

Slovak Gas and Oil Association

Contemporary Issues in Natural Gas & LNG

7 May 2024
Bratislava, Slovakia

SQUIRE 
PATTON BOGGS

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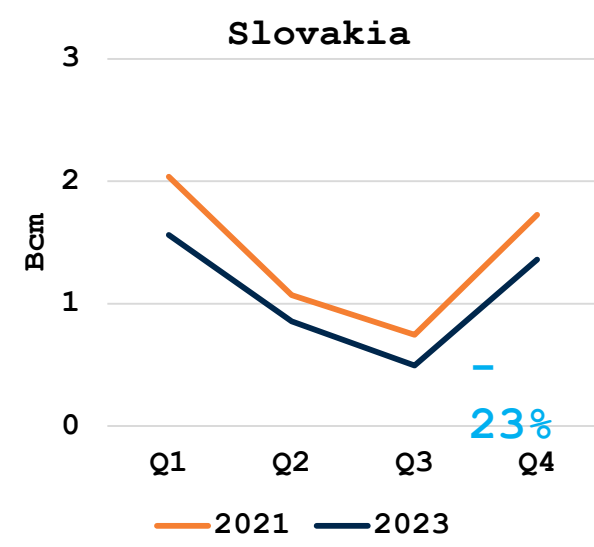
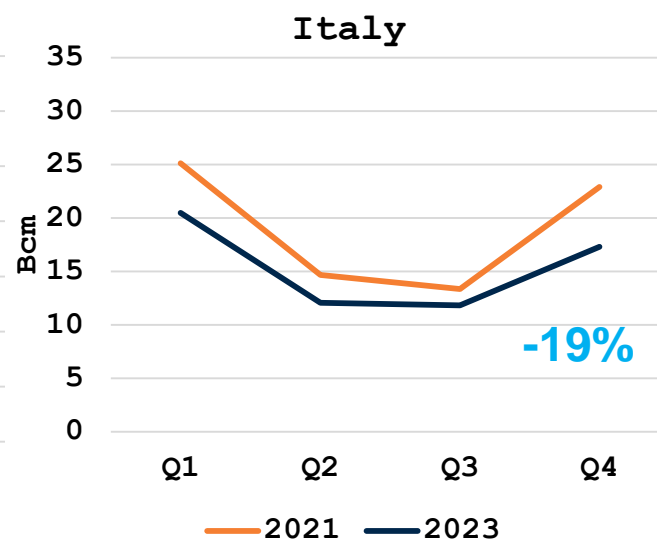
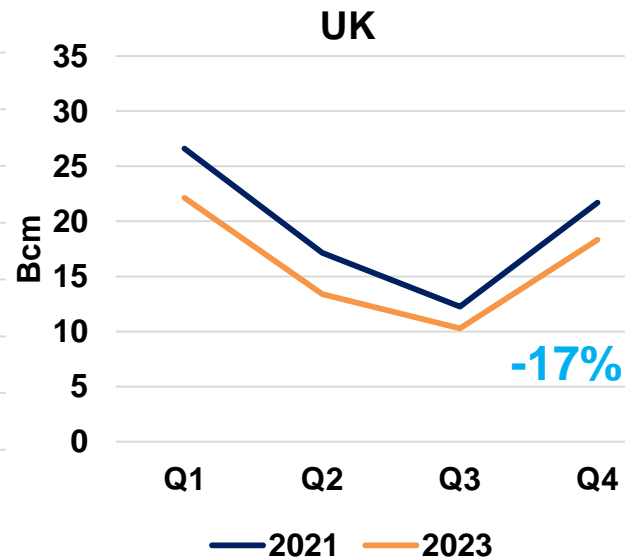
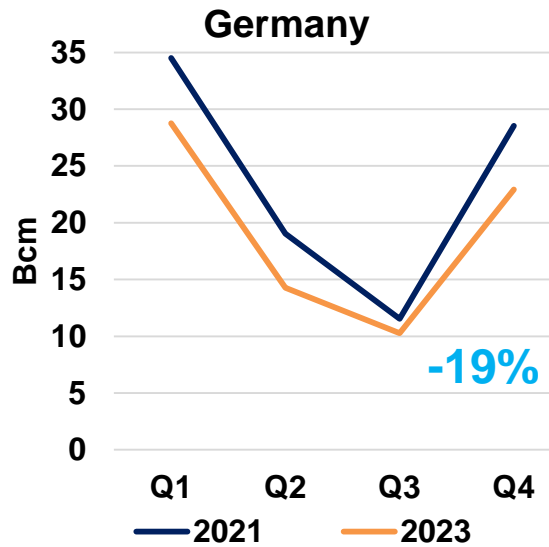
European Gas Markets Experienced Unprecedented Volatility

Evolution of TTF Prices (2020-present)¹



1. Bloomberg

Strong Demand Side Response Across European Markets, Despite Milder Winter



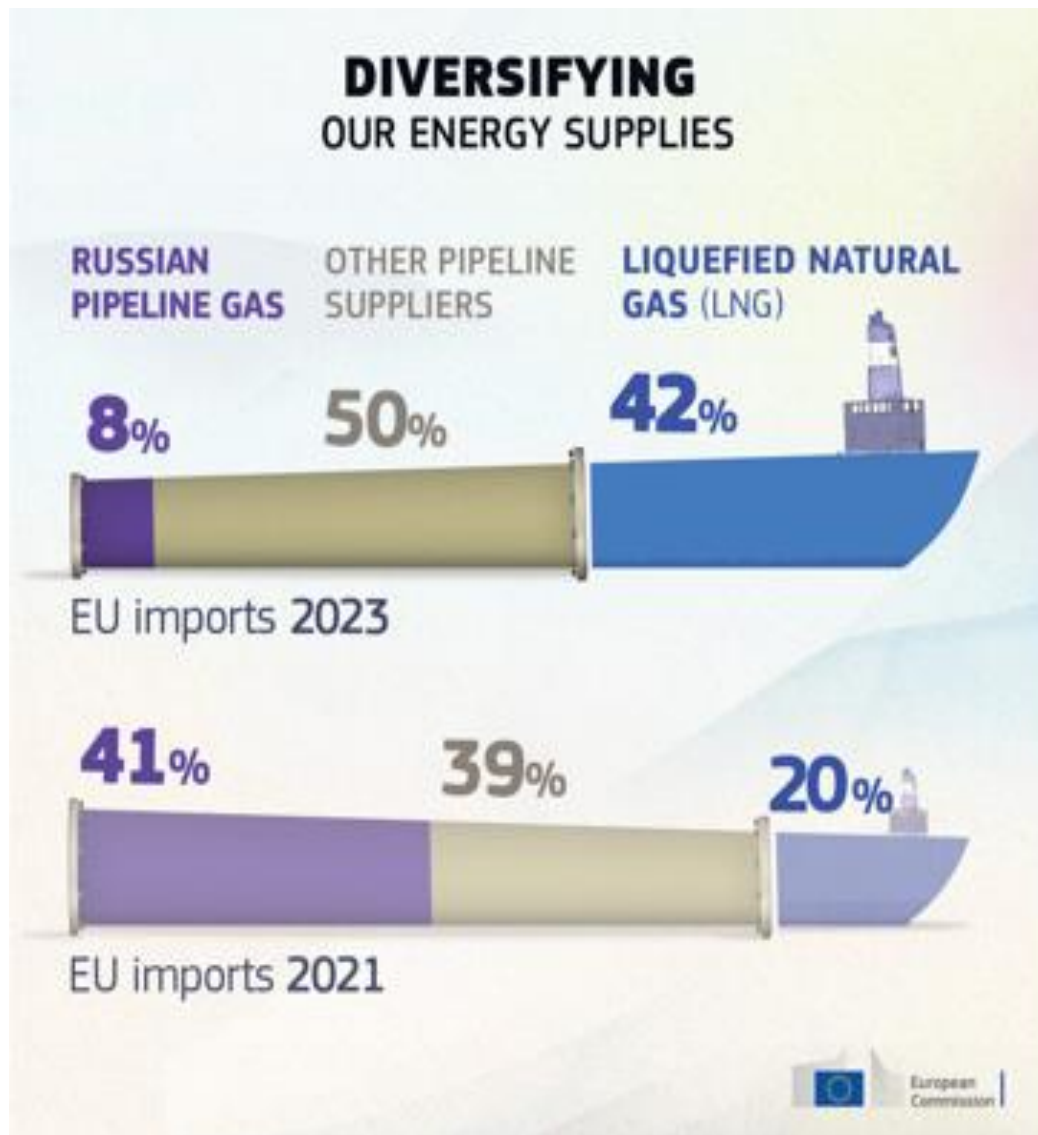
- 75% of industrial gas consumers were able to cut demand without cutting production, due to energy-efficiency measures.
- Industrial output and gross GDP decreased by 1.5% and 0.3% in 2023, respectively.
- Coal-gas switching complicated by price volatility.

- Limited government interference on demand side.
- Market driven demand response. High electricity prices caused reduction in household gas consumption.
- Loss of large number of utility gas & power providers in later 2021/early 2022.

- The Italian govt. posed restrictions on communal central heating in October 2022. This initiative resulted in the largest response from the residential sector
- Italian government actively encourages behavioural changes. Demand from the residential sector is expected to further decrease as government electricity subsidies for vulnerable households/firms phase out by the end of 2023.

- The significant decline was primarily due to decreased gas demand in the power sector, and to a less extent, to the lower gas consumption in residential and services sectors, despite the government established compensation mechanism for higher energy bills, aimed towards households, municipalities and businesses.

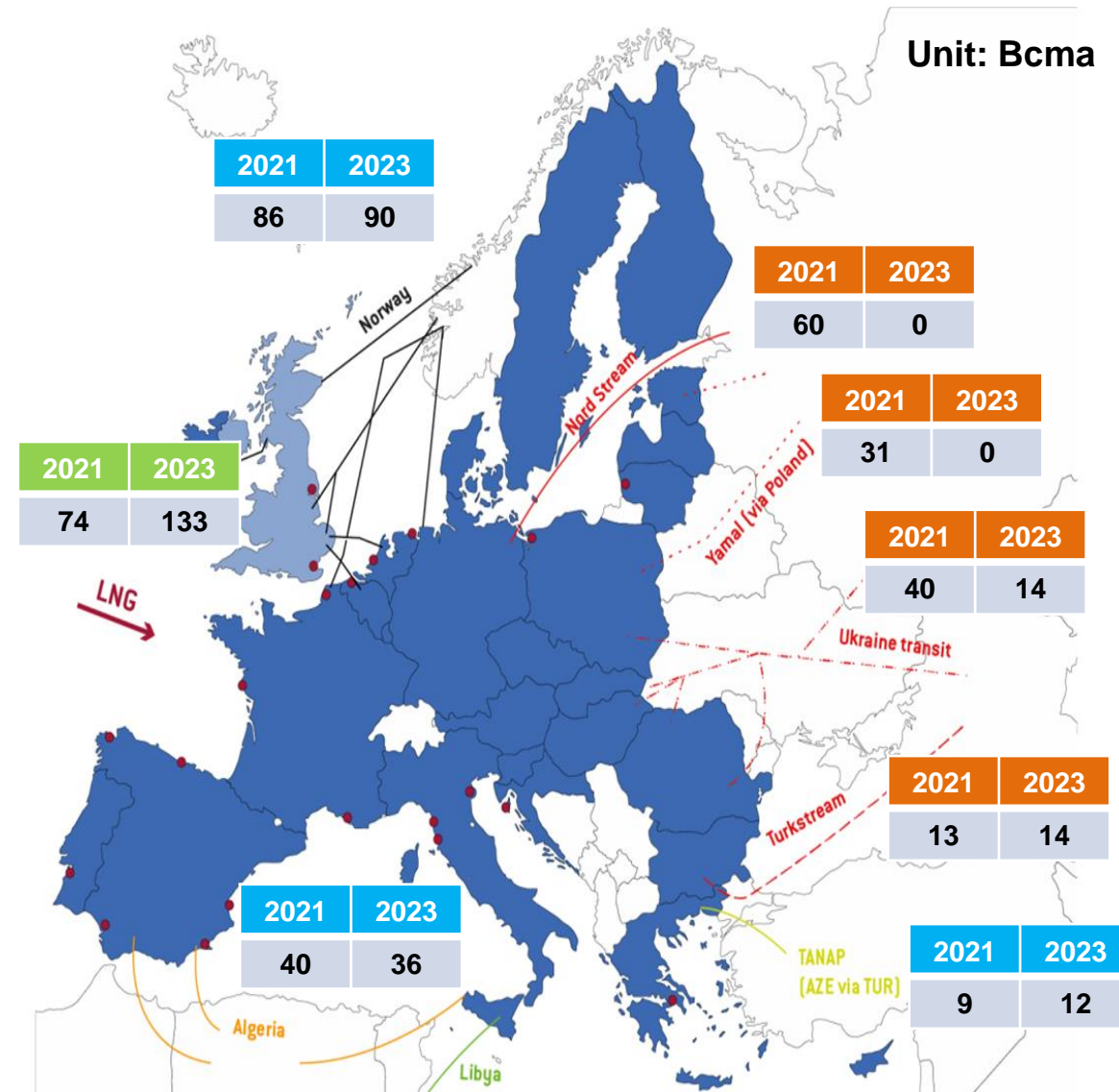
LNG Is The Only Real Supply Side Solution, But LNG Supply Is At Full Capacity



- Between 2021 and 2023, Russian pipeline gas supply to the EU dropped from >40% to ~8%
- Limited non-Russian pipeline upside.
 - > Azerbaijan to increase gas flows, but added capacity to the TAP pipeline is unlikely
 - > Norway increases exports by 6%, with pipeline running at near full capacity.
 - > 2% additional Algerian production
- The share of LNG in Europe's gas supply rose from 20% in 2021 to a new high of 42% in 2023 – a share comparable to Russia's piped gas before its invasion of Ukraine.
- In 2023, the EU experienced a notable 16% decrease in its natural gas production from 2021 levels. The Netherlands accounted for 33% of this decline, with its output plummeting by 46% from 2021 to 2023. Groningen is now closed for production.
- US LNG supply more than doubled in 2023, but US LNG capacity not expected to greatly rise until 2025.

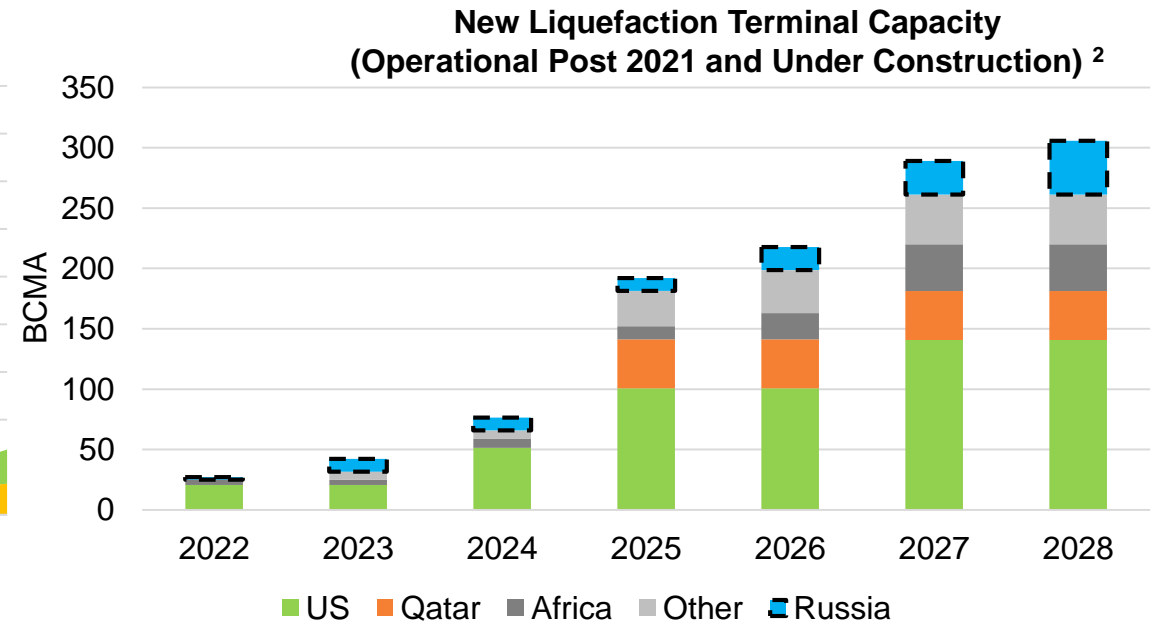
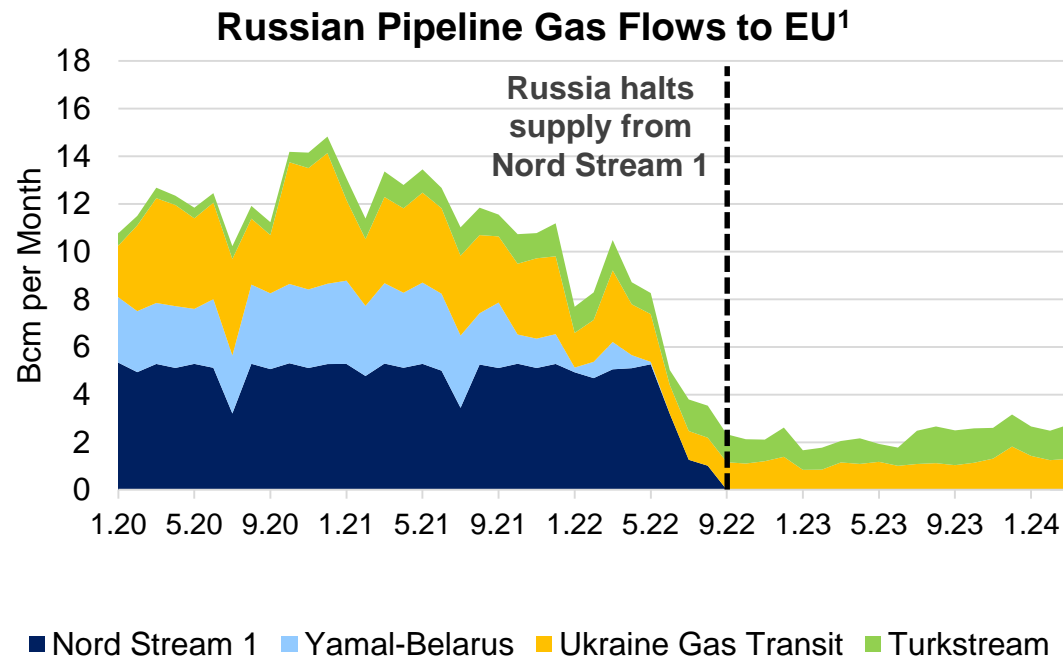
Russia-Ukraine Gas Transit Contract

- The Russia-Ukraine gas transit contract expires at the end of 2024.
- Kyiv says it will not extend the agreement – Russia confirms no negotiations underway to extend.
- **Russian pipeline gas is currently still flowing through Ukraine** (mainly to Austria, Slovakia, Italy, and Hungary). In 2023, ~14 bcm were transited from Russia through Ukraine.
- Ukraine indicates importers could take gas themselves at Sudzha (an entry point on the border) – an interconnection agreement would be required.
- Importers could start booking capacity themselves in the Ukraine system – what volume is necessary to be commercially viable?
- What will be the cost of such transit? The cost of transit will reflect the level of interest in capacity bookings
- GTSOU potentially revamping infrastructure.
- Slovakia: Ship-or-Pay agreement with Gazprom ending in 2028.



Future of Russian Gas Transit / Supply into Europe

- The European Commission is considering new sanctions against Russia. They could include restrictions on three Russian LNG projects (Arctic 2, Ust Luga, Murmansk), and on re-export of Russian LNG.
- In 2025, **substantial new LNG supplies from Qatar and the United States** are expected to come online.

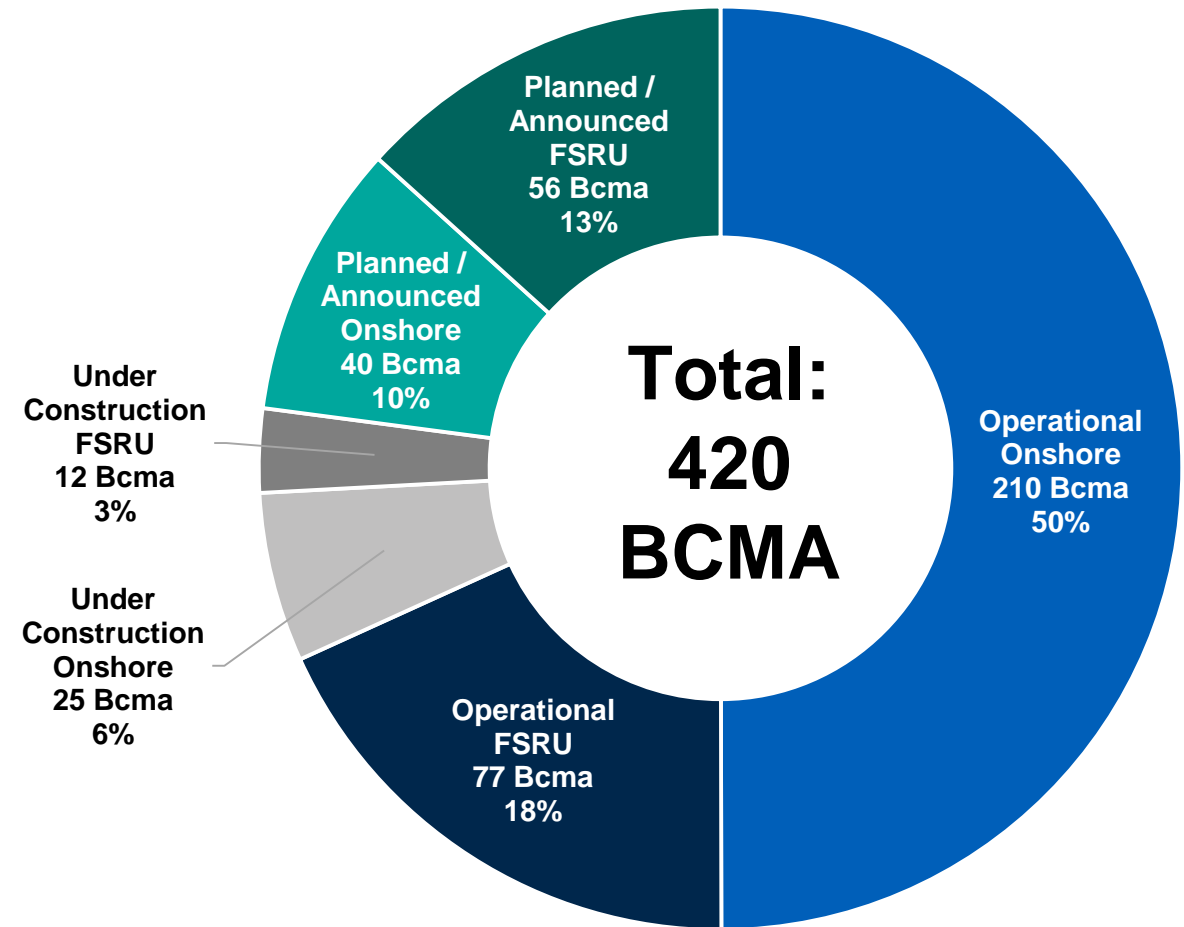


Source:
 1. ENTSOG vis Bruegel, <https://www.bruegel.org/dataset/european-natural-gas-imports>
 2. BloombergNEF

European LNG Terminals & FSRUs Status

- Newly operating and upcoming LNG terminals are mostly FSRUs (119 Bcma).¹
- FSRUs are quick and cheap but come with additional operational constraints.
- Expansion of existing on-shore terminals is approximately 40% of planned capacity.

1. Includes terminals commissioned from 2021 onward



Source: BloombergNEF LNG infrastructure database

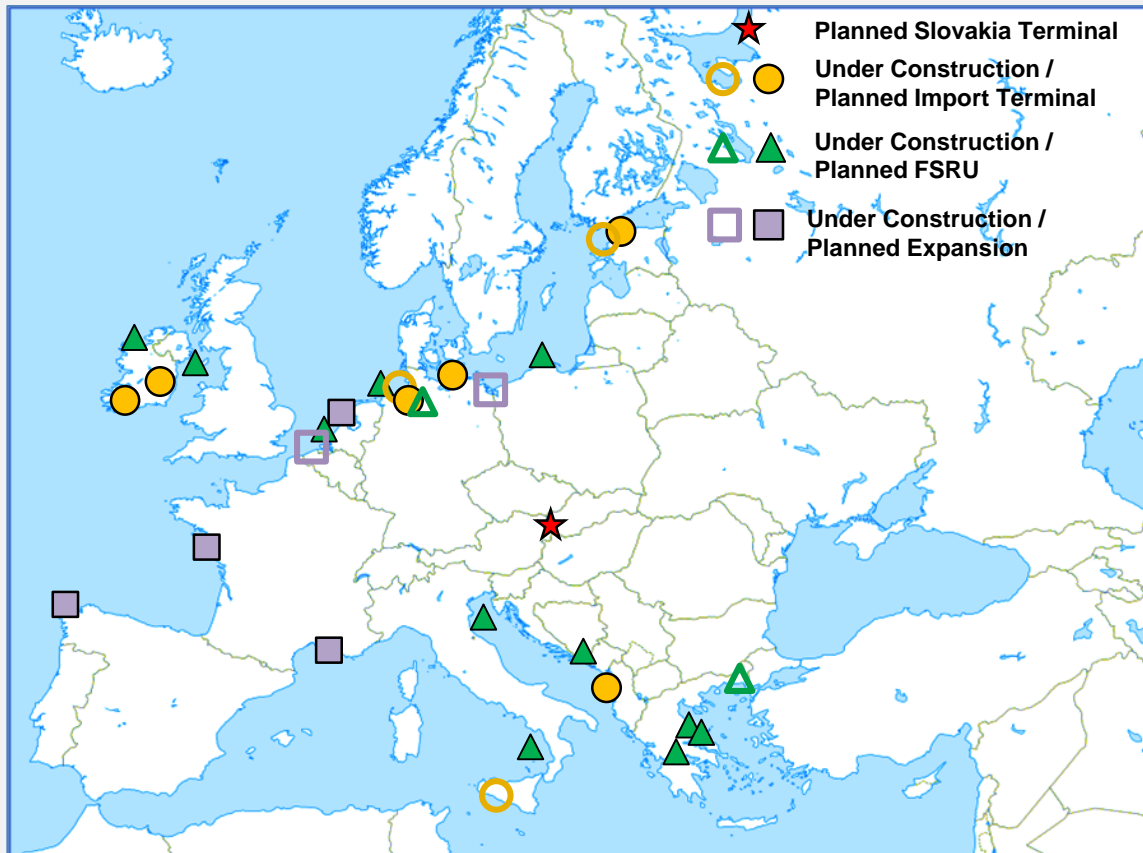
New Development in European LNG Terminals and FSRUs

- Expansion in Slovakia
 - > A **new LNG terminal at the port of Bratislava** to be built by the state-owned company Verejné Prístavy (Public Ports), with a potential readiness date of 2026.
- Europe's LNG import/regasification capacity is on track to reach 307 Bcma in 2024, an increase by more than one-third their import capacity in 2021.¹
 - > **Greece** and **Italy** are expanding their FSRU capacities, with Greece expecting 12.4 Bcma by 2024 and Italy expecting 16 Bcma by 2026.
 - > **Turkey** added 7 Bcma of capacity in 2023 through its newly commissioned Gulf of Saros FSRU.
 - > **Belgium, Poland** and the **Netherlands** are expanding existing regasification terminals by a combined 8.5 Bcma by the end of 2024, with an additional 5.5 Bcma of capacity expected by the end of 2026.
 - > **Cyprus** is expected to begin LNG imports in 2024, following the commission of 1.0 Bcma capacity LNG import terminal.
 - > **Germany** is expected to add 20.9 Bcma by 2027, with FID reached for the new Stade LNG Terminal March 2024.

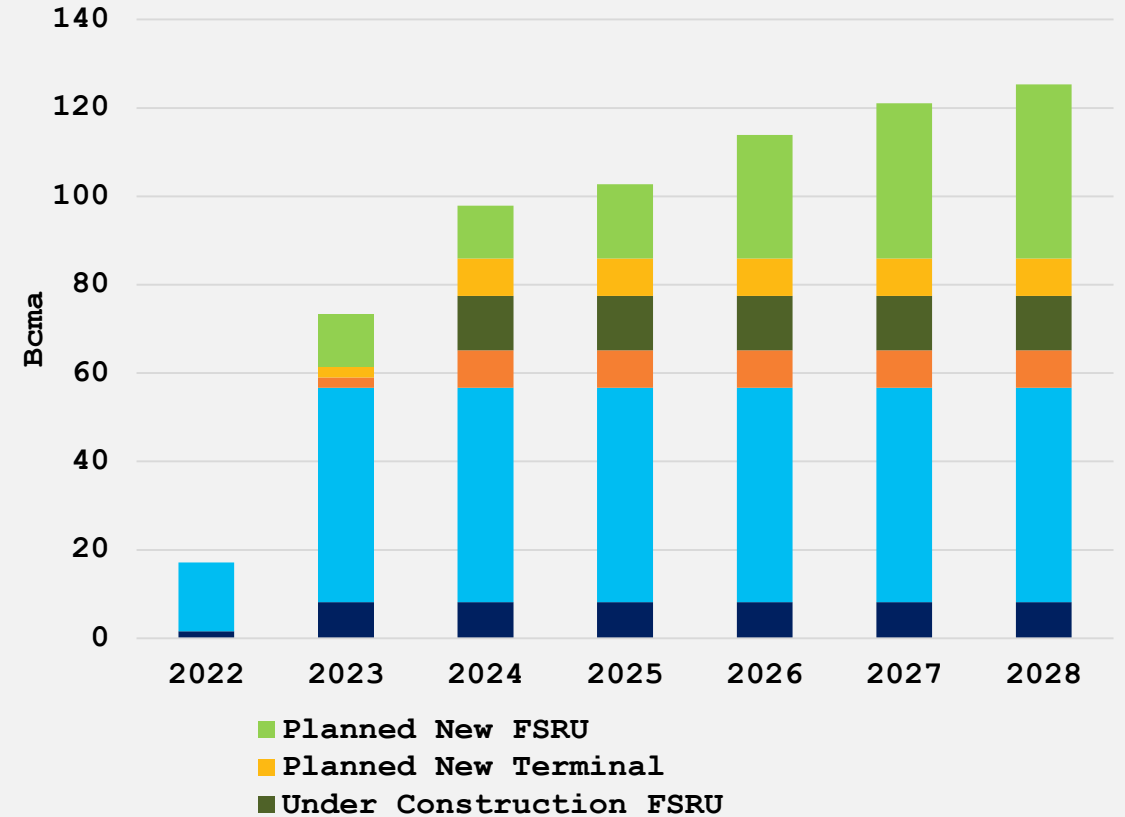
1. BloombergNEF

European LNG Import Capacity Growth

Planned New LNG Import Capacity (present-2028)¹



Growth in European Terminal and FSRU Import Capacity (2022-2028)¹

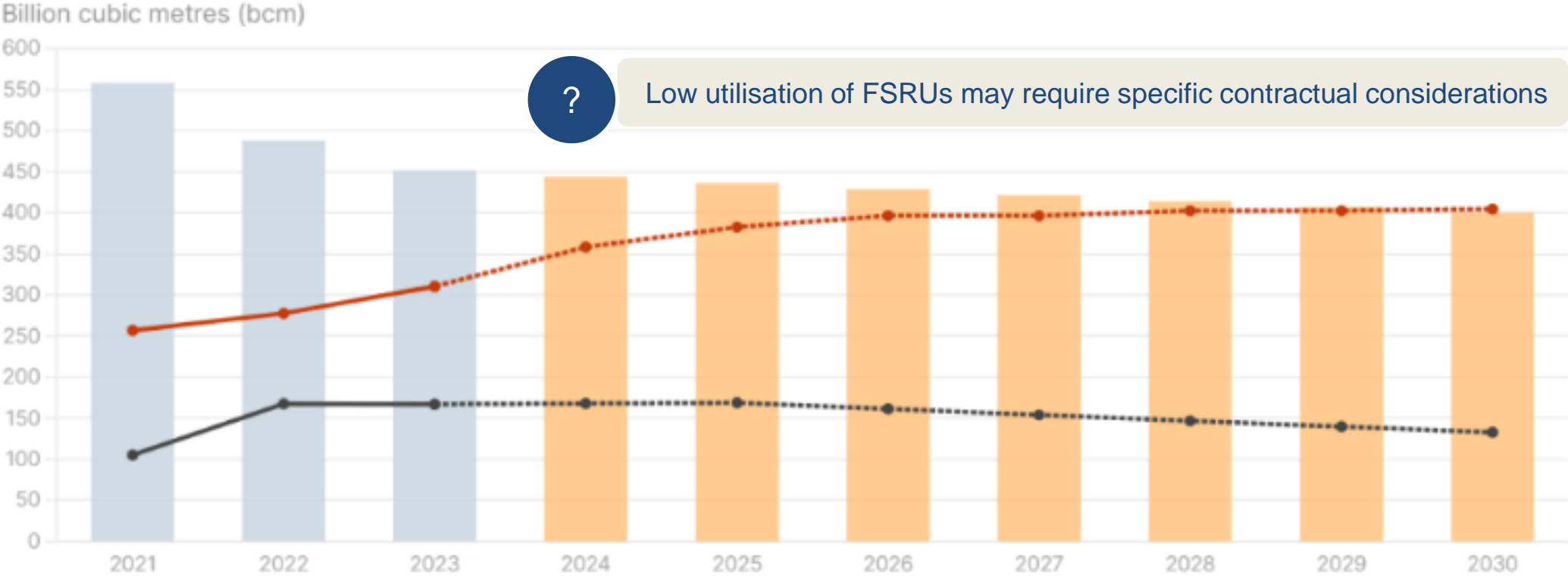


1. BloombergNEF LNG infrastructure database

LNG Capacity Growth Will Result In Low Utilization In Coming Years

Europe's LNG Regasification Capacity and Gas Demand¹

■ LNG capacity ■ 2024 LNG demand forecast* ■ Historical gas consumption ■ Gas consumption forecast



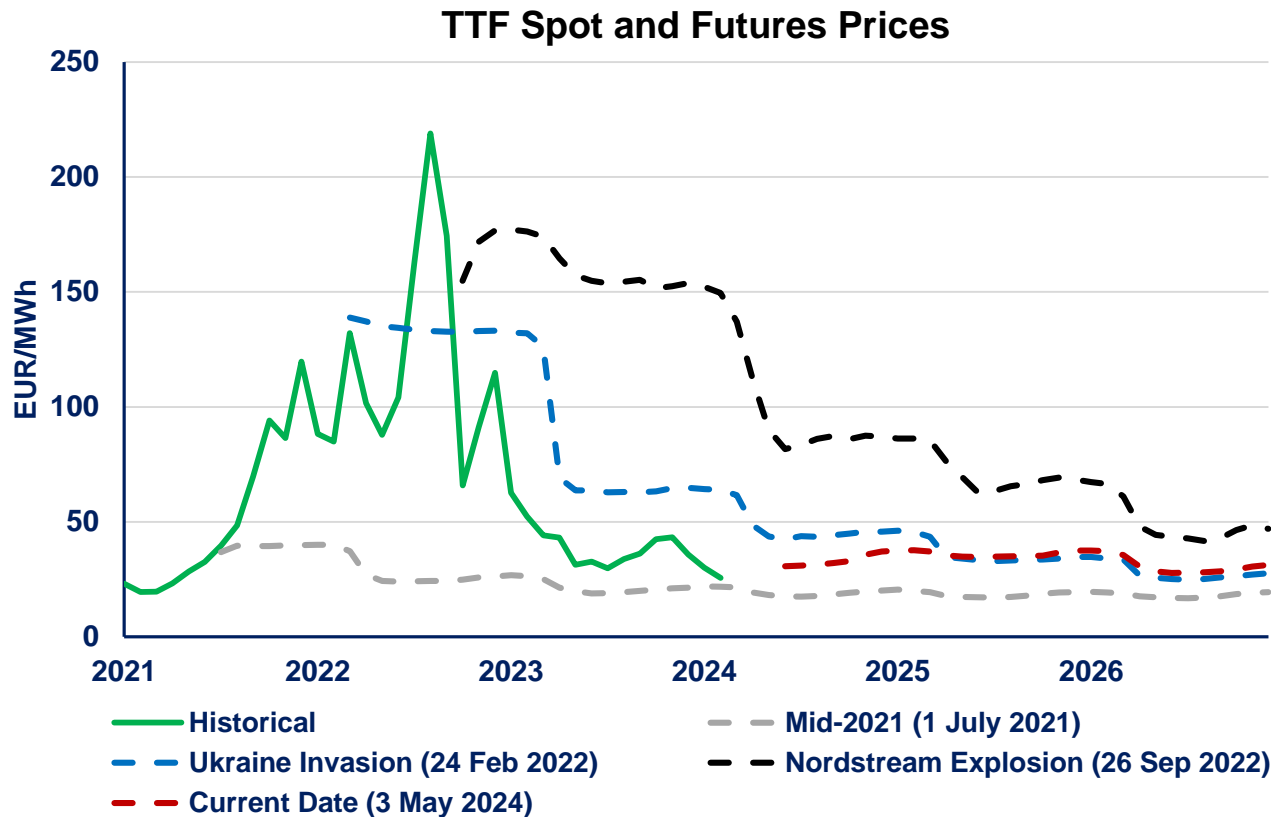
1. Gas Infrastructure Europe, Kpler, IEEFA. Note: Includes EU27, UK, Türkiye, Norway. Gas and LNG demand forecasts based on IEEFA analysis.

Recent Contracting Between LNG Receiving Terminals And Producers, And European Importers

- European LNG receiving terminals and other parts of Europe
 - > **Bulgaria's** state gas company, Bulgaraz, signed a long-term deal with **Turkey's** state gas company, Botas.
 - > **Hungary** have expressed interest in **Poland** as a source of natural gas imports of up to 0.2 Bcma.
- LNG producers and European importers
 - > **Qatar** has signed 27-year agreements with French company, **TotalEnergies**, and **Shell** in the Netherlands to secure 4.6 Bcma of LNG from 2026, with deliveries to continue until 2053.
 - > **Hungary** are also going to begin receiving shipments of LNG from **Qatar** in 2027.
 - > **QatarEnergy** and German company, a **ConocoPhillips** affiliate signed two SPAs covering at least a 15-year period.
 - > **United States** LNG developer, Venture Global LNG, signed a 20-year deal to provide **Germany's** Securing Energy for Europe GmbH with 2.9 Bcma of LNG starting 2026, making it Germany's largest LNG supplier.
 - > **Norwegian** state-owned company, Equinor, signed a deal with **United States** company, Cheniere, for a 15-year purchase agreement of 2.3 Bcma of LNG, with half of the volume starting in 2027.
 - > **Austrian's** OMV and **United States'** Cheniere signed a 15-year purchase agreement for 1.2 Bcma of LNG starting 2029

Source: GIIGNL

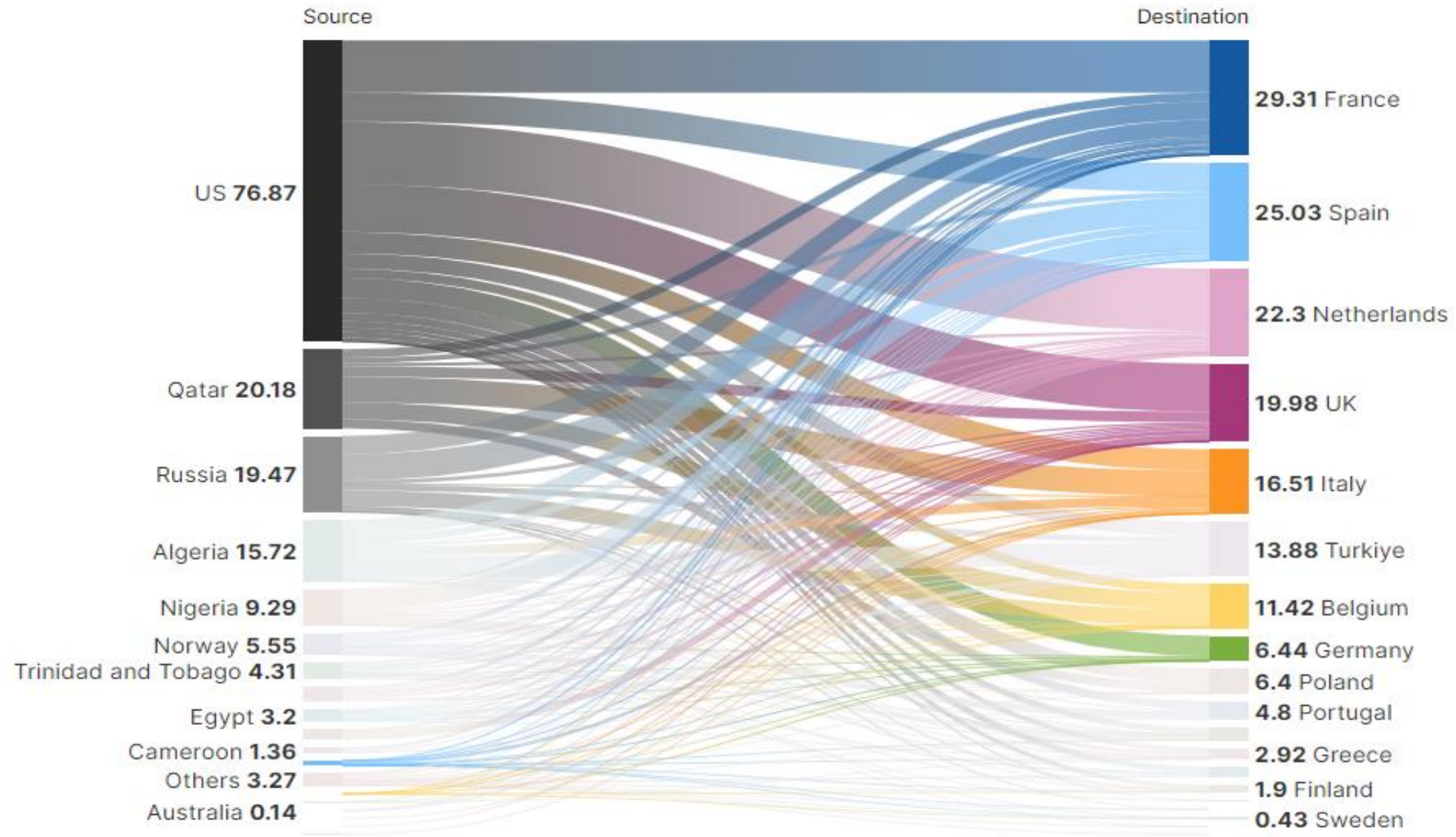
Market Is Still Nervous With High Pricing Expectations



Source: ICE TTF Forward Prices

- European gas prices have started to dip as gas demand and economic recovery remains dampened.
- Paired with the wave of supply from the US and Qatar becoming available by 2025-2026, pricing expected for 2026 onward have been lowered, however, prices could return with increased manufacturing activity and delayed LNG supply project.
- While Russian pipeline gas supply into Europe remains significantly less than pre-war levels, Russian LNG imports to EU ports continues to rise.
- In 2023, European buyers imported almost half of the LNG on spot/short-term basis, where prices were much higher than prices under the newly signed HH-indexed long-term LNG SPAs.

Europe's LNG Imports in 2023 (In Bcma)



Source: Kpler, IEEFA, <https://ieefa.org/european-lng-tracker>

Typical features of LNG Contracts

- Two General Types of LNG SPAs:
 - > **FOB** SPAs (“Free on Board”)
 - The buyer goes to the seller’s LNG facility and loads the LNG onto its own ship (or one it hires).
 - > **DES** (“Delivered Ex Ship”)
 - The seller loads the LNG onto its own ship and delivers them to the buyer.
 - > Some SPAs provide for both DES and FOB deliveries.
- Pricing:
 - > SPAs typically price gas according to a contract price formula.
 - Pursuant to the price formula, the Contract Price will vary over time.
 - The Contract Price is often indexed to a commodity.

Typical Features Of LNG Contracts – Flexibility (1)

- LNG contracts are less flexible than pipeline contracts because the gas volumes cannot just be increased or decreased through the pipeline.
- Logistical constraints are greater:
 - > ship timing, destination and capacity,
 - > regasification and storage capacity at the import terminal.
- LNG contracts may allow for diversions to send cargoes elsewhere.
 - > This allows buyers to optimise their portfolios to take advantage of price differences in different markets, or to cut down on transport time within a country.
 - > A diversion may involve a profit-sharing arrangement.

Typical features of LNG Contracts – Flexibility (2)

LNG contracts often provide for:

- > **UQT** – Upward Quantity Tolerance. Allows a buyer to request additional quantities. This may reduce Make-Good (see below) depending on the SPA.
- > **DQT** – Downward Quantity Tolerance. Where buyer does not want to take the whole AACQ, it can often exercise DQT and reduce the AACQ to take fewer cargoes per year.
- > **Make-Good** – Where a buyer exercises DQT and does not take a cargo, then it has to “Make-Good” a cargo (i.e. take it) as soon as possible in the following contract years.
- > **Make-Up** – Where a buyer pays for but does not take a quantity, it can request seller to deliver that quantity in a subsequent year.
 - The difference between this and Make-Good is that the Make-Good quantity was subtracted from the AACQ and was not paid for.
 - Make-Up quantities have been paid for.

Framework Agreements and Confirmation Notices

Parties to LNG agreements will often agree an MSPA which acts as a framework agreement.

- The MSPA includes relevant contractual terms but will often be silent as to price and volume.
- These are addressed in each Cargo's Confirmation Notice

Cargoes purchased under the MSPA are then agreed by way of a "Confirmation Notice"

- The Confirmation Notice will give information about price and volume, as well as timing of delivery or loading.

An MSPA might be 90 pages long and a Confirmation Notice 2 pages long.

Current Gas Market Disputes

In the current market, we are seeing a variety of gas and LNG related disputes:

- > Force Majeure
- > Termination
- > Storage
- > Cargo under-delivery / Missed Cargoes
- > Price review