

FEATURE ARTICLE

Natural gas as a catalyst for energy development in Latin America and the Caribbean

Latin America and the Caribbean (LAC) is gaining importance in the global energy landscape as rising energy needs, development ambitions and growing attention to energy security converge with the emergence of new opportunities to develop the region's abundant energy resources (for the purposes of this analysis, Mexico is excluded from the LAC regional grouping and included in North America). Despite its diverse resource base, LAC continues to face disparities in energy availability, affordability and infrastructure, with energy poverty remaining a challenge in parts of the region. Greater availability of reliable and affordable energy is essential to expand productive capacity, support industrialisation and improve living standards. Against this backdrop, the region's substantial natural gas resources and renewed upstream activity create significant potential to increase gas supply and strengthen the role of natural gas in meeting rising energy needs, while supporting energy access, energy security and climate objectives.

The regional gas market has experienced sustained growth in recent decades, with consumption rising from 98 bcm in 2000 to 163 bcm in 2025, reinforcing natural gas's role in meeting the energy needs. Gas consumption is highly concentrated, with Argentina, Brazil, Venezuela and Trinidad and Tobago together accounting for 75% of demand (Figure i). The market structure varies across the leading markets, reflecting differences in resource bases, domestic production and trade patterns.

Natural gas accounts for 18% of LAC's primary energy mix, compared with 38% for oil and 22% for biomass and waste. The power generation is the largest gas consumer, accounting for 90 bcma of regional consumption (Figure ii). Natural gas continues to serve as a reliable baseload power source, while its ability to provide flexible, dispatchable generation is becoming increasingly valuable as the region's power systems evolve, including as back-up for renewables.

The industrial sector, accounting for 42 bcma of regional gas consumption, represents another significant source of gas demand across LAC. In Argentina, Brazil and Trinidad and Tobago, gas is an important feedstock for fertiliser and petrochemical production, particularly ammonia, urea and methanol. Gas also provides process heat for energy-intensive industries such as steel, cement and metals, where reliable and controllable thermal energy is essential for industrial operations.

Figure i: Gas consumption by country in LAC

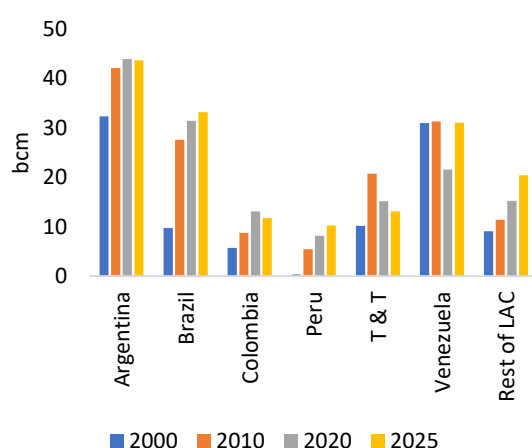
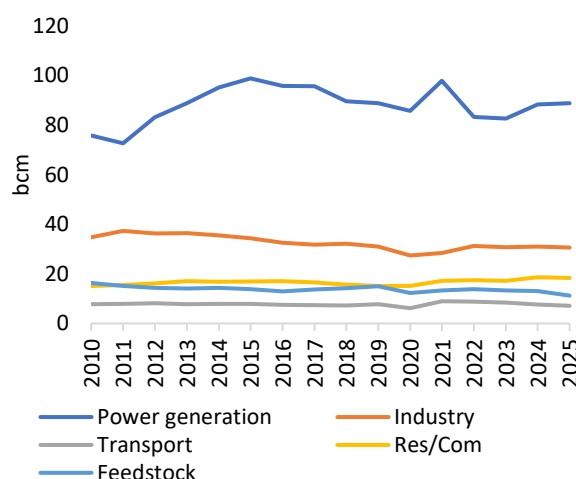


Figure ii: Gas consumption by sector in LAC



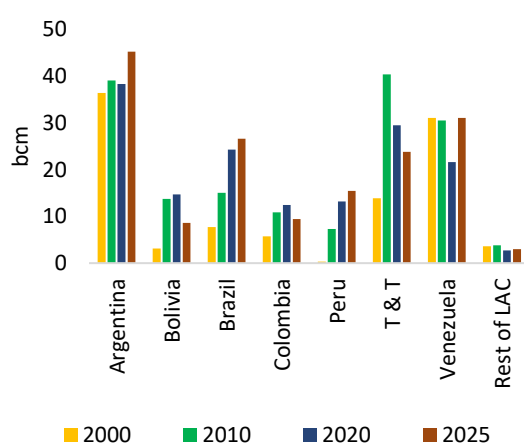
Source: GECF Secretariat based on data from Energy Institute, Cedigaz and Enerdata

The growth in gas consumption has been largely matched by an expansion in domestic production, allowing LAC to maintain a broadly balanced gas market. Between 2000 and 2025, LAC gas output rose from 102 bcm to 163 bcm, in line with the increase in gas consumption over the period. Production growth was driven by the region's major gas producers, including Argentina, Bolivia, Peru and Trinidad and Tobago (Figure iii). Although regional production increased by 60% over this period, compared with 75% globally, the region's substantial resource base and renewed upstream activity provide significant scope for further gas supply growth.

LAC has significant untapped natural gas potential, offering opportunities to expand its resource base and strengthen the region's ability to meet growing energy needs. The region holds 7.3 tcm of proven gas reserves, equivalent to 3.7% of global reserves, while technically recoverable resources (TRR) amount to 61.3 tcm, representing 9.3% of global resources. The substantially larger share of global TRR than proven reserves points to considerable scope for future reserve additions and production as exploration, appraisal and resource development advance. Venezuela holds the largest proven gas reserves in the region, at 5.5 tcm, while Argentina, Brazil and Venezuela have the largest TRR, at 24 tcm, 18 tcm and 7 tcm, respectively (Figure iv). Notably, Venezuela's substantial gas reserve and resource base could support additional regional and global gas supply as unilateral sanctions are gradually eased and investment in gas development accelerates.

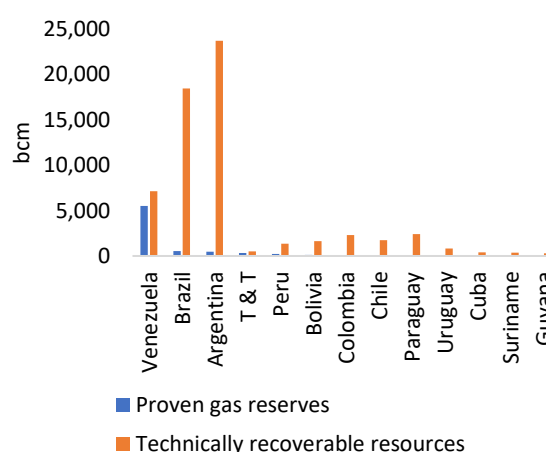
Recent upstream developments among established and emerging producers are creating new opportunities to increase LAC gas production. In Argentina, continued development of the Vaca Muerta formation is driving higher unconventional gas output, while new pipeline and processing infrastructure is expected to support further production growth and enable additional exports. In Brazil, continued development of pre-salt fields is expected to increase associated gas production, supported by investments in offshore production, gas processing and transportation infrastructure. Meanwhile, Guyana and Suriname could become additional sources of associated gas as their rapidly expanding offshore oil sectors generate increasing volumes of gas. Developing the infrastructure needed to capture, process and monetise these resources could bring additional gas to market. Beyond associated gas, further exploration and development of non-associated offshore gas resources could provide another source of production growth as commercial opportunities and supporting infrastructure develop. Together, these developments could broaden LAC's gas supply base and strengthen its production outlook over the medium to long term.

Figure iii: Gas production by country in LAC



Source: GECF Secretariat based on data from Energy Institute

Figure iv: Gas reserves and resources in LAC



Source: GECF Secretariat based on data from Enerdata

With domestic production largely keeping pace with growing gas demand, LAC remains relatively self-sufficient in natural gas, with extra-regional gas imports in the form of LNG accounting for only 10% of regional gas supply. LAC represents a relatively small LNG import market, accounting for around 3% of global LNG imports, with LNG imports expected to reach 13 Mt in 2026. At the same time, the region has developed significant LNG regasification infrastructure along both the Atlantic and Pacific coasts, with 10 LNG importing countries having combined regasification capacity of around 65 Mtpa, half of which is located in Brazil (Figure v). Despite this substantial capacity, utilisation remains low at around 20%, indicating significant scope to increase LNG imports. A further 10 Mtpa of regasification capacity is under development, with Nicaragua, Aruba and the Bahamas expected to emerge as new LNG importers in the short term.

On the export side, Trinidad and Tobago and Peru are the region's LNG exporters, having started exports in 1999 and 2010, respectively, with liquefaction capacities of 11.8 Mtpa and 4.4 Mtpa. However, LNG exports are expected to reach only 11 Mt in 2026 due to limited feedgas availability (Figure vi). Looking ahead, the region's growing gas supply base can support higher LNG exports, with the start-up of 6 Mtpa of FLNG capacity in Argentina by 2028 and potential new projects in Argentina, Guyana and Suriname expected to start operations beyond 2030. Moreover, the escalation of the Middle East conflict in 2026 has heightened LNG importers' focus on supply resilience and diversification of supply sources, creating opportunities for LAC to expand LNG exports while attracting investment to develop its gas resources and related infrastructure.

Figure v: LAC regasification capacity vs LNG imports

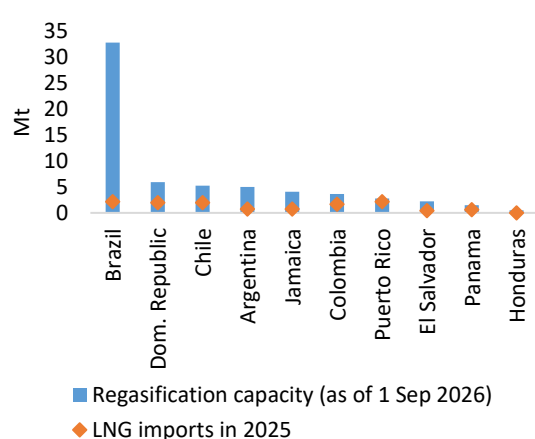
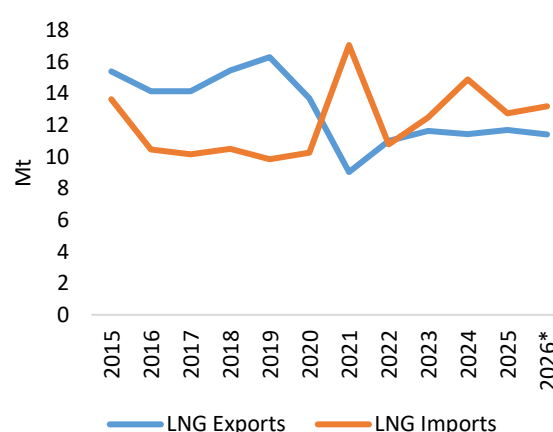


Figure vi: LAC LNG trade (2015-2026)



Source: GECF Secretariat based on data from ICIS LNG Edge, LSEG and Project Updates

Note: 2026* - GECF Secretariat forecast

With LNG imports in LAC constrained by seasonality and affordability, expanding intra-regional pipeline gas trade offers a key opportunity to increase gas supply within the region. While intra-regional pipeline gas trade declined from 18 bcm in 2015 to 7 bcm in 2025, there is significant scope to increase cross-border flows and make greater use of the region's available gas supply. Greater integration would enable surplus gas from producing countries to reach neighbouring markets with unmet demand, while interconnected networks could also facilitate the movement of regasified LNG beyond import terminals. Existing infrastructure provides a foundation for further integration, including the Bolivia–Brazil GASBOL pipeline and Argentina's expanding network connecting Vaca Muerta with Chile, Uruguay and Brazil. Further cross-border connections involving Venezuela, Colombia and Trinidad and Tobago, as well as Guyana and Suriname with northern Brazil, could broaden regional supply options and support a more interconnected and flexible LAC gas market.

Against this backdrop, greater availability of natural gas can enable higher energy consumption and, in turn, support economic growth in LAC, as economic development generally requires increasing amounts of energy. Although primary energy supply in LAC increased from 17 EJ in 2000 to 26 EJ in 2025, growing at a CAGR of 1.7% and keeping the region's share of global supply broadly unchanged at 4.4%, LAC remains relatively undersupplied in primary energy, with energy availability and energy access remaining limited. Per-capita primary energy supply in LAC stands at 49 GJ, below the global average of 73 GJ and levels in North America (219 GJ), the Middle East (140 GJ), Europe (106 GJ) and Asia Pacific (65 GJ), while remaining above Africa (14 GJ). Relatively low energy supply therefore remains a significant constraint on economic development, with GDP per capita in LAC standing at US\$11,000 in 2025, compared with US\$14,500 globally.

In this context, natural gas can contribute to LAC's sustainable development across its economic, social and environmental pillars by providing an abundant, affordable and low-carbon energy source. Economically, natural gas can support industrialisation, electrification and the expansion of digital infrastructure, including data centres and artificial intelligence applications. Socially, it can support rising energy needs associated with higher living standards, demographic growth and urbanisation, including increasing demand for cooling, while contributing to food security through its role as a feedstock for fertiliser production. In particular, natural gas can contribute to reducing energy poverty in the region, as around 20 million people in LAC still lack access to electricity, while per-capita electricity consumption stands at 2.8 MWh, compared with the global average of 3.8 MWh. Furthermore, around 70 million people in the region lack access to clean cooking, with natural gas capable of supporting the transition to clean cooking, particularly where households continue to rely on traditional biomass and waste, which account for 22% of LAC's primary energy supply.

Environmentally, natural gas can support both the energy transition and energy addition needed to meet rising demand. As a relatively low-carbon fuel, it can provide additional energy while limiting the emissions associated with greater reliance on more carbon-intensive fuels. In 2025, oil- and coal-fired generation accounted for 90 TWh and 50 TWh, respectively, while natural gas-fired generation accounted for 230 TWh, or 16% of the regional power mix. The potential for fuel switching is particularly relevant in the Caribbean islands, where several countries continue to rely heavily on oil-fired generation, with small-scale LNG providing an option for these markets. At the same time, natural gas can facilitate the integration of variable renewable energy. The rapid expansion of intermittent wind and solar generation, which reached 300 TWh, or nearly 20% of the power mix, in 2025, compared with 40 TWh, or less than 3%, in 2015, is increasing the value of natural gas as a flexible source of generation during periods of low renewable output, particularly when weather conditions reduce wind and solar availability. Moreover, hydropower, which dominates the regional power mix with a 48% share, also creates a need for flexible generation during periods of low availability caused by droughts, with gas-fired generation providing this flexibility. Brazil provides a clear example: hydro output increased from 363 TWh in 2021 to 426 TWh in 2023 as hydrological conditions improved, reducing the need for gas-fired generation and resulting in a decline in LNG imports from 7.8 Mt to 1 Mt over the same period.

Realising the potential of natural gas in LAC requires sustained investment across the upstream, midstream and downstream sectors. Greater policy coordination, development and use of the region's own natural gas resources, and regional integration of pipeline infrastructure can increase energy availability and affordability, strengthen energy security and contribute to sustainable development and a better balance across the energy trilemma in the region.