entsog
european network
of transmission system operators
for gas

# ENTSOG
# SUMMER SUPPLY REVIEW

2025

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# Executive Summary

ENTSOG has completed the review of the European gas status for Summer 2025, April to September. ENTSOG's seasonal reviews aim at a deeper comprehension of development in supply and demand in the previous seasons, as well as the identification of trends that cannot be captured at the national or regional levels.

Summer Supply Reviews help to build experience and a solid background for the assumptions considered in the Summer Supply Outlook. Such knowledge is also factored in the recurrent Ten-Year Network Development Plan (TYNDP) process to ensure a consistent improvement of ENTSOG reports and is used for the development of ENTSOG maps.

The key findings of this review are:

- Total gas demand values in the Summer 2025 declined 1.6% (1229 TWh to 1209 TWh) in the EU and 3.9% (1483 TWh to 1426 TWh) in Europe[1] compared to Summer 2024. Gas-fired power generation in the EU was slightly higher in 2025, driven by elevated decline in hydropower output resulting in increased reliance on flexible gas plants.
- The Summer 2025 starting and ending storage levels were 34% and 83%, respectively, compared to 59% and 94% in Summer 2024.
- In Summer 2025, European gas production reached approximately 340 TWh, moderately increasing by 3% compared to the previous summer.
- The total supply to European countries was 2009 TWh in Summer 2025, a 5.6% increase compared to 2024, mainly driven by lower starting storage levels requiring more refilling, supported by higher LNG imports, and improved global supply availability.
- The share of LNG supply increased from 29.2% in Summer 2024 to 37.8% in 2025 (555 to 759 TWh).
- The gas supply by pipelines was 910 TWh in Summer 2025, with a share of 45.3% in the total supply mix. Norway remained the biggest pipeline gas supplier.
- Average TTF front-month prices in Q2 2025 were approximately 35.6 €/MWh, reflecting firm storage injection demand, continued supply diversification and strong LNG inflows into the EU market. Prices decreased in late spring as LNG availability improved and demand remained moderate. In Q3 2025, average TTF prices declined to roughly 33.0 €/MWh. Price volatility remained contained, with no sustained price spikes observed during the summer period.

Detailed data for the cross-border flows is available on the ENTSOG Transparency Platform[2].

[1] EU 27 + Bosnia and Herzegovina, Moldova, North Macedonia, Serbia, Switzerland, and United Kingdom.
[2] Transparency Platform: https://transparency.entsog.eu/

The figures in the review report are available on dashboard SR2025.dashboard.pbix[3].

Stakeholders' comments on this seasonal analysis are welcome and would enable ENTSOG to improve its understanding of seasonal and market dynamics influencing the use of infrastructure. Comments would serve as a basis for the Research & Development plan and be beneficial to the quality of further reports.

*Disclaimer: the source of data if not indicated otherwise is ENTSOG members.*

[3] SR2025.dashboard.pbix: https://www.entsog.eu/outlooks-reviews

## Introduction

As part of the ENTSOG Annual Work Programme 2026, this review is published on a voluntary basis and aims at providing an overview of the supply and demand balance during Summer 2025. The report presents the internal analysis carried out by ENTSOG for the purpose of developing both the seasonal Supply Outlooks and the Union-wide TYNDP.

The report aims at providing an overview of European trends that cannot be captured at national or regional levels, as well as building experience for future reports. It should not be seen as a direct review of previous Seasonal Outlooks, since outlooks do not aim at providing forecasts, but rather as a way to better explore infrastructure resilience in view of actual past trends.

Regarding European dynamics, the report highlights the wide heterogeneity of national demand profiles and supply sources. Among other factors, these differences are linked for example to physical reasons such as climate, demand breakdown or producing field flexibility.

ENTSOG welcomes stakeholders' feedback on this seasonal analysis as the support to a deeper understanding of the market dynamics influencing the gas infrastructure usage. Such inputs serve as a basis for the Research & Development activities, supporting the continuous improvement of analytical approaches and modelling techniques for future deliverables.

## Seasonal and Market Overview

Different events on the European gas market caused fluctuations in the supply and demand balance from April to September 2025. The major ones in that period were:

- The seasonal (summer to winter) gas price spread in summer 2025 was narrow or marginal, which dampened the typical market incentive to inject gas into storage.
- The Commission proposed a 2-year prolongation of the Gas Storage Regulation[4] in March 2025. The Amending Regulation (EU) 2025/1733, adopted on 10 September 2025, maintained the 90 % fill target but introduced flexibility: Member States can meet the target anytime between 1 October and 1 December, gas filling trajectories are indicative, deviations are allowed under difficult market or technical conditions, and the Commission may further adjust the target if market conditions remain unfavourable.
- Storage levels remained below the 90% target set out in Regulation (EU) 2022/1032, reaching a seasonal peak of 83% on 12 October 2025.
- LNG imports remained strong during Summer 2025, despite episodes of diversion to Asia, ensuring continued deliveries to European terminals[5].
- The termination of Russian gas transit via Ukraine on 1 January 2025 marked the end of a long-standing supply corridor into Central and South-Eastern Europe. Despite the logistical adjustments required, regional market impacts remained contained due to improved infrastructure flexibility and high LNG availability across Europe. While certain countries experienced temporary supply pattern changes and higher utilisation of alternative routes, overall European gas supply levels remained stable, and no systemic disruptions were observed during the period.
- Norwegian gas infrastructure maintenance and occasional unplanned outages periodically reduced export flows to Europe. Planned works at key processing facilities led to temporary reductions in export nominations during parts of the year, while isolated incidents, such as a power outage at Kollsnes, caused short-term supply interruptions. Although impacts were largely absorbed by strong LNG inflows and system flexibility, these events highlighted the continued importance of Norwegian supply reliability for European gas markets.
- During 2025, the EU progressed towards a full phase-out of remaining Russian gas imports by 2027, further reducing the role of Russian pipeline gas and LNG in the European supply mix. As residual volumes are concentrated in specific regions and entry points, the transition is expected to trigger additional adjustments in regional flow patterns, infrastructure utilisation and seasonal balancing dynamics. The gradual removal of these

[4] Regulation (EU) 2022/1032 of the European Parliament and of the Council of 29 June 2022 amending Regulations (EU) 2017/1938 and (EC) No 715/2009 with regard to gas storage

[5] EC Quarterly report On European gas markets, issue 2 covering Q2 2025 and issue 3 covering Q3

volumes will increase reliance on LNG, Norwegian pipeline gas and intra-EU interconnections, reinforcing the importance of infrastructure flexibility and coordinated storage filling strategies.

A significant number of new gas infrastructure facilities were commissioned over the past year, with a notable emphasis on the expansion of new LNG import capacities. Details of the newly commissioned/upgraded infrastructure in Summer 2025 can be found in Table 1. It should be noted that some large-capacity infrastructure has also been decommissioned, namely the Le Havre LNG terminal, which had not regasified any cargo since Summer 2024.

**Table 1 - Newly commissioned/upgraded infrastructure in Summer 2025**

| Country | Project Name | Start date | Capacity |
|---|---|---|---|
| Germany | Wilhelmshaven 2 LNG terminal (Excelerate "Excelsior" FSRU) | August 2025 (commercial ops) | ~1.9 bcm in 2025; planned ramp-up to ~4.6 bcm in 2026–27 |
| Italy | Ravenna FSRU "BW Singapore" | May 2025 (commercial ops) | ~5 bcm/year added capacity |
| Croatia | Krk LNG terminal – capacity expansion via additional regasification module | Oct 2025 (commissioning/testing) | Capacity increased from 3.9 to 6.1 bcm/year |

## Gas Prices at European Hubs

**Figure 1** shows the evolution of gas prices in Europe during Summer 2025, presenting the day-ahead average prices evolution for various EU gas hubs. A consistent trend among the majority of EU hubs is readily apparent, all displaying similar general behaviours.

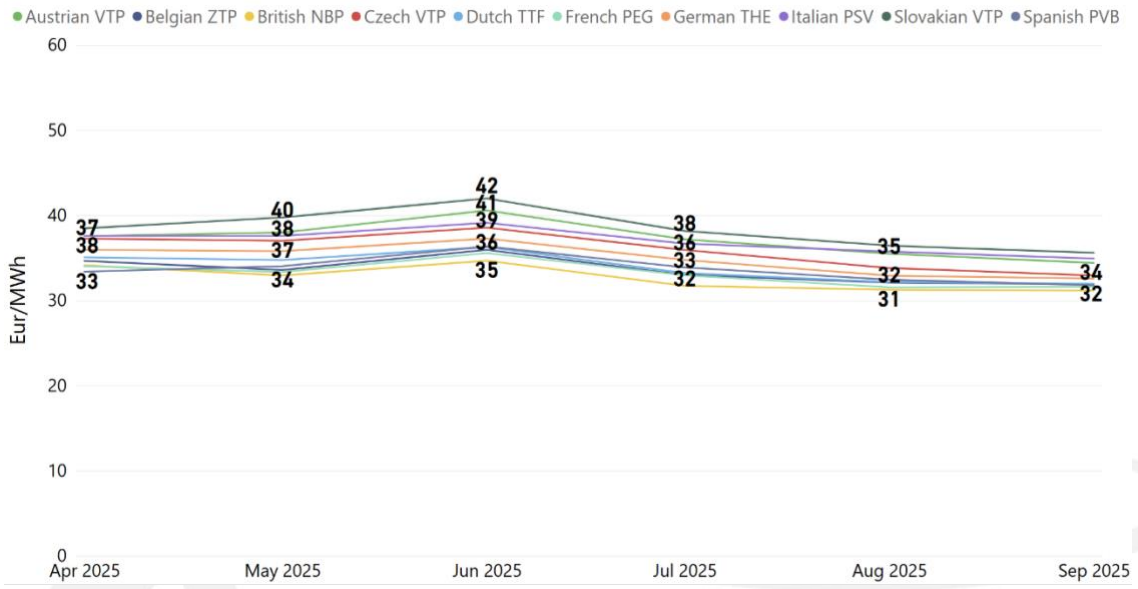



**Figure 1 - Day-ahead average gas price at EU gas hubs[6] (see SR2025.dashboard.pbix)**

- EU wholesale day-ahead monthly average gas prices ranged from the lowest at 31.25 €/MWh (British NBP) to the highest at 41.97 €/MWh (Slovakian VTP).
- Average TTF prices in Q2 2025 were approximately 35.6 €/MWh, reflecting firm storage injection demand, continued supply diversification and strong LNG inflows into the EU market. Prices eased towards late spring as LNG availability improved and demand remained moderate. In Q3 2025, average TTF prices declined to roughly 33.0 €/MWh, supported by ample LNG supply and limited summer demand pressures. Overall, wholesale price volatility remained contained relative to the crisis years, with no sustained price spikes observed during the summer period[7].

## Demand

**Figures 2** and **3** together with **Table 2** represent the total gas demand change in Summer 2025 compared to Summer 2024, by country. It should be noted that in the data for Moldova, only the right bank of the Dniester river is considered (meaning that Transnistria is not included).

[6] Source: Global S&P (Platts)

[7] EC Quarterly report On European gas markets, issue 2 covering Q2 2025 and issue 3 covering Q3

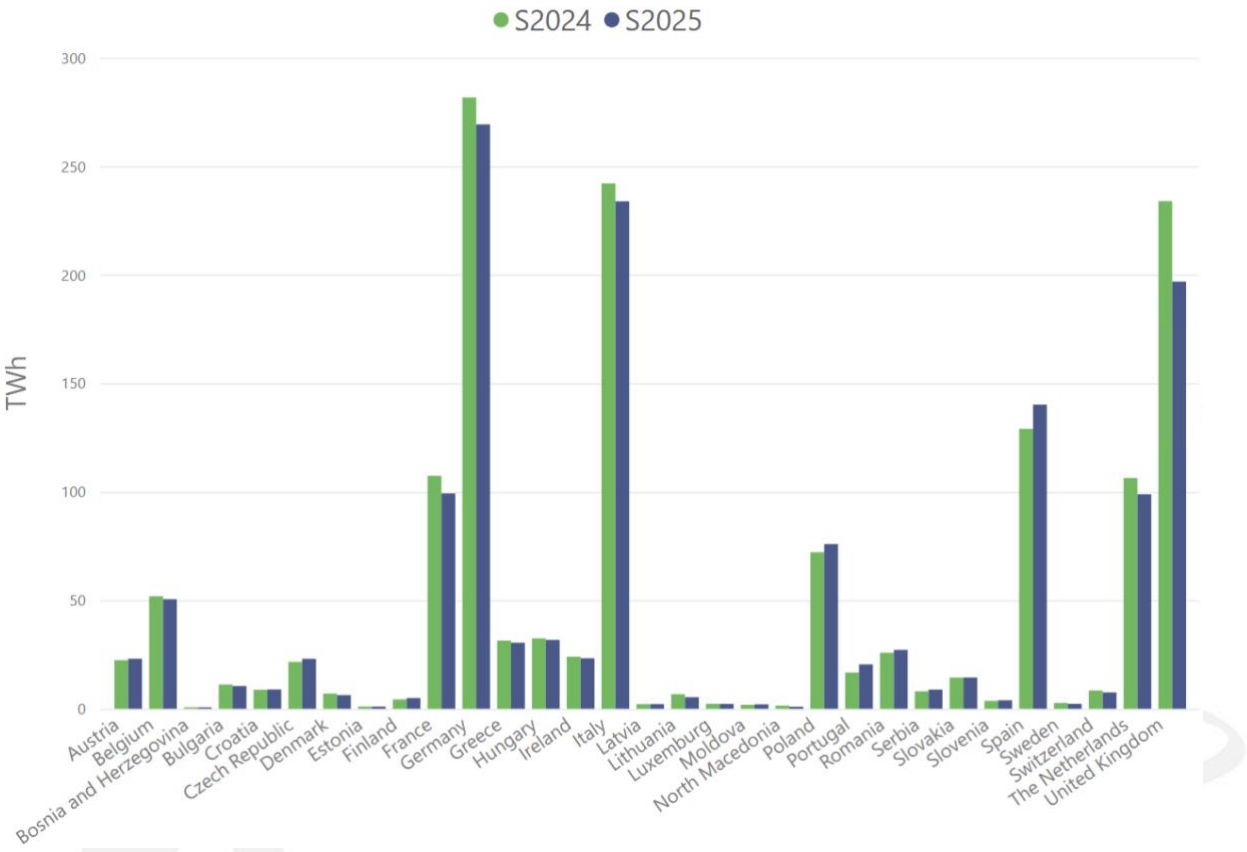



**Figure 2 - Total gas demand by country. Summer 2024 vs 2025 (see SR2025.dashboard.pbix)**

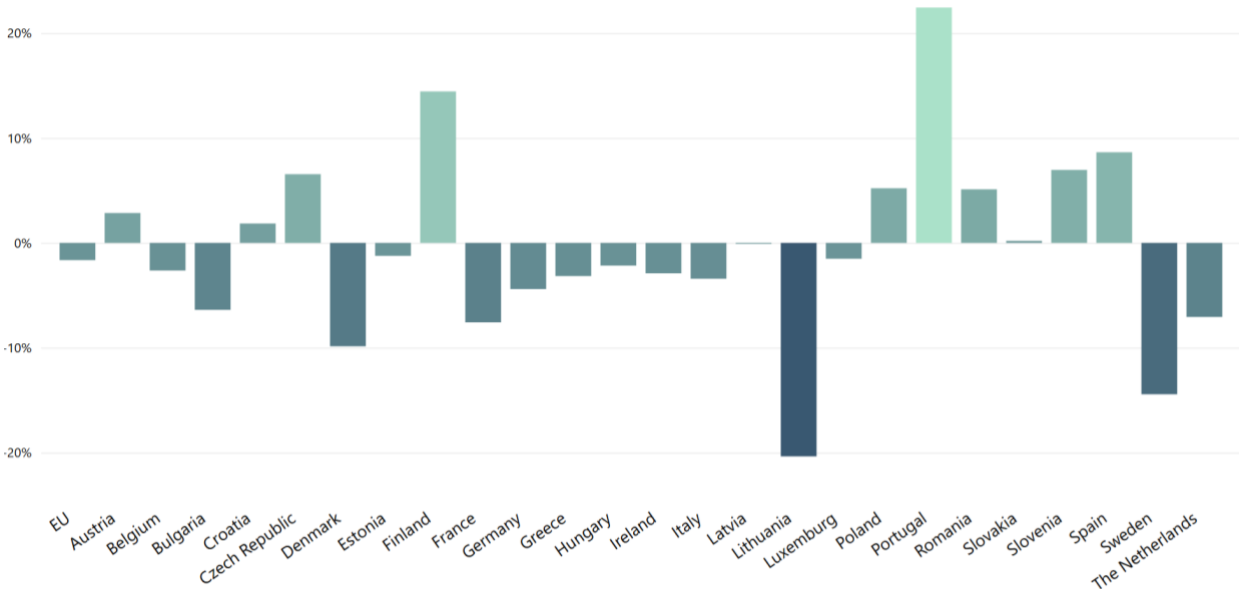



**Figure 3 – Demand variation by country in EU %. Summer 2024 vs 2025 (see SR2025.dashboard.pbix)**

**Table 2 – Demand per country for Summer 2024 and Summer 2025**

| Country | Demand S2024, TWh | Demand S2025, TWh | Difference, % |
|---|---|---|---|
| Austria | 22.42 | 23.06 | 2.85% |
| Belgium | 51.86 | 50.49 | -2.63% |
| Bulgaria | 11.19 | 10.48 | -6.38% |
| Croatia | 8.75 | 8.91 | 1.85% |
| Czech Republic | 21.61 | 23.02 | 6.55% |
| Denmark | 7.01 | 6.31 | -9.86% |
| Estonia | 1.03 | 1.01 | -1.23% |
| Finland | 4.33 | 4.95 | 14.44% |
| France | 107.36 | 99.23 | -7.58% |
| Germany | 281.70 | 269.30 | -4.40% |
| Greece | 31.44 | 30.44 | -3.16% |
| Hungary | 32.44 | 31.74 | -2.16% |
| Ireland | 23.99 | 23.29 | -2.90% |
| Italy | 242.13 | 233.86 | -3.42% |
| Latvia | 2.14 | 2.14 | -0.05% |
| Lithuania | 6.72 | 5.35 | -20.36% |
| Luxembourg | 2.27 | 2.23 | -1.51% |
| Poland | 72.14 | 75.90 | 5.21% |
| Portugal | 16.71 | 20.46 | 22.44% |
| Romania | 25.83 | 27.15 | 5.11% |
| Slovakia | 14.40 | 14.42 | 0.19% |
| Slovenia | 3.68 | 3.93 | 6.96% |
| Spain | 129.01 | 140.17 | 8.64% |
| Sweden | 2.66 | 2.28 | -14.44% |
| The Netherlands | 106.34 | 98.83 | -7.06% |
| **EU** | **1229.14** | **1208.97** | **-1.64%** |
| Bosnia and Herzegovina | 0.43 | 0.47 | 9.90% |
| Moldova | 0.00 | 2.05 | 0.00% |
| North Macedonia | 1.45 | 0.95 | -34.45% |
| Serbia | 8.04 | 8.85 | 10.10% |
| Switzerland | 8.44 | 7.55 | -10.49% |
| United Kingdom | 233.94 | 196.86 | -15.85% |
| **Europe** | **1483.27** | **1425.71** | **-3.88%** |

- Around one third of Member States recorded demand reductions above 5% (Figure 3), with the most pronounced declines in Lithuania (around -20%), Sweden (-14%) and Denmark (-10%). These decreases were partly offset by strong increases in Portugal (above +20%), Finland (around +14%), Spain (close to +9%) and several Central and Eastern European countries such as the Czech Republic, Poland, Romania and Slovenia (+5-7%).

- Total Summer gas demand declined by 1.6% in the EU (from 1229 TWh to 1209 TWh) and by 3.9% in Europe overall (from 1483 TWh to 1426 TWh). Gas-fired power generation remained broadly stable, with a moderate increase compared to the previous summer, amid continued strong renewable output, reflecting demand recovery in some Member States (**Table 2** and **Figure 4**).

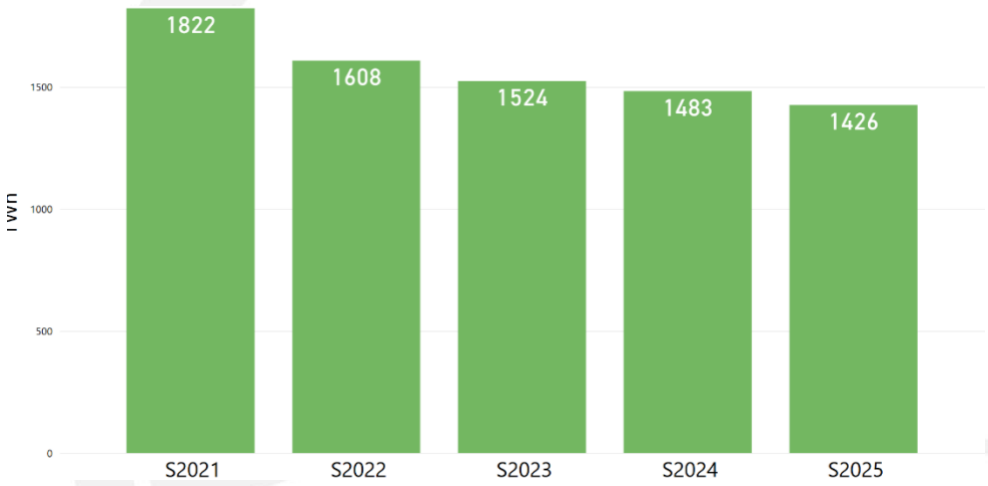



**Figure 4 - Historical gas demand. Summers 2021 – 2025 (see SR2025.dashboard.pbix)**

**Figure 5a** represents gas consumption for power generation per country during Summer 2025, while **Figure 5b** illustrates the total consumption in Europe over the last 5 Summers (only countries for which data are available for all 5 seasons were considered, excluding for example Poland and the United Kingdom).

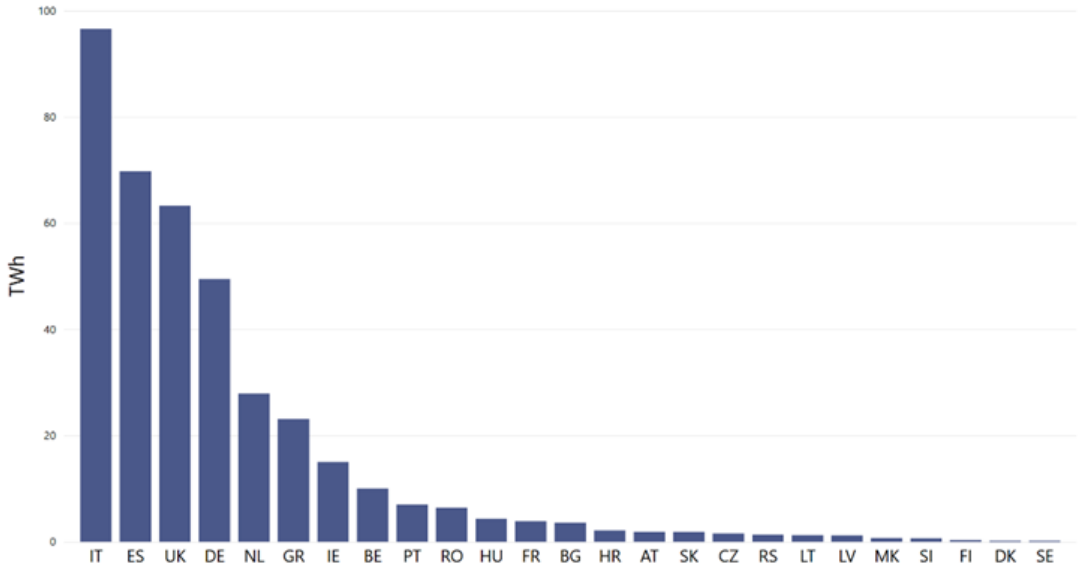



**Figure 5a - Gas consumption per country for power generation[8]. Summer 2025 (see SR2025.dashboard.pbix)**

[8] The graph refers to the countries for which demand breakdown is available (with the exception of Poland).

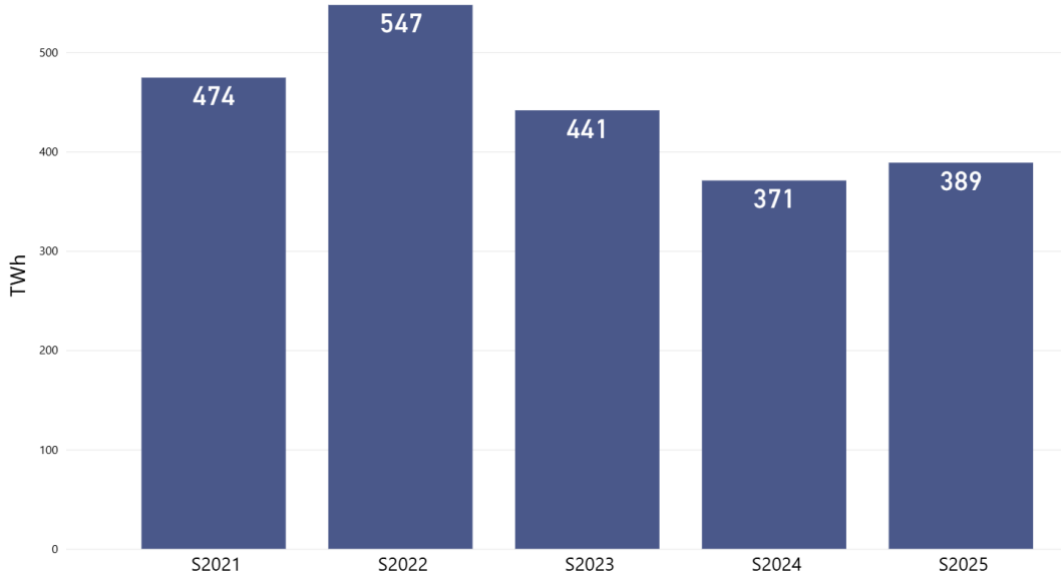



**Figure 5b – Aggregated gas consumption for power generation. Summers 2021 – 2025 (see SR2025.dashboard.pbix)**

## > Seasonal electricity power generation ($TWh_e$)[9]

In Summer 2025, electricity produced from gas increased slightly to 182 TWhe (from 174 TWhe in Summer 2024). Coal (hard coal and lignite) generation decreased to 107 TWhe (from 121 TWhe in 2024). Overall fossil-fuel-based generation was around 301 TWhe, remaining within the range observed in the previous summer season, reflecting the sustainable expansion of renewable electricity and structurally lower reliance on thermal generation in the power mix.

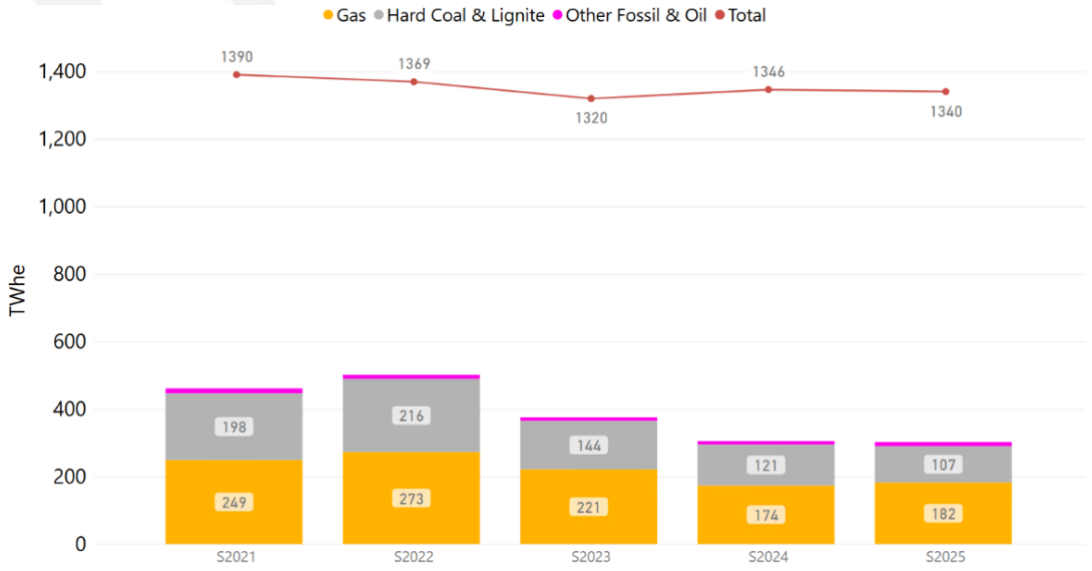



**Figure 6 – Fossil fuel sources in the electricity mix. Summers 2020 - 2025 (see SR2025.dashboard.pbix)**

[9] Source: ENTSOG elaboration based on ENTSO-E Transparency Platform data and DUKES (**D**igest of **UK E**nergy **S**tatistics) data. The gas demand to achieve this electricity production is higher in thermal terms due to the gas-fired power plants' efficiency factor.

- Based on data from the ENTSO-E Transparency Platform (EU data) and DUKES (Digest of UK Energy Statistics data), total electricity generation remained stable compared to the previous summer (a slight 0.4% decrease).
- Gas increased from 12.9 to 13.6% of the electricity generation in Summer 2025, as shown in **Figure 7**. A higher contribution from solar generation and a slightly higher wind output, while nuclear remained broadly stable, helped compensate for the marginal decline in hydro and coal-fired generation.

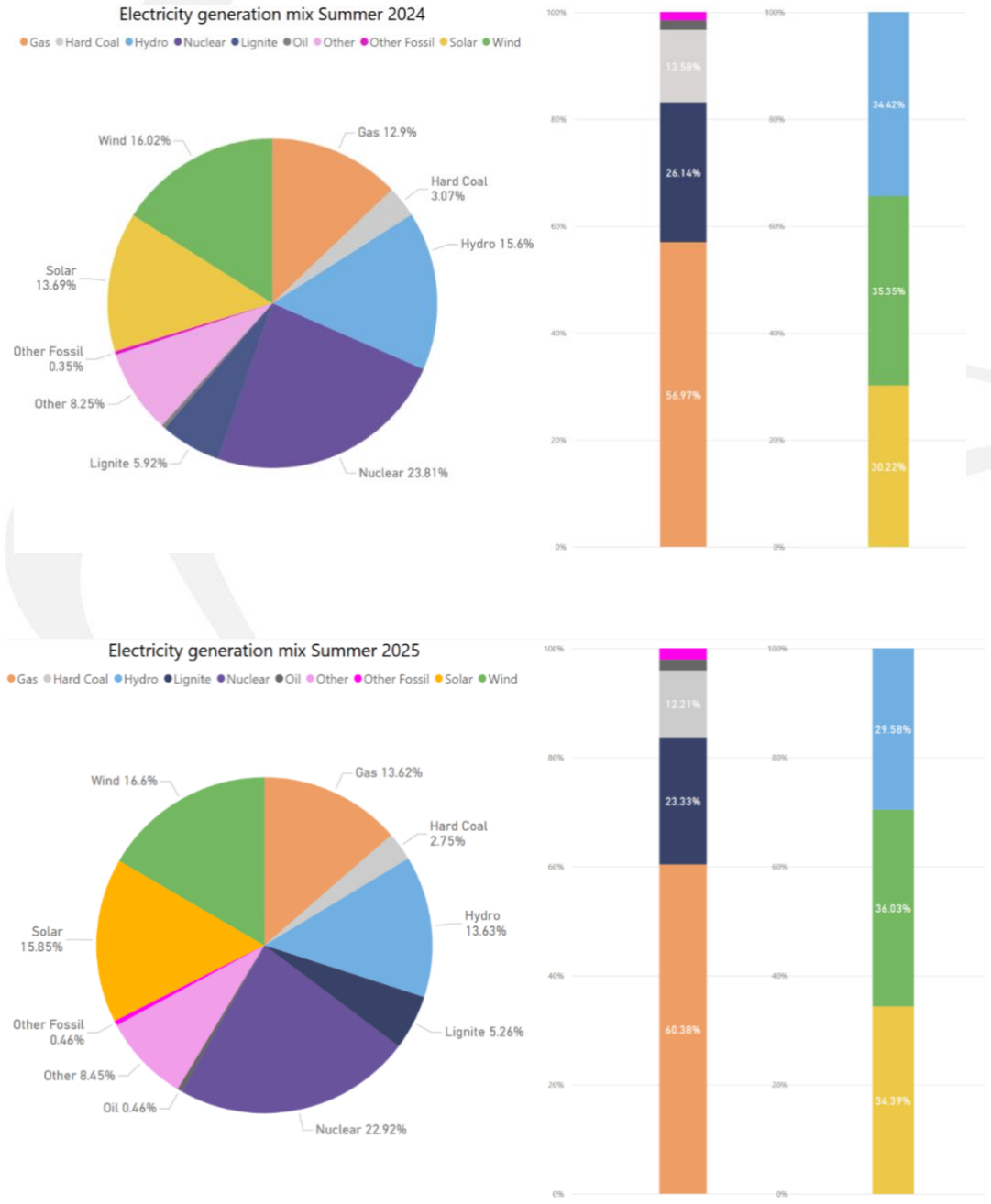



**Figure 7 - Electricity power generation mix. Summer 2024 vs 2025 (see SR2025.dashboard.pbix)**

**Figure 8** shows the electricity generation mix for Summers 2021–2025.

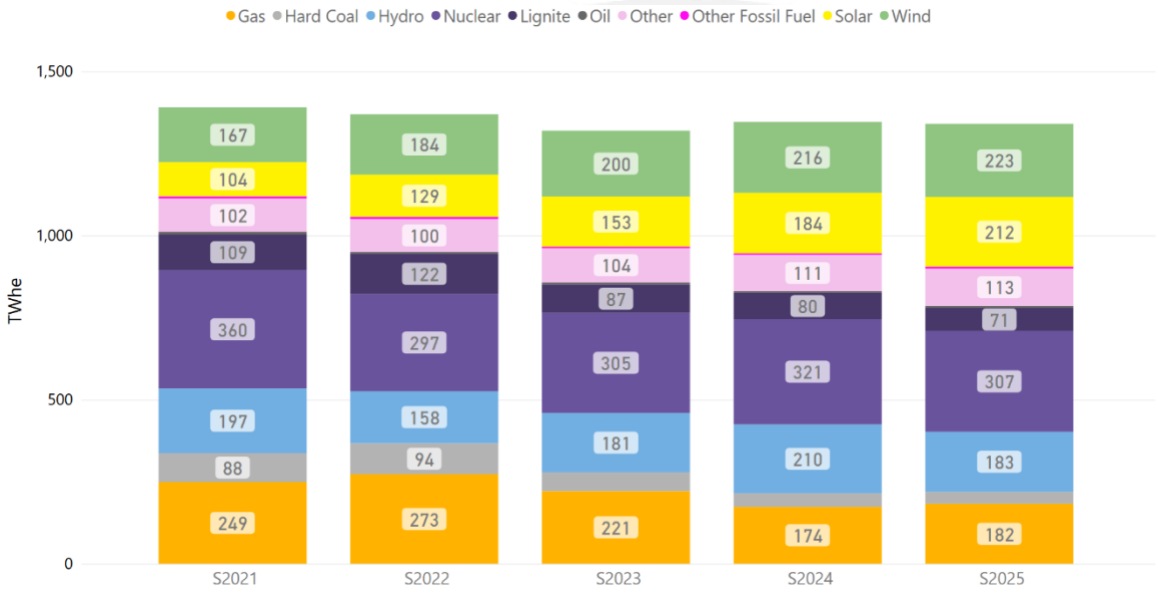



**Figure 8 - Historical electricity generation mix S2021 - S2025 (see SR2025.dashboard.pbix)**

## Supply

**Figure 9** shows the evolution of the aggregated gas supply in European countries during Summer 2025.

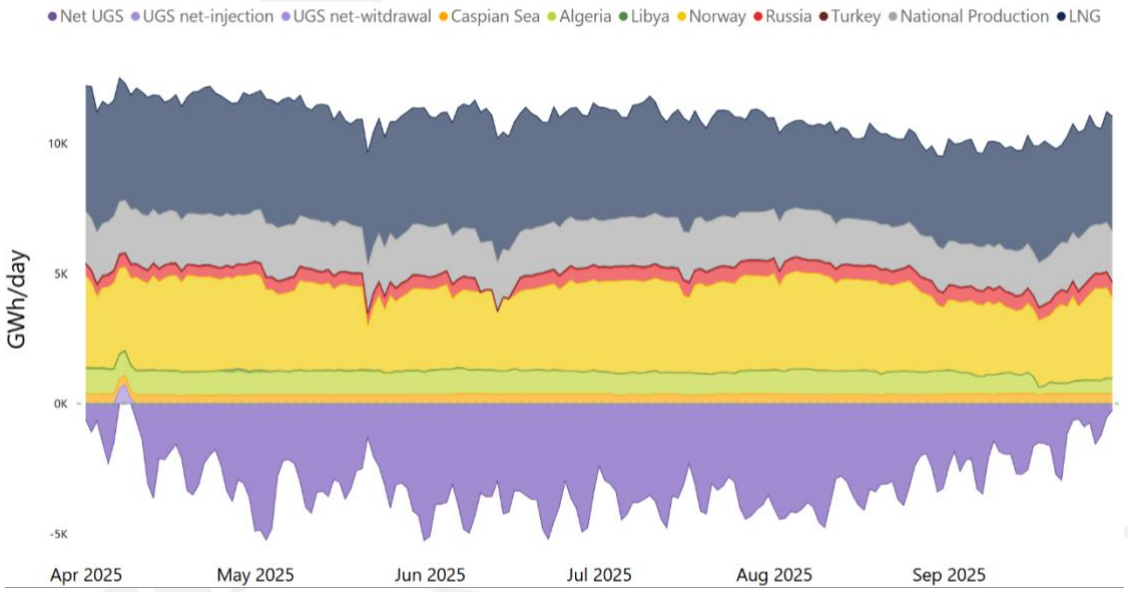



**Figure 9 - Summer 2025 supply profile (see SR2025.dashboard.pbix)**

**Figure 10** shows the seasonal supply by source, including national production, during Summers 2024 and 2025.

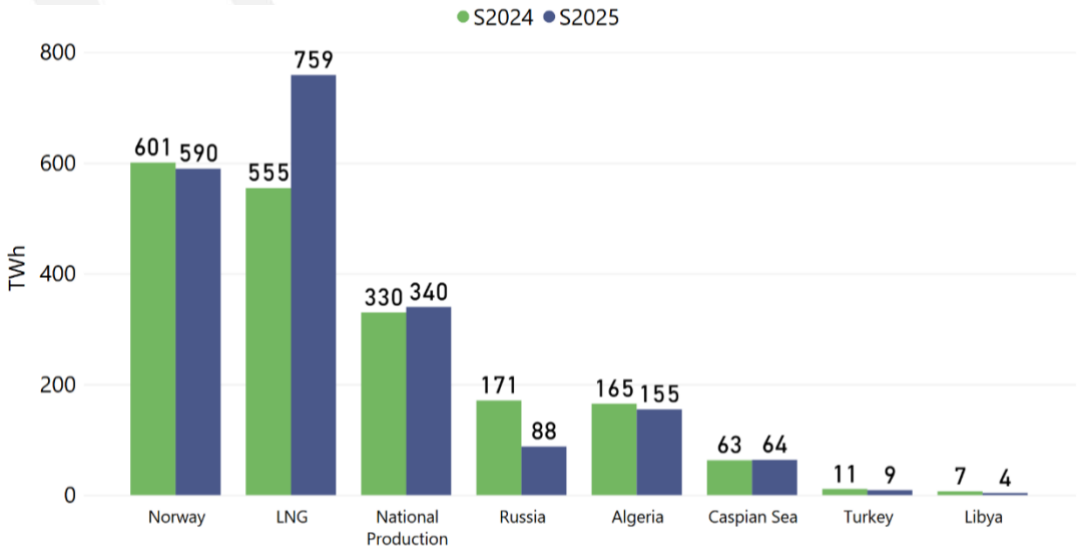



**Figure 10 - Total supply by source. Summer 2024 vs 2025 (see SR2025.dashboard.pbix)**

- In Summer 2025, European gas production reached approximately 340 TWh, a slight 3% increase compared to the previous Summer.

- LNG supply rose significantly by 37% in Summer 2025, from 555 to 759 TWh. **Figure 11** shows the total LNG import into European countries. France retained its position as the EU's largest LNG importer (151 TWh), followed by the Netherlands (133 TWh), Italy (112 TWh) and Spain (104 TWh).

| Country | LNG 2024, TWh | LNG 2025, TWh | Difference, % |
|---|---|---|---|
| France | 117 | 151 | 29% |
| The Netherlands | 97 | 133 | 38% |
| Italy | 72 | 112 | 56% |
| Spain | 82 | 104 | 27% |
| Belgium | 35 | 70 | 101% |
| Germany | 34 | 62 | 81% |
| Poland | 36 | 43 | 20% |
| Portugal | 24 | 23 | -2% |
| United Kingdom | 17 | 18 | 3% |
| Lithuania | 11 | 14 | 31% |
| Greece | 6 | 12 | 112% |
| Croatia | 13 | 11 | -13% |
| Finland | 12 | 6 | -51% |

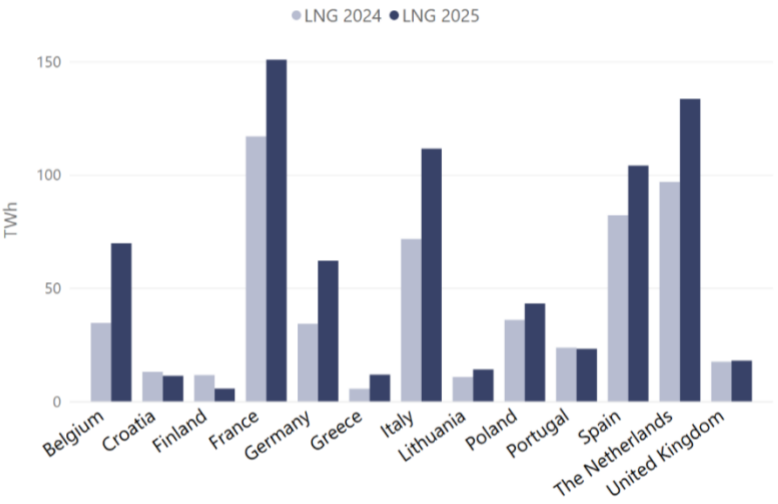



**Figure 11 - LNG supply per country. Summer 2024 vs 2025 (see SR2025.dashboard.pbix)**

- Gas supply from Norway decreased slightly by 1.8% during Summer 2025, from 601 to 590 TWh, despite heavy maintenance and unplanned outages.
- Compared to Summer 2024, pipeline gas supply from Algeria decreased by around 6% to 155 TWh in Summer 2025. Meanwhile, the supply from the Caspian Sea remained almost stable at 64 TWh, while supply from Libya dropped from 7 to 4 TWh.
- Since April 2023, flows from Turkey have been delivered through the IP Strandzha (BG) / Malkoclar (TR) route, which was previously used in the reverse direction for exports from the EU to Turkey. Network users have been receiving gas via the Turkish gas grid from LNG terminals, which are entirely or partially operated by Turkish operator BOTAS.
- Russian pipeline gas supply to Europe totalled 88 TWh in Summer 2025, a significant 49% decrease compared to the previous year.

**Figure 12** shows Russian pipeline gas flows in Summers 2024 and 2025. Russian deliveries into Europe by pipeline were limited to flows via TurkStream.

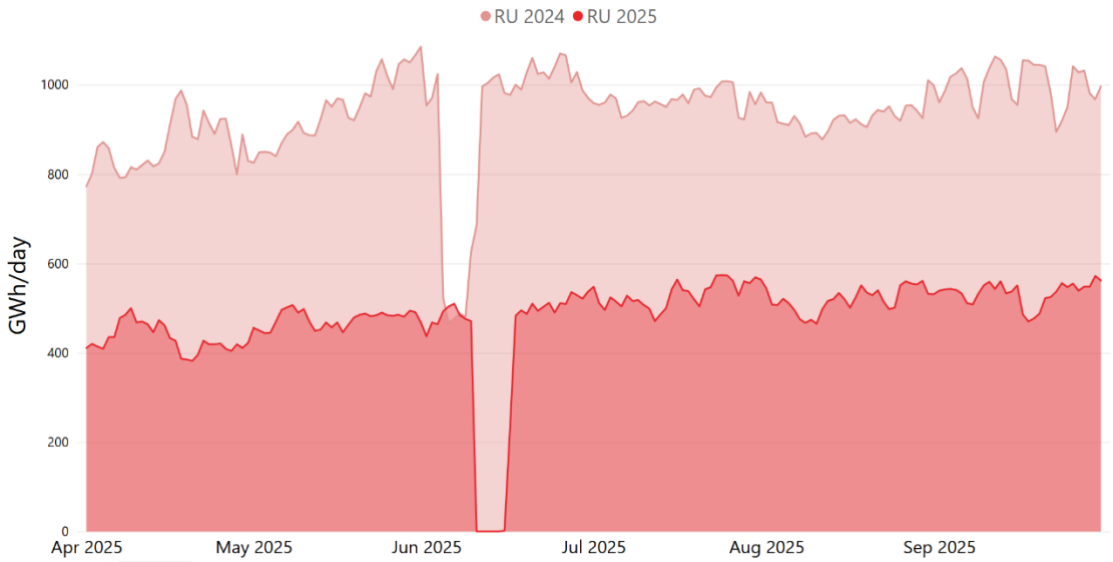


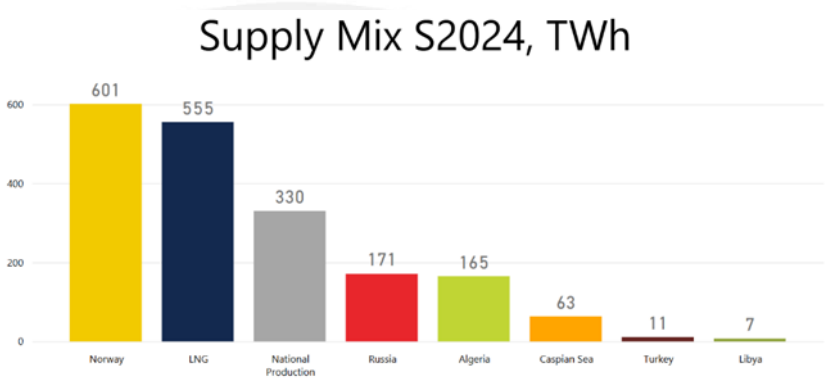

**Figure 12 - Russian pipeline gas flows. Summer 2024 vs 2025 (see SR2025.dashboard.pbix)**

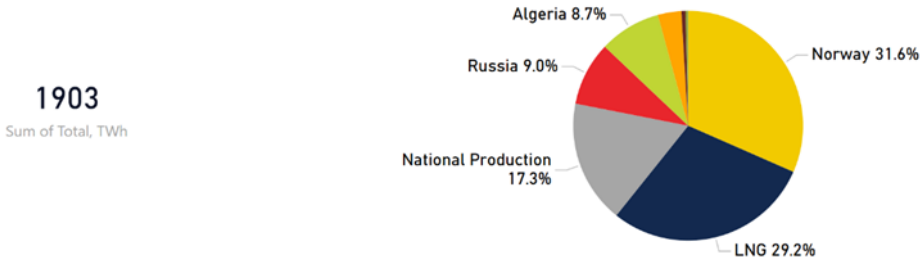
**Figure 13** shows the supply mix in Summer 2024 compared to Summer 2025.

- The total supply to European countries was 2009 TWh in Summer 2025, a 5.6% increase compared to the previous Summer, mainly driven by lower storage levels at the start of the injection season requiring stronger refilling, supported by higher LNG imports.
- The gas supply by pipeline was 910 TWh in Summer 2025, with a share of 45.3% in total supply mix. Norway remained the biggest pipeline gas supplier, albeit with its share decreasing from 32% to 29%, followed by supply from North Africa – both Algeria and Libya – with a share of 8%. The share of gas supplied to Europe from Russia via pipeline decreased from 9% in the summer 2024 to 4% in 2025.
- The share of LNG supply increased from 29% in Summer 2024 to 38% in Summer 2025. Higher LNG inflows into Europe were supported by Europe's growing competitiveness for flexible LNG cargoes, with European LNG imports increasing markedly in 2025 while Asian LNG demand moderated, alongside relatively stable global LNG supply conditions during the year[10].

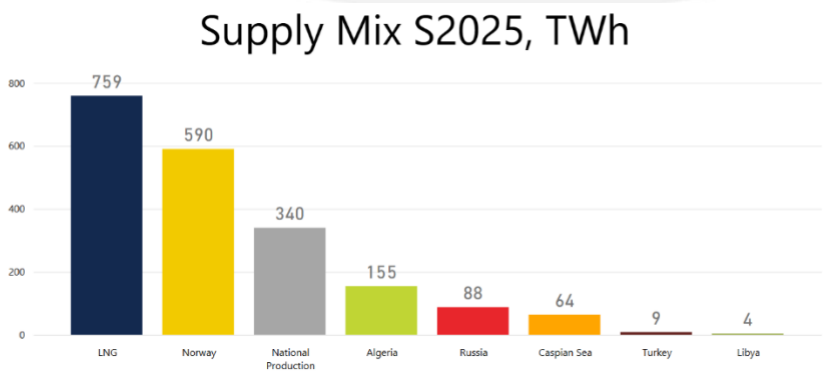
[10] IEA Gas Market Report, Q2-2025

| Supply source | Total, TWh |
|---|---|
| Algeria | 165 |
| Caspian Sea | 63 |
| Libya | 7 |
| LNG | 555 |
| National Production | 330 |
| Norway | 601 |
| Russia | 171 |
| Turkey | 11 |




| Supply source | Total, TWh |
|---|---|
| Algeria | 155 |
| Caspian Sea | 64 |
| Libya | 4 |
| LNG | 759 |
| National Production | 340 |
| Norway | 590 |
| Russia | 88 |
| Turkey | 9 |



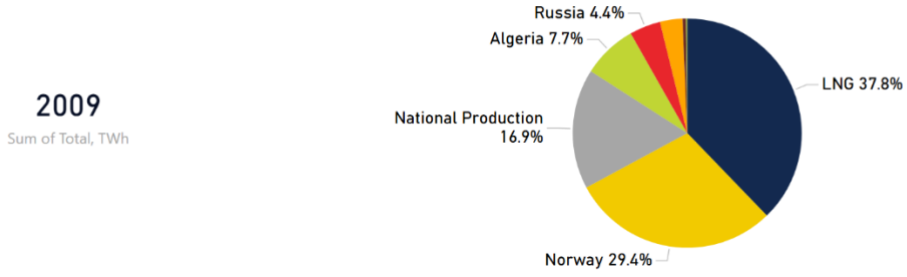




**Figure 13 – Supply mix. Summer 2024 vs 2025 (see SR2025.dashboard.pbix)**

**Figure 14** shows the evolution of the different supply sources during the last five Summers.

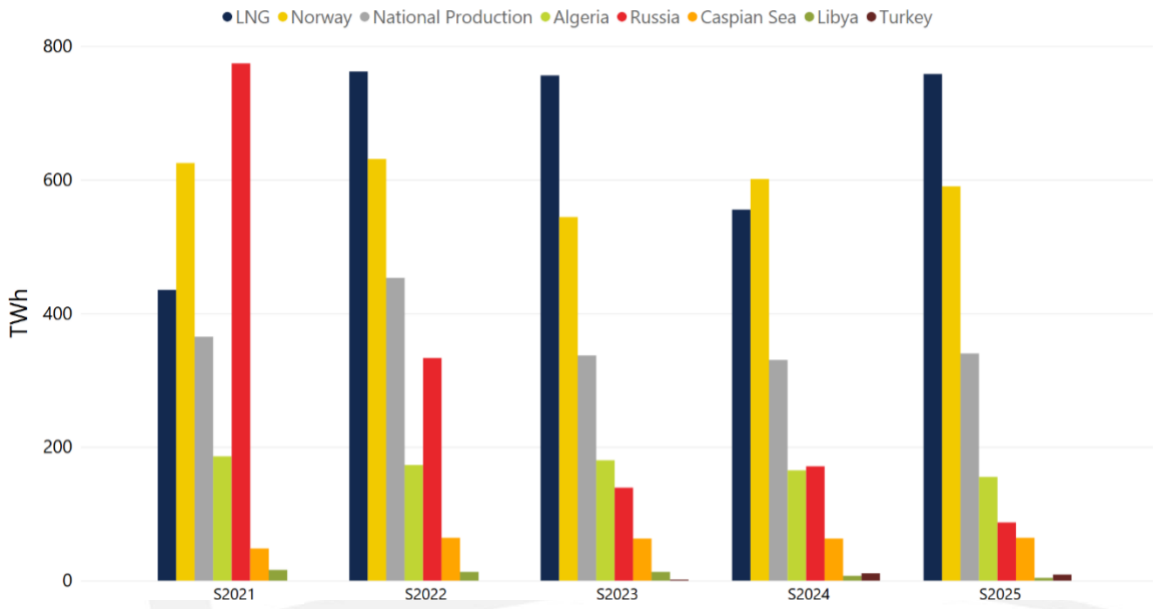



Figure 14 - Evolution of gas supplies. Summer 2021 – 2025 (see SR2025.dashboard.pbix)

**Figure 15** shows exports from the EU countries.

- The exports were 52 TWh to Serbia, 38 TWh to Ukraine, 5 TWh to Morocco, 5 TWh to Moldova and around 1 TWh to North Macedonia.

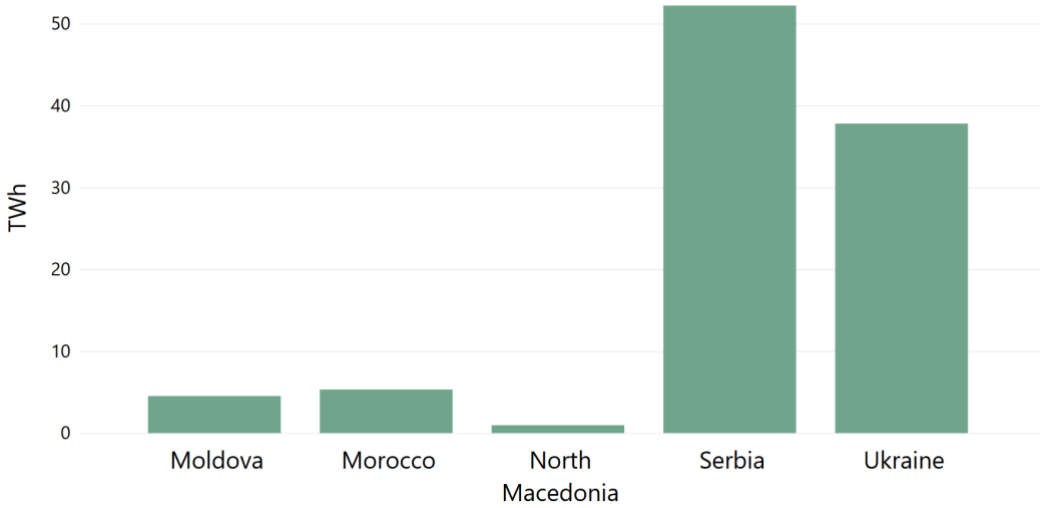



Figure 15 - Exports from the EU countries. Summer 2025 (see SR2025.dashboard.pbix)

- The termination of Russian gas transit via Ukraine on 1 January 2025 marked the end of a long-standing supply corridor into Central and South-Eastern Europe. Affected countries adjusted their supply portfolios through rerouting mechanisms and enhanced use of interconnections. Slovakia increased imports via the southern corridor (TurkStream) and strengthened reverse flows from neighbouring markets, while Austria compensated reduced eastern inflows through higher LNG-based deliveries and western entry points. Hungary maintained supply security through a combination of southern route imports and regional interconnection flows, reflecting increased reliance on non-Ukrainian transit corridors. Moldova, which had previously depended on Ukrainian transit routes, further diversified its supply sources, including increased reliance on reverse flows and regional market integration.
- Despite the logistical adjustments required, regional market impacts remained contained due to improved infrastructure flexibility and high LNG availability across Europe. While certain countries experienced temporary supply pattern changes and higher utilisation of alternative routes, overall European gas supply levels remained stable, and no systemic disruptions were observed during the period. Detailed information on import flows to Europe and internal cross-border flows is available on ENTSOG's European Gas Flow dashboard.

## Underground Gas Storage

The evolution of the injection season depends on various factors, notably the willingness of shippers (or other entities designated by Member States) to inject gas, and the actual amount of gas available for injection. These factors are interconnected with price signals, such as the summer/winter spread, as well as the EU national laws mandating injections, climatic effects influencing temperature-driven consumption, and the economic considerations of end-users.

**Figure 16** compares the stock level evolution curve of the last 5 summers.

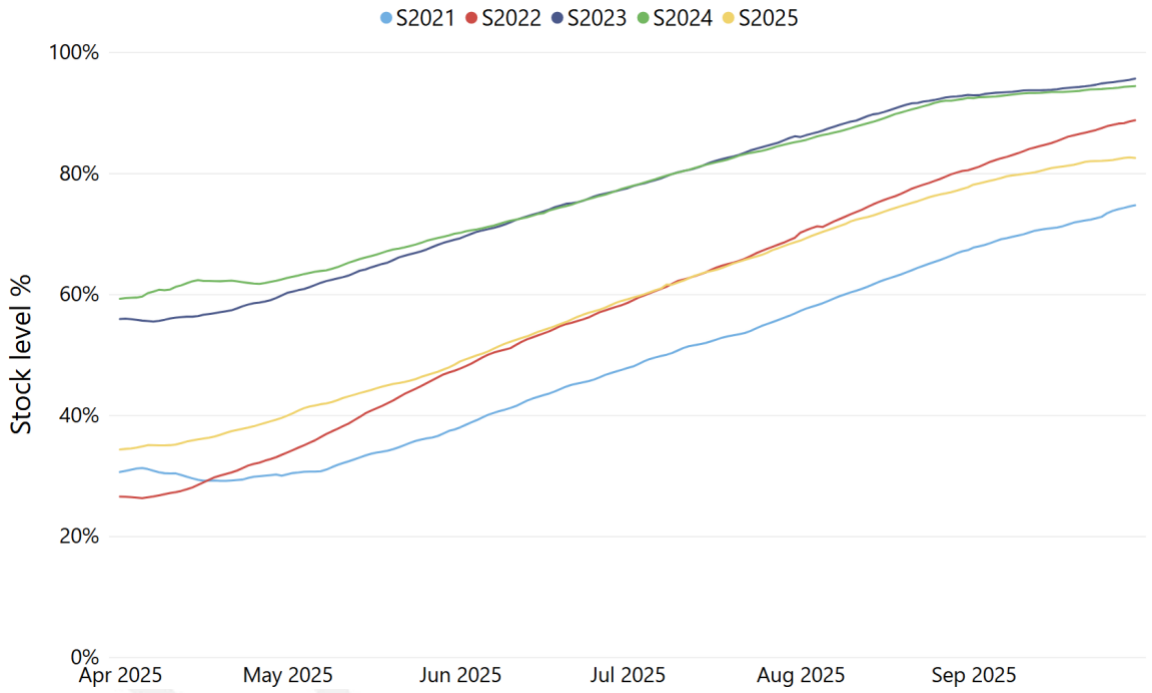



**Figure 16 - Evolution of UGS stock level. Summer 2021 – 2025[11] (see SR2025.dashboard.pbix)**

- According to data from AGSI+ (the gas storage platform operated by GIE), the EU stock level at the beginning of the injection season was fairly low at 34% full (388 TWh).
- On 1 October 2025, the EU gas storage facilities reached 83% on average or 942 TWh, higher only than in Summer 2021 over the past five years, due to a comparatively low storage level at the start of the injection season and slower injection rates over the summer.

**Figure 17** shows the storage net-injection and net-withdrawal profile of European storage.

[11] Source: AGSI+

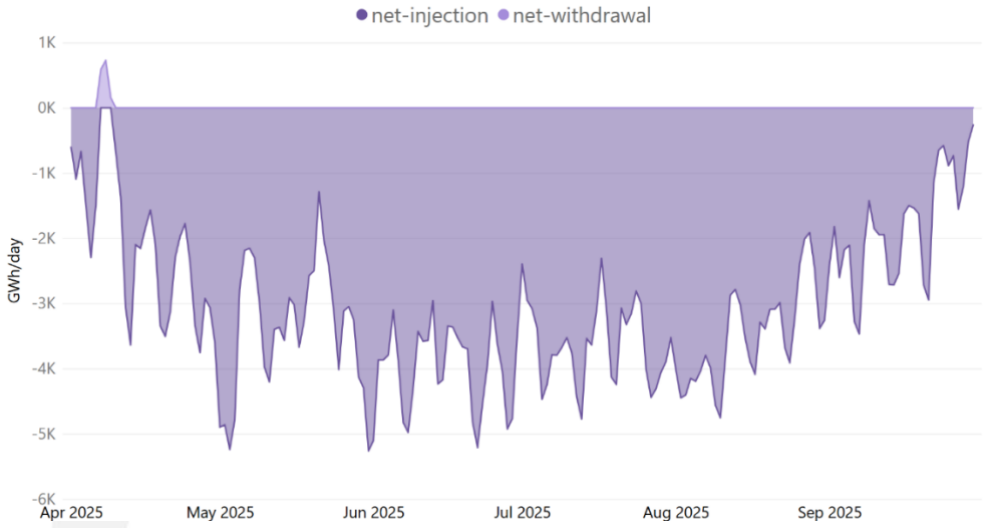



**Figure 17 - UGS net-injection/net-withdrawal profile of European storage. Summer 2025 (see SR2025.dashboard.pbix)**

- The injection season for Summer 2025 started in April and remained active through September. Compared with Summer 2024, daily injection rates were at times more intense in 2025, with several periods reaching close to -5 TWh/day, particularly in late spring and early summer. However, 2025 showed fewer sharp early-season reversals into net withdrawal than 2024, when short but pronounced positive swings were observed. In September 2025, daily net injections were generally smaller in magnitude and closer to balance than in September 2024, when injections remained more sustained and volatile, contributing to the lower end-of-season storage level compared to the previous three summers.

**Figure 18** provides the average net-injection / net-withdrawal and the daily distribution ranges between the lowest and highest injection in GWh/day for every summer season month in 2024 and 2025.

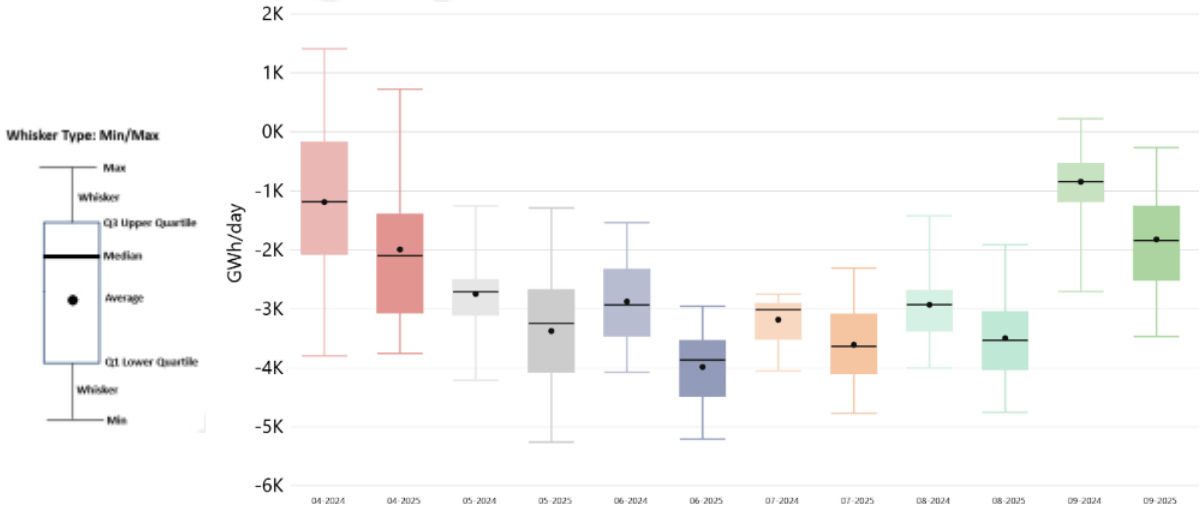



**Figure 18 - UGS daily range of net-injection and net-withdrawal per month. Summer 2024 vs 2025 (see SR2025.dashboard.pbix)**

- During Summer 2025, the monthly net-injection range differed visibly from Summer 2024. While injections in late spring and early summer 2025 (notably May–June) reached more negative daily values than in 2024, the distribution narrowed and shifted closer to balance towards September. In contrast, Summer 2024 displayed a wider and more sustained injection range later in the season. These dynamics are consistent with the lower starting storage level in 2025 (34% vs. around 59% in 2024) and the overall lower end-of-season filling level reached in October 2025.

**Table 3** shows that the highest storage level of 83.2% was reached in mid-October 2025.

**Table 3 - Historical maximum stock levels[12]**

| Summer season | Stock level at 30-Sep | Maximum stock level | Date |
|---|---|---|---|
| S2021 | 74.7% | 77.3% | 21/10/2021 |
| S2022 | 88.7% | 95.7% | 13/11/2022 |
| S2023 | 95.6% | 99.6% | 05/11/2023 |
| S2024 | 94.4% | 97.8% | 28/10/2024 |
| S2025 | 82.5% | 83.2% | 12/10/2025 |

[12] Source: AGSI+

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