



European Union Agency for the Cooperation
of Energy Regulators

Key developments in European gas wholesale markets

Gas summer season 2026 and a look at winter 2026/2027

27 October 2026

Report in PowerPoint format

Lower stocks and geopolitics set the stage for winter 2026/27

75% EU storage filling level reached by 21 October



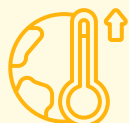
EU gas stocks entered summer at just 28% of capacity, versus 40% on the 9-year average. 2026 refilling remained slow but reached 75% by 21 October. Higher gas prices increased the cost of refilling, although remaining well below the 2022 crisis level.

18-33 billion EUR* added to EU's gas import bill due to the Middle East crisis



Disruption to Qatari LNG increased prices and competition for alternative supplies with the Asian LNG market.

9% higher gas needs occurred for power generation for summer 2026



Heatwaves and lower nuclear and hydro output increased reliance on gas-fired power despite strong solar generation. Overall gas demand remains around 20% lower since the 2022 gas crisis.

64% share of total EU LNG imports comes from the USA



USA LNG represents 30% of total EU gas supply imports, reinforcing its role as Europe's main LNG supplier. USA LNG remains dominant as Qatari supplies decline.

Higher LNG inflows may be needed for winter



The EU's winter prospects may lead to higher LNG needs. Mild weather and ongoing storage injections would be a facilitating factor for the gas winter season.

6% lower gas trading activity summer-on-summer until August**



TTF remained the main trading hub and the key price reference across European markets. Some regional price differences persisted despite overall strong market integration.

*The range represents an indicative upper bound for the extra cost borne by EU gas suppliers and/or final EU gas consumers. Please see related considerations on [slide 19](#).

**From April to August, excluding the late season rebound in September, see details on [slide 28](#).

Note: The storage filling level on [slide 4](#) and [slide 5](#), as well as the TTF day-ahead prices on [slide 19](#), have been updated until 21 October 2026.

EU underground gas storage

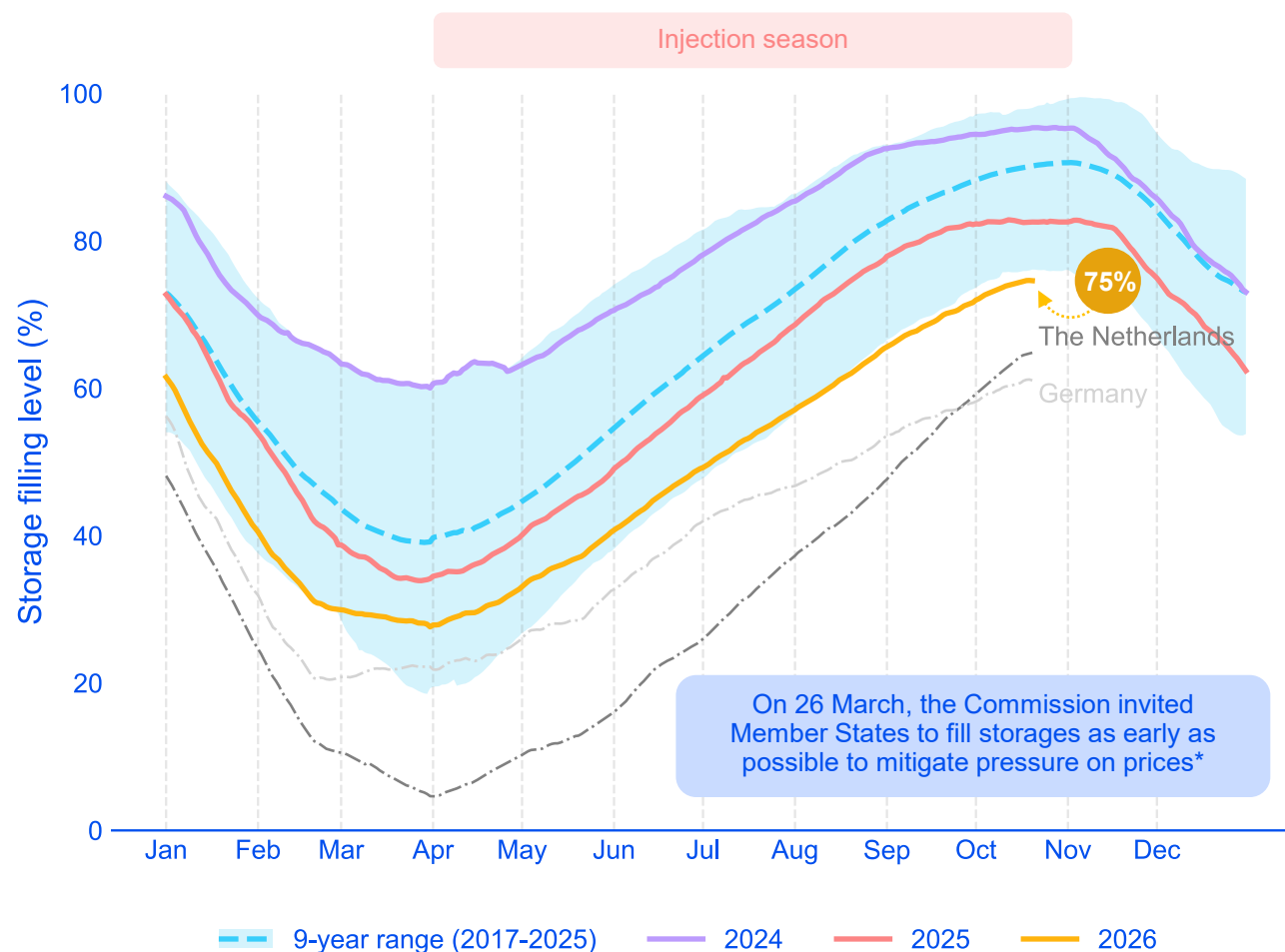
- Summer developments and challenges for winter 2026-2027
- A closer look at selected security of supply metrics

Lower storage filling rate is an important point of attention

Low end-of-winter 2025/2026 stocks and slow refilling across summer 2026 to date have left EU storage sites significantly below historical norms.

- Underground gas storage ended the 2025-2026 winter at 28% of capacity, compared to 34% a year earlier and a 9-year average of ~40%.
- By 21 October, EU storage levels stood at 75% on average. The slower filling pace reflects weak commercial interest for summer injection amid inverted winter-summer spreads and high gas prices, alongside greater regulatory flexibility around filling trajectories. Expectations of additional support measures or obligations might have encouraged market participants to delay injections.
- Germany and the Netherlands** are lagging the EU filling rate. These countries account for one third of the EU storage capacity and have remained below their historical storage trajectories throughout the summer.

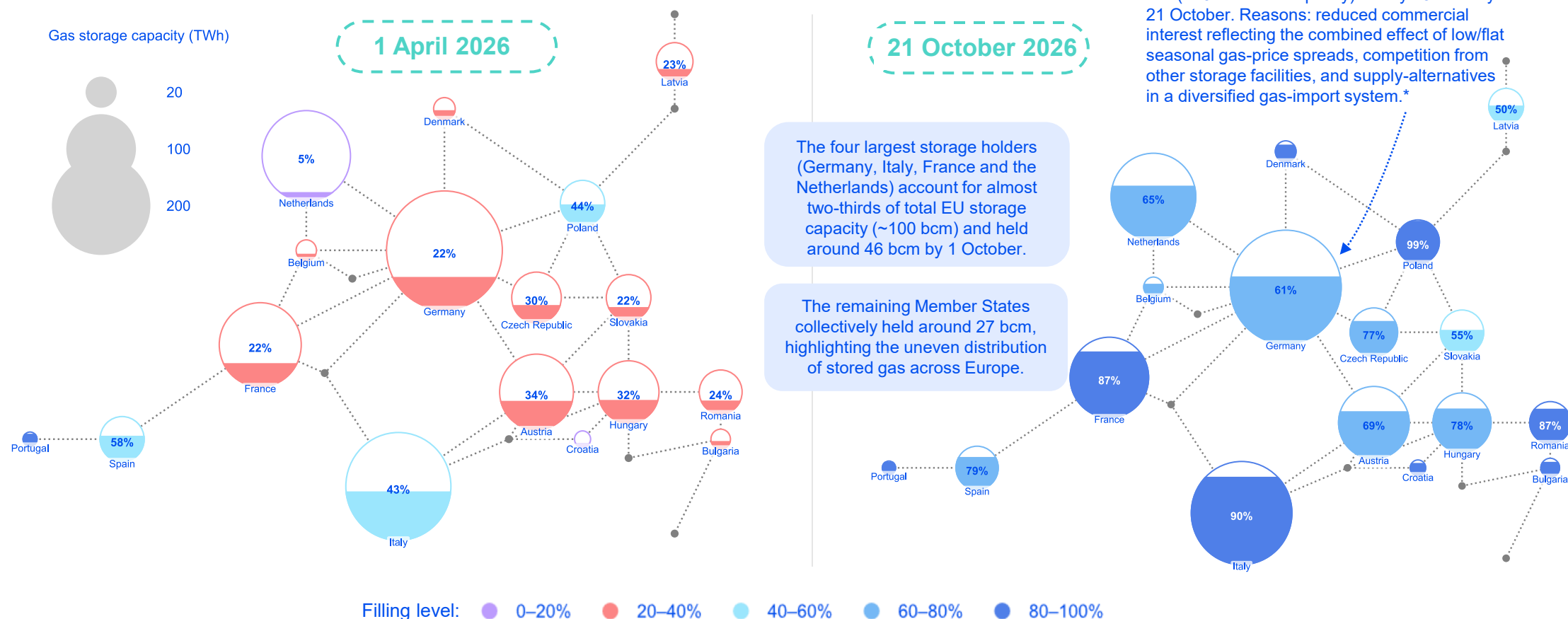
Figure 1: EU gas storage filling levels, 2017–2026 (% of working gas volume)



Diverse filling levels across EU Member States

Storage capacities and stock levels vary across countries: relatively lower stocks are seen at present in Western and Central Europe.

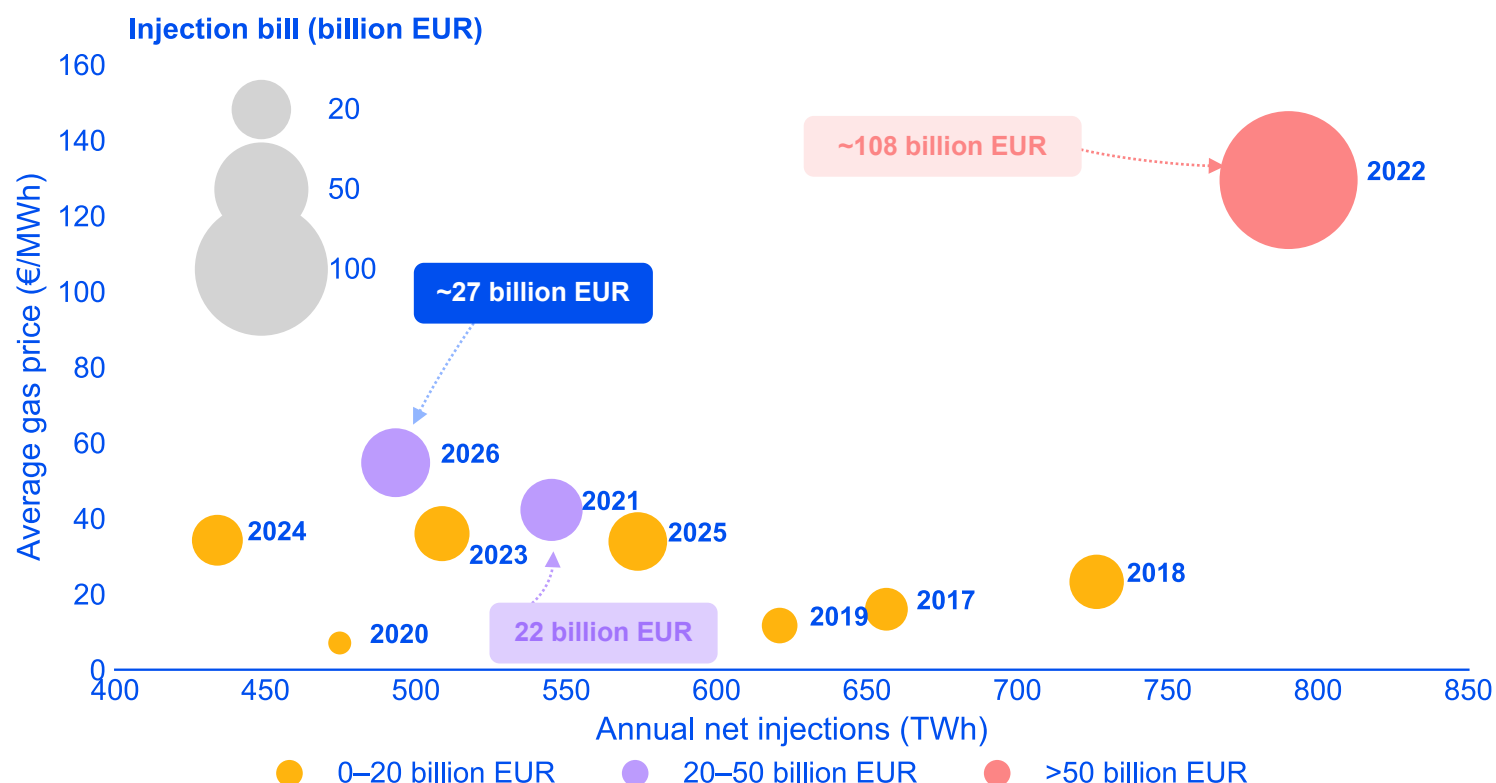
Figure 2: Storage capacity (TWh) and filling level (%), 1 April 2026 (left) and 21 October 2026 (right)



Storage refilling has been slower and more expensive (I)

Substantially higher gas prices have increased the EU injection bill, despite lower injected volumes across summer 2026. Yet, the bill remains well below 2022.

Figure 3: Average gas price (EUR/MWh)*, annual net injections (TWh) and estimated injection bill** (billion EUR), 2017–2026

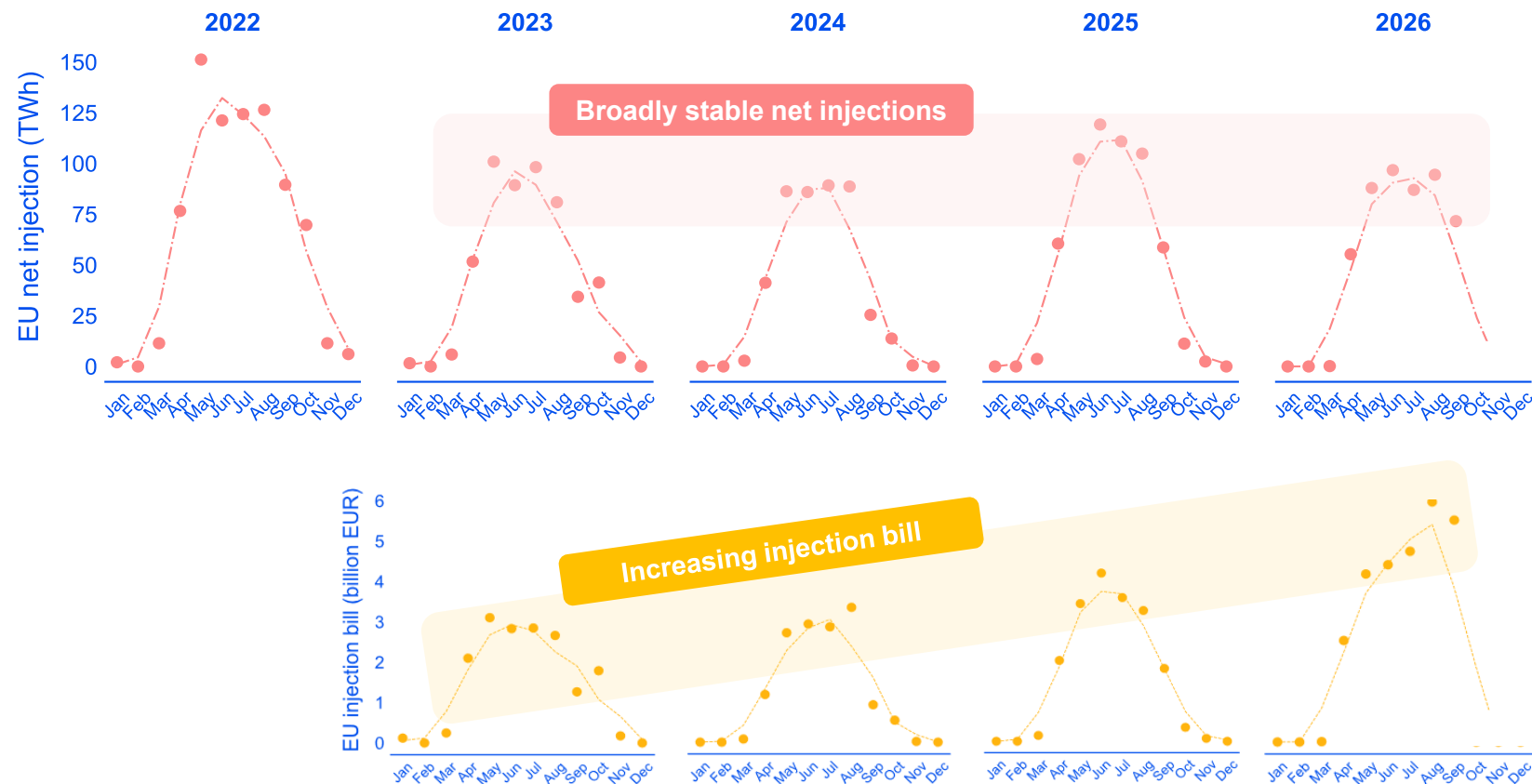


- Summer 2026 net injections reached around 43 bcm (~490 TWh), below the 10-year average of 47 bcm (~540 TWh).
- The estimated EU storage injection bill amounted to around 27 billion EUR, well below the approximately 108 billion EUR recorded during 2022 due to the energy crisis.
- The average cost of injected gas reached its second-highest level of the past decade, behind only 2022, reflecting the upward pressure on gas prices following the Middle East crisis.

Storage refilling has been slower and more expensive (II)

Lower end-of-winter 2025/2026 stocks required stronger refill efforts.

Figure 4: Monthly EU net injections and monthly refilling costs, 2022–2026 (TWh (top), billion EUR (bottom))



- Summer 2026 monthly net injections remained broadly comparable with recent years, at 75–100 TWh.
- Despite similar refill volumes, monthly injection costs were higher due to increased gas prices.
- Lower initial storage levels and higher gas prices were the main contributors to the higher EU injection bill.

How prepared are European gas storages for next winter?

Storage-to-demand ratio remains in line with 2022/23 pre-crisis levels. However, tight supplies have narrowed Europe's security margin.

Figure 5: Storage-to-demand ratio*, 2017–2026 (%)

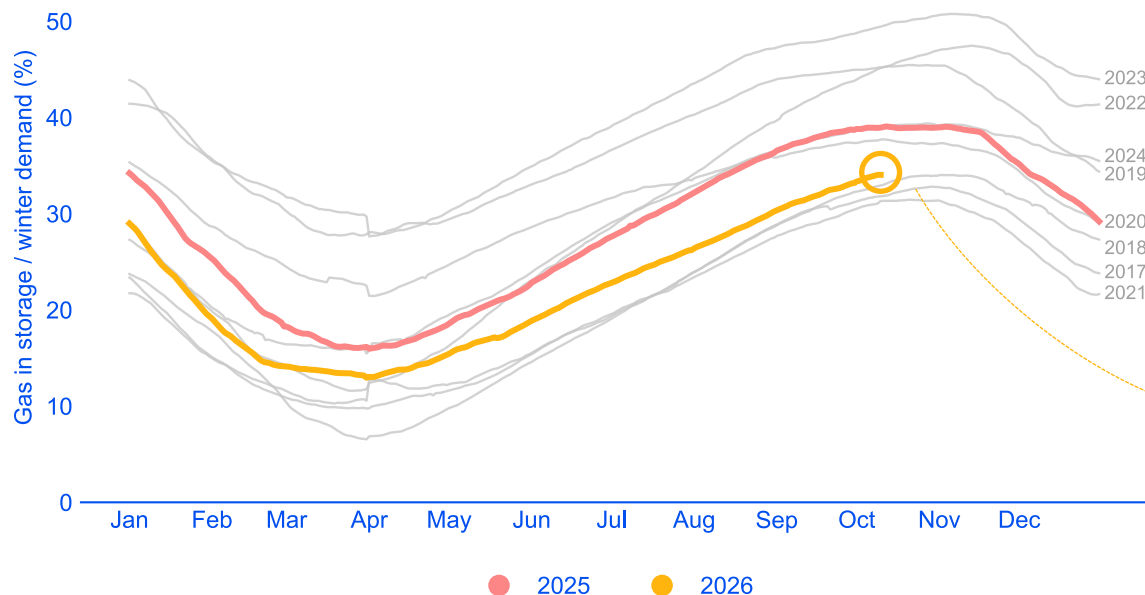
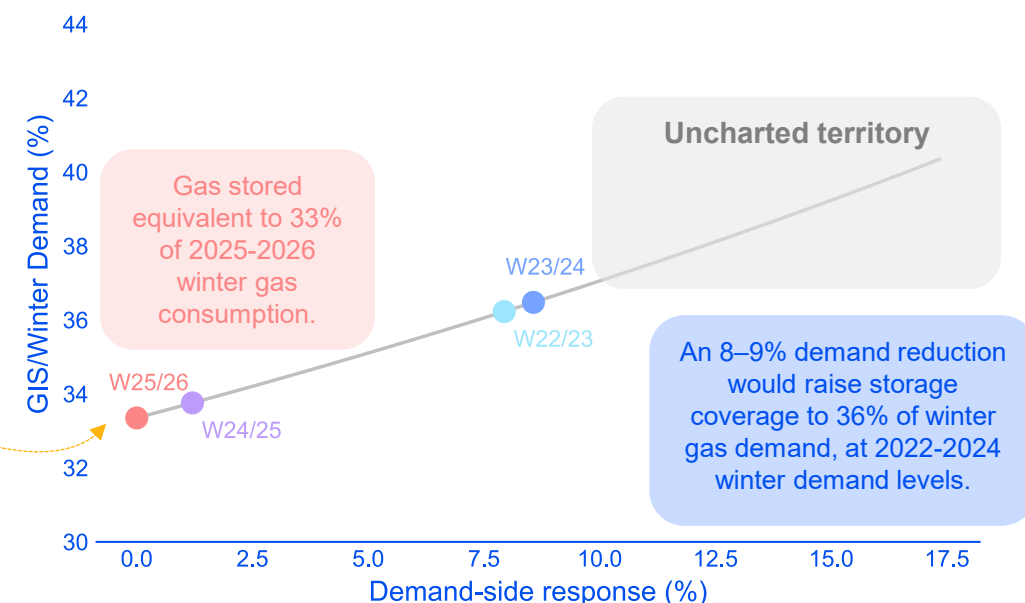


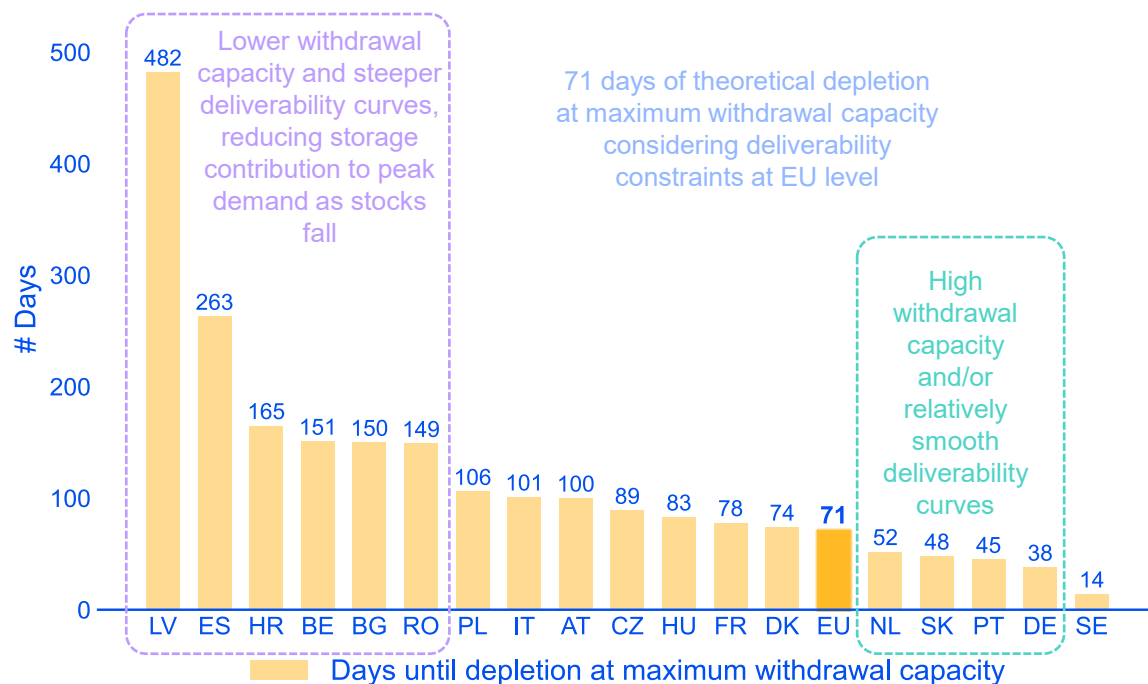
Figure 6: Demand reduction needed compared to previous winter to reach a certain storage-to-demand ratio* (%)



- Current storage stocks could cover a share of winter demand comparable to 2022/23 pre-crisis levels, although below the coverage achieved in recent winters. However, pipeline supply flexibility (e.g., from Russia) is lower now than during the pre-crisis period.
- EU's security of gas supply increasingly depends on storage availability and LNG imports; but these are not the only factors affecting security of supply in the EU.

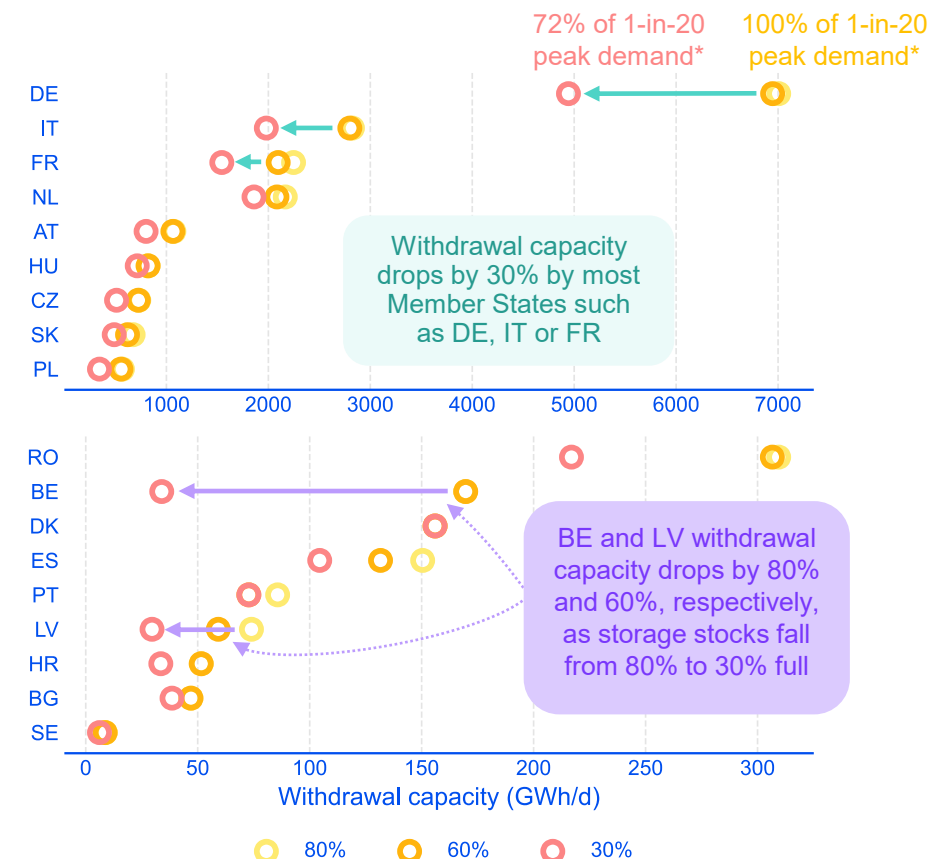
Withdrawal capacity falls as stocks decline, and gas storage technical performance varies across EU markets.

Figure 7: Number of days until depletion of working gas volume at maximum withdrawal capacity* of the gas in storage reached on 1 October 2026



Storage deliverability depends on facility type: salt caverns, depleted fields or aquifers. High-storage-capacity Central European storages generally sustain withdrawals better as stocks decline, while some peripheral systems have constrained deliverability capabilities (e.g. UGS Loenhout in Belgium or UGS Inčukalns in Latvia).

Figure 8: Maximum withdrawal capacity* at various filling levels per Member State, (GWh/d)



Matching last winter's gas demand and end-of-winter storage level may require more LNG inflows than last winter.

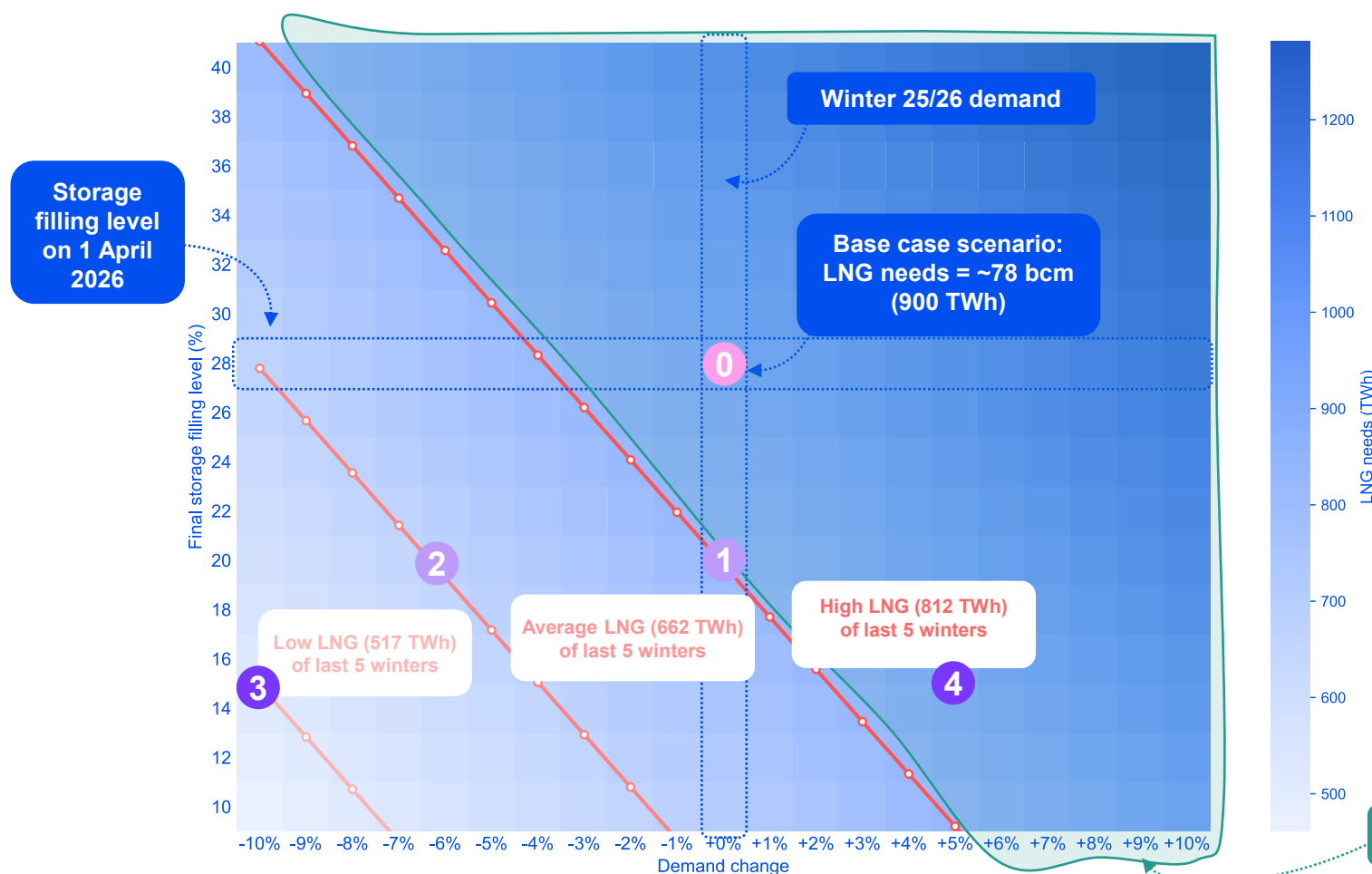


Figure 9: Illustrative examples of winter scenarios. Mapping winter LNG send-out needs under different end-of-storage levels and demand changes*, (TWh)

0 Base case scenario

In the base case**, winter gas consumption and end-of-winter storage levels remain similar to last winter. Meeting these conditions would require imports above last winter's maximum observed level.

1 - 4 Challenging 'what if' scenarios

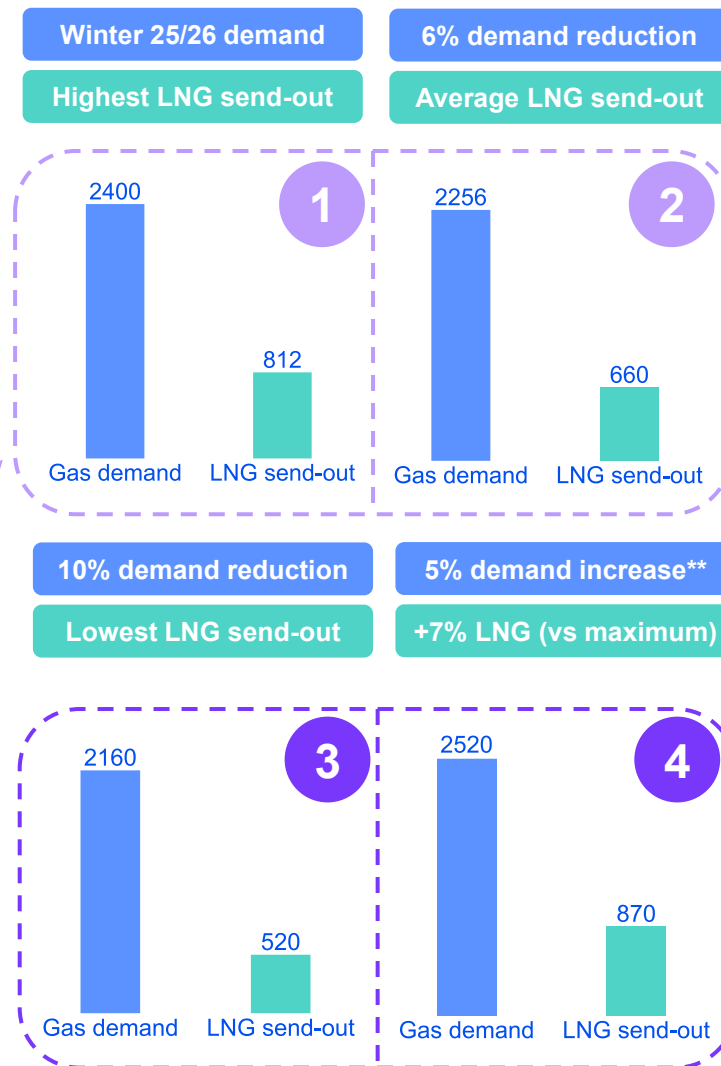
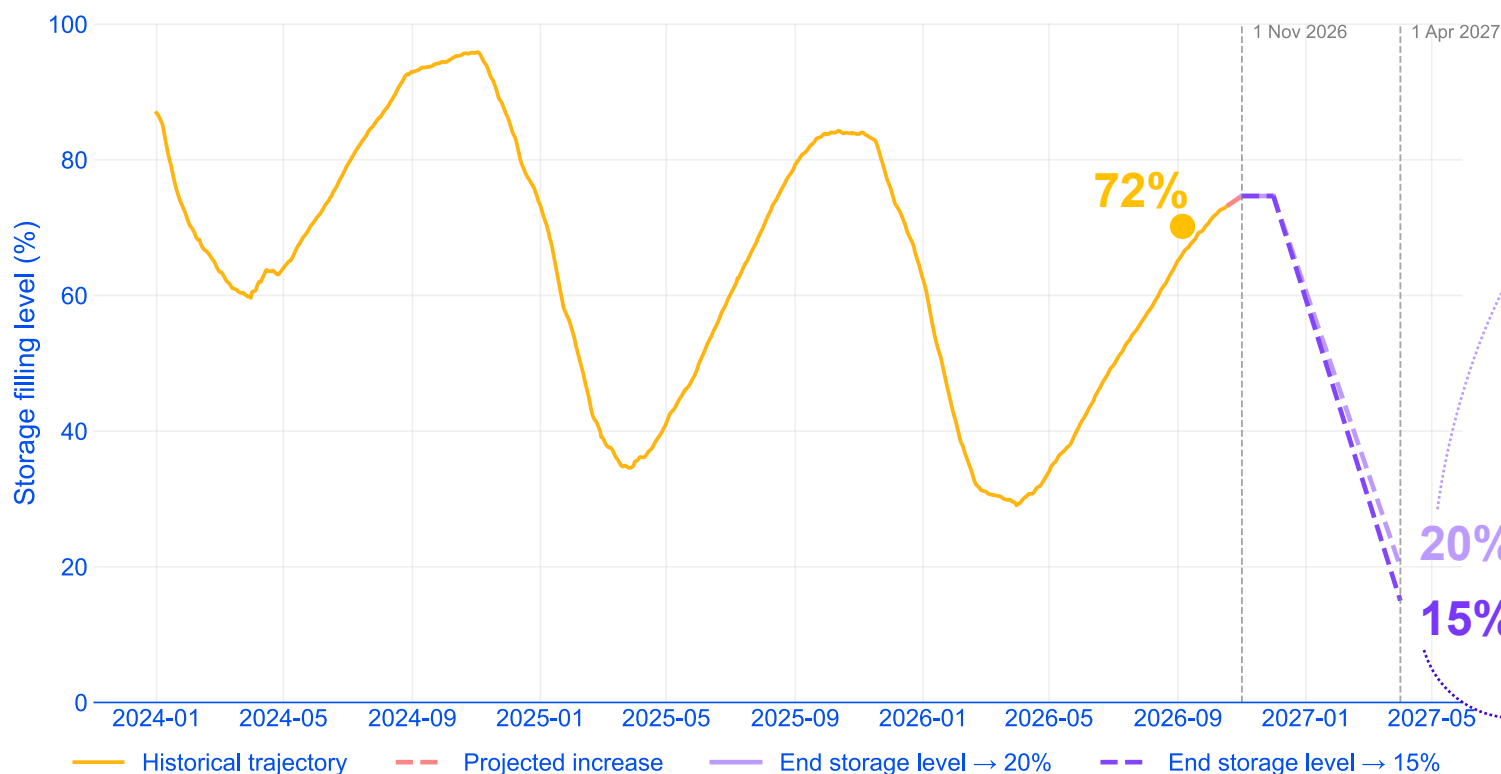
More challenging scenarios illustrate gas supply resilience under varying more atypical demand and storage levels, as detailed on the next slide.

Uncharted territory**

Winter 26/27: Challenging ‘what if’ scenarios

Demand reduction may be required if LNG inflows fall below the average of the past five winters while storage levels decline to 15%

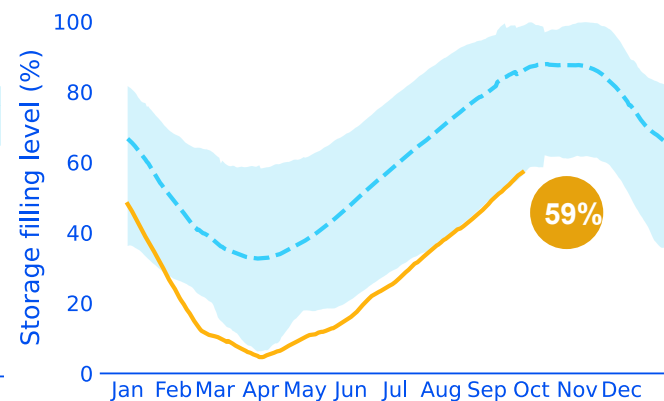
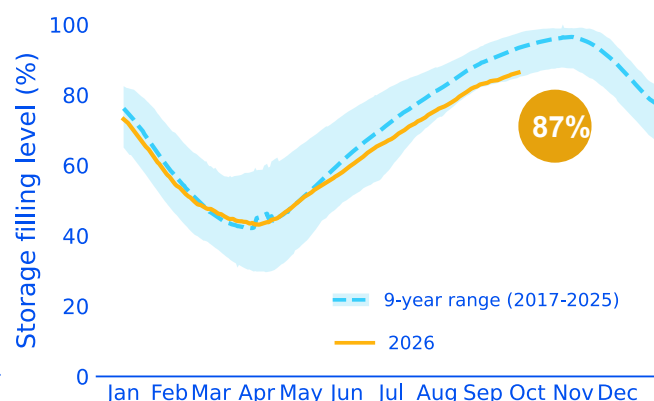
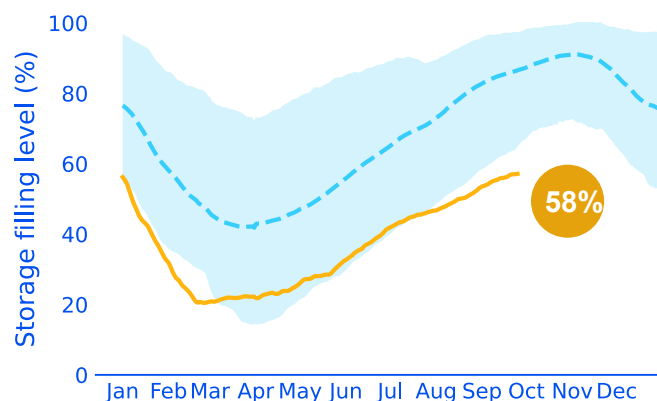
Figure 10: EU storage filling level and projected end-storage targets for challenging ‘what if’ winter scenarios*, January 2024–March 2027 (%)



Source: ACER based on ALSI and AGSI GIE, Eurostat, and ENTSG. *See [Annex E](#) for further clarifications about this slide. **During cold spells that drive up gas consumption, weather conditions may also [constrain the availability of additional LNG supplies](#), particularly through floating storage and regasification units (FSRUs).

More flexible EU targets, diverging national approaches

	Germany 	Italy 	The Netherlands 
Third-party access	Negotiated non-discriminatory access; capacity sold via auctions/tenders or bilateral sales.	Regulated, non-discriminatory, access and revenues; capacity allocated via competitive auctions with regulator-set rules and reserve prices.	Partly negotiated non-discriminatory access , with capacity sold via auctions/open seasons, with reserve prices published.
Filling target	70% by 1 November and 30% by 1 February applied nationally.	90% by 1 November, applied nationally rather than to individual sites.	64% by 1 December 2026 as the EU target of 90% was reduced by derogations.
Storage obligations	Storage targets apply at facility level, with site specific exceptions; unused capacity can be withdrawn and reassigned to THE for selling.	Snam storages sets minimum and maximum stocks per user . Additional injections are facilitated via overnominations, where spare capacity exists . Injections are allowed during the withdrawal season .	No filling obligation for users; EBN can step in to fill storage and hold strategic reserves.
Policy focus	Ensures booked capacity is used, while offering market-based flexibility to injection rates.*	Encourages capacity booking and filling, supported by financial incentives in case of unfavourable spreads, a non-filling charge and strategic storage held by Snam storages.	State-led filling where the market falls short, including strategic storage and EBN support.



Source: ACER based on GIE AGSI and [OIES](#). Note: Storage filling levels on 1 October 2026, compared with the nine-year minimum and the 2025 level, in percentage points (p.p.): Germany 58% (–9 p.p.; –16 p.p.), Italy 87% (+1 p.p.; –5 p.p.), the Netherlands 59% (+1 p.p.; –11 p.p.). * Gas storage levy abolished on 1 January 2026. Autumn tender expected to be used for long-term options. [On 30 September 2026, SEFE, the German state-owned gas importer, was instructed to increase gas in storage by 8 TWh](#). Other countries are shown in [Annex A](#).

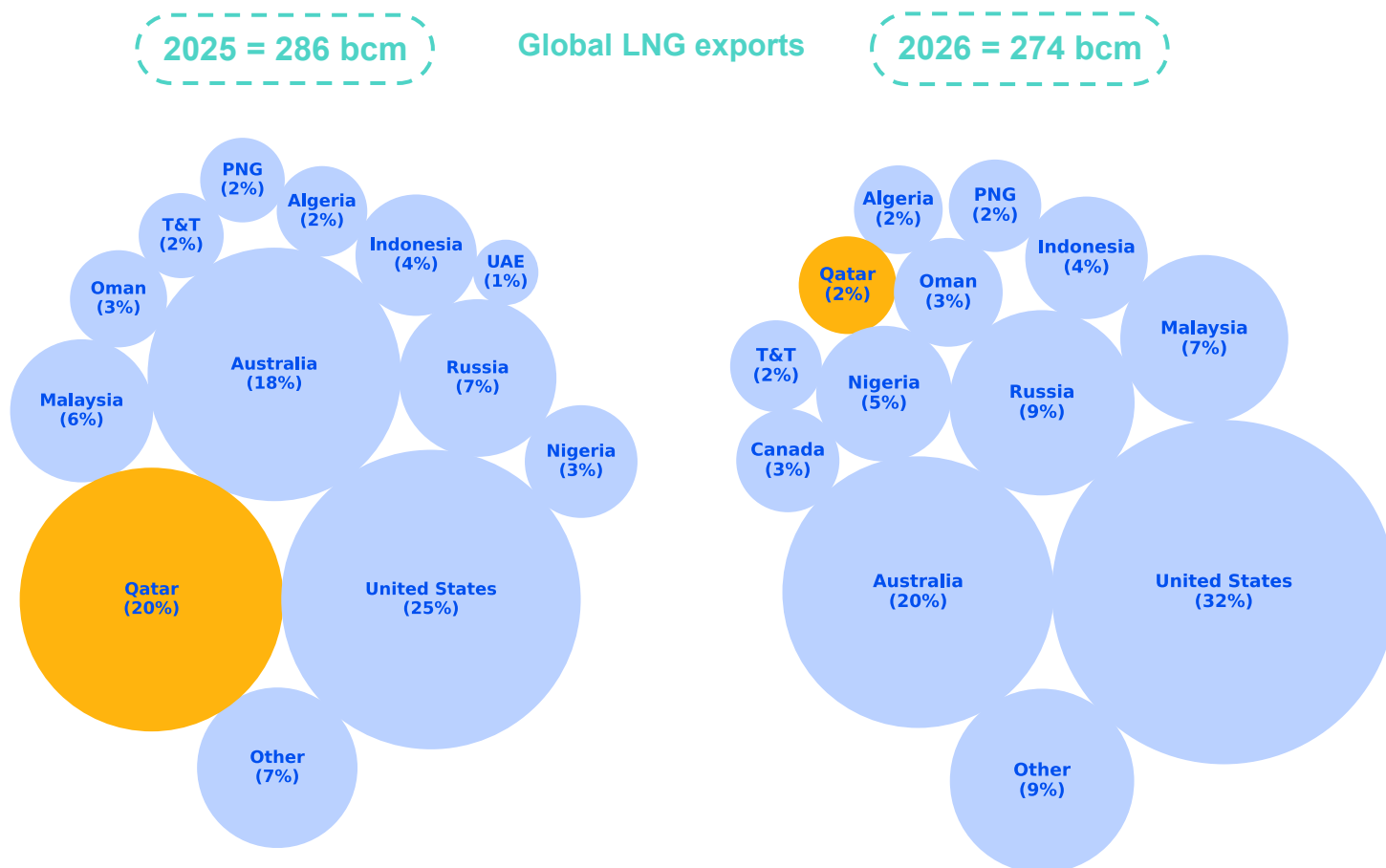
Impact of the Middle East conflict on EU gas markets

- Evolution of the global supply shock
- Impact on EU gas market fundamentals

Qatar covered just 2% of global LNG exports in summer 2026

Due to the Strait of Hormuz blockade, global LNG exports declined by around 13 bcm in summer 2026, down 4% year-on-year.

Figure 11: Global LNG exports by country, summer season 2025 vs. 2026 (%)



- Since the start of the conflict in the Middle East on 18 March 2026, the Strait of Hormuz, which accounted for 20% of global LNG supply in summer 2025, has remained mostly blocked, resulting in an estimated drop of 49 bcm. The reduction has been partly offset by rises from USA (+14 bcm), Canada (+7 bcm) and Russia (+5 bcm), among other countries. This results in an increase of 36 bcm in total.
- Qatar is bringing LNG production from undamaged facilities at the Ras Laffan complex, to stay ready for a quick restart. Exports could return to normal operations once shipping through the Strait of Hormuz gets safe. Seven of Qatar's 14 LNG trains were showing signs of activity as of 8 August, and a new train is targeted to start operation on 26 November.
- A faster restart would help Asian and European buyers facing high gas prices and tight winter supplies, although two damaged LNG trains (17% of its pre-conflict production capacity) are anticipated to remain offline for several years.

LNG exports down 2% winter-on-winter if Hormuz closed

A reopening of the Strait of Hormuz by early 2027 could unlock additional 20 bcm in the second half of the upcoming winter.

Figure 12: Monthly global LNG exports, summer season 2021–2026 (bcm)

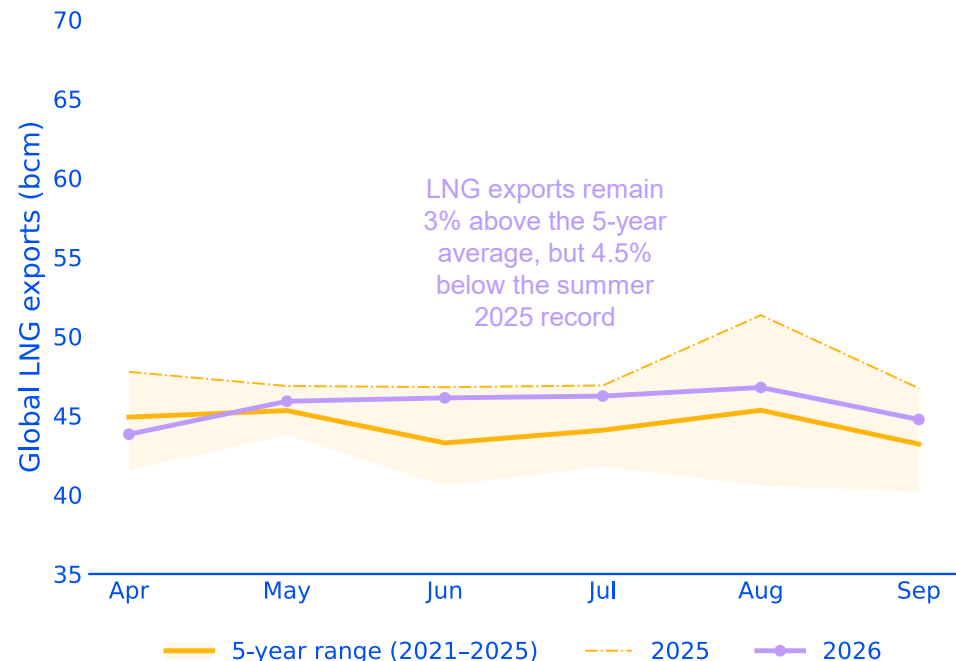
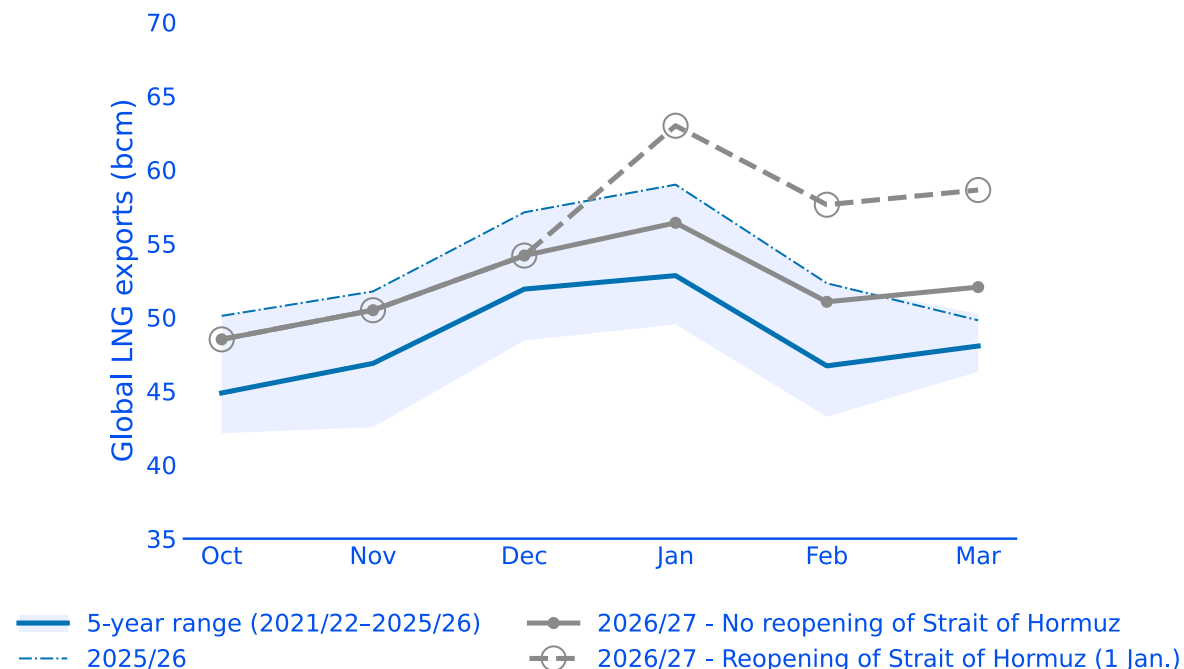


Figure 13: Monthly global LNG exports*, winter season 2021/22–2026/27 (bcm)

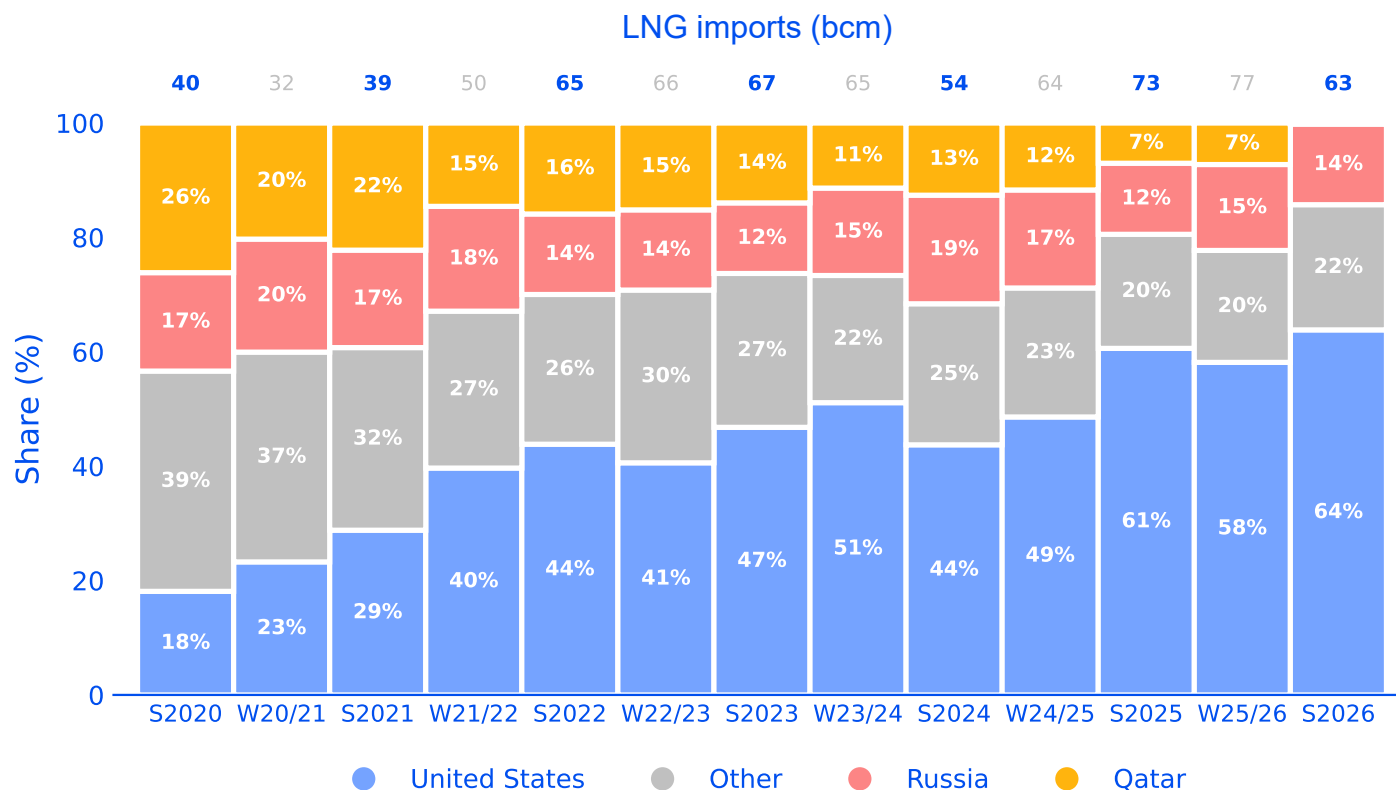


- The duration of the Qatar production halt and/or Strait of Hormuz shipping disruption will remain a key swing factor for winter prices and security of supply. Prolonged disruptions increase the risk of sustained global LNG market tightness.
- A prolonged conflict would intensify competition for LNG during the heating season, particularly between Europe and Asia for spot cargoes (see [slide 20](#)). Weather-driven gas demand and gas-fired power generation will be key consumption drivers during the next winter season.

Qatari LNG almost absent in the EU in summer 2026

While total EU LNG imports dropped, missing Qatari LNG import share has been offset by USA.

Figure 14: Share of EU LNG imports per supply origin and season, 2020–2026 (% and bcm)

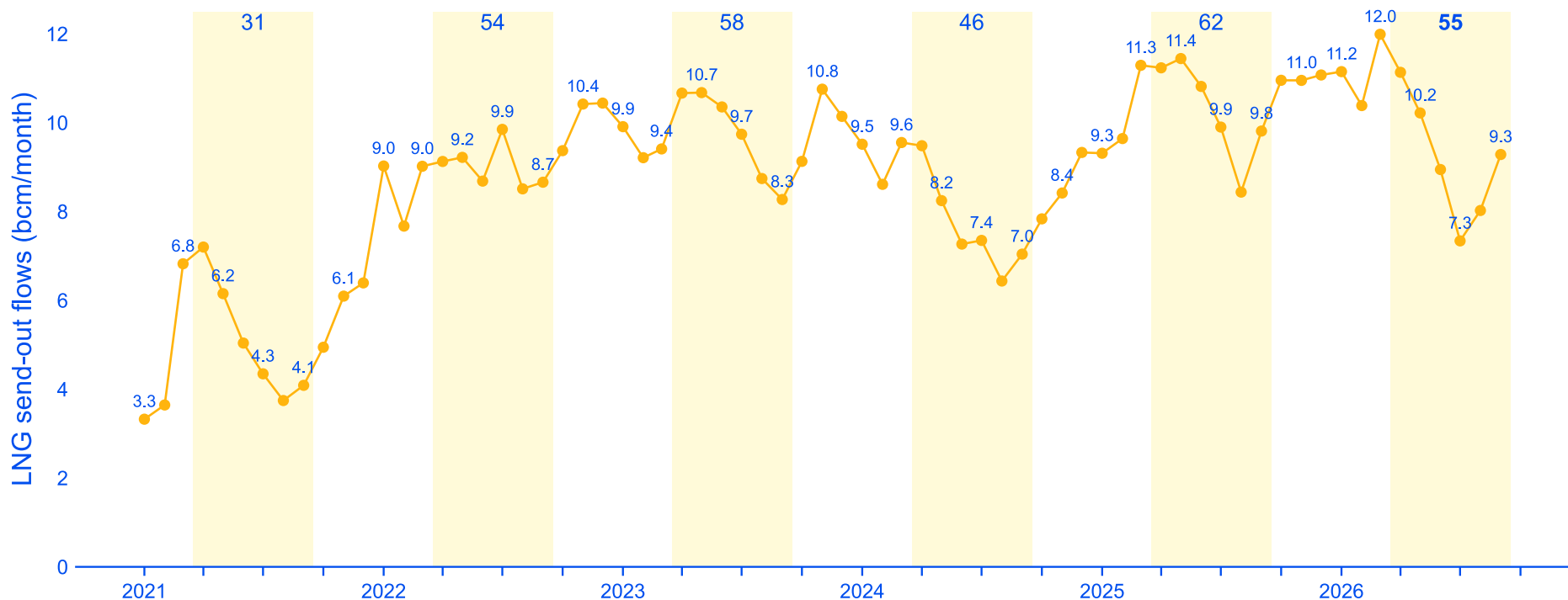


- During summer 2026, total EU LNG imports decreased by 14% year-on-year.
- Russian LNG imports still makes up 14% of total EU LNG imports, despite the gradual phase-out of Russian gas contracts. They decreased by 2.2% compared to the previous summer period.
- The share of LNG imports from United States has kept rising, covering for around two-thirds of total EU LNG imports. However, USA LNG imports have decreased by 9% (~4 bcm)*.
- Europe's increasing dependence on USA LNG, coupled with a more uncertain geopolitical landscape, reinforces the importance of exploring alternative sources of supply.

EU LNG inflows fell 11% in summer 2026

High prices and stronger Asian competition weighed on European LNG inflows, especially during July and August.

Figure 15: Monthly EU LNG send-out flow, 2021–2026 (bcm/month)

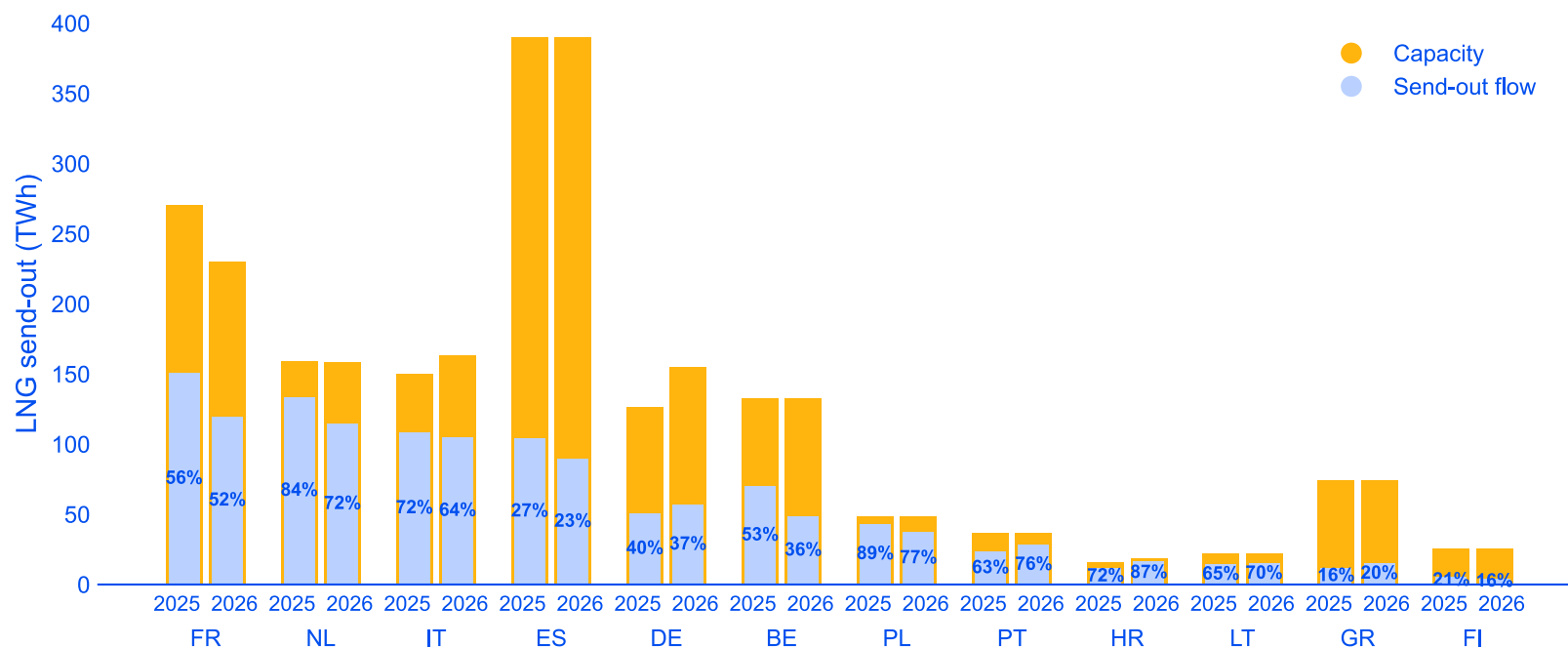


- July 2026 LNG send-out fell to around 7.3 bcm, the lowest monthly level since summer 2024. Strait of Hormuz export disruptions, stronger global LNG competition, high prices – besides summer prices exceeding winter prices – reduced cargo availability and/or commercial attractiveness for importing LNG into the EU.

Western European LNG flows fell by 14% summer-on-summer

Slightly higher LNG inflows in Southeastern Europe summer-on-summer than in Western and Northeastern Europe.

Figure 16: Utilisation* of aggregated LNG terminals per country, summer period 2025 and 2026



- LNG utilisation ratios diverged across EU Member States: Poland and Croatia around 80-90% utilisation, while Greece or Spain below 25% of utilisation during the summer period.
- Western European LNG send-out declined by 14% summer-on-summer, while Northeastern and Southeastern Europe recorded similar LNG inflows as last year.
- The upward trend in LNG send-out in Germany and Southeastern Europe points to the increasing importance of LNG for regional gas supply, complementing pipeline imports and enhancing supply diversification.

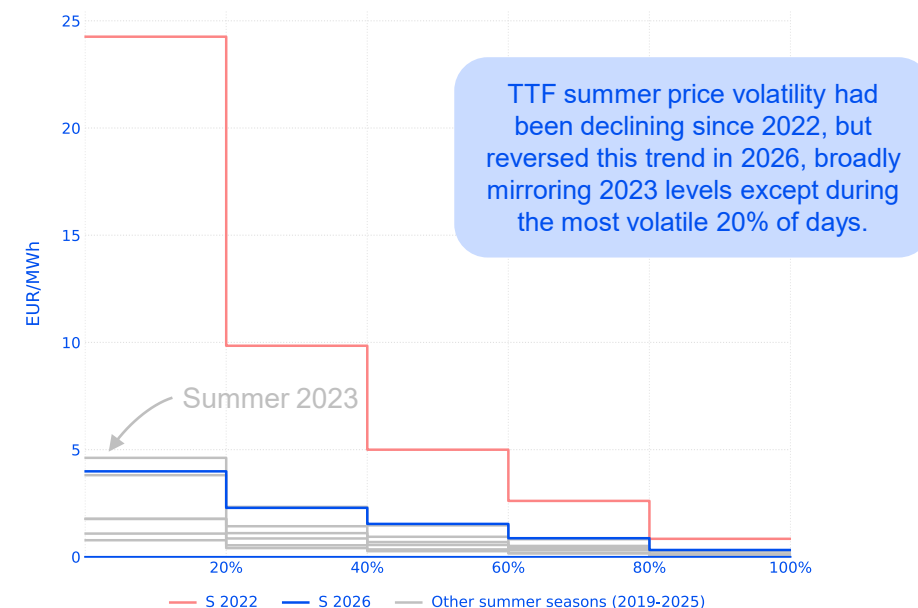
Prices surged amid Middle East uncertainty and slow refilling

Spot prices surge near 90 EUR/MWh. Summer forward contracts traded at a premium to Winter.

Figure 17: TTF gas day-ahead and forward prices, January 2025 – June 2027 (EUR/MWh), updated until 21 October 2026



Figure 18: Average TTF day-ahead price changes (relative to the previous trading session's close), organised into five 20%-day blocks of the summer period, summer 2019-2026 (EUR/MWh)



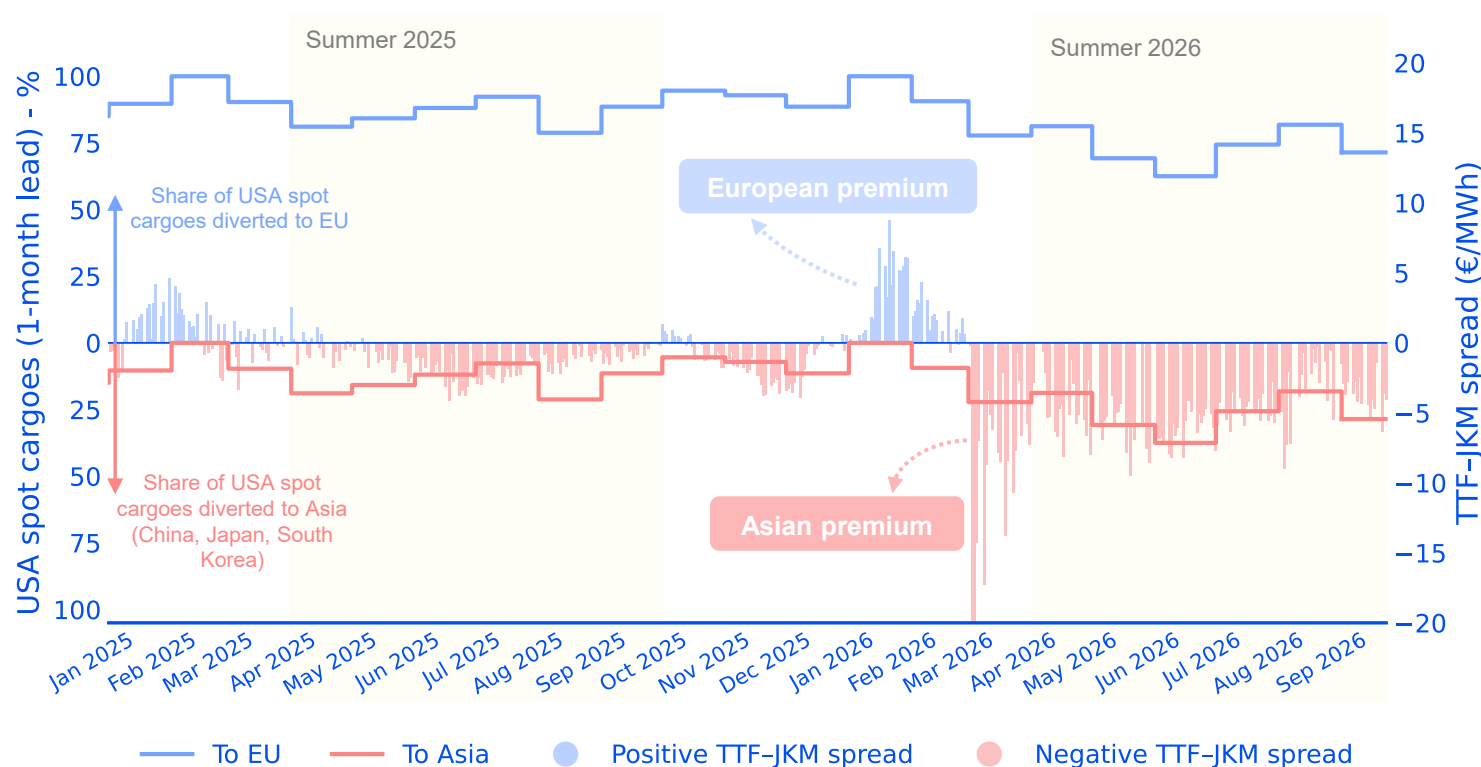
- EU gas prices surged as Strait of Hormuz shipping disruptions tightened global LNG supply and intensified price competition with Asia, amid low EU storage levels. Moreover, negative winter-summer spreads have delayed storage refilling, adding to the current upward price pressure.
- The Middle East crisis added an estimated 18–33 billion EUR to Europe's summer 2026 gas import bill*. The impact is transmitted across the gas value chain, ultimately affecting household and industrial consumers. Higher costs for gas-fired power generation put substantial upward pressure on EU electricity prices.

Source: ACER based on ICIS. *Lower estimate: actual Q2–Q3 TTF day-ahead prices vs a [no-crisis counterfactual](#) from a macroeconomic dynamic stochastic general equilibrium model. Upper estimate: actual 2026 monthly TTF prices vs a no-crisis forecast based on 2025 monthly prices. Both price gaps are multiplied by total summer gas imports (see [slide 23](#)). The range is an indicative upper bound for the extra cost to EU gas suppliers and final consumers. Long-term contract indexation, hedging and pricing lags may have softened the impact or spread it along the gas value chain.

LNG imports driven by cross-basin competition

Asian premium to Europe at an all-time-high reflects a higher exposure of the region to the Strait of Hormuz shipping disruption.

Figure 19: Monthly share of USA spot LNG cargoes (with 1-month lead) diverted to EU and Asia (left y-axis)* and spot LNG month-ahead price spread of TTF and JKM (right y-axis), January 2025–September 2026 (% (left), EUR/MWh (right))

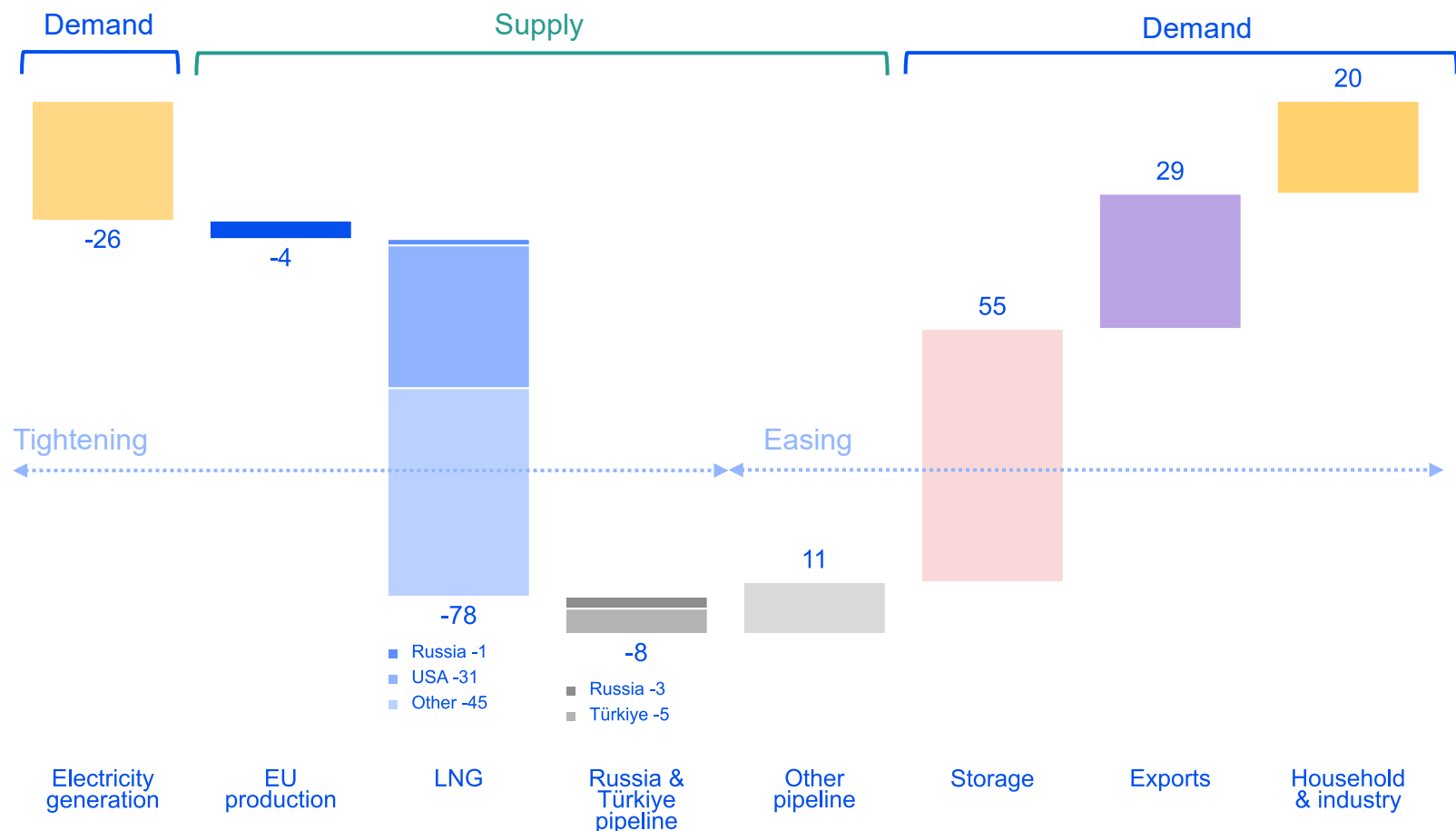


- Asian markets have reached historically high premiums relative to European markets during the conflict. Asia was left with the largest gap to fill, across global regions, after the unavailability of LNG supply from the Persian Gulf (i.e., China imported circa 80% of Qatari LNG production, which represented 25% of total Chinese LNG imports).
- While long-term LNG contracts provide more supply stability, competition for flexible spot and short-term LNG cargoes (i.e., unconstrained by destination clauses) has pushed global LNG prices up, as cargoes are redirected to the highest bidder. With around 30% of EU LNG imports sourced from spot markets** - slightly more than Asia - Europe remains exposed to that global competition. That context has impacted summer storage refilling and will continue to shape LNG availability and prices over winter.

Injections slowed as LNG fell and gas-fired power rose

Lower LNG supply during summer resulted in a decrease in storage injections.

Figure 20: Summer-on-summer changes* for main categories of EU gas supply, demand, storage, summer period 2026 vs 2025 (TWh)



- EU LNG imports decreased because of the Strait of Hormuz shipping disruptions, intensified spot LNG competition and other commercial factors (see [slide 20](#)).
- Gas storage played a key role in offsetting the reduced LNG availability, with lower net injections (minus 55 TWh YoY) balancing most of the LNG import shortfall (minus 78 TWh YoY). Additionally, a decrease in EU gas exports - primarily towards Ukraine - helped ease the market.
- Increased gas demand for power generation acted as tightening market factor and contributed to constrain storage injections.
- Some increases in Norwegian, and North African gas import helped easing the EU market, counterweighing the drop of Russian and Azerbaijani gas supply.

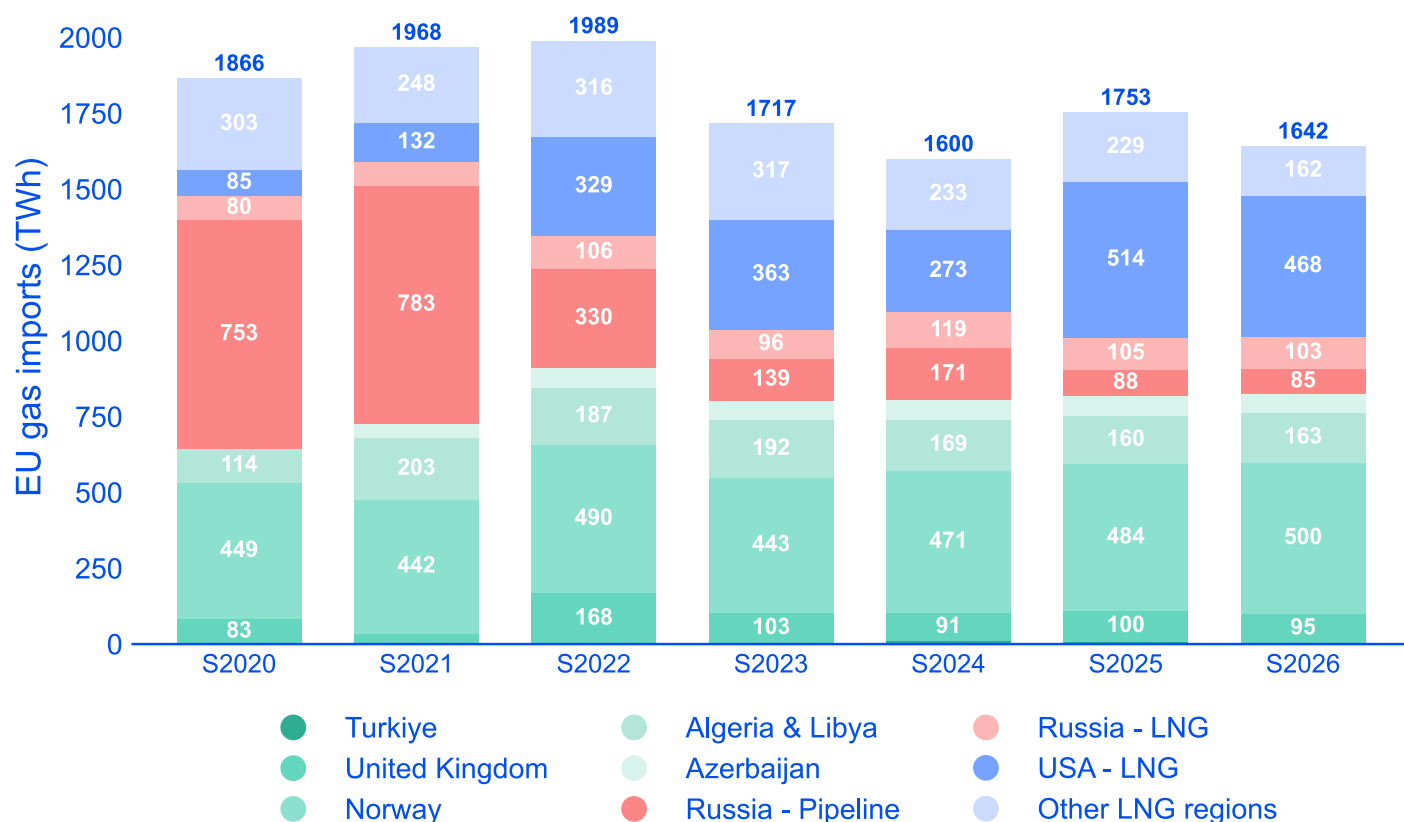
Other European gas market developments

- Gas market fundamentals
- A focus on the impact of the heatwaves

Pipeline supply remained broadly flat; LNG imports declined

**The USA remains the dominant LNG supply origin, accounting for 30% of total EU gas imports.
Russian gas supply, LNG and pipeline combined, represents around 11% of EU gas imports.**

Figure 21: Gas imports entering the EU per source, summer period 2020–2026 (TWh)



- High prices, driven by the Strait of Hormuz blockade and stronger cross-basin competition with Asia, led to a 14% decline in EU LNG deliveries.
- Despite a 9% decline in USA LNG imports, the USA still accounts for around 30% of EU gas imports.
- Russia still accounts for 11% of EU gas imports, including pipeline gas and LNG, and 21% of pipeline gas imports. TurkStream remains the last major active route for Russian pipeline gas to the EU.
- Russian gas imports were still worth around 10 billion EUR over the summer.*

Russian supplies decrease slightly summer-on-summer

Summer 2026 vs summer 2025: 2% reduction of Russian LNG imports, 3% lower Russian pipeline imports.

Figure 22: Russian LNG exports* per importing country or region, gas summer period 2024–2026 (bcm and % on top of bars)

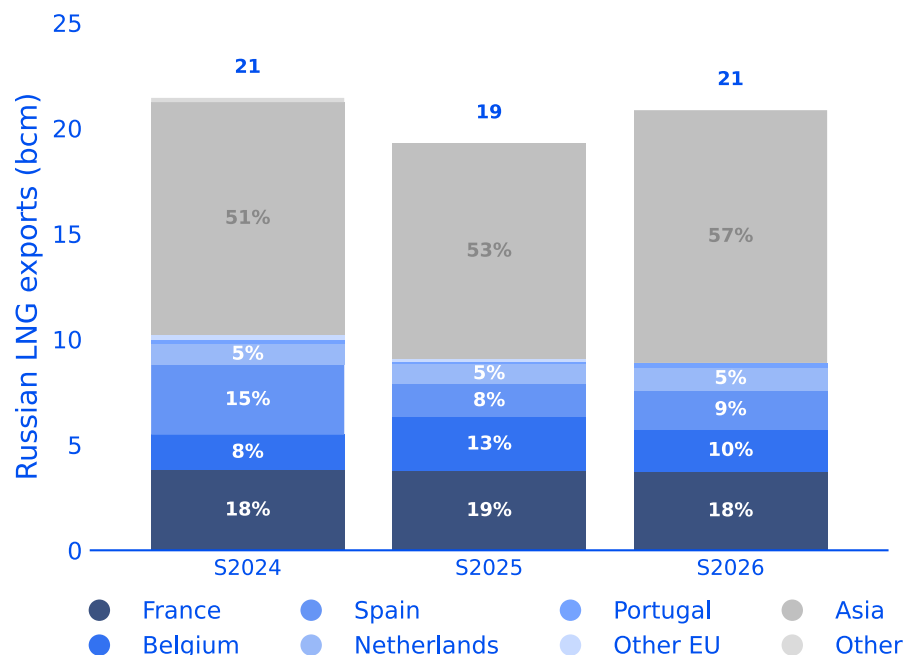
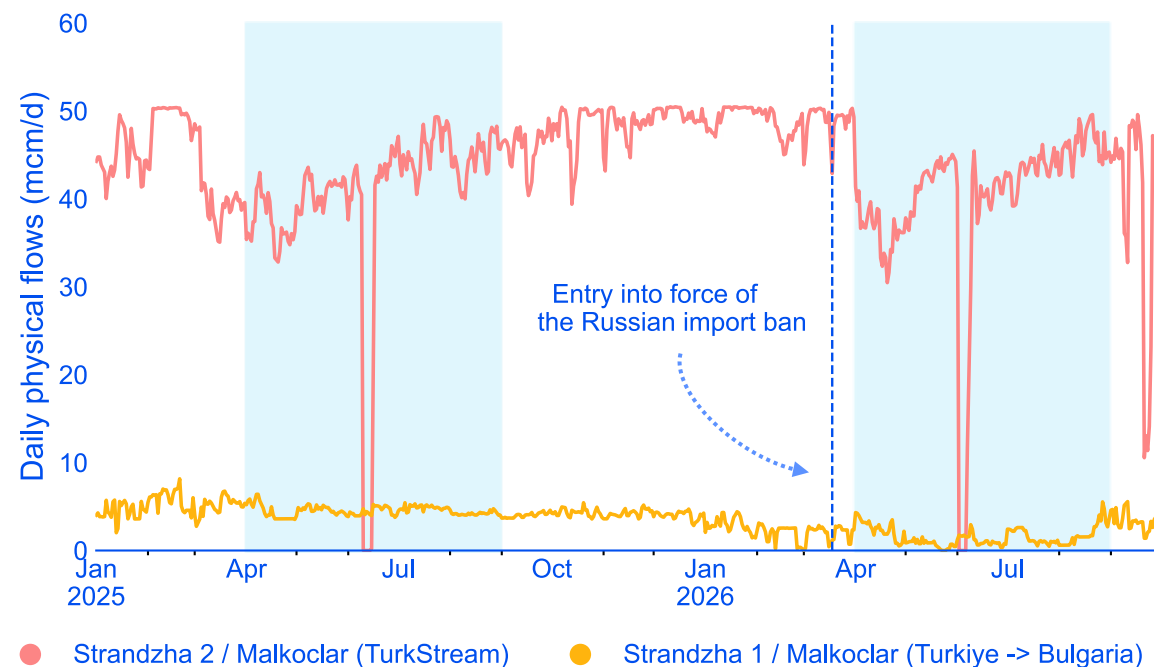


Figure 23: Daily pipeline physical flows via TurkStream and Strandzha 1, January 2025–September 2026 (mcm/d)

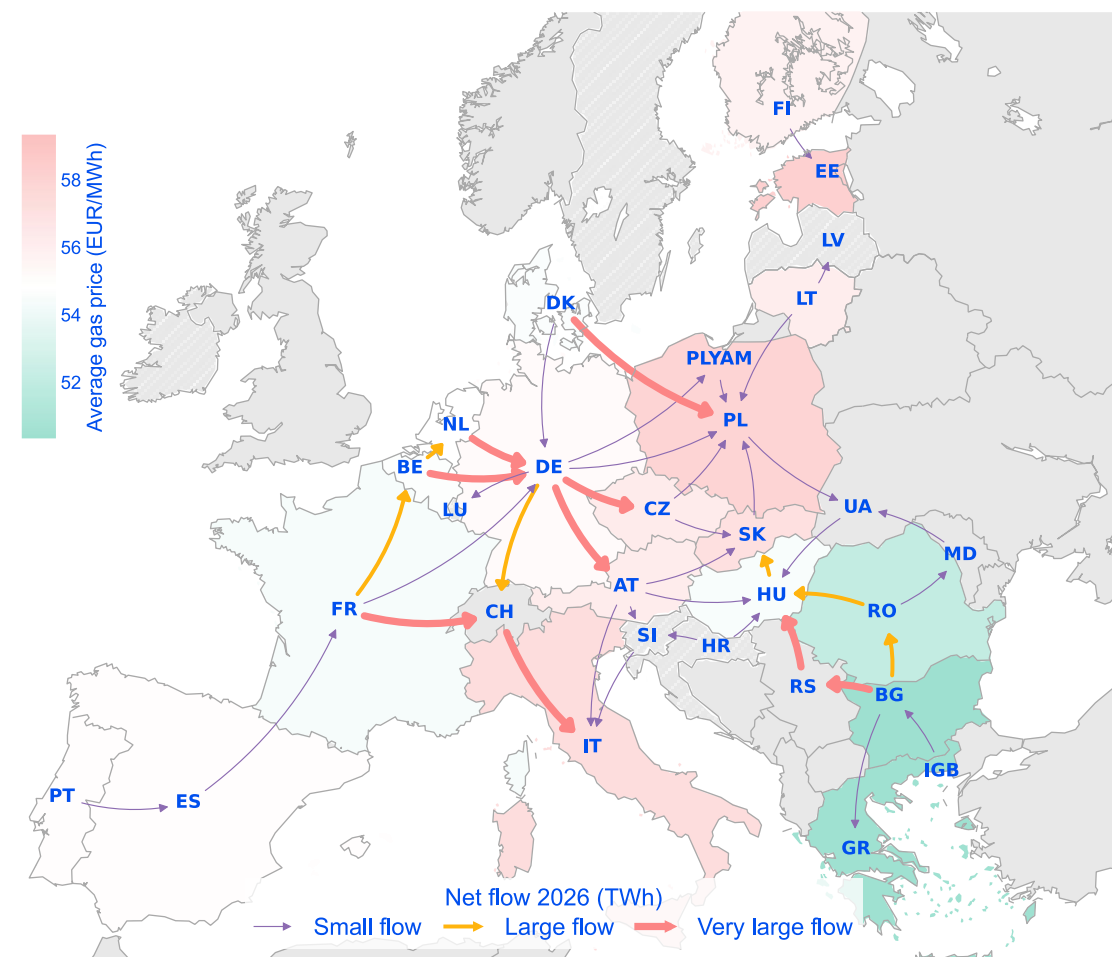


- Five EU Member States continued to import Russian LNG in summer 2026, at volumes broadly comparable with summer 2025. Belgium did not import any Russian LNG in August and September 2026, while Spain did not record any Russian LNG in September 2026.
- The [REPowerEU Gas Regulation](#) establishes an EU-wide ban on imports of pipeline gas and liquefied natural gas (LNG) originating in Russia. ACER will further assess the impact of the Russian gas phase-out in its 2027 report.

Gas prices reflect closeness to major supply sources.

- Eastward gas flows have persisted since the 2022/23 energy crisis reflecting the gradual loss of Russian pipeline supplies. Gas increasingly flows from northern Norway and coastal LNG entry points towards inland markets. Compared to summer 2025, Ukraine's reliance on EU imports has decreased.
- Gas flows across selected interconnection points, typically connecting most liquid hubs, tend to move more markedly from lower-price to higher-price regions, reflecting spatial arbitrage. However, infrastructure constraints, transport costs and long-term supply contractual arrangements can weaken this relationship, leaving some interconnection points less responsive to hub price signals.
- Central Europe, the Baltics, and Finland faced higher gas prices in summer 2026 than in summer 2025. Longer supply routes - via direct LNG cargoes or via the EU's network - , and in some cases, less diversified supply options tend to explain the price gap.
- Western European hubs generally recorded the relatively lower prices, benefiting from direct Norwegian supply and/or direct LNG terminal access and greater market liquidity. Southeastern Europe saw some lower gas prices due to its own localised supply-demand dynamics, including milder weather. Gas exports to Ukraine decreased considerably.

Figure 24: Net transmission network gas flows* and average day-ahead gas prices**, summer 2026 (TWh, EUR/MWh)



Cross-border gas flows decreased 18% summer-on-summer

Ukrainian EU imports fell by ~30 TWh, while Hungary–Ukraine flows reversed direction in September 2026.

- The decline in the accumulated cross-border gas flows across the EU network is mainly driven by lower injections into underground gas storage and reduced EU exports to Ukraine.
- The reduction in cross-border flows is most evident at high- and very-high-flow borders, as highlighted on [slide 25](#), particularly across Central Europe.
- Flows from Austria and Slovenia into Italy have reversed, reflecting increased demand to refill Italian gas storage facilities.

Figure 25: Largest changes* to net transmission network gas flows, summer 2026 vs summer 2025 (TWh inside bar, % outside)

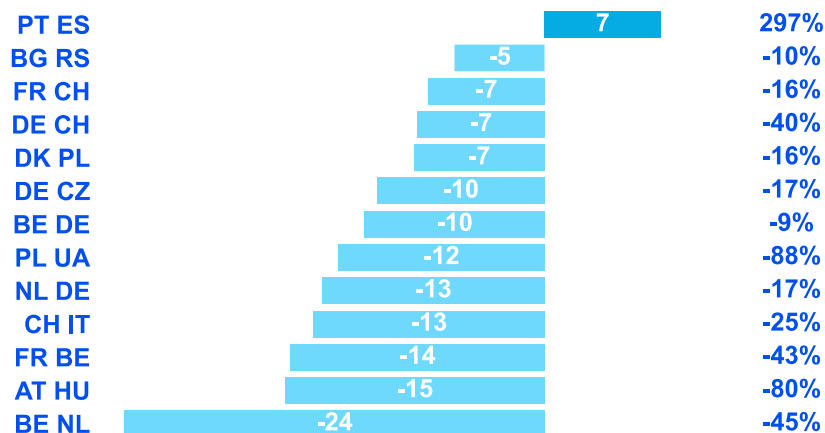
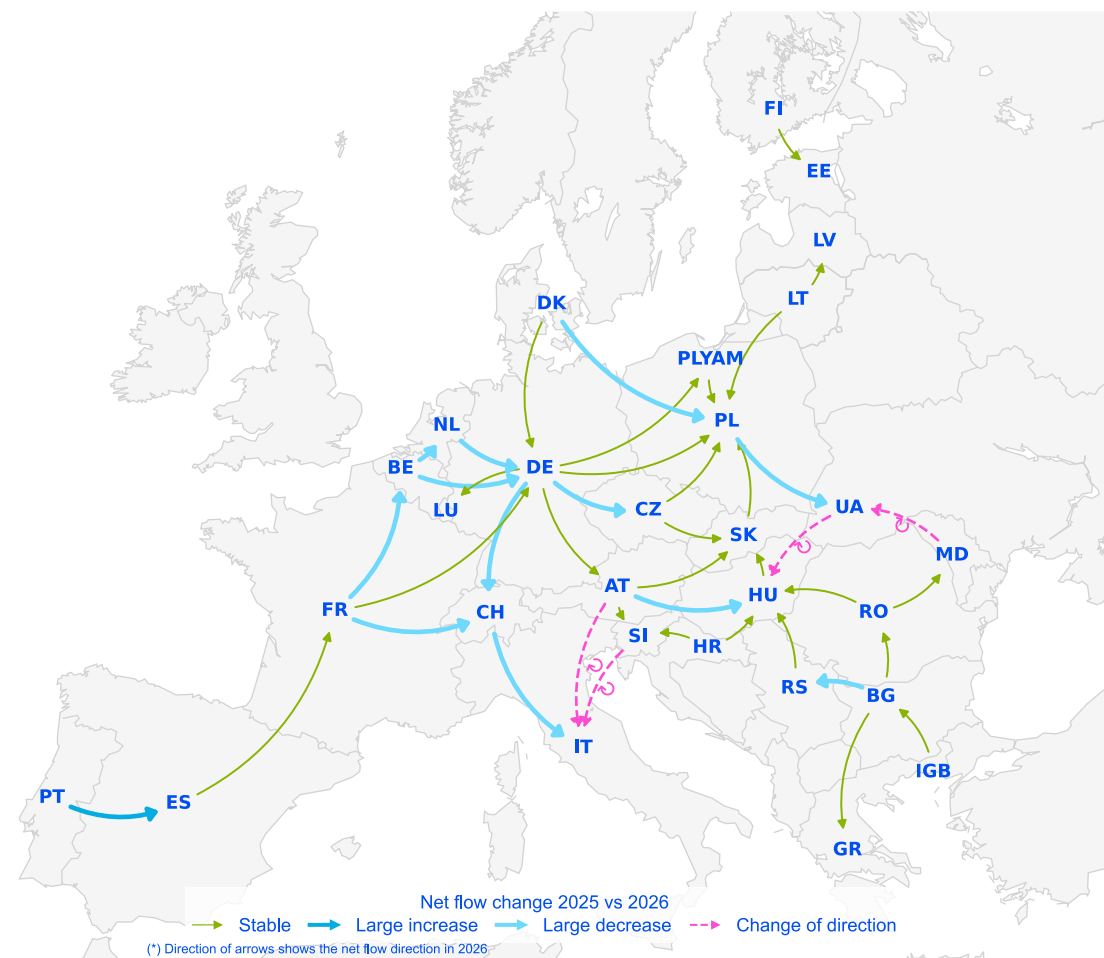


Figure 26: Changes* to net transmission network gas flows, summer 2026 vs summer 2025 (TWh)



Source: ACER based on ENTSOG Transparency Platform, JRC's [eurogastp Python package](#). *Large changes (either up or down) are defined as those exceeding 5 TWh in absolute terms.

Note: The aggregation of cross-border gas flows is based on tailored strategies that generate timeseries for each edge of the target topology using JRC's [eurogastp Python package](#). Low-calorific gas flows and pipelines are excluded from this analysis. PLYAM represents the Polish part of the Yamal pipeline.

Different hub price spread responses across Europe

Despite the strong integration of the European gas market, regional realities affect the evolution of the price spread.

Figure 27: Spread to TTF day-ahead price, selected countries, summer 2026 (EUR/MWh)

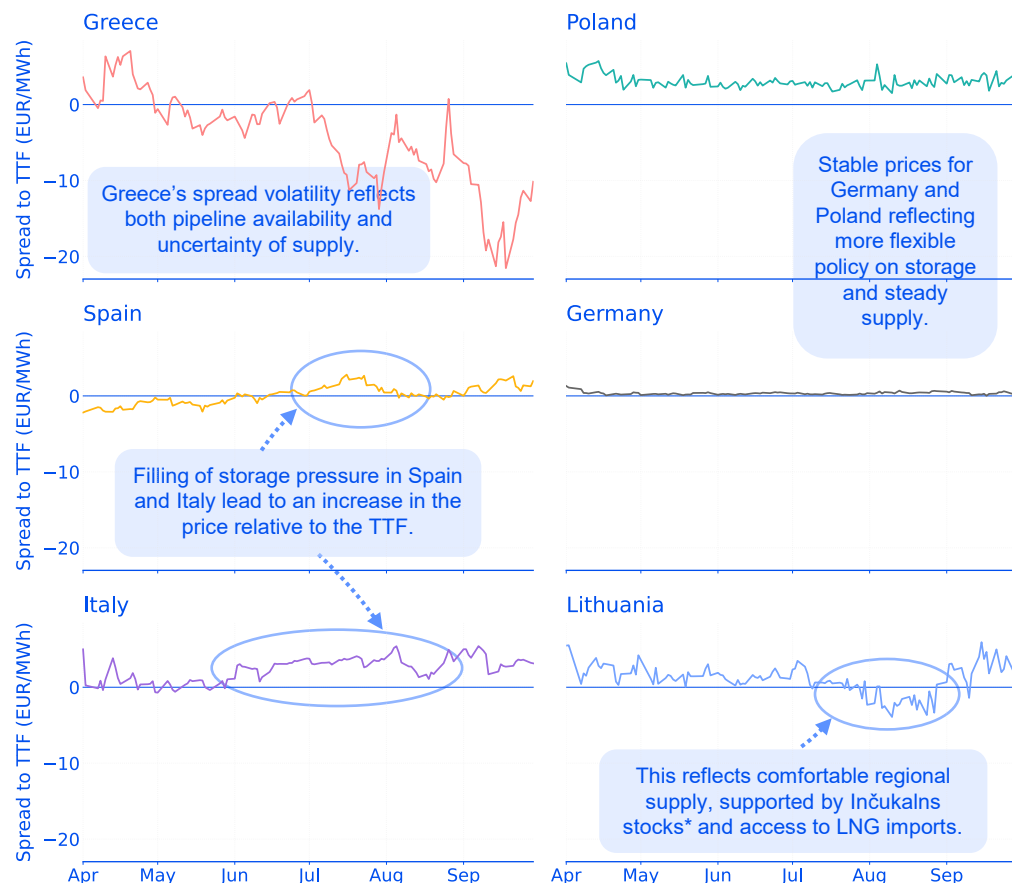
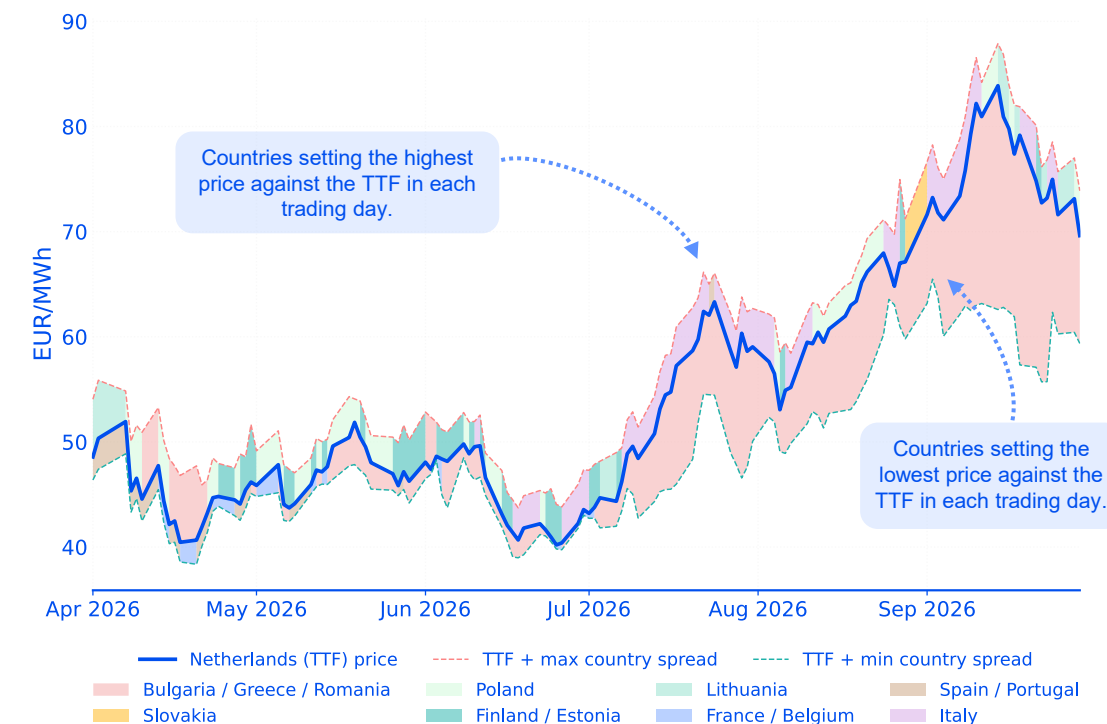


Figure 28: Maximum and minimum price to TTF day-ahead price and corresponding price-setting market, summer 2026 (EUR/MWh)



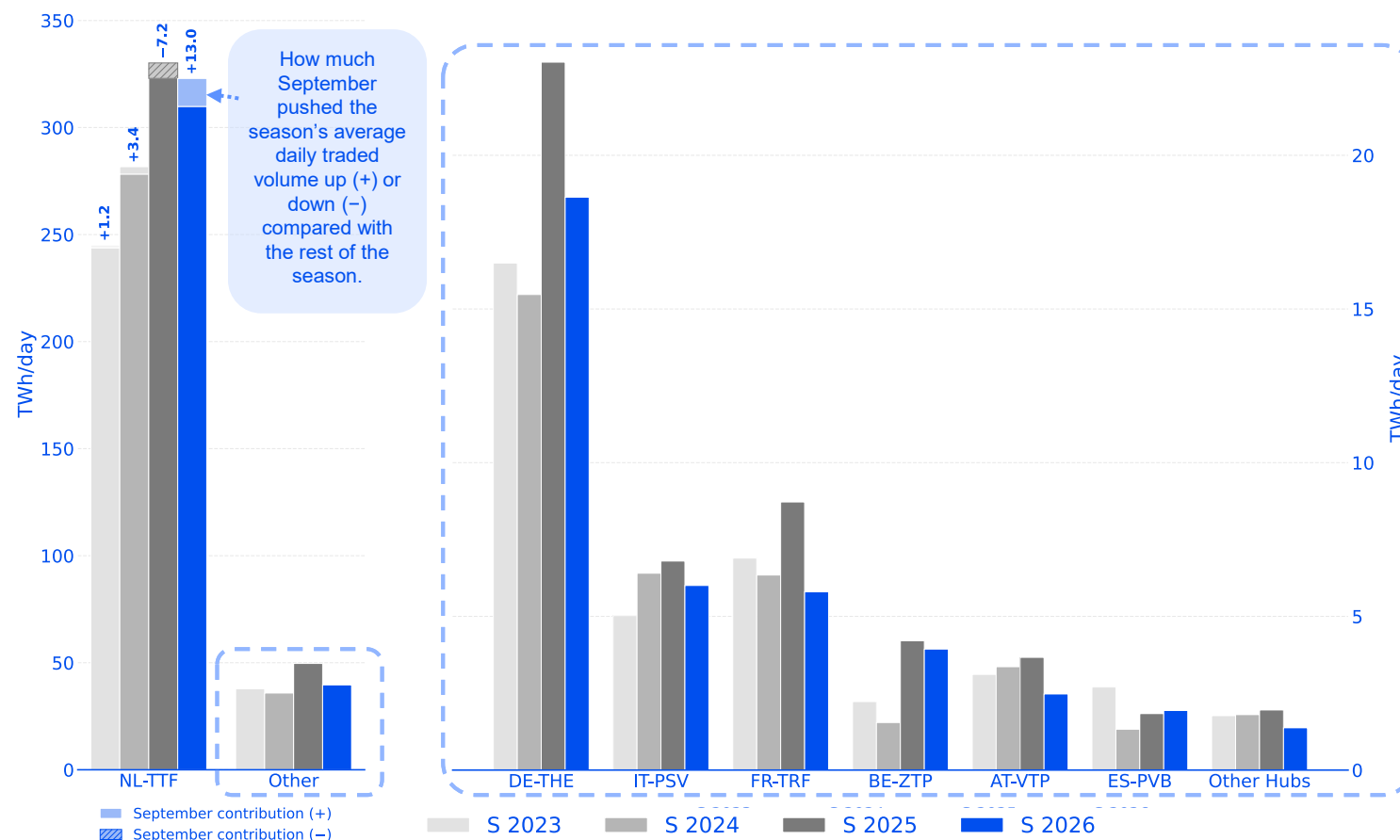
- While the market setting the highest price varied throughout the summer, it was most often Italy, Poland, Finland, or even Greece. In contrast, the lowest price was predominantly set by Greece and Bulgaria.

Source: ACER based on REMIT data. Note: Further information can be found in [Annex C](#) and [D](#). On the right graph countries are grouped where there is enough similarity on the spread evolution even if prices are not equal. *As observed in [slide 5](#), Latvia's gas storage facility, with a capacity of 24 TWh, was nearly 50% full by 1 October 2026, well above the 35% target corresponding to 3.3 TWh of average annual gas consumption, as required under Article 6a(2) of the Storage Regulation (EU) 2022/1032.

Summer trade slumped by 6% until a late September rebound

Breaking a three-year growth streak, volumes at the TTF dropped for most of the summer before surging late in the season to stay on par with last summer. Significant decreases were also seen in the German and French hubs.

Figure 29: Traded volumes at TTF and other EU virtual trading points, summer period 2023–2026 (TWh/day)



- For most of the summer high prices may have discouraged trading activity* by increasing financial exposure and margin requirements, while geopolitical uncertainty over LNG availability and shipping routes - amid the Middle East conflict - may have encouraged more cautious trading. LNG diversions to Asia would have reduced some volumes available for trading and redistribution across European hubs, while slower storage injections would have lowered gas purchases for storage and the associated trading and hedging activity.
- September brought a big increase in activity as traders would seem to have reassess their positions in the face of the approaching winter.

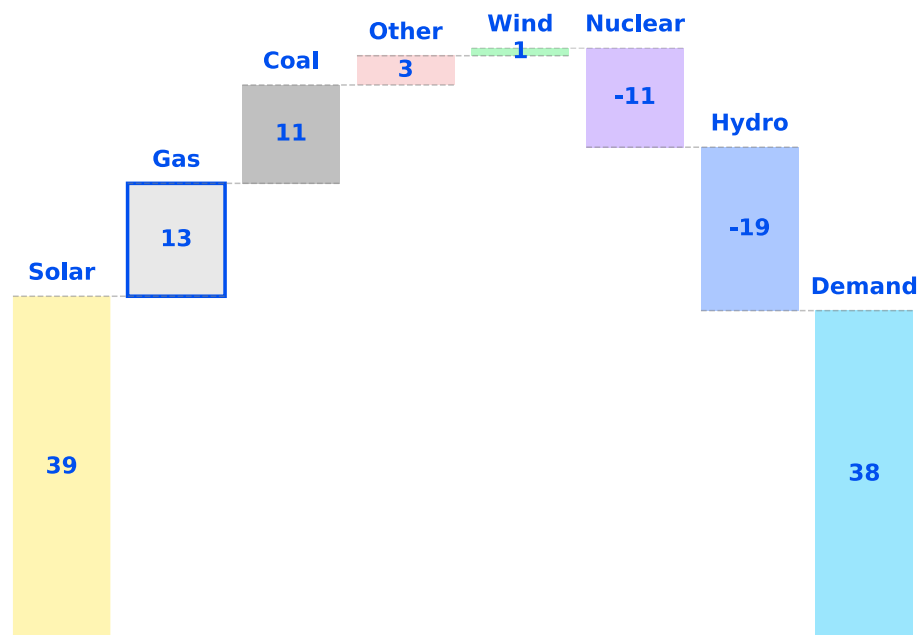
Source: ACER based on REMIT data.

Note: The analysis considers volumes traded via exchanges or brokers. *In terms of total traded volumes.

Hydro and nuclear gaps lift summer gas-for-power demand

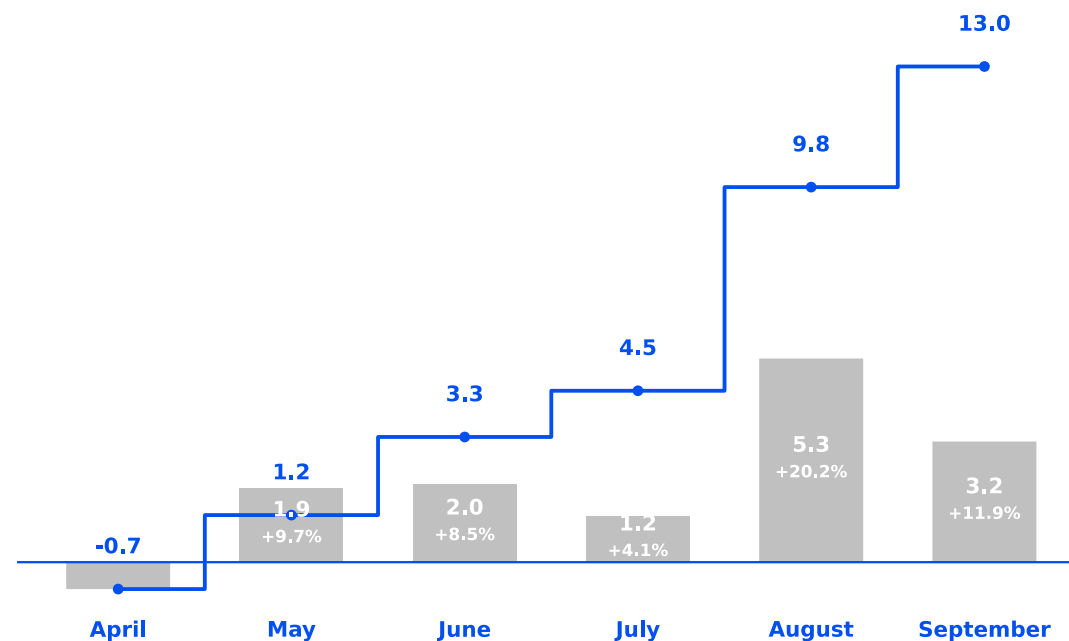
Gas-fired electricity generation increased with solar as demand increased; nuclear and hydro generation decreased.

Figure 30: Summer-on-summer change for main electricity generation technologies, EU-27, summer 2026 versus summer 2025 (TWh)



A warmer-than-average summer was a key driver for the increase in electricity generation from gas.

Figure 31: Summer-on-summer monthly and cumulative changes for gas generation, EU-27, summer 2026 versus summer 2025 (TWh)



- Multiple heatwaves have characterised the summer 2026, with warm rivers and lower water levels limiting hydro and nuclear generation to some extent.
- Despite strong growth in solar generation, higher electricity demand and lower hydro and nuclear output have increased reliance on gas-fired power plants, with gas generation up 8.7% during the gas summer period, being 20% in August year-on-year.*

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

Note: Biomass and other generation sources were accounted for separately, under the category 'Other'. 'Demand' combines consumption and net imports from countries outside the EU.

*See [ACER 2025 report on no-regret actions to stimulate flexibility](#).

Gas for power remains steady in non-solar hours ...

**The displacement of gas by renewable generation is restricted to central daylight hours.
In non-solar hours, gas generation has risen above 2025 levels, and stayed close to 2019 levels.**

From June to August 2026, the correlation between temperature and gas generation was positive across Europe for non-solar hours. Apart from Hungary, the countries with the strongest correlation generally recorded the highest temperature anomalies relative to their 5-year averages.

Figure 32: Average hourly gas and solar generation profiles, summers 2019 and 2026, EU (GWh)

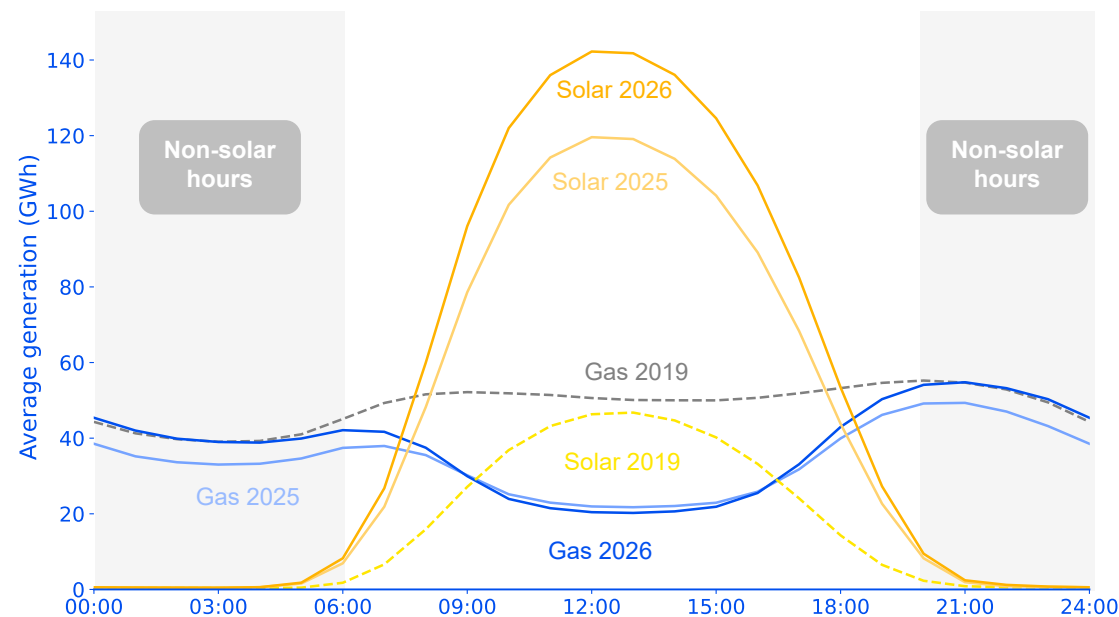
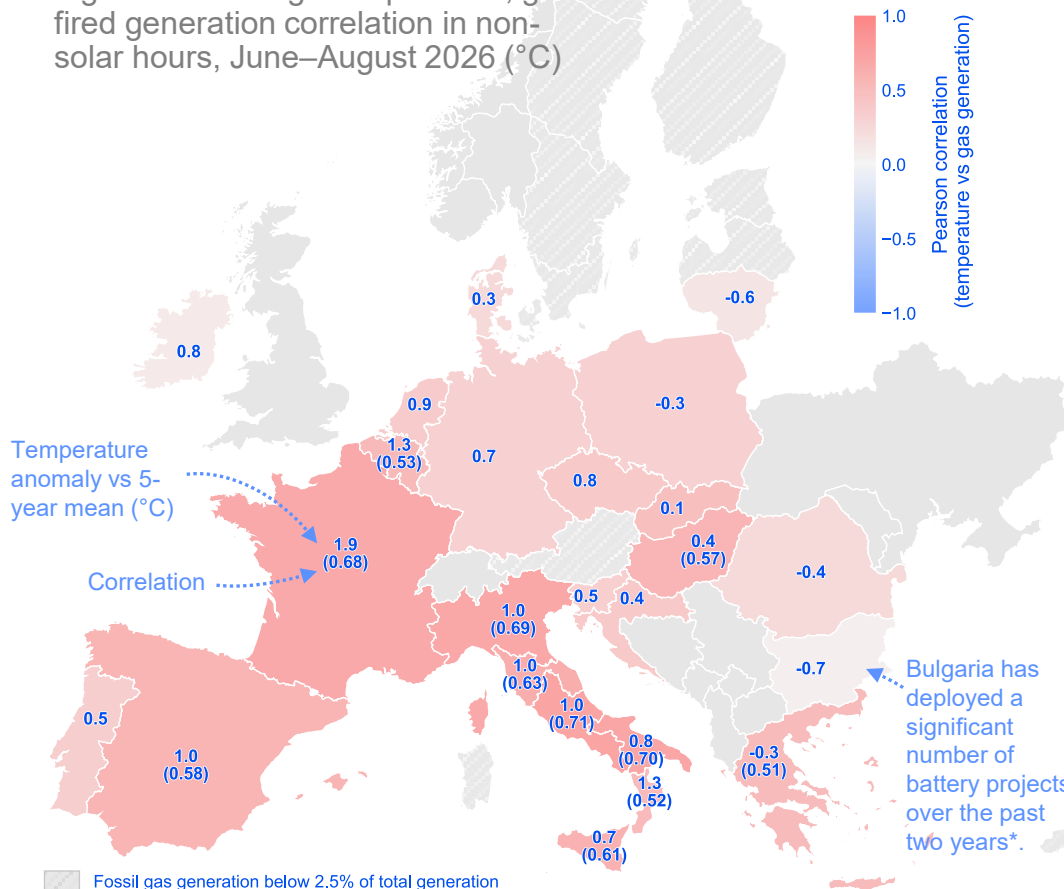


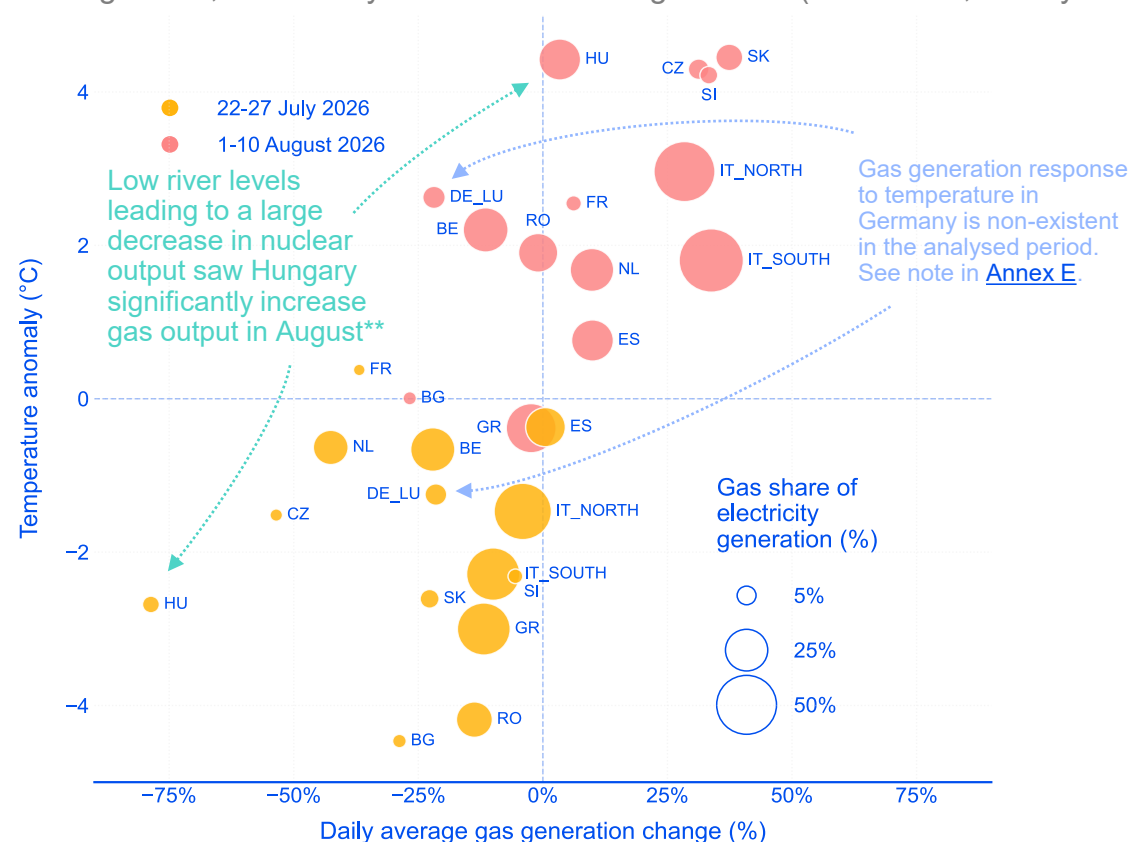
Figure 33: Average temperature, gas-fired generation correlation in non-solar hours, June–August 2026 (°C)



... while heatwaves boost its flexibility role

Regardless of the role of gas in the regional electricity generation mix, gas acts as a very flexible resource in response to temperature variations across most of them.

Figure 34: Gas generation change* and temperature anomaly*, selected electricity bidding zones, 22–27 July 2026 and 1–10 August 2026 (% in x-axis, °C in y-axis)



- Comparing hotter and colder periods this summer highlights the flexibility of gas-fired power plants relative to temperature, with output rising during positive temperature anomalies and falling during negative ones.
- This surge in gas-fired generation was significant even in countries where it traditionally makes up a small fraction of the energy mix, such as France, Czechia, Slovakia, or Hungary.
- Low water levels on the Danube significantly reduced Eastern European nuclear output, raising security of supply concerns that were ultimately mitigated in part by increased gas-fired generation.

60% river's flow rate in August 2026 compared to multiannual August average.***



Source: ACER based on ENTSOE and Copernicus. *Changes in gas-fired generation and temperature are calculated relative to the five-year mean. Both weeks are evaluated against the same baseline period, from 15 July to 15 August. **Hungary's Paks nuclear power plant was forced to reduce output to just over 10% of capacity in early August due to record-low Danube water levels, which constrained cooling operations [[Reuters](#)]. ***Six major European rivers recorded their lowest summer flows since 1992: the Loire, Seine, Rhine, Glomma, Vistula and Danube. [[EEA](#)]

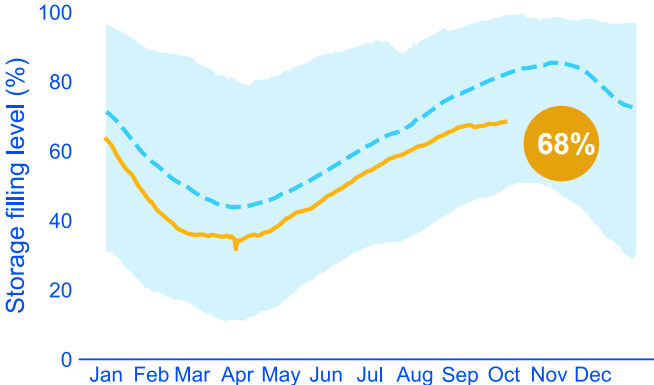
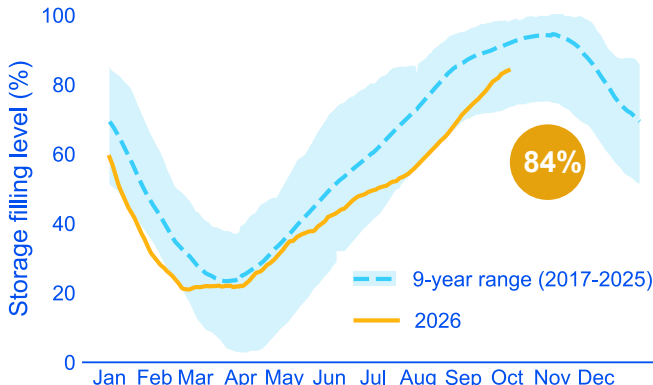
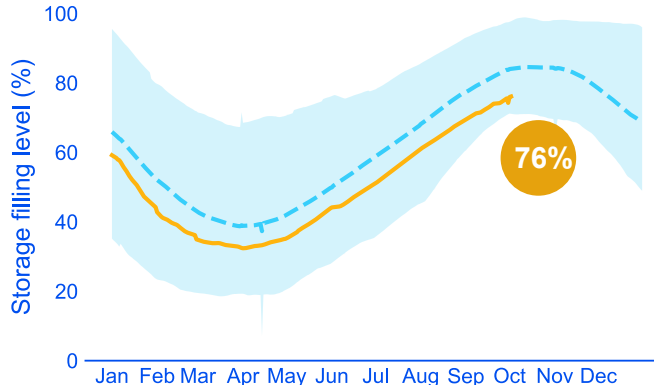


European Union Agency for the Cooperation
of Energy Regulators

✉ info@acer.europa.eu
🖱 acer.europa.eu

🦋 [@eu-acer.bsky.social](https://bsky.app/profile/eu-acer.bsky.social)
📘 [linkedin.com/company/eu-acer](https://www.linkedin.com/company/eu-acer)

Annex A: Gas storage incentives in Austria, France, Hungary

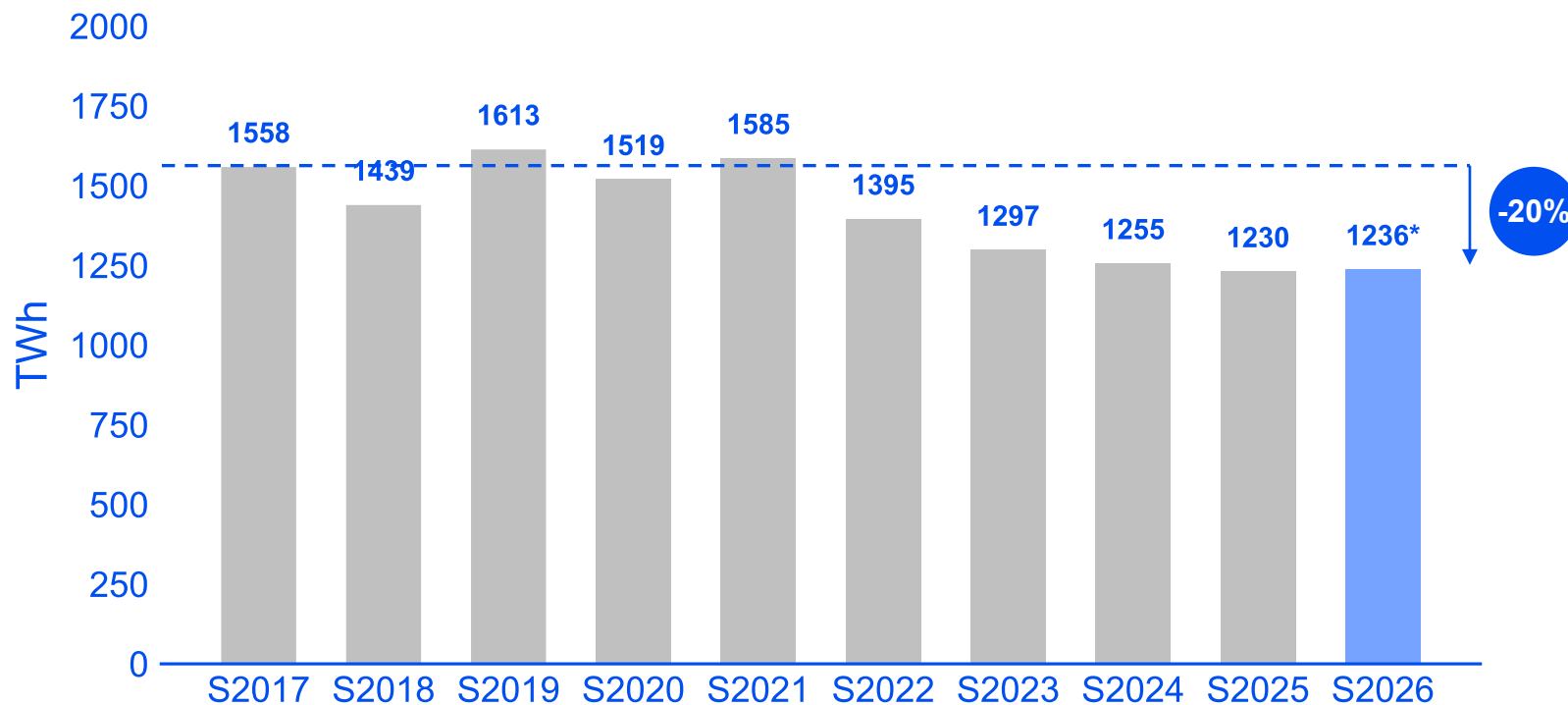
	Austria 	France 	Hungary 
Third-party access	Access regime varies (i.e. negotiated & non discriminatory or auctions). Mandatory auctions when demand exceeds offer.	Regulated , non-discriminatory, access and revenues; capacity allocated through competitive auctions, including zero-reserve price for standard capacity.	Regulated, non-discriminatory access with regulated revenues. FCFS allocation where available; auctions if demand exceeds offer and for specific storage products.
Filling target	29% storage capacity by 1 December (35% of average annual consumption deriving from the proportionality derogation ¹).	80% aggregate objective by 1 December.	51% of storage capacity (35% of average annual consumption under the EU proportionality derogation ³ by 1 Dec, separate stockholding obligations by 1 October).
Storage obligations	20 TWh state-financed strategic reserve. extended to Apr 2029 . Gas-fired power plants ≥50 MW must hold 30 days of gas until Mar 2027 . During contractual congestion storage users must offer unused booked capacity, while operators must offer unused capacity .	Suppliers must fill at least 85% of booked capacity by 1 Nov. Failure may result in a penalty of up to twice the value of the missing gas. The government must require storage operators to build security stocks if projected fillings falls below the min target . ²	Mandatory stocks with penalties for universal-service suppliers , the TSO and competitive-market traders . Separate plans for strategic and special gas reserves.
Policy focus	Combines strategic reserves & targeted stockholding obligations to strengthen security of supply. Proposal to extend power-plant obligations to 2029 .	Encourages capacity booking through auctions and regulated revenue protection, backed up by mandatory filling and state intervention.	Relies on compulsory physical stockholding across market participants, supported by strategic reserves.
			

Source: ACER based on GIE AGSI and [OIES](#). Notes: ^{1,3} 35% proportionality derogation established under Article 6a(2) of Regulation (EU) 2017/1938. ²The government may impose complementary stocks (up to 20 TWh) as a last resort if capacity bookings fall short of minimum storage requirements following the auction process. It must order security stocks if booked capacity or its expected utilisation indicates that the minimum filling target will not be met, using unbooked capacity first and, if necessary, booked but unused capacity.

Annex B: Summer gas consumption remains stable

Gas consumption has remained relatively stable over the last four summer seasons. Higher gas consumption for power generation surpassed some demand drops at households and industry.

Figure 35: Evolution of the natural gas consumption over summer, EU, 2017–2026 (TWh)



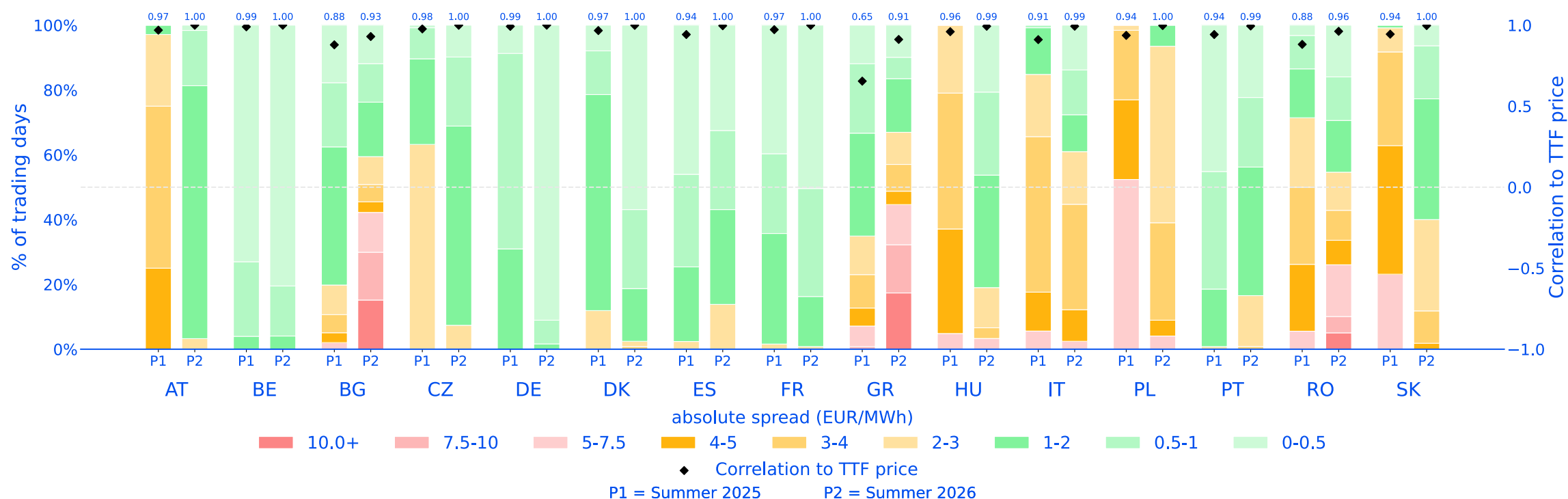
Source: ACER based on Eurostat and JRC.

Note: Gas consumption in September 2026 has been estimated based on [JRC EU Gas Security of Supply Dashboard](#).

Annex C: Convergence/correlation in summer 2026

Despite somewhat higher absolute hub price spreads to TTF in some markets, the European gas hubs remained well correlated. Northwestern hubs were not always the cheapest. Southeastern European hubs recorded the lowest prices on average.

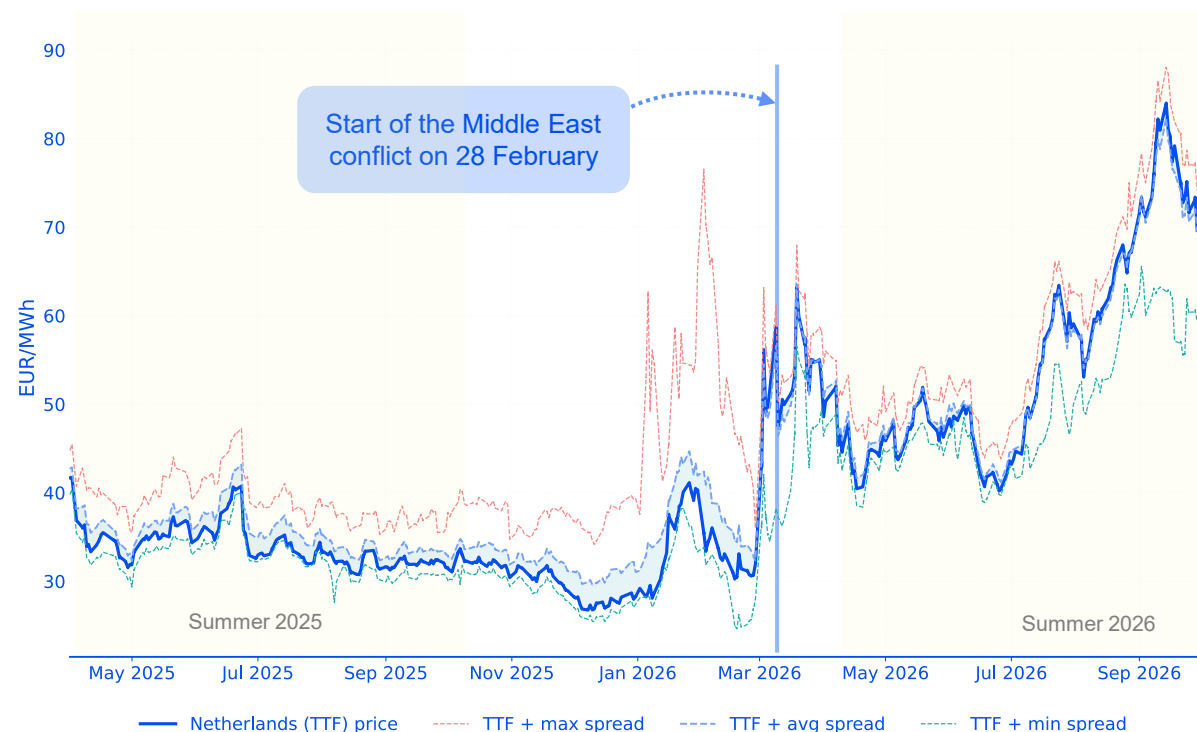
Figure 36: Day-ahead natural gas price hub convergence, selected hubs vs TTF, summer 2025 and summer 2026, % of trading days (left axis), correlation to TTF price (right axis)



Annex D: Gas price interval shift compared to last summer

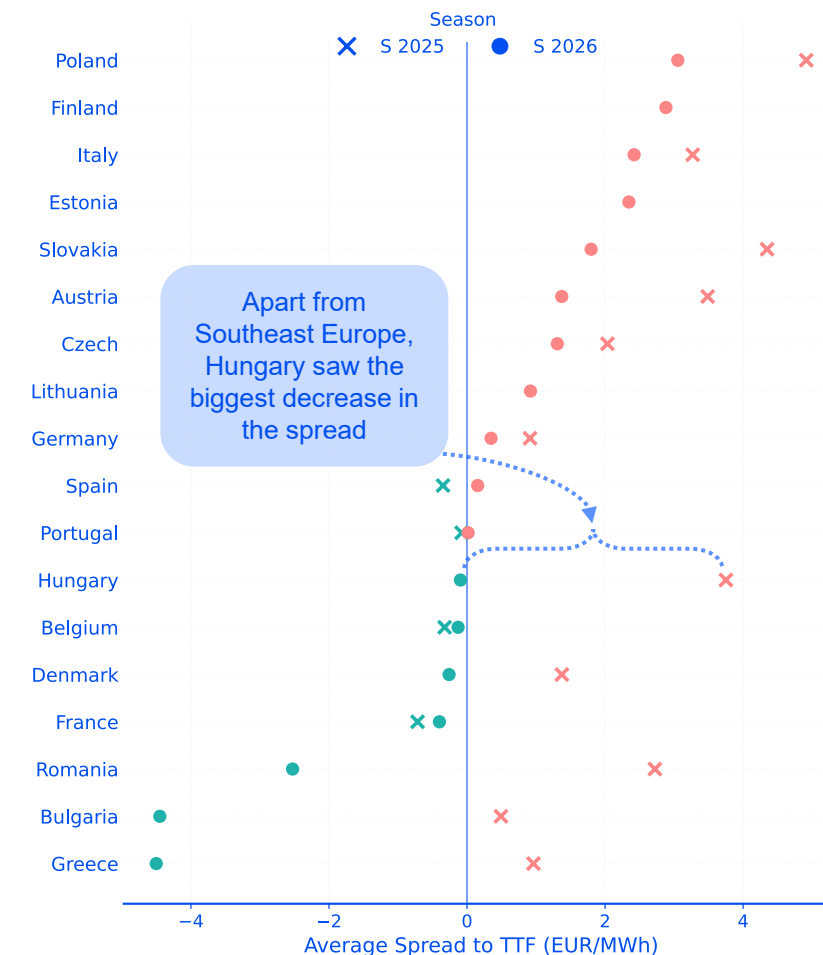
Generally, positive price spreads approached the TTF price, while some markets have shifted sharply into negative territory.

Figure 37: Range between hubs with cheapest and most expensive spot price, April 2025–September 2026 (EUR/MWh)



The start of the Middle East conflict led to a tightening of the spreads to the TTF apart from Southeast Europe where the spread flipped to negative territory.

Figure 38: Average spread to TTF day-ahead, summer 2026 vs summer 2025 (EUR/MWh)



Slide 5

Sweden is excluded from the figure because its gas storage capacity is very small. Finland, Malta, Cyprus, and other countries are omitted for simplicity. Edges indicate borders with cross-border gas transmission capacity. Countries below 90% may still comply with the Storage Regulation due to regulatory flexibilities; for example, Slovakia, Hungary, Austria, and Latvia have a target of 35% of their average annual gas consumption under Article 6(a).2 of the Gas Storage Regulation.

Slide 9

The number of days until depletion at maximum withdrawal capacity has been calculated based on the corresponding deliverability curves. This approach accounts for the decline in withdrawal capacity as the level of gas in storage decreases. At the EU level, the deliverability curve has been calculated as a capacity-weighted average of the national deliverability curves.

Peak day demand refers to one day of exceptionally high demand, occurring with a statistical probability of once in 20 years.

Slide 10 Slide 11

The analysis is based on a mass balance at EU level assuming the following factors: Russian pipeline gas imports at last winter's level; other pipeline imports at their maximum over the last three winters; Domestic production at its maximum over the last two winters; low exports to UA; and EU storage filling level at 72% on 1 October. The technical feasibility of the storage trajectories has not been checked. Demand reduction could be attributed to mild weather, response to high prices (which could lead even to demand destruction), or non-market-based measures such as demand curtailment.

The base case scenario assumes 25/26 demand and end-of-winter storage levels as reference. If Strait of Hormuz closure persists, this scenario would require higher EU hub prices to attract record-high LNG supplies.

Slide 31

During the hotter first week of August, Germany did not exhibit the possibly expected demand reaction to the temperature. Despite higher temperatures, the average daily load decreased compared to the previous colder week, and the country shifted from being a net importer to a net exporter. Generation from gas and coal remained flat, wind decreased, and while solar naturally rose, it mirrored trends in other countries. We believe that this unexpected absence of a response to temperature could have been driven by the holiday period in August offsetting weather-related demand, combined with regional temperature variations and limited residential cooling adoption.