Expert Commentary – An overview of LNG imports in Latin America and the Caribbean and potential opportunities for further penetration in the region

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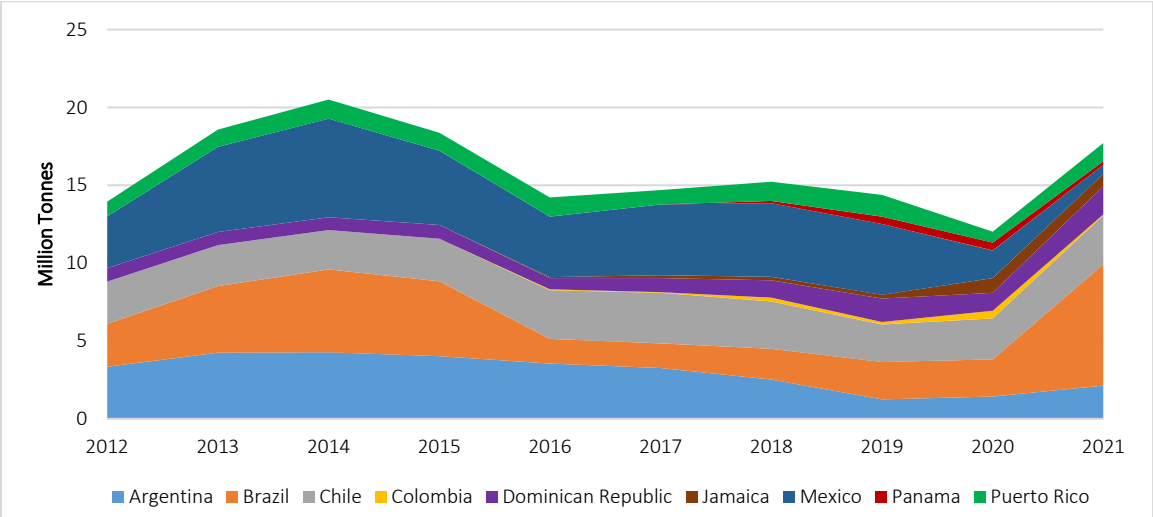
1. LatAm and the Caribbean's LNG Imports

Regional LNG imports into Latin America (LatAm) and the Caribbean peaked at almost 21 million tonnes (Mt) in 2014 after which it plunged to around 14-15 Mt per annum between 2016 and 2019 (Figure 1). In 2020, LNG imports declined further to a low of 12 Mt but rebounded sharply to almost 18 Mt in 2021. The weaker LNG imports in the region between 2015 and 2019 were attributed to several factors, particularly in Argentina, Brazil and Mexico. In 2020, the further decrease in LNG imports came mainly from Mexico. Further ahead, Brazil drove the surge in the region's LNG imports in 2021. Despite the decline in LNG imports in the region since 2015, a few countries in the region have joined the club of LNG importers including Barbados, Colombia, Jamaica and Panama. Barbados started LNG imports in ISO containers in 2016.

In Argentina, increasing domestic natural gas production and marginal growth in consumption contributed to the overall decline in LNG imports into the country during the period 2015 to 2019. In the last two years, lower domestic gas production resulted in an increase in LNG imports. Meanwhile, Brazil's LNG imports hit a record high in 2014, due to drought conditions, which affected hydro output for electricity generation. Hydro is the major source of electricity generation in Brazil but low reservoir levels in 2014 drove the higher demand for LNG to compensate for the lower output from hydro. After 2015, reservoir levels returned to normal levels and LNG imports fell sharply. Fast-forward to 2021, Brazil recorded one of the worst droughts in nearly a century and boosted LNG demand to an all-time high to offset the lower hydro output for electricity generation.

Furthermore, the commissioning of new gas pipelines from the U.S. to Mexico has significantly eroded LNG imports in the country over the past few years. Mexico's LNG imports fell from a high of 6 Mt in 2014 to less than 1 Mt in 2021. On the other hand, LNG imports in the Dominican Republic have more than doubled during the last decade. This was supported by the conversion of oil-fired electricity plants to run on gas.

Figure 1: Trend in LNG imports in LatAm and the Caribbean

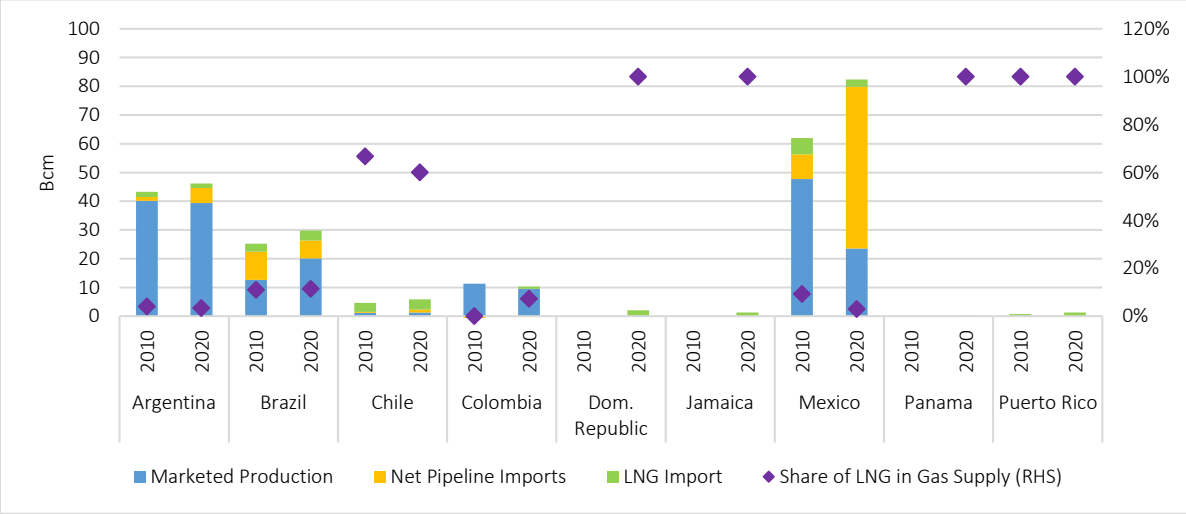


Source: GECF Secretariat based on data from Refinitiv Eikon

2. Gas Supply Sources in LNG Importing Countries in LatAm and the Caribbean

Amongst the nine LNG importing countries in LatAm and the Caribbean, LNG imports represented around 10% of the total gas supply between 2010 and 2020. In the Dominican Republic, Jamaica, Panama and Puerto Rico, LNG imports accounted for 100% of their gas supply in 2020 (Figure 2), since there is no domestic gas production or pipeline gas imports. Compared to 2010, Puerto Rico was the only one of these four countries that was importing LNG. On the other hand, LNG imports accounted for 60% of Chile's gas supply in 2020, a decline from 67% in 2010. This was due to a significant increase in pipeline gas imports. Meanwhile, LNG imports in Argentina, Brazil, Colombia and Mexico account for less than 15% of their total gas supply. Argentina's LNG imports accounted for 3-4% of total gas supply in the country in 2010-2020. Furthermore, in Brazil, the share of LNG imports in the total gas supply was stable at 11%. Finally, the contribution of LNG imports in total gas supply in Mexico fell from 9% in 2010 to 3% in 2020, driven by a surge in pipeline gas imports and decline in LNG imports.

Figure 2: Gas supply sources in LNG importing countries in LatAm and the Caribbean and the share of LNG imports



Source: GECF Secretariat based on data from Cedigaz Online Database

3. Regasification Terminals in LatAm and the Caribbean

In LatAm and the Caribbean, there are 72 million tonnes per annum (Mtpa) of existing LNG regasification capacity (Table 1). Brazil, which has the largest LNG regasification capacity, accounts for almost 40% of the region's regasification capacity, followed by Mexico (24%) and Argentina (12%). On the other hand, around 15 Mtpa of LNG regasification capacity is under construction in LatAm and the Caribbean. Brazil accounts for 70% of the new regasification capacity under construction in the region, while several smaller projects in new importing countries are under development. In addition to the conventional and FSRU import terminals, some countries in LatAm and

the Caribbean currently import or are planning to import small volumes of LNG through ISO containers.

Table 1: Existing LNG regasification terminals and those under development in LatAm and the Caribbean

Country & LNG Terminal	Start Year	Nameplate Capacity (Mtpa)		
		Existing	Under construction	Total
Argentina		**8.4**		**8.4**
Bahia Blanca	2008	3.7		3.7
Escobar	2011	4.7		4.7
Aruba			**0.2**	**0.2**
Aruba LNG	2024		0.2	0.2
Brazil		**26.4**	**12.0**	**38.4**
Acu FSRU	2021	5.7		5.7
Barcarena FSRU	2022		4.0	4.0
Guanabara Bay LNG Terminal	2009	6.0		6.0
Pecem FSRU	2008	3.8		3.8
Salvador FSRU	2013	5.3		5.3
Santa Catarina FSRU	2022		4.0	4.0
Sao Paulo FSRU	2022/2023		4.0	4.0
Sergipe FSRU	2020	5.6		5.6
Chile		**5.25**		**5.25**
Mejillones	2010	1.5		1.5
Quintero	2009	2.5		2.5
Quintero Expansion	2015	1.25		1.25
Colombia		**2.9**	**1.4**	**4.3**
Cartagena de Indias FSRU	2016	2.9		2.9
Cartagena de Indias Expansion 1	2022		0.4	0.4
Cartagena de Indias Expansion 2	2025		1.0	1.0
Dominican Republic		**1.7**		**1.7**
AES Andres	2003	1.7		1.7
Ecuador			**0.2**	**0.2**
Ecuador FSRU	2023		0.2	0.2
El Salvador		**2.25**		**2.25**
El Salvador FSRU	2022	2.25		2.25
Jamaica		**4.1**		**4.1**
Montego Bay	2016	0.5		0.5
Old Habour	2019	3.6		3.6
Mexico		**16.8**	**0.8**	**17.6**
Altamira	2006	5.4		5.4
Baja California	2021		0.8	0.8
Energia Costa Azul	2008	7.6		7.6
Manzanillo	2012	3.8		3.8

Nicaragua			**0.42**	**0.42**
Puerto Sandino FSRU	2022		0.42	0.42
Panama		**1.5**		**1.5**
Colon	2018	1.5		1.5
Puerto Rico		**2.85**		**2.85**
Guayanilla Bay	2000	1.75		1.75
San Juan LNG	2020	1.1		1.1
Total		**72.15**	**15.02**	**87.17**

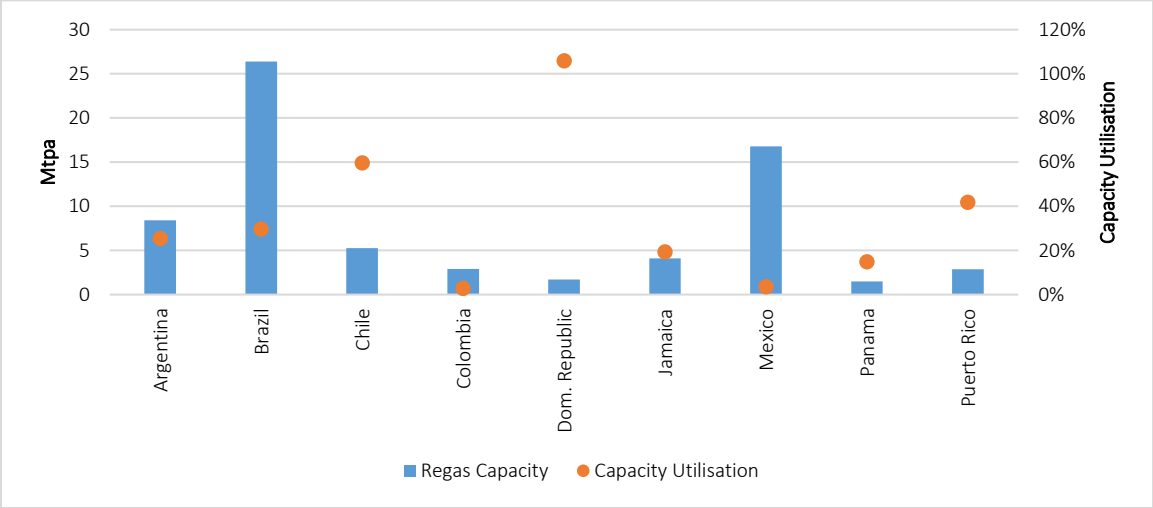
Countries Importing LNG via ISO Containers	Start Year
Antigua and Barbuda	2022
Barbados	2016
Ecuador	2022

Source: GECF Secretariat based on data from Argus, Refinitiv Eikon and Project Information

4. Capacity Utilisation of LNG Regasification Terminals

In 2021, the capacity utilisation of LNG regasification terminals in LatAm and the Caribbean averaged 25%, which is significantly underutilised. At a country level, only Chile and Dominican Republic had capacity utilisations of more than 50%. Meanwhile, the capacity utilisation at LNG regasification terminals in Argentina, Colombia, Jamaica, Mexico and Panama averaged 25% or less (Figure 3). The low capacity utilisation of LNG regasification terminals in the region highlights the great potential for boosting LNG exports to the region. However, the lack of interconnectivity of the region's gas market is a constraint in the penetration of LNG in new markets in the region. As such, additional infrastructure will be required to support higher LNG imports.

Figure 3: LNG regasification capacity and capacity utilisation in 2020 by country in LatAm and the Caribbean



Source: GECF Secretariat based on data from ICIS LNG Edge

5. Conclusion

LatAm and the Caribbean's LNG imports have been erratic during the last decade since the LNG demand is highly dependent on the weather, such as drought conditions. Although the region accounts for less than 5% of global LNG imports, it represents a specific interest for LNG suppliers because of high regasification capacity. There are 72 Mtpa of existing LNG regasification capacity and 15 Mtpa of LNG regasification capacity under construction in the region. Majority of the projects under development are in new LNG importing countries in the region, such as Antigua and Barbuda, Aruba, Ecuador and Nicaragua, and the LNG imports will substitute heavy fuel oil and diesel in the electricity sector. Brazil and Colombia, which are existing LNG importers, are also developing new LNG import facilities and/or expanding current ones. The import of LNG from these new projects in the region will be through FSRUs and ISO containers.

Considering the significant potential to increase the penetration of LNG in the region, market stakeholders could explore the following opportunities:

- Investment in LNG import infrastructure – new and emerging LNG importing countries in LatAm and the Caribbean require external funding to develop LNG import infrastructure to secure their supply.
- Investment in gas-fired electricity plants – several countries in the region, particularly in the Caribbean, depend on heavy fuel oil and diesel as a major fuel source for electricity generation. In the current energy transition to a low-carbon world, LNG can substitute oil/oil products in the electricity sector to reduce carbon emissions.
- Supply of small scale LNG (SSLNG) and LNG in ISO containers – some LNG importers in LatAm and the Caribbean are modest markets for LNG imports and require LNG supply through small LNG carriers and/or ISO containers.

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