Global Gas Security Review 2026

Including the Gas Market Report Q4-2026



INTERNATIONAL ENERGY AGENCY

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Abstract

The 10th edition of the IEA's *Global Gas Security Review* examines a decade of profound structural change in global gas markets and provides a thorough assessment of the impact of the current conflict in the Middle East on regional and global gas markets.

Since the first edition of the Review was published in 2016, the global gas market has evolved substantially, becoming more flexible, liquid and interconnected, but also more complex. The expansion of spot trading and a growing share of destination-flexible liquefied natural gas (LNG) have strengthened the interconnectivity of regional markets. At the same time, growing geopolitical complexity has underscored the need to strengthen the architecture of global gas supply security.

Throughout this period, the IEA's work on natural gas security has continued to expand. Recent supply shocks triggered by Russia's full-scale invasion of Ukraine in 2022 and the disruption of LNG flows through the Strait of Hormuz in 2026 have highlighted the importance of closer international cooperation on energy security and adequate investment across the gas and LNG value chains.

This year's report examines these structural shifts as well as the latest market developments. It includes the latest insights from the IEA's quarterly *Gas Market Report*, providing updated near-term forecasts. A special section also focuses on the outlook for Europe this winter, as the region enters the Northern Hemisphere heating season with storage levels at their lowest in more than a decade, reducing its buffer against supply disruptions.

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Table of contents

Executive summary 5
Global gas security: A changing landscape 14
Gas market update 24
Winter outlook 63
LNG contracting and flexibility update 77
Annex 95

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Executive summary

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The architecture of global gas supply security needs strengthening in a world of growing geopolitical complexity

Global gas and liquefied natural gas (LNG) markets have changed profoundly since the *Global Gas Security Review* was first published in 2016. Global LNG trade has grown by more than 60% over the past decade, driven largely by an unprecedented expansion of LNG liquefaction capacity in the United States. At the same time, **global gas markets are now deeper and more liquid,** supported by growing spot trading and a rising share of destination-flexible LNG contracts, particularly for volumes sourced from the United States. The growing flexibility of global LNG trade has **strengthened the interconnectivity of regional gas markets**, reflected by the strong correlation that has emerged between Asian spot LNG and European hub prices.

Geopolitical complexity has also grown over the past decade. The gas supply shock induced by **Russia's full-scale invasion of Ukraine** in 2022 reduced piped gas deliveries to the European Union by 110 billion cubic metres (bcm) between 2021 and 2023, while **repeated disruptions to trade flows through the Strait of Hormuz** triggered by the war in the Middle East led to an unprecedented supply shock to LNG markets. These market shocks highlight the need to **strengthen the architecture of global gas supply security** through closer international cooperation. In addition, **military operations are increasingly targeting natural gas infrastructure** and heightening the risk of unplanned supply disruptions.

Against this backdrop, the IEA has expanded its work on natural gas and LNG supply security. Since launching the annual *Global Gas Security Review* in 2016, the IEA has **strengthened its monitoring of global gas supply and demand, introducing quarterly assessments** in 2021. It also responded swiftly to the 2022/23 energy crisis by providing clear guidance to policy makers in its 10-Point Plan to Reduce the European Union's Reliance on Russian Natural Gas, published just one week after Russia's invasion of Ukraine. In late 2024, the IEA established a **permanent Working Party on Natural Gas and Sustainable Gases Security** (GWP) under the Standing Group on Emergency Questions, which aims to facilitate data and information exchange among its members and to promote dialogue between producers and consumers. The GWP is currently preparing its **first gas emergency tabletop exercise** for 2027 to strengthen preparedness for potential gas security crises. In addition, the IEA has co-hosted the **LNG Producer-Consumer Conference** (LNGPCC) with Japan's Ministry for Economy, Trade and Industry (METI) since 2023.

Global LNG supply is expected to fall by 3% in 2026, the steepest yearly decline on record

The current Middle East crisis has dealt a major shock to global gas and LNG markets. LNG loadings from Qatar and the United

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Arab Emirates (UAE) declined by over 60 bcm y-o-y from March to October. The steep decline was partly offset by higher LNG output from new projects in North America and Africa, as well as by the increased availability of feedgas supply from legacy producers in Africa, Asia and Russia. Non-Gulf LNG production grew by 14%, or more than 40 bcm y-o-y, between March and October, essentially offsetting two-thirds of the decline in Gulf LNG deliveries during this period. Altogether, global LNG production fell by 6%, or around 20 bcm y-o-y, over the March-to-October period.

This forecast assumes trade flows through the Strait of Hormuz will remain largely disrupted at least until the end of the year. Under this assumption, global LNG supply is projected to decline by 3%, or almost 20 bcm, in 2026, the steepest annual decline on record.

Asian and European gas prices climbed to their highest levels since the 2022/23 energy crisis

The disruption to LNG flows through the Strait of Hormuz this year has pushed Asian spot LNG and European hub prices to their highest levels since the 2022/23 energy crisis. In Europe, TTF spot prices rose by almost 70% y-o-y to an average of close to USD 20 per million British thermal units (/MBtu) between March and October. Asian spot LNG prices followed a similar trajectory, rising by almost 80% y-o-y to an average of USD 21.5/MBtu during the same period. Between March and July, Asian spot LNG prices traded at a premium of USD 2/MBtu to European hub prices. The spread tightened to around USD 1/MBtu between August and October, indicating fiercer competition for flexible LNG cargoes ahead of the heating season. **Oil-indexed LNG prices** also gradually increased to an estimated USD 12-14/MBtu in the third quarter of 2026. The impact of higher oil prices is expected to become more pronounced in the fourth quarter, since oil prices typically feed through to gas contract price formulae with a lag of five to six months.

Tight supply fundamentals and high prices are weighing on global gas demand, which is expected to decline in 2026 for the third time this decade

Global gas consumption declined over the first nine months of 2026, driven by demand destruction in the Middle East and reduced gas use due to higher prices in key LNG importing markets in Asia and Europe. Initial data suggest global gas demand fell by more than 1%, or over 35 bcm, y-o-y between January and September, with the decline concentrated entirely in the second and third quarters. The reduction was partly driven by lower gas consumption in the power sector as higher gas prices encouraged switching from gas to coal in many markets in Asia. The strong increase in natural gas prices also weighed on gas use in energy- and gas-intensive industries such as fertiliser production.

For the full year of 2026, global gas demand is expected to fall by around 1.5%, or close to 65 bcm, marking its third annual decline since 2020. The decline is forecast to be largely concentrated in the power, energy and industrial sectors, which together account for 90% of the decline.

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The impact of the Middle East conflict on gas markets varies considerably across regions. Countries in the Middle East have been impacted most directly, with damage to local gas production and processing facilities leading to a sharp decline in the production rates of gas-intensive industries. Middle Eastern gas demand is expected to contract by around 10% in 2026, an unprecedented decline in the region's consumption.

With tighter LNG supply availability weighing on demand, natural gas consumption in the **Asia Pacific** region is forecast to decline by 1.5% in 2026, with higher LNG prices supporting gas-to-coal switching in the power sector and lower operating rates across gas- and energy-intensive industries. In **Europe**, gas demand is set to fall by 3% for the year as high prices curb gas use in industry, along with lower gas burn in the power sector owing to higher renewables power output.

The conflict has had limited impact on regions with little or no reliance on LNG imports. In **Africa,** natural gas demand is projected to increase by close to 5% y-o-y, primarily driven by the power and energy sectors. Similarly, natural gas demand in **Central and South America** is forecast to increase, with lower hydropower output set to support stronger gas burn in the power sector. Gas demand in **North America** is forecast to grow by just over 0.5% as lower gas use in buildings is more than offset by stronger gas burn in the power sector, as well as in the energy sector amid the region's expanding LNG liquefaction capacity. Natural gas demand in **Eurasia** is forecast to expand by around 1.5% in 2026, with colder winter temperatures in the first quarter supporting stronger gas use in buildings.

The European Union enters the 2026/27 heating season with a reduced safety buffer, potentially fuelling winter price volatility and extending market tightness

EU gas storage sites are entering the 2026/27 heating season with inventories at their lowest levels since 2013. This leaves a reduced buffer against supply disruptions for the European market and could further increase the region's reliance on global LNG supplies to meet winter demand. Low European storage levels, combined with limited storage options in several LNG importing countries in Asia and South America, could intensify the competition for a scarce number of flexible LNG cargoes in the coming months and put upward pressure on spot prices, especially during periods of high demand.

IEA simulations indicate that EU gas storage levels could drop below 10% of working capacity by the end of March 2027, assuming colder-than-average weather conditions and continued disruption to LNG flows through the Strait of Hormuz. This would leave the European market particularly exposed to **events**, whether additional cold snaps, technical outages or other supply disruptions**,** since the rate at which gas can be withdrawn from storage sites tends to decline once fill levels fall below 30% of working capacity. Moreover, low storage levels would substantially increase the need for injections through summer 2027, potentially **extending market tightness** into the following year.

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Greater destination flexibility and rising hub-based prices are helping the global LNG market respond to shocks

The share of destination-flexible LNG contracts has grown significantly over the past decade, from 29% in 2016 to more than 50% in 2025. This strong growth was largely driven by the rapid expansion of destination-flexible US LNG. **Destination-free LNG is playing a crucial role in helping global markets adjust to the current supply shock** induced by disrupted trade through the Strait of Hormuz. Asian buyers – among the most exposed to the disruption – have been able to double their imports of LNG from the Atlantic Basin y-o-y, primarily the United States, during the March-October period, helping offset the steep decline in LNG supplies from Qatar and the UAE. Without the contribution of flexible LNG supply, market adjustments would have been more difficult and could have led to more uneven supply disruptions, although current market tightness poses challenges for price-sensitive short-term buyers competing for available volumes.

In addition, the pricing terms of LNG contracts are becoming more diverse and increasingly reflect underlying market fundamentals. The share of gas-indexed and hybrid LNG contracts rose from around 30% in 2016 to 45% in 2025. These pricing terms provide a greater incentive for LNG trade flows to respond to price signals and therefore allow for a more efficient distribution of LNG as a commodity.

The current crisis highlights the need for adequate investments across the gas and LNG value chains

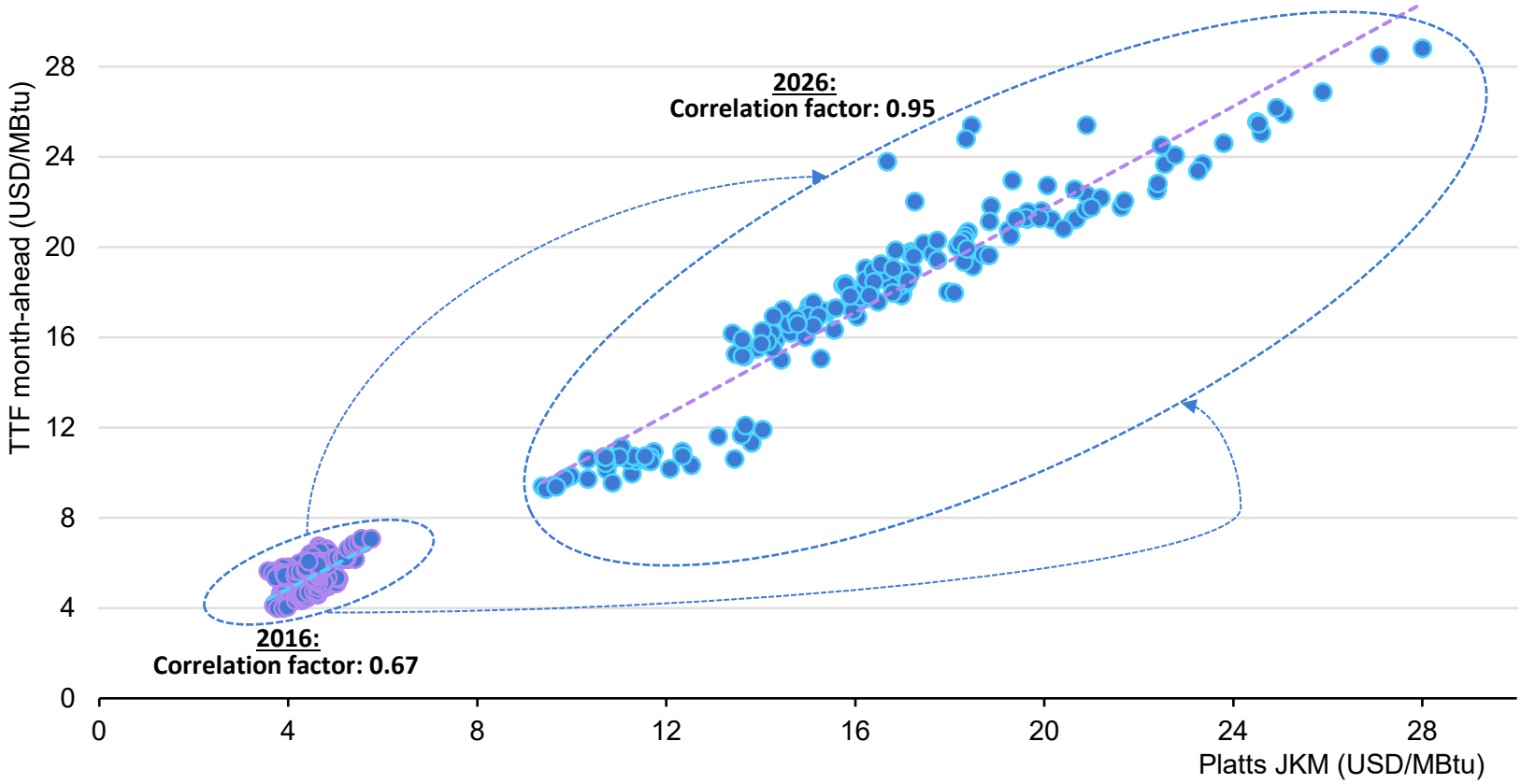
The market-easing effects of the unfolding wave of global LNG supply are set to be delayed. Cumulative LNG supply losses between 2026 and 2030 are estimated at 150 bcm, based on the combined effect of near-term supply disruptions and the medium-term implications of damage to gas infrastructure – including at the Ras Laffan site in Qatar, which is the world's largest LNG liquefaction facility. The losses resulting from the Middle East conflict are equivalent to 15% of the new LNG supply that is set to be added globally over the 2026-2030 period. With the impact on supply growth set to be largely concentrated in 2026 and 2027, markets could remain tighter than previously anticipated.

Recently approved LNG projects will add to global supplies later this decade. Since March 2026, four major gas liquefaction projects have reached final investment decisions, all located in North America. The decision on the CP2 Phase 2 liquefaction project is set to increase the facility's peak production capacity to 40 bcm per year when commercial operations begin in the second half of 2030. Delfin LNG's first floating LNG vessel, with capacity of 6 bcm per year, is set to start production in 2030, as is the 13 bcm per year Commonwealth LNG project. The LNG Canada Phase 2 project, with capacity of 19 bcm per year, reached a final investment decision in September 2026 and is expected to start operations in the early 2030s. These new LNG export projects can help enhance gas supply security and affordability over time.

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The globalisation of regional gas markets strengthened over the past decade

Correlation factors between Asian spot LNG and Europe hub prices from January to October, 2016 and 2026



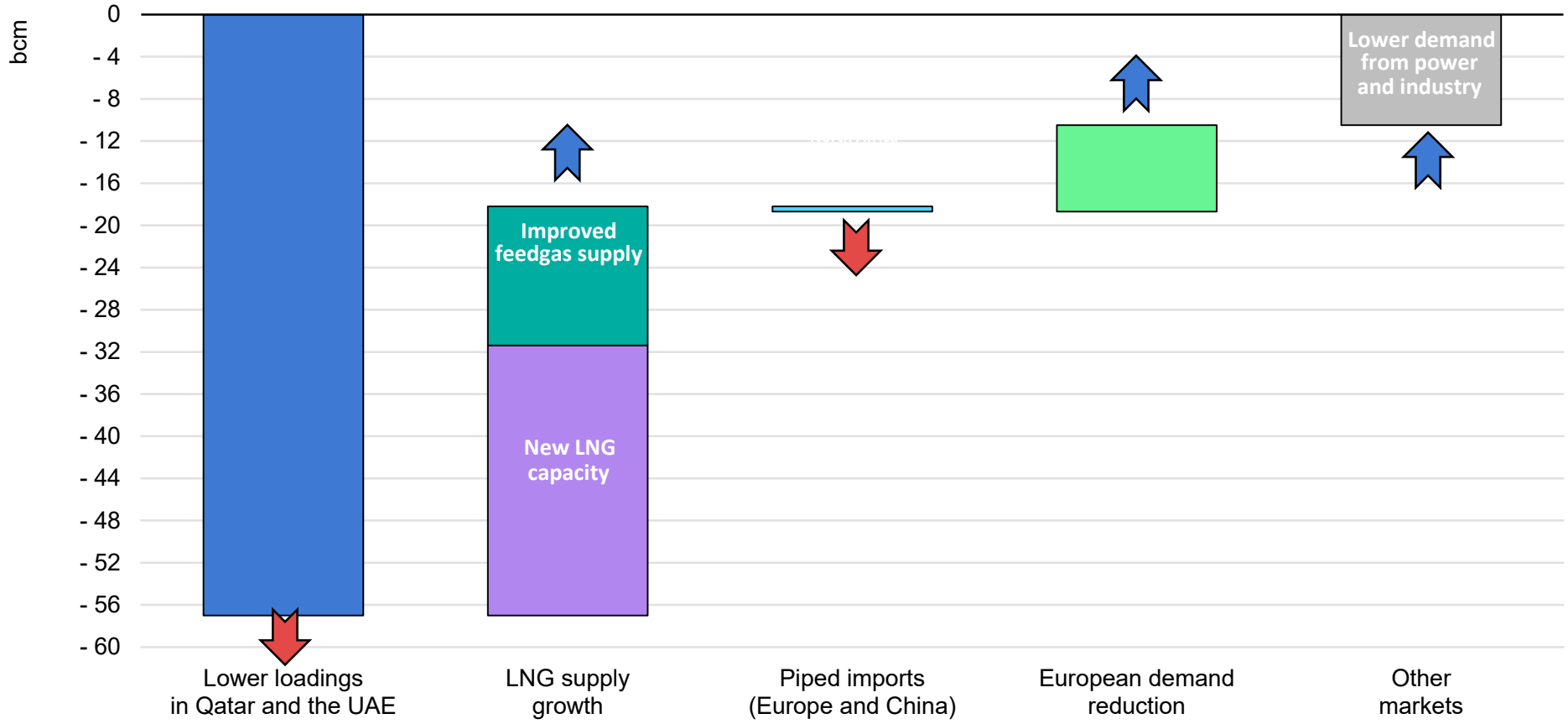
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Sources: IEA analysis based on CME (2026), Dutch TTF Natural Gas; S&P Global (2026), Platts Connect.

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The global gas market is balancing the disruption of LNG flows via the Strait of Hormuz through a combination of supply and demand levers

Selected supply and demand factors influencing price formation since the closure of the Strait of Hormuz, March-September 2026

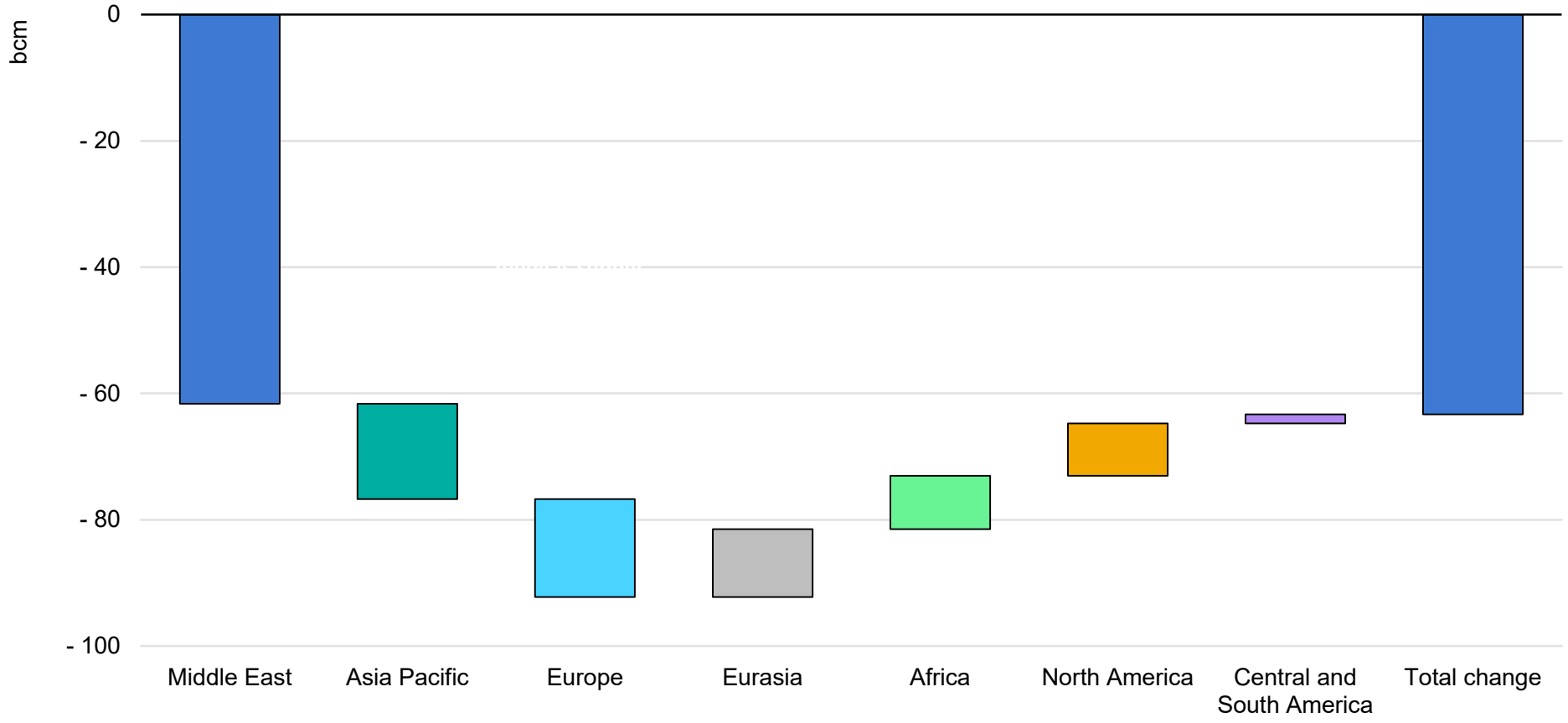


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Lower gas demand from the Middle East and Asia is expected to drive down global consumption in 2026

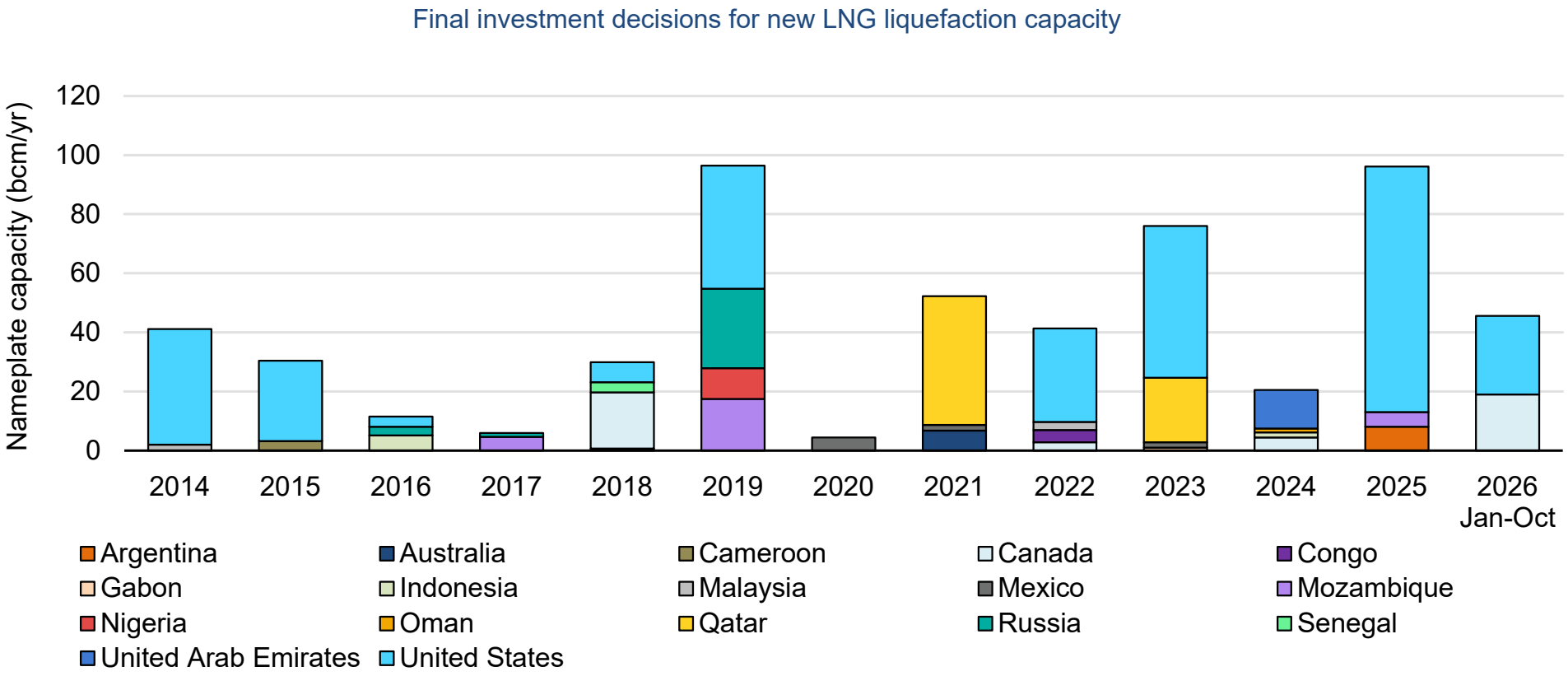
Forecasted year-on-year change in natural gas demand across key markets, 2026 vs 2025



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Final investment decisions in LNG projects have remained strong in 2026



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Source: IEA (2026), Global LNG Capacity Tracker.

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Global gas security: A changing landscape

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The changing landscape of global gas supply security

The global gas market has become intrinsically more complex since the first issue of the *Global Gas Security Review* in 2016. Rapid expansion of LNG trade has increased the **interconnectivity of regional gas markets**, while the global LNG market itself has gained in depth and liquidity amid the **growing share of destination-flexible LNG supply**. The market shocks triggered by the Russian Federation's (hereafter "Russia") full-scale invasion of Ukraine in 2022 and the closure of the Strait of Hormuz in 2026 highlight the need to strengthen the **architecture of global gas supply security** in a context of growing geopolitical complexity. This requires **closer international co-operation** between responsible producers and consumers and **adequate investment** along the gas and LNG value chain. The IEA plays a key role both in monitoring complex market developments and in facilitating international dialogue on gas supply security.

The global LNG market has gained in depth and liquidity in the past decade. Total traded volumes expanded by more than 60% between 2016 and 2025. This strong growth was accompanied by the rising share of destination-flexible contracts (from 29% in 2016 to over 50% in 2025), largely driven by the expansion of US LNG supplies. The growing share of destination-flexible LNG and spot trading has strengthened the interconnectivity of regional gas markets. This means the supply and demand dynamics (and resulting price volatility) of one region can influence gas prices in other, more distant markets as they compete for LNG supply. A clear indicator of the **globalisation of regional gas markets** is the evolving correlation between Asian and European gas prices, which has increased from an average of 0.6 during 2013-2018 to over 0.9 since 2019.

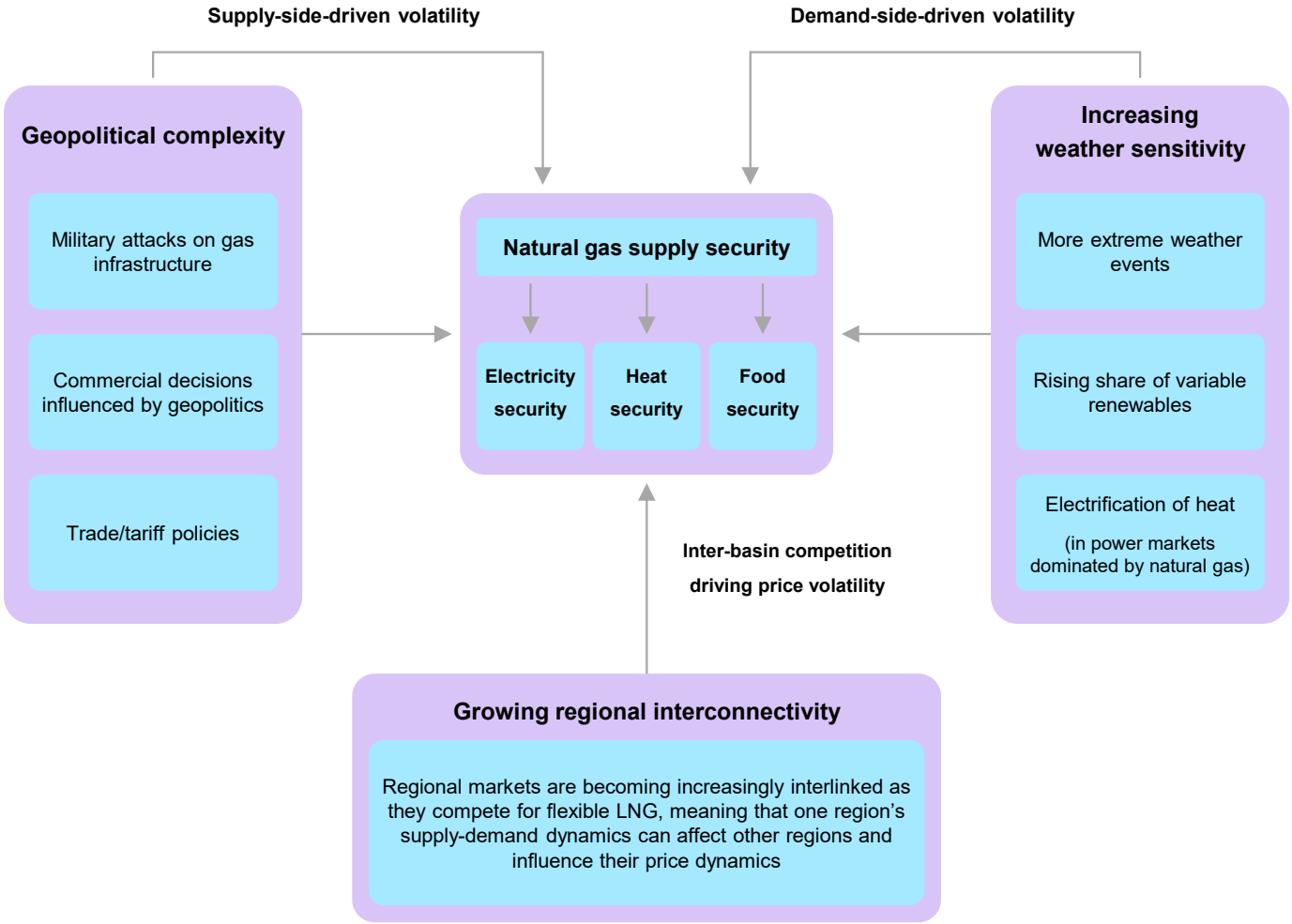
On the demand side, the short-term variability of natural gas demand is rising. In markets where coal-fired generation is gradually being phased out, while the share of weather-dependent renewables is growing, flexible gas-fired power plants are playing an increasingly important balancing role and ensuring electricity supply security. This naturally increases the short-term variability of gas-to-power demand and requires more flexible operation along the entire gas supply chain.

Natural gas infrastructure is facing a growing number of attacks amid growing geopolitical tensions. The closure of the Strait of Hormuz and the attacks on Qatar's LNG liquefaction facilities demonstrate how such events can disrupt gas supply chains and test the resilience of regional and global gas markets. To effectively respond to this growing geopolitical complexity, **closer dialogue between producers and consumers** is essential in forums such as the LNG Producer-Consumer Conference. In addition, **preparedness for potential gas supply disruptions needs to be strengthened.** In this context, the IEA's Natural Gas and Sustainable Gases Security Working Party (GWP) is preparing its first gas emergency tabletop exercise.

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The global gas market is becoming more complex, with new security risks testing its resilience

Key factors shaping the evolution of regional and global gas markets



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Rising geopolitical tensions are disrupting natural gas infrastructure and supply chains

Military operations are increasingly targeting energy infrastructure, including natural gas facilities, amid rising geopolitical tensions. These attacks can severely impact gas supply chains and test the resilience of regional and global gas markets. The growing use of small, unmanned aircraft systems (or **drones**) also means that energy infrastructure located far from the battlefield can be targeted and damaged. In addition, **cyberattacks** are becoming increasingly sophisticated and pose a further risk to the safe operation of energy and natural gas infrastructure. This section provides a non-exhaustive overview of natural gas infrastructure that has been damaged and/or targeted by military operations, drones and cyberattacks in 2026.

Natural gas infrastructure has been a major target in the Middle East conflict since its eruption at the end of February 2026. **Missile attacks on Qatar's Ras Laffan complex** on 18-19 March damaged two LNG liquefaction trains with a combined capacity of 12.8 Mtpa (17.5 bcm/yr). According to QatarEnergy's latest assessment, it could take three years to restore operations at the damaged LNG facilities, which would translate into a cumulative loss of over 50 bcm of LNG supply over the repair period. In **Iran**, several gas processing plants at the **Assaluyeh complex** were damaged in missile attacks on 18 March. The plants treat sour gas from the offshore South Pars gas field. According to first estimates, this could have affected around 12% of Iran's natural gas production (or nearly 100 mcm/d), further tightening supply-demand fundamentals in the country. Preliminary data suggest that Iran's natural gas output declined by 7% y-o-y during the March-September period. In the **United Arab Emirates**, the onshore **Shah gas field** was hit by a drone strike on 16 March, causing a fire and leading to an immediate halt in production. Shah has the capacity to process about 20% of the country's gas production, primarily serving the domestic market. The **Habshan gas complex**, which processes more than half of the country's domestic gas supply, sustained three separate attacks in mid-March and early April, when debris from intercepted missiles caused fires that led to the suspension of operations. According to ADNOC, the operational capacity of the Habshan gas complex is set to be fully restored by Q2 2027.

Russia's war on Ukraine is also profoundly disrupting regional gas infrastructure and supply operations. In Ukraine, attacks on production facilities were concentrated in the early part of 2026, adding to a ramp-up in attacks in 2025 and leading facilities to temporarily shut down production. As of October, more than 400 attacks had been launched against Naftogaz Group's facilities. Ukraine suffered further attacks on oil and gas production facilities in August in eastern regions of the country where most gas production is concentrated. In **Russia**, a drone struck the **Orenburg gas processing facility** in June. The facility treats associated gas produced in Kazakhstan and shipped by pipeline. With gas from the

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Karachaganak field unable to be shipped across the border for treatment, both oil and gas production at the field had to be temporarily turned down. Production is understood to have largely recovered by July, suggesting likely repair of the Orenburg facility over a similar timeline. In addition, Gazprom reported repelling multiple attempted attacks early in 2026 and in the summer on a number of compressor stations linked to the **TurkStream and Blue Stream pipeline systems** sending gas from Russia to Türkiye and the European Union. Flows were not affected. In September, a drone strike was launched more than 3 000 km beyond Ukraine's borders on Russia's **Novy Urengoy gas processing plant** in the Russian far north. The damaged facility is part of the Urengoyskoye hydrocarbon field, among the most significant in the world. The strike was within a few hundred kilometres of Russia's LNG export facilities (Yamal LNG and Arctic LNG 2 plant).

European gas infrastructure is also increasingly under threat. In **Romania**, a maritime drone reportedly equipped with explosives was spotted in August near the **Neptun Deep** natural gas offshore field. The drone was destroyed by Romanian aircraft and caused no damage to infrastructure. In the **United Kingdom**, hackers launched a cyberattack against a small gas-fired power plant during the summer of 2026. The consequences of the four-day outage at the peaking plant remained insignificant at the power system level, but the attack highlighted the cyber risks facing power generation assets and around preserving the integrity of domestic energy infrastructure.

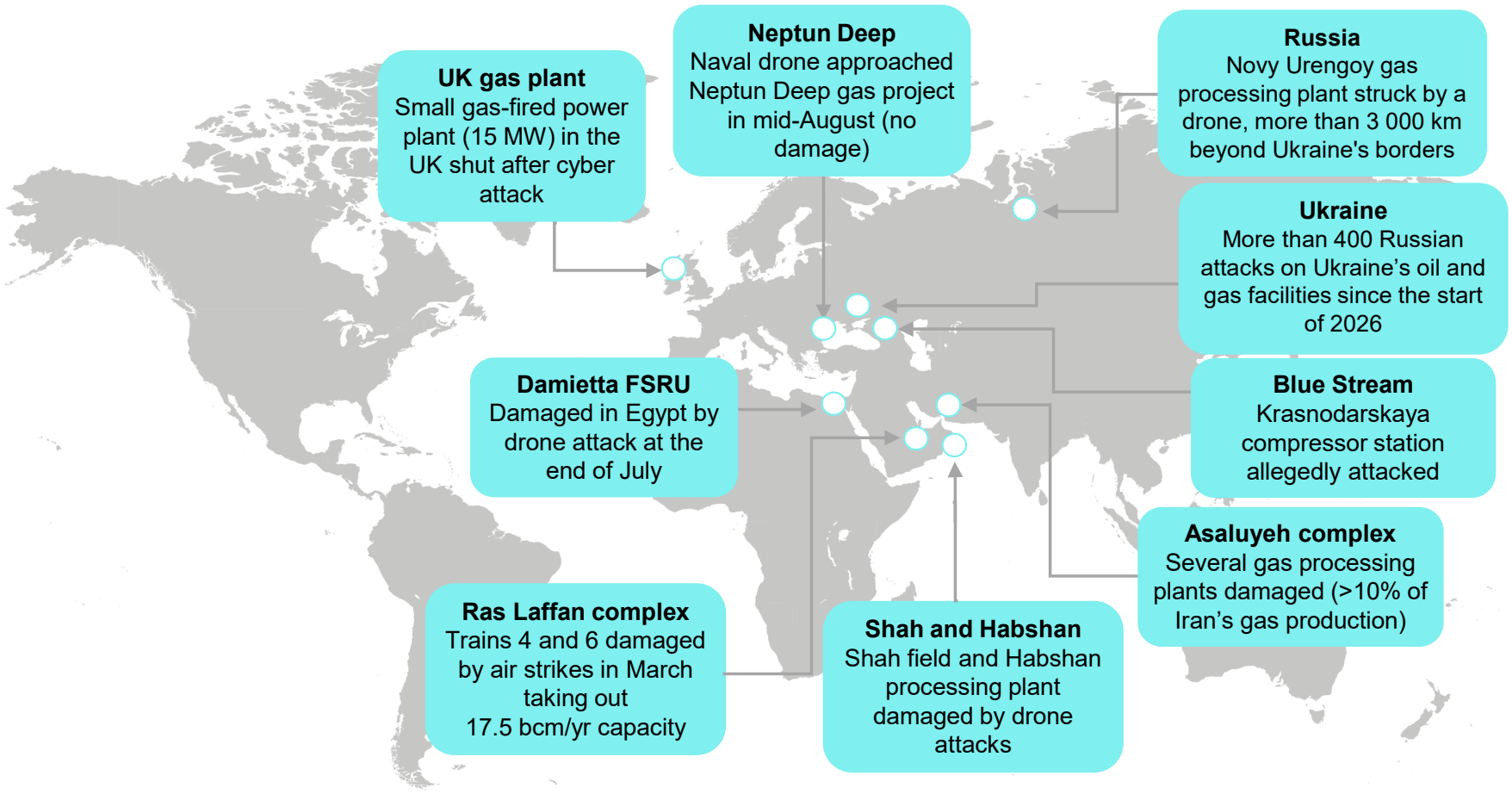
In 2026, LNG vessels also faced unprecedented physical strikes and cyberattacks amid heightened geopolitical tensions. In March, the sanctioned Russian LNG carrier **Arctic Metagaz**, carrying a sanctioned cargo from the Arctic LNG 2 plant to Asia, was heavily damaged and caught fire in a suspected drone strike in the Mediterranean Sea off the coast of Libya. The crew was rescued, but the vessel was left adrift following an unsuccessful salvage operation. In July, the loaded Qatari LNG carrier **Al Rekayyat** was struck by a projectile while transiting the Strait of Hormuz, causing an engine-room fire and leaving the vessel stranded off the coast of Oman. At least two other LNG carriers, **Gaslog Shanghai** and **Maran Gas Mystras**, were also reportedly struck by projectiles while transiting the strait in late July and early October, respectively. At the end of July, a drone struck the **Energos Winter FSRU** – one of four FSRUs serving Egypt – at the Damietta LNG terminal on the Mediterranean Sea, starting a fire that spread to the adjacent Gaslog Salem, which was operating as a floating LNG storage unit at the time. **Cybersecurity risks** also came to the fore in 2026. In September, **Vivit Africa** LNG experienced a systems failure while transporting an LNG cargo from the United States to Europe. The vessel's crew lost access to internal control systems and was forced to abandon a planned discharge at Italy's Rovigo LNG regasification terminal following what was reported as a suspected cyberattack.

These events highlight the need to **strengthen preparedness** for potential gas supply disruptions, including through gas **emergency tabletop exercises**.

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2026 saw a growing number of attacks on natural gas and LNG infrastructure

Non-exhaustive overview of attacks on natural gas and LNG infrastructure in January-September 2026



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Gas supply resilience took centre stage at LNGPCC 2026 amid heightened geopolitical risks

On 11 September 2026, the 15th LNG Producer-Consumer Conference (LNGPCC) was held in Tokyo, Japan. Launched by Japan's Ministry of Economy, Trade and Industry (METI) in 2012, the LNGPCC provides a platform for strengthening dialogue and co-operation between LNG producing and consuming countries. The conference brings together senior government officials and industry representatives from LNG exporting and importing countries to discuss developments in global LNG markets, energy security and related policy priorities. Since 2023, the IEA has co-hosted the LNGPCC with METI.

The discussions focused on LNG supply security and resilience, investment and emerging technology trends.

Geopolitical uncertainty featured prominently throughout the conference. Participants broadly recognised that structural shifts in global gas markets are creating a more complex and potentially volatile operating environment. While traditional approaches to supply security – including supply diversification, long-term contracts and sustained investment – remain important, participants also highlighted the need to rethink short-term resilience, procurement strategies, contractual flexibility, partnerships, and gas supply security more broadly.

Emerging LNG technologies were another key area of discussion. Industry participants highlighted advances in modular solutions across the LNG value chain, including the potential application of modular approaches to gas pretreatment, pre-commissioning, periodic maintenance and on-site power generation.

Despite near-term market uncertainty, several LNG suppliers and importers expressed confidence in longer-term demand growth and indicated plans for continued investment.

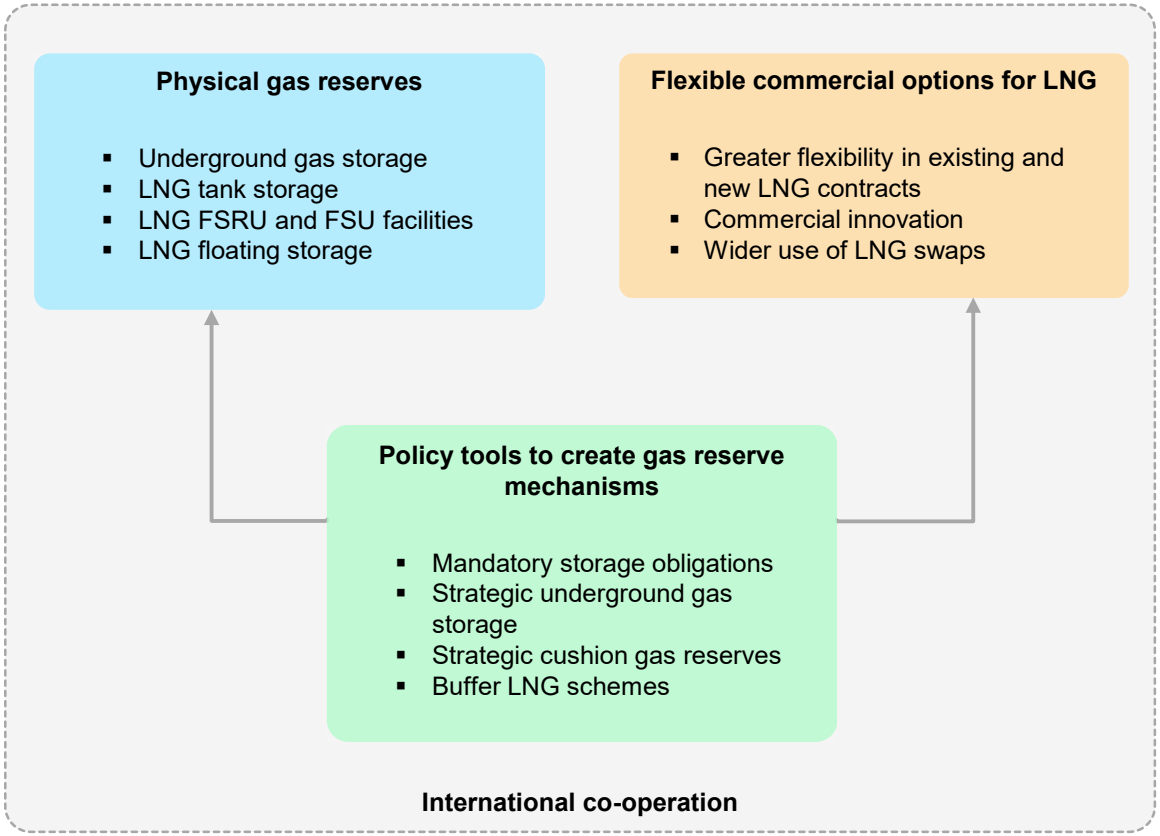
Two notable agreements were announced and signed at the conference. An emergency supply agreement between Japan's state-owned JOGMEC and Malaysia's Petronas established a framework under which JOGMEC can procure LNG from Petronas during emergencies and supply it directly to Japanese importing companies, if they are unable to secure sufficient volumes independently. The agreement represents JOGMEC's first emergency LNG procurement deal with a supplier. Contract terms, including volumes and duration, were not disclosed. Separately, a memorandum of co-operation between the governments of Japan and Montenegro established a five-year framework for collaboration on energy security, decarbonisation and infrastructure development, including potential development of an LNG import terminal and associated gas-fired power plant in Montenegro, with support from Japanese energy company JERA.

The IEA released two major reports for the LNGPCC, focusing on gas reserve mechanisms and LNG-related emissions. Both were prepared under the IEA-METI Gas Security Work Programme for 2024-2026.

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Gas reserve mechanisms and flexibility are key to gas security in a changing global market

Overview of gas reserve mechanisms and flexibility options



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Notes: FSRU = floating storage and regasification unit; FSU = floating storage unit. FSRUs provide onboard LNG storage and regasification, while FSUs provide storage only, requiring separate regasification facilities onshore, at a jetty or at a separate offshore installation. LNG floating storage refers to conventional LNG carriers used to temporarily store cargoes onboard without being converted into dedicated FSUs.

Source: IEA (2026), Gas Reserve Mechanisms and Flexibility Options.

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Strengthening gas security preparedness through international co-ordination

The IEA's Natural Gas and Sustainable Gases Security Working Party (GWP) is preparing its first gas emergency tabletop exercise to strengthen preparedness for potential gas security crises. Planned for 2027, the exercise will focus on co-ordination among IEA Member countries and explore how voluntary co-operation could help governments respond to a major cross-border gas or LNG supply disruption.

The exercise is designed as a focused, practical and learning-oriented collaborative process, enabling governments to explore how they could co-ordinate their responses to gas market stress. Its scope, methodology and expected outputs build on established IEA exercises for oil and critical minerals. Given that gas exercises already take place at national and regional levels in some cases, the goal of this exercise is to complement those by adding an international perspective, thus helping participants examine where co-ordination across countries could improve crisis response.

Its design is informed by dialogue with market participants. Their operational insights can help ensure that the scenario reflects realistic market constraints, supply chain dynamics and potential infrastructure bottlenecks, while keeping the exercise focused on government-led preparedness and decision making.

The exercise will focus on strategic decisions, communication and international co-ordination in a manageable format. Participants would work through sequential rounds, with new developments introduced as the scenario unfolds. The scenario would be based on a realistic but bounded LNG supply shock, potentially compounded by infrastructure constraints and regional demand pressures. It would allow participants to consider both supply-side responses and demand adjustments.

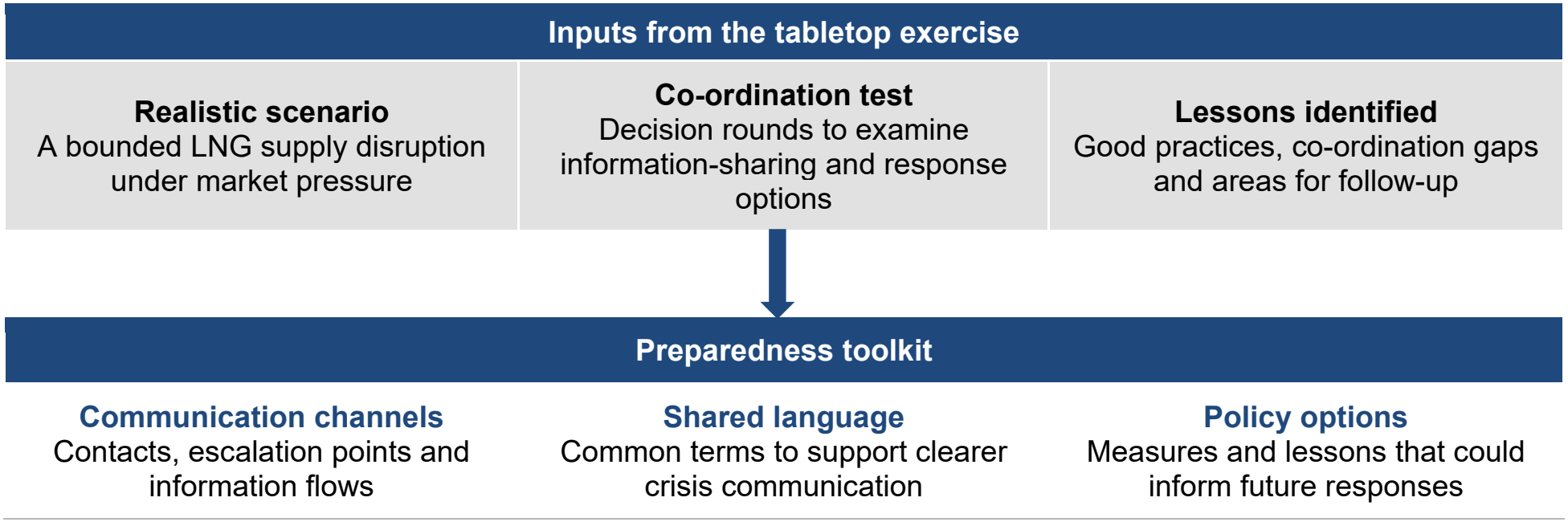
Potential outputs could include a strengthened international communication framework, helping officials identify relevant counterparts and channels in a crisis, as well as a toolkit of policy measures that could support national responses. The precise outputs will be refined as the exercise design progresses.

Several elements remain to be finalised, including the degree of scenario realism, the level of quantitative detail and confidentiality arrangements. Continued dialogue with market participants will help inform these choices, while the exercise will remain focused on government decision making, international co-ordination and voluntary co-operation among IEA Member countries.

As the first gas emergency tabletop exercise of its kind at the IEA level, this initiative could provide a foundation for future exercises. Lessons learned could help countries strengthen international co-ordination, build on existing national and regional arrangements, and test preparedness against evolving gas security challenges.

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From crisis simulation to practical preparedness tools



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Notes: This visual presents indicative elements under consideration for the exercise design. Final scope, level of detail and outputs will be refined as preparation progresses.

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Gas market update

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Global gas demand is set to decline in 2026 for the third time this decade…

Global gas demand growth moved into negative territory in Q1-Q3 2026. The disruption of LNG flows through the Strait of Hormuz tightened global gas supply, drove up gas prices in key import markets and weighed on natural gas consumption. First data suggest that global gas consumption fell by more than 1% (or over 35 bcm) y-o-y in Q1-Q3 2026, with the decline entirely concentrated in the second and third quarters of the year.

The interruption of LNG flows via the Strait of Hormuz tightened the global gas balance. LNG supply fell by 1% (or 6 bcm) y-o-y in Q1-Q3, as the relatively strong growth of 13% (or 12 bcm) y-o-y in January-February was more than offset by the 5% (or 18 bcm) y-o-y decline recorded during the March-September period. LNG loadings from Qatar and the United Arab Emirates fell by almost 60 bcm y-o-y during the March-September period. Around two-thirds of this decline was offset by strong production growth in other regions, supported by new capacity additions in the United States, Canada and Africa.

Tighter supply fundamentals drove up Asian and European natural gas prices by more than 50% y-o-y during the March-September period to their highest level since the 2022/23 energy crisis. This strong increase was accompanied by more pronounced short-term price variability, reflecting the uncertainty caused by the sudden loss of almost 20% of global LNG supply.

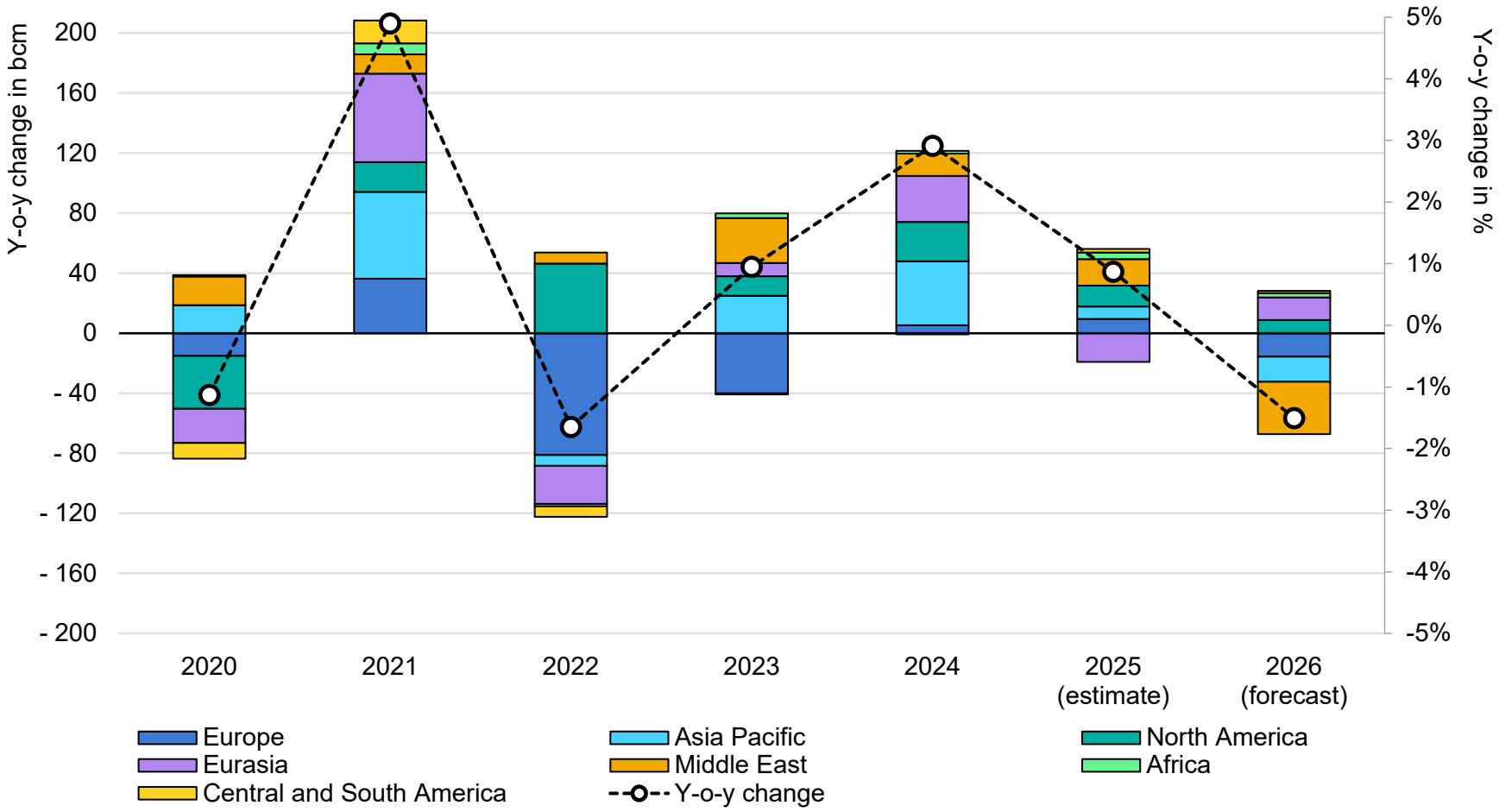
The duration of the Strait of Hormuz disruption remains highly uncertain. This forecast assumes that the strait remains closed until the end of 2026. Under these assumptions, global LNG trade would decline by about 3% (or almost 20 bcm) y-o-y in 2026, representing the largest annual decline in the history of the LNG industry.

Global gas demand is expected to fall by around 1.5% (or close to 65 bcm) in 2026, marking its third annual decline this decade. Natural gas consumption in the **Middle East** is projected to contract by around 10%, representing the region's largest annual decline in history. Reduced gas supply availability and the disruption of certain gas-intensive industrial activities are profoundly disrupting the region's gas market. In the **Asia Pacific region,** natural gas demand is projected to decline by around 1.5% in 2026, driven by lower consumption in both the power sector and energy-intensive industrial sectors. In **Europe**, natural gas consumption is forecast to decline by around 3% as high gas prices weigh on gas use in industry, while the continued expansion of renewables is expected to reduce gas-to-power demand. In **Africa**, gas use is projected to grow by 5% amid stronger gas use in the power sector and in the energy sector. Natural gas demand in **Central and South America** is expected to increase by 1%, driven by the power sector. Gas demand in **North America** is forecast to grow by just over 0.5% amid higher gas burn in the power sector. Natural gas demand in **Eurasia** is projected to expand by more than 1.5% in 2026, following a colder winter in Q1.

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…with demand losses primarily concentrated in the Middle East and Asia

Year-on-year change in natural gas demand in selected regions, 2020-2026



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Asian and European gas prices continued to rise in Q3 2026…

The closure of the Strait of Hormuz drove up both Asian spot LNG and European hub prices to their highest levels since the 2022/23 energy crisis. Prices continued their upward trend in Q3. In the United States, strong production growth provided downward pressure on prices.

In **Europe**, TTF spot prices rose by almost 90% y-o-y to an average of USD 21.5/MBtu in Q3 2026, their highest Q3 levels since 2022. The continued decline in LNG inflows (down by 13% y-o-y) together with higher gas-fired power generation in the European Union provided strong upward pressure on natural gas prices. The market uncertainty created by the sudden loss of almost 20% of global LNG supply supported strong short-term price variability, albeit moderated from the highs seen in March. TTF month-ahead price volatility averaged just over 60% in Q3 2026, double last year's volatility in the same period. Seasonal price spreads remained negative on TTF and averaged EUR -1.60/MWh in Q3 2026 (with winter contracts trading at a discount to spot prices), which reduced the commercial incentive for underground storage filling.

In **Asia**, Platts JKM prices followed a similar trajectory. Asian spot LNG prices rose by 95% y-o-y to an average of USD 25.60/MBtu in Q3 2026, their highest Q3 levels since 2022. The disruption of LNG flows via the Strait of Hormuz provided upward pressure on Asian spot LNG prices and incentivised gas-to-coal switching in the region's key LNG import markets. Price volatility on JKM averaged 48% in Q3 2026, almost double the previous year's volatility in Q3. The **spread between JKM and TTF prices** flipped from a European premium of USD 0.90/MBtu in January-February to an Asian premium averaging USD 2/MBtu in March-July. This supported the diversion of flexible LNG cargoes from Europe to Asian markets, which are more directly affected by the closure of the Strait of Hormuz. The spread between Asian and European prices tightened to USD 1.20/MBtu in August-September, indicating fiercer competition for flexible LNG cargoes. **Oil-indexed LNG prices** oscillated in an estimated range of USD 12-14/MBtu, averaging around 30% above their Q3 2025 levels. The impact of higher oil prices is expected to become more pronounced in the latter part of the year, as they filter through the gas contract price formulae with a typical lag of five to six months.

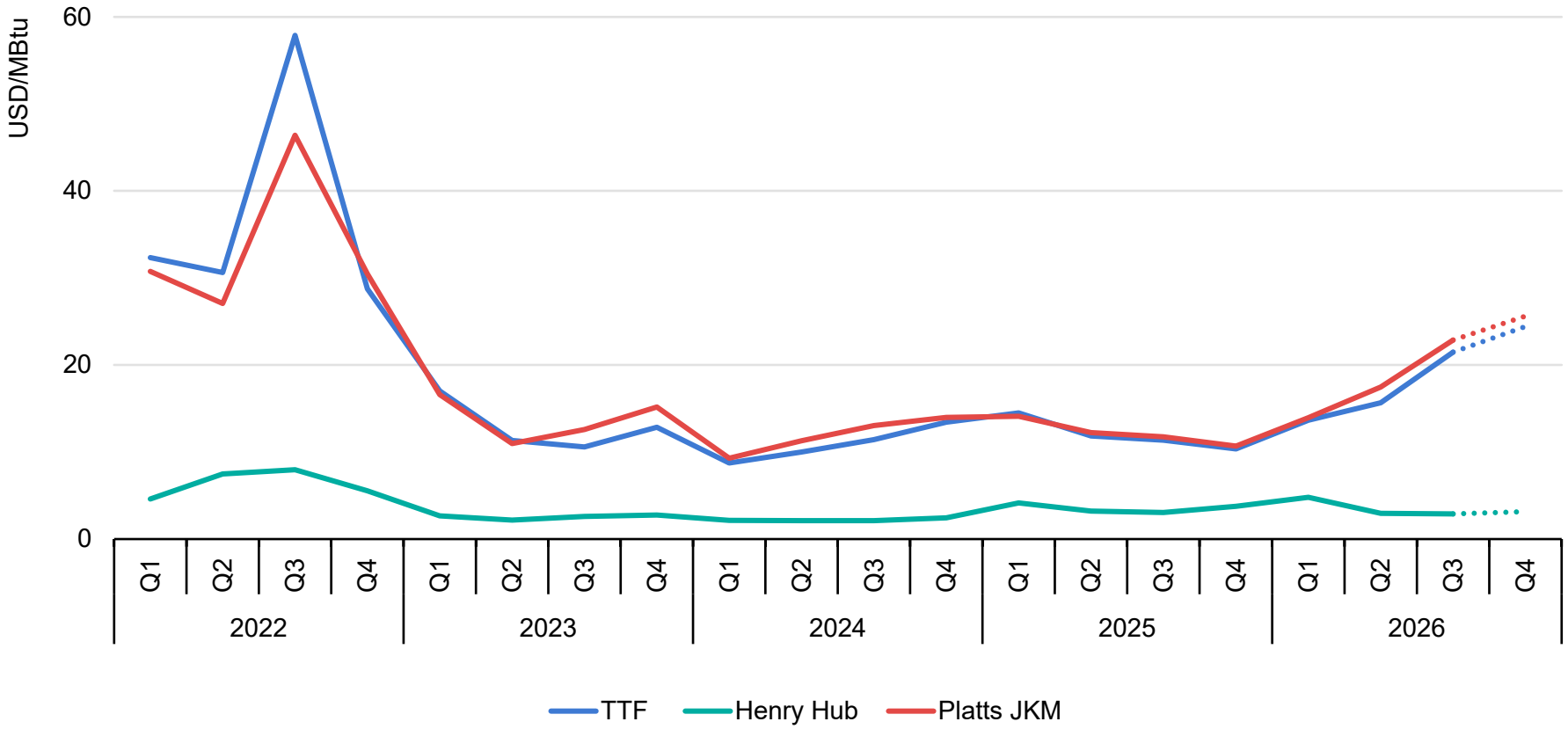
In the **United States**, Henry Hub prices fell by 5% y-o-y to an average of USD 2.90/MBtu in Q3 2026. Strong production growth together with healthy inventory levels provided downward pressure on natural gas prices.

Forward curves as at the beginning of October suggest that European gas prices could gain 55% in 2026 y-o-y and average just below USD 19/MBtu. In Asia, JKM prices could increase by more than 60% to an average of USD 20/MBtu. In the United States, Henry Hub prices could decline by around 3% and average just below USD 3.50/MBtu, supported by strong supply fundamentals.

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…averaging at their highest quarterly level since the 2022/23 energy crisis

Main spot and forward natural gas prices, 2022-2026



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Note: Future prices are based on forward curves as at the beginning of October and do not represent a price forecast.

Sources: IEA analysis based on CME Group (2026), Henry Hub Natural Gas Futures Quotes, Dutch TTF Natural Gas Month Futures Settlements, LNG Japan/Korea Marker (Platts) Futures Settlements; EIA (2026), Henry Hub Natural Gas Spot Price; Powernext (2026), Spot Market Data; S&P Global (2026), Platts Connect.

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Global LNG trade growth turns negative January-October 2026 as Hormuz closure drags on

LNG trade in the first ten months of the year fell by about 11 bcm (or 2%) y-o-y, setting up the market for a full-year y-o-y decline – the first since 2012. Despite significant incremental volumes reaching the market from both new and legacy projects, eight months of constrained traffic through the Strait of Hormuz have shifted the global balance into a far tighter position than was previously expected for 2026.

LNG import flows have had to adjust to this market reality, with both Europe and Asia reducing their imports y-o-y through to October. While relative dynamics between these two key importing regions fluctuated over the first ten months of the year, competition for spot LNG cargoes noticeably intensified from July in response to a confluence of negative market fundamentals and the approach of winter.

Looking ahead, continued disruption to LNG flows from the Persian Gulf remains a significant tightening risk not only for the rest of 2026, but also to the winter 2026/27 balance.

The LNG wave continues to deliver, softening the blow from the closure of the Strait of Hormuz

New liquefaction projects added around 38 bcm of supply y-o-y to the market in the first ten months of the year, with North America accounting for about 85% of these extra volumes. Three projects in particular were central in driving this upside, having started their ramp-up period in 2025: Plaquemines LNG and the Corpus Christi Stage 3 expansion in the United States, as well as LNG Canada despite its operational difficulties.

New projects in Congo and off the coast of Mauritania and Senegal added more modest volumes (around 3 bcm), but nevertheless highlighted the growing role of the African continent in the global LNG market.

While not technically a new project, Darwin LNG in Australia restarted exports in January 2026 following a two-year period offline due to exhaustion of the gas field associated with the project. The tie-in of the replacement Barossa gas field to the export project helped push up Australian LNG exports by about 2.8 bcm (or 3%) y-o-y in the January-October period.

Beyond new liquefaction plants, legacy projects also provided significant upside, with selected exporters adding around 16 bcm of incremental supply y-o-y. First among these are Malaysia and Nigeria, where improved operations and feedgas availability led to a 4 bcm (or 14%) and 5 bcm (or 30%) bump in LNG supply, respectively.

Norwegian exports were up by about 2.5 bcm (or 80%) y-o-y as operations came back to normal following planned and unplanned outages in 2025. Increased deliveries from Russia's sanctioned Arctic LNG 2 project to the People's Republic of China (hereafter

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"China") helped increase the country's exports by over 2 bcm (or 6%) y-o-y over the January-October period. Finally, Oman's LNG exports were up by about 1.4 bcm (or 11%) y-o-y as the country's three-train facility ran comfortably above nameplate capacity.

Taking into account supply downside from other existing plants, the net upside from legacy projects totalled around 13 bcm in the January-October period.

Without Hormuz volumes, market growth is turning negative

The military conflict in the Middle East has drastically reduced transit of LNG cargoes through the Strait of Hormuz since March. Crossings of laden vessels averaged around 10 per month from April to September (LNG vessel traffic had completely ceased in March), compared with about 95 per month in all of 2025.

Laden vessel traffic through the Strait of Hormuz showed signs of improvement in September, with a confirmed 27 laden vessels exiting the strait. However, exports from the region remain highly impaired. Delivered LNG supply from Qatar and the United Arab Emirates (including supply within the Persian Gulf) fell by about 62 bcm (or 63%) y-o-y in the January-October period, representing the largest ever LNG supply shock to the global market.

While upside from new and legacy liquefaction projects kept the market afloat in the early months following the closure of the strait, net cumulative growth since the start of the year had turned negative by August. As the Hormuz disruption persisted into the fourth quarter, the net global supply shortfall reached 11 bcm (or 2%) y-o-y for the January-October period.

Balancing the market has hit imports across all major importing regions

The Strait of Hormuz supply shock triggered a rebalancing of the global LNG market, leading to lower y-o-y LNG imports in both Asia and Europe over the January-October period. Prior to the crisis, expectations were for accelerating supply growth to allow both key importing regions to increase their take simultaneously in 2026, a first since 2019. Instead, the prospect of a full-year y-o-y decline in LNG supply has driven steep competition for available LNG cargoes.

China remained the largest single balancing market on the demand side in volumetric terms, with LNG imports falling by 10% (or 7 bcm) y-o-y in the first ten months of the year. Slowing demand dynamics, continued domestic production growth and greater storage withdrawals combined to alleviate pressure on LNG imports. Pakistan registered the second-largest decline in Asia at 56% (or 4.5 bcm) y-o-y, as Qatar supplied nearly all of the country's LNG in 2025. More mature markets in Asia, such as Japan, Korea and Singapore, also reduced their imports for a combined decrease of about 5 bcm.

However, other markets in the region increased their imports in the January-October period – most notably India and Thailand. In India, historically a relatively price-sensitive market, imports grew by 10%

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(or nearly 3 bcm) y-o-y as domestic production weakened more significantly than total demand. In Thailand, growing power sector gas demand was key in imports rising by 30% (or 3.5 bcm) y-o-y.

In total, Asian LNG imports fell by 1.8% (or 5.5 bcm) y-o-y in the January-October period.

European LNG imports fell by 6% (or nearly 9 bcm) y-o-y in this period as weakness in gas demand persisted and injections into underground storage remained relatively modest despite a weak storage position at the end of last winter. While June and July accounted for a significant share of the European downside, imports stabilised y-o-y in August and September before again falling significantly y-o-y in October.

Middle Eastern LNG imports dropped by more than 40% (or about 5 bcm) y-o-y, notably as Kuwait has remained cut off from the global market since March, receiving cargoes only from Qatar since the start of the crisis.

However, other markets showed sturdier import dynamics. Egypt remained an outlier in the global LNG import space, with strong gas demand growth and continued decline in domestic production driving LNG imports up by 70% (or 6.5 bcm) y-o-y in the January-October period. LNG imports in Central and South America kept a stable-to-positive trend (up nearly 2 bcm, or 9% y-o-y), supported notably by imports into Colombia and Argentina. Together, these cases underline how weather factors and tightening domestic supply dynamics can lead to relatively price-inelastic import demand in certain markets.

No prospects for growth in 2026

With delivered LNG supply down by 11 bcm y-o-y in the January-October period, all signals point towards a full-year decline in LNG trade in 2026. Without a marked improvement in loadings from Persian Gulf exporters, full-year delivered global LNG supply is expected to fall by about 3% (or almost 20 bcm) y-o-y. Even a swift recovery in Qatari and UAE exports in November and December – judged to be unlikely at the time of publication – would be insufficient to bring the market back into positive territory.

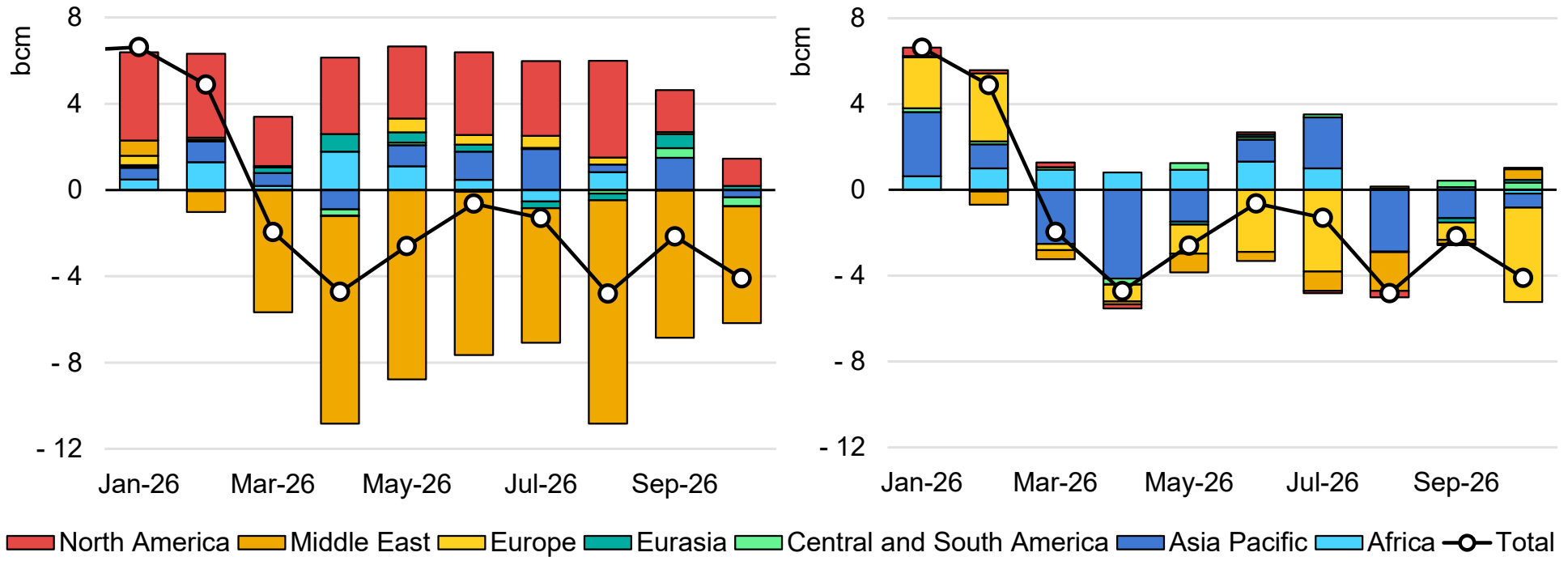
In order to balance the market, both Asia and Europe are expected to see a y-o-y decline in their full-year imports in 2026 as tight market conditions continue to squeeze some buyers out of the spot market in the fourth quarter of 2026. Weather conditions and, relatedly, EU underground gas storage withdrawals remain among the top factors expected to shape exactly how this import downside plays out between the two regions.

With Persian Gulf exports already very low, the global LNG balance will be highly reactive to operations at new and existing liquefaction plants. Any outage would risk tipping the market into a deeper y-o-y decline.

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LNG supply has fallen y-o-y in every month since March

Year-on-year change in delivered LNG supply by exporter (left) and by importer (right), January-October, 2026 vs 2025



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Source: IEA analysis based on ICIS (2026), LNG Edge.

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LNG freight rates decline despite heightened security risks

LNG shipping markets faced a combination of heightened geopolitical risk and weakening freight market fundamentals through October 2026. Three separate security incidents involving LNG carriers were reported between July and October, including projectile strikes on the LNG carriers Al Rekayyat on 6 July and GasLog Shanghai on 31 July while transiting the Strait of Hormuz, followed by another reported strike on the Maran Gas Mystras in early October, also in the Strait.

LNG transits through the strait remained well below pre-crisis levels, despite a gradual recovery in September and October. However, geopolitical disruption had only a limited and short-lived impact on LNG freight rates. After rising earlier in the year, they declined markedly from July onwards, although they stayed significantly above 2025 levels for most of the period. In the Atlantic Basin, average spot charter rates for tri-fuel diesel electric (TFDE) vessels fell to around USD 50 000/d in Q3 2026, down almost 60% from Q2 2026 levels. Pacific Basin rates averaged around USD 55 000/d, a decline of 25% quarter-on-quarter. Despite this correction, spot charter rates remained above levels a year earlier, averaging 52% higher in the Atlantic Basin and 63% higher in the Pacific Basin compared with Q3 2025.

The decline occurred as vessel availability continued to increase during the year while LNG shipping demand remained relatively subdued. Reduced LNG exports from the Persian Gulf and limited spot procurement activity constrained cargo opportunities, while continued additions to the LNG carrier fleet increased the number of vessels competing for available cargoes. Industry estimates indicate that the global LNG carrier fleet comprises approximately 740-770 conventional vessels in active service, with more than 280 newbuilds on order. Around 85-110 vessels are scheduled for delivery in 2026, although actual deliveries may differ from initial forecasts because of shipyard delays and schedule revisions. As a result, charter rates weakened sharply despite ongoing disruption affecting LNG traffic through the Strait of Hormuz.

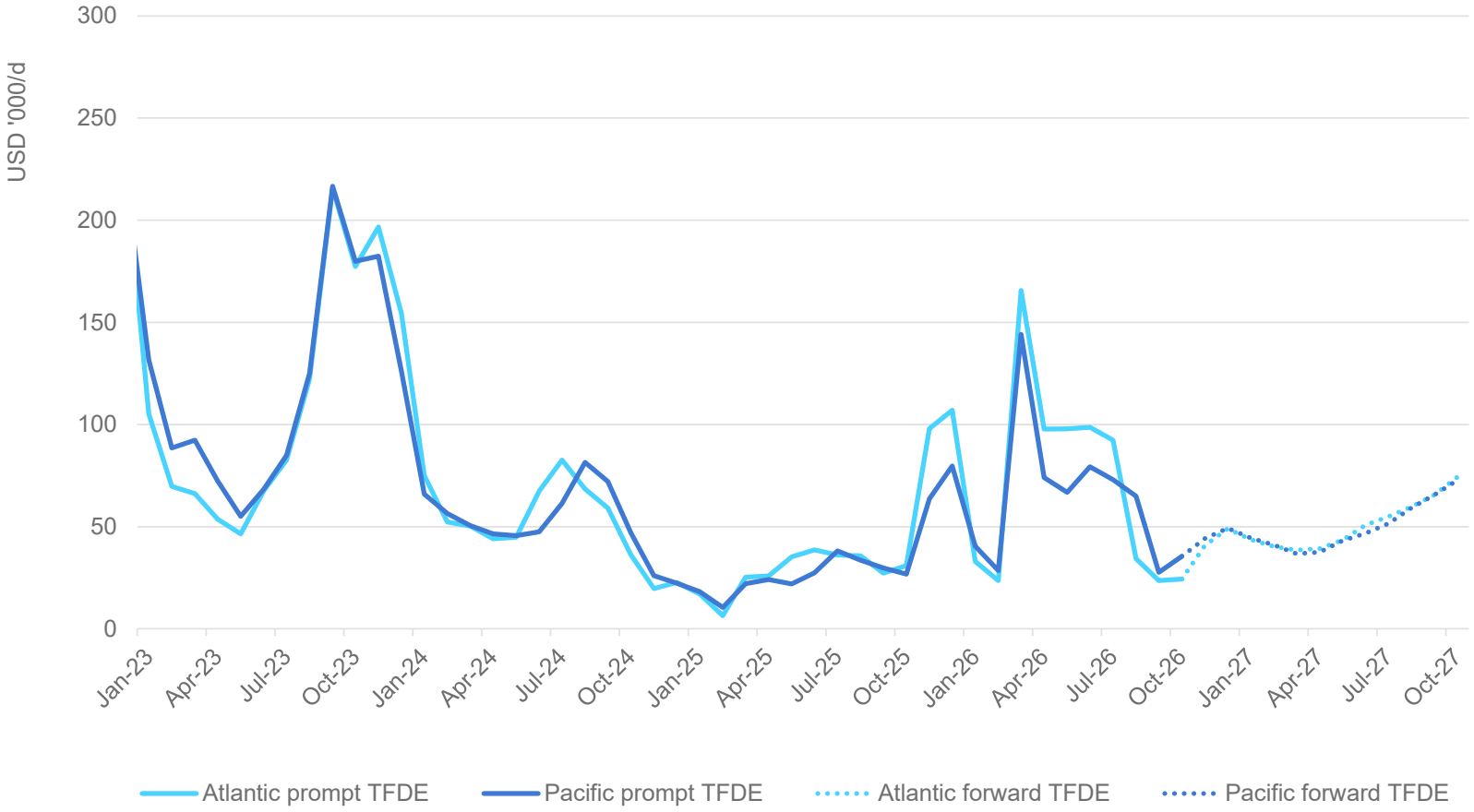
The downward trend continued through September. Monthly average spot charter rates reached their lowest levels of the year in September in both the Atlantic and Pacific basins, reflecting ample vessel availability, before increasing slightly in October.

Forward freight assessments for the upcoming winter season remained relatively subdued at the end of October. Compared with the forward curves presented in the Gas Market Report Q3 2026, average forward rates for Q4 2026 declined by around 63% in the Atlantic Basin and 55% in the Pacific Basin between end-June and end-October. This sharp decline, despite continued disruption through the Strait of Hormuz and repeated security incidents involving LNG carriers, suggests that market participants expect abundant vessel availability to outweigh disruption-related shipping demand this winter.

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Approaching winter and persistent security risks failed to prevent a decline in LNG freight rates

Monthly average LNG carrier rates and forward assessments, Atlantic and Pacific basins, January 2023-October 2027



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Note: TFDE = tri-fuel diesel electric vessel.
Source: IEA analysis based on Spark Commodities (2026), Freight data, as of 31 October 2026.

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US natural gas production is set to reach a new all-time high in 2026

US dry natural gas production continued to grow in the third quarter of 2026, rising by 4.3% y-o-y in Q3. Expanding LNG export capacity remained a key source of demand, with the ramp-up of new liquefaction projects continuing to increase feedgas requirements. Production trends, however, varied considerably across regions; production increases continued in the Permian Basin and Haynesville Shale play, while in the Appalachian Basin production remained broadly flat due to a lack of takeaway capacity.

Permian Basin

The Permian Basin remained the principal component of overall US natural gas production growth, as basin output increased by 5.0% y-o-y in Q3 and by 7.6% y-o-y in Q1-Q3 2026. A steadily increasing gas-to-oil ratio remains a key driver of output growth in this associated gas basin. A moderate rise in drilling activity, largely spurred by higher West Texas Intermediate oil prices, has also supported associated gas production. Finally, in addition to higher rig counts, horizontal wells have become progressively longer in recent years, enabling producers to increase output without a commensurate rise in rig count. This trend helps explain consistent production growth in 2026 despite only modest increases in rig counts over the same period.

Gas takeaway capacity, a major concern earlier in the year, has largely expanded this quarter as new pipeline projects finished commissioning. The Gulf Coast Express compressor upgrade, bringing around 6 bcm/yr of additional takeaway capacity from the Waha Hub to South Texas, entered service in June 2026, slightly ahead of schedule. Phase 1 of the Hugh Brinson Pipeline, adding 15 bcm/yr of capacity, entered service on 4 August and is expected to ramp up in the coming months, while a second phase adding an additional 7 bcm/yr is expected in early 2027.

This new capacity has already helped ease the bottlenecks observed earlier in the year, with prices at the Waha Hub returning to positive territory as of mid-June and averaging USD 1.86/MMBtu in Q3, compared with an average of USD -2.92/MMBtu in Q2. By allowing more natural gas to leave the Permian Basin, the new takeaway capacity has reduced the local oversupply that has in recent years pushed prices down – sometimes below zero. Additional takeaway capacity is under construction, particularly the Blackcomb Pipeline, which is scheduled to add 25 bcm of new west-to-south capacity this November. Smaller projects such as the Blackfin Pipeline in East Texas and Wahalajara System Expansion in South Texas are examples of continued midstream investment in the region.

Appalachian Basin

Despite a slight improvement in growth relative to the previous quarter, production in the Appalachian Basin remained broadly stagnant, reporting only 0.6% growth y-o-y in Q3. A lack of takeaway

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capacity continues to weigh on output growth: the basin recorded year-on-year growth in only two of the past nine months. Drilling activity has continued to weaken, with the rig count in late September standing around 15% below the recent peak reached in February 2026.

Future expansions of takeaway capacity are not planned to begin service during the forecast period: the MVP Boost project was only recently approved for construction and the proposed Mountain Valley Southgate Pipeline is finally under construction following a series of regulatory and judicial hurdles. Prospective demand from in-basin sources such as new data centres in Virginia and Ohio are also unlikely to materially support gas consumption in the immediate term.

Haynesville Shale

Haynesville production increased by a substantial 7.8% y-o-y in Q3, extending a period of sustained growth that began in April 2025. As a relatively high-cost and non-associated gas region, Haynesville output remains highly sensitive to domestic gas prices. Although Henry Hub prices remained below their levels a year ago for much of 2026, relative price stability and an improving y-o-y price difference provided sufficient support for continued drilling activity.

The region's rig count in September again matched the peak levels reached in April 2026. Strong LNG feedgas demand during the third quarter, and expectations of further growth during the winter, continue to underpin investment in associated infrastructure projects, including the Port Arthur Pipeline.

LNG exports

As in prior quarters, rapid LNG export growth continued to push up US feedgas requirements. LNG exports in the third quarter of 2026 increased by 19% y-o-y, even given typical levels of seasonal maintenance. Growth was primarily driven by Plaquemine's LNG reaching capacity operations by late 2025 and by the continued ramp-up of the Corpus Christi Stage 3 expansion.

The expansion of LNG export capacity is expected to remain the principal driver of US gas demand growth through to the end of 2026 and into 2027, with Golden Pass LNG and Energía Costa Azul (located in Mexico but relying on pipeline gas imports from the United States) further adding to LNG feedgas demand.

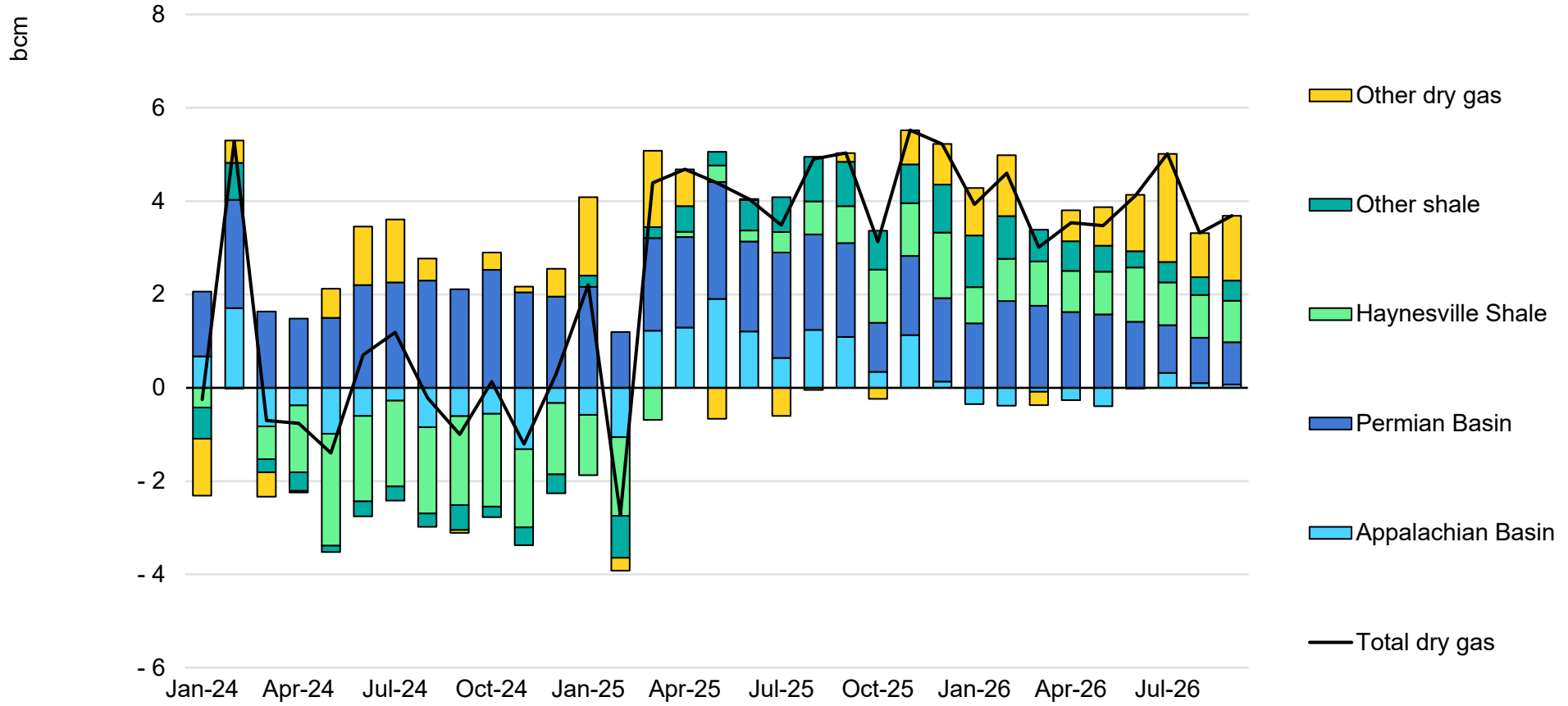
Dry natural gas production outlook

US dry natural gas production growth is expected to reach close to 4% y-o-y in 2026 as supportive oil and gas market fundamentals continue to drive expansion in upstream activity. While the outlook for domestic gas demand growth remains relatively modest, expanding LNG export capacity is expected to continue providing a strong demand-side pull. Risks to this outlook therefore centre on delays to the commissioning and ramp-up of liquefaction projects, which could weaken market fundamentals and soften growth in US natural gas supply.

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The Permian Basin remains the primary driver behind US gas production growth

Year-on-year change in dry natural gas production by source in the United States, 2024-2026



IEA. CC BY 4.0.

Note: August and September 2026 include estimated data.
Source: IEA analysis based on EIA (2026), Natural Gas.

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Eurasian gas production is set to increase in 2026…

Following a decline of 3% in 2025, Eurasia's natural gas output moved towards recovery in Q1-Q3 2026. First data suggest that the region's natural gas output grew by 1.5% y-o-y in the first three quarters of the year, primarily driven by Russia. Stronger domestic demand together with higher LNG exports have driven up natural gas production in Eurasia, albeit remaining 10% below 2021 levels.

Russia's natural gas production declined by 3% (or 25 bcm) in 2025 amid weaker domestic demand and lower exports. This trend reversed in Q1-Q3 2026. The country's natural gas output grew by over 3% (or 16 bcm) y-o-y in the first nine months of 2026. This was largely supported by stronger deliveries to the domestic market, as colder winter temperatures in Q1 supported higher gas demand in the residential and commercial sectors.

Russia's piped gas exports to the European Union increased by 1.5% (or 0.2 bcm) y-o-y in Q1-Q3 2026, while deliveries to Türkiye fell by 17% (or 2.4 bcm) y-o-y in the first eight months of the year. Russia's gas exports to China via the Power of Siberia pipeline system are understood to have marginally increased compared with last year's levels. In addition, Russia continues to ramp up its piped gas supplies to Central Asia. According to a statement at the beginning of September, Gazprom increased its deliveries to Central Asian markets by 70% compared with 2025.

Russia's LNG exports grew by 7% (or more than 2 bcm) y-o-y in Q1-Q3 2026. In the European Union, the REPowerEU regulation is taking effect, with short-term Russian LNG imports and piped gas imports banned from 25 April and 17 June, respectively. While Russia's LNG supplies to the European Union continued to increase over the May-June period, they fell by 30% (or 1 bcm) y-o-y in Q3 2026. Russian LNG imports under long-term contracts are banned from 1 January 2027 and piped imports will be completely phased out by Q4 2027. This is set to reduce Russian gas exports to the European Union by 30 bcm in 2027 compared with 2026.

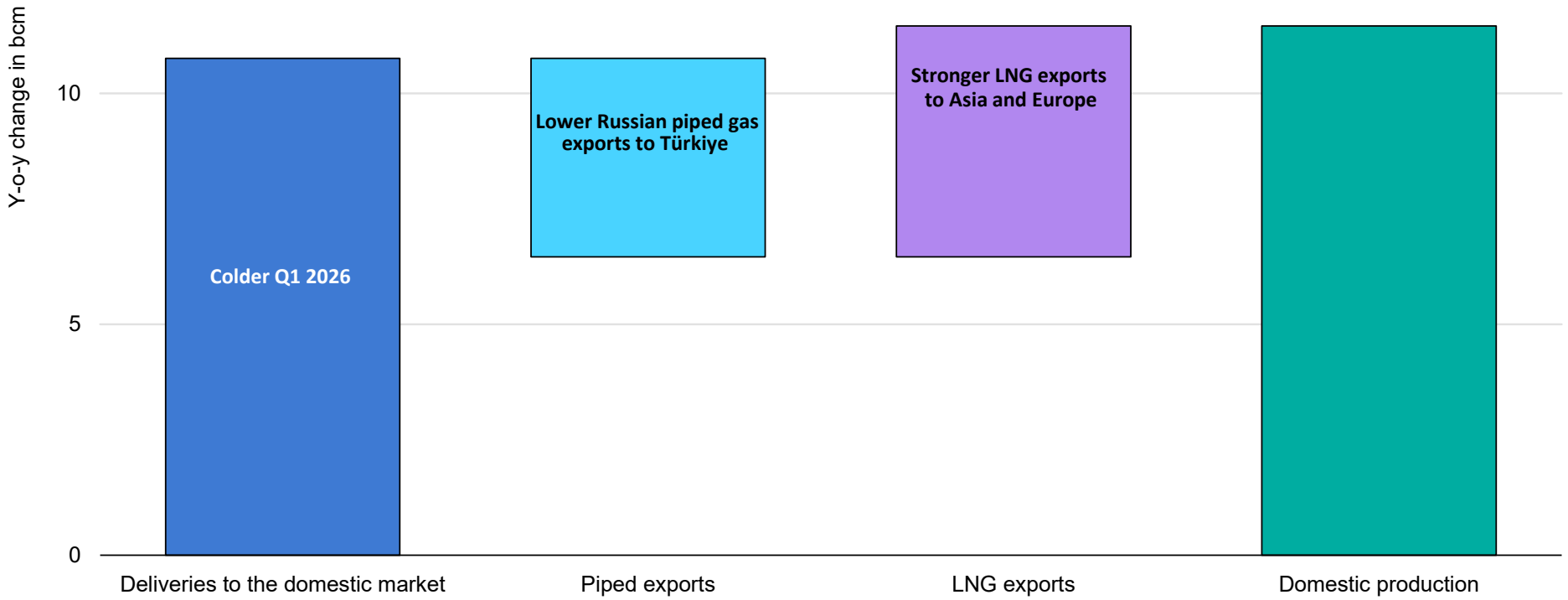
Natural gas production displayed varying patterns across Central Asian countries. In Turkmenistan it grew by 0.4% y-o-y in H1 2026. In contrast, natural gas production in Uzbekistan declined by 16% (or over 5 bcm) y-o-y in Q1-Q3 2026, reflecting the deteriorating upstream deliverability in the country. In Kazakhstan estimated sales gas production fell by around 9% (or more than 2 bcm) y-o-y during the same period. In Azerbaijan sales gas production declined by 1.5% (or 0.5 bcm) y-o-y in the first nine months of 2026, with the country's piped gas exports falling by around 4% y-o-y over the same period.

This forecast expects Eurasia's natural gas production to increase by around 1.5% in 2026, albeit remaining 10% below its 2021 levels. Russia is projected to account for the bulk of the growth in 2026, with higher gas production supported by a combination of a recovery in domestic demand and higher LNG exports.

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…supported by higher domestic gas demand and stronger LNG exports

Forecast year-on-year change in natural gas production, exports and domestic deliveries in Eurasia, 2026 vs 2025



IEA. CC BY 4.0.

Sources: IEA analysis based on ENTSOG (2026), Transparency Platform; ICIS (2026), LNG Edge; and various news sources.

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Middle Eastern natural gas production is set for its steepest decline in history

The conflict in the Middle East has profoundly disrupted regional natural gas market dynamics and has led to an unprecedented decline in local gas production, consumption and LNG exports. First estimates indicate that Middle Eastern **natural gas output** fell by around 19% (or almost 110 bcm) y-o-y in Q1-Q3 2026, with the entirety of the contraction concentrated in the March-September period. More than half of this decline is associated with the reduced LNG exports from Qatar and the United Arab Emirates following the closure of the Strait of Hormuz. Under the assumption that the disruption of LNG export flows via the strait lasts until the end of 2026, this forecast expects Middle Eastern natural gas production to drop by 18% (or around 140 bcm) in 2026, its steepest decline in history.

The region's natural gas consumption has been negatively affected by reduced gas supply availability and the disruption of certain gas-intensive industrial activities due to a combination of export restrictions and attacks on industrial sites. This includes lower natural gas use in the petrochemical and fertiliser sectors, as well as for energy sector own use (such as for LNG liquefaction purposes). In addition, tighter gas supplies are reducing the **security of electricity supply** in the region's import-reliant markets. First estimates suggest that the region's natural gas demand fell by more than 10% (or around 50 bcm) y-o-y in Q1-Q3 2026. For the full year of 2026, this forecast expects Middle Eastern natural gas demand to fall by around 10% (or approximately 60 bcm) y-o-y.

Iran's natural gas production fell by an estimated 6% (or 12 bcm) y-o-y in Q1-Q3 2026. Several gas processing plants located in the Assaluyeh industrial complex **were** hit in March, disrupting an estimated 12% of Iranian gas production. The affected facilities process sour gas from the offshore South Pars gas field, which accounts for more than 70% of Iran's total natural gas output. Consequently, **Iran's natural gas output** plummeted by 9% (or more than 13 bcm) y-o-y during the March-September period. In addition, several petrochemical facilities at Assaluyeh were damaged in April, weighing on the country's industrial gas consumption. First estimates indicate that **Iran's natural gas demand** fell by over 6% (or more than 12 bcm) y-o-y in Q1-Q3 2026, with the decline entirely concentrated in the March-September period. Iran's **gas exports to Iraq** were briefly disrupted in March following air strikes on Iran's gas processing facilities, but it is understood that flows have recovered since then. **Pipeline gas exports to Türkiye** were unaffected by the strikes and increased by more than 30% (or 1.5 bcm) y-o-y in the first eight months of 2026. Monthly deliveries to Türkiye reached an all-time high of 0.9 bcm in May. The long-term gas supply contract between Iran and Türkiye (9.6 bcm/yr) is understood to have expired in July 2026, although flows continued during August. There are no reports on a successor agreement as of the end of October 2026. Iran's natural gas production is projected to decline by around 6% (or more than 15 bcm) in 2026 amid lower domestic gas use and the end of piped gas exports to Türkiye in the second half of the year.

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Qatar's natural gas and LNG industry has been profoundly disrupted by the conflict in the Middle East. The country's **natural gas production** plummeted by more than 50% (or 70 bcm) in Q1-Q3 2026 due to the combined effect of collapsing LNG exports and lower domestic gas use. QatarEnergy **stopped the production of LNG** on 2 March 2026 due to military attacks on its LNG liquefaction facilities at Ras Laffan. It is estimated that around 55 bcm of LNG output has been lost during March-September (a decline of over 80% y-o-y). While force majeure was declared, Qatar was able to ship around 40 LNG cargoes during March-September, with all deliveries destined for Asian markets. In addition, Qatar has halted the production of certain downstream products, including urea, polymers, methanol and aluminium, since the beginning of March, while Train 2 of Qatar's Pearl GTL (gas-to-liquid) plant was damaged on 18 March. It is understood that Qatar's **piped gas exports** to the United Arab Emirates and Oman via the Dolphin Pipeline were not affected by the conflict. Qatar's **natural gas consumption** fell by almost 40% (or more than 12 bcm) y-o-y in Q1-Q3 2026. Under the assumption that the disruption of LNG export flows via the Strait of Hormuz lasts until the end of 2026, Qatar's natural gas production is expected to drop by more than 50% (or around 100 bcm) in 2026.

In contrast with other regional markets, **Oman**'s natural gas production is on an upward trend. First data indicate that the country's gross natural gas output grew by 10% (or more than 2 bcm) y-o-y in the first five months of the year, driven both by higher internal demand and stronger LNG exports. Natural gas consumption increased by an estimated 9% (or almost 1.5 bcm) on the back of stronger gas burn in the power sector. Oman's LNG exports grew by more than 10% (or 1.2 bcm) y-o-y in Q1-Q3 2026 amid stronger deliveries to Asian markets. Its export terminal is located outside the Strait of Hormuz. Oman's natural gas production is forecast to increase by 8% in 2026.

Saudi Arabia's gas production, all of which is consumed domestically, fell by around 16% y-o-y in Q2 and by 8% in the first half of 2026, as oil production shut-ins due to export capacity constraints reduced associated gas output, which accounts for around 40% of the country's gas supply under normal operating conditions. Following a marked recovery in oil and associated gas production from September, gas output is expected to rebound further in the fourth quarter, limiting the overall decline in 2026 to around 5%. The relatively modest full-year decline is also supported by new production from the Jafurah and Tanajib projects, despite constraints on Tanajib's feedgas supply earlier in 2026. Domestic gas consumption is also expected to decline by 5% in 2026, driven by lower industrial and power demand and gas-to-oil switching in power generation during the early stages of the crisis.

The United Arab Emirates sustained multiple attacks on its upstream gas infrastructure during the early months of the crisis, including at the Shah gas field, which suffered a brief outage in March, and the Habshan gas processing facility, which sustained significant damage in April. Around 85% of Habshan's pre-crisis capacity had been restored by June, with full resumption expected only in 2027. These disruptions, compounded by the halving of LNG

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exports since the start of the crisis due to the closure of the Strait of Hormuz, led to a 30% y-o-y decline in the country's reported gas production in Q2 2026 and a 20% decline in the first half of the year. With a progressive recovery in the second half of the year, total gas production is projected to decline by around 12% in 2026. Domestic consumption is expected to decrease by more than 10% and LNG exports by more than 30% for 2026 as a whole.

Israel implemented precautionary measures and suspended production at its Karish and Leviathan fields during the first month of the conflict, resulting in a 17% y-o-y decline in gas production in Q1 2026. However, production fully resumed in early April and rose by 14% y-o-y in Q2 thanks to recently completed upstream and pipeline capacity expansions. As a result, Israel's natural gas output is expected to expand in 2026, despite the temporary production suspension lasting about 40 days. Domestic consumption is projected to increase by more than 5% in 2026, primarily driven by stronger gas burn in the power sector.

Kuwait's natural gas production fell by more than a third y-o-y in the first seven months of 2026, and by close to 50% between March and July, as oil and associated gas production were heavily curtailed during the early stages of the conflict. With oil production recovering to near pre-crisis levels by September, associated gas production is expected to follow a similar recovery, limiting the full-year decline in gas production to less than 20% in 2026. Domestic gas consumption is projected to fall by close to 30% in 2026 due to reduced industrial activity, power demand and oilfield operations during the peak of the crisis, as well as gas-to-oil switching in the power sector. Kuwait has continued to receive regular LNG deliveries from Qatar, which do not require transit through the Strait of Hormuz. Nonetheless, LNG imports from Qatar fell by more than 20% y-o-y in the first nine months of 2026, while overall LNG receipts declined by almost 50% as Kuwait's other LNG suppliers have been unable to deliver cargoes since the start of the crisis.

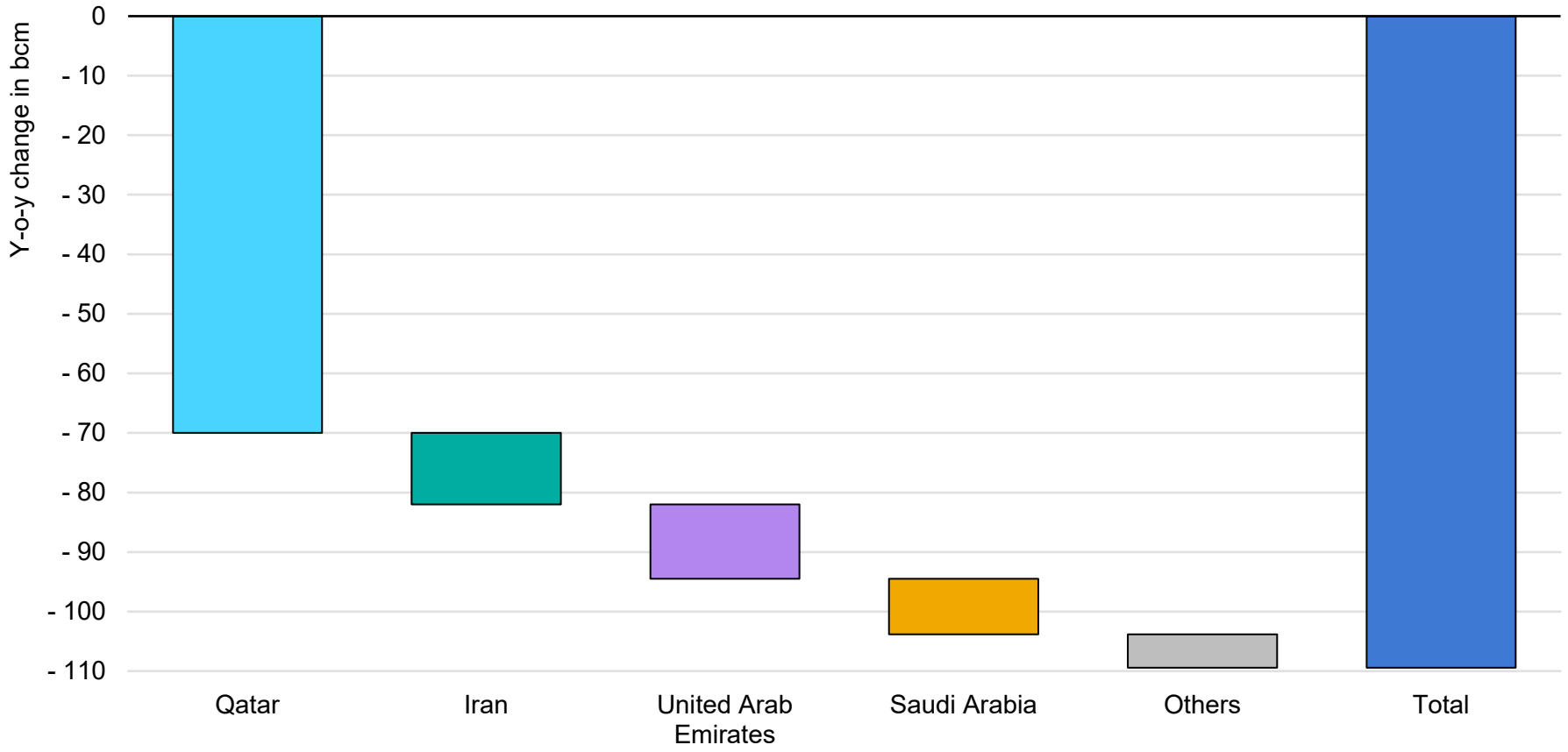
Iraq's gas production, three-quarters of which is associated with oil production, is estimated to have fallen sharply during the first six months of the conflict, but is expected to recover to near pre-crisis levels by Q4 2026, resulting in a full-year production decline of around 15%. Pipeline gas deliveries from Iran were temporarily disrupted in March 2026 following strikes on Iran's South Pars field, while the planned start of LNG imports via an FSRU has been delayed from 2026 to Q2 2027. Iraq's gas consumption is projected to decline by more than 10% in 2026 amid severe electricity shortages, particularly during the peak summer months.

Bahrain's natural gas production is expected to decline by 2% and domestic consumption by 7% in 2026, as oil and gas production experienced brief disruption and industrial operations were scaled back during the early months of the conflict. No LNG imports are projected in 2026, compared with nearly 1 bcm received in 2025 (most of it from the United States).

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Middle Eastern gas production fell steeply in Q1-Q3 2026 amid export constraints and lower domestic gas use

Estimated year-on-year change in natural gas production in the Middle East, Q1-Q3 2026



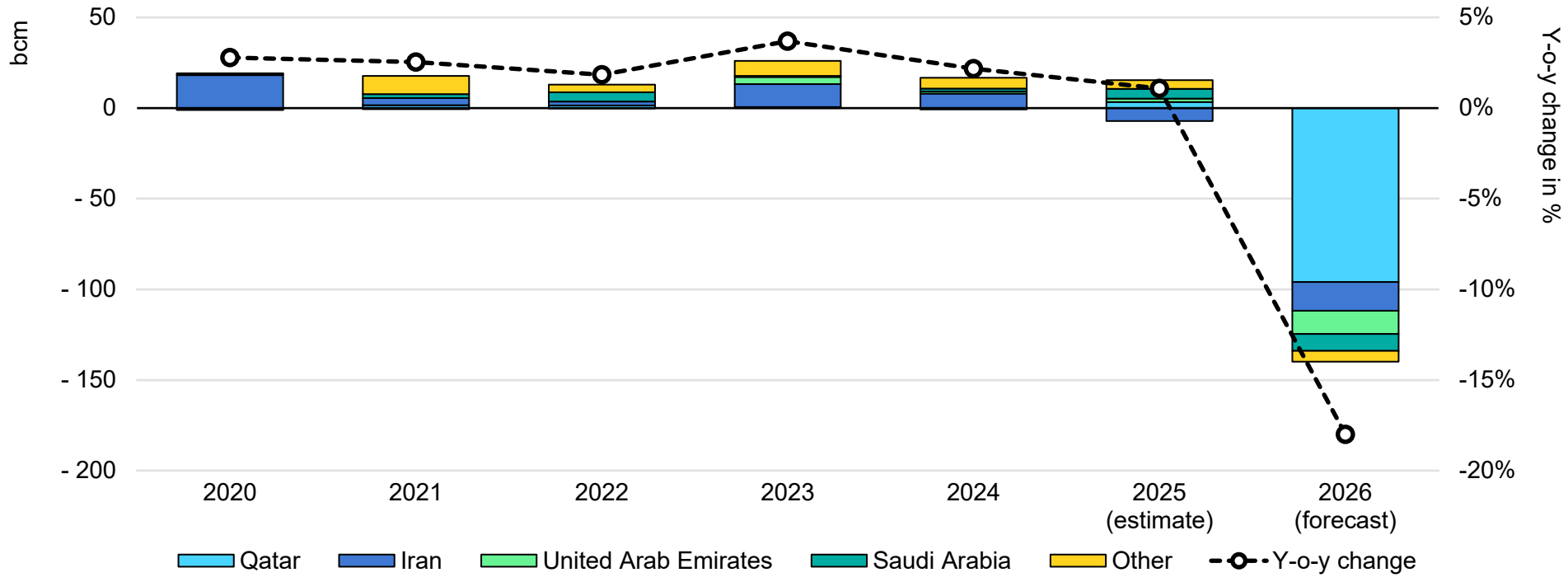
IEA. CC BY 4.0.

Sources: IEA analysis based on ICIS (2026), LNG Edge; JODI (2026), World Gas Database and various news sources.

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Middle Eastern gas production is expected to decline by almost 20% in 2026

Year-on-year change in gas production in the Middle East, 2020-2026



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Europe's LNG imports fell steeply in Q2-Q3 2026…

OECD Europe's primary natural gas supply fell by an estimated 2% (or around 6.5 bcm) y-o-y in Q1-Q3 2026. This decline was entirely concentrated in Q2-Q3 as lower LNG inflows together with the continued reduction in domestic natural gas production led to a contraction in primary gas supply.

Europe's **LNG imports** fell by 3.5% (or around 4.5 bcm) y-o-y in Q1-Q3 2026. In Q1, LNG inflows rose by around 10% (or almost 5.5 bcm) y-o-y to reach an all-time high of 55 bcm. This growth was more than offset by the declines recorded in Q2-Q3, when European LNG imports plummeted by 12% (or almost 10 bcm) y-o-y. Reduced global LNG supply following the closure of the Strait of Hormuz led to stronger competition with Asia for flexible LNG cargoes. Asian spot LNG prices displayed a premium of USD 1.5/MBtu over European hub prices during Q2-Q3 2026, which supported the diversion of LNG cargoes towards Asia. LNG retained its position as Europe's largest source of primary gas supply with a share of 37% in Q1-Q3 2026. The United States alone accounted for over 60% of total LNG deliveries to Europe during this period. Russia was Europe's second-largest LNG supplier, with a share of 13% of total LNG imports and with deliveries largely concentrated in Belgium, France and Spain.

Norway's piped gas deliveries to the rest of Europe grew by 2% (or 1.9 bcm) y-o-y in Q1-Q3 2026. This was supported by rising deliveries to Continental Europe (up 3.6%), while exports to the United Kingdom fell by almost 2.5%. **Non-Norwegian domestic production** declined by more than 4% (or 2 bcm) y-o-y in the first eight months of 2026. Natural gas output in United Kingdom dropped by around 7% (or 1.4 bcm) y-o-y and by 8% (or 0.5 bcm) y-o-y in the Netherlands. These declines were partially offset by strong production growth in Denmark from the redeveloped Tyra gas field.

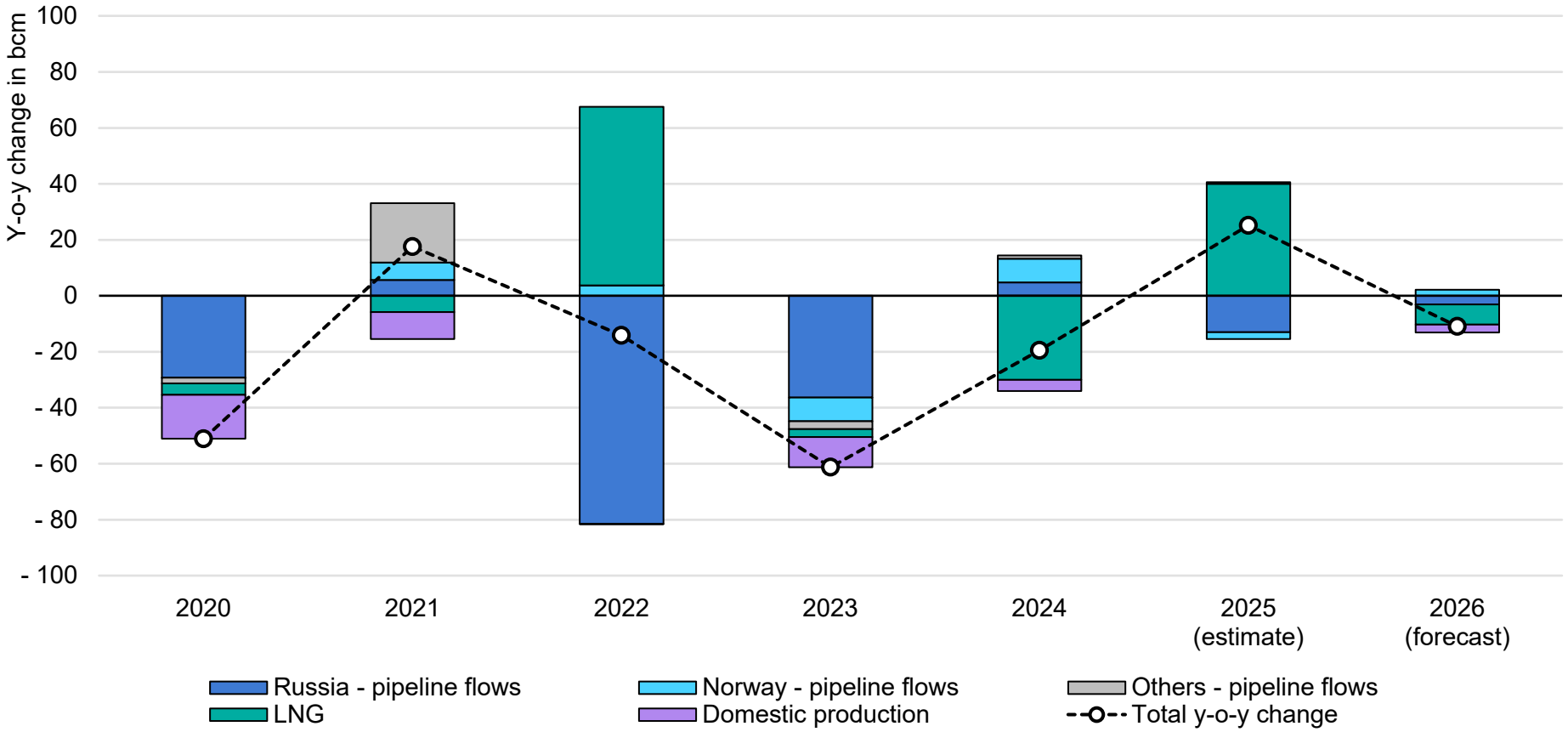
Russia's piped gas supplies to the European Union grew by 1.5% (or 0.2 bcm) y-o-y in Q1-Q3 2026. Exports to Türkiye declined by 17% (or 2.4 bcm) y-o-y in the first eight months of 2026. The share of Russian piped gas in Europe's gas demand stood at an estimated 8% in Q1-Q3 2026. Piped gas supplies from **North Africa** grew by 4% (or almost 1 bcm) y-o-y, while gas exports from **Azerbaijan** to the European Union remained close to last year's levels in Q1-Q3 2026. Piped gas supplies from **Iran** to Türkiye increased by more than 30% (or 1.5 bcm) y-o-y in the first eight months of 2026. The long-term gas supply contract between Iran and Türkiye is understood to have expired in July, although flows continued during August. There are no reports on a successor agreement as of the end of October 2026.

This **forecast** projects a continued decline in Europe's LNG imports in Q4, under the assumption that the disruption of LNG export flows via the strait lasts until the end of 2026. For the full year, Europe's LNG inflows are expected to decline by 4% (or 7 bcm) compared to 2025. Piped gas supplies in Q4 are expected to marginally decline amid lower deliveries from Iran and Norway (due to the Ormen Lange outage).

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…weighing on the region's primary gas supply

Year-on-year change in natural gas imports and domestic production in the European Union, Türkiye and the United Kingdom, 2020-2026



IEA. CC BY 4.0.

Sources: IEA analysis based on Eurostat (2026), Energy Statistics; ICIS (2026), LNG Edge; JODI (2026), Gas World Database.

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Asia's natural gas demand is set to decline in 2026 for the third time this decade

The disruption of LNG flows via the Strait of Hormuz have tightened supply fundamentals in Asia during 2026 and driven up regional gas prices to their highest since the 2022/23 energy crisis. Tighter LNG supply has prompted the adoption of **demand-side measures and fuel-switching** policies across Asian markets, which together with higher prices, has been weighing on the region's gas consumption since the beginning of the Hormuz crisis.

First estimates indicate that natural gas demand in the Asia Pacific region fell by more than 1% (or 10 bcm) y-o-y in the first nine months of 2026, with the decline largely concentrated in the second and third quarters of the year. This has been largely driven by lower natural gas use in the power sector and reduced deliveries to gas-intensive industries such as fertilisers and refining.

Chinese gas demand fundamentals have deteriorated in 2026 amid a high global gas price and a subdued economic situation domestically. Gas demand is estimated to have fallen by as much as around 5% y-o-y in the third quarter, largely offsetting gains from earlier in the year and bringing January-September demand down by close to 1% y-o-y. Power generation has accounted for most of the decline since the start of the year, but industrial demand also took a negative turn in the third quarter. City gas demand, combining residential and commercial demand as well as road transport, has been more robust, broadly in line with expanding retail gas connections. For full-year 2026, we expect Chinese gas demand to fall by about 1.5% y-o-y, its first decline since 2022.

On the supply side, all sources showed more tempered dynamics. China's domestic production growth has slowed considerably in 2026, totalling only about 1.5% y-o-y in the January-August period (compared with about 6% y-o-y in all of 2025). Pipeline imports have declined slightly, with deliveries from Central Asia underperforming and Russian flows flatlining after having reached capacity in 2025. Finally, LNG imports declined the most, falling by 10% (or 7 bcm) y-o-y from January to October, showing China's key role in balancing the LNG market.

Japan's gas demand declined by 3.5% during the first half of 2026. This was primarily due to weaker demand against the backdrop of the Strait of Hormuz crisis. The main drivers behind this decline were reduced gas-fired power generation following the government-led increase in coal-fired power plant utilisation (up 1.2% y-o-y) and the priority use of expanding renewable power sources (up 1.7% y-o-y).

In Japan's residential sector, gas demand has also declined compared with previous years due to warmer-than-usual winter temperatures and a relatively cool summer compared with last year. Residential gas demand is expected to decline y-o-y, as a warm winter is forecast for the second half of 2026 due to the El Niño phenomenon.

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In the second half of 2026, Japan's gas demand is expected to continue to decline, taking into account the continued impact of the supply shock caused by the Strait of Hormuz blockade, as well as the impact of the Kashiwazaki-Kariwa Nuclear Power Plant, which restarted operations in March. **Overall, Japan's gas demand in 2026 is projected to decrease by approximately 5% y-o-y.**

Korea's natural gas demand increased by around 3% in the first half of 2026. With a high dependence on Middle Eastern LNG, Korea responded to the impact of the Strait of Hormuz blockade by increasing coal-fired and nuclear power generation while reducing gas-fired power generation. However, overall natural gas demand increased y-o-y, driven by higher demand due to a cold spell at the beginning of the year and an increase in industrial-sector gas demand, particularly from the petrochemical sector, in June.

Around 20% of Korea's LNG imports are typically sourced from the Middle East. In response to the impact of the Strait of Hormuz blockade, **Korea has increased LNG imports from the United States.**

Full-year natural gas demand in 2026 is projected to increase by around 2% y-o-y. While natural gas consumption in the power sector is expected to remain subdued due to the impact of the Strait of Hormuz blockade, strong industrial demand is expected to support overall natural gas demand growth.

India's gas demand contracted sharply from March to May 2026 in the wake of the crisis, before recovering to levels broadly in line with a year ago from June as buyers adapted their supply sourcing. Over January-September, demand was down 3% y-o-y. The adjustment was borne unevenly across sectors: city gas distribution continued to expand, up 16% y-o-y, shielded by government allocation to residential and transport users, while other gas-consuming sectors, notably industry and power, saw demand fall by 4% and 9% y-o-y, respectively. Gas use in power generation nevertheless rebounded sharply in September, rising by 60% from August and by 27% y-o-y, as stronger electricity demand and lower hydropower availability increased the call on flexible gas-fired generation.
LNG imports nonetheless proved resilient, rising by over 10% (or 2.6 bcm) y-o-y over January-September. Imports from North America more than doubled to 6.1 bcm, while African volumes also doubled to 9.4 bcm, together offsetting a sharp 35% decline in Middle Eastern supplies. Among Middle Eastern suppliers, Qatar's volumes declined by 72% y-o-y, while Oman became the main remaining Middle Eastern source, with imports rising to 5.3 bcm. Meanwhile, domestic gas production continued to decline, marking its 27th consecutive month of contraction. Full year India's natural gas demand is expected to decrease by around 2% y-o-y in 2026.

First estimates indicate that natural gas demand in **Emerging Asia** remained close to last year's levels in Q1-Q3 2026 despite tighter LNG supply availability and high natural gas prices. Demand-side measures and fuel-switching policies have been gradually implemented across the region's key LNG import markets to limit the supply shortfall after the closure of the Strait of Hormuz. Overall, the region's net LNG imports actually increased by 3% y-o-y in Q1-Q3

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2026, broadly offsetting the production declines recorded in some of the region's producers. The current forecast expects Emerging Asia's natural gas demand to decline marginally in 2026, with losses largely concentrated in the region's LNG import-reliant markets.

Thailand's natural gas consumption increased by 9% (or almost 3 bcm) y-o-y in the first eight months of 2026. This growth was primarily driven by stronger gas use in the power sector (up 13% y-o-y) and in industry (up 3 y-o-y). Thailand's LNG imports grew by 30% y-o-y in Q1-Q3 2026 to meet the bulk of incremental gas demand in the country in this period. LNG sourced via the Strait of Hormuz accounted for only around 7% of Thailand's primary gas supply in 2025 and has been more than offset by alternative LNG supplies (primarily from the United States and Australia). In mid-March, Thailand's Energy Regulatory Commission instructed power plant operators to increase the share of coal in the country's power mix in order to maintain stable electricity tariffs and to moderate the use of natural gas.

LNG supply disruption via the Strait of Hormuz has had limited impact so far on the Indonesian and Malaysian natural gas markets, reflecting their status as major natural gas producers with limited import requirements. In **Indonesia** natural gas consumption increased by almost 6% y-o-y in the first eight months of 2026, while estimated demand stayed broadly flat in **Malaysia** during the same period.

Pakistan's natural gas consumption plummeted by an estimated 10% y-o-y in Q1-Q3 2026. This steep decline was driven by a combination of weaker gas burn in the power sector and lower deliveries to industrial sectors. Pakistan is one of the markets most affected by LNG supply disruption stemming from restrictions on shipping through the Strait of Hormuz, with Qatar accounting for 98% of the country's LNG imports in 2025. Pakistan's LNG inflows plummeted by more than 70% y-o-y during March-September. Gas-fired power generation fell by more than 25% y-o-y during this period, while coal-fired power output grew by around 35% compared with last year. The country's urea production declined 7% y-o-y in the March-August period as tight gas supplies and high prices weighed on fertiliser production.

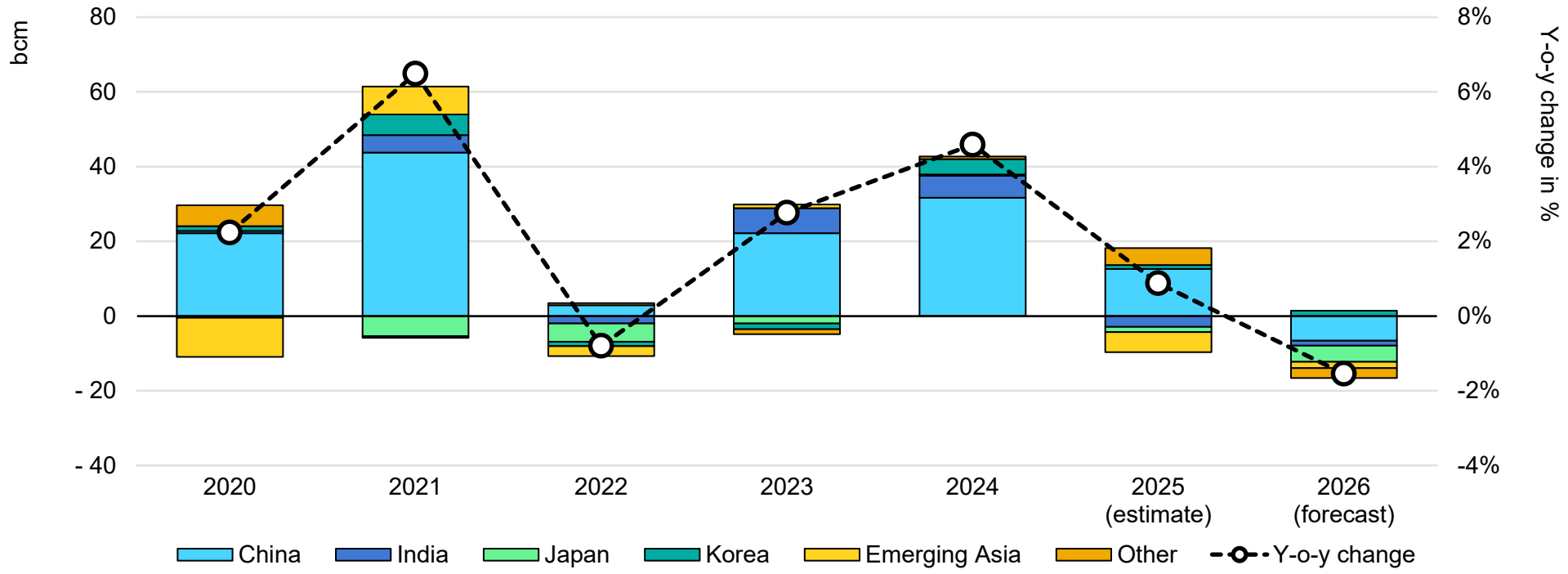
Natural gas consumption in **Bangladesh** declined by an estimated 7% y-o-y in Q1-Q3 2026, partly due to lower gas burn in the power sector. The country's gas-fired power generation fell by more than 12% y-o-y in the March-August period, while coal-fired power output increased by nearly 25%. Bangladesh's LNG imports declined by 10% y-o-y during March-September amid tighter supply fundamentals and high spot LNG prices.

The disruption of LNG flows via the Strait of Hormuz is profoundly altering the short-term demand outlook for Asia. The current **forecast** expects Asia's natural gas demand to decline by around 1.5% (or 15 bcm) in 2026, its third annual contraction since the beginning of the decade. Lower gas use in the power and industrial sectors is expected to account for more than three-quarters of the overall decline. The region's LNG imports are forecast to fall by 3% (or 10 bcm) in 2026, primarily driven by lower inflows into China.

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Asian gas consumption is projected to decline by 1.5% in 2026, led by China

Year-on-year change in natural gas demand by sector in Asia Pacific, 2020-2026

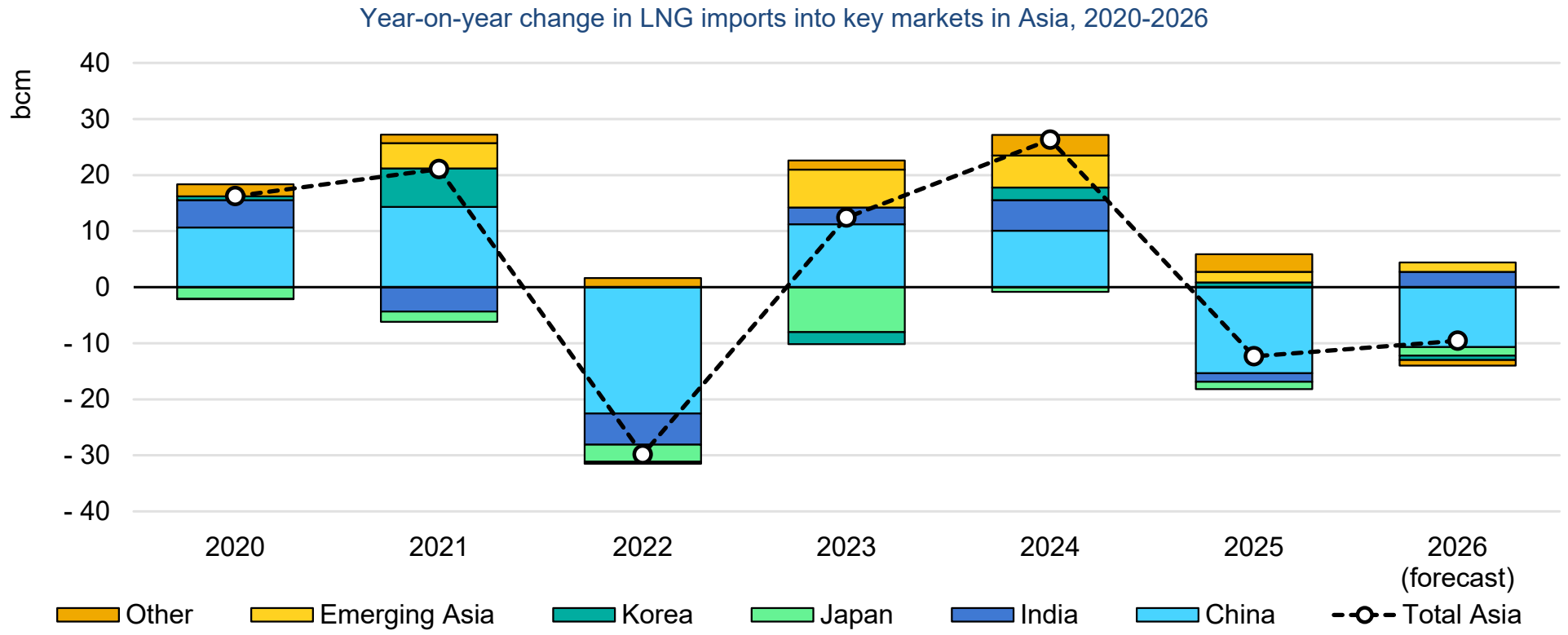


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Note: Emerging Asia comprises Bangladesh, Indonesia, Malaysia, Myanmar, Pakistan, the Philippines, Singapore, Thailand and Viet Nam.

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The region's LNG imports are expected to decline by 3% in 2026



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Note: Emerging Asia comprises Bangladesh, Indonesia, Malaysia, Myanmar, Pakistan, the Philippines, Singapore, Thailand and Viet Nam.

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North American natural gas demand is expected to increase marginally in 2026...

Natural gas consumption in North America increased marginally in Q1-Q3 2026. The region's natural gas demand fell by almost 2% (or more than 6 bcm) y-o-y in Q1, as milder winter temperatures on average weighed on natural gas use across the residential and commercial sectors despite severe cold spells in January. These losses were more than offset during the Q2-Q3 period, when North American gas demand grew by almost 3% (or 14 bcm), primarily on the back of stronger gas-fired power generation. Natural gas use in industry and the energy sector continued to expand, supported by the region's growing LNG liquefaction fleet.

First estimates indicate that natural gas consumption in the **United States** increased by just over 0.5% (or more than 4 bcm) y-o-y in Q1-Q3 2026. Natural gas demand in the **residential and commercial sectors** plummeted by around 6% (or almost 10 bcm) y-o-y, with around three-quarters of the decline concentrated in Q1 2026. This decline was primarily due to milder winter temperatures. While **Storm Fern** saw significantly higher natural gas demand in late January, its impact was short-lived. Heating degree days declined by over 7% y-o-y in Q1 2026, which naturally reduced space heating requirements. **Gas-to-power demand** in the United States grew by almost 4% (or 11 bcm) y-o-y in Q1-Q3 2026. This growth was primarily concentrated in the Q2-Q3 period. Sizzling summer heatwaves drove up cooling needs, which contributed to higher electricity consumption and increased the call on flexible gas-fired power plants. First data suggest that gas-fired power output reached an all-time monthly high in August. In addition, lower natural gas prices continued to support coal-to-gas switching in the power sector, with coal-fired generation declining by an estimated 5% y-o-y in Q1-Q3 2026. Natural gas demand in **industry and the energy sector** grew by an estimated 1% (or around 3 bcm) y-o-y during the same period. This increase was partly supported by stronger gas use in the country's rapidly growing LNG liquefaction fleet.

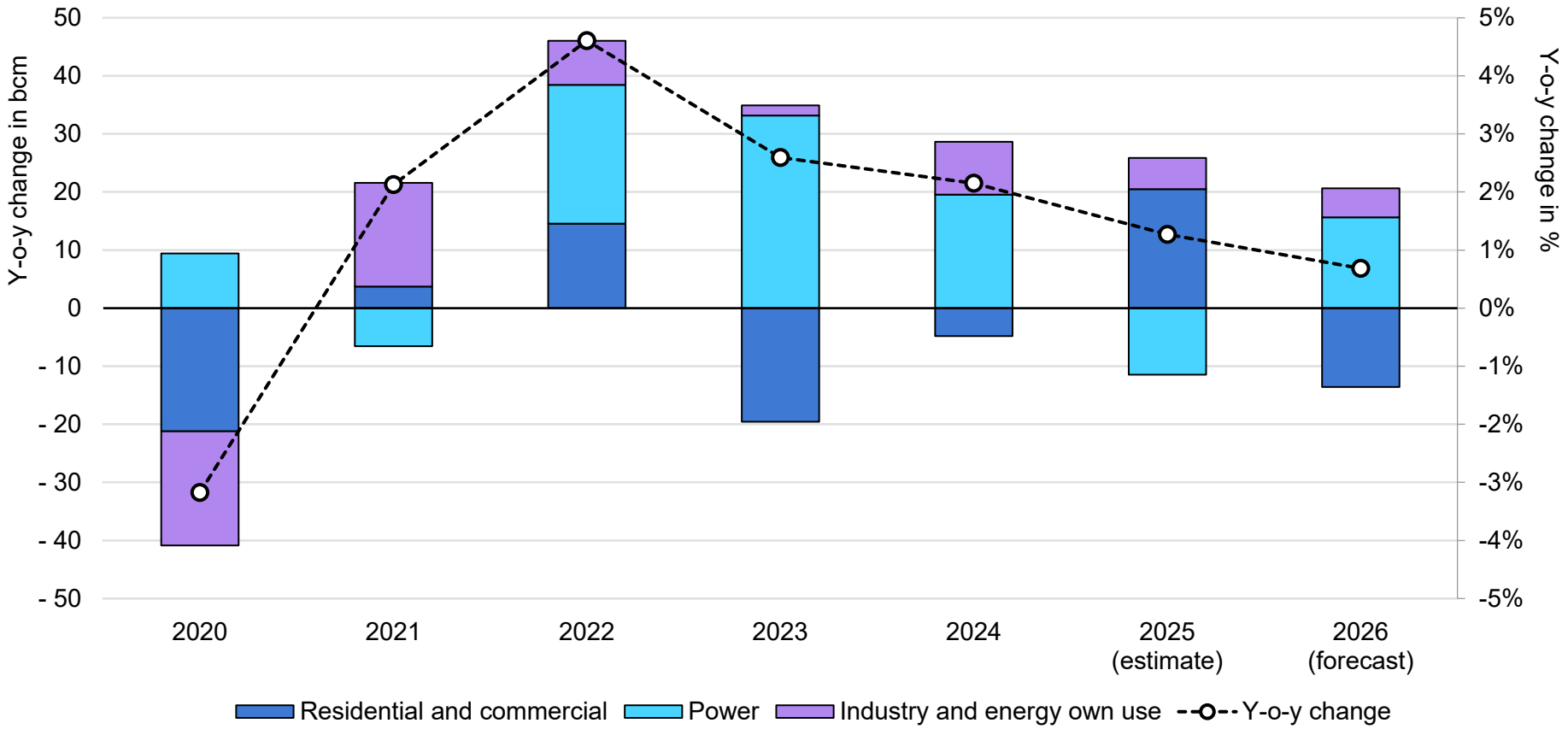
In **Canada**, natural gas demand remained close to last year's levels in Q1-Q3 2026. Natural gas use in the residential and commercial sectors increased by 2% y-o-y in the first five months of the year, amid colder temperatures. Combined gas demand in the industrial and power sectors fell by 0.5% y-o-y during January-August. In **Mexico**, natural gas consumption grew by more than 3.5% (or around 2.5 bcm) y-o-y in Q1-Q3 2026, partly driven by stronger gas-fired power generation (up 3.5% y-o-y). Mexico's piped gas imports from the United States rose by almost 4% y-o-y in January-August, driven by a combination of stronger demand and higher LNG exports (relying on US-sourced feedgas).

Natural gas demand in North America is forecast to increase by just over 0.5% in 2026. Gas use in buildings is projected to contract after an unseasonably mild Q1. This decline is expected to be offset by stronger gas-to-power demand and higher gas use in industry and the energy sector.

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…as strong growth in the power sector is offset by lower gas use in buildings

Year-on-year change in natural gas demand by sector in North America, 2020-2026



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Sources: IEA analysis based on EIA (2026), Natural Gas Consumption; StatCan (2026), Supply and disposition of natural gas.

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Natural gas demand growth in Central and South America weakens in 2026…

Natural gas consumption in Central and South America is estimated to have increased by 1.1% y-o-y in H1 2026. This occurred amid rising regional gas production, led by Argentina, Brazil and Venezuela. Higher domestic hydrocarbon production supported greater gas use in the energy sector, while industrial demand contracted in several major markets.

In **Argentina** gas consumption increased marginally in the first half of 2026, rising by **0.9%** y-o-y as higher residential demand more than offset weaker consumption in the industrial sector (up 5.0% and down 9.8%, respectively). On the production side, the Vaca Muerta shale basin continues to increase domestic gas supply, with shale gas now providing a clear majority of Argentinian gas production. Argentina's Southern Energy floating LNG project is expected to begin commercial operations in September 2027, enabling further gas exports from the Vaca Muerta basin.

In **Brazil** natural gas demand increased strongly in the first half of 2026, reaching more than **10%** y-o-y. Growth was driven primarily by higher gas consumption in the energy sector, as well as a strong increase in gas burn in the power sector as lower hydropower output boosted thermal generation requirements. Alongside the impressive rollout of solar PV capacity, gas generation continues to play a key role in balancing the electricity market.

In **Colombia** gas consumption declined by **4.1%** in H1 2026. Industrial demand remained weak during the first half of the year, falling by roughly 25% y-o-y in both the first and second quarters, before contracting by over 30% y-o-y in Q3. This decline was only partially offset by an increase in gas use in the refining sector (up 16% y-o-y in H1 2026). In the power sector, gas-fired generation fell in Q1 before rebounding in Q2, reflecting fluctuations in hydropower output.

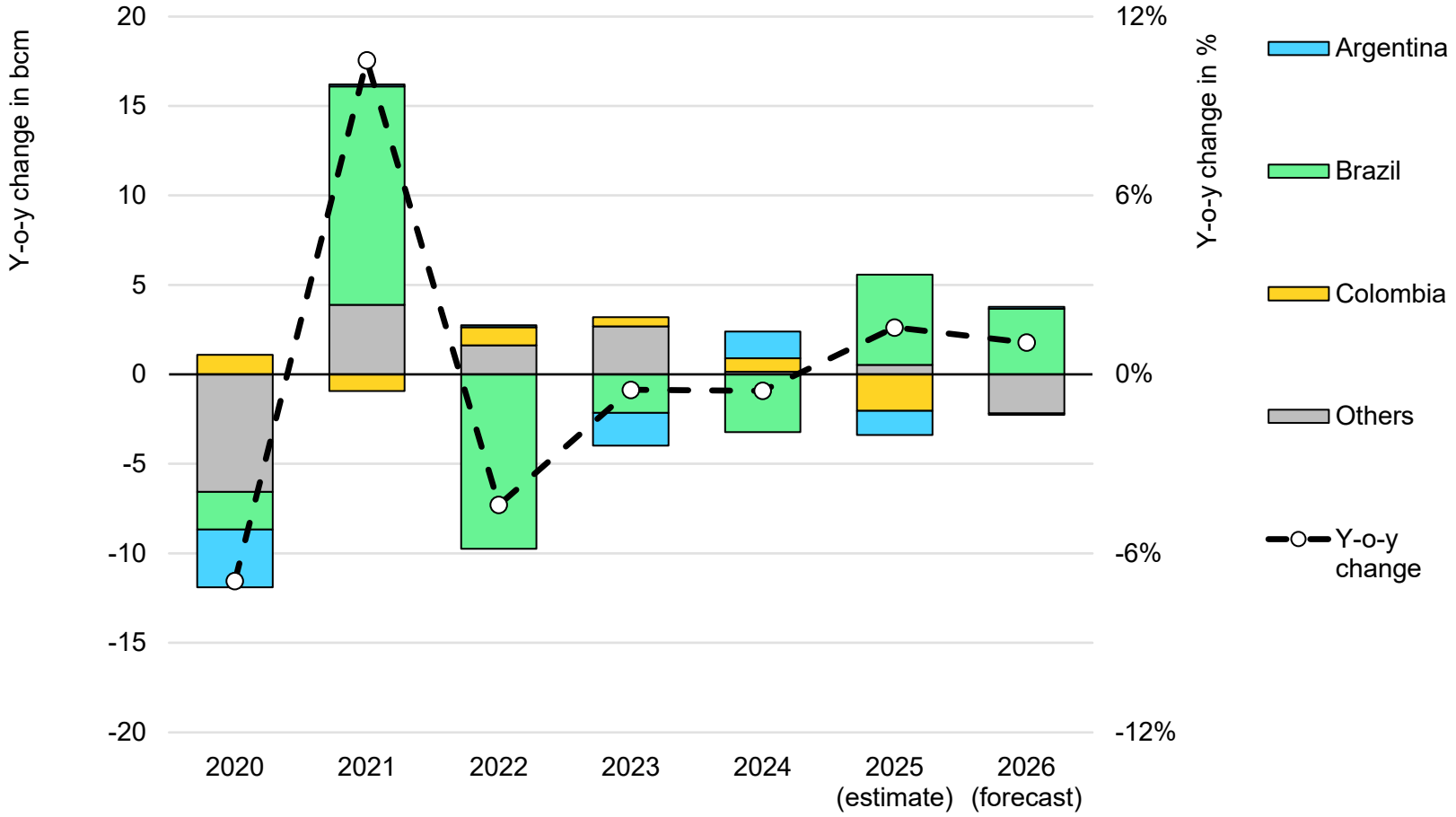
Venezuelan gas consumption increased by **4.4**% in H1 2026, supported by higher natural gas use in a recovering refining sector and stronger gas burn for power generation. On the production side, despite a 6% y-o-y increase in natural gas production in H1 2026, the country's gas sector remains constrained by structural bottlenecks. In **Trinidad and Tobago**, consumption declined by **14%** y-o-y in H1 2026 as increases in gas consumption in the LNG export sector failed to compensate for declines in the refining and chemical sectors. Gas consumption across **Central America and the Caribbean** increased in the first three quarters of the year, alongside a **3.3%** y-o-y rise in LNG imports into the region, the latter supported by the September 2025 commissioning of the Energos Freeze FSRU in the Dominican Republic.

Natural gas demand in Central and South America is forecast to increase by around 1% in 2026 amid stronger gas use in the power sector.

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…following moderate but highly variable gas demand growth in 2025

Estimated year-on-year change in annual natural gas demand in Central and South America, 2020-2026



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Sources: IEA analysis based on IEA (2026), Natural Gas Information, accessed September 2026; ENReGE (2026), Datos Estadísticos de Transporte y Distribución de gas; ANP (2026), Comercialização de Gás Natural; BMC (2026), Energía Tomada por Comercializadores; MEEI (2026), Monthly Bulletins; CNE (2026), Generación bruta SEN; Gas Energy Latin America (2026), GELA; ICIS (2026), ICIS LNG Edge; JODI (2026), World Gas Database.

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European natural gas demand is forecast to decline in 2026…

Natural gas consumption in OECD Europe fell by more than 1% (or 4 bcm) y-o-y in Q1-Q3 2026. This decline was primarily driven by lower gas use in industry amid the strong increase in natural gas prices since the beginning of March. In contrast, gas-to-power demand remained close to last year's levels, while gas use in buildings declined marginally.

Distribution network-related demand fell by an estimated 1% (or 1 bcm) y-o-y in Q1-Q3 2026. While **Storm Goretti** led to a sharp increase in natural gas use both in buildings and the power sector in early January, milder temperatures in the remainder of the winter season moderated the gains in gas demand in buildings. Estimated gas use in the residential and commercial sectors declined by almost 3% (or around 1 bcm) y-o-y in Q2 and Q3, reflecting milder temperatures in September and potentially energy-saving measures undertaken in buildings.

Gas-to-power demand in OECD Europe remained close to last year's levels in Q1-Q3 2026, as the decline in Q1 was largely offset by stronger gas-fired power generation in Q2-Q3. Sizzling summer heatwaves together with lower hydropower output and lower wind speeds increased the call on gas-fired power plants in the European Union during the summer of 2026. Gas-fired generation grew by more than 10% y-o-y in the May-September period, highlighting the increasingly important back-up role of gas-fired power plants in the European electricity system. The gains recorded in the European Union were partially offset by the steep decline in gas-fired power generation in Türkiye, where it plummeted by 50% y-o-y in May-September amid a very strong increase in hydropower output (up by almost 90% y-o-y) during the same period.

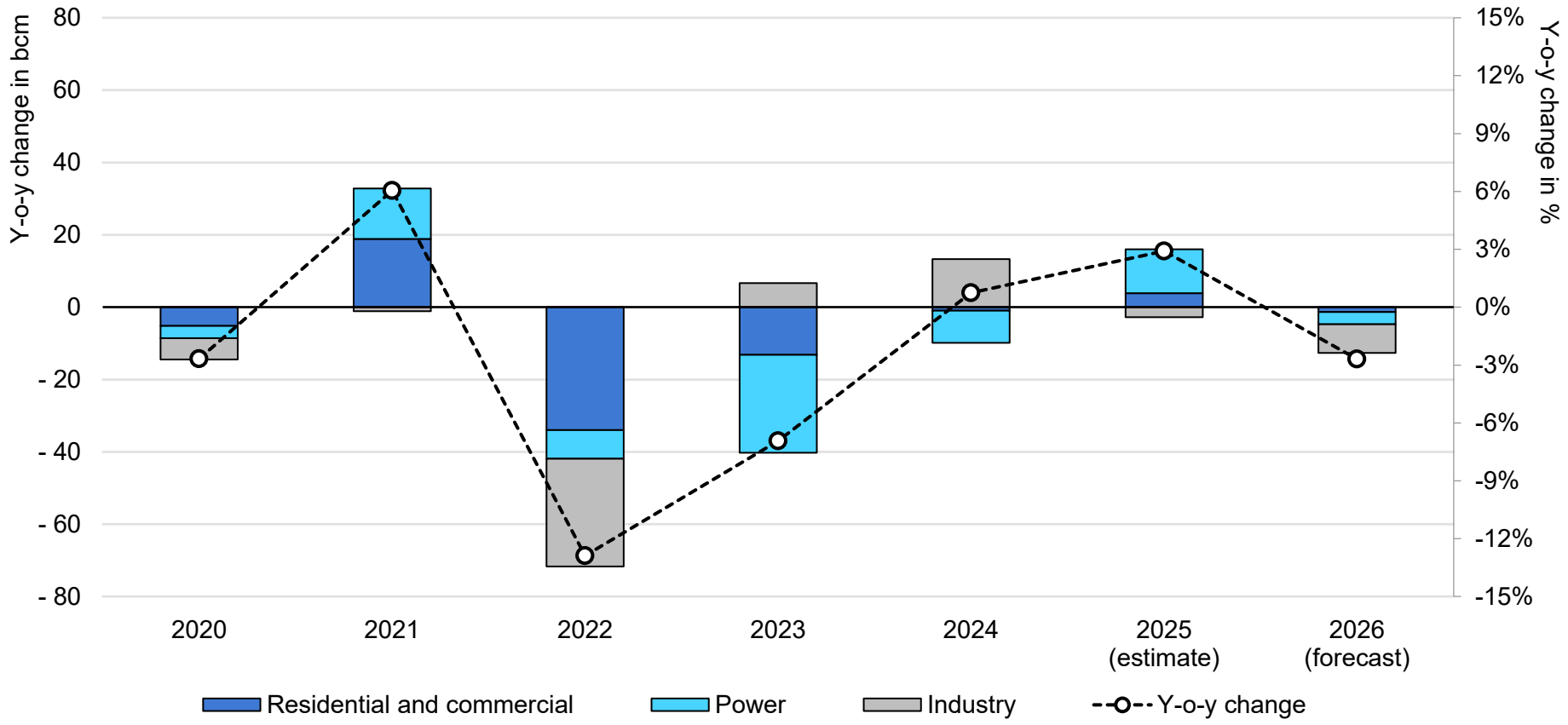
Natural gas consumption in industry declined by an estimated 2% (or almost 2 bcm) y-o-y in Q1-Q3 2026. The gains recorded in Q1 were more than offset by lower gas use by industry in the remainder of the year. Preliminary data indicate that natural gas use in industry fell by more than 4% (or 2.5 bcm) y-o-y in Q2-Q3 as higher natural gas prices weighed on gas demand across gas- and energy-intensive sectors. Estimated gas consumption by industry dropped by 9% y-o-y in Belgium, 4% in France, 6% Italy and 4.5% y-o-y in Spain in Q2-Q3 2026. The declines were primarily concentrated in gas-intensive industries, including fertilisers and the petrochemical sector.

This **forecast** expects Europe's natural gas demand to decline by almost 3% in 2026. The continued expansion of renewables, together with the deteriorating competitiveness of gas-fired power plants compared with coal-fired generation, is projected to reduce power sector gas burn by around 2.5%. Natural gas use in industry is expected to decline by 5% amid higher prices weighing on gas- and energy-intensive sectors. Gas demand across the residential and commercial sectors is forecast to decline marginally assuming average weather conditions in Q4 2026.

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…largely driven by the power and industrial sectors

Year-on-year change in natural gas demand by sector in OECD Europe, 2020-2026



IEA. CC BY 4.0.

Sources: IEA analysis based on Enagas (2026), Natural Gas Demand; ENTSOG (2026), Transparency Platform; EPIAS (2026), Transparency Platform; Trading Hub Europe (2026), Aggregated consumption.

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The power sector drives Africa's gas consumption higher in 2026

Africa's natural gas demand is set to increase by around 5% y-o-y in 2026, accounting for 4% of global consumption. It grew by 1.7% per year from 2020 to 2025, supported by population and electricity demand growth and industrial development. Egypt, Algeria and Nigeria together account for over 75% of African gas consumption. Power generation is the largest source of demand, followed by industry – notably fertilisers, petrochemicals, cement and process heat – and the energy sector.

Algeria is one of Africa's two largest gas-consuming countries. Demand is expected to reach a record in 2026, rising by around 6% y-o-y, primarily supported by stronger gas use in power generation. Gas underpins almost the entire power system and is also used by households, industry and the oil and gas sector. It is met overwhelmingly from domestic production through an extensive network. Rising consumption and lower production are reducing gas available for pipeline and LNG exports. Algeria's indigenous supply base has limited the country's direct exposure to disrupted LNG flows through the Strait of Hormuz, although higher international prices have increased the opportunity cost of domestic consumption.

Egypt is expected to become Africa's largest gas consumer in 2026. Demand rose by around 11% y-o-y in the first seven months to almost 35 bcm, as record gas-fired power generation more than offset weakness in other sectors. Power generation accounts for the bulk of consumption, while industry – notably fertilisers, petrochemicals, cement and metals – represents the other major demand centre. In July total demand reached a record 6.4 bcm, up 16% y-o-y, with power-sector gas burn rising to an all-time high of 4 bcm. Assuming broadly stable consumption for the remainder of the year compared with the same period in 2025, full-year demand could increase by around 6% y-o-y. Falling domestic production has increased reliance on imports, which covered half of demand and reached a record 3.2 bcm in July, comprising 70% regasified LNG and 30% Israeli pipeline gas. Net imports exceeded domestic production for the first time that month. Pipeline deliveries increased in August, partly offsetting lower LNG imports following the temporary loss of the Damietta FSRU after a drone strike damaged the vessel and caused a fire on 29 July. Record imports enabled Egypt to meet peak electricity demand without widespread load-shedding or broad industrial curtailments, but declining domestic output is expected to deepen its structural import dependence.

Nigeria is sub-Saharan Africa's largest gas-consuming country, with demand set to increase by around 2% y-o-y in 2026. Demand is led by power generation, followed by fertiliser and petrochemical production, industrial heat and the oil and gas sector. Transport use is expanding from a low base, supported by the government's vehicle-conversion programme and investment in compressed natural gas refuelling infrastructure. Upstream availability improved in 2026 amid fewer pipeline disruptions and regulatory measures to unlock supply. Gas supplied to the domestic market increased during

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the first half of 2026, but met only around 65% of producers' domestic supply obligations, reflecting persistent infrastructure, payment and market constraints. Better feedgas availability lifted utilisation at Nigeria LNG's six-train liquefaction complex above 80%. Train 7 entered pre-commissioning in 2026, with start-up targeted for the end of 2027 subject to sufficient feedgas. Once in operation, it would raise nameplate capacity from 22 Mtpa to 30 Mtpa. Nigeria provided additional LNG to international markets following the escalation of the Middle East crisis and the closure of the Strait of Hormuz. LNG deliveries rose by around 30% y-o-y between January and October to their highest level since 2020, supported by improved feedgas availability and greater prioritisation of supply to the liquefaction complex.

Elsewhere, gas demand is smaller but increasingly diverse. **Libya** and **Tunisia** use domestic and imported pipeline gas mainly for power generation. **Ghana**, **Côte d'Ivoire** and **Tanzania** rely primarily on indigenous production for electricity and industry, while consumption in **Mozambique** is concentrated in energy own use. **South Africa** and **Morocco** are more import-dependent and exposed to international prices and infrastructure constraints. **Senegal** illustrates the challenge facing newer producers: offshore gas is liquefied for export, while limited links to domestic users result in imported LNG being needed for power and industry. Across these markets, demand growth depends on investment in processing, pipelines, power plants, distribution and creditworthy offtake.

Africa's gas demand is met predominantly from domestic production. Algeria and Nigeria are self-supplied, while Egypt combines declining output with pipeline gas and growing LNG imports. Several smaller coastal markets receive LNG or pipeline imports, but limited regasification capacity and fragmented networks restrict access. A sizeable share of African production is exported because export infrastructure is often better developed than domestic transport and distribution.

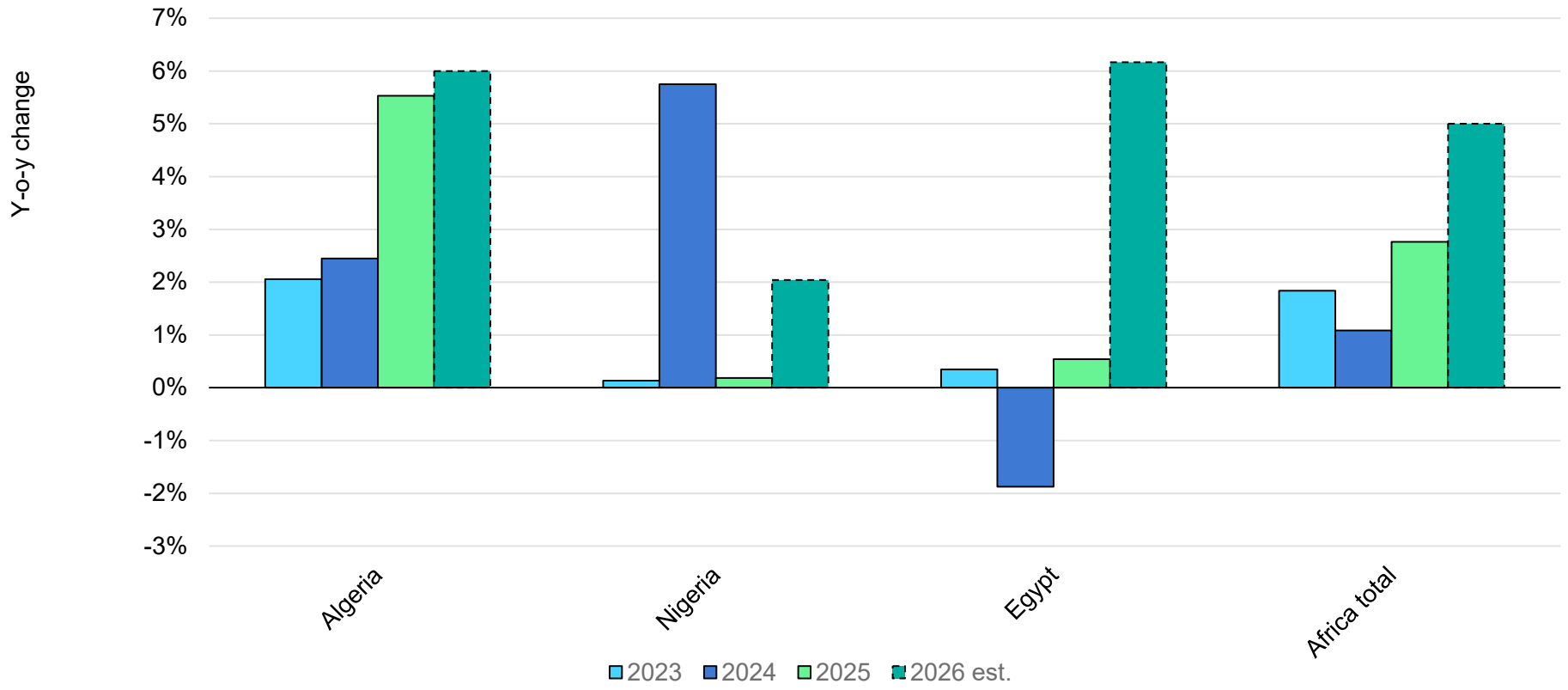
The Middle East crisis has affected African gas consumption unevenly. In largely self-supplied markets, including Algeria and Nigeria, domestic production limited exposure to disrupted LNG imports. The crisis also redirected part of Africa's available LNG supply towards international markets without materially weakening demand in the region's largely self-supplied markets. For LNG-importing systems, particularly Egypt, the main impact has been higher supply costs and greater exposure to international cargo availability rather than weaker underlying demand. Egypt increased LNG and pipeline imports to sustain record power-sector consumption despite declining domestic production, deepening its structural import dependence.

Growth in 2026 is primarily supported by stronger gas use in power generation, particularly in Egypt and Algeria, while lower energy-sector and industrial consumption partly offsets the increase.

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Egypt leads gas demand growth across Africa's main consuming countries in 2026

Year-on-year change in natural gas demand in Africa, 2023-2026



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Source: IEA analysis based on JODI (2026), World Gas Database.

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Stock levels diverge across key gas storage markets in North America, Europe and Asia

The disruption to LNG supplies caused by the closure of the Strait of Hormuz has heightened the importance of natural gas storage levels ahead of winter 2026/27, particularly in Europe. While stock levels in the approach to winter were at healthy levels in the United States, EU stocks – a key balancing lever for the global natural gas market – remained well below historical average levels, highlighting potential challenges in responding to market balancing needs during the winter months.

Gas in store at EU storage facilities at the end of winter 2025/26 was at levels close to recent historical lows, and subsequent injections in the summer months largely trailed historical average rates. Slow injections reflected thin seasonal price spreads, in line with wider market expectations of easing gas market fundamentals thanks to new LNG supply reaching the market and a progressive return of cargoes from the Persian Gulf.

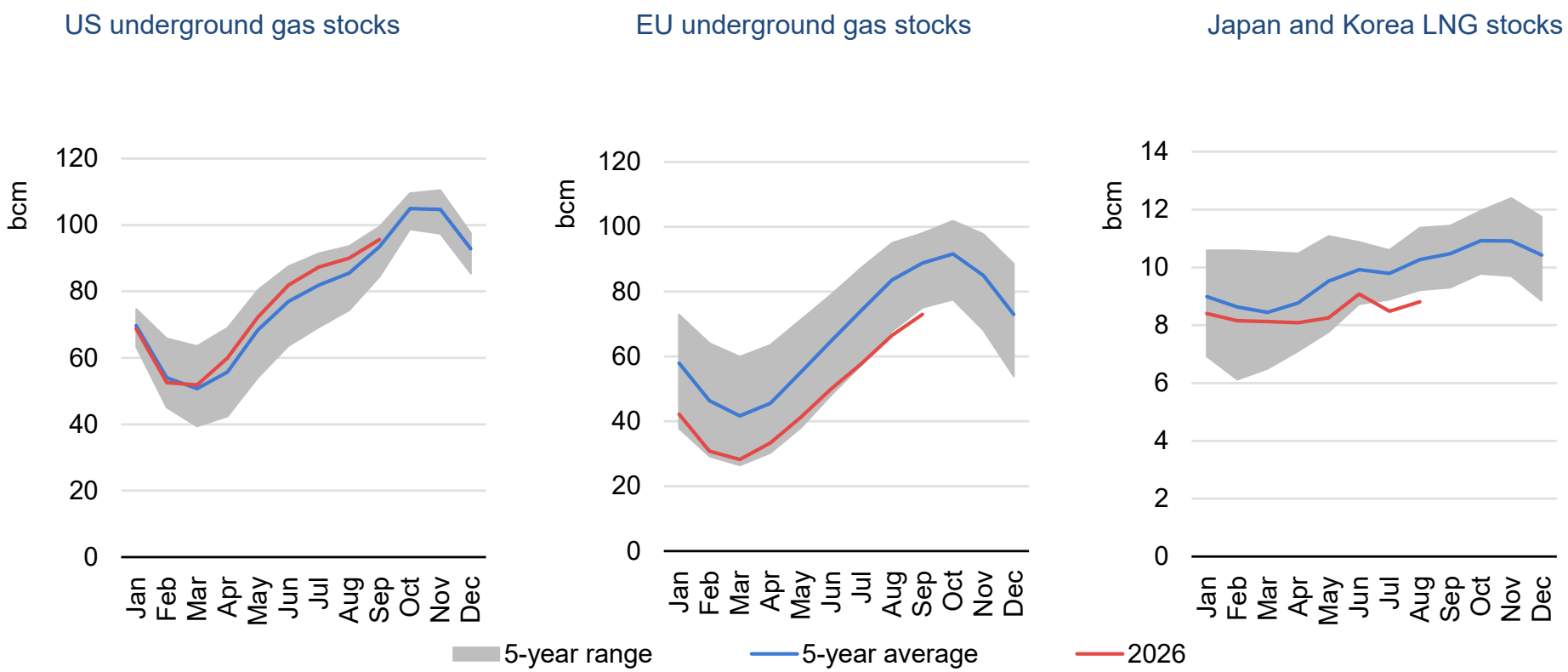
With the Strait of Hormuz still largely closed in the summer months, EU injections accelerated in August. They then remained at higher-than-average levels in September and October as capacity holders sought to build a better storage position in the approach to winter – notably in Germany, where the state-owned SEFE, which manages about one-quarter of the country's storage capacity, was ordered to step up purchases and injections. Still, total volumes injected into EU storage during the filling season remained about 4% below the five-year average. As a result, EU storage fill reached only 75% by the end of October, well short of the 80% minimum EU-wide fill target (itself already the result of a derogation to the regulation-imposed 90% target) and at its lowest level in over a decade. In Ukraine, an early start to the filling season and strong injections brought end-October storage levels to their highest level since 2023 at about 11 bcm, about one-third higher than last year.

US storage fill trended in line with prior-year levels during much of the injection season as the domestic market remained well supplied even as LNG exports continued to grow. Despite slower injections in September and October, mid-October levels remained in line with the five-year average.

Korean and Japanese LNG stocks play less of a seasonal role than underground storage in other markets, but they are key in balancing LNG market logistics in the winter. Korean LNG stocks emerged from last winter near their lowest levels in recent years. LNG in store rose during the summer months, but remained well below prior-year and recent average levels, ending August at its lowest level in over ten years, almost 40% below the five-year average. LNG stocks in Japan followed a more robust trend, remaining above the five-year average from January to August. By the end of August, Japanese LNG stocks stood at about 2% above the recent historical average. Combined stocks across both countries stood around 14% below the five-year average, broadly in line with levels in the same period in 2025.

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Low EU stocks point to challenges in balancing winter market amid Middle East supply shock



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Sources: IEA analysis based on EIA (2026), Weekly Natural Gas Storage Report; GIE (2026), AGSI+ Database; JODI (2026), World Gas Database.

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Winter outlook

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Natural gas markets are entering the winter season with "double uncertainty"…

The disruption of LNG flows via the Strait of Hormuz created unprecedented uncertainty about global LNG availability ahead of the 2026/27 gas winter in the northern hemisphere. This unclear supply outlook adds to the **demand uncertainty** inherent in natural gas markets during the heating season, when consumption patterns primarily depend on weather-related factors, including temperatures, wind speeds and hydrological conditions.

The current context is further complicated by low underground storage levels in the European Union, with inventories in November standing at their lowest since 2013. This reduces the European market's buffer against supply disruption and could further increase its reliance on the global LNG market to meet winter demand. Low European storage levels combined with limited storage options in the LNG importing regions of Asia and South America could accentuate competition for a scarce number of flexible LNG cargoes this winter and could provide upward pressure on spot prices, especially during periods of high demand.

This section of the report provides a **non-exhaustive overview of the various factors that could affect both natural gas supply and demand** during the heating season. The analysis is based on two supply cases. The first case assumes a gradual restart of LNG flows through the Strait of Hormuz from January. In the second case, regular LNG flows through the strait do not restart until the end of March, resulting in a tighter global LNG supply balance.

The upside flexibility of global gas supply is relatively limited. The ramp-up of **new LNG projects** together with stronger output from legacy producers is expected to add around 20 bcm of y-o-y incremental supply to the market during the October-March period. This could offset around half of the shortfall in LNG supplies from Qatar and the United Arab Emirates, assuming that the strait remains closed until the end of March. **Piped gas deliveries** to Europe are expected to marginally decline, while China's piped gas imports are assumed to remain broadly flat.

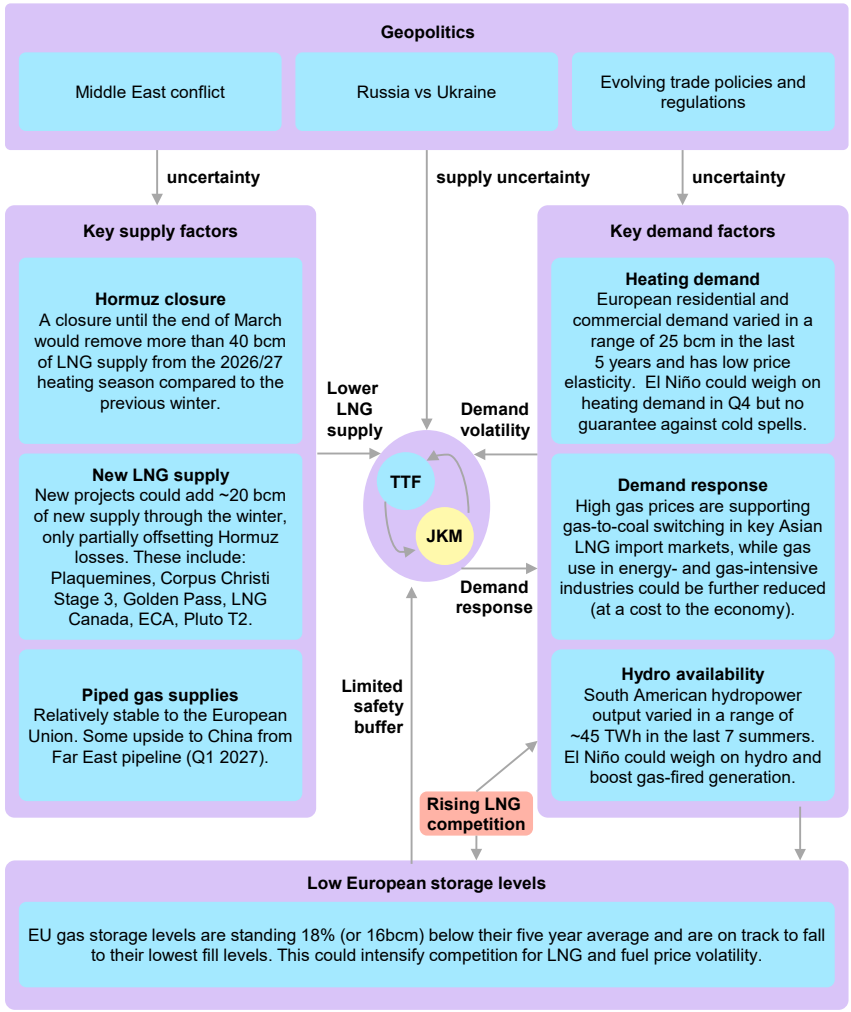
The section with a special focus on the European Union and the United Kingdom considers the unusually low storage levels in the region and the risks stemming from reduced global LNG supply. The analysis provides an overview of potential gas inventory levels in the European Union at the end of the heating season, which could further impact global gas market fundamentals during the summer of 2027.

Our simulations show that EU storage levels could drop below 10% of working capacity by the end of March, assuming a worst case of continued disruption to LNG flows via the Strait of Hormuz together with colder weather conditions. This would leave the European market **exposed to late cold spells** as delivery from storage sites tends to decline once fill levels fall below 30% of working capacity. Moreover, low storage levels would substantially increase injection needs during the summer of 2027 and **could extend gas market tightness**.

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…with risk factors present both on the supply side and the demand side

Selected factors influencing global gas supply and demand during the 2026/27 heating season



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Global gas supply could tighten further during the 2026/27 heating season…

The disruption of trade flows through the Strait of Hormuz represents an unprecedented supply shock for the global LNG market. Loadings from Qatar and the United Arab Emirates fell by 60 bcm y-o-y during the March-October period of 2026, which reduced global LNG output by 5% (or 20 bcm) y-o-y, as new LNG supply only partially offset the shortfall in LNG deliveries from the Persian Gulf.

With transit through the Strait of Hormuz still severely constrained in late October, **the supply shock looks set to keep imposing tighter market conditions during the northern hemisphere winter**, even as supply from new liquefaction plants around the globe continues to grow. **Two distinct supply cases help frame the outlook for the winter balance ahead.** Depending on the assumptions relating to the recovery of LNG flows through the Strait of Hormuz, global LNG supply could decline in a range of 10-25 bcm y-o-y during the November-March period. **Piped gas trade has limited upside flexibility**, as deliveries through long-distance pipelines typically run close to their nameplate capacity.

The disruption of LNG flows through the Strait of Hormuz creates unprecedented uncertainty for the global LNG market ahead of the 2026/27 winter

Under **Case 1**, LNG flows through the Strait of Hormuz are assumed to **recover progressively starting in January 2027**. The UAE Das Island plant and selected trains at Qatar's Ras Laffan facility have maintained a limited level of activity through the crisis, suggesting that a technical ramp-up to full utilisation could take place over approximately eight weeks. This would broadly mirror earlier industry expectations and indications from QatarEnergy.

Under this assumption, cumulative lost LNG volumes from the Persian Gulf from October to March would total about 30 bcm y-o-y.

Case 2 corresponds to a **prolonged closure of the Strait of Hormuz until the end of March 2027**, with any meaningful ramp-up in volumes happening after that. Under this case, LNG flows through the Strait of Hormuz in the November-March period are assumed to continue broadly in line with rates seen in recent months, as uncertainty around resolution of the conflict continues to affect tanker traffic through the strait.

Under Case 2, cumulative lost LNG volumes from the Persian Gulf in the October-March period would total over 40 bcm.

Incremental supply from outside the Gulf region is not sufficient to offset the shortfall in LNG supplies from Qatar and the United Arab Emirates through the winter

LNG supply from outside the Strait of Hormuz is expected to continue growing during the winter period thanks both to new and legacy liquefaction projects.

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As in the first ten months of the year, North American exporters are expected to provide the largest share of incremental supply during the winter months. In the United States, the Corpus Christi Stage 3 Expansion is set to continue its ramp-up (which started in late 2025) through winter. Likewise, despite production challenges following start-up in the second quarter of 2026, the first train at Golden Pass LNG is set to continue progressing towards full capacity during the winter months. Despite operational challenges thus far in 2026, LNG Canada is looking at its first full winter of operations, and Energia Costa Azul in Mexico could start exports in the fourth quarter.

Outside North America, Congo's second FLNG (Nguya) and the Tortue FLNG project off the coast of Senegal and Mauritania are set to boost supply from Western Africa. In Australia, Pluto LNG train 2 is set to begin exporting and Darwin LNG is due to approach full capacity in the fourth quarter of 2026.

In total, new projects are expected to add about 18 bcm of incremental supply to the global balance during the winter period.

Legacy liquefaction projects are set to make a more modest contribution to incremental LNG supply over this period. Much of the y-o-y upside delivered from legacy plants in the first ten months of 2026 was due to sizeable underperformance in 2025, the majority of which affected periods outside the fourth quarter. Total net incremental supply from legacy plants (including supply downside from some projects) could total around 3 bcm, led notably by Russia (increased exports from the sanctioned Arctic LNG 2 plant), Nigeria (improved operations and feedgas availability) and Oman (optimised operations).

In total, new and legacy projects outside the Persian Gulf could contribute slightly over 20 bcm of incremental supply y-o-y in the winter period. Despite the strong growth, this extra supply would remain insufficient to compensate for the lost volumes from Qatar and the United Arab Emirates. As such, global LNG supply for the winter period would **fall by around 9 bcm (or 3%) y-o-y in Case 1** (progressive reopening of the Strait of Hormuz starting in January 2027), and by **around 20 bcm (or 7%) y-o-y in Case 2** (Strait of Hormuz remains closed until the end of March 2027).

Risks to the LNG supply outlook

As always, unplanned outages and delays in ramp-up schedules at new projects represent **downside risks to the winter supply outlook**, with potentially acute consequences in the context of an enduring Middle East supply shock.

In addition, while the assumptions underpinning our two Persian Gulf supply cases (how fast liquefaction plant operators can increase utilisation rates) are of a technical order, they are themselves subject to geopolitical uncertainties. Any sustained improvement in Qatari and UAE LNG supply would likely first require a stabilisation of the security conditions in the strait, with any flare-up in military conflict or breakdown in ongoing state-level negotiations remaining a key downside risk factor.

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Limited upside contribution from pipeline gas trade

Piped gas supplies have limited upward flexibility as deliveries typically run close to nameplate capacity. **Europe's pipeline imports are expected to marginally decline** compared with the previous heating season. **Flows from Norway** to the rest of Europe are projected to decline by 1% (or 1 bcm) y-o-y amid the outage at the Ormen Lange field, which is expected to last until the end of January 2027. These losses are partially offset by stronger pipeline flows from **North Africa**, which are expected to increase by 4% (or 0.5 bcm) y-o-y, in line with supply patterns observed in the first nine months of 2027. Natural gas exports from **Azerbaijan** to the European Union via the TAP pipeline are expected to remain broadly flat with flows running close to nameplate capacity. Similarly, **Russia's piped gas exports** to the European Union are expected to stay close to their levels during the 2025/26 heating season as the full ban on Russian piped imports is only due to enter into force in Q4 2027.

Russian pipeline supplies to Türkiye are less certain. They displayed strong variability in previous heating seasons and the extended gas supply contracts are set to expire by the end of 2026. The non-renewal of these gas supply contracts could reduce Russia's piped gas deliveries to Türkiye by more than 6 bcm y-o-y in Q1 2027, further tightening the regional and global gas balance. The long-term contract between **Iran** and Türkiye ended in July, although flows reportedly continued through August. A halt to deliveries during the heating season could result in a decline in gas supply of 4 bcm compared with last winter.

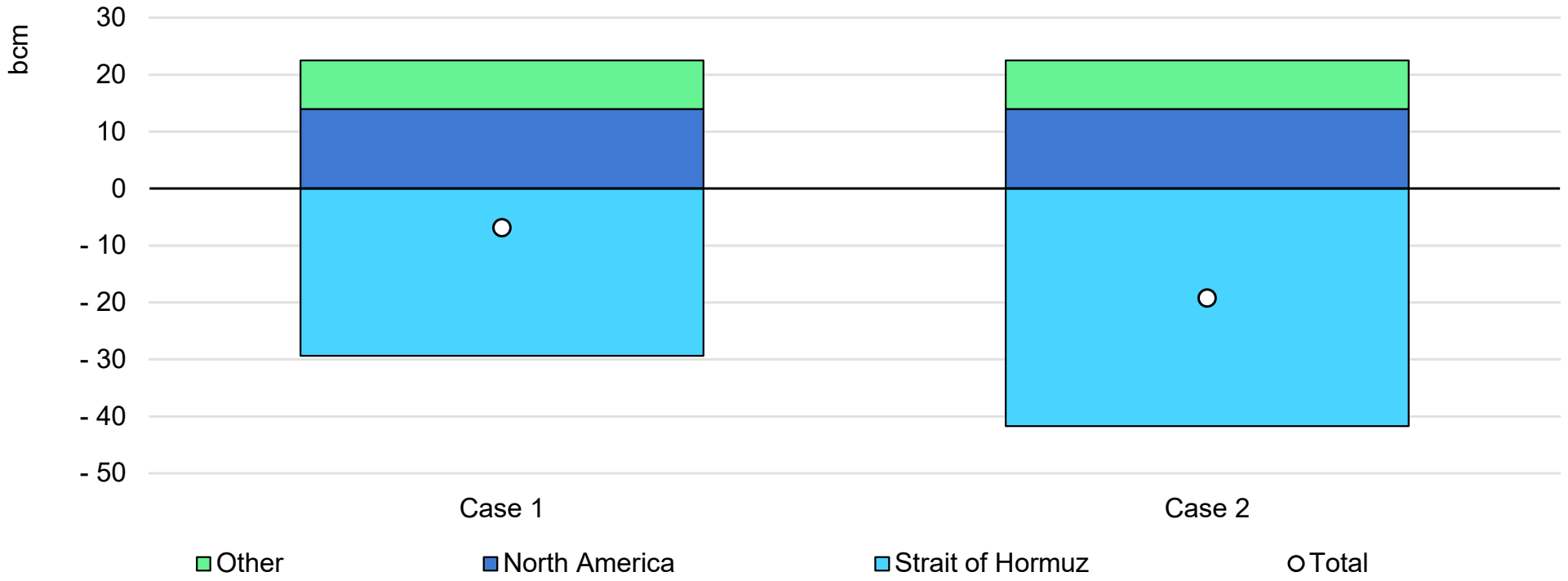
In addition, **Europe's domestic gas output** could fall by 4% (or 2 bcm) y-o-y during the winter, assuming that current production trends continue. Declining domestic gas supplies combined with lower piped gas deliveries would further increase Europe's exposure to LNG in the 2026/27 heating season.

China's pipeline imports are expected to remain broadly flat, while inflows from **Central Asia** are projected to marginally decline amid upstream deliverability issues in Uzbekistan. These lower deliveries would be more than offset by stronger pipeline supplies from Russia. The **Far East pipeline** is expected to start operations in January 2027 with a capacity of 10 bcm/yr, although actual pipeline flows would ramp up gradually through the pipeline system.

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…as new LNG supply is not sufficient to compensate for the Middle East shortfall

Year-on-year change in delivered LNG supply by source, October 2026-March 2027



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Low storage levels in the European Union reduce the region's safety buffer ahead of winter

Storage represents an essential component of the natural gas supply chain and a key lever in balancing the market seasonally as well as daily and weekly, notably in response to winter weather phenomena. However, storage capacity is unevenly distributed across gas-importing regions and markets, giving an outsized balancing role to those markets with the largest storage capacity – the European Union being the most significant example.

EU underground storage is the only sizeable capacity available in an LNG-importing region, totalling about 100 bcm and equivalent to about 30% of annual EU gas demand. Storage capacity remains limited in Asia, and is virtually non-existent in Latin America.

China is the only market in Asia that has placed greater emphasis on building underground natural gas storage, with capacity broadly doubling from the end of 2020 to the end of 2025. Further underlining the growing importance of storage in balancing the Chinese gas market, in September 2026 China's National Energy Administration called on the country's main suppliers to accelerate storage injections ahead of this winter. Despite this increased attention on the role of storage in China, underground gas storage capacity accounted for only about 6% of the country's annual gas demand by the end of 2025, a far smaller share than in Europe.

In this context, the relatively low storage levels in the European Union ahead of winter 2026/27 could make balancing both the European and global markets in a tight LNG market context more challenging than usual. This challenge is twofold.

Firstly, entering winter with the lowest stocks in over a decade increases the continent's exposure to spot LNG as it balances demand. Increased competition for a more limited number of cargoes due to the Middle East supply shock could lead to heightened price volatility, accentuated by the risk of concurrent cold weather phenomena across importing regions.

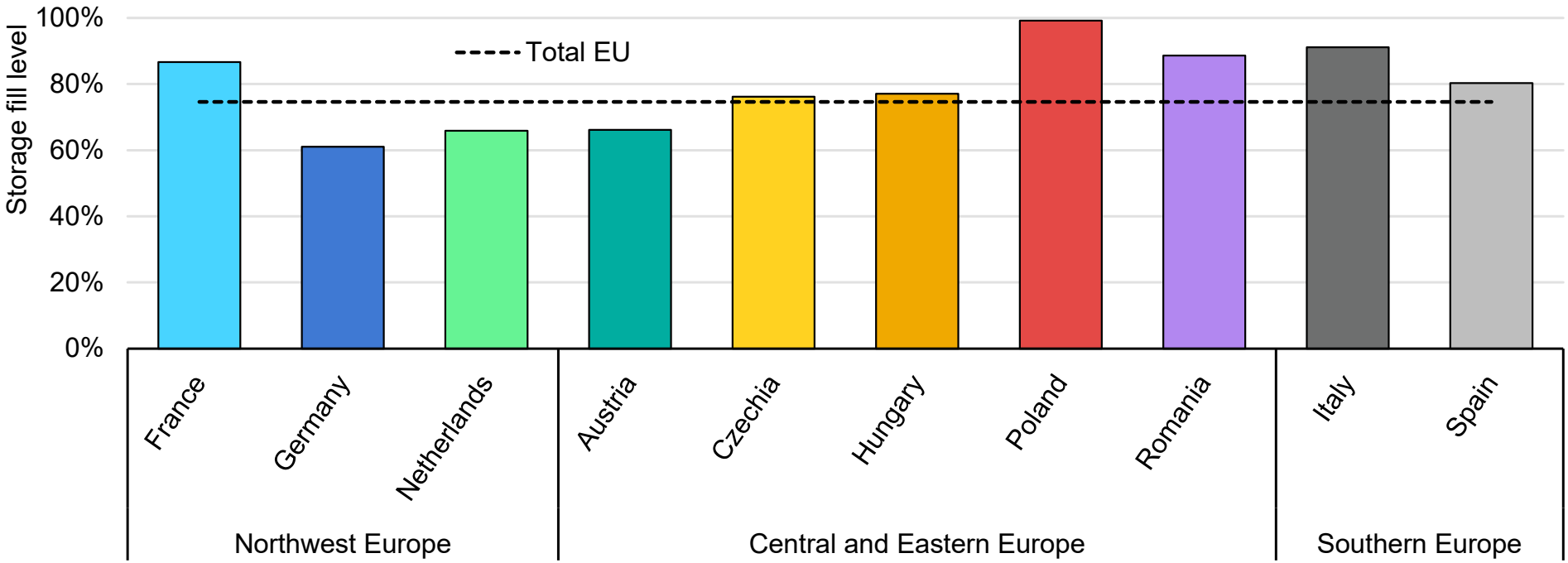
Secondly, starting winter with low stocks brings deliverability risk to the European gas market, particularly in the second part of winter. Beyond volumes in store, a key metric is withdrawal capacity, a marker of how fast facilities can deliver gas to the grid in response to immediate and local market imbalances. Importantly, withdrawal rates are a function of fill levels and are not static. As such, the lower the storage level, the lower the potential withdrawal rate at a given storage facility.

Therefore, a significant drawdown in stocks in early winter could negatively affect withdrawal rates in the latter part of winter when cold spells still present a risk to the market. This could notably affect northwestern Europe, where storage fill in the key storage markets of Germany and the Netherlands remained at 62% and 66%, respectively at the end of October. Despite stronger storage fill in other EU countries, the overall weak EU storage position leaves the continent more exposed than usual to market and weather shocks.

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EU storage displays varying fill levels across its markets

Underground gas storage fill levels in selected EU member states on 31 October 2026



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Source: IEA analysis based on GIE (2026), AGSI+ Database.

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EU storage sites could close the 2026/27 heating season with record low inventories

The unusually low storage levels in the European Union ahead of the 2026/27 winter season reduce the European market's safety buffer, leaving it more exposed to the global LNG market and spot price volatility. This section provides an overview of **potential gas storage trajectories** in the European Union during the heating season and the resulting inventory levels at the end of March 2027.

The analysis is based on the two supply cases already introduced earlier in this section. The first case assumes a gradual restart of LNG flows through the Strait of Hormuz from January 2027. In the second case, regular LNG flows through the strait do not restart until the end of March, resulting in a tighter global LNG supply balance. **Each case is accompanied by two sub-cases focusing on demand factors**: one assumes milder winter conditions with higher renewable power generation; and the second is based on colder weather patterns with lower renewable power output. The **heating intensity** (natural gas used per heating degree day in the residential and commercial sectors) is left constant across the cases. This analysis uses the average heating intensity of the residential and commercial sectors in the European Union and the United Kingdom in the 2022/23-2025/26 winters (down by more than 10% compared with the 2017/18-2021/22 heating seasons as energy efficiency measures and fuel switching implemented since the 2022/23 energy crisis reduced the temperature sensitivity of direct natural gas use in buildings).

Piped gas imports and domestic gas production are held constant across the cases. Piped gas supplies to the European Union are projected to increase by 1% (or 1 bcm) y-o-y in the November-March period, primarily supported by higher deliveries from North Africa. **Domestic gas production** in the European Union and the United Kingdom is projected to decline by 5% (or 2 bcm) y-o-y, primarily due to declining output from ageing fields in the North Sea. **Piped gas exports from the European Union to Ukraine** are assumed to fall from 3.5 bcm last winter to close to zero this heating season amid significantly higher storage levels in Ukraine. However, under a colder winter, Ukraine's import requirements are assumed to be around 2 bcm, further tightening European gas market fundamentals.

The availability of global LNG supplies to the European Union and the United Kingdom varies between the cases, depending both on underlying supply fundamentals and demand factors. In all cases, Asia absorbs the bulk of the LNG supply shock and helps to balance the global gas market (partly through gas-to-coal switching in the power sector). Based on historic patterns and existing contractual positions, this analysis assumes that Asian markets could reduce their LNG imports by 9% (or 14 bcm) y-o-y in the November-March period. However, a cold winter in Asia could limit the region's downward flexibility and ability to balance out the global gas market.

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Case 1a: LNG flows via the Strait of Hormuz restart in early January while European demand is moderated by milder temperatures and stronger renewable power output

The combined LNG imports of the European Union and the United Kingdom decline by 2.5% (or 2 bcm) y-o-y during the November-March period, as global LNG production falls by 10 bcm and Asia absorbs the bulk of the supply shock (partly through gas-to-coal switching in the power sector). Heating degree days are assumed to be the lowest since the 2017/18 winter, driving down natural gas demand across the residential and commercial sectors by 5% y-o-y in the November-March period. A pronounced El Niño climate pattern could weigh on heating degree days and reduce gas use in buildings. Stronger renewable power generation weighs on gas-to-power demand, which declines by 15% y-o-y compared with the previous heating season. The relatively high gas prices weigh on natural gas use in industry, which drops by 2% y-o-y. Piped gas exports from the European Union to Ukraine remain close to zero over the gas winter. This very optimistic case reduces the European Union's storage withdrawal needs by 25% y-o-y and consequently EU storage sites close the heating season 33% full – standing 18% below their five-year average.

Case 1b: Colder temperatures and weaker renewable power output drive up European gas demand while LNG flows via the Strait of Hormuz restart in early January

Heating degree days are assumed to be the highest since the 2017/18 winter and drive up natural gas demand across the residential and commercial sectors by more than 12% y-o-y in the November-March period. Weaker renewable power generation increases gas-to-power demand by 7% y-o-y compared with the previous heating season. The relatively high gas prices weigh on natural gas use in industry, which drops by 10% y-o-y. Piped gas exports from the European Union to Ukraine rise to around 2 bcm through the winter. Stronger domestic gas demand drives up the combined LNG imports of the European Union and the United Kingdom by 5% (or 4 bcm) y-o-y, while Asia's LNG imports fall by around 14 bcm y-o-y. Despite these stronger LNG inflows, the European Union's storage withdrawals increase by around 5% y-o-y and consequently EU storage sites close the heating season 15% full – standing 60% below their five-year average and at their lowest on record.

Case 2a: LNG flows via the Strait of Hormuz remain disrupted until the end of Q1 2027 while European demand is moderated by milder temperatures and stronger renewable power output

The setting of demand factors is similar to those described in Case 1a. Milder winter temperatures reduce natural gas consumption in buildings by 5% y-o-y, while gas burn in the power sector declines by 15% y-o-y. The relatively high gas prices weigh on natural gas use in industry, which drops by around 5% y-o-y. Piped gas exports from the European Union to Ukraine remain close to zero over the gas winter.

However, a tighter global LNG balance further reduces LNG availability to the European market. Combined LNG inflows to the

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European Union and the United Kingdom drop by 15% (or almost 12 bcm) y-o-y during the November-March period. Despite lower LNG imports, EU storage draws decline by almost 15% y-o-y as subdued demand weighs on withdrawal rates. Consequently, EU storage sites close the heating season 25% full – standing 36% below their five-year average.

Case 2b: LNG flows via the Strait of Hormuz remain disrupted until the end of Q1 2027 while colder temperatures and weaker renewable power output drive up European gas demand

The setting of demand factors is similar to those described in Case 1b. Colder winter temperatures increase natural gas consumption in buildings by more than 10% y-o-y, while gas burn in the power sector increases by 7% y-o-y. High gas prices weigh on natural gas use in industry, which drops by around 15% y-o-y, reflecting similar demand destruction to that seen during the 2022/23 energy crisis. Piped gas exports from the European Union to Ukraine are assumed to be close to 2 bcm amid colder winter weather conditions.

This higher domestic gas demand coincides with reduced global LNG availability, which declines by 23 bcm y-o-y as the Strait of Hormuz remains closed throughout the heating season. Asia's LNG imports fall by 15 bcm as the region turns to coal-fired generation in the power sector. Still, the combined LNG inflows of the European Union and the United Kingdom drop by 10% (or 8 bcm) y-o-y over the November-March period. Lower LNG imports combined with strong domestic gas demand drive-up storage draws by more than 20% y-o-y compared with the previous heating season. EU gas storage levels fall below 10% of storage sites' working capacity by early March. These historically low fill levels reduce the withdrawal capabilities of underground storage sites due to the drop in reservoir pressure. This could increase the risk of price volatility and supply disruptions in the case of a late cold spell coupled with low wind power output. Under this very challenging case, EU storage sites close the heating season just 7% full – standing 80% below their five-year average and at their lowest level on record.

Low storage levels could increase injection needs during the summer of 2027 and extend market tightness

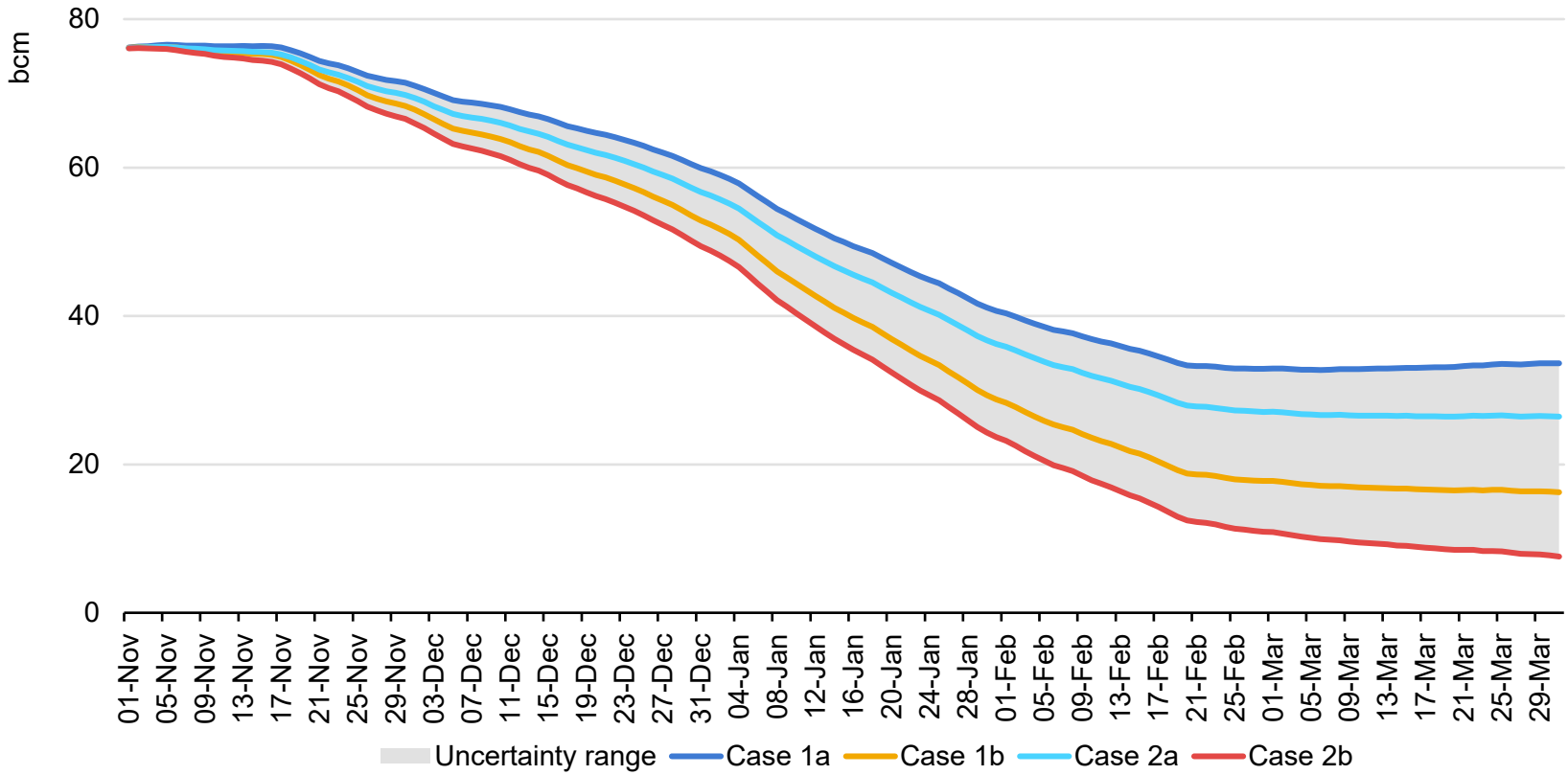
Storage injection needs play a key role in determining natural gas market fundamentals and gas price formation during the filling season, which typically lasts from early April to late October/early November in Europe. Higher storage injection requirements can put upward pressure on spot gas prices, while lower filling rates usually depress summer gas prices. Seasonal storage injections in the European Union averaged 50 bcm in the past five years and varied in a range between 38 and 69 bcm.

Based on our simulations, European Union storage sites could close the 2026/27 heating season with inventories in a range between 8 bcm and 34 bcm. To reach fill levels in line with the five-year average by the start of November 2027, EU storage injection needs would vary between 57 bcm and 83 bcm in the summer of 2027. This would translate into injection rates well above their five-year average, which could extend tight market conditions into the summer of 2027.

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Simulations show that EU storage levels could fall to below 10 bcm by end of March 2027

Potential EU gas storage trajectories under different sensitivity cases, November 2026-March 2027

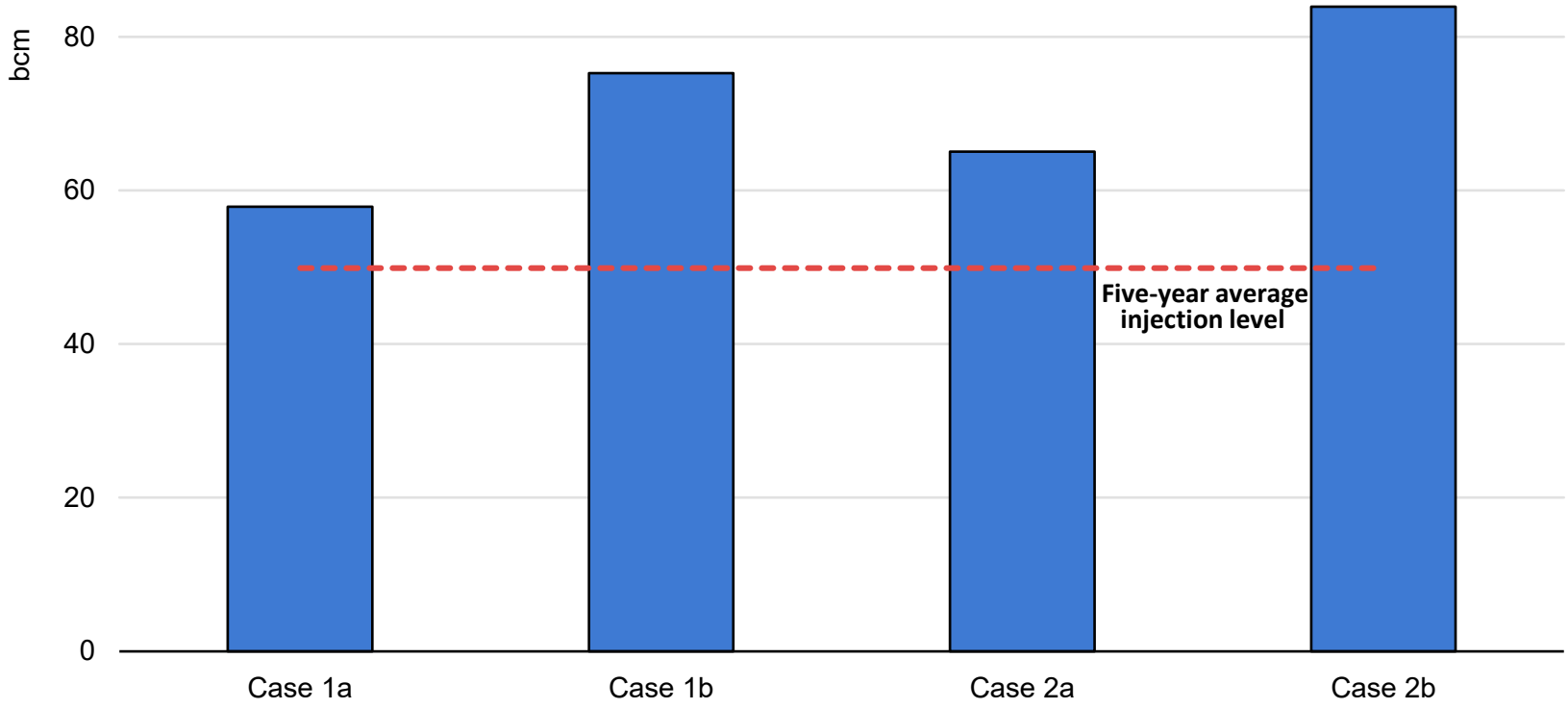


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Low storage levels at the end of the 2026/27 heating season could increase injection needs

Potential EU gas storage injections needed during April-November 2027 to reach five-year averge fill levels by 1 November 2027



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LNG contracting and flexibility update

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The global LNG market has progressed towards greater flexibility and price diversity since 2016

The IEA published the first edition of the *Global Gas Security Review* exactly ten years ago, in November 2016. In each subsequent year, the IEA has continued to track the evolution of LNG contracting trends, and documented the global LNG market's gradual transition towards greater flexibility and liquidity. This edition, like the previous ten, analyses the contractual positions of exporters and importers using the IEA's internal LNG contract database. Unless otherwise stated, the analysis considers only firm supply contracts, including LNG sale and purchase agreements (SPAs), equity entitlements and tolling agreements linked to LNG supply projects that are operational, under construction or have reached a final investment decision (FID).

The evolution of key contractual characteristics points to a significant increase in market flexibility and pricing diversity since these metrics were first assessed in 2016. Based on firm LNG contracts associated with projects that have already reached FID, these trends are expected to continue through to 2030. Between 2016 and 2025, the share of destination-flexible contracts rose from 29% to more than 50%, largely driven by the rapid expansion of destination-flexible US LNG. This increase took place alongside a nearly 70% expansion in the global LNG market, translating into a roughly threefold increase in the volume supplied under destination-flexible contracts. At the same time, destination-fixed contracts continue to play an important role, allowing buyers to maintain diversified contract portfolios where they seek a mix of destination-flexible and fixed-destination volumes. Such contracts accounted for 50% of newly signed SPA volumes in 2025 and 53% in the first nine months of 2026. Nevertheless, with several legacy destination-fixed contracts set to expire, the share of destination-flexible volumes is expected to increase further, reaching 55% by 2030 if no additional contracts are signed.

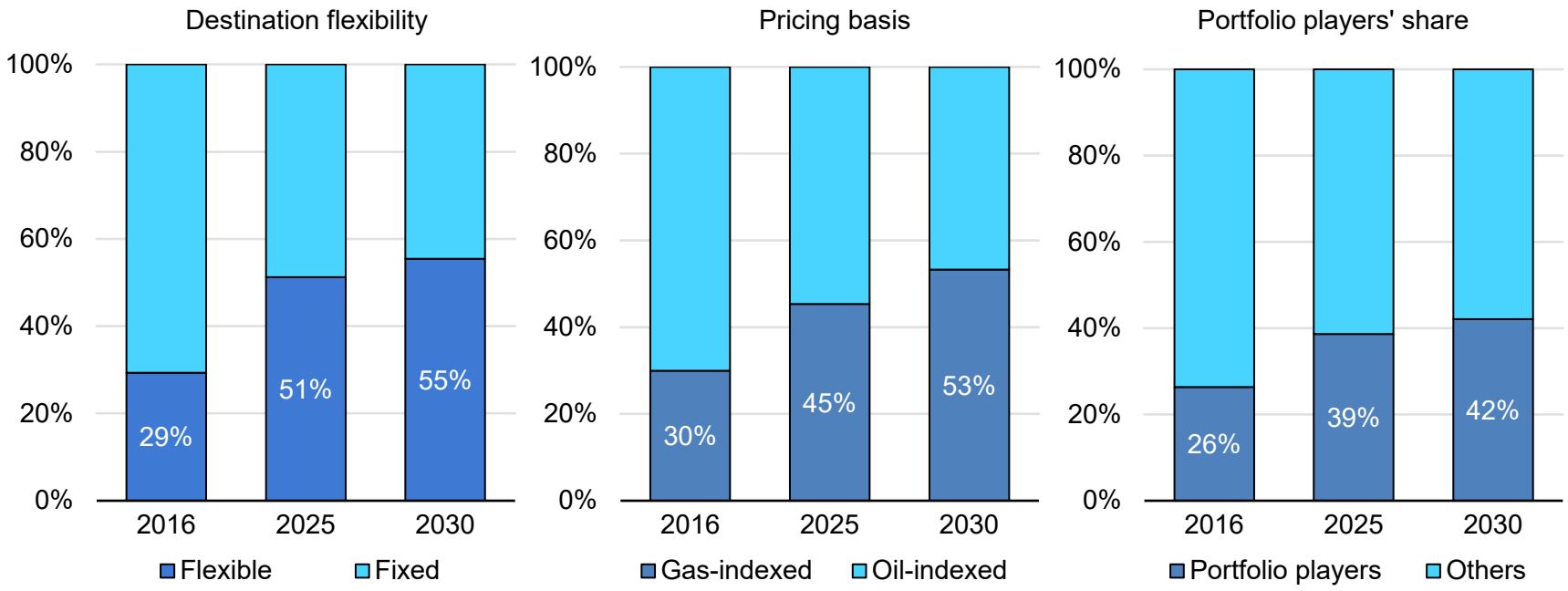
Pricing terms have also become increasingly diverse since 2016, with the share of gas-indexed and hybrid LNG contracts rising from around 30% in 2016 to 45% in 2025. This again largely reflects the rapid expansion of US LNG volumes, which are predominantly indexed to Henry Hub. Based on existing firm contracts, the share of gas-indexed contracts is set to increase further, reaching around 53% by 2030 as new US LNG projects with Henry Hub-linked pricing come online, while the share of traditional oil-indexed contracts declines.

Meanwhile, the role of portfolio players in LNG trade has increased significantly, with their share of LNG procurement contracts rising from 26% in 2016 to 39% in 2025. Based on existing firm contracts, this share is expected to increase further, reaching around 42% by 2030. From a market flexibility perspective, the growing volumes contracted (and resold) by portfolio players can enhance supply optionality and pricing diversity for buyers.

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The share of destination-flexible, gas-indexed and portfolio-based contracts continues to grow

Evolution of key LNG contract characteristics, 2016-2030



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Notes: Destination flexibility is only for indicative purposes, assumed in the absence of a clear source of information. Destination-flexible contracts are typically underpinned by FOB shipping arrangements. Contract share by pricing basis excludes contracts with unknown or unspecified price indexation. Gas-indexed contracts include hybrid contracts with a gas-linked component.

Source: IEA analysis based on ICIS (2026), ICIS LNG Edge.

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LNG investments continued into 2026, led by North American projects and innovative designs

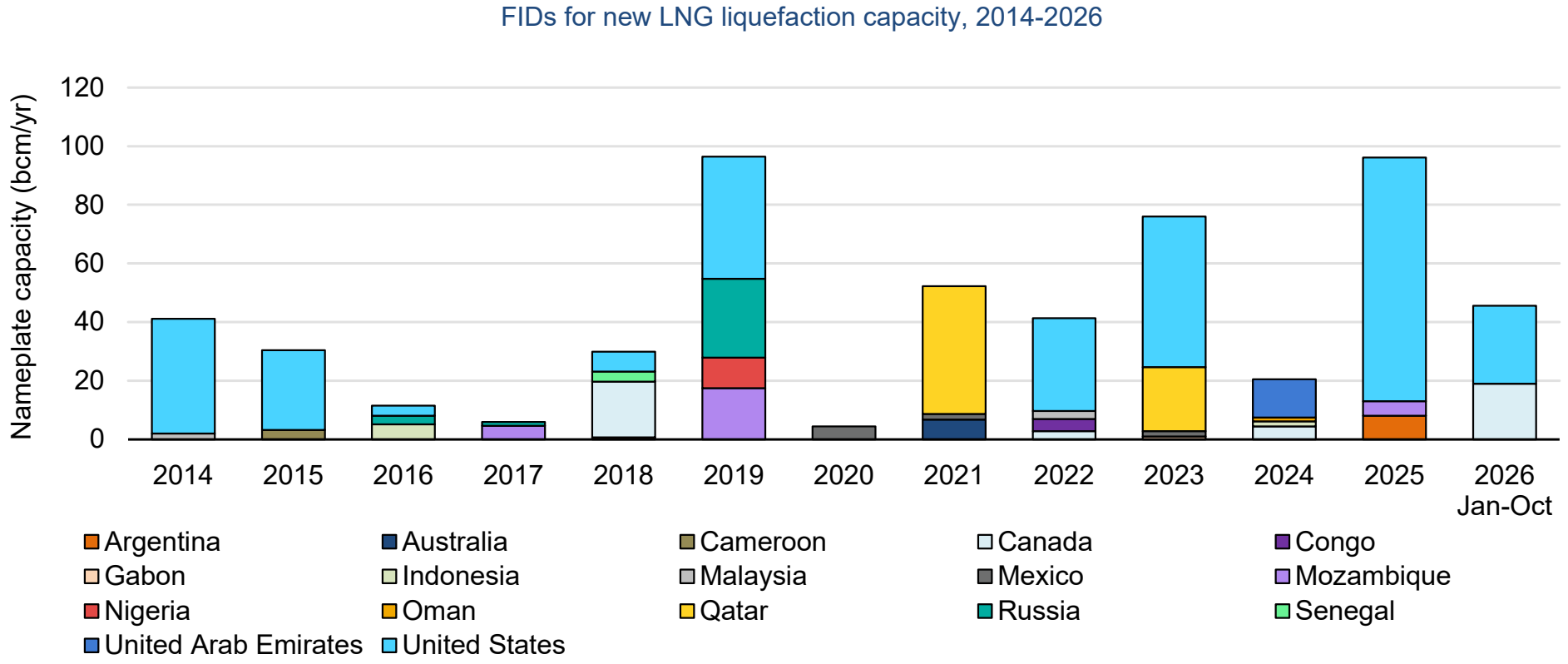
The LNG industry is highly cyclical due to the capital-intensive nature and long lead times of liquefaction projects. The industry has been in the midst of a multi-year investment cycle since 2019, interrupted only briefly by the Covid-19 pandemic in 2020 and the US LNG permitting pause in 2024. Between 2019 and October 2026, around 430 bcm/yr of LNG export capacity reached FID, led by the United States, which accounted for nearly 55% of the total. Investment activity accelerated to a near-record high in 2025, when close to 100 bcm/yr of new liquefaction capacity reached FID, almost 90% of it in the United States.

The investment cycle continued into 2026. Between January and October 2026, four FIDs were announced, representing nearly 46 bcm/yr of combined capacity: CP2 LNG Phase 2 (March 2026), Commonwealth LNG (May 2026) and Delfin LNG (June 2026) in the United States and LNG Canada Phase 2 (September 2026) in Canada. Three of these four projects rely on non-conventional liquefaction solutions: modular construction and liquefaction trains in the case of CP2 and Commonwealth LNG, and a floating LNG (FLNG) vessel – the first in the United States – for Delfin LNG. Specifically, CP2 Phase 2 builds on Venture Global's modular approach at its earlier LNG projects, with the second phase of CP2 comprising 10 mid-scale liquefaction trains configured in 5 blocks (in addition to the 26 trains in 13 blocks associated with Phase 1). The peak production capacity of CP2 will be around 40 bcm/yr. Commonwealth LNG (13 bcm/yr) will use six identical liquefaction trains based on Technip Energies' modular and scalable SnapLNG design, with each train using a gas turbine-driven mixed-refrigerant compressor. Delfin LNG (6 bcm/yr), meanwhile, will deploy the first of up to three planned floating liquefaction vessels. Unlike more complex FLNG projects that produce and process gas directly from offshore reservoirs, Delfin LNG will receive pipeline-quality feedgas from the US gas grid, simplifying the vessel's design and reducing associated infrastructure requirements. These choices reflect developers' growing preference for more gradually scalable solutions amid heightened market uncertainty, as well as the apparent cost advantages, lower on-site labour requirements and shorter development timelines offered by modular technologies.

Some post-FID projects saw significant changes to their development timelines in 2026 amid the shifting geopolitical landscape. Mozambique LNG, which was approved in 2019 but suspended construction under force majeure between 2021 and 2025 due to an armed insurgency, resumed construction in January 2026 following the lifting of force majeure in November 2025. First LNG from the 17.5 bcm/yr project is now targeted for 2029. By contrast, construction at Qatar's 43.5 bcm/yr North Field East expansion project has been disrupted following military attacks on the Ras Laffan facility, with expected start-up now delayed until at least H1 2027 from its previous end-2026 target.

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North America dominated the most recent wave of LNG FIDs



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Source: IEA (2026), Global LNG Capacity Tracker.

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Record LNG contracting in 2025 was driven by North American supply and portfolio players

Global LNG contracting activity accelerated sharply to record levels in 2025 and continued at a healthy pace in the first nine months of 2026. Contract volumes signed with operational and post-FID projects reached 116 bcm/yr in 2025, up by 70% from 68 bcm/yr in 2024. Including pre-FID projects, contracted volumes totalled 130 bcm/yr in 2025, 56% higher than in 2024. North American projects and portfolio players together accounted for about 90% of total contracted volumes in 2025 (including pre-FID commitments), reflecting the acceleration of investment in US LNG projects.

On the export side, North America emerged as the largest source of post-FID LNG contracts in 2025, overtaking the Middle East, which had led contracting activity in 2023 and 2024. In 2025, North America accounted for 52% (60 bcm/yr) of contracted volumes, almost entirely from the United States (58 bcm/yr), coinciding with a sharp increase in FIDs for US LNG projects.

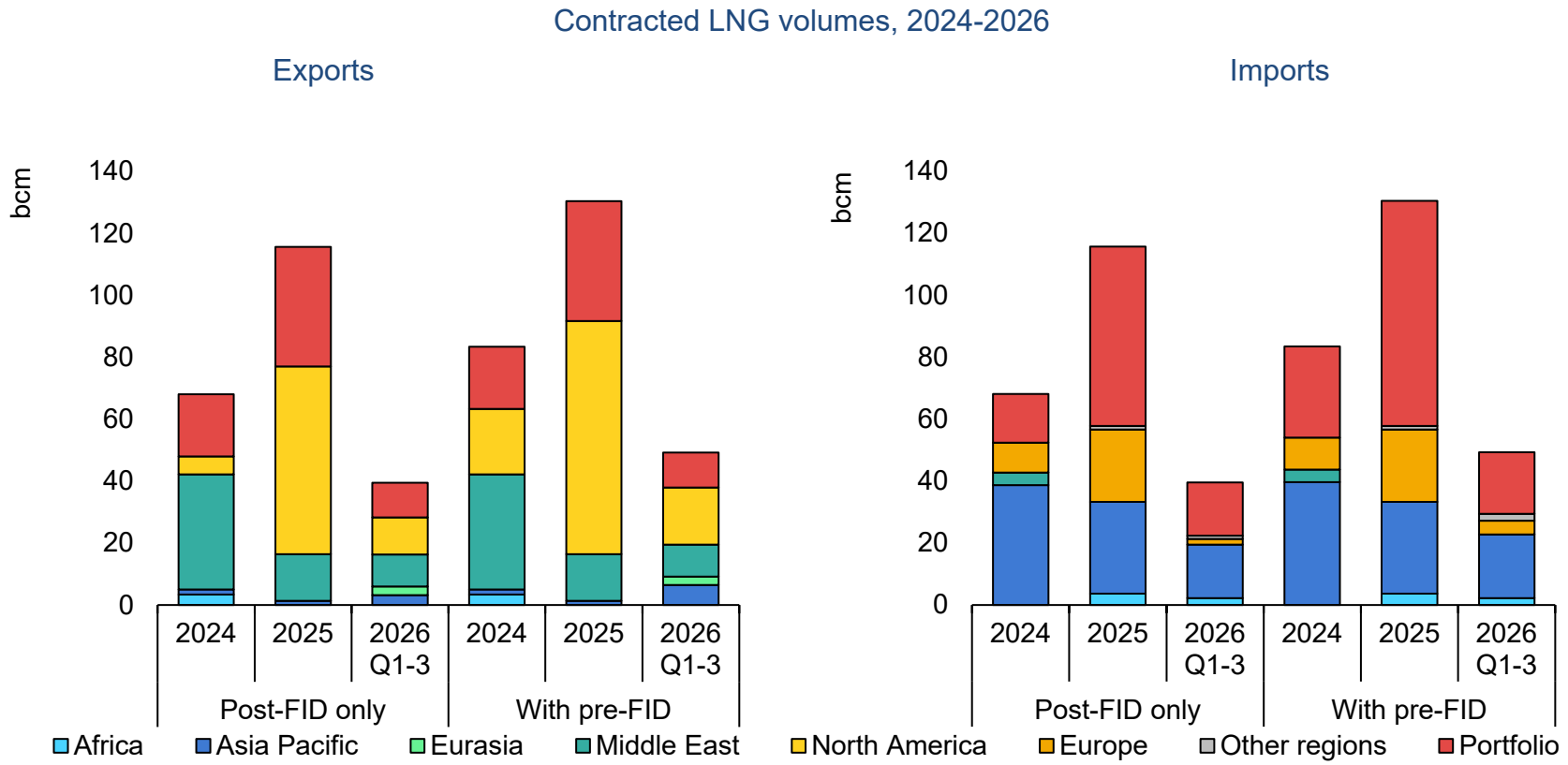
Portfolio players were the second-largest source of contracts with post-FID projects, accounting for 33% (38 bcm/yr) of the total in 2025. Next, the Middle East and Asia Pacific each represented 13% (15 bcm/yr) of post-FID contracts signed in 2025. Including pre-FID projects raises North America's contracted volumes to 75 bcm/yr in 2025, highlighting efforts by multiple project developers to secure offtake commitments prior to their respective FIDs. On the import side, portfolio players were the largest buyers of post-FID volumes in 2025, accounting for 52% (58 bcm/yr), followed by Asian buyers at 27% (30 bcm/yr) and European importers at 21% (23 bcm/yr). Türkiye was the largest individual country buyer, accounting for 10% (12 bcm/yr) of the total. Including pre-FID projects, portfolio players' share rises to 56% (73 bcm/yr), with the vast majority (80%) of their contracted volumes sourced from North America, highlighting their role in supporting new LNG FIDs.

Contracting activity remained healthy in the first nine months of 2026, with around 39 bcm/yr signed with existing and post-FID projects, broadly unchanged from the same period in 2025. Volumes including pre-FID projects were broadly unchanged y-o-y at 45 bcm/yr. North America remained the largest supply source, accounting for 30% (12 bcm/yr) of post-FID export contracts, followed by the portfolio players at 28% (11 bcm/yr) and the Middle East at 26% (10 bcm/yr).

On the import side, portfolio players and Asian buyers were the largest buyer groups in the first nine months of 2026, both accounting for 44% (17 bcm/yr) of post-FID contracted volumes. This reflected continued procurement from new US LNG projects offering destination flexibility. Among individual countries, Japan was the largest buyer, accounting for 24% (10 bcm/yr), while contracting by European parties remained limited and China recorded no new post-FID volumes during the period.

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LNG contracting has continued at a healthy rate in 2026 to date



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Notes: Contracted volumes used for the analysis are associated with confirmed export projects that have taken FID. 2026 represents volumes signed by the end of September 2026. "Portfolio" volumes are contracted by a market player who may source product from one or multiple regions to fulfil contractual obligations.

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Long-term agreements and small contracts drive contracting activity in 2025-2026

Long-term agreements continued to dominate LNG contracting in 2025, alongside a high share of smaller contracts and a rebound in destination-flexible contract volumes.

Long-term agreements (with durations of ten years or more) accounted for 85% of contracted volumes in 2025, close to the 2024 share of 84%. Portfolio players were the driving force behind this trend, accounting for 57% of long-term contracted volumes, while North America was the leading supply source. Medium-term agreements (between five and ten years) and short-term agreements (less than five years) accounted for 5% and 9% of total contracted volumes, respectively. Long-term contracting remained dominant in the first nine months of 2026, accounting for 64% of contracted volumes, with Asian buyers representing about 60% of the total long-term volume.

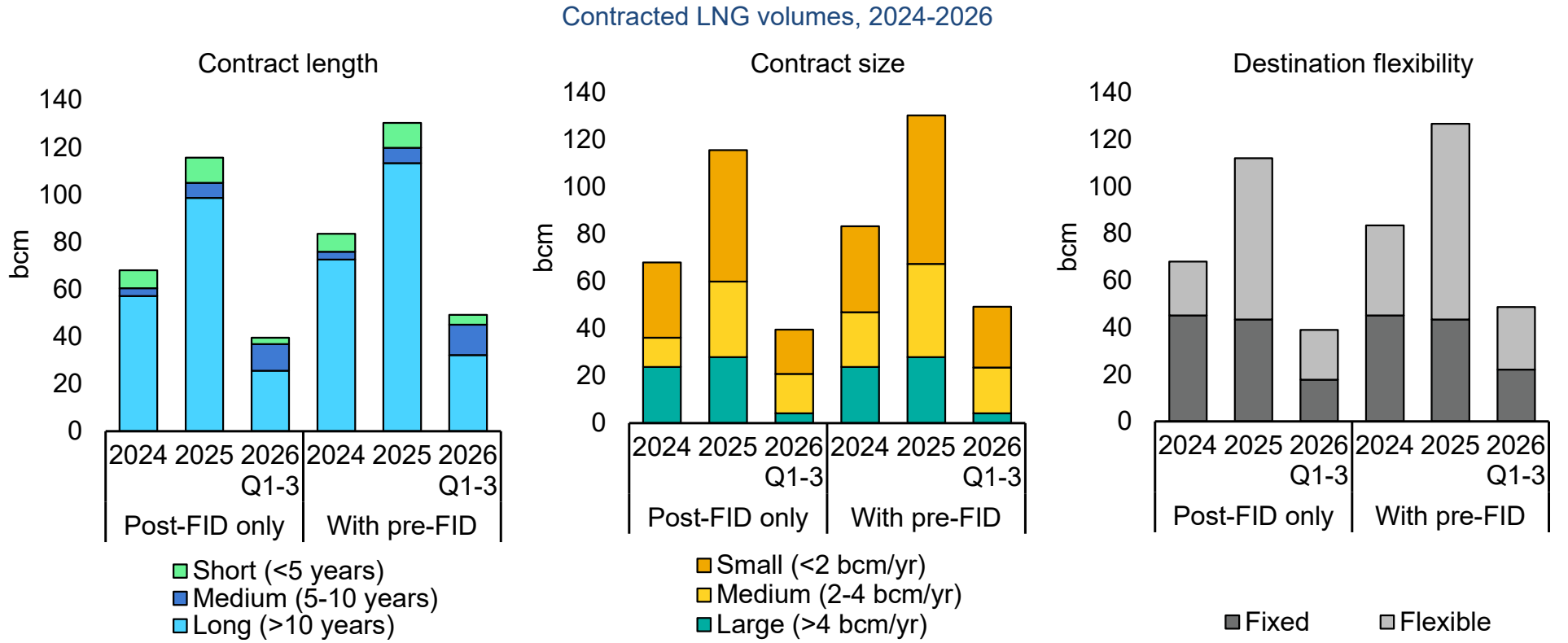
By deal size, small-volume contracts (under 2 bcm/yr) dominated contracting activity in 2025, accounting for 48% of total contracted volumes. Medium-sized contracts (2-4 bcm/yr) and large contracts (over 4 bcm/yr) represented 28% and 24% of the total, respectively. The large-contract volumes in 2025 were associated with only two offtake commitments, both with US projects, one of which involved a sizeable equity entitlement from the Louisiana LNG facility.

In the first nine months of 2026, large contracts accounted for [10%] of contracted volumes (compared with an average of around 30% in 2024-2025), while small and medium-sized contracts represented around 50% and 40%, respectively.

Destination-flexible contracts rebounded in 2025. They accounted for around 60% of signed volumes, up from around 33% in 2024. Conversely, fixed-destination contracts represented less than 40% of the total, of which around 90% were signed by Asian and European buyers. The recovery in destination flexibility coincided with a rebound in contracting from North American suppliers after lower volumes in 2024. In the first nine months of 2026, destination-flexible and fixed-destination volumes accounted for broadly similar shares, at 54% and 46%, respectively.

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Long durations, small volume commitments and flexible destinations predominate since 2025



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Notes: 2026 represents volumes signed by the end of September 2026. Destination flexibility is only for indicative purposes, assumed in the absence of a clear source of information. Contracted volumes include equity entitlements where clearly identifiable.

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Portfolio players can provide greater flexibility to the global LNG market

Portfolio players can play an important role in meeting buyers' growing demand for flexibility in both volume and supply source. They procure LNG from a range of origins and resell it to end users through a combination of term contracts and spot transactions, allowing them to offer buyers a broader range of flexible supply options. This can be particularly valuable for buyers seeking to diversify supply sources, manage demand uncertainty and reduce exposure to regional supply disruptions.

Portfolio players' share of LNG procurement has risen substantially in recent years. In 2025, their procurement volumes accounted for 39% of total volumes transacted under active LNG contracts, up from 26% in 2016. This increase reflects strong contracting activity, with portfolio players accounting for 36% of all procurement volumes contracted between 2020 and 2025. The share of portfolio players in LNG sales contracting has changed significantly since 2024. Their share averaged just 10% for contracts signed in 2022-2023, as they increasingly marketed their LNG supply portfolios on the spot market. However, this share has increased again in 2024-2025, reaching close to 30%. This may reflect a shift from a cautious stance to a more proactive approach in response to evolving market conditions, amid uncertainty over future natural gas demand.

Contract durations on the procurement side have lengthened. The average duration of new procurement contracts signed by portfolio players increased from about ten years in 2016-2017 to around 16 years in 2025. By contrast, the average duration of their LNG portfolio term sales contracts in 2024-2025 was less than 10 years.

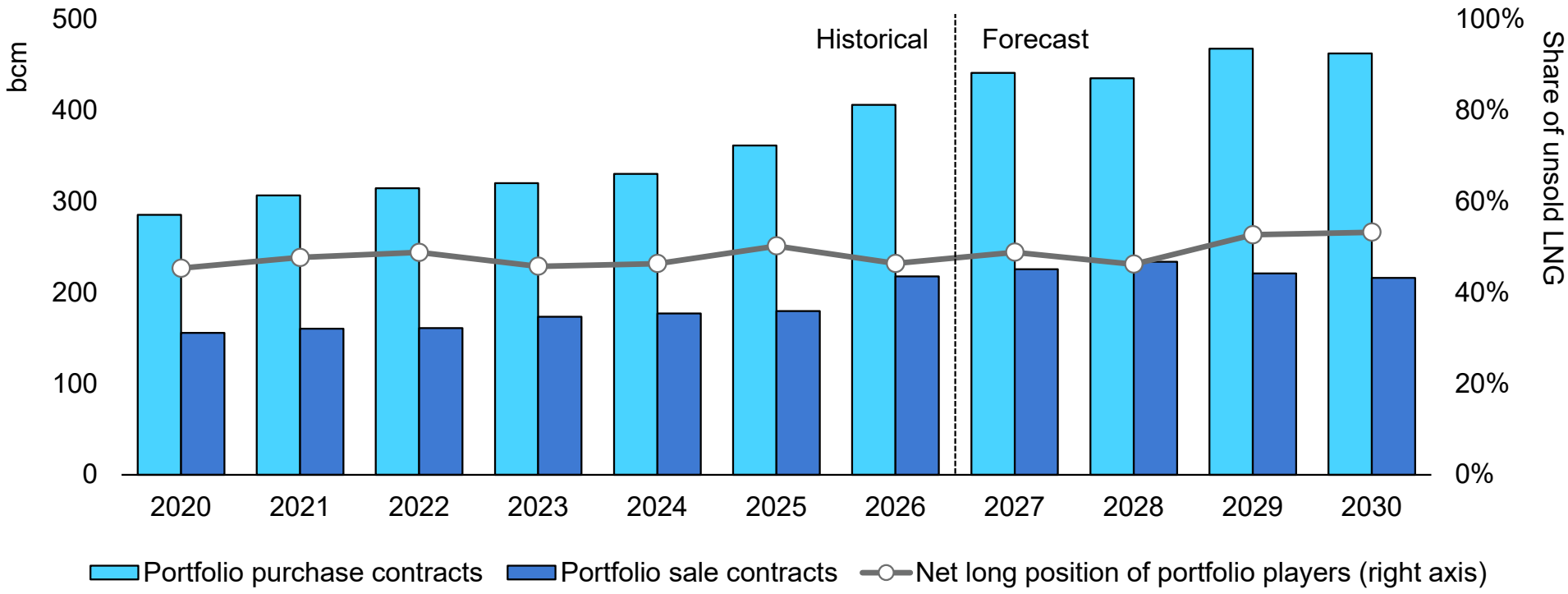
The geographical composition of portfolio players' LNG sales has also shifted. Before the 2022 energy crisis, portfolio players' sales were mainly directed towards buyers in Asia. Europe's share increased after the 2022 crisis, reaching nearly half of the total by 2025. Following the closure of the Strait of Hormuz, however, the balance shifted back towards Asia, which accounted for 55% of total sales in the first nine months of 2026, concentrated among buyers in Japan, Korea and Southeast Asia.

The net long position of portfolio players – reflecting contracted procurement volumes not covered by term sales commitments to end users – has widened in recent years, from around 130 bcm (or 45% of total purchase commitments) in 2020 to more than 182 bcm (or 50%) in 2025. This has created a growing pool of unsold LNG for future delivery within their portfolios. Based on existing contracts, this net long position is set to increase to around 245 bcm by 2030, representing around 53% of portfolio players' total purchase commitments. This growing pool of uncommitted LNG could provide buyers with greater optionality in terms of contract duration and volume and enhance the overall flexibility of the global LNG market over time.

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Growing volume of uncommitted LNG in aggregator portfolios can provide flexibility for buyers

Contractual position of LNG portfolio players, 2020-2030



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Note: Data represent the volume and share of LNG term contract volumes signed by the end of September 2026.

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Close to 155 bcm/yr of active LNG contracts are set to expire between 2026 and 2030

Expiring legacy LNG contracts create opportunities for buyers to recontract volumes on more flexible terms with existing sellers or replace inflexible legacy contracts with new agreements offering greater flexibility. Based on LNG contracts active at the beginning of 2026, nearly 155 bcm/yr of contracted volumes are estimated to expire over the five-year period from 2026 to 2030.

In terms of geography, the largest share of expiring contracts is with suppliers in the Middle East, accounting for 24% of volumes set to expire between 2026 and 2030. Legacy exporting contracts with suppliers in Africa and the Asia Pacific region are also significant, each accounting for 20% of the total. All other regions account for relatively limited volumes, while portfolio players represent more than a quarter of expiring export contracts.

On the buyer side, Asia accounts for by far the largest proportion of expiring contracts, representing more than 40% of the total, followed by Europe at 18%. Portfolio players account for a further 26% of expiring import contracts on the buyer side, with other importing regions representing relatively minor shares.

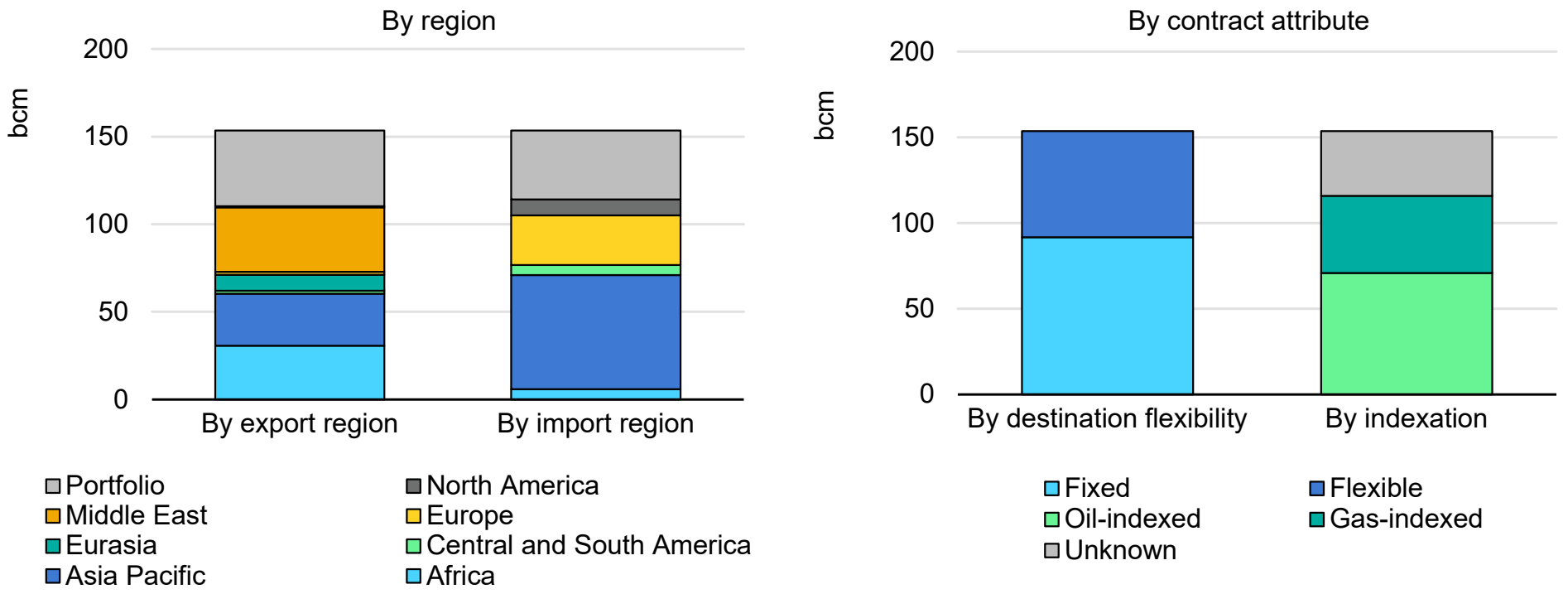
The majority of expiring contracts (close to 60%) are fixed-destination, reflecting the predominance of such terms in legacy contracts with Middle Eastern and most Asian suppliers, which together account for a substantial proportion of expiring volumes. Destination-flexible contracts account for just over 40% of expiring volumes, with the largest share associated with African suppliers.

LNG contracting has historically been dominated by oil indexation. Accordingly, oil-linked contracts account for the largest share of expiring contract volumes, at close to 46%, while gas-linked contracts represent about 30%. For the remaining 25%, the pricing basis is unknown or unspecified.

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The majority of expiring contracts are fixed-destination, oil-indexed legacy volumes

Expiring volumes under active LNG contracts, 2026-2030



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Source: IEA analysis based on ICIS (2026), ICIS LNG Edge.

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North America is set to drive additional LNG supply volume over the medium term

The volume of existing contracts, including those held by portfolio players, is expected to increase by around 20% between 2025 and 2028, supported by the start-up of several new liquefaction plants. From 2028, however, contract expiries are expected to result in a net decline in contracted volumes, limiting the overall increase between 2025 and 2030 to just under 13%.

On the export side, North America is expected to drive the growth in contracted supply as new liquefaction capacity comes online. Its share of total existing contracts is set to increase from 23% in 2025 to 38% by 2030. On the import side, Asia is set to remain the largest contracting region (based on contracts already signed), accounting for around 45% of total contracted import volumes in 2030, broadly unchanged from 2025. In absolute terms, volumes contracted to Asian buyers are expected to increase by 16% between 2025 and 2030. China's existing contracted volumes are set to rise by 27%, bringing its share of total existing contracts to around 17% by 2030, while India's contracted volumes are set to increase by 35% over the same period.

Based on existing SPA contracts, destination-flexible volumes are set to increase from 53% of primary LNG export contracts in 2025 to 56% by 2030. This, with the start-up of several new liquefaction projects during 2026-2030, is expected to increase the combined pool of uncontracted capacity and destination-flexible volumes over the medium term.

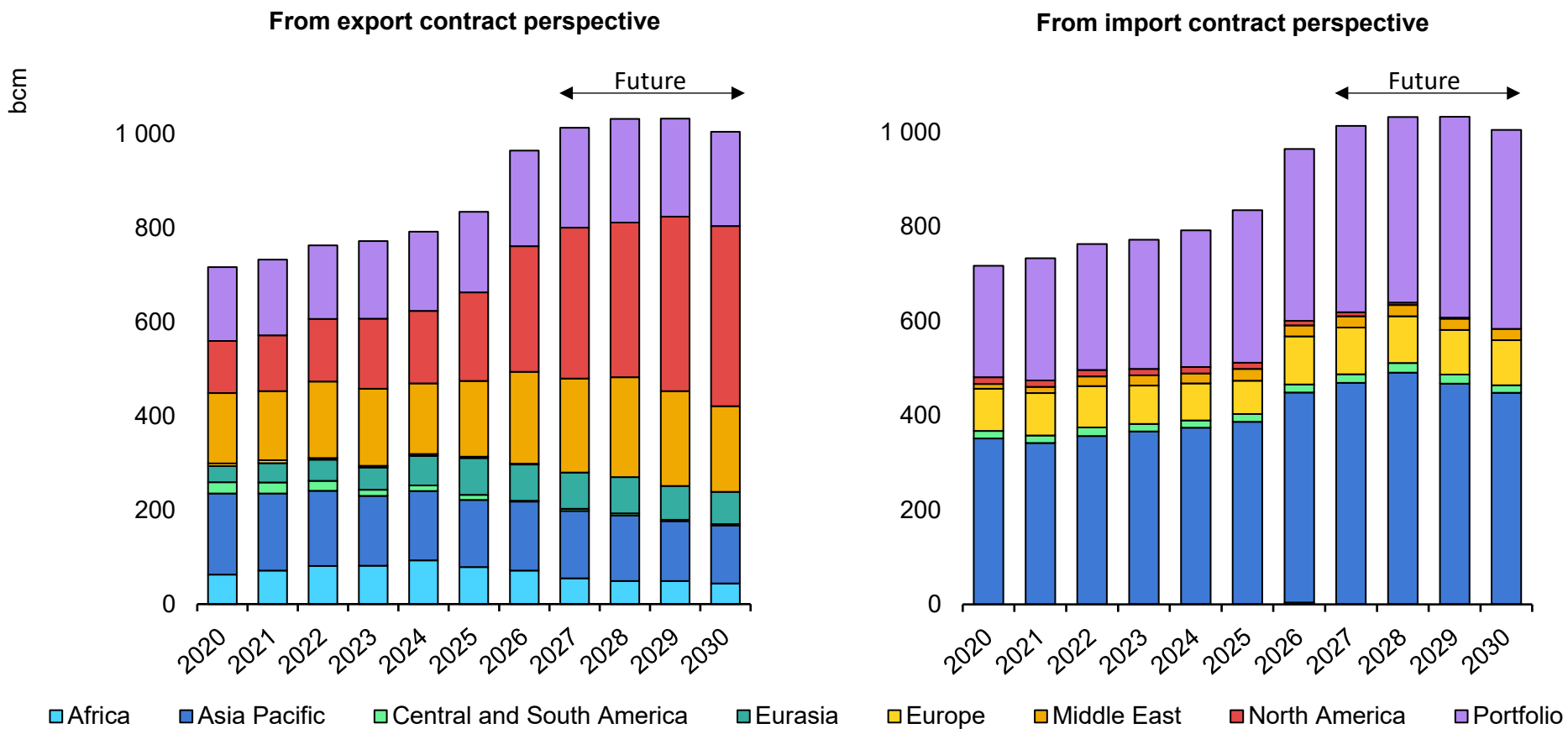
There is a marked difference in destination flexibility between the export and import sides of the market. In 2025, around 54% of export contracts allowed destination flexibility, compared with only around 22% of import contracts. This suggests that portfolio players tend to procure LNG under destination-flexible contracts while reselling a significant proportion of these volumes under fixed-destination contracts to end buyers.

Based on existing active contracts, the share of oil-indexed LNG contracts is expected to decline between 2025 and 2030 on both the export and import sides, while the share of gas-linked contracts is set to increase by around 25%, supported by the expansion of US LNG supply. Among export contracts with identifiable indexation, the share of oil-indexed contracts is set to decline from 55% in 2025 to 47% by 2030. Oil indexation is expected to remain more prevalent among import contracts, although its share is set to decrease from 73% in 2025 to 65% by 2030.

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Volumes contracted under active LNG contracts are set to expand during 2026-2030

Total active LNG contracts, 2020-2030

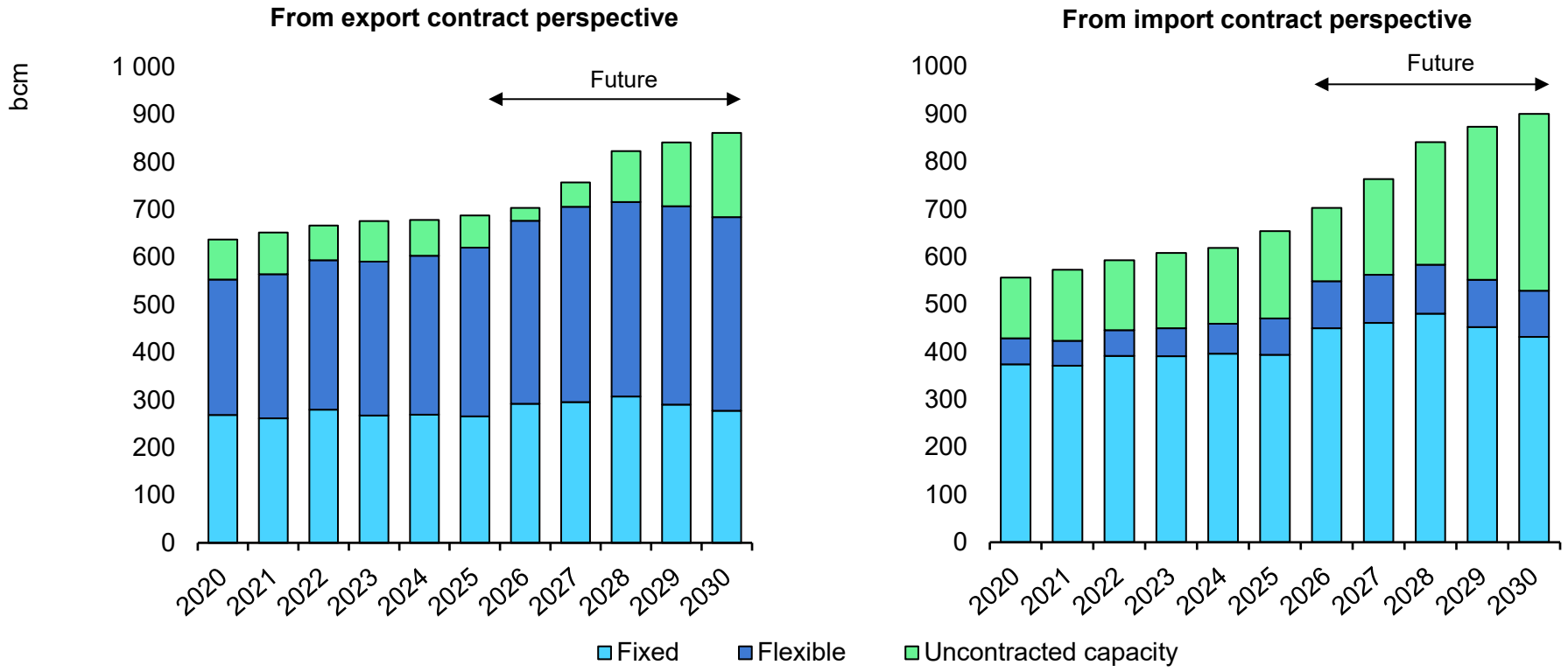


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Combination of destination-free contracts and uncontracted LNG can improve market flexibility

LNG supply capacity by destination flexibility (excluding portfolio contracts), 2020-2030

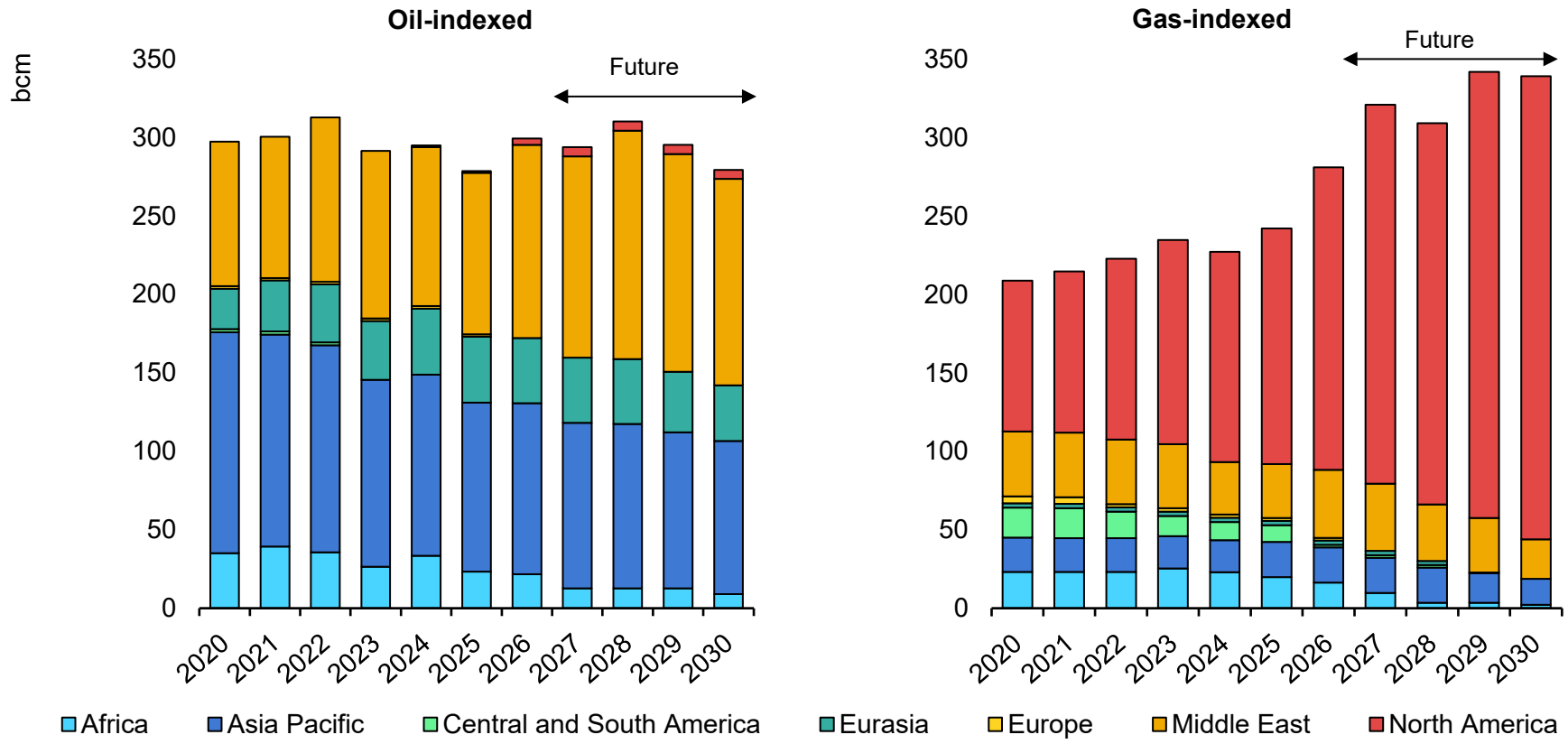


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LNG exports under gas-indexed contracts are set to grow rapidly, driven by North America

LNG export contract volumes with oil-indexed and gas-indexed pricing, 2020-2030



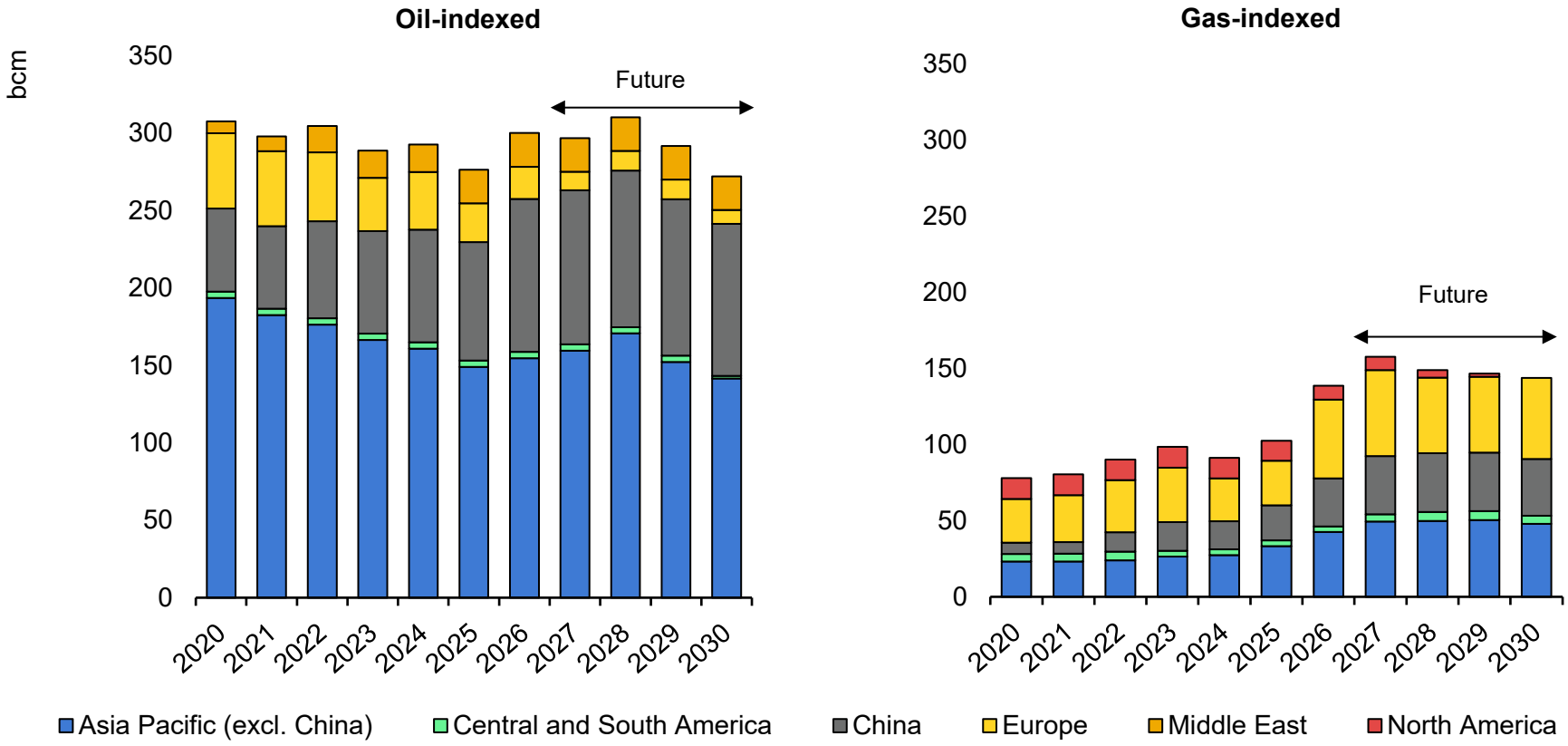
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Note: Contracts not linked to a specific origin or destination have been excluded from the analysis.

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Oil indexation is expected to decline after 2028, but remains prevalent in import contracts

LNG import contract volumes with oil-indexed and gas-indexed pricing, by region and country, 2020-2030



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Note: Contracts not linked to a specific origin or destination have been excluded from the analysis.

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Annex

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Summary table

World natural gas consumption and production by region and key country (bcm)

	Consumption				Production			
	2023	2024	2025	2026	2023	2024	2025	2026
Africa	172	173	178	186	251	243	240	248
Asia Pacific	929	972	980	964	695	706	720	725
of which China	*395*	*427*	*440*	*433*	*230*	*245*	*260*	*264*
Central and South America	153	152	154	156	153	150	152	154
Eurasia	627	650	638	648	830	875	840	852
of which Russia	*495*	*521*	*506*	*514*	*638*	*685*	*662*	*678*
Europe	500	505	515	499	213	218	213	215
Middle East	616	631	640	578	752	765	785	645
North America	1 143	1 169	1 185	1 192	1 285	1 275	1 325	1 375
of which United States	*913*	*926*	*939*	*944*	*1 061*	*1 060*	*1 095*	*1 136*
World	**4 140**	**4 252**	**4 290**	**4 223**	**4 179**	**4 232**	**4 275**	**4 214**

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Regional and country groupings

Africa – Algeria, Angola, Benin, Botswana, Cameroon, Congo, Democratic Republic of the Congo, Côte d'Ivoire, Egypt, Eritrea, Ethiopia, Gabon, Ghana, Kenya, Libya, Morocco, Mozambique, Namibia, Nigeria, Senegal, South Africa, Sudan, United Republic of Tanzania, Togo, Tunisia, Zambia, Zimbabwe and other countries and territories.[1]

Asia Pacific – Australia, Bangladesh, Brunei Darussalam, Cambodia, Chinese Taipei, India, Indonesia, Japan, Korea, the Democratic People's Republic of Korea, Malaysia, Mongolia, Myanmar, Nepal, New Zealand, Pakistan, the People's Republic of China,[2] the Philippines, Singapore, Sri Lanka, Thailand, Viet Nam and other countries and territories.[3]

Central and South America – Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, Venezuela and other countries and territories.[4]

Eurasia – Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, the Russian Federation, Tajikistan, Turkmenistan and Uzbekistan.

Europe – Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus,[5,6] the Czech Republic, Denmark, Estonia, Finland, the Former Yugoslav Republic of North Macedonia, France, Germany, Gibraltar, Greece, Hungary, Iceland, Ireland, Italy, Kosovo,[7] Latvia, Lithuania, Luxembourg, Malta, the Republic of Moldova, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Republic of Türkiye, Ukraine and the United Kingdom.

European Union – Austria, Belgium, Bulgaria, Croatia, Cyprus,[5,6] the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, the Slovak Republic, Slovenia, Spain and Sweden.

Middle East – Bahrain, the Islamic Republic of Iran, Iraq, Israel,[8] Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, the Syrian Arab Republic, the United Arab Emirates and Yemen.

North Africa – Algeria, Egypt, Libya, Morocco and Tunisia.

North America – Canada, Mexico and the United States.

[1] Individual data are not available and are estimated in aggregate for: Burkina Faso, Burundi, Cape Verde, the Central African Republic, Chad, Comoros, Djibouti, Equatorial Guinea, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Niger, Reunion, Rwanda, Sao Tome and Principe, Seychelles, Sierra Leone, Somalia, Swaziland and Uganda.

[2] Including Hong Kong.

[3] Individual data are not available and are estimated in aggregate for: Afghanistan, Bhutan, Cook Islands, Fiji, French Polynesia, Kiribati, the Lao People's Democratic Republic, Macau (China), Maldives, New Caledonia, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga and Vanuatu.

[4] Individual data are not available and are estimated in aggregate for: Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Dominica, Falkland Islands (Malvinas), French Guyana, Grenada, Guadeloupe, Guyana, Martinique, Montserrat, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Suriname and Turks and Caicos Islands.

[5] Note by the Republic of Türkiye.
The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. The Republic of Türkiye recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, The Republic of Türkiye shall preserve its position concerning the "Cyprus issue".

[6] Note by all the European Union Member States of the OECD and the European Union
The Republic of Cyprus is recognised by all members of the United Nations with the exception of Türkiye. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

[7] The designation is without prejudice to positions on status, and is in line with the United Nations Security Council Resolution 1244/99 and the Advisory Opinion of the International Court of Justice on Kosovo's declaration of Independence.

[8] The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD and/or the IEA is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Abbreviations and acronyms

ANP	National Petroleum Agency (Brazil)
AFTC	Alternative Fuels Tax Credit
ANP	National Petroleum Agency (Brazil)
BMC	Colombian Mercantile Exchange (Colombia)
CAPEX	capital expenditure
CBG	compressed biogas
CCUS	Carbon Capture, Utilisation and Storage
CME	Chicago Mercantile Exchange (United States)
CNE	National Energy Commission (Chile)
CO_2	carbon dioxide
CQPGX	Chongqing Petroleum Exchange (the People's Republic of China)
EIA	Energy Information Administration (United States)
ENARGAS	National Gas Regulatory Entity (Argentina)
ENTSOG	European Network of Transmission System Operators for Gas
EPC	engineering, procurement and construction
EPIAS	Energy Markets Operations Inc. (Republic of Türkiye)
EPPO	Energy Policy and Planning Office (Thailand)
EU	European Union
EUR	Euro
FCEVs	fuel cell electric vehicles
FID	final investment decision
FLNG	floating liquefied natural gas
FOB	free on board
FSRU	floating storage and regasification unit
FY	fiscal year
GHGs	greenhouse gases
GIE	Gas Infrastructure Europe
GMR	IEA Gas Market Report
GST	goods and services tax
HDDs	heating degree days
HH	Henry Hub
HoA	Head of Agreement
IEA	International Energy Agency
ICE	Intercontinental Exchange
ICIS	Independent Chemical Information Services
IEA	International Energy Agency
ITC	investment tax credit
JKM	Japan Korea Marker
JODI	Joint Oil Data Initiative
JPY	Japanese yen
LBG	liquefied biomethane
LCFS	Low Carbon Fuel Standard
LCV	light commercial vehicles
LEGWP	Low-Emission Gases Work Programme
LNG	liquefied natural gas
METI	Ministry of Economy, Trade and Industry (Japan)
MoU	Memorandum of Understanding
MME	Ministry of Mines and Energy (Brazil)

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MVP	Mountain Valley Pipeline
NBP	National Balancing Point (United Kingdom)
NDRC	National Development and Reform Commission (the People's Republic of China)
NLNG	Nigeria liquefied natural gas
OECD	Organisation for Economic Co-operation and Development
ONS	National Electric System Operator (Brazil)
OSINERG	Energy Regulatory Commission (Peru)
PPAC	Petroleum Planning and Analysis Cell (India)
PTC	production tax credit
RNG	renewable natural gas
RFS	Renewable Fuel Standard
SAF	sustainable aviation fuel
SBL	Strategic Buffer LNG
SMR	steam methane reforming
SPA	Sales and Purchase Agreement
TAP	Trans Adriatic Pipeline
TFDE	Tri-fuel diesel electric
TFFS	Task Force on Gas and Clean Fuels Market Monitoring and Supply and Security
TTF	Title Transfer Facility (the Netherlands)
UGS	underground storage
USD	United States dollar
y-o-y	year-on-year

Units of measure

bcf	billion cubic feet
bcf/d	billion cubic feet per day
bcm	billion cubic metres
bcm_{eq}	billion cubic metre equivalent
bcm/yr	billion cubic metres per year
GJ	gigajoule
GW	gigawatt
kWh	kilowatt hour
MBtu	million British thermal units
Mt	million tonnes
Mt/yr	million tonnes per year
m^3/hr	cubic metres per hour
$m^3/yr/hr$	cubic metres per year per hour
m^3/yr	cubic metres per year
Nm^3	normal cubic metre
TWh	terawatt hour

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Acknowledgements, contributors and credits

This publication has been prepared by the Gas, Coal and Power Markets Division (GCP) of the International Energy Agency (IEA). The report was designed and directed by Gergely Molnár. Carole Etienne, Carina Gwennap, Yu Kawasaki, Akos Lósz, Gergely Molnár and Frederick Ritter are the main authors.

Shinichi Kihara, Director of the IEA Energy Markets and Security (EMS) Directorate, provided expert guidance and advice. The report benefitted from the review of senior management, including Tim Gould, Chief Energy Economist and Dennis Hesseling, Head of Gas, Coal and Power Markets Division.

Eren Cam, Carlos Fernandez Alvarez, Tetsuya Mizuno and Yutaka Shirakawa provided support. Sydnie McCormick provided essential support.

Timely and comprehensive data from the Energy Data Centre were fundamental to the report.

The IEA Communication and Digital Office (CDO) provided production and launch support. Particular thanks go to Jethro Mullen and his team: Maria Ahmad, Alexia Amado, Lee Bailey, Poeli Bojorquez, Curtis Brainard, Astrid Dumond, Grace Gordon, Julia Horowitz and Clara Vallois.

Justin French-Brooks edited the report.

The report was made possible by assistance from Tokyo Gas.

The individuals and organisations that contributed to this report are not responsible for any opinion or judgement it contains. Any error or omission is the sole responsibility of the IEA.

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Typeset in France by IEA - November 2026
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