



GLOBAL GAS REPORT – 2019 EDITION

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The Global Gas Report 2019
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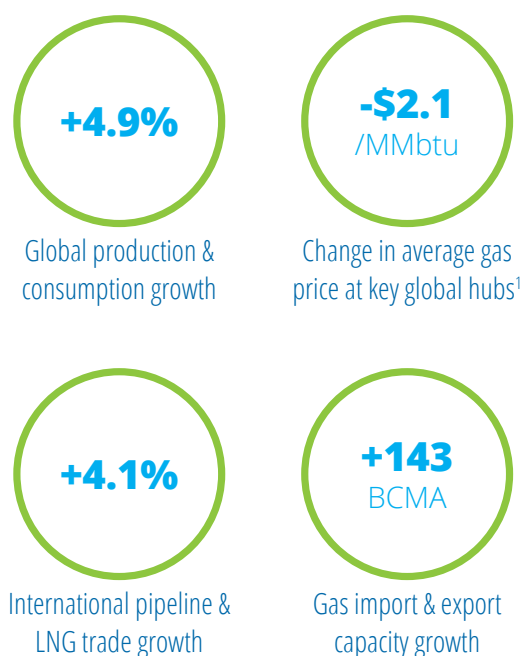
Global Gas Report 2019

ONE-MINUTE SUMMARY:

The potential future for natural gas is strong, but it is not certain. Relative to other fuels, gas remains well-positioned as cost competitive, secure, and environmentally sustainable. Those attributes have helped to sustain strong market growth in recent years and enabled investment in infrastructure for the supply and consumption of natural gas. To sustain growth over the long run, it will be necessary for the global gas industry to build on recent successes by enabling greater diversification of market growth in the near term while laying the groundwork to ensure the long-term viability of gas under any circumstances.

- The global gas market is experiencing rapid growth across production, consumption, and trade.
- In the short run, this growth is supported by low gas prices and rapid growth of supply infrastructure.
- Emerging structural changes supporting the competitiveness and accessibility of gas going forward are emerging
- But international pipeline developments are lagging and the development of low carbon gas capacities remains small globally. (Fig. 1)
- Increasing competitive gas pricing, growing security of supply and environmental benefits of natural gas vs other fossil fuels contributed to strong growth in gas markets. (Fig. 2)
- Environmental benefits of natural gas and low carbon gas technologies are increasingly being recognized in government policy, but methane emissions issue must be addressed. (Fig. 3)

Fig. 1 Global Gas: Headline trends in the past year



Note: All data points except gas price reflect 2018 annual change;

1. Calculated as Q1 2019 average less Q1 2018 average – average of Henry Hub, NBP, and NE Asia spot

Source: IGU, Cedigaz, Bloomberg, Argus, EIA, GIGNL, BCG analysis

Fig. 2 Prior year regional trends in global gas

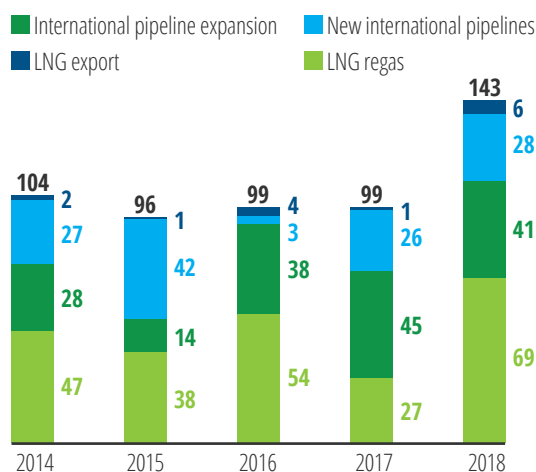
Region	Consumption	Gas price ¹	Production	Trade- Region average		Infrastructure
				Imports	Exports	
Africa	⬆️ 5.3%	-	⬆️ 4.5%	⬇️ -31.8%	⬇️ -2.3%	⬆️ Mozambique and Tortue LNG FIDs
Asia	⬆️ 7.3%	⬇️ -\$4.9/MMBtu (NEA spot)	⬆️ 3.5%	⬆️ 12.9%	⬆️ 5.4%	⬆️ Regional LNG liquefaction & regas expansion; Power of Siberia Pipeline
CIS	⬆️ 2.0%	-	⬆️ 4.7%	⬇️ -5.8%	⬆️ 9.3%	⬆️ Russian LNG and pipeline capacity expansions
Europe	⬆️ 1.0%	⬇️ -\$1.9/MMBtu (NBP)	⬇️ -5.3%	⬆️ 1.2%	⬇️ -9.9%	⬆️ Trans-Anatolian pipeline completed
Latin America	⬇️ -2.9%	-	⬇️ -1.7%	⚖️ -0.2%	⬆️ 5.3%	⚖️ No key developments
Middle East	⬆️ 3.6%	-	⬆️ 4.7%	⬇️ -6.4%	⬆️ 3.1%	⬆️ Growing LNG export capacity
North America	⬆️ 8.8%	⬇️ -\$0.2/MMBtu (Henry Hub)	⬆️ 9.8%	⬇️ -1.9%	⬆️ 12.8%	⬆️ Pipeline and LNG export capacity growing

Note: All data points except gas price reflect 2018 annual change; 1. Calculated as Q1 2019 average less Q1 2018 average
Source: IGU, Cedigaz, Bloomberg, Argus, EIA, GIIGNL, BCG analysis

- The industry sector has overtaken power generation as the greatest driver of future gas demand given the more resilient role of gas vs. competing energy sources.
- Natural gas infrastructure investment falling short of requirements to achieve growth.
- Gas is reaching a critical juncture in Europe given coal phase outs in power generation, GHG emissions reduction measures in other sectors, and shifting supply dynamics.
- In the power sector, a rapid transition from coal to gas is likely due to phase outs of coal power generation, followed by a subsequent shift to renewables.
- In industry and buildings sectors, greater competition is likely to occur between the existing uses of gas, electrification, and new low carbon gas technologies.
- The transport sector provides the greatest long-term growth opportunity but depends on policy support to promote consumption and infrastructure development.

Fig. 3 LNG infrastructure growing more rapidly than international pipeline capacity (bcm)

International natural gas infrastructure capacity additions



Source: Globaldata, Cedigaz, BCG analysis

- As a result of these trends, the role of gas in Europe is becoming more diverse across markets.
- Additional infrastructure will be required to support the role of gas in Europe going forward,

SNAM, IGU and BCG Present the Global Gas Report 2019

Confirmed essential role of gas in the future with about 2% growth per year to 2040. Astonishing 5% growth of the global gas market in 2018.

San Donato Milanese (Milan, Italy), 16 October 2019 – Snam, International Gas Union (IGU) and The Boston Consulting Group (BCG) present the Global Gas Report 2019, the new edition of the annual report that examines key global gas market trends, looking at recent developments and assessing progress towards the leading role that gas is expected to play in the energy transition. This year's report special feature is a section on the Future of Gas in Europe, co-produced with key European gas infrastructure operators: DESFA, Interconnector UK, Teréga and TAG.

The demand has responded strongly to ample supply and liquidity. With LNG trade expanding, prices at key regional natural gas hubs have reached multi-year lows and gas has become affordable for more consumers, taking share from coal. That has driven a 5% increase in global demand in 2018, with a particularly strong growth in the US and China, and a 4% increase in global gas trade.

Now in its third edition, the report reaffirms the positive scenario for natural gas. Over the past five years, the market has grown on average by 2% per year and it is expected to maintain a similar growth rate until 2040 to reach 25% of the global energy mix, mainly due to its environmental benefits comparing to other fossil fuels, growing supply and increasingly competitive pricing.

This highlights the key role that cost competitiveness will play if gas is to deliver its full potential – notwithstanding the diverse set of benefits that it offers to a world that is in the process of an unprecedented energy transition. It is a unique and abundant fuel that can reliably supply the world's rapidly changing energy systems with more energy and support

economic growth while helping to immediately cut emissions and improve air quality.

Snam CEO, Marco Alverà, said: *"Natural gas is currently in a sweet spot and has exciting prospects in light of the potential for replacing coal in electricity generation and of the gradual growth of renewable gases such as hydrogen and biomethane. In fact, those technologies are capable of reducing both CO2 emissions and pollution, enabling the energy transition to take place at affordable prices for all consumers"*.

Professor Joe Kang, President of the IGU, noted: *"I am thrilled to see the two prominent trends of natural gas prices – as they are reaching lower levels and becoming more globalized, and I look forward to seeing the great benefits for a sustainable energy future, as gas is becoming more affordable in more markets"*.

BCG Senior Partner and Managing Director, Alan Thomson, stated: *"The report highlights the critical role of the natural gas industry in helping to meet the Paris climate goal, through urgently reducing methane emissions, enabling a rapid transition away from coal, and scaling up new low carbon technologies"*.

Natural gas can contribute to a cleaner global energy system. But it faces its own challenges, including the need for sustained investment to expand access to low cost gas reserves globally, and in transmission, storage and distribution infrastructure, especially in emerging economies where the use of gas is expected to grow significantly. Together with cost and availability, the gas sector's prospects will also be shaped by a strong push to improve its environmental impact - continued action is critical to reduce methane emissions and ensure data availability and transparency. Finally, government policies to sustain

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innovation are required to boost development of low carbon gas technologies – including renewable gas, hydrogen, and carbon capture, utilization, and storage (CCUS) – as they can provide an efficient pathway to dramatically reduce greenhouse gas emissions of the energy system over the long term.

The special section on the *Future of Gas in Europe* examines how the role of gas will be evolving across all sectors and how low-carbon technologies could impact the European energy system in the near future. It highlights the continued importance of natural gas infrastructure in the region, required to realize the benefits natural

gas brings, including: improving network interconnectivity, supporting the integration of renewables, and scaling the development of low carbon gas technologies. In this section there is also a number of interesting case studies that explore renewable gases, reliability, and security angles of the future of gas in Europe.

This report demonstrates that it is entirely possible to achieve a sustained rapid growth for natural gas, in a sustainable energy future scenario, but it will require deliberate effort, commitment, and leadership from the industry and working alongside its partners and stakeholders.

You can download the Global Gas Report 2019 here

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ABOUT THE INTERNATIONAL GAS UNION (IGU)

The International Gas Union (IGU) was founded in 1931 and is a worldwide non-profit organisation aimed at promoting the political, technical and economic progress of the gas industry. The Union has more than 150 members worldwide on all continents, representing approximately 95% of the world gas market. The members of the IGU are national associations and corporations within the gas industry worldwide. The IGU organises the World Gas Conference (WGC) every three years, with the forthcoming WGC taking place in Daegu, Republic of Korea, in June 2021. The IGU's working organisation covers all aspects of the gas industry from exploration and production, storage, LNG, distribution and natural gas utilisation in all market segments.

www.igu.org



Amplification Campaign

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