



European Union Agency for the Cooperation
of Energy Regulators

Congestion in EU gas markets: Capacity use adjusting to market shifts

Period covered: 2024-2025

29 May 2026

Report in PowerPoint format

Evolution of market dynamics: The EU gas market has reached a new equilibrium after the 2022-2023 crisis

- The 2022-2023 crisis reshaped the EU natural gas market leading to: a) higher LNG imports and, hence, exposure to the LNG global market b) demand reduction c) cross-border flows reconfiguration.
- Price convergence between EU hubs has improved, while volatility remains higher than pre-2022. As the current closure of the Strait of Hormuz has also revealed, the EU gas market continues to be sensitive to external shocks.
- Lower demand and infrastructure expansion – both in pipelines and LNG terminals – have helped overcome the supply bottlenecks observed in 2022–2023 and enabled more flexible routing.
- Around 40% of the interconnection points ('IPs') have changed flow direction between 2025 and the pre-crisis period (2021).

Congestion monitoring analysis: The distribution of congestions reflects an adjusted equilibrium

- Interconnection point sides identified as contractually congested amount to 23 in 2024 and to 24 in 2025.
- Contractual congestions for auction premia have almost halved since 2023 (15 in 2024, 14 in 2025).
- Network congestion remains present at key interconnection points on the west-to-east routes and in Southeast Europe.
- Congestion revenues recorded by transmission system operators in 2024-2025 stabilise at the levels of 2023.

Report background:

- ACER now reports on congestion biannually.*
- This biannual congestion report monitors contractual congestion at EU interconnection points sides in 2024 and 2025.
- Regulatory changes impacted the definition of contractually congested points for the non-offer of capacity based on the Congestion Management Procedures Guidelines ('CMP GL'), starting in 2024.

*Following the changes in Regulation 2024/1789, point 2.2.1(2), ACER is mandated to publishing the congestion report every two years (instead of every year), analysing the data concerning the previous two calendar years.

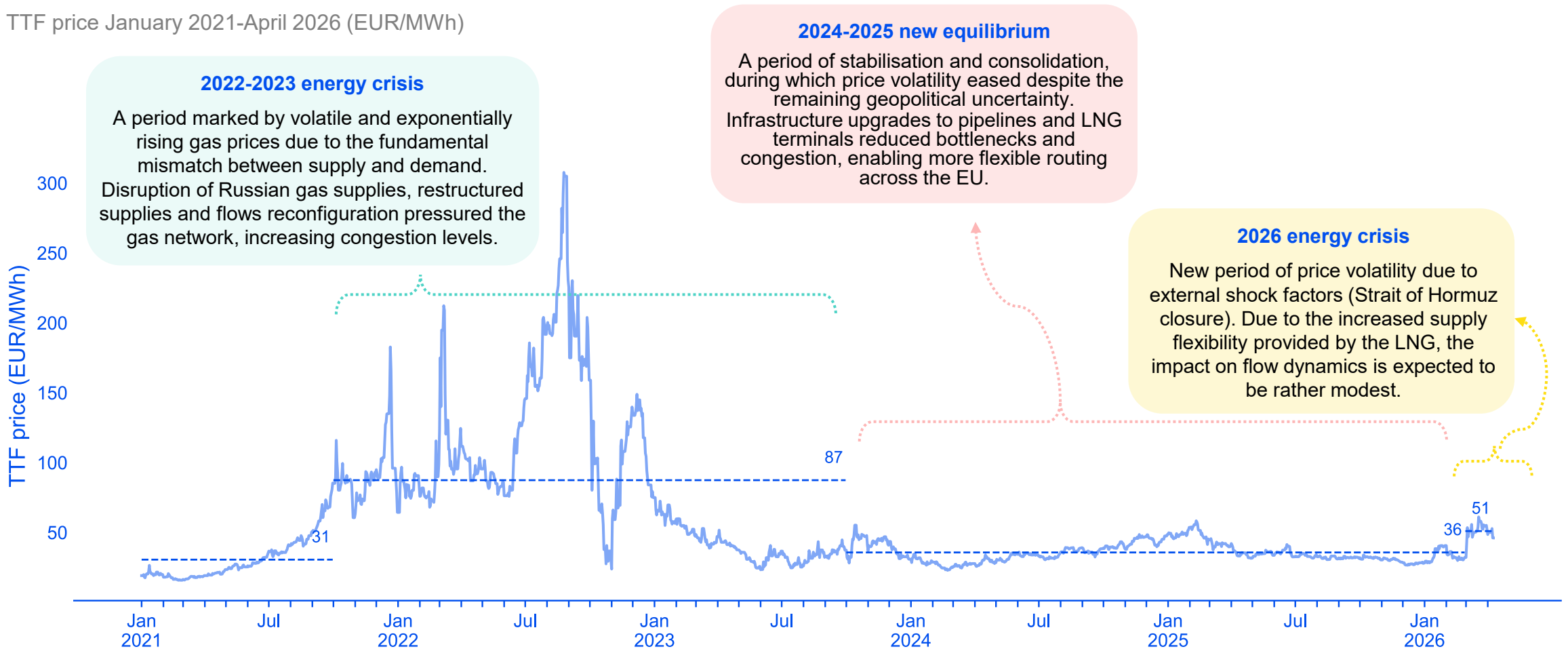
Evolution of the EU gas market

Market equilibrium in 2024 and 2025

EU gas market has adapted to changed flows post-2022 ...

... yet a combination of market tightness and external shocks can impact price dynamics.

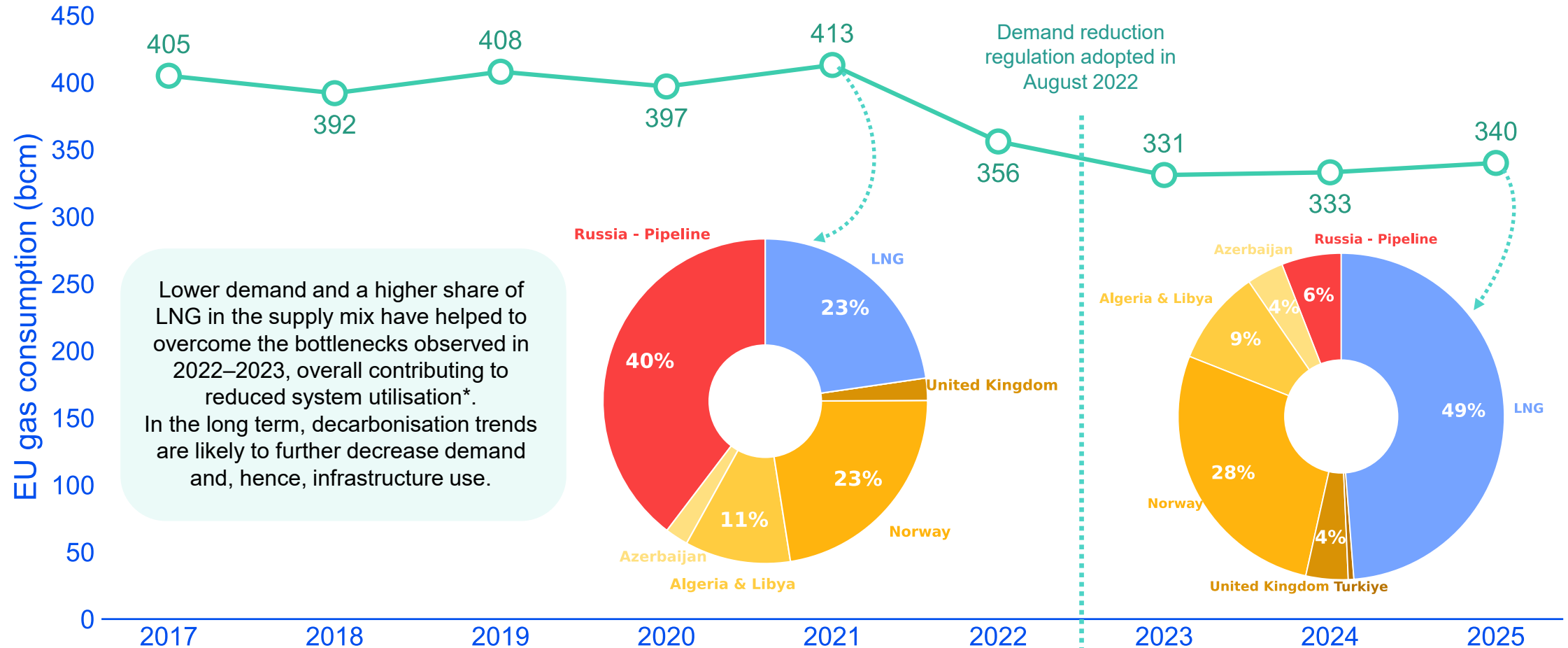
TTF price January 2021-April 2026 (EUR/MWh)



Flows changed due to supply diversification ...

... but since 2022, the EU is more vulnerable to global price volatility and transport disruptions.

EU gas consumption evolution 2017-2025 (bcm) and share of gas supply imports in 2021 and 2025 (%)



Lower demand and a higher share of LNG in the supply mix have helped to overcome the bottlenecks observed in 2022–2023, overall contributing to reduced system utilisation*. In the long term, decarbonisation trends are likely to further decrease demand and, hence, infrastructure use.

Source: ACER based on Eurostat, JRC, ENTSOG, ICIS.
 * More details can be found in [ACER's report on capacity use and booking trends in European natural gas markets](#) (October 2025).

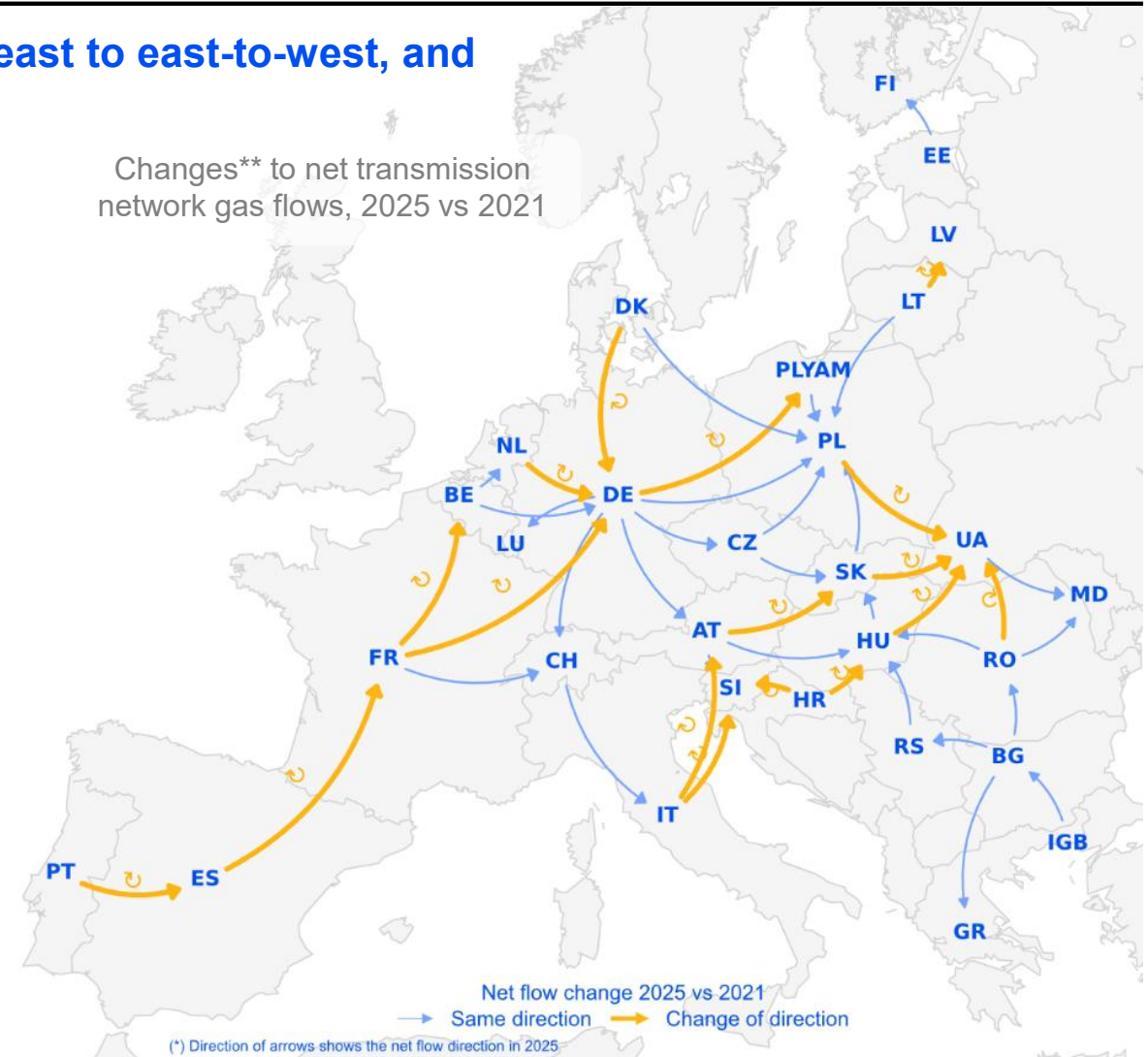
Gas flow reconfiguration still ongoing: From west-to-east to east-to-west, and from coastal hubs to landlocked regions.

- Around 40% of interconnection points have changed flow direction between 2025 and the pre-crisis period (2021).
- Shifting gas flows have strained parts of the network, forcing adaptations to new routes after the energy crisis in 2022-2023.
- Optimising network capacity and upgrading infrastructure, including new LNG terminals and pipeline reinforcement, has been critical to managing reconfigurations.
- Aggregated booked capacity* is adapting to the market dynamics and has dropped by circa one third in the EU between 2021 and 2025.



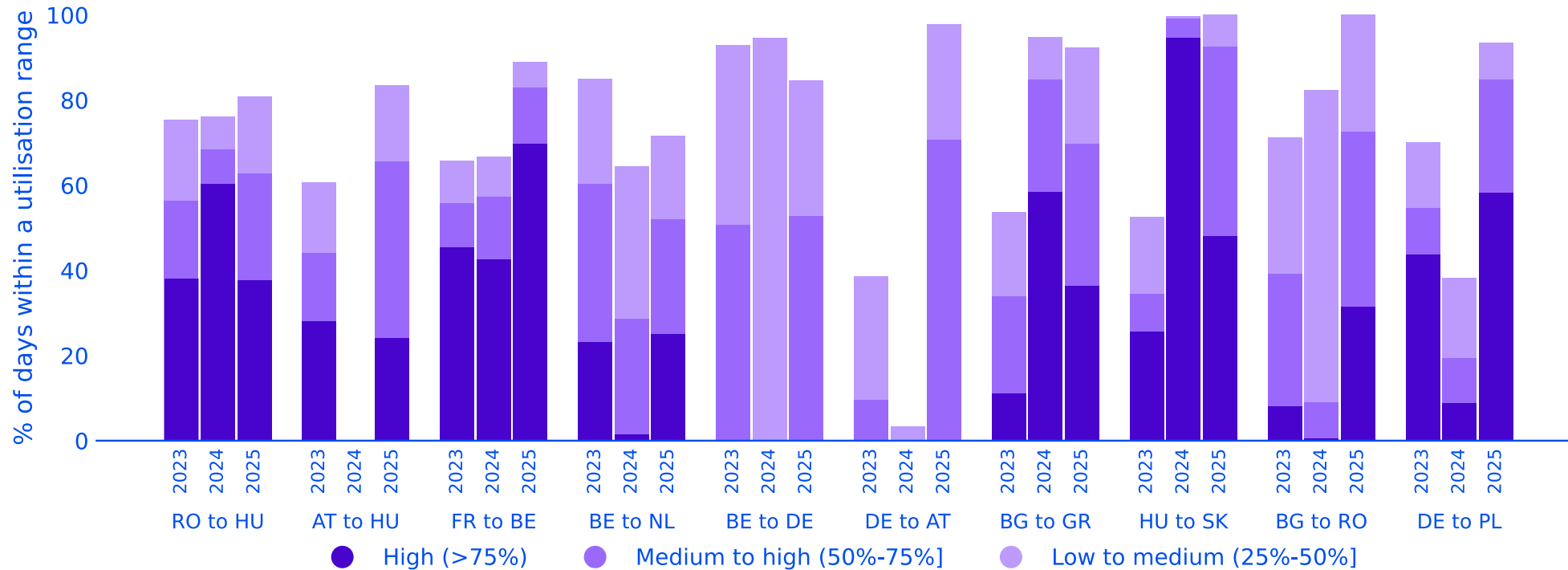
Since the termination of Russian gas transit via Ukraine on 1 January 2025, flows have been increasingly redirected towards Central and Eastern Europe.

Changes** to net transmission network gas flows, 2025 vs 2021



Congestion risk is increasing at specific interconnection points, notably in Southeast Europe.

Number of days within a given utilisation range of interconnection points for selected borders, 2023-2025 (%)



Lower demand and increased reliance on LNG in the supply mix have contributed to easing congestion at most interconnection points, and notably along the supply corridors between West and Central Europe. However, in 2024 and 2025, higher demand for gas flows from Southeast Europe, including for supplying additional gas volumes to Ukraine, have resulted in increasing congestion risks at specific interconnection points in the region. While not the sole factor, interconnection points with relatively lower tariffs on competing supply routes can attract more bookings and, in some cases, be more prone to congestion.

Source: ACER based on ENTSOG data and JRC's [eurogastp Python package](#). Note: Utilisation is defined as gas physical flow divided by the corresponding technical capacity. To align with ENTSOG's capacity map and observed gas flows, firm technical capacity has been further refined on a case-by-case basis using various strategies. More details can be found in [ACER's report on capacity use and booking trends in European natural gas markets](#) (October 2025).

Congestion analysis

Assessment years 2024 and 2025

This report fulfils the legal obligation set in Point 2.2.1(2) of the Commission Guidelines on Congestion Management Procedures ('CMP GL'), and it covers years 2024 and 2025.



In line with the criteria set out in Point 2.2.3(1) of the CMP GL, the IP sides for which auction premia and/or non-offers of firm products occurred were labelled as contractually 'congested'.

The IP sides have been classified accordingly into four mutually exclusive categories*:

- **Not congested**
- **Close to be congested**
- **Formally congested**
- **Congested**



Following the changes introduced with Regulation 2024/1789, in condition (d) of point 2.2.3(1), the definition of interconnection point sides for which non-offers of firm products occurred, labelled as contractually 'congested', has been expanded accordingly.



ACER reminds that at congested interconnection point sides, the respective national regulatory authority shall require the relevant transmission system operator(s) to implement and apply the firm day-ahead use-it-or-lose-it mechanism, according to Point 2.2.3(1) of the CMP GL, or show that the congested situation is unlikely to reoccur in the following three years.



Check out the full congestion monitoring tables for the assessment years 2024 and 2025.

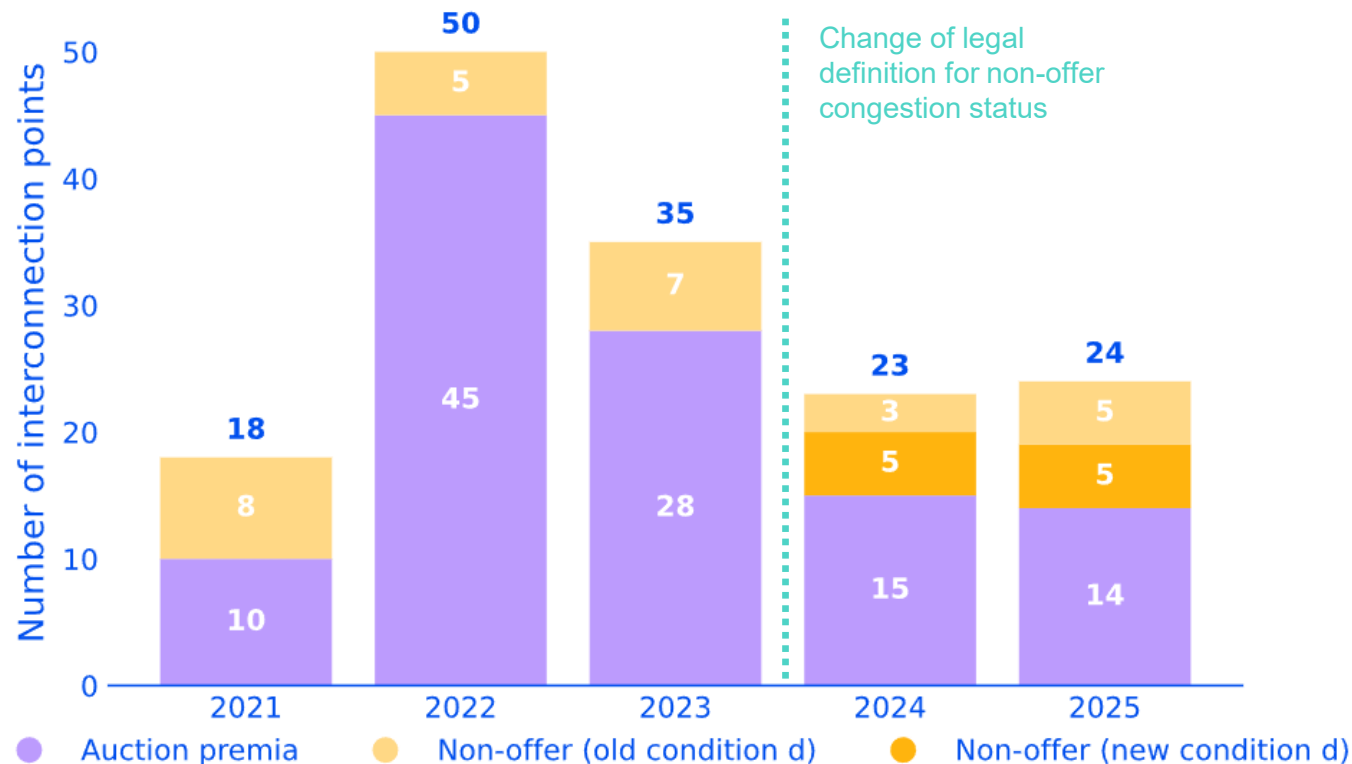


*The full set of definitions used in this report has been described in detail in Annex II. For more information, please refer to Sections 1 and 2 of the [10th ACER congestion report](#) (May 2023, covering 2022).

Congestion levels in 2024 & 2025 are decreasing

Interconnection point sides identified as congested amount to 23 in 2024 and to 24 in 2025, decreasing from the levels observed in 2023.

Number of congested interconnection point sides in 2021-2025



- In 2024 and 2025, contractually congested entry and exit sides at interconnection points for auction premia have fallen sharply compared to 2022 and 2023 levels, reflecting eased capacity constraints and improved market conditions.
- 10 contractually congested interconnection points sides have been found congested for auction premia both in 2024 and 2025.
- Physical congestion have been observed in 6 instances in both 2024 and 2025.

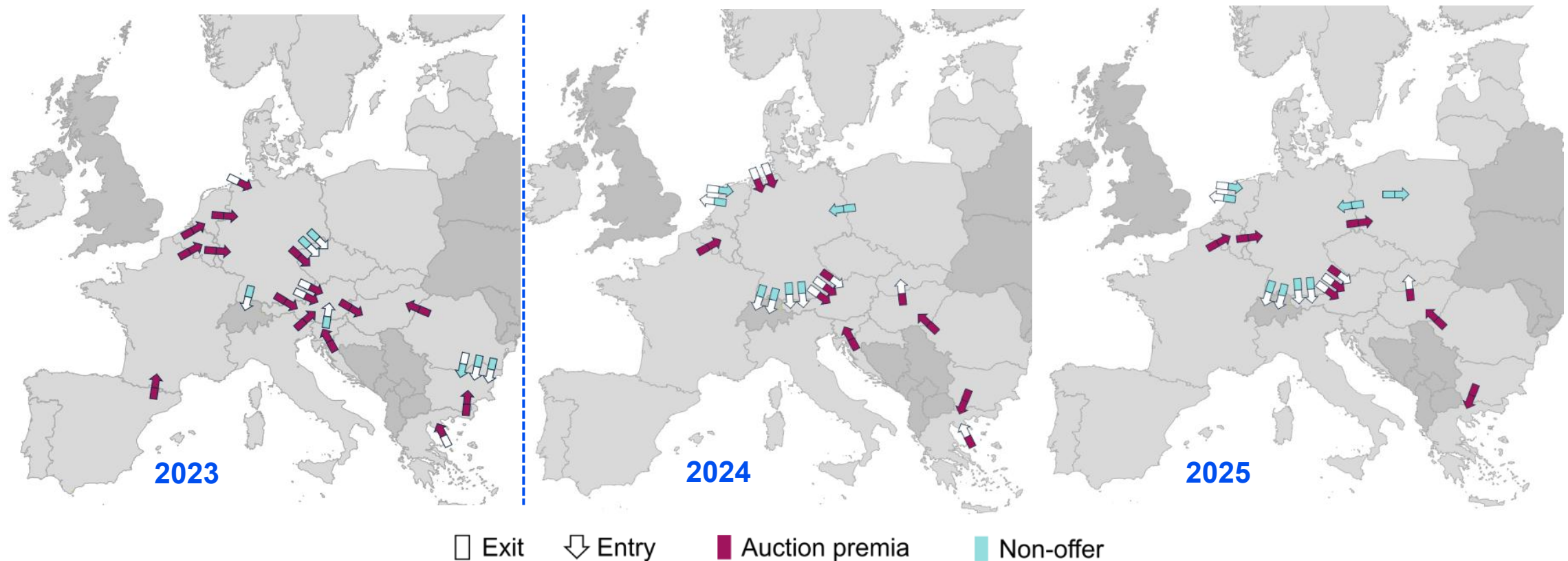


Regulation 2024/1789 introduced a change in the CMP rules for the identification of congested interconnection points sides.

Contractual congestion still present on key routes

Network congestion in EU gas markets remains present on key west-to-east routes and selected interconnection points in Southeast Europe.

Map depicting the contractually congested interconnection point sides in 2023 (left) and in 2024 and in 2025 (right)



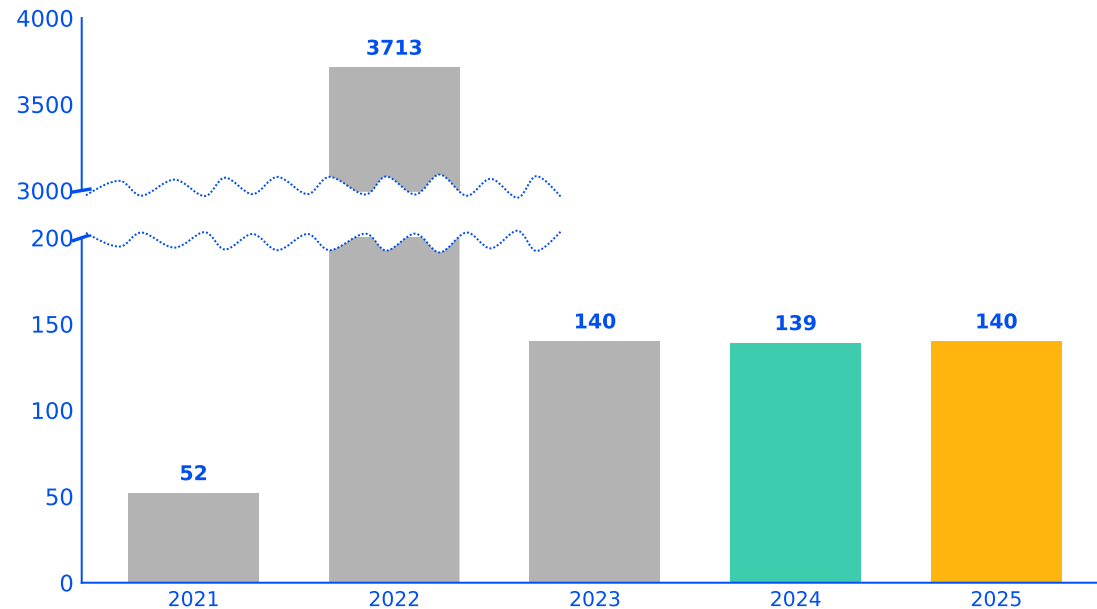
In 2024 and 2025, interconnection point sides contractually congested for auction premia (red arrows) have almost halved compared to 2023 levels, reflecting eased capacity constraints and improved market conditions.

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

Stable congestion revenues in the last three years

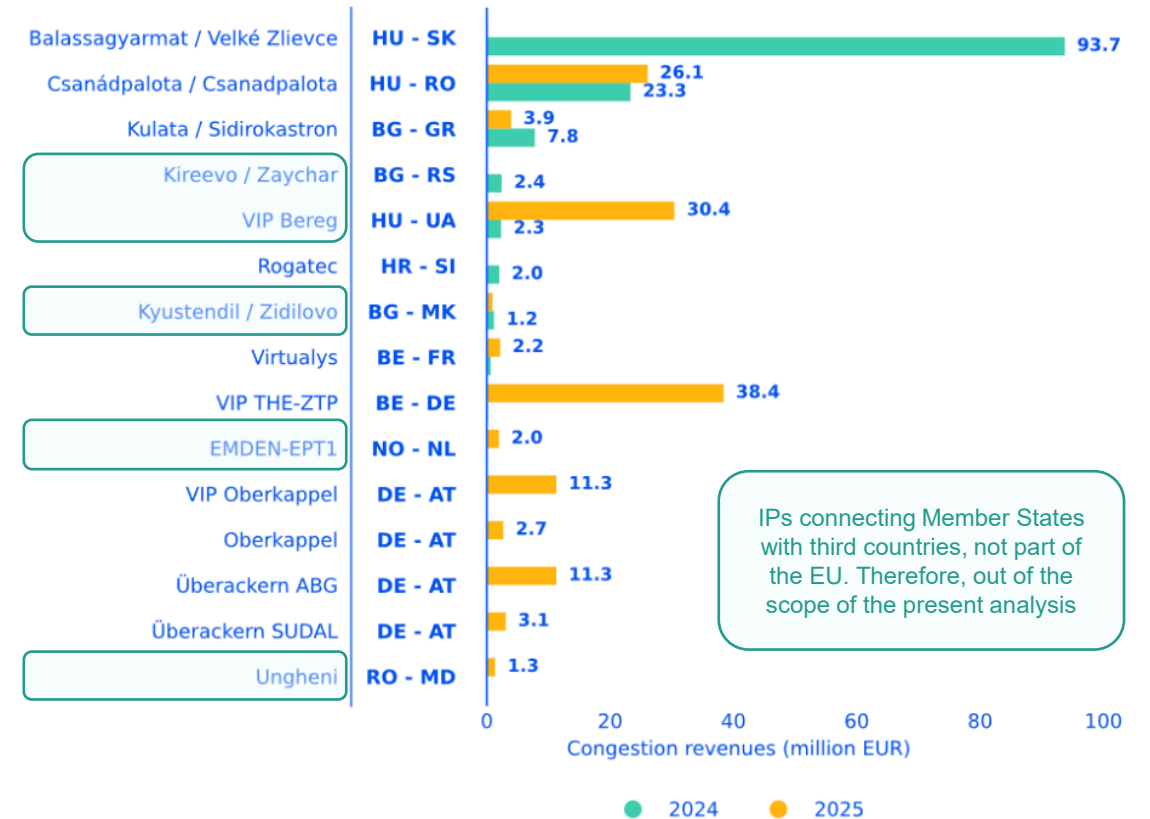
Highest congestion revenues collected by transmission system operators of Eastern European countries.

Congestion revenues collected by transmission system operators, 2021-2025 (million EUR)



Following the sharp decline observed in 2023, congestion revenues stabilised at around EUR 140 million in 2024 and 2025. Market conditions improved, while congestion revenues still differ significantly from the level observed in 2021.

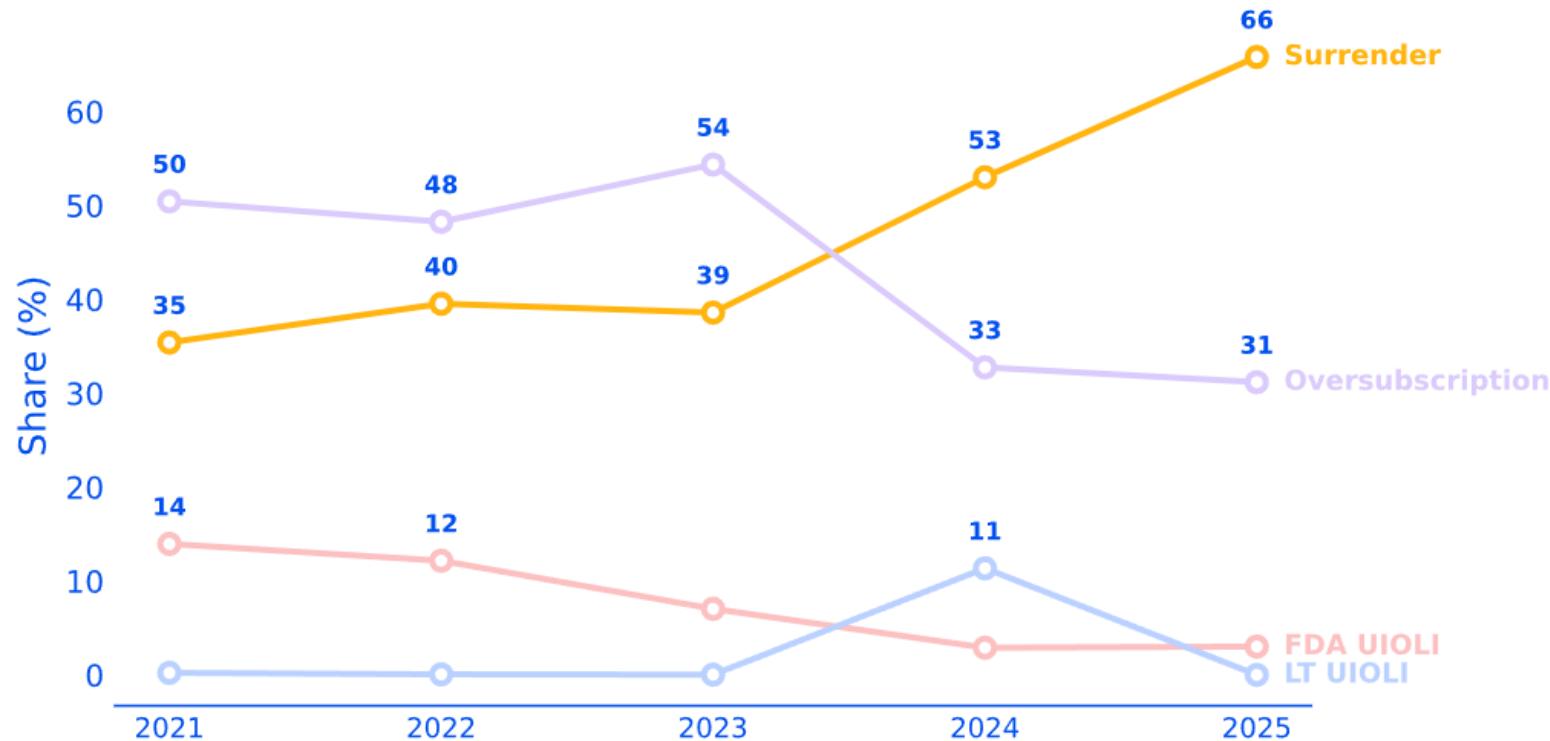
Congestion revenues for those IP sides with a revenue over 1 million EUR, 2024 and 2025 (million EUR)



Surrender of capacity surpassed oversubscription

More than 90% of congestion relief came from oversubscription and surrender schemes.

Share of the application of congestion management procedures, CMP relevant points, 2021-2025 (%)



- The application of congestion management procedures aims at optimising the use of firm capacity.
- In the last two years capacity surrender surpassed the oversubscription mechanism. Both of them are still the preferred option to relieve congestion compared to firm day-ahead or long-term use-it-or-lose-it mechanisms.

ACER finds that contractual congestion at EU interconnection points continued to ease in 2024 and 2025, reflecting the progressive adaptation of European gas markets to the post 2022-2023 crisis environment. Instances of contractual congestion persist at selected interconnection points, particularly along strategically important corridors towards Central and Southeastern European countries.

Potential options to ease network congestion:



- **Joint optimisation by network operators of gas transmission capacity** - Continuous coordination between neighbouring transmission system operators (TSOs) to jointly maximise available firm and interruptible capacities.



- **Updated information on interconnection points and gas network use** - TSOs and ENTSOG ensuring continuous updates of information related to interconnection points characteristics and network use.



- **Application of regulatory framework** - NRAs to ensure a full and consistent application of the CAM NC and CMP GL provisions to retain the benefits and flexibility of capacity allocation at interconnection points, enhancing optimal use of the existing gas network.



- **Careful assessment of investment needs** - Neighbouring TSOs and NRAs to carefully assess the need for investment to resolve remaining bottlenecks while considering security of supply, the Union's energy and climate policies, and the risk of asset stranding.

Annex

Evolution of congestion and congestion management procedure application.

Evolution over recent congestion reports	2021	2022	2023	2024	2025
Number of congested IPs	18	50	35	23	24
Congested for non-offer	8	5	7	8	10
Congested for auction premia	10	45	28	15	14
Number of auctions closing with premia	71	398	155	85	102
Yearly	5	65	39	19	7
Quarterly	30	146	54	44	54
Monthly	36	187	62	22	41
Evolution CMP application (at CMP-relevant IPs) GWh/d	2021	2022	2023	2024	2025
LT UIOLI	2158.1	802.8	294.2	181631.9	0
FDA UIOLI	142427.3	166713.7	99848.3	46284.8	32753.4
Oversubscription	514965.6	661693.5	772002.2	524013.3	338978.7
Surrender	361435.2	542090.4	548068.9	848071.1	715830.6
Main observations regarding severity of congestions (at congested IP sides) GWh/d	2021	2022	2023	2024	2025
Unsuccessful requests	381	39448.96	2922.77	1263.9	7402.0
Capacity made available via secondary trades	290.43	1092.12	240.85	972.8	322.6
Interruptible capacity allocated (Yearly, Quarterly, Monthly)	13.97	5226.68	333.71	260.1	1378.3

Note: FDA UIOLI refers to firm day-ahead use-it-or-lose-it mechanism while LT UIOLI refers to long-term use-it-or-lose-it mechanism.

For its analysis, ACER relies on data provided by ENTSOG and by the booking platform operators. While an effort has been made to provide a basic validation of those data, ACER is not responsible for their accuracy and uses the data as delivered for the assessment of congestion and congestion management procedures.

Definitions.



This Report uses the concepts of contractual congestion and physical congestion that are defined in Articles 2(22) and 2(24) of Regulation (EC) No 2024/1789 in the following way:

- ‘Contractual congestion’ means a situation where the level of firm capacity demand exceeds the technical capacity;
- ‘Physical congestion’ means a situation where the level of demand for actual deliveries exceeds the technical capacity at some point in time.



In line with the criteria set out in Point 2.2.3(1) of the CMP GL, the IP sides for which auction premia and/or non-offers of firm products occurred were labelled as contractually ‘congested’. The IP sides have been classified accordingly into four mutually exclusive categories:

- i. ‘Congested’: Those which meet the criteria set in sub-Points (a) to (d) of Point 2.2.3(1) of the CMP GL, but do not fall into category (ii) below;
- ii. ‘Formally congested’: Those which only meet the criterion set in sub-Point (c) of Point 2.2.3(1) of the CMP GL because of a missing yearly product for the following two gas years in the yearly auction of July;
- iii. ‘Close to be congested’: Those which had auction premia occurring at a lower frequency than the threshold defined in the CMP GL criteria, namely for either two monthly products or one quarterly product;
- iv. ‘Not congested’: Those which do not meet the criteria (a) to (d) of Point 2.2.3(1) of the CMP GL and do not fall into category iii above.