

European gas markets: Summer outlook 2025

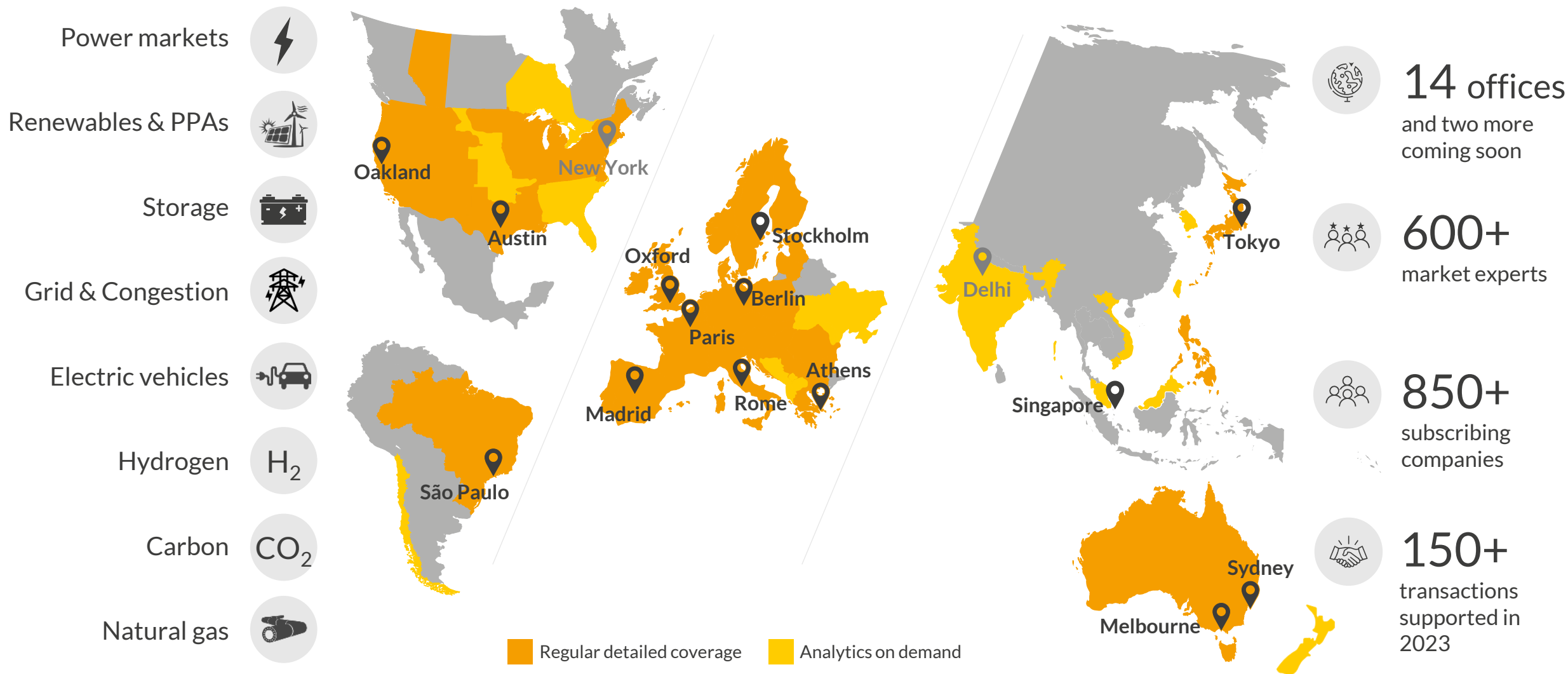
April 2025

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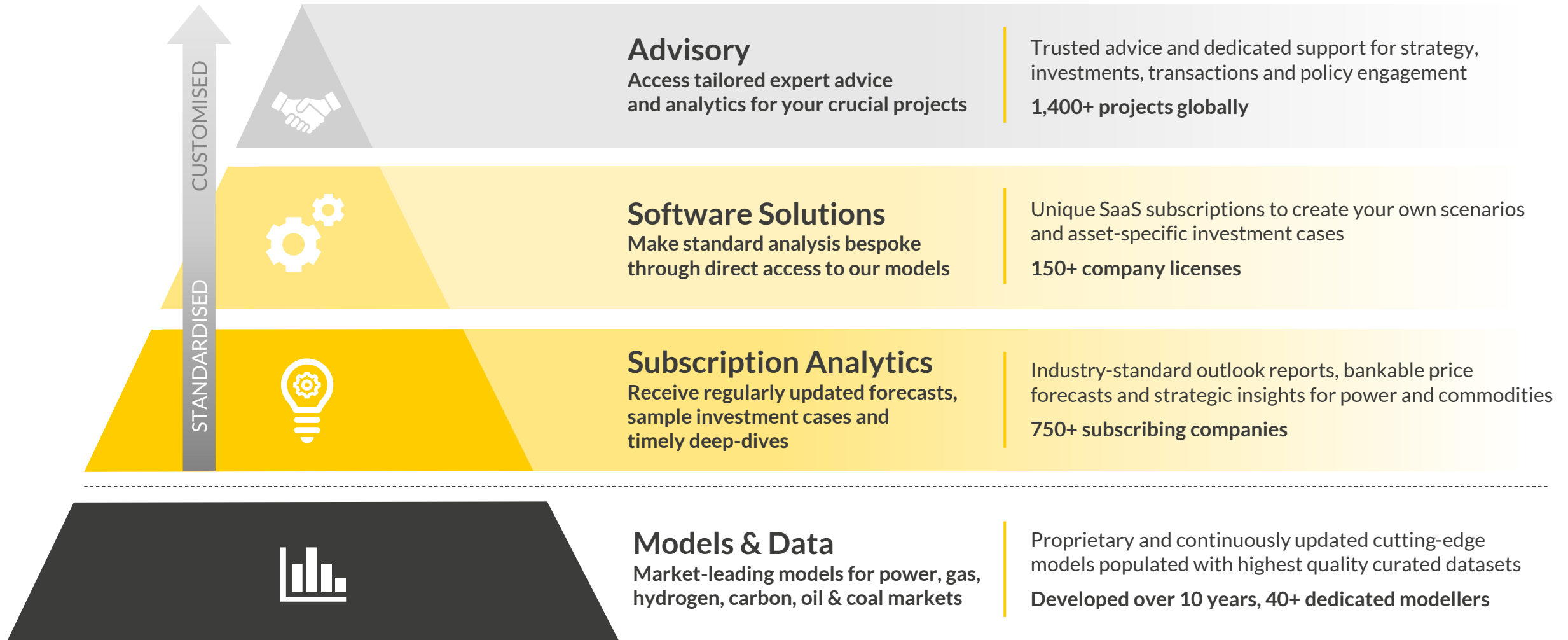
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Policy & regulation



- I. Winter wrap-up: gas storage and key drivers
- II. Summer storage strategy: sourcing and filling gas reserves



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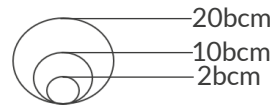
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European storage ended winter 34% full, 25 percentage points (pp) lower than last year amid a cold winter and halt to Ukraine gas transit

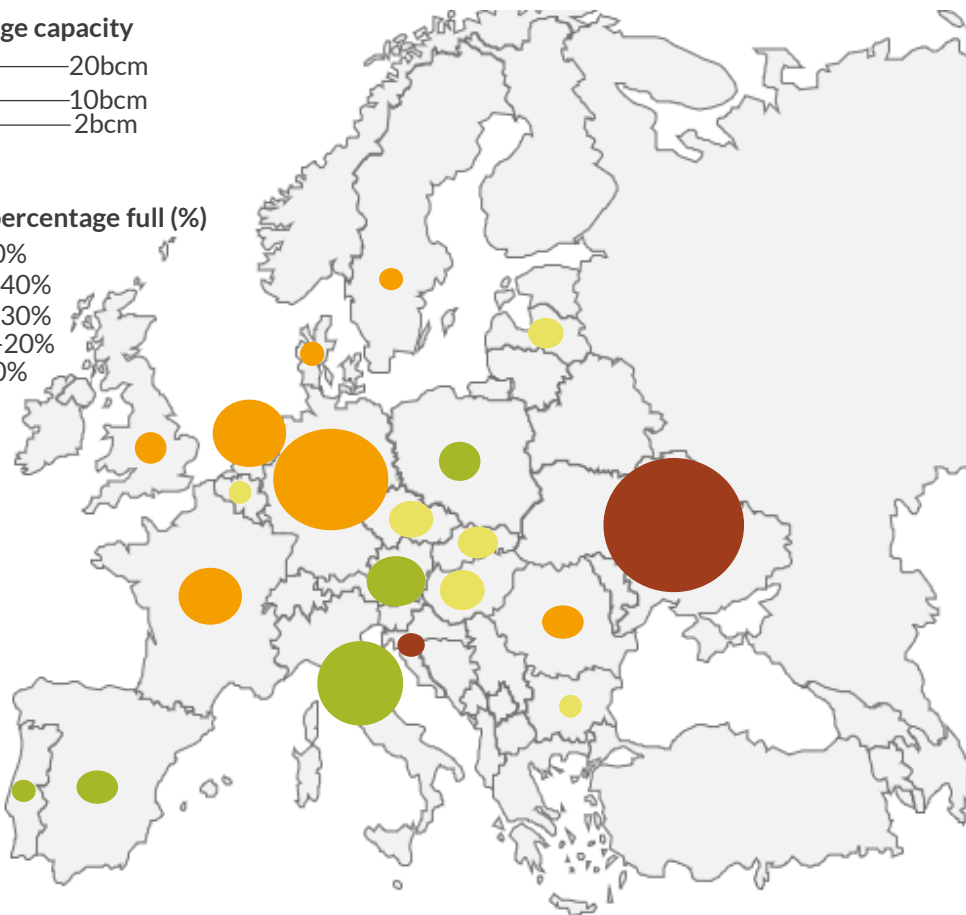
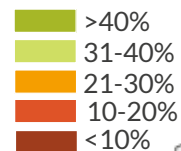
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Europe underground storage capacity and levels

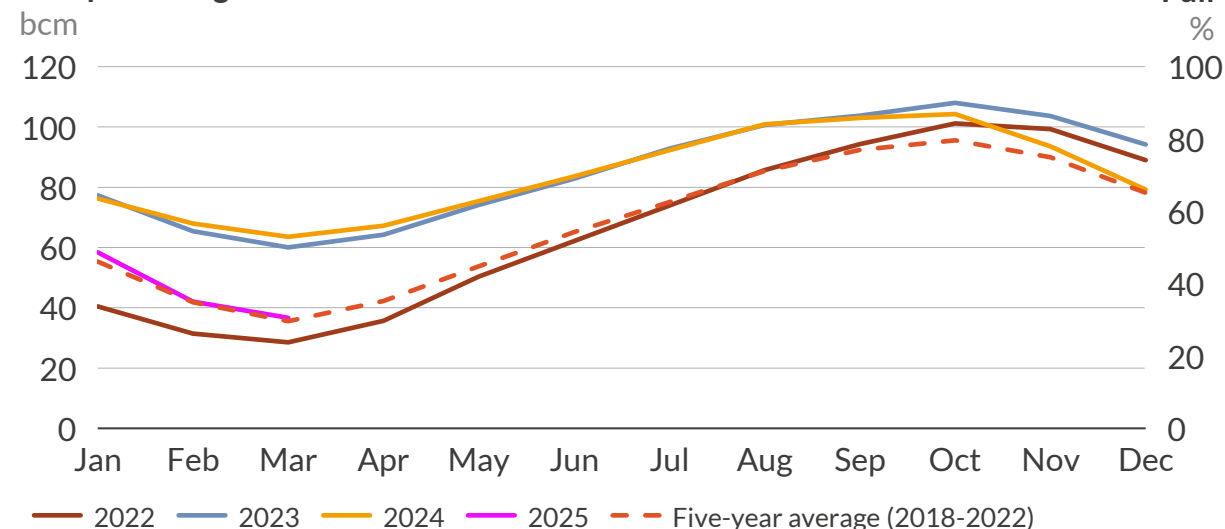
Gas storage capacity



Storage percentage full (%)



Europe underground inventories¹



Key takeaways

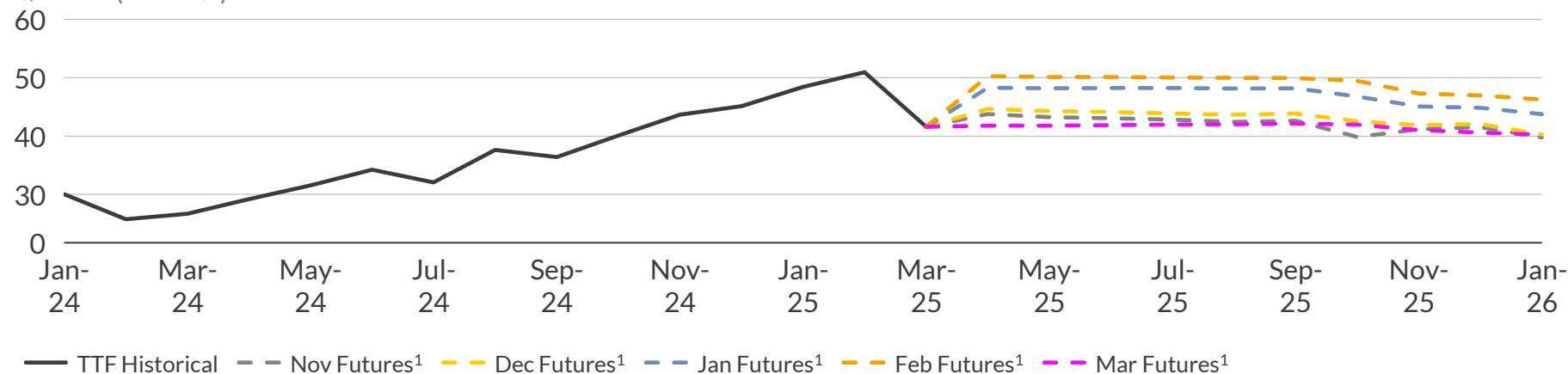
- Europe storage ended the winter at 37bcm, 25pp and 22pp below 2024 and 2023 levels, respectively. Storage levels still remain slightly above the five-year average (2018-2022).
- Cold spells drove up heating demand, as temperatures across Europe averaged 12% lower than the previous winter from Nov-24 to Mar-25.²
- The Netherlands and France failed to meet their 1 February 2025 intermediate targets of 39% and 41%, respectively, but were still within the 5pp leeway allowed by the EU Commission's legislation.

1) Europe includes EU-27 and UK. 2) Average temperatures across Austria, Belgium, France, Denmark, Germany, Greece, Italy, and the Netherlands.

The summer-25 contract's premium to the upcoming winter makes restocking challenging, offering no incentive for storage injections

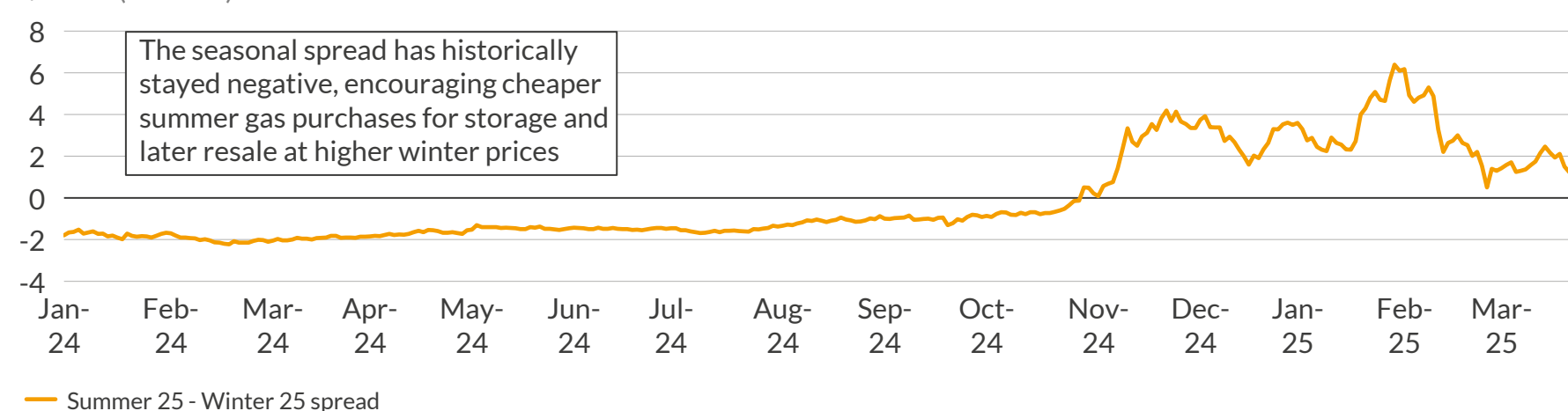
TTF historical and futures

€/MWh (nominal)



TTF summer-25 trades at premium to winter-25

€/MWh (nominal)

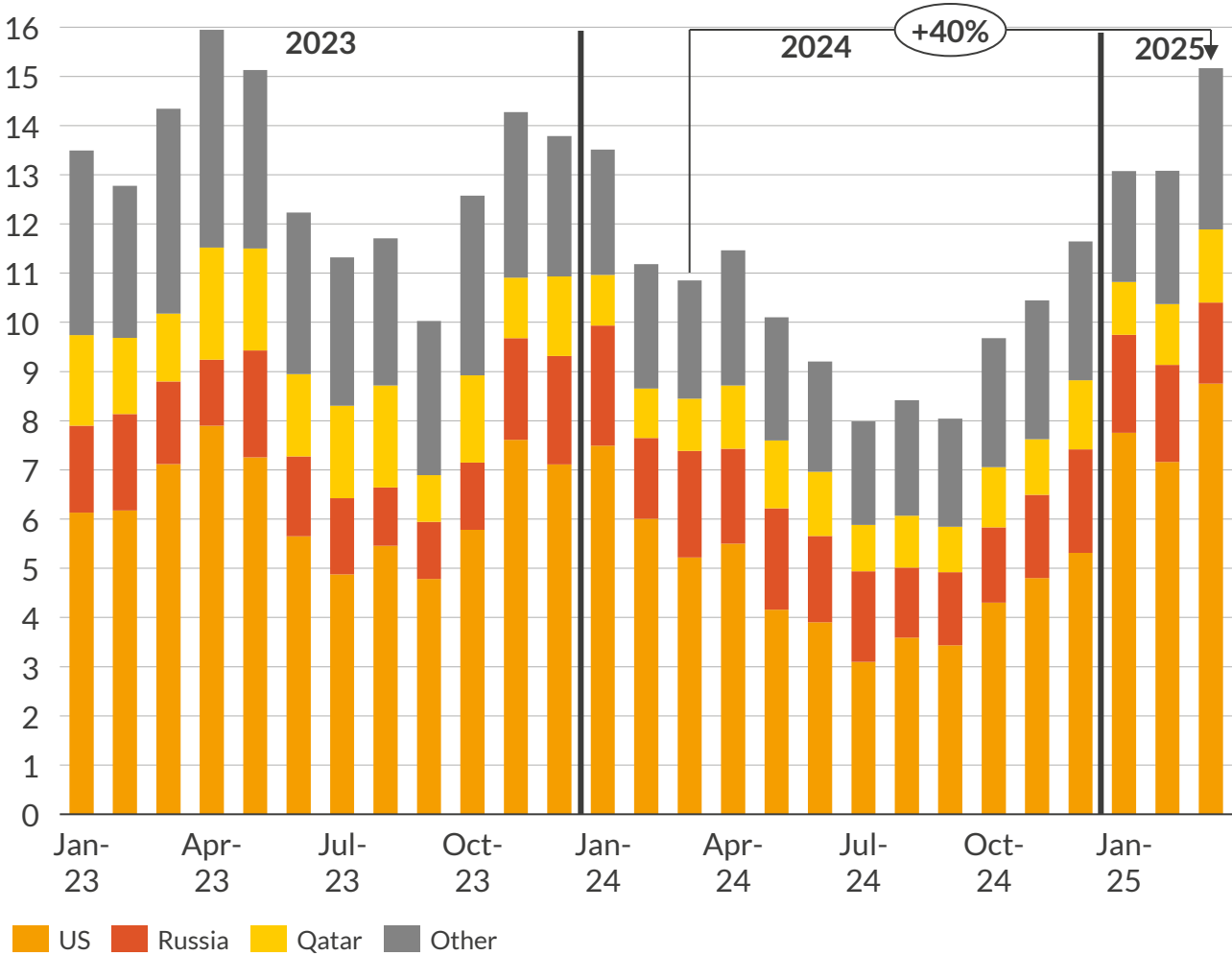


1) Futures are calculated by taking the average of the month.

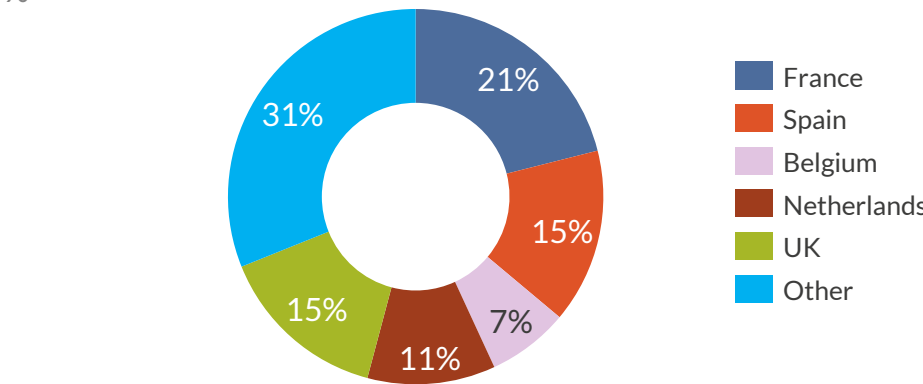
- European gas markets ended their year-long rally in March amidst ceasefire negotiations and milder weather.
- From 1 Nov, the summer-25 contract began trading at a premium to winter-25, widening to +6.4 €/MWh by 30 Jan.
- This reflected expectations of strong summer import demand driven by low stocks and by the loss of Russian supplies via Ukraine.
- The seasonal spread has recently narrowed with potential flexibility in mandated EU storage targets.
- Even if the summer contract dipped slightly below the front-winter price, it may still be insufficient to cover variable injection fees, making the operation commercially unviable.

LNG imports were muted in Nov-24 and Dec-24 with heavy reliance on storage withdrawals, but rebounded in Q1 2025

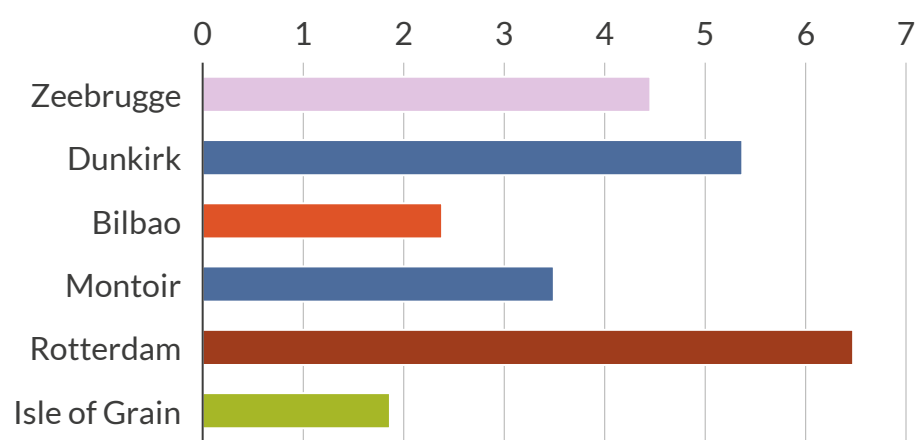
European¹ LNG imports by origin
bcm



European¹ destinations for LNG in winter-24/25
%



LNG flows to key ports in winter-24/25
bcm



1) Europe includes EU-27 and the UK.

Individual country derogations allow flexibility during the injection season




 Derogation 1  Derogation 2



Flexibilities, exemptions, and individual country derogations

1. Storage levels within 5pp of the target are considered compliant with the regulation across all EU countries.
2. Derogation 1: When storage capacity is disproportionately high compared to consumption, gas storage targets can be reduced to a volume equivalent to 35% of the average annual gas consumption over the past five years. Applies to **Austria, Czechia, Hungary, Latvia, Slovakia and the Netherlands (2024)**
3. Derogation 2: The filling target for member states with underground gas storage facilities shall be reduced by the volume supplied to third countries (over 15TWh/yr total) during the 2016-2021 withdrawal period (October-April). Applies to the **Netherlands**.
4. Filling targets can be partially met by counting stored LNG, if a member state has significant LNG storage (over 4% of average annual consumption) and requires gas suppliers to store minimum volumes in underground or LNG facilities.
5. Specific technical characteristics of storage sites, such as low injection rates, or “specific market conditions” may justify a delay in meeting the target deadline until 1 December.

Scenario forecast: European stocks reach 78% capacity by the winter season, including country-specific derogations and flexibilities




Europe¹ storage

90%

Scenario 1: Full compliance

- Continuation of the status quo
- EU members seek governmental support to meet storage goals (subsidies, penalties, or requirements) when needed
- Europe injects **62bcm** (+51% y-o-y)



Europe¹ storage

78%

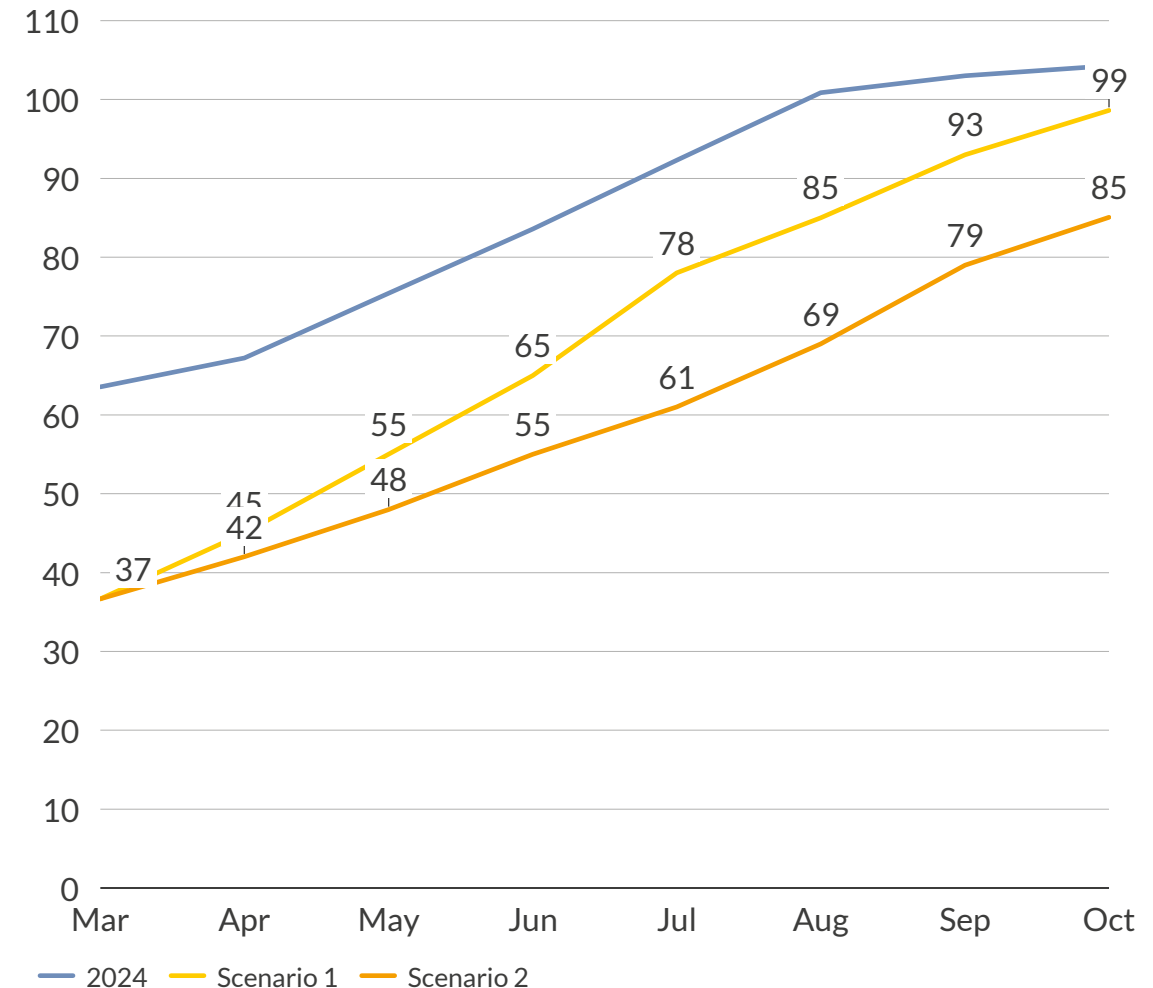
Scenario 2: Derogation compliance

- Derogation 1 is employed in all eligible countries
- The Netherlands target is reduced by 1.4bcm using Derogation 2
- Other countries fill to 90% of capacity
- Europe injects **48bcm** (+15% y-o-y)

Potential flexibility (21 March, 2025)²:

Proposal for amendments to storage regulation: “Member States shall meet the filling targets for the aggregated capacity of all underground gas storage facilities that are located on their territory and directly interconnected to a market area in their territory **at any point in time between 1 October and 1 December (instead of by 1 November) each year**”

Europe¹ underground inventories
bcm



1) Europe includes EU27+UK 2) Procedural file 2025/0051(COD) [Role of gas storage for securing gas supplies ahead of the winter season.](#)

Agenda

- I. Winter wrap-up: gas storage and key drivers
- II. Summer storage strategy: sourcing and filling gas reserves

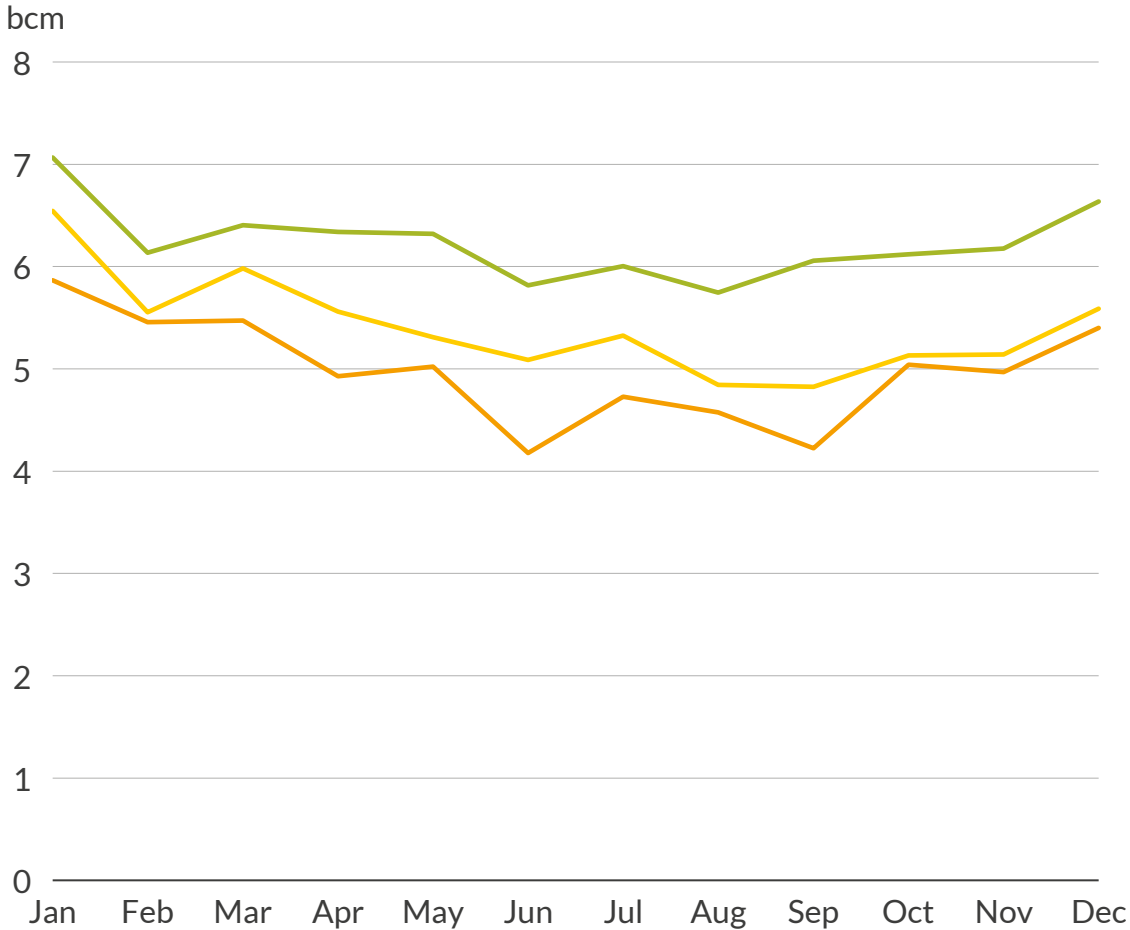


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European output fell 8% y-o-y in 2024 and will likely continue its long-term decline in summer-25, supplying 9.2bcm less than in summer-24

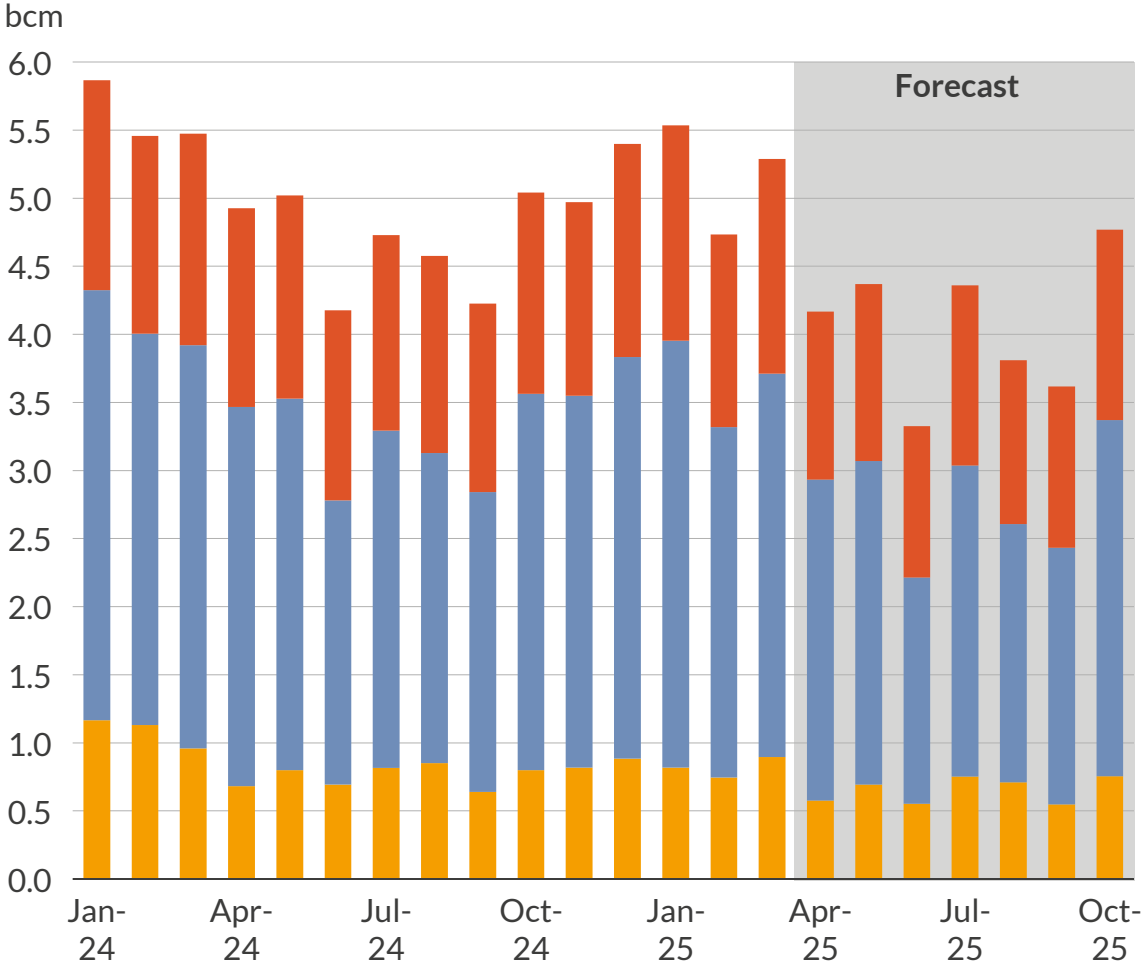
European gas production¹



— 2022 — 2023 — 2024

1) Europe includes EU-27 and UK. 2) "Other" includes natural gas production from Germany, Italy, Denmark, Poland, Austria, and Romania.

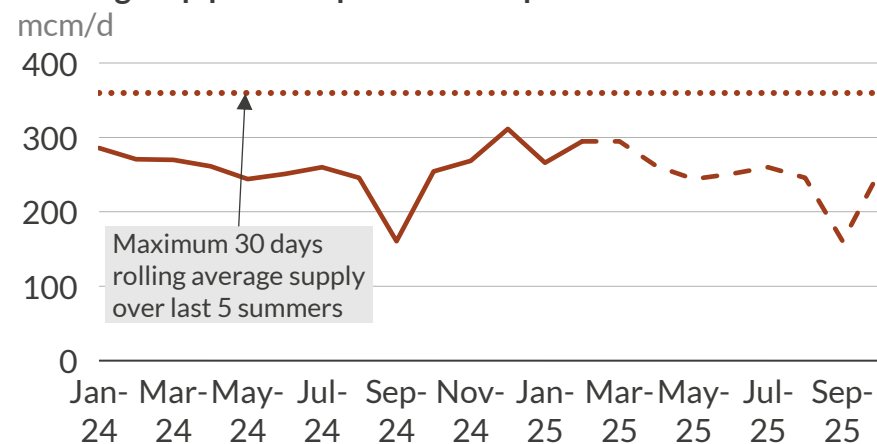
Historical and forecast production



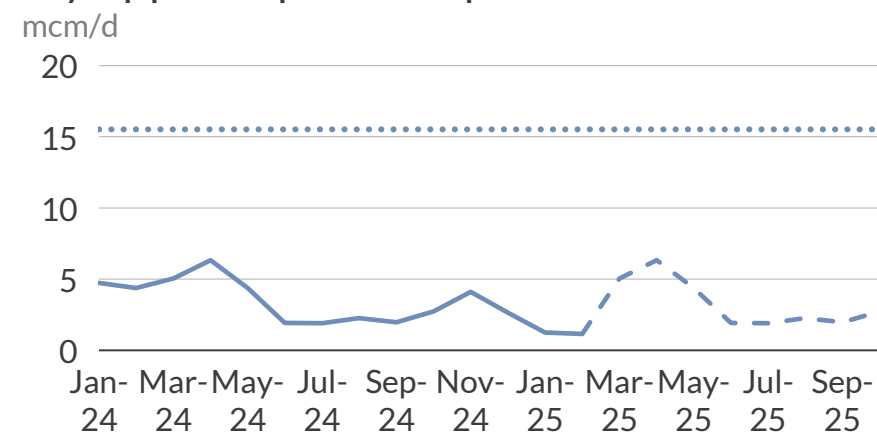
■ Netherlands ■ UKCS ■ Other

Pipeline imports are likely to remain similar to summer-24 in North Africa and Norway, with some upside for Azeri supply

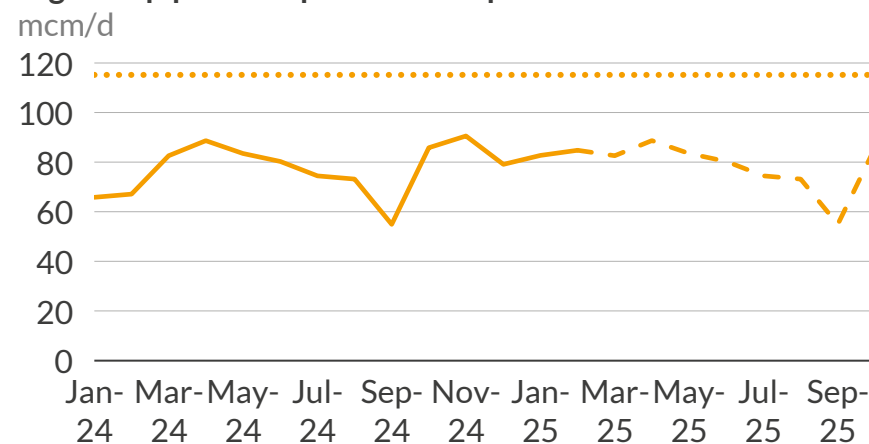
Norwegian pipeline exports to Europe¹



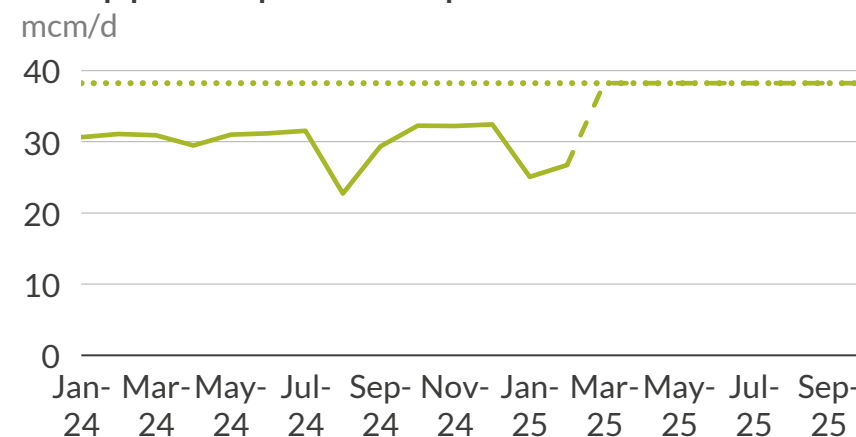
Libyan pipeline exports to Europe¹



Algerian pipeline exports to Europe¹



Azeri pipeline exports to Europe¹



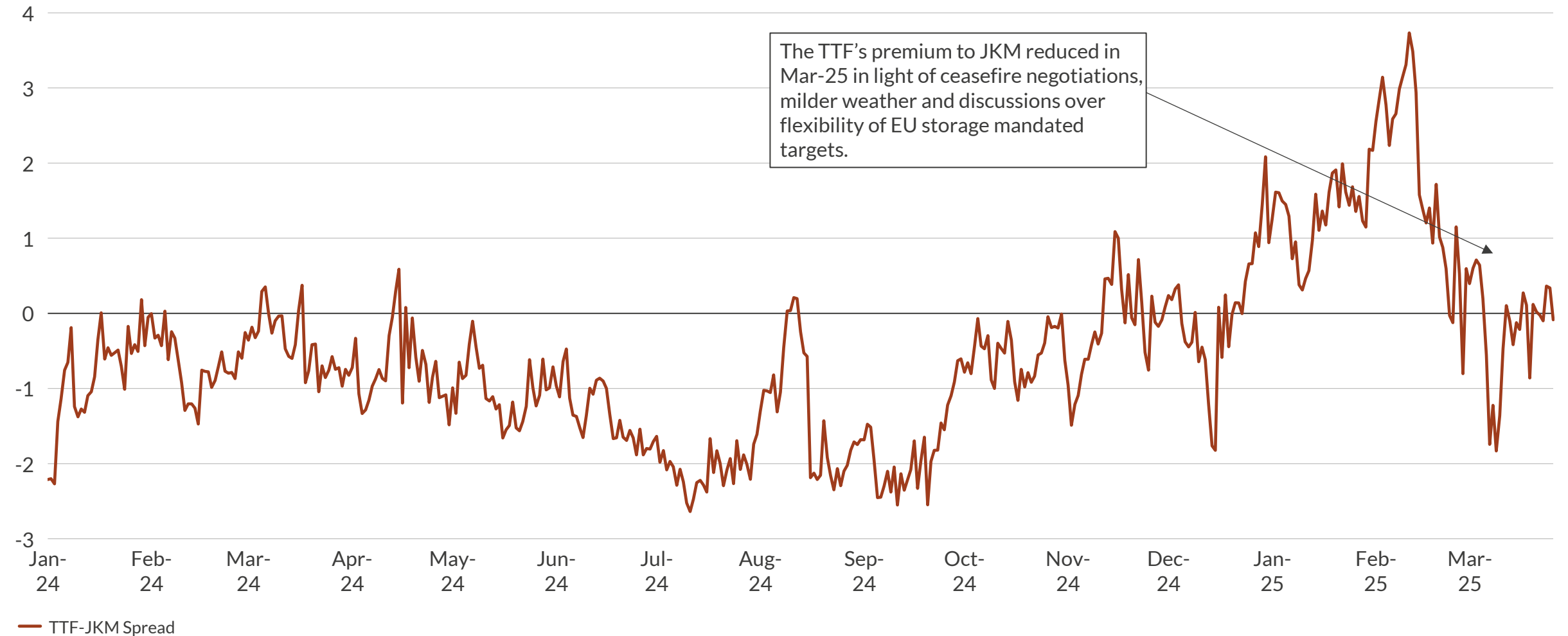
— Historical - - Summer-25 Maximum supply²

1) Europe includes EU-27 and UK. 2) Maximum supply is calculated as the maximum 30 days rolling average supply from the source over the last five summers.

- North Africa's gas exports have been constrained by declining field production, limited investment in upstream development, and rising domestic consumption.
- Annual maintenance of Norwegian fields is scheduled for April to September, impacting supply.
- The Norwegian Offshore Directorate expects output this year could fall by 5%.
- However, it is still unclear whether summer flows to the UK and EU will increase or decline y-o-y.
- Azeri gas exports could step up in summer, but capacity constraints limit the upside.

Low storage levels pushed European gas prices close to or higher than Northeast Asian gas prices in order to attract LNG cargoes

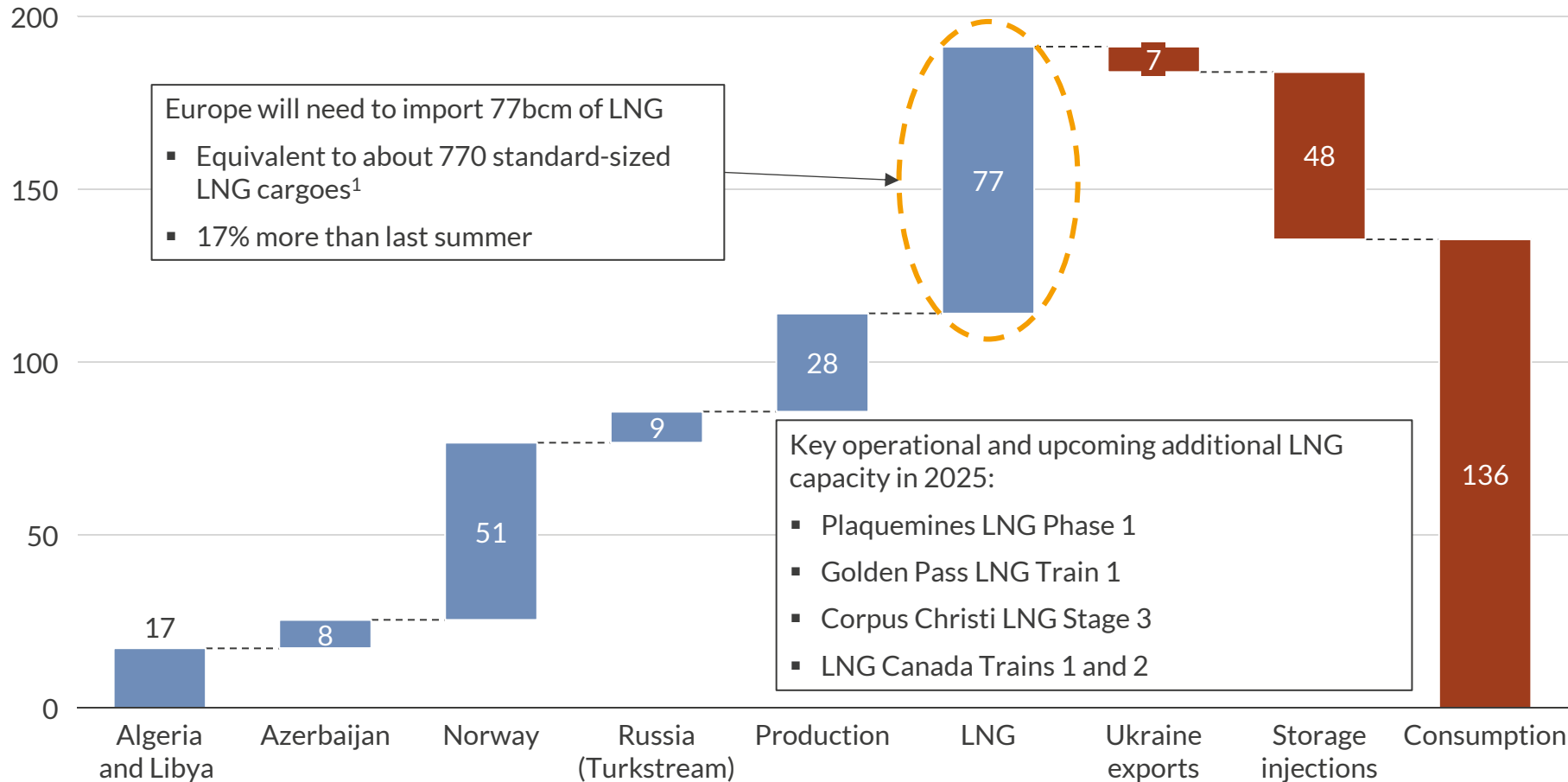
TTF – JKM spread
\$/MMBtu



Europe will need to secure an additional 11bcm of LNG this summer compared to last year, with prices influenced by Asian demand

EU+UK 2025 summer balance (Apr-Oct)

bcm



Key assumptions:

- Aurora assumes normal weather in summer, and thus consumption to stay in line with the previous summer. Nonetheless, high gas prices could result in lower industrial demand.
- Domestic production continues its long-term decline, particularly in the UKCS and the Netherlands.
- Due to local constraints, pipeline imports from North Africa remain at 2024 summer levels. There is potential for Azeri imports to rise slightly to 38mcm/d.
- Ukraine storage fills to Nov-24 levels, with injections supplied by imports from Europe and domestic production.

1) One LNG cargo carrying 100mcm of natural gas, equivalent to 160,000m³ LNG or 70,000mt.



Europe has ended the winter with underground gas inventories at 34% of capacity (37bcm), a 25pp y-o-y decline. This decline has been driven by colder-than-average weather, Dunkelflaute events reducing renewable generation, and the suspension of gas transit through Ukraine.



We expect European stocks to reach 78% by the start of next winter, supported by exceptions allowing a 5pp leeway and individual country derogations, requiring summer injections of 48bcm.



Given the export limitations of Algerian and Liberian supply sources, the potential for increased pipeline imports remains minimal. Norwegian flows are also likely to remain steady, aligning with last summer's levels due to seasonal maintenance. However, Azeri imports may increase slightly this summer.



Injection demand will primarily be met through spot LNG purchases, which will need to amount to at least 77bcm this summer, 17% higher y-o-y, in order to hit this storage target.

Details and disclaimer

Date

April 2025

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