## LNG IN LATIN AMERICA:



espite gas deposits totalling at least 7.3% of global reserves and gas usage accounting for only 6.3% of global consumption, pointing to future export opportunities, Latin America and the Caribbean remain a net gas importer, with only Trinidad and Tobago and Peru regularly exporting LNG in meaningful quantities. Declining production from mature fields, inhospitable terrain, and a lack of regional gas interconnection remain barriers to gas self-sufficiency and estimates suggest that, without additional development, gas imports will potentially soar to 12 billion  $ft^3/d$  from current levels of 5.2 billion  $ft^3/d$  by 2035.

The governments of Latin American and Caribbean gas producers have had to strike a fine balance between supporting domestic industry and regional gas demand

# A TALE OF TWO MARKETS

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(particularly in relation to using gas to provide back-up generation power or to decarbonise oil or coal fired industry) and meeting their net-zero commitments, with the ability to export LNG to more lucrative international markets.<sup>1</sup> Coupled with this, historical regional gas producers are experiencing declines in production and higher extraction costs from more mature fields. Bolivia, for example, whilst still a key

regional exporter, has seen natural gas production fall from a peak of 2.1 billion ft<sup>3</sup>/d in 2014 to 1.3 billion ft<sup>3</sup>/d in 2023, as their reserves become more difficult and expensive to extract at commercially viable levels, leading to failures to fulfil volume requirements under export contracts. This repositioning of countries as exporters is resulting in the redirection of gas flows in existing infrastructure as the

market reacts with energy companies from Brazil, Argentina, and Bolivia, for example, in discussions to reverse the flow of the pipeline between the three countries (currently flowing from Bolivia to Argentina) to allow Argentinian gas to be exported to Brazil via Bolivia.

Despite this, new discoveries, the changing global political and economic landscape, and policy shifts by the LNG market's key players are presenting opportunities for Latin America and the Caribbean market to assert itself as both gas self-sufficient, and potentially a key exporting region.

### Fuelling growth: The role of LNG imports in Latin America and the Caribbean

With more regasification capacity than any other country in the region, Brazil remains one of the largest LNG importers in the region and is the sixth largest importer of US LNG globally. Whilst traditionally Brazil has been reliant on hydropower, changing weather patterns - both in terms of rainfall quantity and the timing of wet seasons since 2021 - have caused a rebalancing of the sources of its power production, increasing its reliance on gas-generated power to replace shortfalls in its hydropower production. Whilst gas as a percentage of its energy mix has varied year on year, this peak reversed a decline in import levels since the previous high in 2014. Brazil expects to launch a power auction in 2024, with expectations that 'base' electricity supply will continue to transition from hydropower to thermal gas plants, adding certainty to import volumes as gas moves from a replacement source to a core constituent of its energy mix, fuelling import requirements.

The transition from hydropower to gas, however, is not unique to Brazil, and depleted hydropower reservoir levels elsewhere in the region have caused a surge in LNG import volumes. The significant distances from import terminals and the challenging topography of Brazil mean that transportation of pipeline gas remains prohibitively expensive, meaning LNG is one of the only ways to safely deliver affordable gas to regional industrial and power sectors. With declining domestic gas production, and a forecast decline in imports from neighbouring Bolivia, Brazil has taken advantage of the recent liberalisation of domestic gas regulations to lead the region in new LNG import projects, with recent developments in Barcarena and Santa Caterina commencing operations earlier this year. However, key challenges for Brazilian LNG import terminals remain: a lack of pipeline interconnection and liquidity in local gas markets act as an impediment to the development of local LNG projects. Historic issues have also included underutilisation, with the average Brazilian LNG import terminal operating at under 40% in 2020. There is growing sentiment within the market that this is likely to change in light of the next power auction, and with new facilities being set-up as multi-user import facilities, as opposed to standalone single-user LNG-to-power terminals creating greater liquidity in the market and driving competition in pricing and product offerings from the facilities.

## Turning the tide: Latin America's rising LNG production and export potential

The US' decision to pause the issuance of LNG export permits to non-FTA countries has caused uncertainty around the

future maintenance and expansion of international US LNG supply and has presented opportunities for other regions to step into the supply gap, either domestically or to ramp up export-focused production. With uncertainty around the length of the US' permit pause, it remains to be seen whether a potentially short-term issue will have an impact on the final investment decisions for new LNG projects in Latin America and the Caribbean.

Spurred by a potential shortfall in international LNG exports and domestic demand, Argentina is developing the world's second largest shale gas reserves at Vaca Muerta, and is poised to become a key gas producer and exporter. Within the region, both Argentina's existing and planned gas pipeline transportation networks will allow it to export gas locally to key gas importers such as Chile and Brazil (reversing historic gas flows). The development of the field presents an opportunity for Argentina to meet pre-existing local demand and potentially replace Bolivia as the main regional exporter. Given the size of the discovery, Argentina has ambitions to become a key international player in LNG exports. The memorandum of understanding signed between YPF and Petronas in 2022 to develop a floating LNG processing plant in Argentina by 2027, with the aim to export up to 2 million tpy and a potential second phase increasing export capacity to 9 million tpy, demonstrates the potential routes to market that exist. Whilst historically Argentina has been viewed as a challenging investment destination, as policy and currency instability, inflation, and other factors have led to issues such as cost overruns and currency repatriation concerns, there are indications the country is ripe with opportunity for experienced players, and investors' appetite for LNG projects in the region is returning.

Increased integration of Mexican infrastructure with the US gas grid is allowing Mexico to offer innovative solutions to long standing logistical issues with Pacific-coast US-LNG exports. With up to eight LNG export projects at various stages of planning and development and four more in advanced stages of development, Mexico is likely to become a key export hub for Texan basin gas through liquefaction and export facilities developed on its Pacific coast. Projects are aiming to profit from price differentials and the construction of new US-Mexico gas pipelines. Whilst the regional benefit may initially be limited to tax receipts, the development of a Pacific LNG maritime trade in Latin America will boost export opportunities in the region.

Recent major discoveries offshore of Suriname and Guyana have the potential to further transform the LNG landscape. While total gas discoveries are as-yet undisclosed, the limited local gas demand in both Suriname and Guyana makes both countries ideal candidates for major LNG production projects. Both Suriname and Guyana are investigating options to commercialise these gas reserves, with Suriname progressing with the development of a 4-million tpy LNG project, which is due to complete in 2025. More will need to be done to incentivise international investment and long-term offtake, given the risk the recent territorial dispute between Guyana and Venezuela presents and the potential for significant changes in Guyana's investment environment as it grapples with double-digit percent economic growth and with LNG comprising such a large percentage of its GDP and tax receipts. Investors are cognisant that a change in LNG pricing and any state budget over-extension could present significant issues.

### Bridging the gap: LNG investment challenges in Latin America

Political risk is still a fundamental challenge to attracting investment into Latin America and the Caribbean, with the role of the public sector, inflation, currency instability, opaque public procurement and permit approval processes, debt defaults, and even international sanctions, meaning that investors are especially sensitive to making investment decisions in large capital intensive projects.<sup>2</sup> With key international economies, including the UK, the US, South Korea, India, and Australia going to elections in 2024, changes in the foreign policies of key LNG importers and exporters are likely, which may present opportunities for countries in Latin America and the Caribbean. Despite the dangers, international investors are well versed in deploying risk mitigation techniques such as US\$-denominated construction and sales agreements, offshore bank accounts for sales proceeds and innovative payment and financing techniques, such as prepayments and inventory monetisation, but further macroeconomic certainty will serve as a catalyst for projects.

Recent changes in government, for instance in Mexico and Argentina, have focussed political attention on the role of the state-owned petrochemicals companies in the gas network, particularly in the development of the gas transportation infrastructure and LNG export projects where there is traditionally limited private sector appetite, leading to the potential for both countries to become regional exporters in the future. Conversely, the Colombian government's policy to restrict new exploration has acted as a break on investment into new gas assets. Whilst historically a lack of any united regional gas policy has caused a fragmentation of the regional gas market, leading to different regional gas markets, including within individual countries, there has been increasing governmental focus on policy harmonisation, particularly within the Southern cone, leading to increasing interconnection within the region, though it remains to be seen as to how fundamentally this will impact local gas markets.

The success of Latin American and Caribbean LNG projects will likely turn on overcoming the barriers to investment and navigating the various challenges of the region and the LNG market of a transaction. With many LNG projects successfully operating in the region, well-advised developers have substantial opportunity to take advantage of the region's LNG market to support the growth of the LNG industry in Latin America and the Caribbean and fuel the development and decarbonisation of the region. LNG

#### **Notes**

- Whilst significant fuel and electricity subsidies exist within the Latin American and Caribbean market and an increase in the size of exports at market-driven prices will increase revenues and tax receipts for the exporting countries, there are tensions within domestic markets, such as Peru, at the amounts currently earmarked for sale outside of the country.
- Investors and developers are likely to be encouraged by the numerous examples of LNG projects being successfully completed across the region, from Brazil and Chile to Peru and Trinidad and Tobago.