

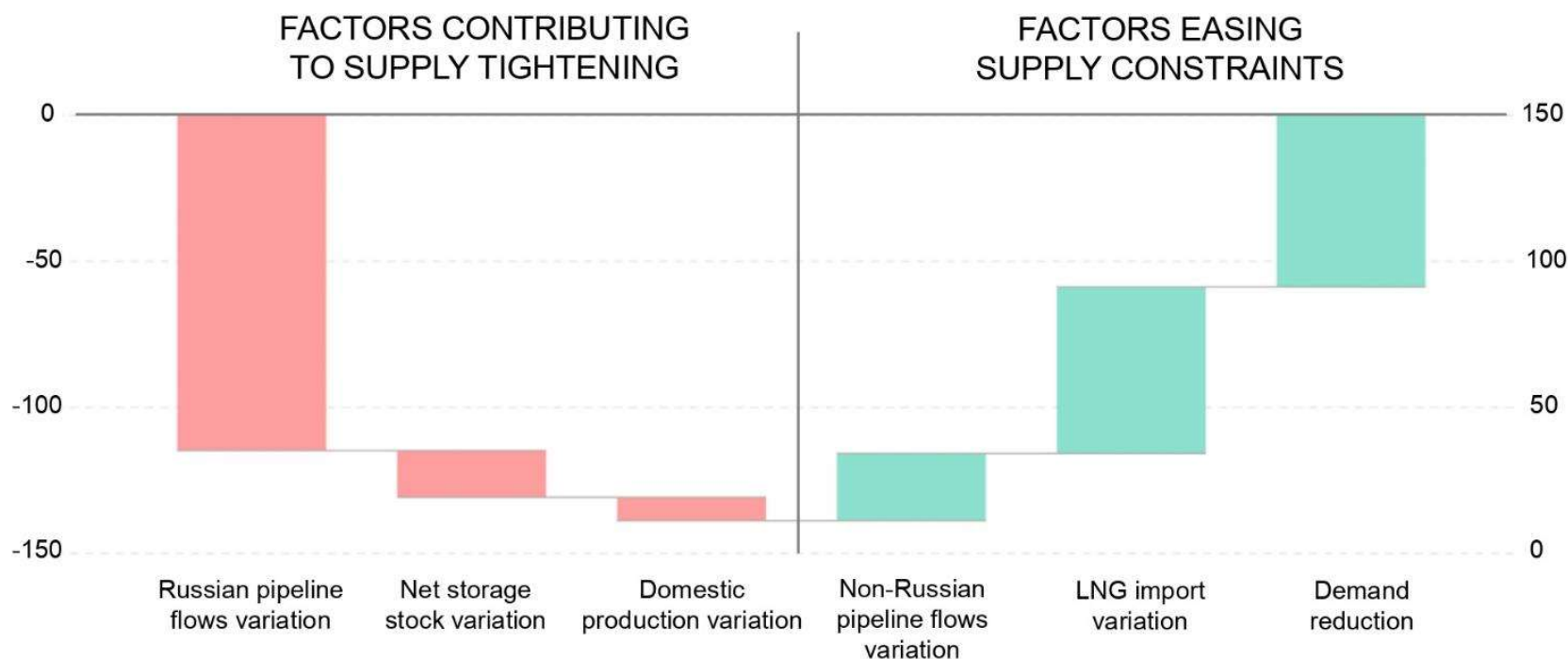
# Key developments in European gas wholesale markets

Energy Community Forum

16 September 2024

# The EU gas market has achieved a new equilibrium

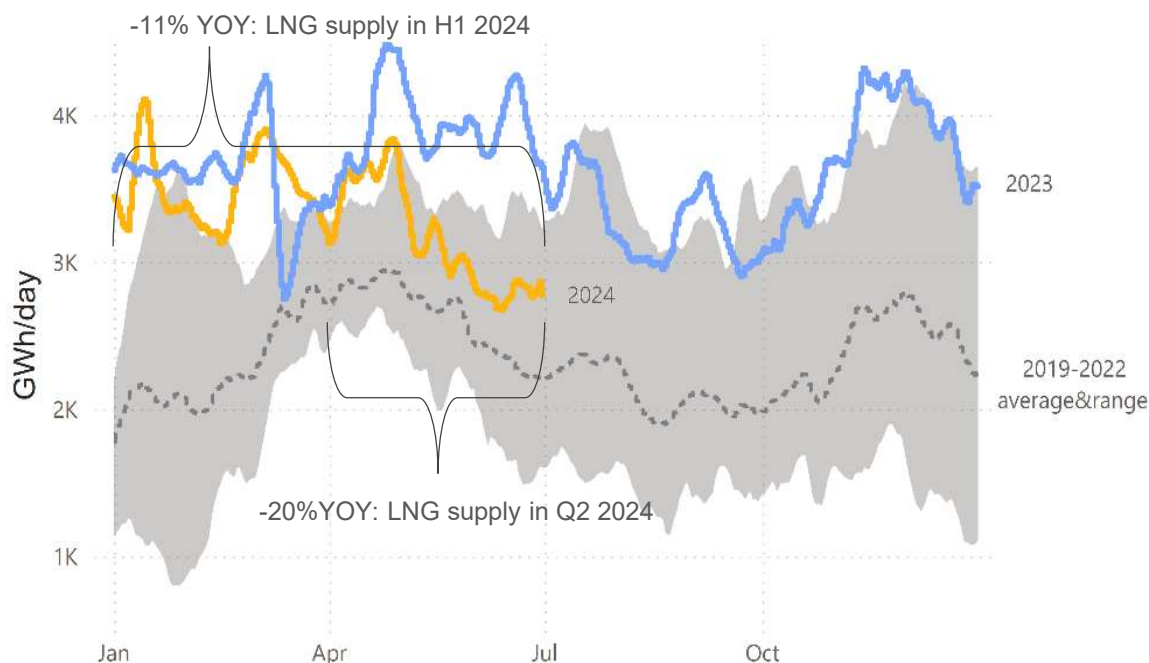
Estimated EU gas supply and demand differences in 2023 in comparison to 2021 (bcm/year)



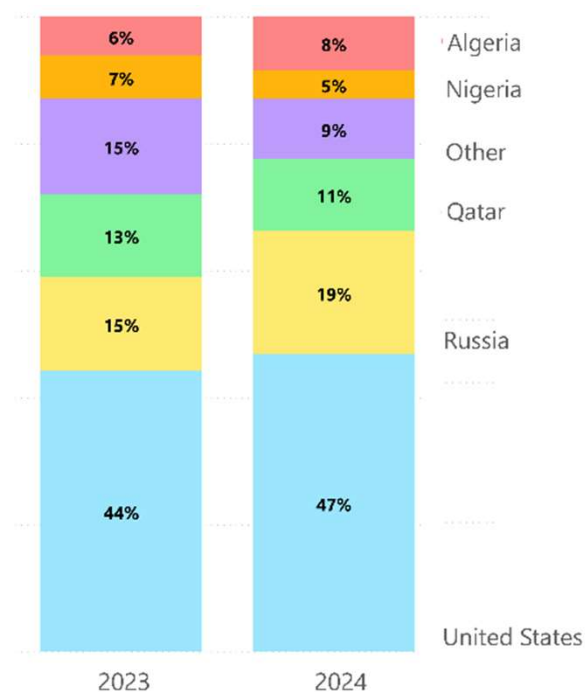
A combination of enhanced LNG supply, new gas infrastructure investments (mostly in LNG regasification) and sharply reduced gas consumption has brought a new supply-demand balance to EU gas markets, enabling the shift away from (the majority) of Russian gas pipeline supply. This has translated in much lower prices, which are approaching 2021 levels.

# While LNG imports are falling YoY as a result of global competition and low demand

EU LNG send-out, 2019-2024 (GWh/day)



Origin of EU LNG imports and share of total, Q1 & Q2 2023-2024 (%)



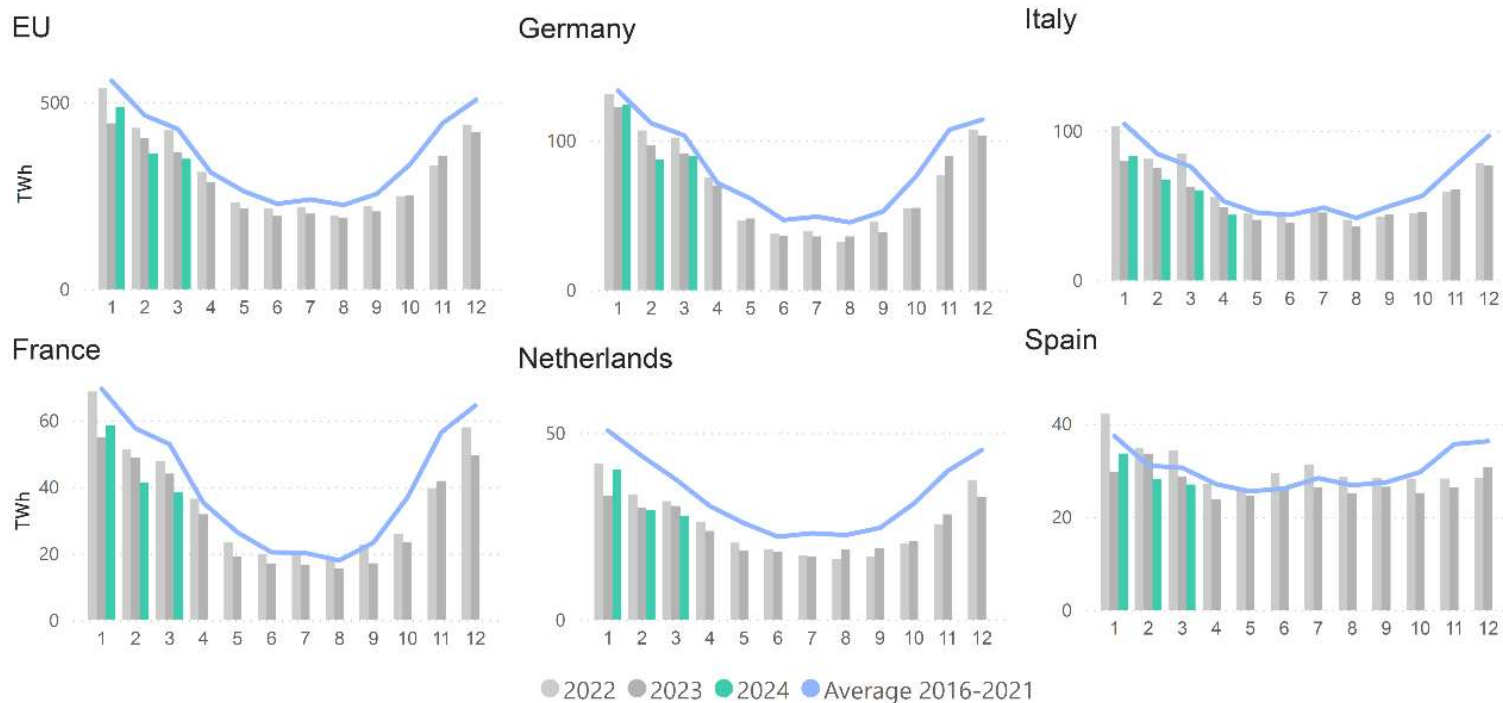
LNG continued to be a crucial part of the EU gas market's supply portfolio but send-out from regasification terminals fell significantly in the first half of 2024, down by 6.3 BCM compared to the same period last year. The main external factors driving this decrease were increased demand from Asia and other LNG-consuming regions, as well as outages at liquefaction facilities that limited the available supply.

Source: ACER based on Gas Infrastructure Europe transparency platform data.

Notes: Values in the figure 'EU LNG send-out' are seven day rolling averages. Values in the figure 'Origin of EU LNG imports and share of total' refer to gross imports, a significant volume of LNG originating from Russia is re-exported from the EU to other markets.

# The trend of low gas consumption continues

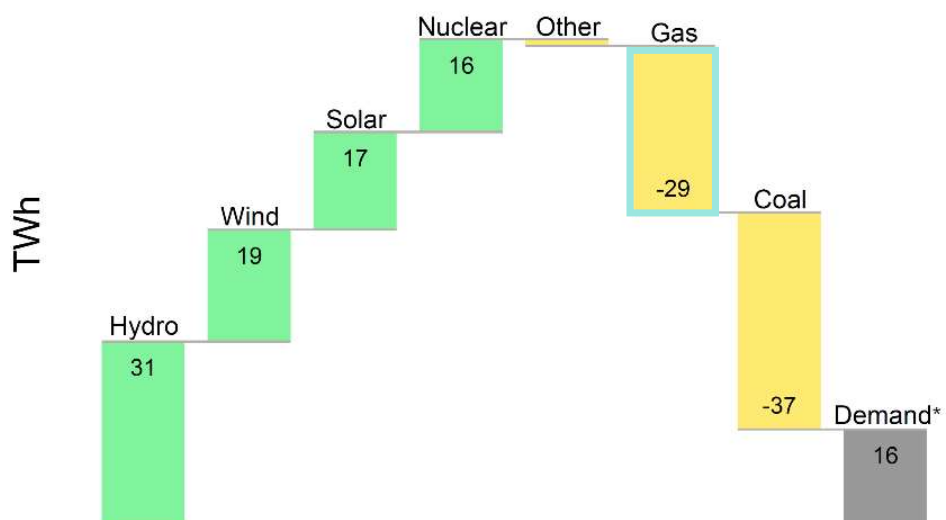
Consumption in EU and Member States with largest natural gas demand, 2016-March 2024 (TWh)



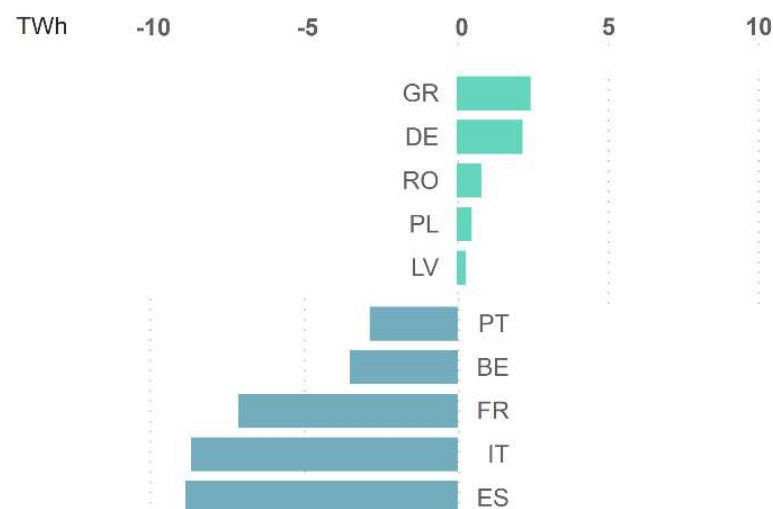
Benign weather, stagnant economic activity, and growth in renewables kept EU gas consumption have made demand fall by 8% YoY, despite lower prices. While industrial gas consumption did increase marginally compared to last year, it is still below pre-crisis levels. The EU has already made significant reductions in gas consumption needed to meet the Fit for 55 goals and is on track to achieve the more ambitious REPowerEU targets.

# With growth in renewables displacing gas generation

Year-on-year change for main electricity generation technologies,  
Q1 & Q2 2024 (TWh)



Year-on-year change in gas-fired power generation,  
Member States with largest variation, Q1 & Q2 2024 (TWh)



Compared with the same period last year, gas-fired power generation in the EU declined by 16% in the first half of 2024. Increased renewables' output limited the opportunities for conventional power plants (gas and coal) to run profitably, reducing carbon emissions and helping to loosen the EU gas demand-supply balance. Electricity network interconnectors continued to play a key role in ensuring renewable electricity was utilised efficiently. Markets where gas-fired generation increased saw an equal or greater decrease in coal generation.

Source: ACER calculations based on European Network of Transmission System Operators for Electricity (ENTSO-E) data.

Note: Hydro does not include hydro-pumped storage. Hydro-pumped storage, biomass and other generation sources were accounted for separately, under the category 'Other'.

'Demand' combines consumption and net imports from countries outside the EU.

## Prices fell to crisis low before climbing on supply risks

Natural gas price turn-out (TTF day-ahead) and market price expectation (TTF basket of forward products), October 2023-June 2025 (EUR/MWh)



Prices decreased throughout the first quarter of 2024 as low consumption (e.g., reduced demand for gas-fired power generation) produced a comfortable gas supply-demand balance, including high storage stocks. In the second quarter and in most recent months the price trend reversed as actual (e.g., falling LNG supply) and potential events (e.g., the possibility of protracted Norwegian pipeline outages) threatened to upset the EU gas market's equilibrium. Until new LNG capacity comes only end-2025 and 2026 high volatility is perceived with forward curve prices reflecting that.

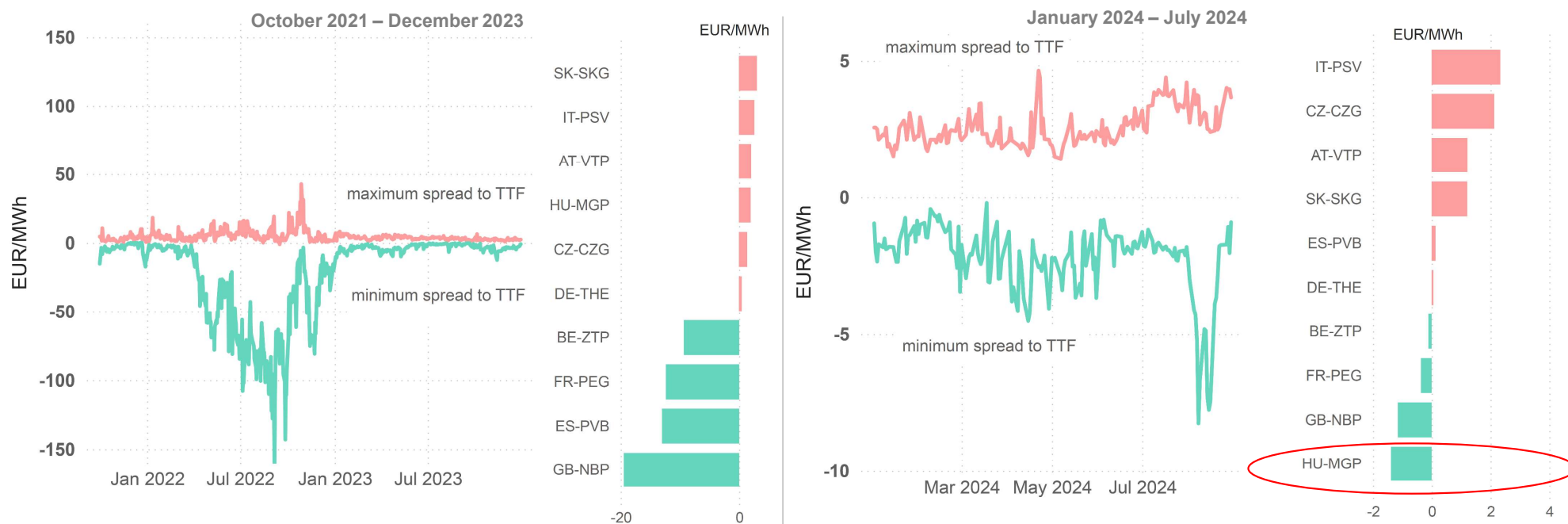
Source: ACER based on ICIS.

Note: LNG stands for liquified natural gas. TTF stands for Title Transfer Facility, the virtual gas trading point in the Netherlands used as benchmark for EU natural gas prices.



# Price order amongst gas hubs changing, spreads decreased

Range between hubs with cheapest and most expensive spot price & comparison of average spread to TTF, October 2021- June 2024 (EUR/MWh)



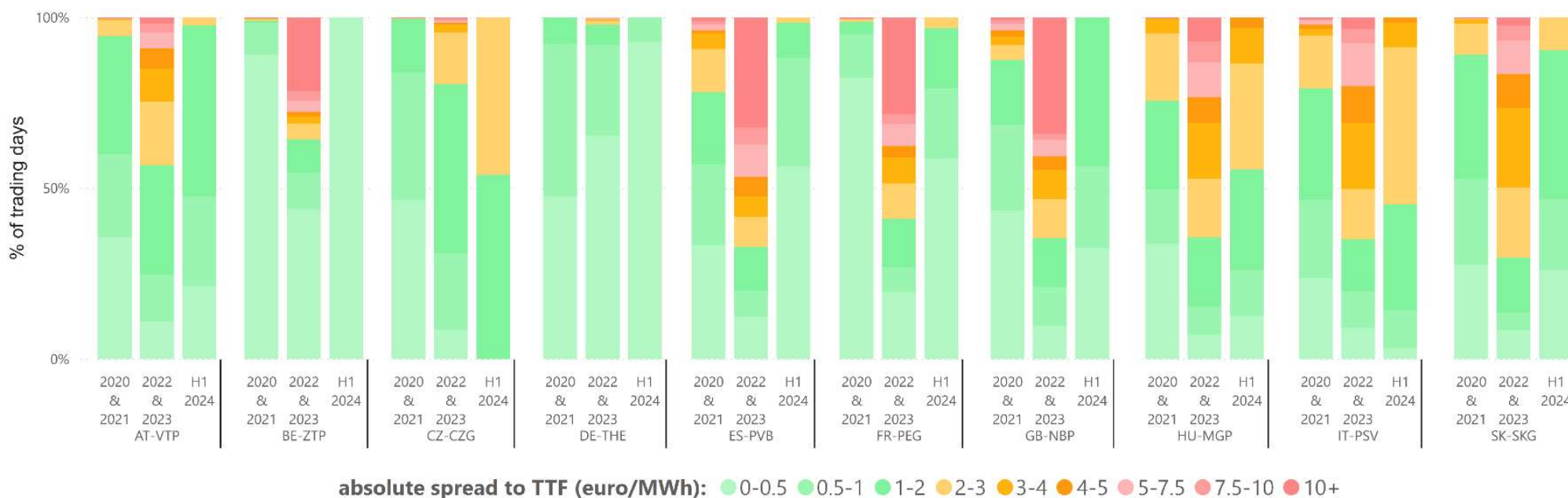
Changes in supply patterns have reshuffled the price order amongst EU gas markets. Hubs in the South-West (e.g., Spain) with established access to LNG now frequently trade at discount to Central European markets (e.g., Austria). However, the differences between cheapest and most expensively priced hubs declined in the first half of 2024 compared with the same period last year, an indication of easing network congestion.

Source: ACER based on ICIS.

Note: LNG stands for liquified natural gas. The listed hubs correspond to Austria, Belgium, Czech Republic, France, Germany, Hungary, Italy, Slovakia, Spain and United Kingdom Virtual Trading points.

# Integration may be hindered by higher transportation costs

Natural gas price hub convergence, 2020-2024 (% of trading days with spreads in the price range (selected hubs vs TTF, day-ahead contract))



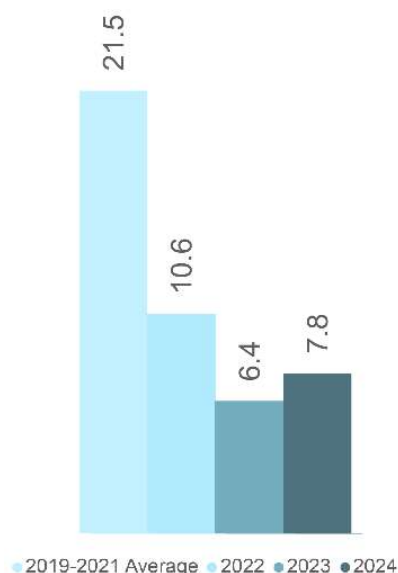
The convergence of hub prices has improved since the peak of the 2022 energy crisis, but overall price integration among EU markets has not yet returned to pre-crisis levels. While price formation in gas markets results from the interplay of various demand and supply drivers, on average, higher premiums are observed in 2024 in markets more reliant on cross-border trade, where transportation costs have simultaneously increased

Source: ACER based on ICIS. Note: The analysis highlights absolute hub price spread differences but does not specify which hub is at a premium or discount. Historically, the NL-TTF hub has typically set the lowest price reference. However, since mid-2022, LNG reliant and less congested hubs such as FR-PEG or SP-PVB have often quoted at a (relevant) discount. This shift accounts for the relative increase in "red price ranges" in the graph, while indicating that French or Spanish hub prices were often at a discount.

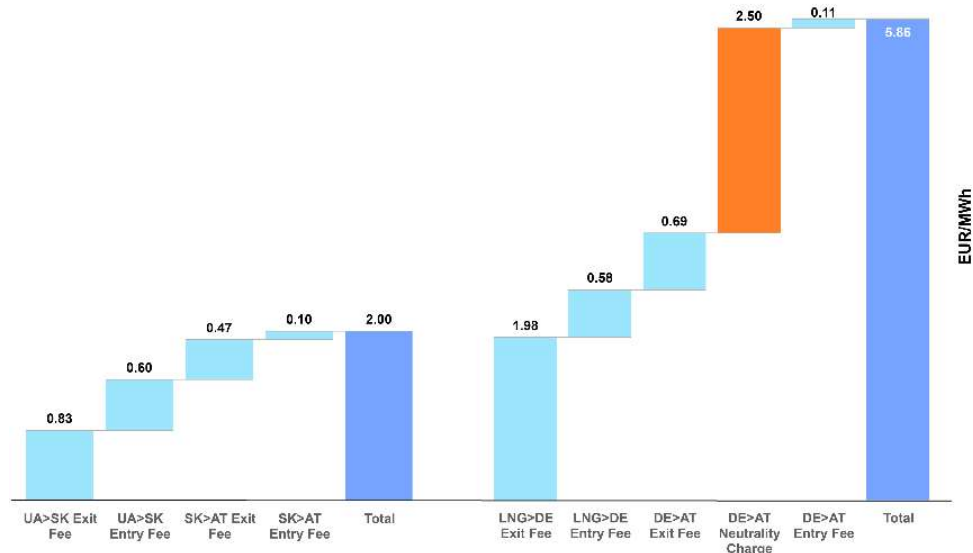


# Ukraine gas transit's expiry could tighten regional markets

Ukrainian gas flows into EU via Slovakia, H1 2019-2024 (bcm)



Comparison of transport costs into Austria and Slovakia from various supply routes, July 2024 (EUR/MWh)



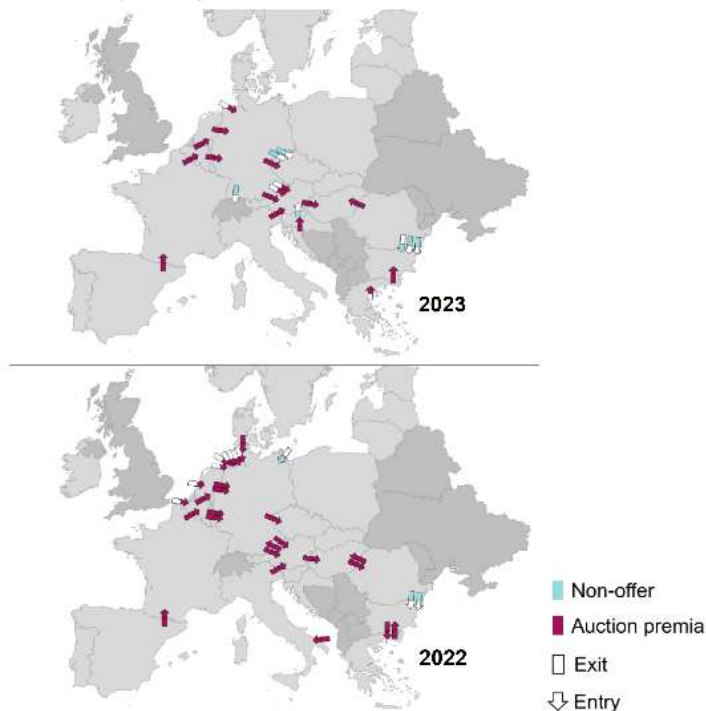
The Ukraine-Russia gas transit agreement expires at the end of 2024. The Ukrainian authorities have indicated they won't renew it. By July 2024, EU imports from Ukraine totalled 7.8 bcm (+14% YoY), primarily serving the Austrian and Slovak markets and possibly neighbouring hubs. Impacted Member States are implementing contingency plans, and security of supply should be guaranteed amid large storage stocks, modest demand, and alternative import options, mainly LNG. However, a full supply disruption would likely tighten Central East markets and push regional prices upwards. Moreover, while additional LNG supplies can offset the potential drop, they are likely to be costlier, incur higher transmission costs, and face some bottlenecks. Finally, specialised media and selected stakeholders have referred to alternatives like European companies booking transit capacity. Yet, they may face technical constraints and seem uncertain.

Source: ACER calculations based on European Network of Transmission System Operators data.

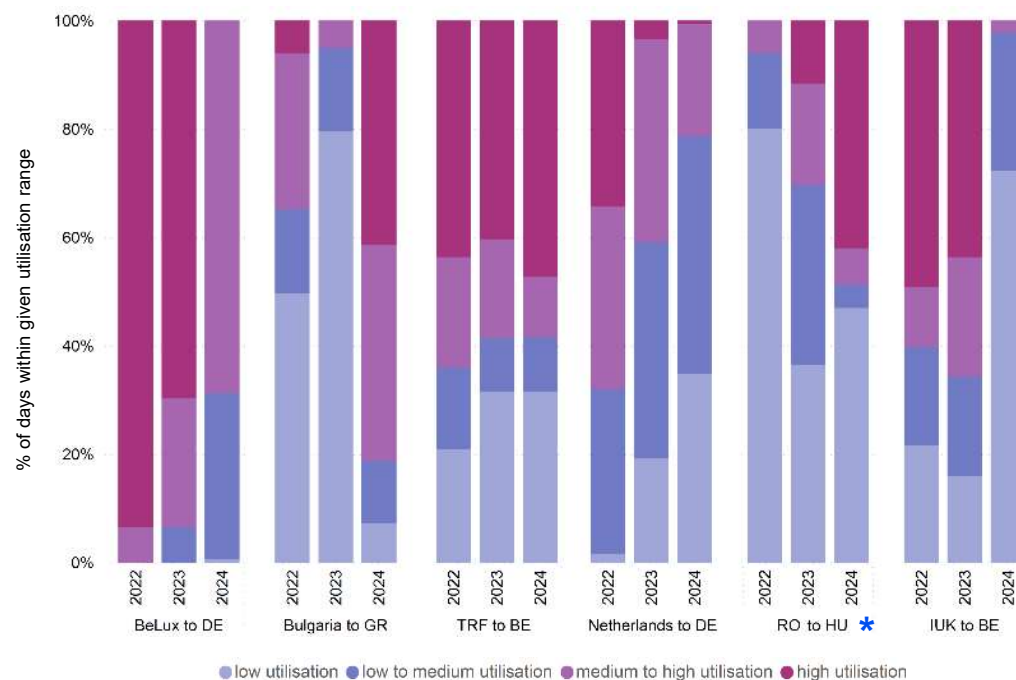
Note: The figure 'Comparison of transport costs' uses yearly (capacity) tariffs, normalized in energy terms based on a 100% capacity load factor. LNG terminal tariffs are estimated from the results of auctioning processes.

# Congestion eased but new challenges are possible

Contractually congested interconnectors, 2022–2023



Selected borders with high utilization of interconnectors, H1 2022-2024



Congestion diminished in 2023 but remains present on key West-East routes that were found congested in 2022. New LNG import capacity removed congestion on entry points from Norway and from the UK. In the first half of 2024, interconnectors between West and Central Europe (e.g., Belgium to Germany) remained highly utilised though flows decreased year-on-year on lower LNG imports. High pipeline supply to South-Eastern Europe resulted in high utilisation of several interconnectors in the region (e.g., Romania to Hungary).

Source: ACER congestion analysis based on data provided by ENTSOG, GSA Platform, PRISMA and RBP.

Note: low utilisation = 0-25%; low to medium utilisation = 25-50%; medium to high utilisation = 50-75%; high utilisation = 75-100%.

\* High utilization observed also in Serbia to Hungary and somewhat Hungary to Slovakia in 2024.

# Annex: 2024 ACER Monitoring Reports

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# ACER's 2024 Reporting strategy on EU Gas Wholesale and LNG markets (1/2)

## Quarterly reports revising key developments in EU Gas Wholesale markets



### Content:

- Gas price evolution and drivers;
- Gas consumption and its components;
- Gas supply trends;
- Gas infrastructure utilisation;
- Gas trading developments.
- + Focus in-depth analysis, different for each edition:
  - *E.g., evolution of transportation tariffs and their impacts on price formation*



Explore the **market monitoring section**  
of the ACER website for additional  
information about European energy markets.

Publication: March 2024

July 2024

October 2024

## ACER's 2024 Reporting strategy on EU Gas Wholesale and LNG markets (2/2)



The Report offers a comprehensive overview of the role of LNG in the European natural gas market. It describes the most recent dynamics in the global LNG market, provides insights into the latest trade developments and LNG contractual arrangements, and addresses a few select regulatory considerations:

### **It consists of three Chapters:**

1. Global LNG market dynamics
2. LNG Trade
3. Functioning of the European LNG market