



US-AMERICAS LNG FORUM I

South America Changing Paradigms

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excelerate
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ENERGY FAST FORWARD.™

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Excelerate Energy Overview

EXCELERATE AT A GLANCE

100% project uptime¹

*More than 1,100 STS transfers
(over 127mm+ m³ of LNG transferred)*

Combined peak regasification capacity of 7 Bscf/d

*Received shipments from 200+ unique LNG carriers
from 60+ operators*

*~29 years of combined customer
regasification experience*

9 FSRUs under contract with eight state-owned
and independent major energy companies

¹ Based on contracted capacity

Excelerate Energy (Excelerate) is:

- **the largest floating LNG solutions provider globally**, operating a fleet of nine floating storage and regasification units (FSRUs) and one LNG carrier;
- **a provider of a full range of solutions** from FSRUs to fully integrated turnkey LNG terminals, including development, engineering, procurement, construction, installation, and operations;
- **the Industry leader** in developing and advancing floating LNG regasification technologies and solutions;
- **the pioneer of FSRU technology** and delivered the world's first FSRU in 2005;
- **the pioneer of ship-to-ship (STS) transfers of LNG**;
- **headquartered in the Woodlands, TX** and has over 100 employees globally; and
- **owned by George B. Kaiser.**



Proven Experience

With more than 10 years of integrated technical, business development, project execution, and operation experience, we are unrivaled in our ability to respond quickly to our partners' needs.

Rapid growth in the LNG market

In 2005, Exceleerate introduced the FSRU concept as an economical alternative to land-based facilities to address fast-rising demand for LNG, and today we see:

- significant growth of new LNG import markets largely driven by new and pent up demand for power and fuel switching in developing and established markets;
- projected growth in LNG supply capacity making LNG increasingly competitive and available, resulting in sustainable demand growth for LNG imports;
- reliability and performance of FSRU equivalent to land-based terminals at a fraction of the cost; and
- emerging LNG customers increasingly seeking integrated terminal services rather than simply leasing FSRUs.

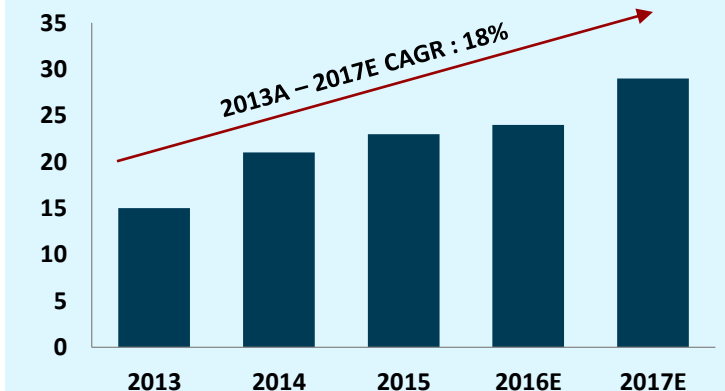
CONVENTIONAL LAND-BASED TERMINAL

- ✗ **Lengthy implementation**
 - Years of planning and construction, and obtaining regulatory approval
- ✗ **Greater investment costs**
 - Facilities often purchased
- ✗ **Higher environmental impact**
 - Larger physical footprint

FSRU

- ✓ **Fast implementation**
 - Deployed in months for quick delivery of LNG
- ✓ **Lower investment costs**
 - FSRU most often leased
- ✓ **Lower environmental impact**
 - Lower emissions and smaller physical footprint

GLOBAL FSRU VESSELS



Source: Poten & Partners



FSRU Advantages

COST EFFECTIVE

- Land-based facilities cost up to ~\$1bn versus FSRU project implementation of ~\$150 mm
- Significant savings to end users as FSRUs are often leased rather than purchased
- ~5-6x less upfront capital

TIME EFFICIENT

- New FSRUs require 28-30 months, existing FSRUs <12 months, and conversions <21 months, versus land-based facilities at typically four to five years
- Land-based facilities are further complicated by permitting and regulatory approval process
- Fleet and terminal design commonality allows for advanced procurement of long-lead equipment for rapid project implementation

MINIMAL FOOTPRINT

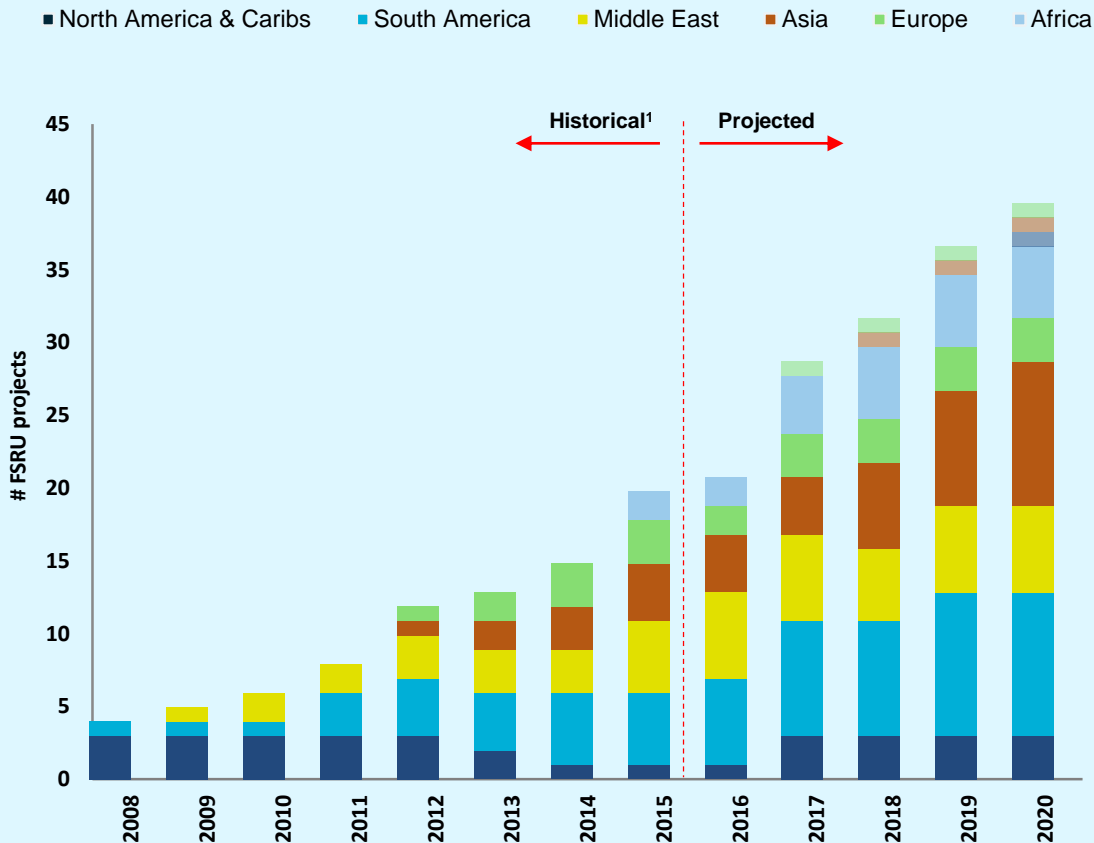
- Requires less land
- Smaller environmental footprint
- Can be located in areas where a land-based facility isn't viable

FLEXIBLE

- Rapidly available to operate in a wide range of locations and environmental conditions around the world
- Ideal as an on-demand solution in parallel with other energy resource development
- Moveable and re-deployable to optimize full lifecycle utilization, capable of operations offshore and dockside, as well as conventional LNG transport

FSRU Projects are Favorable for Future LNG Import Terminals

OF EXISTING FSRU PROJECTS



Source: Poten & Partners

¹ Historical figures include operational projects only

FSRU growth drivers:

- **Abundance of Supply:** Growth of new, flexible liquefaction capacity; adds to an abundance of uncommitted supply that will find delivery in previously under-served markets
- **Lower LNG Prices:** Downward pressure on prices makes LNG imports more affordable not only for emerging markets, but for:
 - New industries (e.g., new independent power producer (“IPP”) projects)
 - Price-sensitive, mature markets (e.g. shift from coal to gas for power generation)
- **Time-efficiency:** Countries with short-term visibility of domestic natural gas demand, reserves, and associated infrastructure will benefit from timely FSRU solutions for the short- or long-term
 - Projects can be developed in 1-1.5 years compared to three to five years for land-based terminals

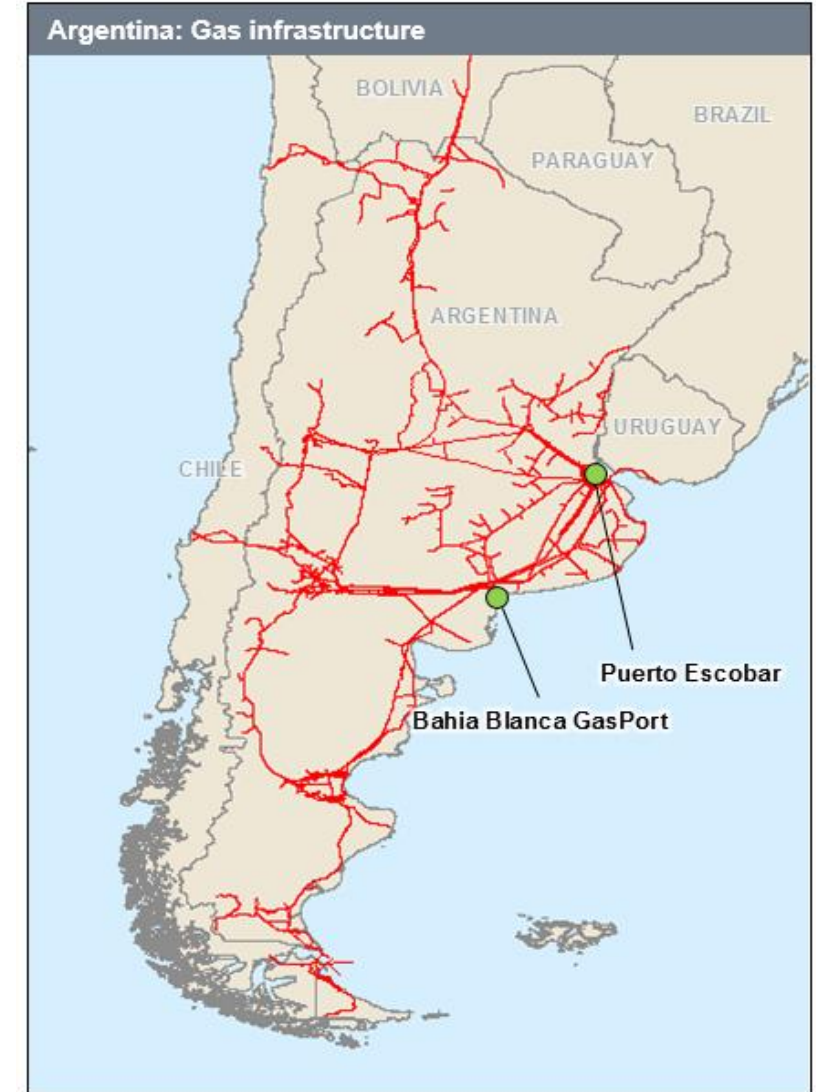
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SOUTH AMERICA CHANGING PARADIGMS: From “Gas Expansion” through “Wake up Call” to “Independence”

South America's Changing Paradigms: 1990s

South America's "Gas Expansion" Paradigm in the 1990s:

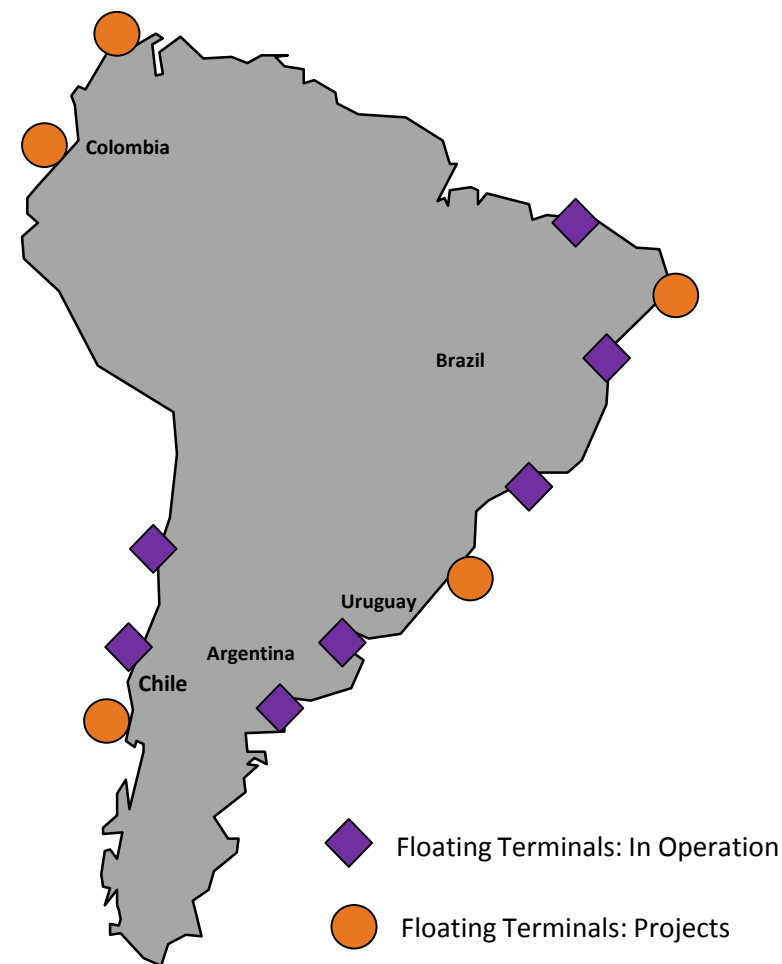
- **Regional Hydrocarbon Reserves Imbalance:** Although Chile and Uruguay were not dependent on natural hydrocarbon resources, Argentina and Bolivia had the preferential position as the leading hub suppliers of natural gas while promoting an expansive supply strategy for South America.
- **Exploration Efforts:** Brazil was the Leader in offshore exploration efforts, although insufficient to satisfy its increasing natural gas demand.
- **Pipeline Interconnection:** A number of pipeline projects interconnecting South America were built in the '90s.
- **Regional Grid:** The regional gas network built during the '90s was projecting a maximum utilization of gas flow of 150MM m³/day .



South America Changing Paradigms: 2000s

South America's "Wake-up call" Paradigm in the 2000s:

- **Regional Production Deficiencies:** From 2004 onwards, Argentina saw its natural gas reserves and production decline. The government took a protectionist strategy curtailing natural gas exports to neighboring countries and discontinued its role as one of the regional natural gas hubs.
- **LNG as Short-Term Solution:** A combination of factors heavily impacted the regional energy matrix, triggering the initiative of LNG imports in the region – Argentina, Chile and Brazil
- **Worldwide Early Birds:** In 2007, Argentina was the first country to make the decision to adopt the Floating LNG Regasification Terminal Solution to cope with their seasonal deficiencies in natural gas production, followed by the rest of the countries in the region.
- **LNG Terminals Projects Expanded:** In 2008, BBGP (Argentina) and Pecem LNG Terminal (Brazil) initiated Operations. Followed by Quintero Terminal in Chile (2009) and Mejillones (2012), GNLE Escobar in Argentina (2011) and Bahia (2013) and Guanabara (2014) in Brazil.



South American Footprint

Excelerate Energy opened the LNG market in South America:

- First LNG import terminal in South America: Bahía Blanca GasPort, 2008 (YPF)
- Excelerate has completed more than 1,336 STS transfers of LNG around the world and transferred 149,798,966 m³ of LNG around the World.
- In South America, Excelerate has completed more than 858 STS transfers and transferred 86,853,222 m³ of LNG.

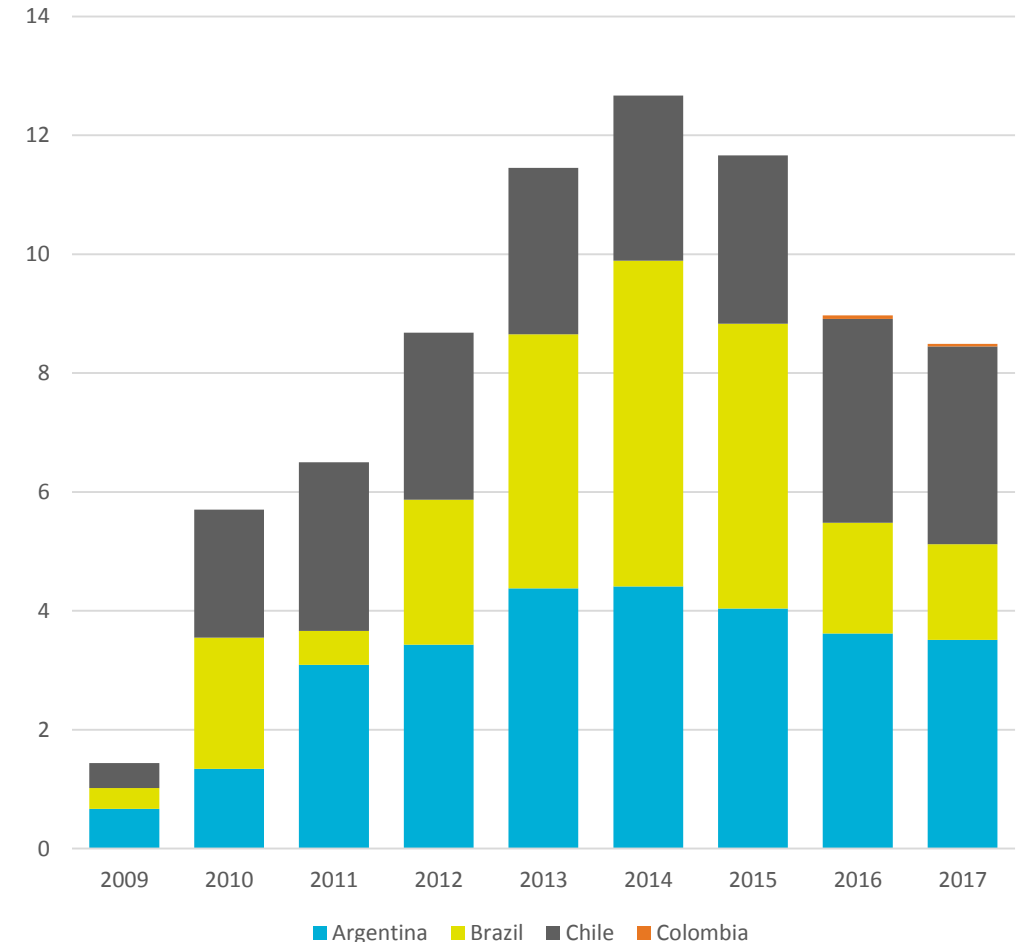


The South American Dilemma

Self Sufficient vs. Energy Independence. The Role of LNG

- **Demand Profile:** Residential, power and industrial demand represent the main segments to satisfy. Regional demand of natural gas largely exceeds the forecasts of domestic production.
- **Production:** Efforts to develop conventional, unconventional shale, and offshore gas, reflect certain green fields but are not yet sufficient to secure mid-/long-term to meet increased demand.
- **Infrastructure:** Heavy cost of infrastructure and lack of natural gas storage.
- **Alternative to Liquids:** LNG is the most economical alternative to liquids fuels for filling unsatisfied demand.
- **Existing Terminals:** 5 of the 13 Floating Terminals in operation are in South America.
- **LNG in Figures:** South America LNG Imports reached 13 MMT in 2014, representing about 5% of global trade

SOUTH AMERICAN LNG IMPORTS (MMT)



Source: WoodMac

The Future of LNG in South America

Growing Trend in the Long Term LNG Usage:

- **Unconventional Gas Reserves:** Regional efforts to expand production in mid-term.
- **Alternative Sources of Supply:** Brazil and Argentina initiated conversations to renegotiate Bolivian contract.
- **Benefits:** LNG is seen as a driver for the country's independence towards a more balanced regional power matrix (hydro/thermal/nuclear).
- **Flexibility:** Market arbitration, higher utilization of the existing transportation network, partial cargoes, and re-export opportunities.
- **Peak Shaving & Storage:** Additional peak shaving and regional storage to regional need of flexibility as Winter/Summer or dry seasons/wet seasons.
- **Regional Integration:** Binational natural gas/energy swap agreements.
- **Counter-Seasonality:** Side benefits for the use of worldwide counter seasonality.

LNG Perspectives in South America Evolution

Is there still room for expanding the use of LNG?

- New LNG regasification terminal projects in Argentina, Brazil, Chile, Uruguay.
- Seasonal Peak Shaving
- Vehicles fueled with LNG
- Small Scale / Barges
- LNG Bunkering
- LNG Gas-to-Power





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