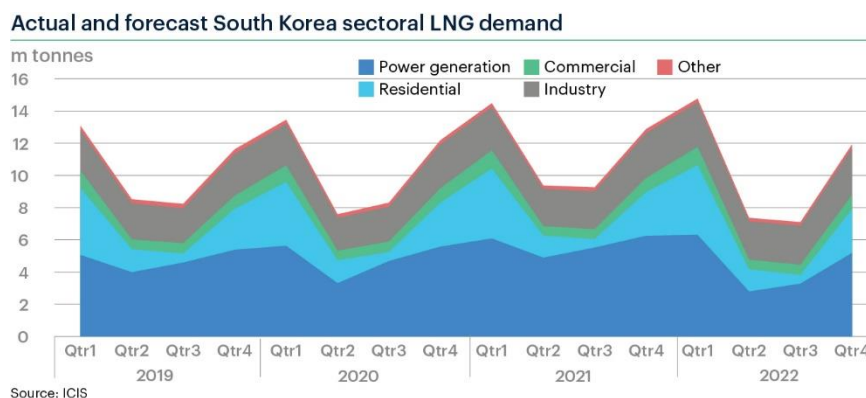
#### **South Korea's nuclear and coal power generation to push LNG imports lower**

Despite the impressive, near 15%, year-on-year gain in LNG imports in 2021, ICIS Analytics is not optimistic regarding South Korean demand in 2022. We forecast the country's LNG imports will decline by 10% to reach 41.6m tonnes, mainly due to the reduction of gas-use in power generation.

Most other sectors' gas use will remain relatively stagnant, although industrial consumption should grow by 3%. Seasonality-wise, we expect the first quarter to record the highest imports in three years. After that, with at least one new nuclear plant looking likely to start up, second, third and fourth quarter imports will decline to three-year lows.

While the country has approved a coal phase-out plan by 2050, currently coal power generation is still giving LNG a run for its money, accounting for 30-35% of total power generation throughout last year. This is similarly expected for 2022. This is despite the ongoing coal curtailments set by the regulator. ICIS LNG Analytics estimates an extra 5m tonnes of LNG will be burnt this year, compared to a scenario where the coal curtailment policy is not in place.

The plan to permanently shut down an existing 24 aging coal-fired power plants by 2034 is not expected to affect LNG imports this year, although it is to be closely monitored for any new development.



Since 2018, the annual total gas consumption trend for South Korea has been flat overall, with a slight decline. Our modelling expects this trend to continue in future years, 2022 inclusive. Last year was an anomaly year due to an economic covid-recovery rebound and because of stagnating coal and nuclear power generation profiles, due to government intervention and outages. We do not expect either to happen again in 2022 in any meaningful way.

Nuclear power generation is expected to increase significantly this year, up to 34% of the power mix compared to last year, given the upcoming start of the new Shin-Hanul reactors.

### **Taiwan's LNG imports to rise as coal and nuclear generation to decline further**

Taiwan imported 19.8m tonnes LNG in 2021, the highest in its history. ICIS Analytics expects Taiwan's LNG demand to grow further in 2022, to reach 20.1m tonnes. Strong power demand remains the key driver of LNG growth as 80% of total gas consumption goes into power.

Despite a moderate temperature forecast, Taiwan's total power consumption is expected to grow by 2.1% to 291TWh in 2022, driven mainly by robust demand from the industrial sector. In response to the rising power demand in northern Taiwan, the Datan power plant – Taiwan's largest gas-fired generator – will add a 1,120MW unit in June 2022.

We forecast operating the new unit will increase LNG imports by another 0.34m tonnes of LNG by year-end. This, however, will increase operating pressure at the Taichung terminal, where the utilization rate reached a high level of 115% in 2021.

On the supply side, two new long-term contracts will start in 2022, bringing in additional 2.3m tonnes worth of gas into Taiwan's contracted LNG portfolio.

Coal-to-gas switching in power, diminished nuclear generation and unstable renewable output will also boost Taiwan's LNG consumption in 2022. ICIS Analytics modelling shows power generation from renewables will account for less than 8% of the total power mix in 2022, rising by 1.5 percentage points from last year.

Although installed wind capacity increased by 21% in 2021, the actual power from wind decreased by 10% year on year, underscoring the uncertainty of Taiwan's renewable supply. Gas is therefore likely to be increasingly needed to cover intermittency.



Meanwhile, coal-fired power generation will continue to decrease in 2022, due to the backlash from air pollution and the ‘more-gas-less-coal’ policy in winter. Coal in the power mix is forecast to be reduced to 34% in 2022, from the current 35%.

Given the current Taiwan administration aims to phase out nuclear power entirely by 2025, we estimate nuclear generation to decrease by another 7% year on year. Nuclear is projected to play an even smaller role as a 2021 Taiwan referendum rejected the reactivation of the Lungmen plant.

Taiwan’s increasing reliance on LNG, however, points to a challenging power supply situation in the summer peak period, given the strong LNG prices.

### **Market tightness could tame LNG demand growth in Southeast Asia**

ICIS Analytics forecasts Southeast Asia will import 20.8m tonnes of LNG in 2022, a 33% increase year on year. Over 80% of this forecast volume will be from Thailand, Singapore and Indonesia, while new importers such as Philippines and Vietnam are expected to contribute just 6% of the region’s total. Another relatively new importer, Myanmar, is not expected to import any LNG in 2022 due to the ongoing domestic situation.

In terms of growth rate, existing southeast Asian importers – Malaysia, Indonesia, Singapore and Thailand – are expected to record a minimum of 20%, to as much as 40% growth this year. Vietnam is expected to start importing in March 2022 and the Philippines, in July 2022.

While we are generally optimistic on the region’s increasing reliance on LNG imports, the current global market tightness may mean nations in the region will need to scale back their plans due to the high prices. Conversely, Thailand’s looming production concession issue, Singapore’s expiring pipe import contracts and Indonesia’s LNG-to-power plans will continue to support the region’s need for liquified gas.

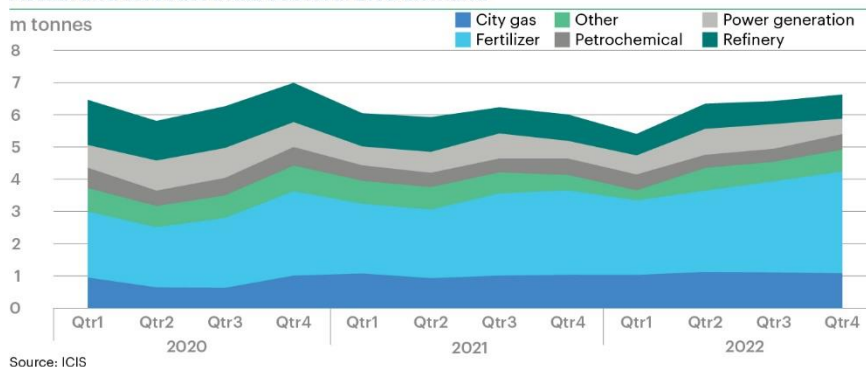
### **Spot exposure to threaten growth path in South Asia**

Barring a sudden reversal in spot LNG prices, the three importing nations in South Asia – India, Pakistan and Bangladesh – are all expected to find it difficult to meet demand requirements for 2022. Demand across these three countries is expected to be up 4.3% to 39.4m tonnes.

In India, imports are forecast to increase modestly compared to 2021, with importer GAIL using its US offtake and higher contractual deliveries to increase supply to the fertilizer and city gas distribution sectors. Supply to the power, refinery and petrochemicals sectors is expected to remain constrained amid high LNG spot prices.



Actual and forecast India sectoral LNG demand



As part of India's strategy to increase indigenous production of fertilizer, three new gas-based urea manufacturing plants were started in 2021, and two more are planned to start in 2022. Combined, these projects are expected to increase demand by over 10 million cubic metres/day – close to 3m tonnes of LNG over the year – though some of the gas will be sourced from domestic production. The government is also planning to increase subsidies to maintain price controls.

Demand from city gas distribution is also expected to continue to grow in 2022, with the completion of new transmission lines and local distribution grids. Indian Oil is planning to complete a new transmission network in southeast India, which will significantly increase the downstream market of the Ennore LNG terminal from February. GAIL is also expanding its network into the states of West Bengal and Odisha, where Adani Group is planning to commission a new 5mtpa LNG import terminal in the port of Dhamra in mid-2022. Import capacity is also planned to increase on the west coast, with the start-up of the 5mtpa Jafrabad terminal in Gujarat.

In Pakistan, imports are expected to increase, with a new supply contract with Qatargas helping to remove some of the supply risk associated with a lack of spot availability. However, importer Pakistan LNG remains exposed, with its mid-term contract with Gunvor set to expire in July. The buyer has so far been unable to secure spot supply for early 2022.

In Bangladesh, contractual supply is set to decrease, as both suppliers Qatargas and Oman Trading International have signalled a reduction in volumes for 2022. This will force Bangladesh to increase its spot buying activity in 2022 after scaling back its procurement plans in 2021 amid high prices. This will put pressure on the government's commitment to subsidise LNG imports and may result in gas supply shortages in 2022.

### New Kuwait capacity to boost demand, while UAE falls on high global prices

ICIS Analytics expects Kuwait to increase its LNG import this year by nearly 20%, as the new 22mtpa Al-Zour terminal ramps up to full capacity. While Al-Zour is built with a mid- to long-term plan in place, there are signs that the additional capacity has already been used to fulfil its downstream demand.



There may be unfulfilled demand previously, constrained by the limited import capacity. We observed a step-change in imports during the latter part of 2021.

The stronger-than-expected import, coupled with the oil and gas sector rebound indicate that the country has made good progress in its gas transformation plan. These includes plans to gasify its power generation and increase gas-use in industry. ICIS Analytics forecasts this year imports to reach 7.3m tonnes.

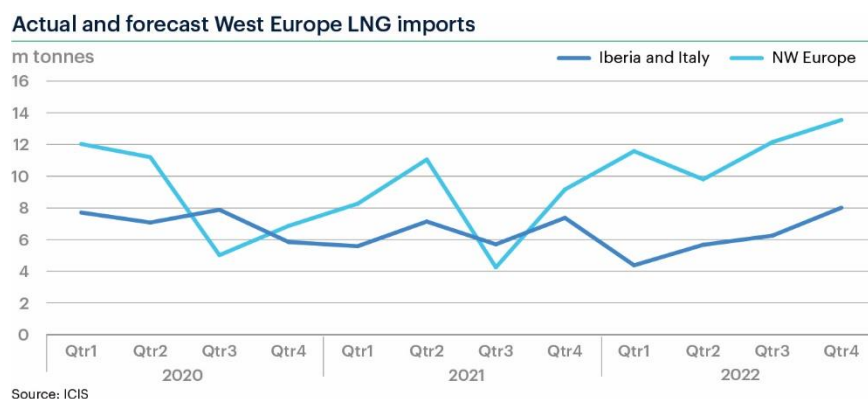
LNG imports in the United Arab Emirates continue to be dependent on its huge domestic production level – estimated to level at 9.2bcf/day in 2022. ICIS Analytics has observed lower-than-expected imports in 2021 as LNG prices soared to new heights, underscoring that LNG imports are price-sensitive.

Given the government controls a large volume of gas production, coupled with pipe gas supply from Qatar, it made sense to reduce LNG imports at times of global tightness. As such LNG demand growth of just 1.9% is forecast in 2022.

We expect neither Israel nor Jordan to import LNG over 2022 due to the availability of cheaper Israeli production.

### West European LNG demand to rise as pipe flow shortfalls expected to last

ICIS Analytics expects the key balancing region of west Europe to import nearly a fifth more LNG in 2022, compared to 2021. Low Russian supply and declining domestic production means European buyers will call 12.9m tonnes more into the region, bringing the 2022 total to 72.1m tonnes of LNG.



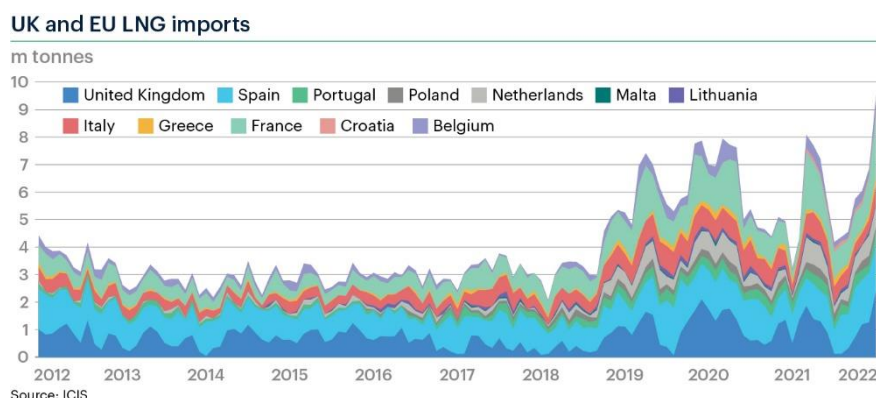
Most of that incremental LNG demand will come from the interconnected markets of northwest Europe (United Kingdom, Belgium, France and the Netherlands), where we expect an additional 14.4m tonnes of LNG to be imported. We forecast Iberia to import an additional 1.9m tonnes, while Italian LNG demand will only partially offset the overall regional gains, by dropping 3.4m tonnes.

ICIS Analytics expects European pipeline supply from Russia to remain in line with its reduced level from the previous year. Monopolist Gazprom has throughout late 2021 and early 2022 chosen not to offer additional spot volumes to buyers on its Electronic Sales Platform, going no further than meeting demand from its long-term contracts.





Regulatory hurdles have held up the commercial start-up of the Nord Stream 2 pipeline, which we currently model launching halfway through the year. We do not see the new pipeline having a significant impact to overall volumes, rather a diversion of supply from the Polish and Ukrainian corridors.



We note the Dutch government's minded-to decision to bolster output from the Groningen field to meet specific shortfalls in low-calorific gas (L-gas) supply in the Netherlands and Germany. The giant field – once the backbone of northwest European supply – is still slated for early closure. We expect the additional supply to largely be used to fill up L-gas stores in the Netherlands as the operators try and compensate for a delay to a quality conversion site. These ongoing and worsening shortfalls will need to be compensated by higher LNG receipts.

A diplomatic spat with Morocco cut Algerian pipeline exports to Spain via the MEG pipeline towards the end of 2021. Higher exports via the MEDGAZ pipe, which avoids Morocco, will only be able to replace less than a third of the lost MEG flows. ICIS Analytics therefore expects higher import LNG demand from Iberia in 2022.

Long-term pipe and LNG contracts between large Italian buyers and Gazprom and Qatar, in addition to Azeri pipeline supply via the TAP line, will insulate the peninsula from shortfalls felt elsewhere on the continent.

### **Turkish weakness to weigh on Central and Southern European demand**

ICIS Analytics expects LNG import demand at emerging markets in central Europe and the east Mediterranean to reach 14.5m tonnes, with weakness driven by Turkish imports. We expect flat imports in Poland and Greece, relative to 2021. Elsewhere, annual increases we predict in excess of 15% in Lithuania to 1.4m tonnes and Croatia to 1.6m tonnes.

ICIS forecasts Turkey to reduce its LNG import needs in 2022, after weather and operational issues bolstered domestic consumption in 2021. Low rainfall reduced hydro generation while weak coal plant availability meant Turkey had to call on its fleet of gas-fired plant to meet demand. We assume Russian pipeline flow to edge slightly lower from 2021, but remain well above levels in 2018 and 2019, due to volume deferrals from existing contracts and new ones signed by incumbent BOTAS and a number of independents.



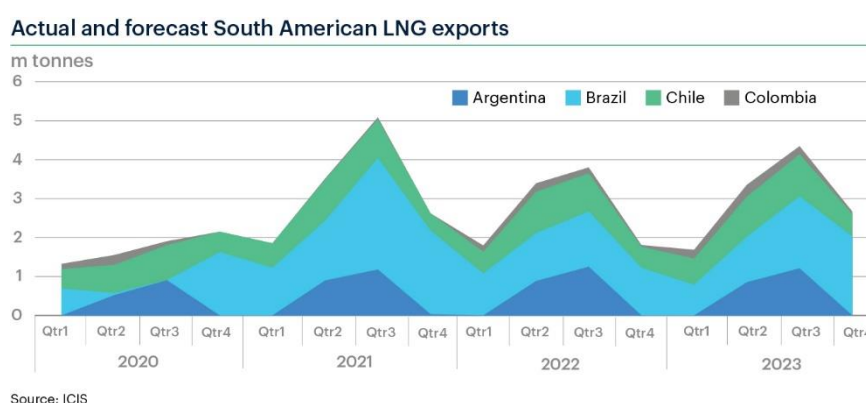


We expect Polish LNG demand to roughly double in 2023 with the start-up of a number of supply deals between PGNiG and US Gulf sellers, as the Polish incumbent looks to supply the domestic market without relying on Russia's Gazprom.

## Improved hydro likely to drive down South American LNG demand

LNG demand in South America in 2022 is forecast to fall to 10.8m tonnes, down 17% from a year earlier.

While imports into Argentina, Chile and Colombia are predicted to remain broadly unchanged relative to 2021, ICIS Analytics expects a drop in LNG demand from the region's largest buyer, Brazil.



Brazilian imports in 2021 tripled relative to 2020 as the worst drought in almost a century reduced hydropower production and, with minimal coal and oil generating capacity, forced up gas-fired plant output. With domestic gas output largely constrained and with little change to Bolivian pipe imports, buyers paid a high price to call on LNG supply to meet the higher consumption.

However, with rainfall improving considerably at the tail-end of 2021 and the beginning of 2022, and with domestic production expected to rise thanks to the start-up of new infrastructure, we predict LNG imports will fall by 2.8m tonnes, to 4.9m tonnes.

When fully operational the new Rota 3 pipeline will be able to deliver over 20mcm/day of offshore Pre-Salt gas to the Brazilian market, reducing the need for LNG arrivals.

In both Argentina and Chile, ICIS continues to expect LNG imports to be concentrated during the southern hemisphere's winter. Argentine demand in 2022 is predicted at 2.1m tonnes, flat to 2021, while Chilean imports are forecast at 3.1m tonnes, also unchanged year on year.

## Little change in North and Central America demand

ICIS Analytics expects the US and Canada to remain markets with low – but highly seasonal – demand for LNG imports in 2022. The dominance of domestic pipeline gas across the two countries means that LNG imports tend only to be required to smooth out peaks of demand. Imports are expected to hit 1.4m tonnes.



Canada's sole LNG import terminal, formerly known as Canaport but from 2022 has been renamed St John LNG, reflects Spanish gas company Repsol's transition to full ownership. This change is expected to be cosmetic only, with extremely limited deliveries still anticipated in spring and summer months ramping up to no more than a handful this coming winter.

A similar state of affairs is expected in the US, predominantly at the terminal of Everett, which is generally the main route in for LNG imports. Cove Point retains the ability to import occasional cargoes at times of peak demand too, but rarely does.

Further south, the pockets of Caribbean demand represented by the three small island nations of Dominican Republic, Jamaica and Puerto Rico remain limited by the size of their import infrastructure. The signing of a new contract of around 0.6-1.0mtpa between US supplier Cheniere and New Fortress Energy could potentially boost imports across a handful of projects focused largely around the Caribbean.

Jamaica could see a moderate increase in LNG cargo imports, once New Fortress revamps import capacity at the import facility. In the Dominican Republic, South Korea's KOGAS is targeting new gas-to-power generation, but this will not be feasible until a storage bottleneck at the AES Andres import terminal is resolved, which is unlikely to happen before 2023.

In Puerto Rico meanwhile, where New Fortress is also becoming active, planned LNG infrastructure expansion has been dogged initially by the effects of an earthquake in 2022.

In Mexico, LNG demand is expected to remain flat year on year, at 0.6m tonnes.

### **Power production to re-start African LNG imports**

A few African nations are expected to commence importing small amounts of LNG in 2022, starting from the west coast Ghana and Senegal, and on to east coast Mozambique. Together they may import 0.9m tonnes this year.

Ghana is looking likely to start importing as early as February, while the latter two nations possibly around April or May. However, given the run-up in LNG prices in the second half of 2021, delays to these projects' start-up are possible given they involve fuel substitution.

Ghana, Senegal and Mozambique are existing gas consumers: LNG imports are a means to replace fuel oil in power generation. Through 2022, ICIS Analytics estimates Ghana will import one cargo monthly, while Senegal and Mozambique to import a quarterly cargo each.

The projects in Senegal and Mozambique are tied to floating power plants, while Ghanaian inflows are also likely to support electricity generation.

We do not expect Egypt to return to the import market in 2022.



## CONCLUSION

ICIS Analytics forecasting shows underlying global LNG demand in 2022 is set to outstrip available supply. Over the whole of the year a shortfall of 4.5m tonnes will need to be addressed by the market, although we expect, at a monthly granularity, some slack over the northern hemisphere's summer and additional tightness during the fourth quarter.

Balance in the global LNG market will no doubt depend much on Europe, in particular the ability and willingness of Russia to send more spot pipe gas to the traded hubs in the northwest of the continent.

Assuming normal weather-related demand and Russian spot gas remains absent over 2022, the likelihood of the ICIS TTF remaining elevated – relative to pre-2021 levels – remains high. Even with increased LNG inflows predicted into northwest Europe this year, relative to last, conventional storage may very likely start October 2022 at levels similar to those at the start of 12 months earlier.

New LNG production out of the US, and in particular the pace at which the 18 trains of Calcasieu Pass start-up, will be key to the global balance over 2022.

Unexpected interruptions to supply will resonate across wholesale natural gas and LNG markets. The six-week delay to restart of Norway's Hammerfest plant, announced in January 2022 and the unclear nature of issues at Australia's Prelude illustrate the downside potential supply.

Gas demand in China will remain the engine of global LNG growth and the further flattening of the monthly import curve – through the roll-out of yet more conventional and terminal storage – will impact the global balance during shoulder months.

Meanwhile, nuclear power run-rates across Japan, South Korea and Taiwan will continue to have a knock-on effect upon LNG imports.

India, as well as Pakistan and Bangladesh, show some opportunity of yet further demand destruction given a number of sectors within these markets are so LNG spot price sensitive. ICIS Analytics will watch the buying behaviour especially closely.



## ICIS LNG ANALYTICS

### **ICIS LNG Edge**

The *ICIS LNG Edge* market intelligence platform tracks cargoes in real-time around the world, keeping users in touch with increasingly fast-paced and globalizing gas markets. *ICIS LNG Edge* uses satellite data to monitor the imports and exports of global consumers and producers.

A dedicated team of analysts supplement this physical data with commercial information from customs agencies and other sources to add in-depth price and volume data to voyage records. Import and export figures in this report are based on the latest data from the *ICIS LNG Edge* platform at time of publication.

*ICIS LNG Edge* also provides a database of global LNG contracts, an infrastructure database, news and alert services and more.

### **ICIS Global LNG Supply & Demand Forecast**

Operating in near real-time and on a rolling 24-month horizon, the *ICIS Global LNG Supply & Demand Forecast* covers every major exporting plant globally and each importing market. Modelling individually and from the bottom-up, the *ICIS Global LNG Supply & Demand Forecast* also surfaces the monthly LNG balance.

Associated fundamental data in major demand-side markets – such as sectoral gas demand and alternative sources of gas supply – are also forecast and surfaced.

### **Contact**

Tom Marzec-Manser, Head of Gas Analytics, [tom.marzec-manser@icis.com](mailto:tom.marzec-manser@icis.com)

Alex Froley, Lead LNG Analyst, [alex.froley@icis.com](mailto:alex.froley@icis.com)

Alex Siow, Lead Asia Gas Analyst, [alex.siow@icis.com](mailto:alex.siow@icis.com)