



GECF

4TH BUDAPEST LNG SUMMIT

SHORT-TERM DEVELOPMENTS ON THE GLOBAL AND REGIONAL GAS MARKETS

Imran Mohammed

Gas Transportation and Storage Analyst,
Gas Market Analysis Department,
Gas Exporting Countries Forum

April 3, 2023 | Budapest, Hungary

Disclaimer

The data, forecasts, analysis, and/or any other information contained within this document and any attachments thereto (“Documents”) are for information purposes only and are provided on a non-reliance basis and any obligation and responsibility is hereby disclaimed with respect to such content.

Neither the GECF, any of the GECF Members and Observer Countries, nor any of their officials, representatives, agents or employees (the ‘Parties’), while fully reserving their rights with respect thereto, shall assume any liability or responsibility for the content of the Documents and any data, analysis, or any other information incorporated therein.

None of the Parties, including any individual involved in the preparation of the Documents, provides any representation or warranty, express or implied, nor assumes any liability or responsibility as to the accuracy, adequacy, completeness, or reasonableness of any material, information, data or analysis contained in the Documents or represents in any way that its use would not infringe any rights owned by a Party or any third party.



The Parties shall not be liable for any errors in, or omissions from, such information and materials.

The Document is not intended nor shall it be deemed as a substitute for your own independent judgment or professional advice for your business, investment, finance, or other commercial or non-commercial activity or clients. Subject to the above reservation, the analysis, information and views presented in this Documents are those of the GECF Secretariat and do not necessarily reflect the views of GECF Members and/or Observer Countries.

Except where otherwise stated expressly, the copyright and all other intellectual property rights in the contents of this Documents (including, but not limited to, designs, texts, and layout) shall be the property of GECF. As such, they may not be reproduced, transmitted, or altered, in any way whatsoever, without the express prior written permission of the GECF. Where the Documents contain references to materials from third parties, the GECF Secretariat shall not be responsible for any unauthorized use of third party materials and/or the consequences of such use.

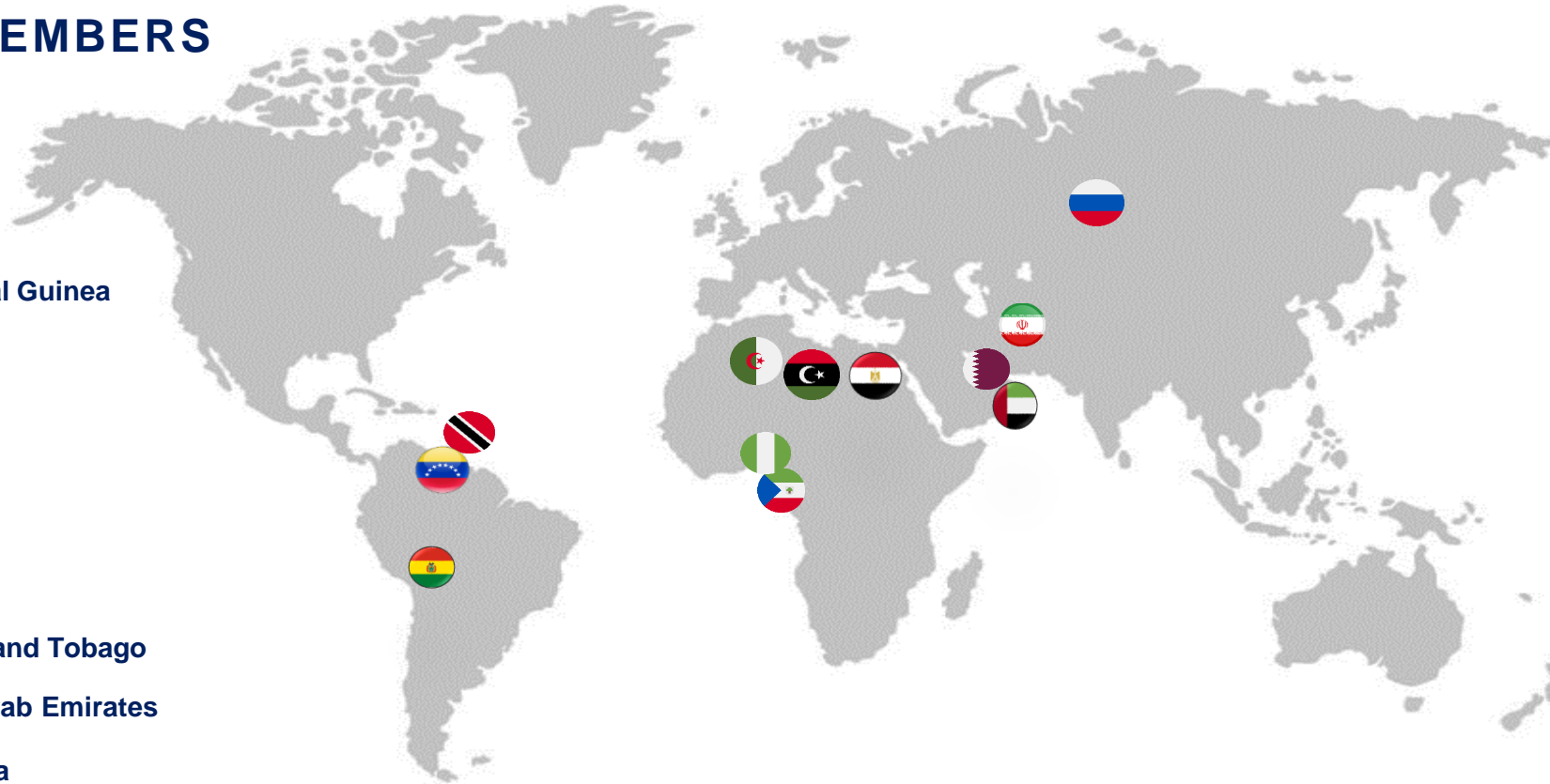
The Gas Exporting Countries Forum (GECF)

FULL MEMBERS

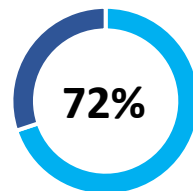
-  Algeria
-  Bolivia
-  Egypt
-  Equatorial Guinea
-  Iran
-  Libya
-  Nigeria
-  Qatar
-  Russia
-  Trinidad and Tobago
-  United Arab Emirates
-  Venezuela

OBSERVERS

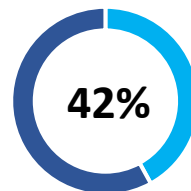
-  Angola
-  Azerbaijan
-  Iraq
-  Malaysia
-  Mozambique
-  Norway
-  Peru



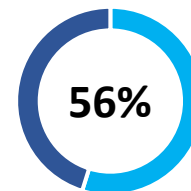
Proven Natural Gas Reserves



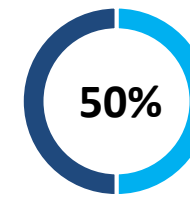
Marketed Gas Production



Pipeline Gas Exports



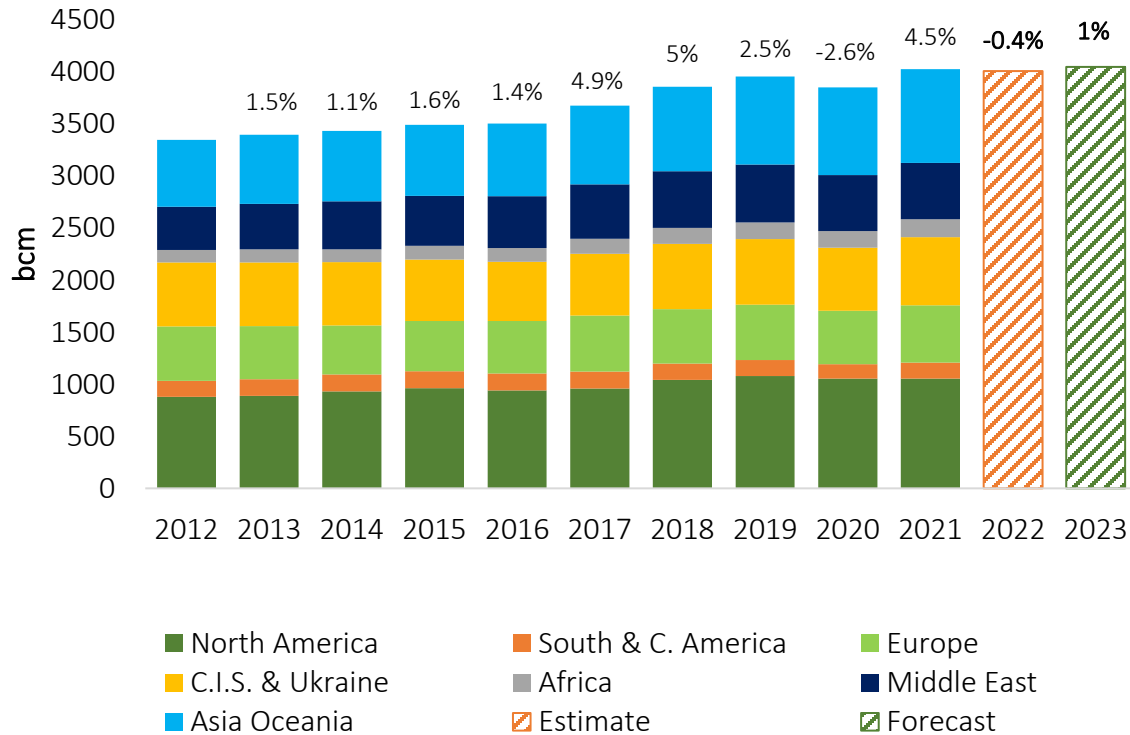
LNG Exports



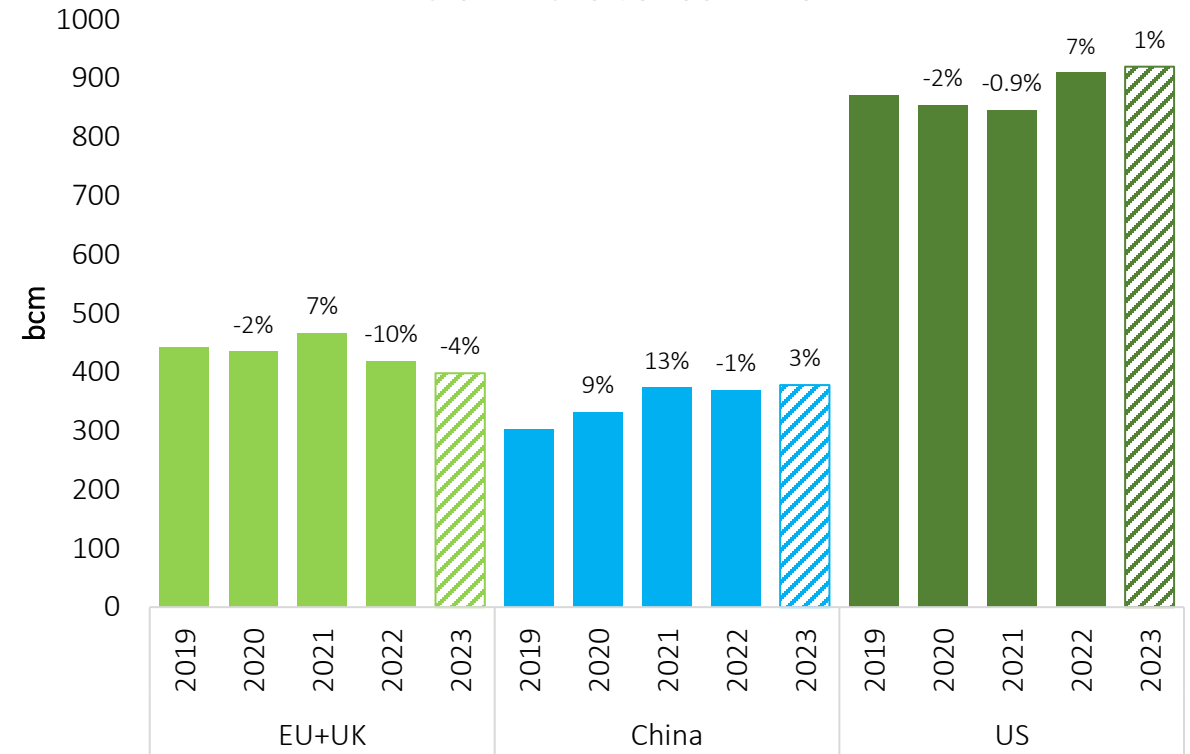
Global Gas Markets

Global Gas Consumption

GLOBAL GAS CONSUMPTION BY REGION



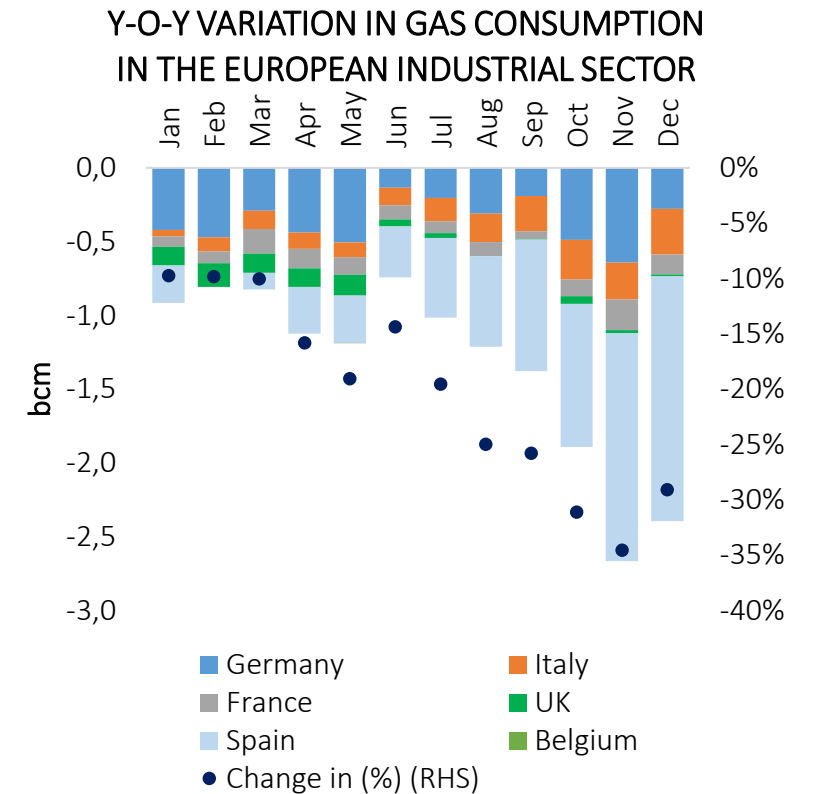
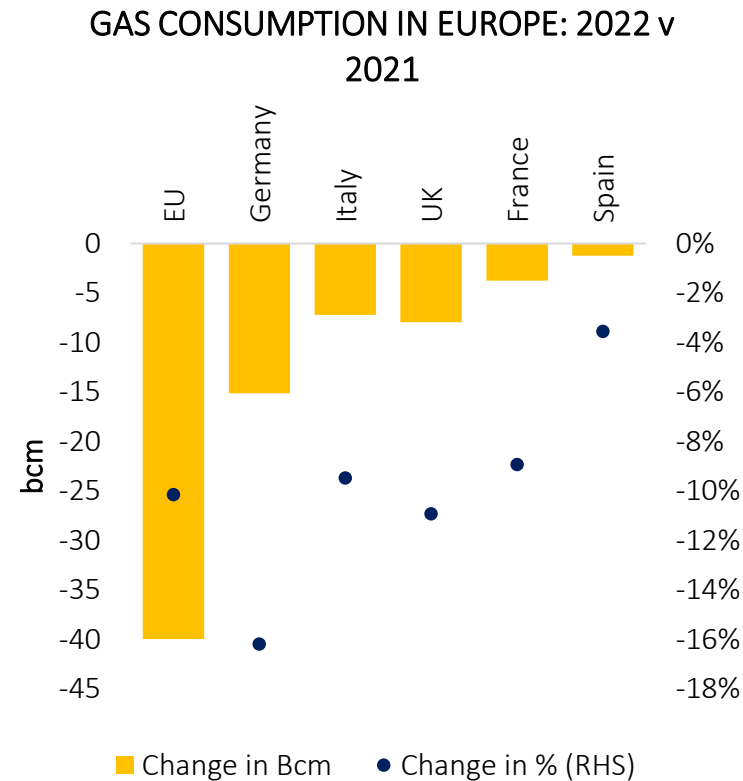
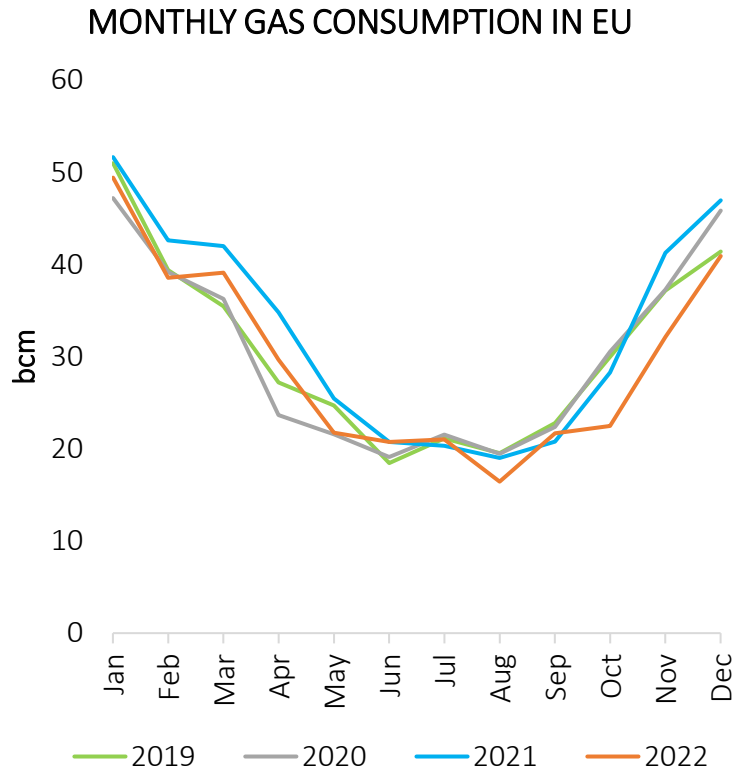
REGIONAL GAS CONSUMPTION



Source: GECF Secretariat based on Cedigaz and EIA

- In 2022, global gas demand was estimated to decline by 0.4% to 3.98 Tcm
- European and Asian gas consumption decreased, driven by mild winter weather for the residential sector, and by high gas prices for the industrial sector
- US gas consumption increased by 7%, driven by a boost in gas use in the power generation sector, as a consequence of the tightening coal supply and rising coal prices
- In 2023, global gas consumption is forecast to increase by up to 1%. The power generation sector in the US, recovery in the Chinese economy, and a switch back to gas in some emerging countries will drive the demand growth.

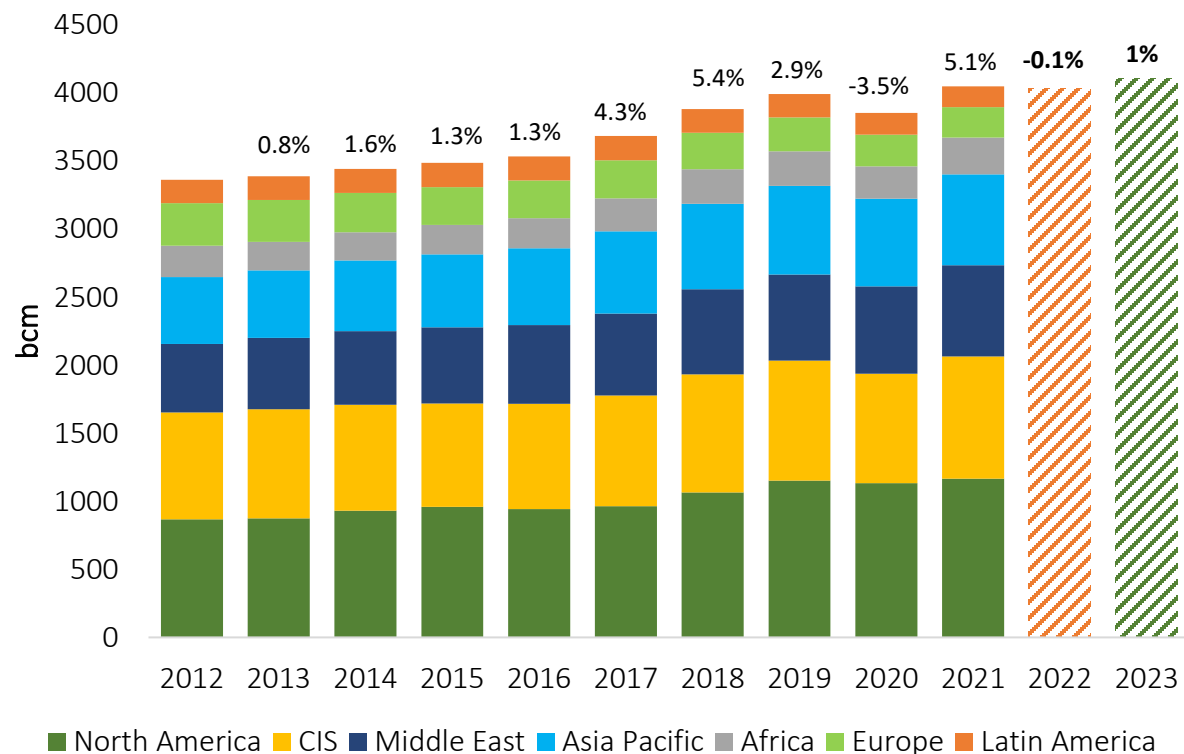
Gas Consumption in Europe



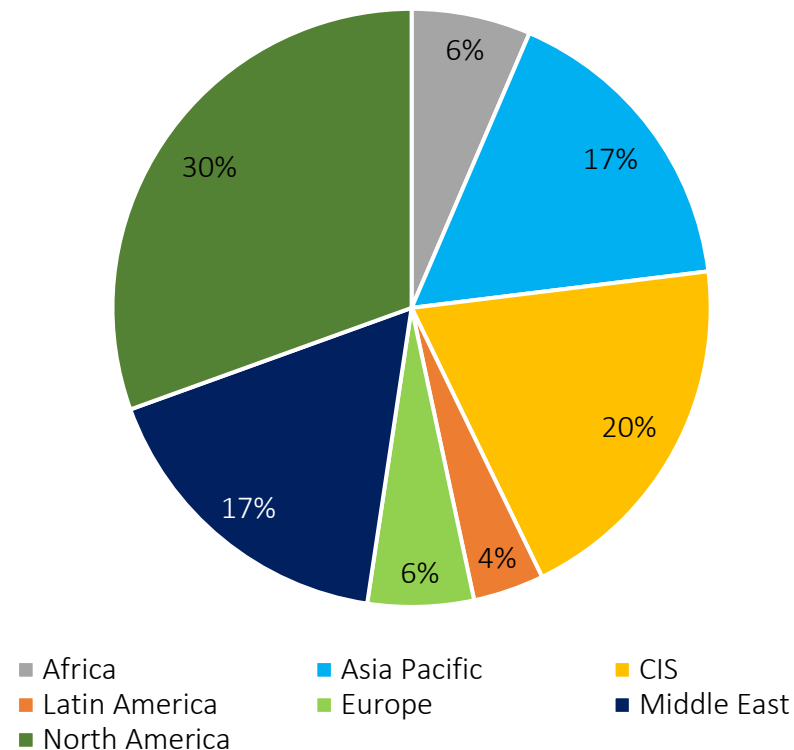
Source: GECF Secretariat based on Refinitiv, Snam, Enagas, Grtgaz

- EU gas consumption in 2022 declined by 10% y-o-y, driven by the implementation of the EU regulation on coordinated demand-reduction measures, mild weather and high gas prices
- High natural gas prices affected gas consumption in the industrial sector in major European gas consuming countries

NATURAL GAS PRODUCTION ON REGIONAL BASIS



SHARE OF REGIONAL GAS PRODUCTION (2022)

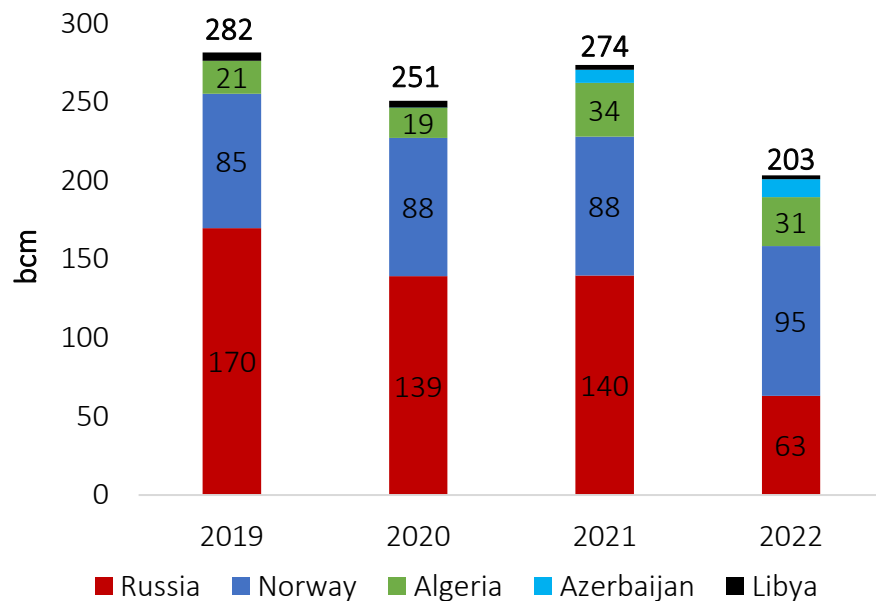


Source: GECF Secretariat based on data from Rystad Energy

- In 2022, global natural gas production declined by 0.1% to stand at 4032 bcm
- North America, CIS and the Middle East, with 1230 bcm (30%), 797 bcm (20%), and 690 bcm (17%) respectively, had the highest production
- For 2023, with recovering demand, natural gas production is also expected to increase by 1%, driven by production increase in North America and the Middle East

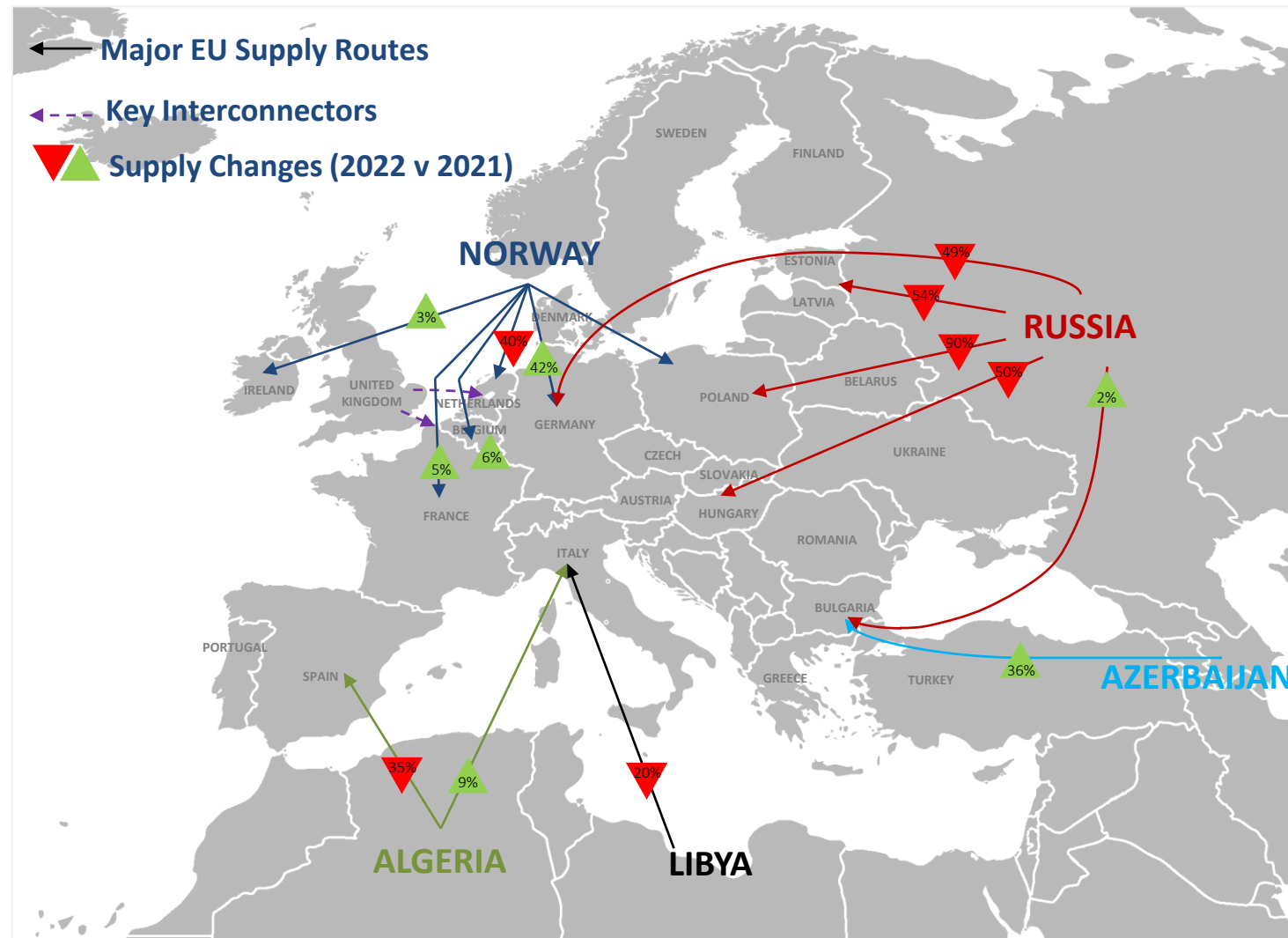
Pipeline Natural Gas (PNG) imports into the EU

HISTORICAL EU PNG IMPORTS



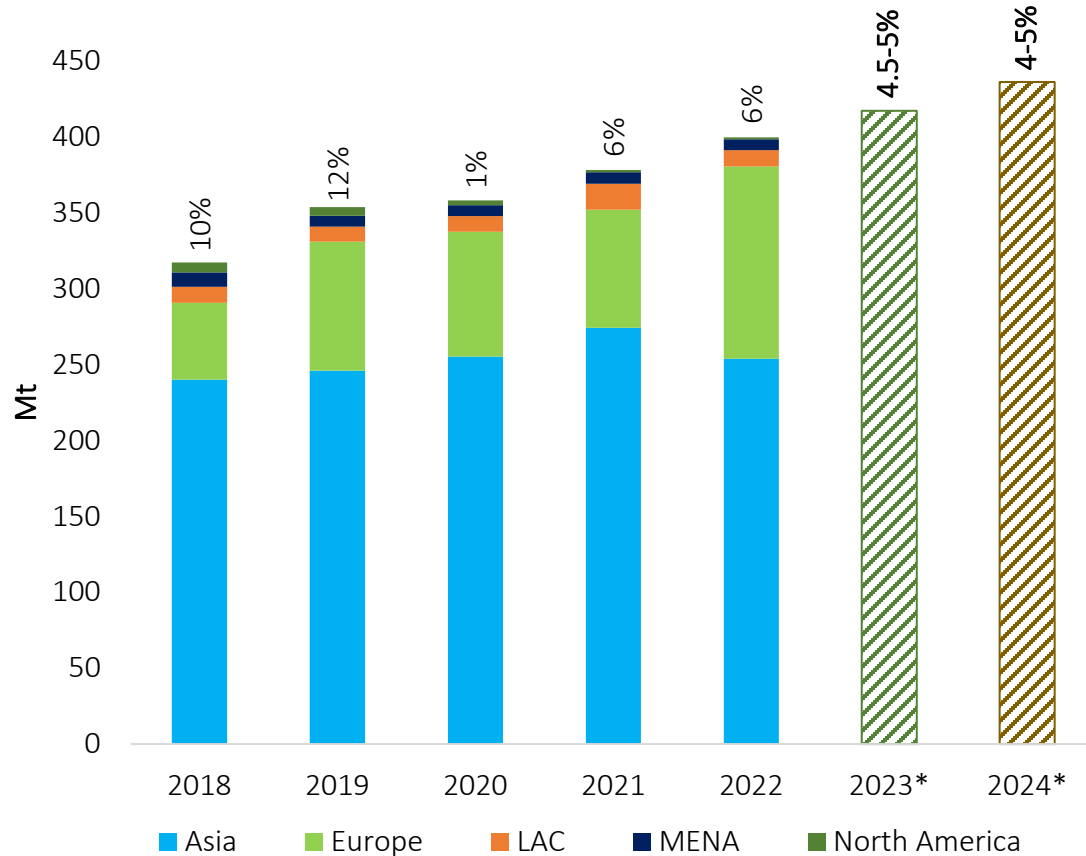
Source: GECF Secretariat based on data from McKinsey and Refinitiv

- Total PNG imports to the EU were 26% lower in 2022, reaching 203 bcm, driven by lower flows from Russia, despite increases from Norway and Azerbaijan
- In 2023, further reduction in imports from Russia may be partially offset by marginal increases in supply from Algeria and Azerbaijan

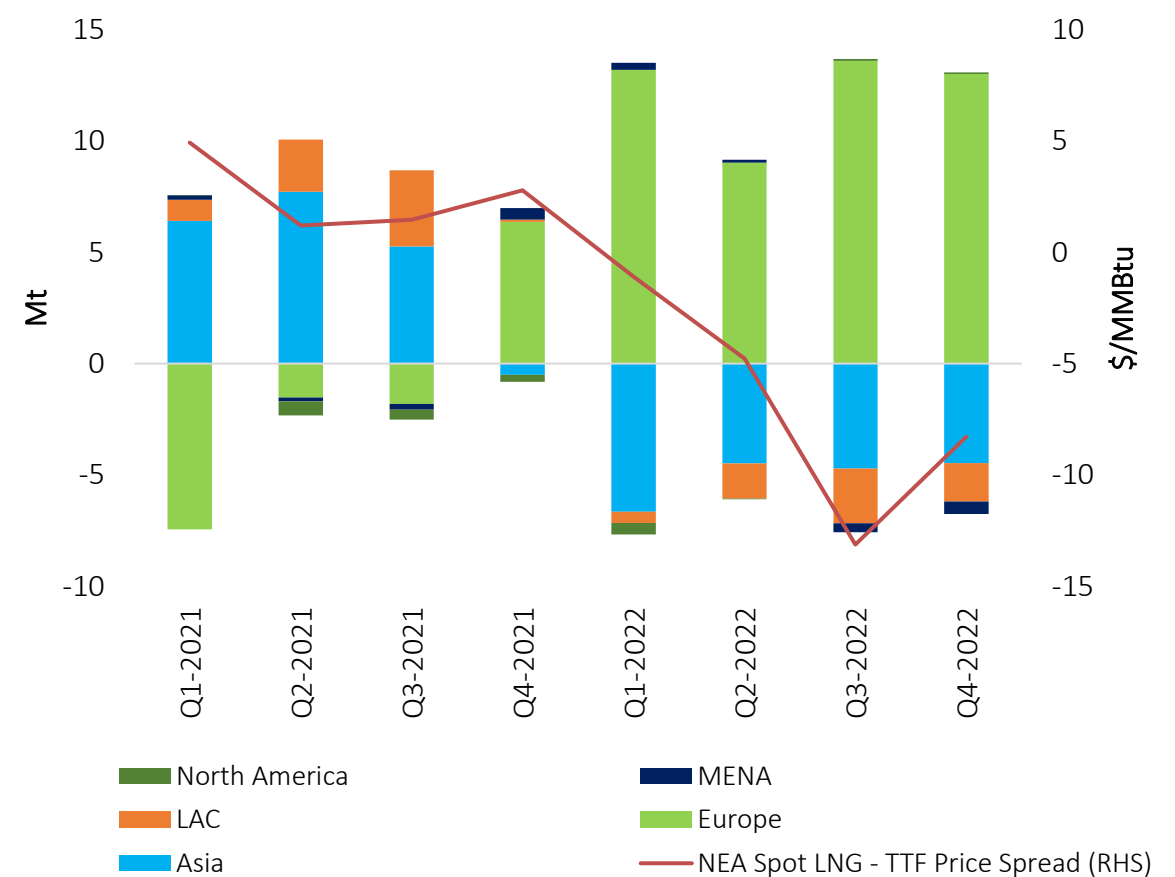


Global LNG Imports

TREND IN GLOBAL LNG IMPORTS BY REGION



QUARTERLY Y-O-Y VARIATION IN LNG IMPORTS BY REGION



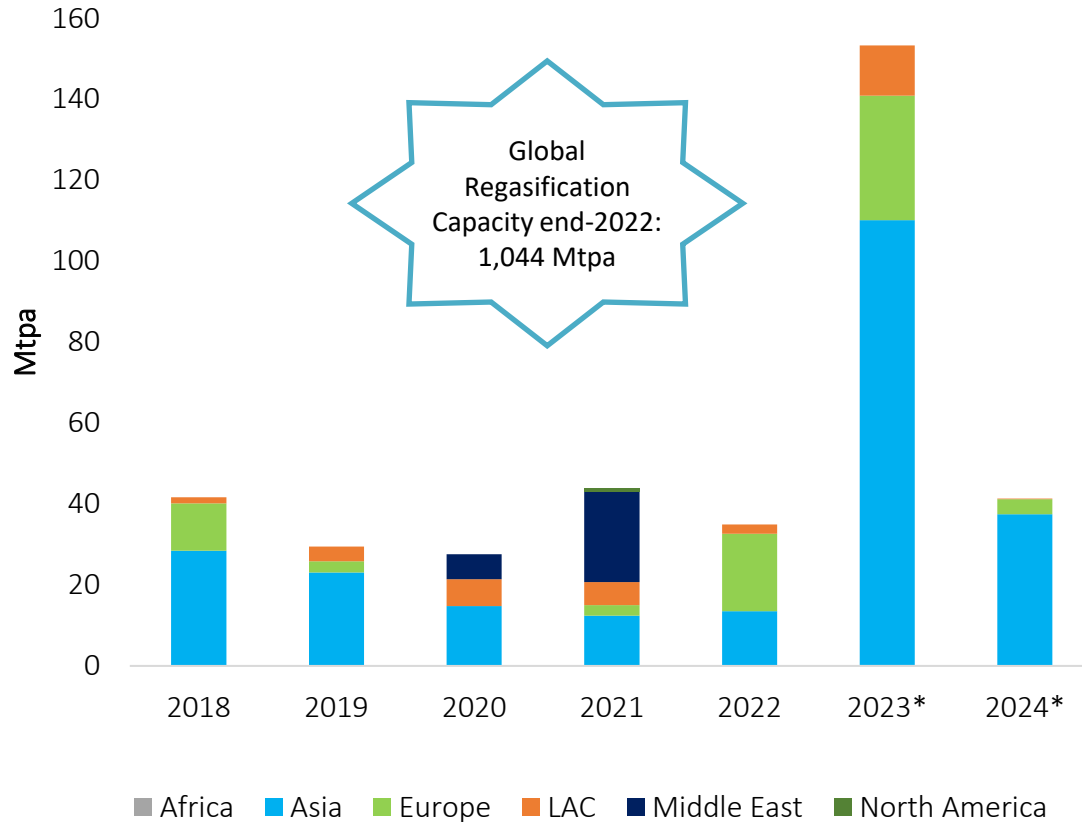
Source: GECF Secretariat based on data from ICIS LNG Edge
 (*): GECF's Forecasts for 2023 and 2024

Note: Quarterly variation is the y-o-y variation in LNG imports

- Global LNG imports grew by 6% to 399 Mt (including reloads) in 2022, but the growth is forecasted to slow to 4.5-5% in 2023
- Western European countries drove the growth in global LNG imports in 2022 and offset a slump in China's LNG imports
- Negative gas/LNG price spreads between Asia and Europe resulted in a shift in LNG flows away from Asia to Europe in 2022

LNG Import Projects

TREND IN NEW LNG REGAS CAPACITY BY REGION



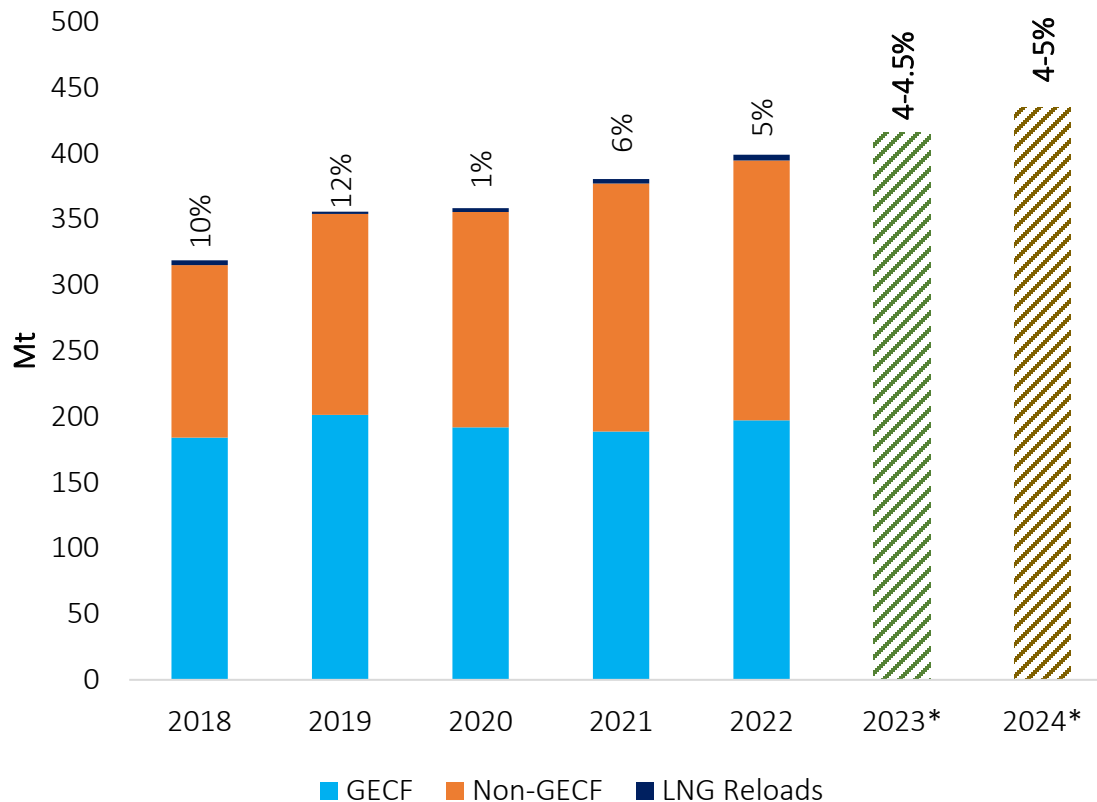
NEW LNG IMPORTING COUNTRIES (2022-2024)



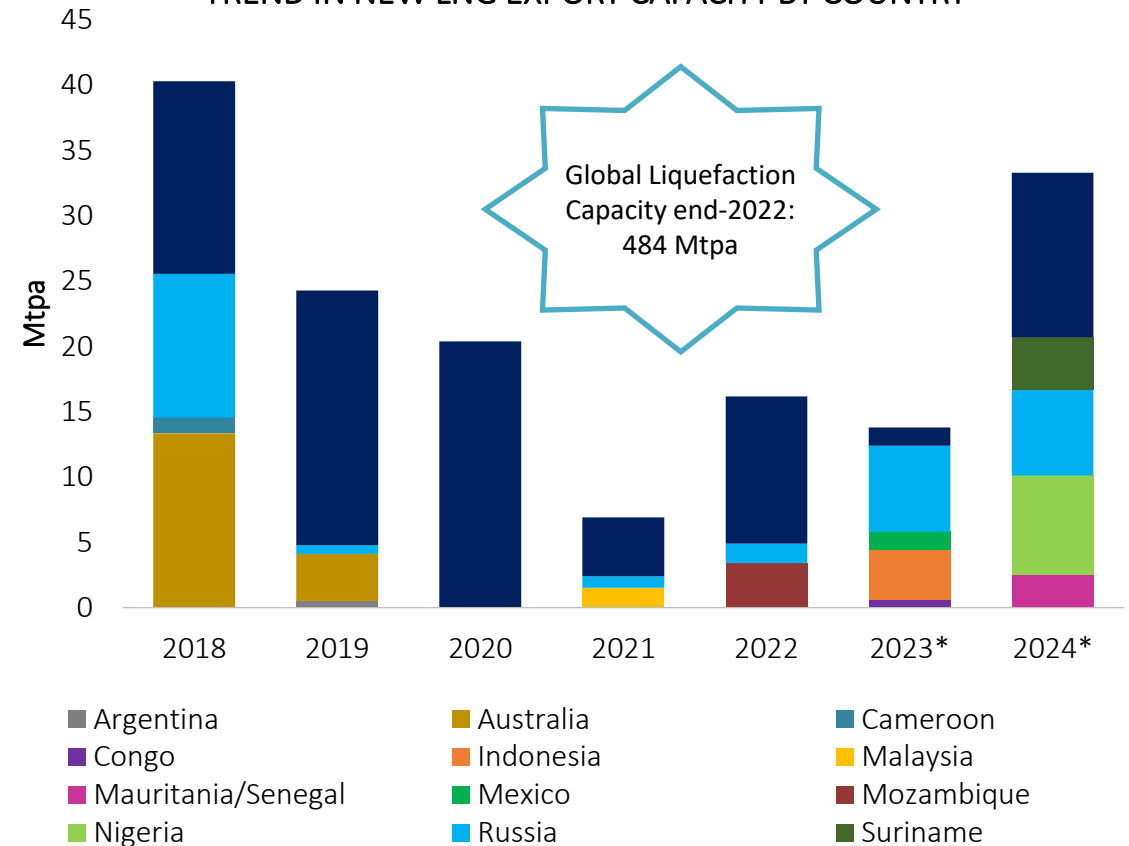
Source: GECF Secretariat based on data from Argus, ICIS LNG Edge, Refinitiv and Project Updates
 Note: the green stars indicate those countries which have recently joined the club of LNG importers

- Three new LNG importing countries recently started imports, and six more countries will begin imports in 2023-2024
- New LNG regasification capacity addition declined in 2022, but is forecasted to surge to a record high in 2023, driven by Asia
- The utilization rate of global liquefaction capacity averaged 38% in 2022
- Europe accounted for the majority of new LNG regasification capacity addition in 2022, and is expected to expand further this year

TREND IN GLOBAL LNG EXPORTS BY SUPPLIER



TREND IN NEW LNG EXPORT CAPACITY BY COUNTRY



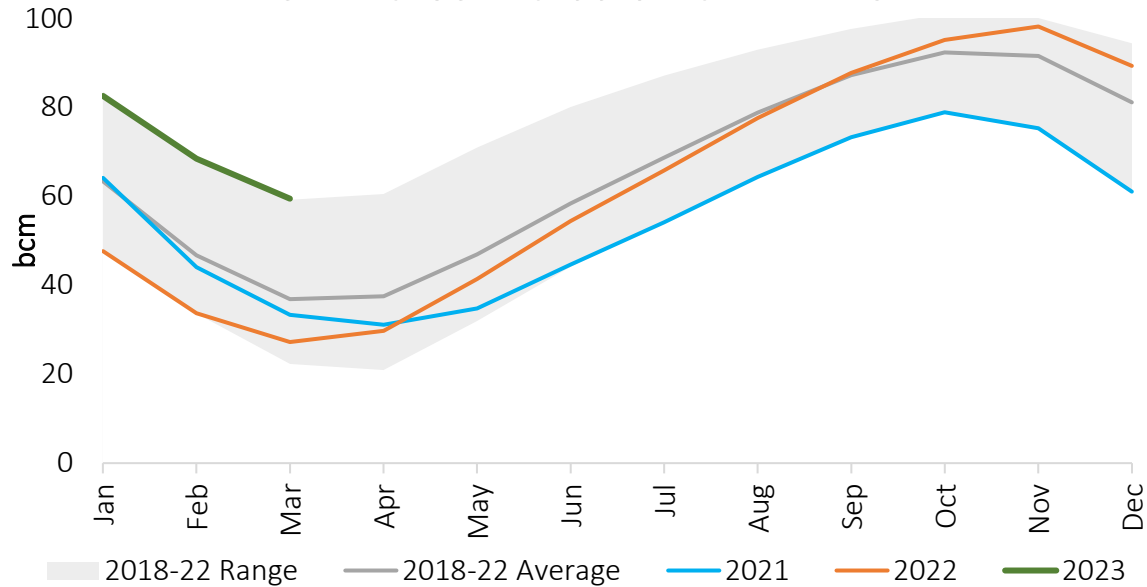
Source: GECF Secretariat based on data from ICIS LNG Edge
 (*): GECF's Forecasts for 2023 and 2024

Source: GECF Secretariat based on data from Argus, ICIS LNG Edge and Project Updates
 (*): Expected to be commissioned in 2023 and 2024

- Global LNG exports increased by 5% to 395 Mt in 2022
- In 2023 and 2024, global LNG exports are forecasted to grow by 4-5% driven by the start-up of new export projects, lower maintenance activity and higher feedgas availability
- The start-up of new liquefaction capacity jumped in 2022, but is forecasted to dip in 2023, before recovering strongly in 2024

Gas Storage in the EU

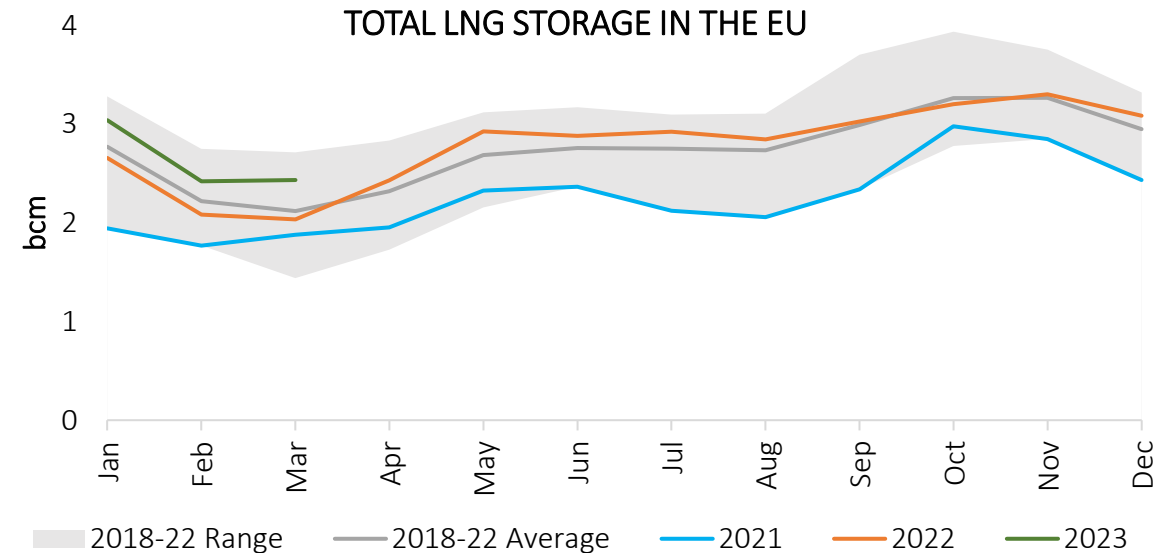
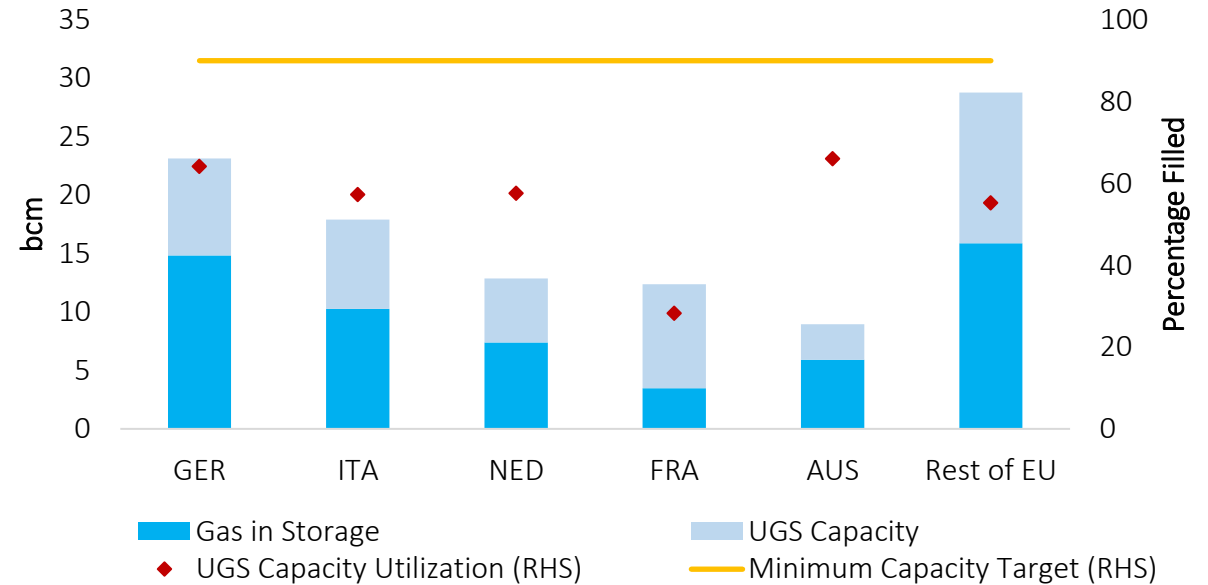
UNDERGROUND GAS STORAGE IN THE EU



Source: GECF Secretariat based on data from AGSI+

- In June 2022, the EU adopted new legislation mandating Member States to fill storage sites to a minimum of 80% by 1 Nov 2022, and 90% by 1 Nov from 2023
- In 2022, 65 bcm was injected into UGS during the filling season
- Reduced gas demand and mild winter are expected to contribute to gas in storage being at high level by the end of the current winter season
- In this context, the 2023 filling season may require just 50 bcm to reach the EU's target of 90%
- Total EU LNG storage levels averaged 2.4 bcm in March 2023

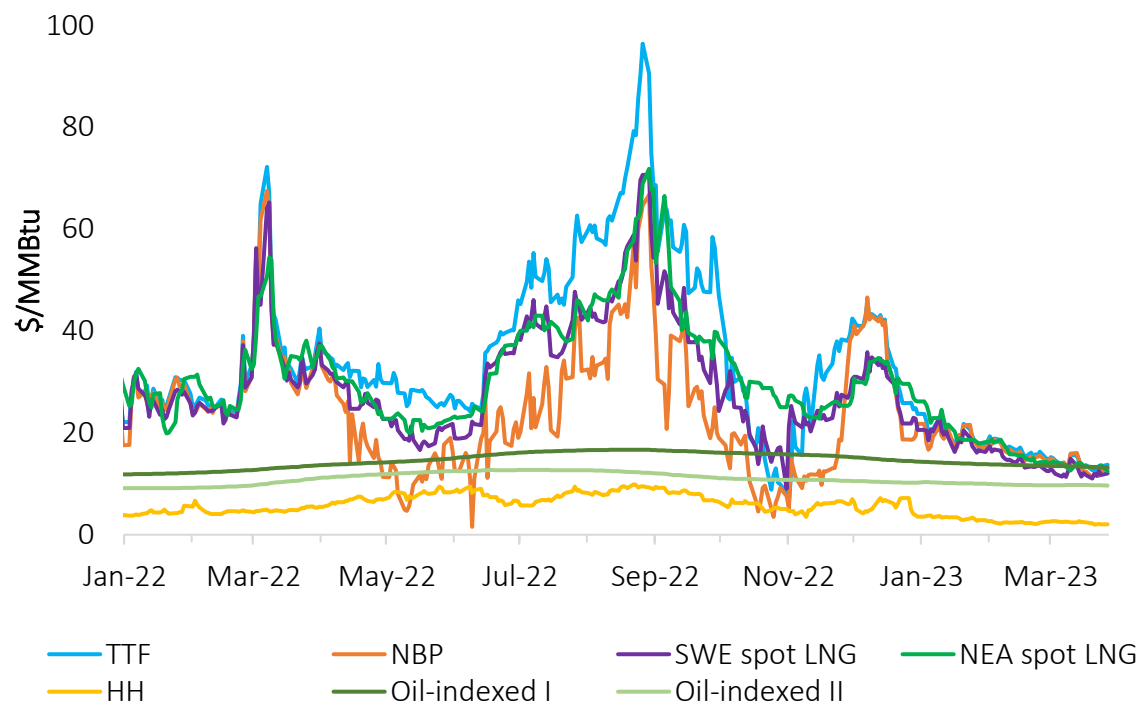
UGS Level on Mar 23 2023



Source: GECF Secretariat based on data from ALSI

Gas and LNG Prices and Contracting

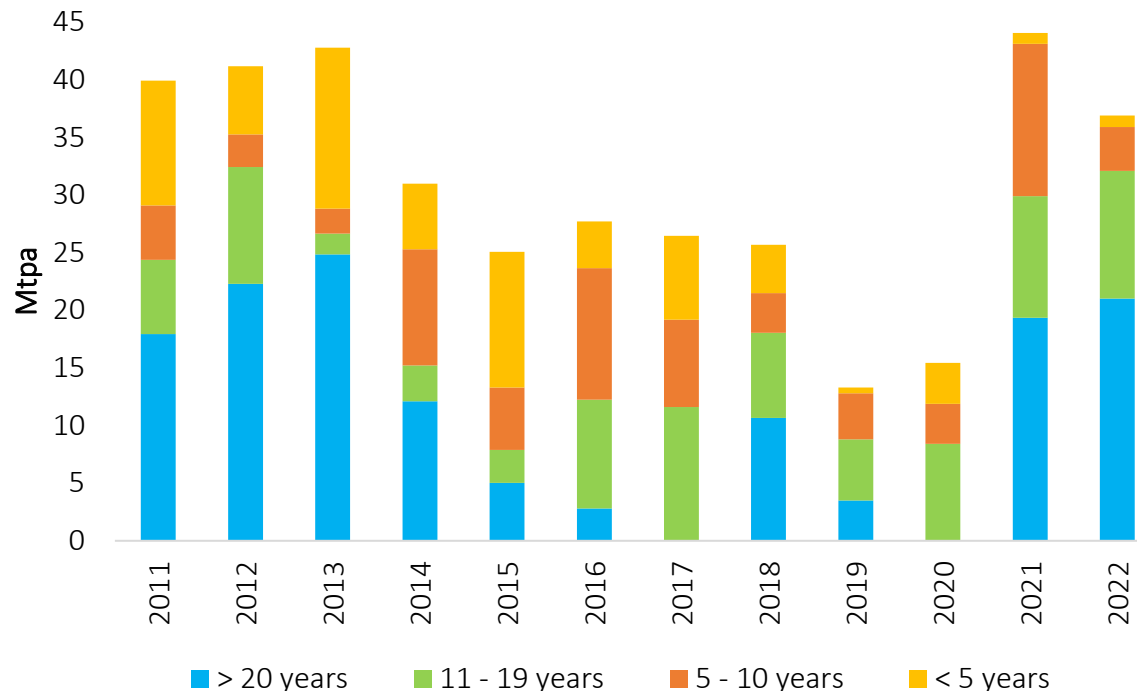
GAS & LNG PRICES



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

Note: Oil-indexed I LNG prices are calculated using the traditional LTC slope (14.9%) and 6-month historical average of Brent. Oil-indexed II LNG prices are calculated using the 5-year historical average LTC slope (11.1% for 2023) and 3-month historical average of Brent.

CONTRACTED LNG VOLUMES BY CONTRACT DURATION



Source: GECF Secretariat based on data from Wood Mackenzie

Note: LNG contracts are with end buyers only and excludes those with portfolio players and traders.

- Gas and LNG spot prices surpassed historical highs and recorded extreme volatility in 2022. Thus far, in 2023, European gas and LNG spot prices have softened significantly due to a mild winter, robust LNG supply and high EU gas storage levels.
- Expectations for a slowdown in global economic growth, a relatively mild winter, high underground gas storage levels in Europe and high LNG inventories in Asia have put some downward pressure on spot prices in 2023
- However, there may be upward pressure due to the expected uptick in China's LNG demand following the easing of COVID-19 lockdown measures, demand response to lower prices, any further gas supply disruptions or any extreme weather conditions
- In 2022, the ACQ of LNG in new contracts of 20 years or more reached the highest level since 2013, due to security of gas supply concerns

Key messages of 7th edition of Global Gas Outlook 2050

1.8 billion additional people in 2050, with most of that growth in Africa and the Asia Pacific

Global GDP will more than double by 2050, from US\$95 trillion to US\$210 trillion in real terms

Energy security, affordability and reliability become top priorities

Global primary energy demand will rise by 22%, and natural gas will raise its share in the energy mix from 23% to 26%

Natural gas supply to increase by 36% to 5,460 bcm in 2050. Africa is the only region where gas production more than doubles

Global natural gas trade is expected to reach to over 1,700 bcm, led by LNG

By 2050, the cumulative upstream and midstream investment required to satisfy global gas demand will reach a hefty US\$10.5 trillion

Africa energy resources and needs are huge, and the development of its natural gas reserves shall be facilitated

The Energy Sustainability Scenario (ESS) and Accelerated Energy Decarbonisation Scenario (AEDS) provide two alternative trajectories for the long-term global energy outlook



Concluding Remarks

The global gas market may be affected by a slowdown in the global economic growth in 2023

Despite a decrease in Europe, global gas consumption may rebound in 2023, accompanied by an increase in global gas production

Global LNG trade is anticipated to rise in 2023

High gas storage level in may result in lower demand for injection in the filling season, and have a downward pressure on prices

Headwinds: Weak gas demand growth, relatively mild winter, and high gas storage levels in Europe

Tailwinds: Recovery in China's gas demand, higher imports from price-sensitive countries, and rebound in gas demand in the industrial sector



ANNUAL SHORT TERM
GAS MARKET REPORT

2023



MONTHLY SHORT TERM
GAS MARKET REPORT

February 2023

Thank you for your kind attention



Tornado Tower, 47th, 48th Floor. West Bay, Doha, Qatar. www.gecf.org