GECF

Gas Exporting Countries Forum

MONTHLY GAS MARKET REPORT

August 2024

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About GECF

The Gas Exporting Countries Forum (GECF) is an intergovernmental organisation gathering the world's leading gas producers and exporters, whose objective is to provide a framework for the exchange of views, experiences, information and data, while developing the cooperation and collaboration amongst its members in gas-related matters. The GECF gathers 20 countries, including 12 full members and 8 observer members (GECF Member Countries) from four continents. Algeria, Bolivia, Egypt, Equatorial Guinea, Iran, Libya, Nigeria, Qatar, Russia, Trinidad and Tobago, United Arab Emirates and Venezuela have the status of full members, while Angola, Azerbaijan, Iraq, Malaysia, Mauritania, Mozambique, Peru and Senegal have the status of observer members.

The GECF Monthly Gas Market Report (MGMR) is a monthly publication of the GECF focusing on short-term developments in the global gas market related to the global economy, gas consumption, gas production, gas trade (pipeline gas and LNG), gas storage and energy prices**.**

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Highlights

Global economy: Global GDP growth for 2024 has been revised upward to 3.1% as reported by Oxford Economics. In the US, GDP growth is now expected to reach 2.6%, reflecting an upward revision. Meanwhile, GDP growth projections for the Euro area and China remain unchanged at 0.8% and 4.8%, respectively. Looking ahead to 2025, global economic growth is projected to reach 3.2%. Additionally, global inflation is expected to ease, averaging 4.5% in 2024 and further declining to 3.4% in 2025.

Gas consumption: In July 2024, the EU gas consumption decreased by 7% y-o-y, mainly due to gas demand reduction measures and high output from hydro, nuclear and solar power generation. Similarly, the US gas consumption decreased by 1.4% y-o-y to reach 74 bcm driven by a decline in the power generation sector. In June 2024, China's apparent gas demand rose by 6% y-o-y to reach 34.6 bcm, driven by a recovery in economic activities and lower LNG prices.

Gas production: In July 2024, the US total gas production decreased by 0.8% y-o-y to stand at 98.6 bcm, reflecting the effect of the announced cuts in gas production amidst low Henry Hub gas prices. In June 2024, Europe's gas production continued its strong rebound, with total output of 14.3 bcm and a 13% y-o-y surge, mainly driven by the rise in Norway's gas output and low maintenance downtime. In Asia, China maintained its consistent gas production growth, with an 11% y-o-y uptick, driven by a remarkable 51% y-o-y rise in CBM output. Additionally, in July 2024, the number of global gas drilling rigs increased by 16 units m-o-m to stand at 362 rigs, driven by the increased drilling activity in Canada.

Gas trade: In July 2024, global LNG imports reached 32.7 Mt, marking a 1.8% y-o-y increase and reversing two consecutive months of declines. The growth was driven by the Asia Pacific and MENA regions, which offset declines in Europe and Latin America. A significant spot LNG price spread between Asia Pacific and Europe attracted more LNG cargoes to the Asia Pacific region. Additionally, hotter-than-usual weather supported higher LNG imports in Asia Pacific. Conversely, Europe's LNG imports declined due to lower gas consumption, high storage levels, and stable pipeline gas supply, with the EU PNG imports reaching 13.3 bcm, which was the same level as one year ago. On the supply side, US LNG exports fell to their second-lowest monthly level in 2024 due to the impact of Hurricane Beryl on operations at the Freeport LNG facility.

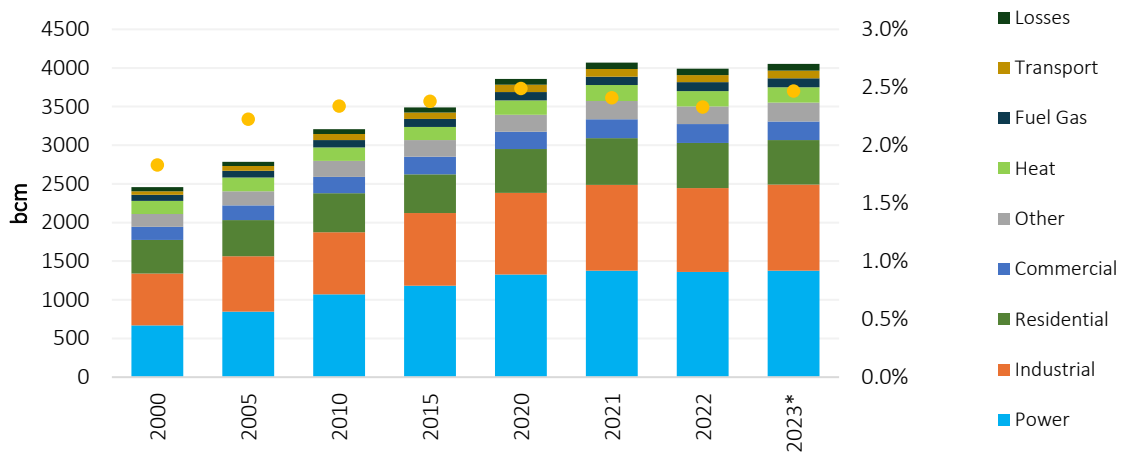
Gas storage: Gas restocking continued in the EU in July 2024, with the average volume of gas in storage increasing to 84.4 bcm, which is equal to an average regional capacity of 81%. Similarly, in the US, the average gas storage level continued to trend above the five-year range, while increasing to 91.2 bcm, or 68% of the country's capacity. In Asia, the combined volume of LNG in storage in Japan and South Korea was at 14.2 bcm.

Energy prices: Gas and LNG spot prices in Europe and Asia declined after a four-month rally. The average TTF spot price was $10.24/MMBtu, reflecting a 5% m-o-m decrease. Similarly, the average NEA spot LNG price experienced a 3% m-o-m decrease to $11.99/MMBtu. Additionally, in the US, Henry Hub prices plummeted, averaging $2.07/MMBtu. Looking ahead, expectations of above-normal temperatures may increase gas demand for cooling, potentially supporting prices. However, high gas storage levels and robust LNG supply may temper any price gains.

Feature article: The increasing role of natural gas in the road transport sector

While the power generation, industrial and residential/commercial sectors have retained their high shares in global gas consumption over the past two decades, the transport sector is still regarded as an emerging industry for gas utilisation. Since the year 2000, the share of the transport sector in global gas consumption has expanded from around 1.8% to an estimated 2.5% in 2023 (Figure i). This sector consumes around 100 bcm per annum, and this is projected to rise consistently in the medium and long term. In the meantime, according to Enerdata, the transport sector is dominated by the utilisation of oil-based fuels, accounting for 92% on the global level in 2023, while the remaining part belongs to alternative fuels, including natural gas, whose share rose to 2.5% compared to 0.4% in 2000.

Figure i: Natural gas consumption by sector



Source: GECF Secretariat based on data from Rystad; Data with the asterisk (*) is estimated

The transport sector is poised to expand its share of global gas consumption, particularly through the increase in uptake from the road transport segment of the market, driven by two complementary factors, namely favourable energy policies and economic competitiveness.

The environmentally focused energy policies have had an undeniable influence on the shifting fuel choices in the transport sector. The transport sector is responsible for one quarter of global greenhouse gas emissions, with road transport standing out with a lion share of emissions. Amidst the reinforcing climate change agenda, this may make the decarbonisation of the transport sector, particularly the road transport segment, an imperative.

One of the most efficient ways to promote the decarbonisation of road transport is switching from conventional oil-based fuels to natural gas. Compared with conventional fuels, switching to natural gas may reduce GHG emissions by around 20%, while carbon dioxide emissions in particular may decrease by up to 25%. In addition to these reductions, the combustion of natural gas-based fuels produces lower levels of nitrogen oxides, sulphur oxides and particulate matter, further contributing to improving air and water quality. In this context, the use of natural gas as a transport fuel has proven advantageous in advancing social progress and mitigating the effects of climate change, while contributing to meeting the United Nations' Sustainable Development Goals (SDGs), particularly SDG 7 (Affordable and clean energy), SDG 11 (Sustainable cities and communities) and SDG 13 (Climate action).

In road transport, the fuels for natural gas vehicles (NGVs) are compressed natural gas (CNG) and liquefied natural gas (LNG). CNG systems, due to the requirement of a high-pressure storage tank, were initially limited to larger vehicles, but are now widespread in cars, rickshaws and motorcycles. The popularity of CNG is aided by the fact that the fuel is easy to adapt to the petrol-fuelled internal combustion engine, requiring just minor modifications to the fuel storage and intake systems. On the other hand, LNG has a much higher energy density, and is therefore only suitable for heavy hauling and long-range transportation; thus LNG-fuelled systems are increasingly deployed in buses, trucks, municipal utility vehicles, agriculture machinery, ships, including LNG carriers, and even in rail transport. With fuel mileage of these vehicles reaching 800 to 1000 km between refuelling, LNG systems are particularly suited for these applications. Moreover, liquid petroleum gas (LPG or autogas), which consists primarily of propane and butane, are also extracted as part of natural gas and/or oil production, and so may also fall into the category of natural gas fuels.

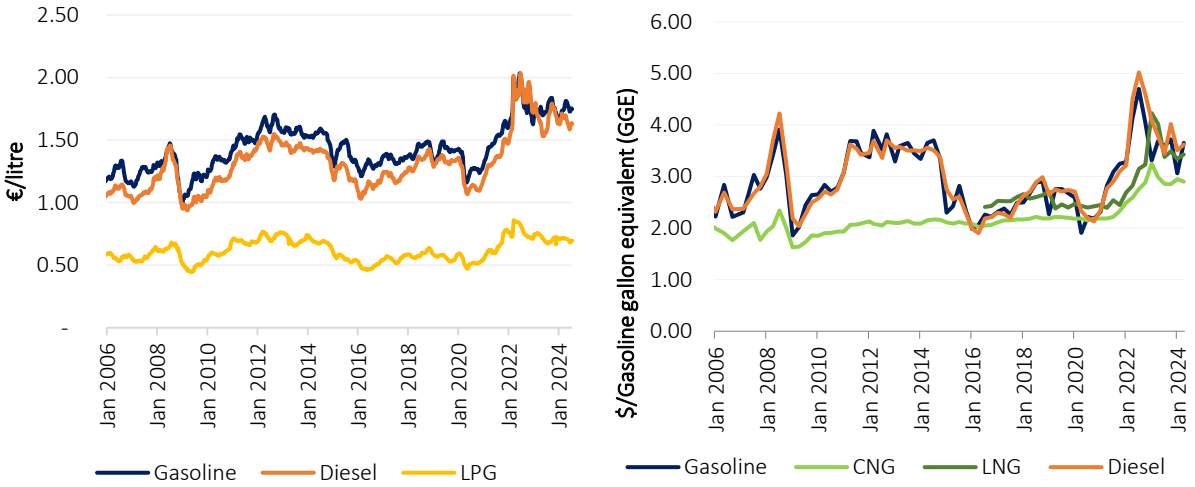
Currently, there are more than 30 million vehicles worldwide, which use either CNG or LNG fuelled systems, and nearly the same number of vehicles, which are powered by LPG.

Asia Pacific countries are continuing their rapid scale-up of natural gas vehicle programs. China is the global leader in terms of number of NGVs. In addition to the well-developed market of passenger vehicles, the domestic market of large buses and heavy-duty trucks has also gained momentum recently. Most notably, currently one in three new heavy-duty trucks sold in China runs on LNG. The government of India is also committed to expanding the uptake of NGVs, with the CNG vehicle sales recording strong double-digit annual growth to exceed 1 million units in 2024.

The EU countries are adopting several energy policies for the decarbonisation of the transport sector. Central to these is the Fit for 55 legislation, which targets a 55% reduction in emissions by 2030, compared with 1990 levels. One key tool of this is the EU's Emissions Trading Scheme (ETS), which will include emissions from the road transport sector starting in 2027. In this context, the EU aims to expand the infrastructure for alternatively fuelled vehicles, including natural gas. Currently, there are over 4,200 CNG refuelling stations and over 740 LNG refuelling stations in Europe. As of July 2024, the European Alternative Fuels Observatory reported that there are 8.4 million vehicles which operate on LPG in the region, along with 1.5 million CNG vehicles and 9,400 LNG vehicles. In the meantime, recently adopted legislation creates both incentives and barriers for the penetration of NGVs. In April 2023, the EU adopted legislation on strengthening the CO_2 emission performance standards for new passenger cars and new light commercial vehicles in line with the EU's increased climate ambition. According to it, from 2035, all new cars coming on the market cannot emit any CO_2. The next step is an adoption of a similar legislation on heavy-duty vehicles. The pending draft legislation would mandate manufacturers to cut the average emissions of new trucks by 45% in 2030 and 90% in 2040, which would phase out almost all sales of new diesel trucks. While putting NGVs, notably for lower emissions, in a more favourable position compared to gasoline and diesel vehicles, such measures however may also penalise NGVs, since these bans promote only zero or close to zero emission options. In this context, the global gas industry, facing these challenges, has additional incentives to advance the decarbonisation.

The second major driver for natural gas penetration in the road transport sector is the cost competitiveness of natural gas fuels. In particular, LPG fuel price has been lower than gasoline and diesel in Europe over the last two decades, while CNG and LNG fuels price has tended to be more competitive compared to oil-based fuels in the US most of the time over the same period (Figure ii). The major exception was the energy crisis in 2022, when global gas prices reached record highs, which undermined to a certain extent the competitiveness of NGVs. However, with the gas markets having entered into a phase of stability and lower prices afterwards, the market positions of NGVs have started reinforcing again.

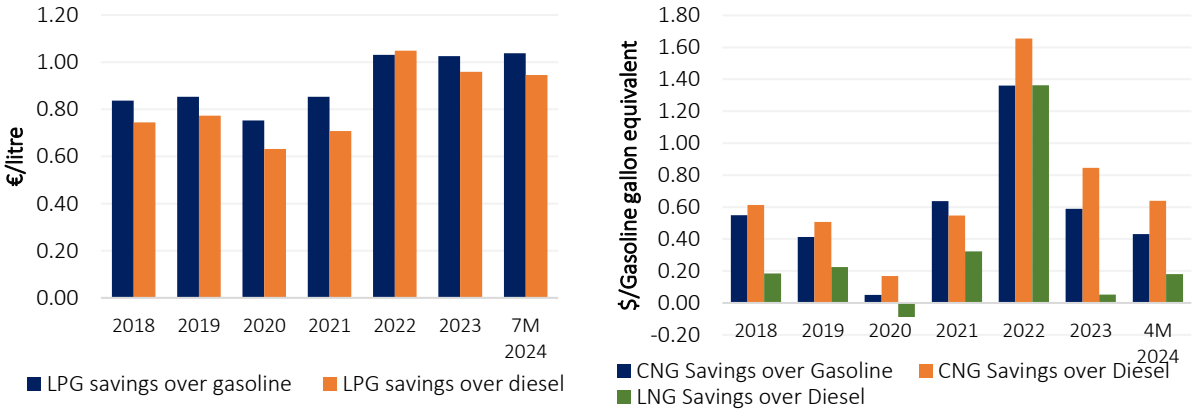
Figure ii: Average retail fuel prices in Europe (left) and the US (right)



Source: GECF Secretariat based on data from the European Commission and from US AFDC

In the European market, the price of retailed LPG for NGVs has consistently been lower than gasoline or diesel, even factoring the relevant regional taxes and duties. As such, since 2018, LPG savings over gasoline averaged €0.91/l and LPG savings over diesel averaged €0.83/l (Figure iii). In the US, barring the outlier of 2022, since 2018, CNG savings over gasoline and diesel averaged $0.45/Gasoline Gallon Equivalents (GGE) and $0.55/GGE respectively, while LNG savings over diesel averaged $0.15/GGE. Moreover, this economic competitiveness is set to continue in the medium term, as the commissioning of huge new LNG export capacity in the upcoming years may put downward pressure on gas prices.

Figure iii: Annual fuel cost comparison in Europe (left) and the US (right)



Source: GECF Secretariat based on data from the European Commission and US AFDC

In this context, although the initial purchase cost of NGVs may be higher compared to vehicles running on conventional fuels due to the specialized equipment for fuel storage and injection, NGVs may be more cost-competitive than gasoline or diesel counterparts in the long run. This is due to lower fuel costs, longer ranges between refuelling, longer engine life, and lower maintenance costs resulting from the cleaner fuel.

In the meantime, the advancement of NGVs often requires governmental support, such as investing in gas transportation and NGV refuelling infrastructure or implementing favourable regulations such as providing tax incentives or subsidising natural gas fuels. Moreover, the emerging global trend towards decarbonisation of road transport may require an active participation of governments in promoting the decarbonisation of the gas industry.

The GECF Member Countries are among the global leaders in the adoption of NGVs while leading by example, with Iran in particular being second only to China on the global level with respect to gas consumption for road transport. Beyond the advantages of lower GHG emissions and fuel cost savings, gas producing and exporting countries, through expanding the usage of NGVs on local markets, also benefit from increasing domestic gas demand. Furthermore, gas suppliers, which invest in NGV infrastructure in external markets, may stake out reliable markets.

At the 7th GECF Summit held in March 2024 in Algeria, the Heads of State and Government of the GECF Member Countries resolved their common determination to "foster the increased use of natural gas in maritime and land transportation, and develop necessary infrastructure to provide it efficiently and cost-effectively to all consumers". Additionally, on the sidelines of the summit, the GECF inaugurated the headquarters of its Gas Research Institute (GRI), which will serve as the platform for scientific and technological collaboration amongst the Member Countries, with a project on "LNG as a fuel in the transportation sector and in bunkering" selected as one of its first priority projects. Moreover, the GECF Secretariat continues to explore the potential for expanding natural gas usage in the transport sector, while organising specific events on this topic, with the workshop on natural gas utilization in the transport sector held in May 2023.

1 Global Perspectives

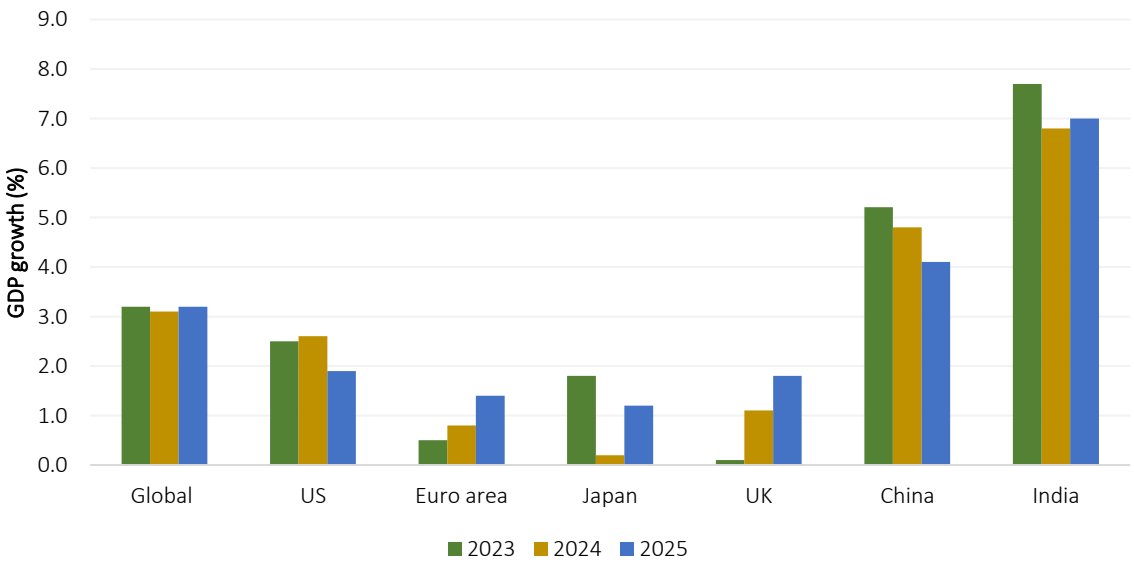
1.1 Global economy

As of August 2024, Oxford Economics has revised its global GDP growth forecast for 2024 upward by 0.1 percentage points to 3.1%, based on purchasing power parity. In the US, the GDP growth forecast has been revised upward by 0.3 percentage points to 2.6%, driven by stronger-than-expected performance in Q2 2024, a resilient labour market, and easing inflation. In contrast, in the Euro area, the GDP growth forecast has been maintained at 0.8%, as domestic demand continues to be subdued and disparities persist across member states. The GDP growth forecast for China has also been maintained at 4.8%, with rising external demand balancing the challenges posed by reduced consumer spending. Similarly, in India, the GDP growth forecast for 2024 remains steady at 6.8%.

Furthermore, the Organization of Petroleum Exporting Countries (OPEC) has maintained its global GDP growth forecast for 2024 at 2.9%, based on purchasing power parity. This revision reflected steady growth in major economies in H1 2024, with expectations for continued growth momentum in the rest of the year. Similarly, the IMF, in its World Economic Outlook Update July 2024 report, maintained its global GDP growth forecast for 2024 at 3.2%, based on purchasing power parity. While global economic growth is expected to remain stable, elevated inflation and escalating geopolitical tensions continue to pose some downside risk.

Looking ahead to 2025, the global GDP growth forecast has been revised downward by 0.1 percentage points to 3.2% by Oxford Economics. In the US, economic growth is expected to decelerate, but the GDP growth forecast has been revised upward by 0.1 percentage points to 1.9%. In the Euro area, the GDP growth forecast has been revised downward by 0.3 percentage points to 1.4%. Meanwhile in China, the GDP growth forecast has been revised downward by 0.1 percentage points to 4.1%. Similarly, in India, GDP growth forecast was revised downward by 0.1 percentage points to 7.0% (Figure 1).

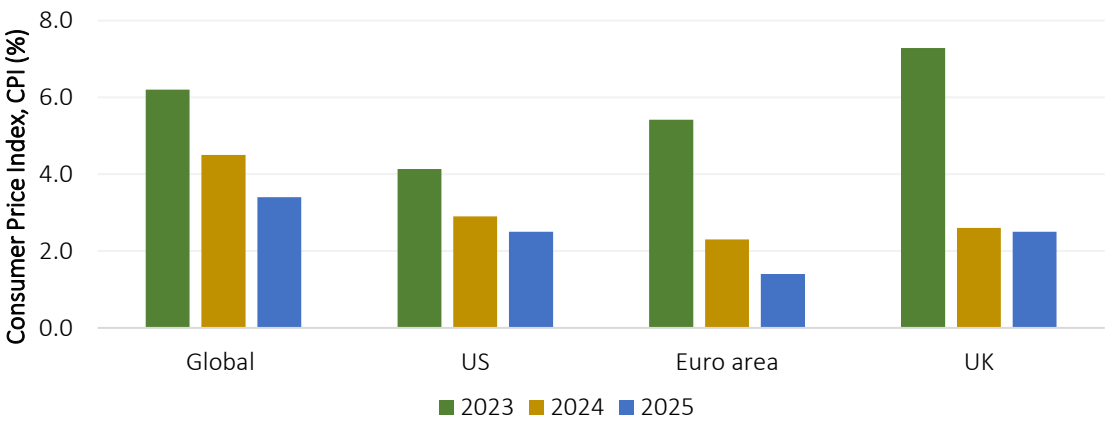
Figure 1: GDP growth



Source: GECF Secretariat based on data from Oxford Economics
Note: Global GDP growth calculated based on purchasing power parity.

Global inflation is expected to average 4.5% in 2024, declining from 6.2% in 2023, according to Oxford Economics. Furthermore, in 2025, global inflation is projected to fall to 3.4%. In the Euro area, inflation is projected to fall to 2.3% in 2024 and 1.4% in 2025. In the UK, inflation is expected to be 2.6% in 2024 and 2.5% in 2025. In the US, inflation is expected to decline to 2.9% in 2024 and 2.5% in 2025 (Figure 2).

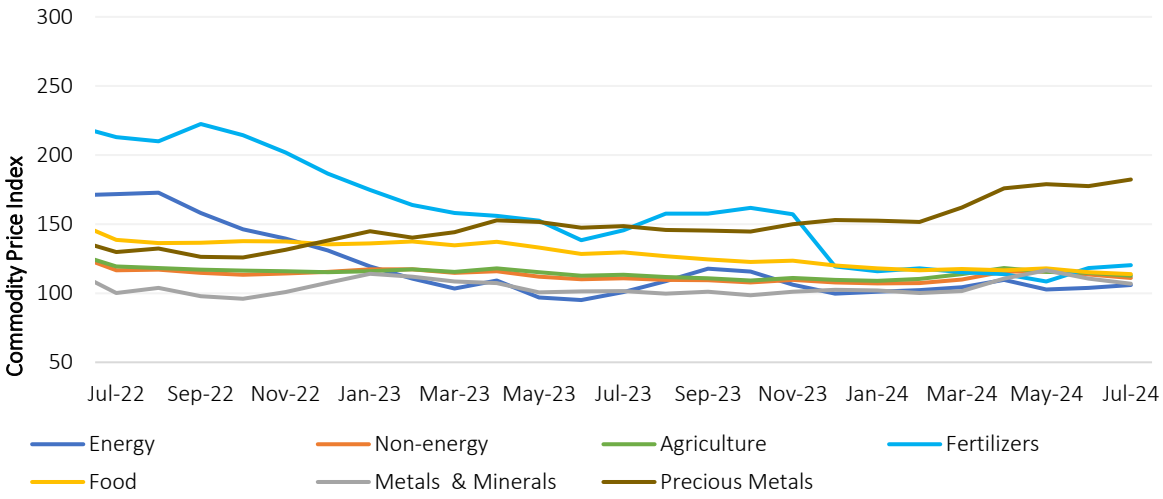
Figure 2: Inflation rates



Source: GECF Secretariat based on data from Oxford Economics

In July 2024, commodity prices in the energy sector increased for the second consecutive month. The energy price index experienced increases of 2% m-o-m and 5% y-o-y. An uptick in oil prices drove this increase. Additionally, the non-energy price index declined by 2% m-o-m and was relatively stable compared to the previous year. Declines in agriculture, and metals and minerals indices contributed to the lower non-energy price index compared to the previous month. Meanwhile, the fertilizer price index experienced a 2% increase m-o-m but remained 17% lower y-o-y (Figure 3).

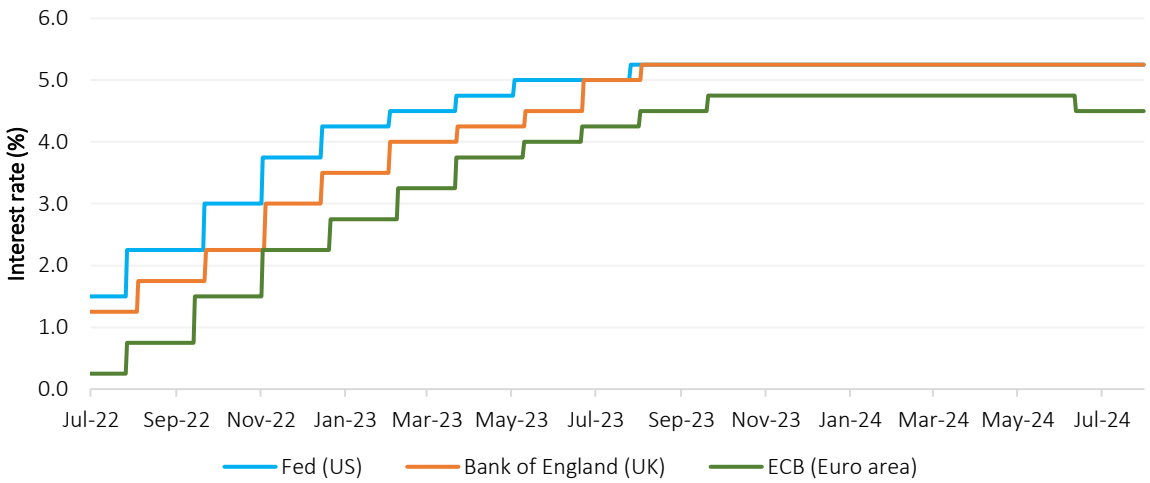
Figure 3: Monthly commodity price indices



Source: GECF Secretariat based on data from World Bank Commodity Price Data
Note: Monthly price indices based on nominal US dollars, 2010=100. The energy price index is calculated using a weighted average of global crude oil (84.6%), gas (10.8%) and coal (4.7%) prices. The non-energy price index is calculated using a weighted average of agriculture (64.9%), metals & minerals (31.6%) and fertilizers (3.6%).

In July 2024, the US Federal Reserve (Fed) maintained its benchmark interest rate within the range of 5.25% to 5.50%. The Fed's last rate hike occurred in July 2023 (Figure 4). The Bank of England (BOE) implemented its first rate cut on 1 August, 2024, lowering its key interest rate by 0.25 percentage points to 5%, following its last increase in August 2023. Additionally, the European Central Bank (ECB) maintained its key interest rates for main refinancing operations, marginal lending facility and deposit facility rates at 4.25%, 4.5% and 3.75%, respectively, following its most recent rate cut in the previous month.

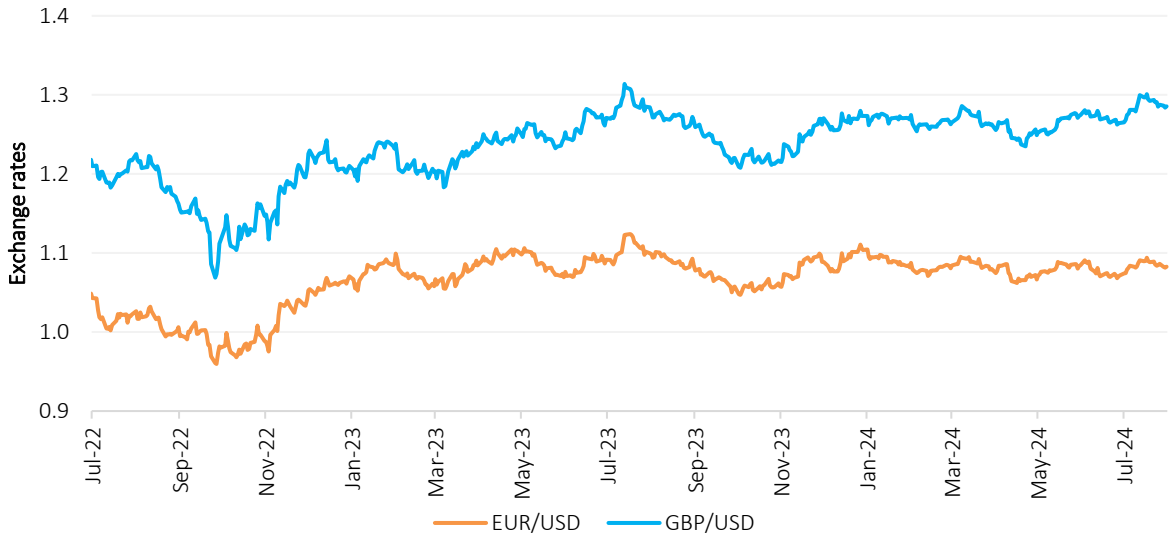
Figure 4: Interest rates in major central banks



Source: GECF Secretariat based on data from US Federal Reserve, European Central Bank and Bank of England

In July 2024, the Euro appreciated slightly against the US dollar, resulting in an average exchange rate of $1.0846. This represented an increase of 0.8% m-o-m and a decrease of 1.9% y-o-y. Similarly, the British pound appreciated against the US dollar, as the average exchange rate reached $1.2864, reflecting an increase of 1% m-o-m, and was at relatively the same level compared to last year (Figure 5).

Figure 5: Exchange rates



Source: GECF Secretariat based on data from Refinitiv Eikon

1.2 Other developments

G7: The G7 Trade Ministers' meeting took place on 16-17 July 2024 in Reggio Calabria and Villa San Giovanni, Italy. The ministers reaffirmed their commitment to continued cooperation in addressing the challenges facing international trade. Additionally, they focused on environmental and social sustainability in global trade. As outlined in the Ministerial Statement, they expressed their commitment to "explore ways to address trade barriers in environmental goods and services." Moreover, they underscored that "trade in sustainably produced environmental goods and services can contribute to the transition to a net-zero carbon economy by enhancing access to renewables and low-carbon technologies, improving resource and energy efficiency, and promoting more environmentally sustainable alternatives."

G20: The G20 Finance Ministers and Central Bank Governors' meeting took place on 25-26 July 2024 in Rio de Janeiro, Brazil. In a historic move, the finance leaders issued their first joint declaration, affirming their "commitment to tax transparency and fostering dialogue on fair and progressive taxation, including of ultra-high-net-worth individuals." Additionally, the leaders "underscored the critical importance of climate-resilient and quality infrastructure in the global context of climate change." They welcomed the G20/OECD Report on Approaches for Financing and Investment in Climate-Resilient Infrastructure, which provides comprehensive case studies from diverse geographical and economic contexts, highlighting successful strategies for financing and investing in climate-resilient infrastructure while considering national circumstances and priorities.

European Union: On 18 July 2024, European Commission President Ursula von der Leyen, elected for a second mandate, presented her Political Guidelines for the next European Commission's 2024-2029 term to the European Parliament. The plan outlines key priorities for the next five years, including streamlining business operations and enhancing the EU Single Market; advancing a Clean Industrial Deal to decarbonize industries and reduce energy prices; and investing in sustainable competitiveness.

China: China's ruling party held its "third plenum" on 15-18 July 2024, which focused on long-term economic reforms. It signaled a need to cultivate "new quality productive forces," emphasizing high-tech industries that could become new growth engines for China, including information technology, artificial intelligence, aerospace, new energy, new materials, high-end equipment, biomedicine, and quantum science and technology. Additionally, the plenum highlighted a shift away from construction-led and energy-intensive growth patterns, with plans to develop a more comprehensive carbon management system, which includes establishing a carbon measurement standard, carbon labeling certification, and a product carbon footprint management system, alongside the existing emissions trading scheme and voluntary carbon emission reduction trading system. The plenum also underscored the importance of securing strategic natural resources, which consequently may lead to increased state purchases of crude oil, natural gas, copper, cobalt, and other critical metals related to the energy transition.

2 Gas Consumption

2.1 Europe

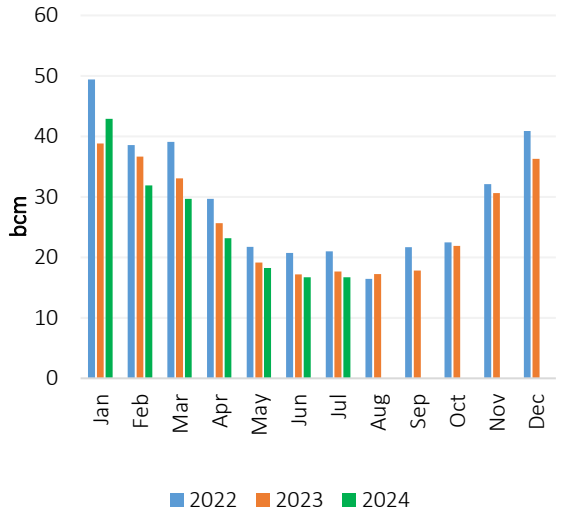
2.1.1 European Union

In July 2024, gas consumption in the EU recorded a y-o-y decrease of 7%, which was mainly driven by the continuous implementation of the gas demand reduction measures and higher hydro, nuclear and solar output in the power generation sector (Figure 6).

In the industrial sector, gas consumption showed a recovery in major industrialized European countries, boosted by the fall in gas prices.

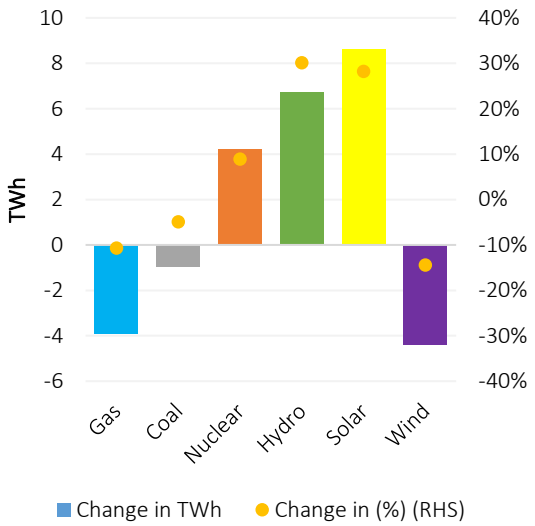
In the power generation sector, gas consumption recorded an 11% y-o-y decline, while total electricity production rose by 5.4% y-o-y, reaching 204 TWh driven by cooling demand. July 2024 was the second-warmest July globally on record. In Europe, the average temperature for the month was 1.49°C above the 1991-2020 July average. Additionally, the sea surface temperature in July 2024 was the second-highest ever recorded for that month, as specified by the Copernicus Climate Change Service/ECMWF. The significant decrease in gas consumption can be attributed to increased outputs from hydro, solar and nuclear. Conversely, electricity generated from coal witnessed a decline (Figure 7). Within the current power mix, non-hydro renewables held the largest share at 36%, followed by nuclear at 25%, hydro at 14%, gas at 16%, and coal at 9%.

Figure 6: Gas consumption in the EU



Source: GECF Secretariat based on data from Entsog and Refinitiv

Figure 7: Trend in electricity production in the EU in July 2024 (y-o-y change)



Source: GECF Secretariat based on data from Ember

For the period Jan-Jul 2024, EU's gas consumption declined by 4.5% y-o-y to reach 180 bcm.

2.1.1.1 Germany

In July 2024, Germany witnessed a second consecutive y-o-y growth in gas consumption, reaching 3.5 bcm, which corresponds to a rise of 3.9% y-o-y after four consecutive months of decline (Figure 8). This growth was observed across all sectors of the gas industry. The average temperature for the month was 18.7°C, corresponding to a 0.45°C above the norm, with south eastern regions slightly warmer to the rest of the country. Gas consumption in the industrial sector rose by 4%, amidst the stabilization of gas prices (Figure 9).

Figure 8: Gas consumption in Germany

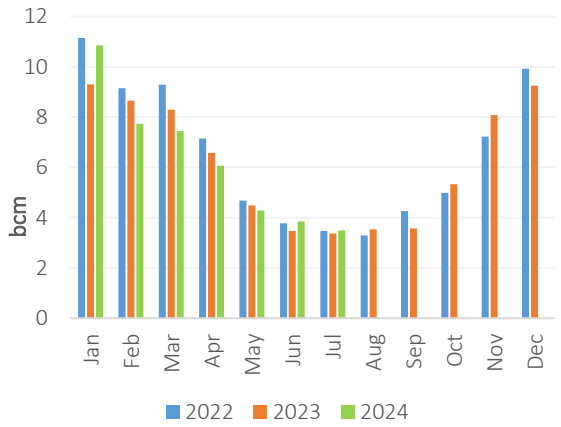
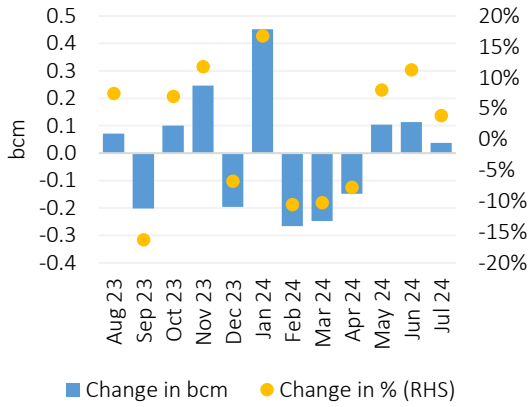


Figure 9: Trend in gas consumption in the industrial sector in Germany (y-o-y change)



Source: GECF Secretariat based on data from Refinitiv

Gas-fired power generation recorded an increase of 4.8% y-o-y, while overall electricity production rose by 3.6%, totalling 35 TWh. Notably, electricity production from hydro and solar energies experienced substantial increases (82% and 30% respectively), driven by favourable weather conditions (Figure 10). Conversely, electricity production from wind decreased by 29%. In the electricity mix, non-hydro renewables led with a 60% share, followed by coal and gas at 19% and 15% respectively and hydro at 7% (Figure 11).

Figure 10: Trend in electricity production in Germany in July 2024 (y-o-y change)

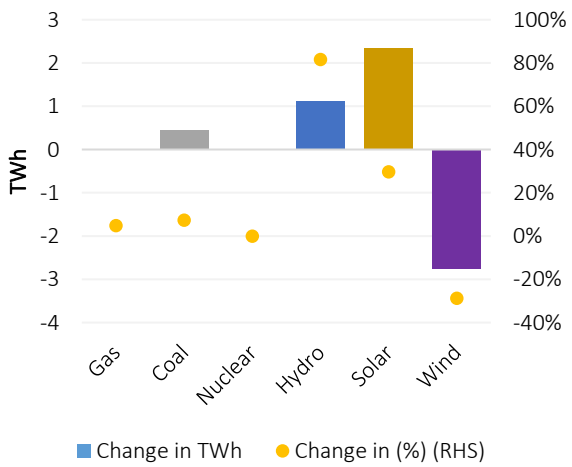
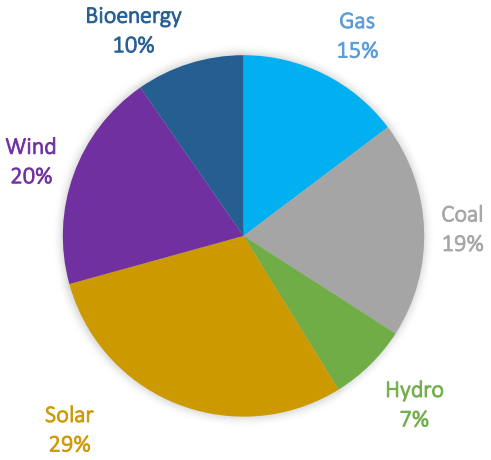


Figure 11: German electricity mix in July 2024



Source: GECF Secretariat based on data from Refinitiv and Ember

For the period Jan-Jul 2024, Germany's gas consumption dropped by 1% y-o-y to 44 bcm.

2.1.1.2 Italy

In July 2024, Italy's gas consumption decreased by 5.5% y-o-y to total 4.2 bcm (Figure 12). This decline was primarily due to reduced consumption in the power generation sector, largely influenced by increased hydro and renewables output. The residential sector recorded a 1% increase in consumption, growing to 0.9 bcm. With an average temperature of 24.2°C, July 2024 was the fourth hottest on record since 1950. The thermal anomaly, or deviation from the 1991-2020 climatological average, was 2.2°C. Excluding March 2022, there has been a continuous series of positive monthly thermal anomalies for over three years. In the industrial sector, gas consumption recorded a second consecutive growth, with a 2.4% y-o-y increase, reaching 1 bcm (Figure 13).

Figure 12: Gas consumption in Italy

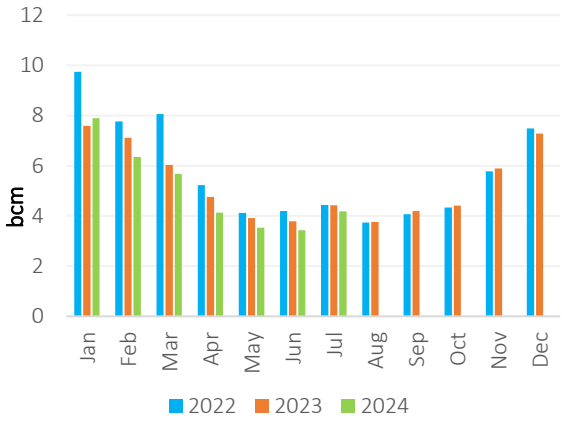
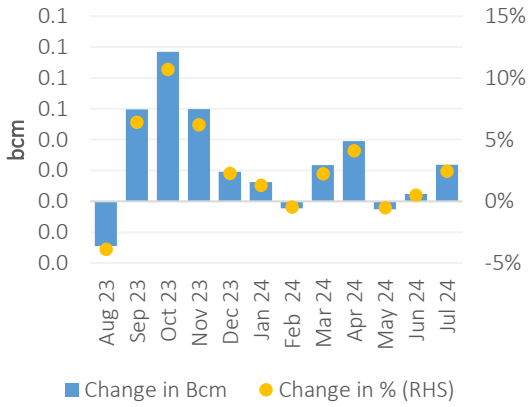


Figure 13: Trend in gas consumption in the industrial sector in Italy (y-o-y change)



Source: GECF Secretariat based on data from Snam

Gas-based electricity production declined by 3% y-o-y to 2.1 bcm, while total electricity production increased by 4.6% y-o-y, reaching 24.4 TWh. Notably, there was a significant y-o-y increase in energy generation from hydro by 35% y-o-y and non-hydro renewables (wind and solar) by 13%, which reduced the role of natural gas in the power generation mix (Figure 14). Meanwhile, gas remained the dominant fuel in the power mix with 46% of the share followed by non-hydro renewables with 30% (Figure 15).

Figure 14: Trend in electricity production in Italy in July 2024 (y-o-y change)

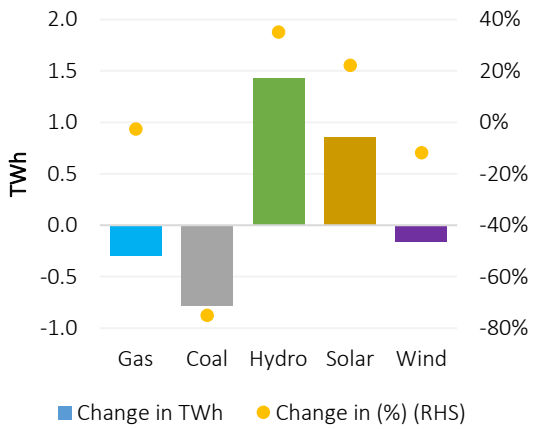
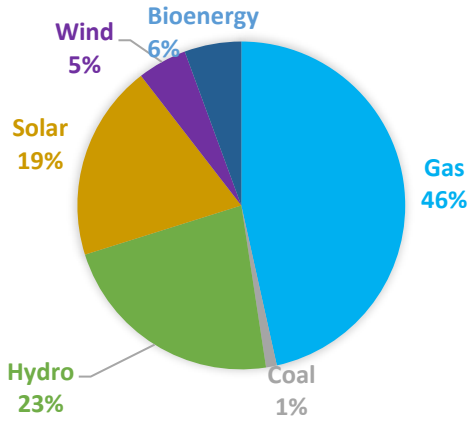


Figure 15: Italian electricity mix in July 2024



Source: GECF Secretariat based on data from Refinitiv and Ember

For the period Jan-Jul 2024, Italy's gas consumption decreased by 6.4% y-o-y to reach 35 bcm.

2.1.1.3 France

In July 2024, France experienced the sixth consecutive monthly decline in gas consumption, with a drop by 6.7% y-o-y to 1.3 bcm (Figure 16). The primary driver of this decline was the power generation sector, which recorded higher output from nuclear and hydro sources. In contrast, gas consumption in the residential sector increased by 15% y-o-y. Meanwhile, the industrial sector recorded a fourth consecutive month of growth, showing 7% y-o-y, with consumption totalling 0.7 bcm (Figure 17).

Figure 16: Gas consumption in France

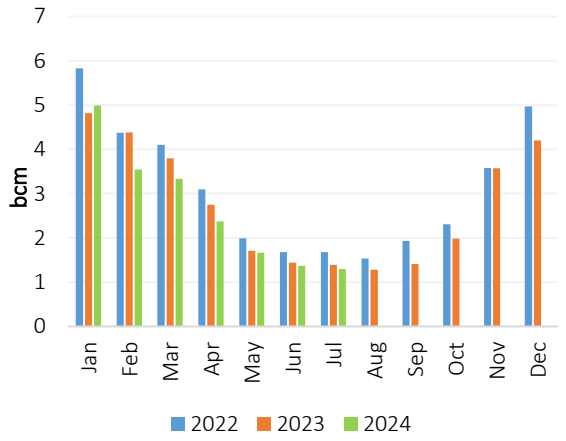
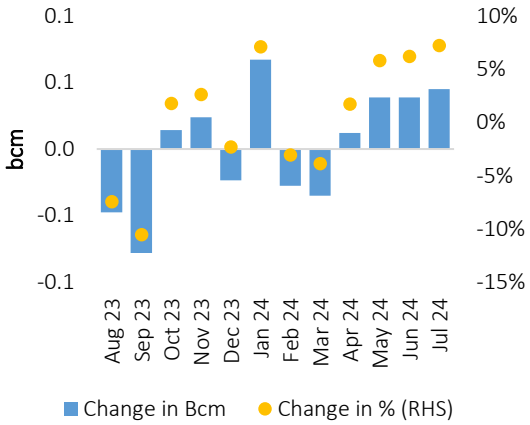


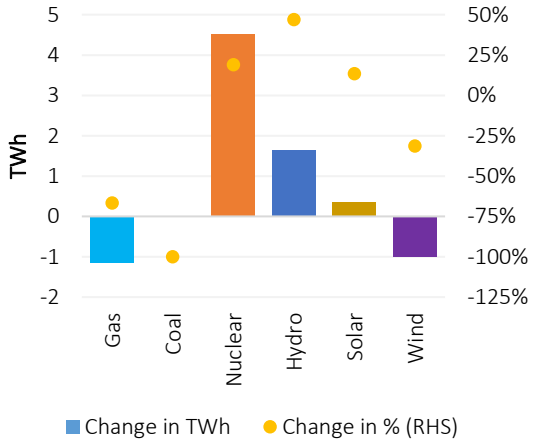
Figure 17: Trend in gas consumption in the industrial sector in France (y-o-y change)



Source: GECF Secretariat based on data from GRTgaz

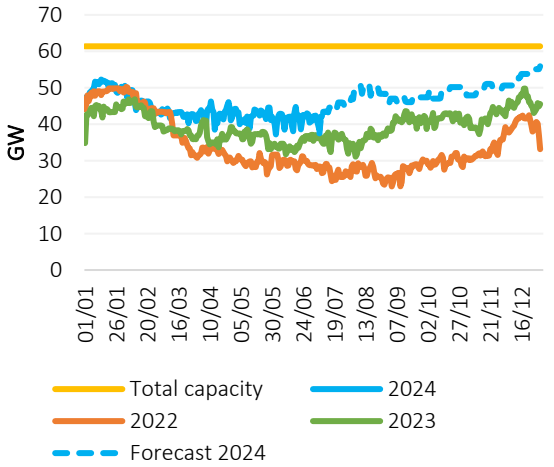
Electricity production from gas in France dropped by 67% y-o-y, while the country's total electricity production rose by 12% y-o-y to reach 39.7 TWh. Electricity production from hydro, solar and nuclear witnessed substantial increases (Figure 18). The availability of nuclear capacity increased by 20% y-o-y (Figure 19). In France's electricity mix, nuclear power continued to be the dominant source, accounting for a 72% share, followed by hydro (13%), non-hydro renewables (13%) and gas (1%).

Figure 18: Trend in electricity production in France in July 2024 (y-o-y change)



Source: GECF Secretariat based on data from Ember

Figure 19: French nuclear capacity availability



Source: GECF Secretariat based on Refinitiv and RTE

For the period Jan-Jul 2024, France's gas consumption decreased by 8% y-o-y to reach 18.6 bcm.

2.1.1.4 Spain

In July 2024, Spain's gas consumption decreased by 9.7% y-o-y to reach 2.1 bcm (Figure 20). The decrease was mainly driven by lower gas use in the power generation sector. A significant rise in hydroelectric, solar and wind production led to a continued decrease in the power sector's gas demand. The average temperature in Spain was 24.4°C, or 1.6°C above the 1991-2020 average, which made it the 6th warmest July on record. By contrast, industrial sector consumption recorded a growth of 4.5% y-o-y, fuelled by higher gas usage across several industries such as textile, refineries, metallurgy and construction (Figure 21).

Figure 20: Gas consumption in Spain

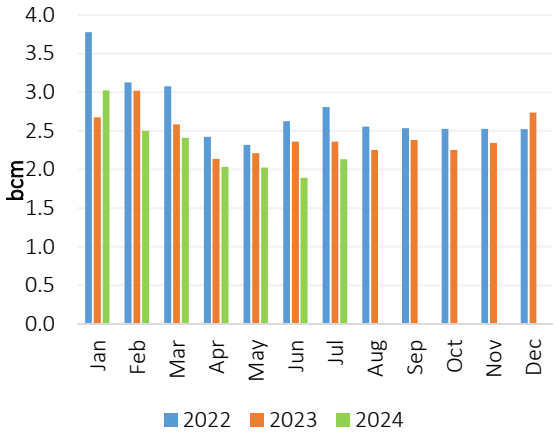
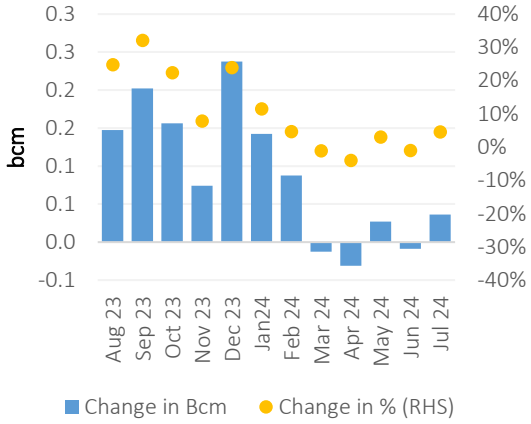


Figure 21: Trend in gas consumption in the industrial sector in Spain (y-o-y change)



Source: GECF Secretariat based on data from Enagas

Electricity generation from gas experienced a 31% y-o-y decrease, while the overall electricity production in the country rose by 2% y-o-y to 21.9 TWh. Additionally, there was a notable reduction in electricity production from coal. In contrast, a significant increase in electricity generation from hydro, solar and wind was observed during the month (Figure 22). Non-hydro renewables maintained the dominant position in the power mix, accounting for 50%, while natural gas represented 18% (Figure 23).

Figure 22: Trend in electricity production in Spain in July 2024 (y-o-y change)

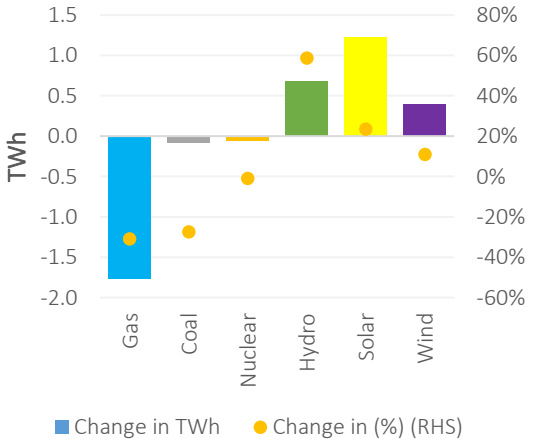
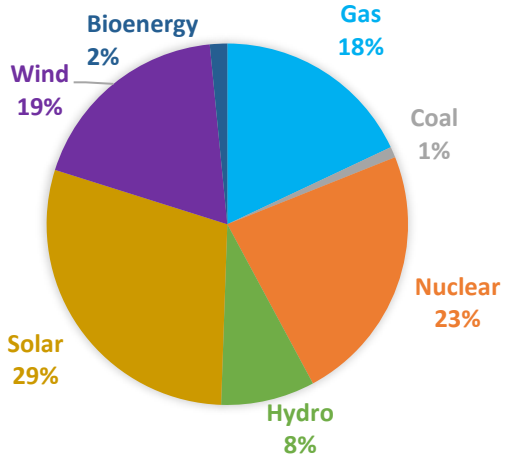


Figure 23: Spanish electricity mix in July 2024



Source: GECF Secretariat based on data from Ember and Ree

For the period Jan-Jul 2024, Spain's gas consumption decreased by 8% y-o-y to reach 16 bcm.

2.1.2 United Kingdom

In July 2024, the UK recorded its sixth consecutive month of declining gas consumption, falling by 1.2% y-o-y to 2.7 bcm (Figure 24). This reduction was driven by a decline in the power generation sector amidst strong solar and hydro output. By contrast, the industrial sector experienced a 4% growth (Figure 25). The residential sector witnessed an increase of 11%, influenced by colder weather on some days during the month. In the UK, July 2024 recorded an average temperature of 14.8°C, which is 0.5°C below the normal range.

Figure 24: Gas consumption in the UK

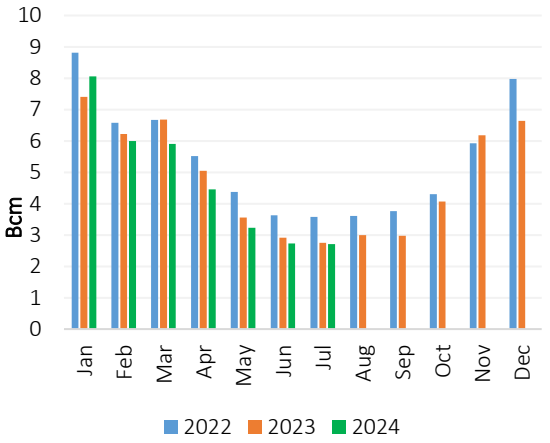
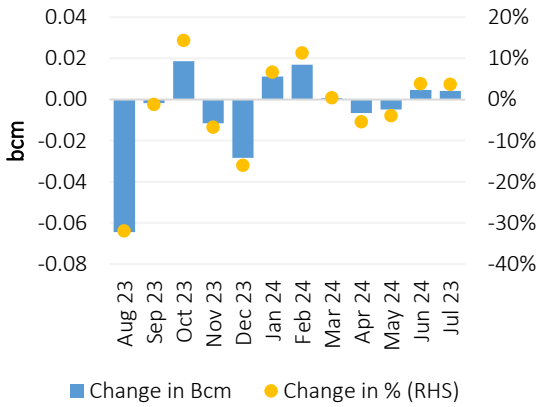


Figure 25: Trend in gas consumption in the industrial sector in the UK (y-o-y change)



Source: GECF Secretariat based on data from Refinitiv

Electricity production from gas witnessed a 19% y-o-y decrease, while total electricity production dropped by 7.4% y-o-y to 16.6 TWh. Electricity generation from hydro, solar and nuclear energy saw increases (Figure 26). In the power mix, non-hydro renewables took the lead with 48% of the total electricity production, followed by gas at 30% and nuclear at 20% (Figure 27).

Figure 26: Trend in electricity production in UK in July 2024 (y-o-y change)

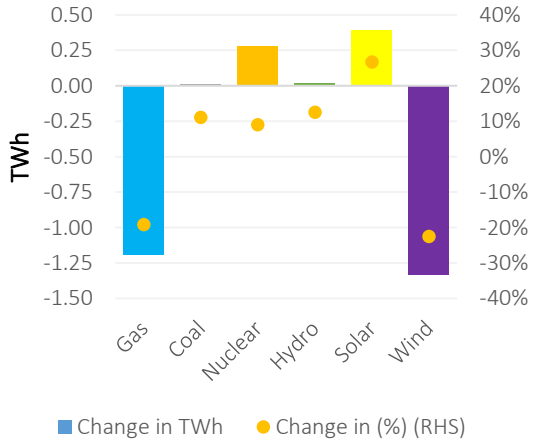
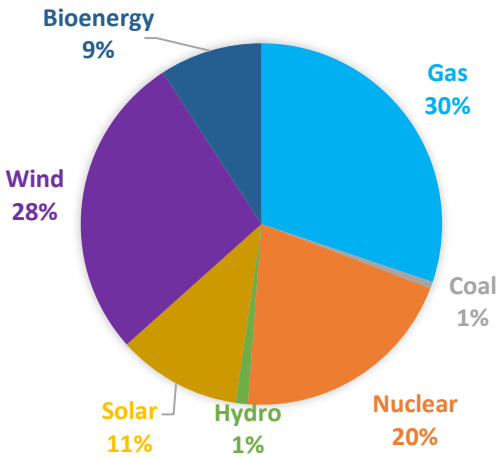


Figure 27: UK electricity mix in July 2024



Source: GECF Secretariat based on data from Refinitiv

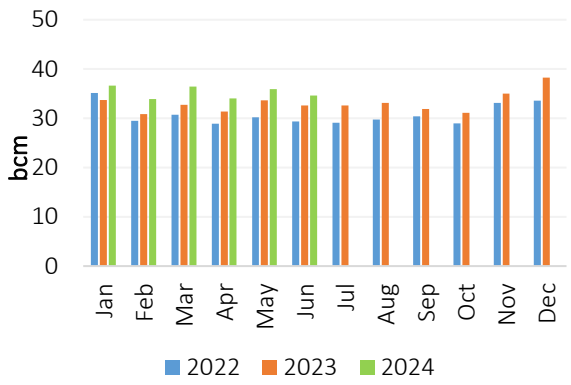
For the period Jan-Jul 2024, the UK gas consumption dropped by 4.3% y-o-y to reach 33 bcm.

2.2 Asia

2.2.1 China

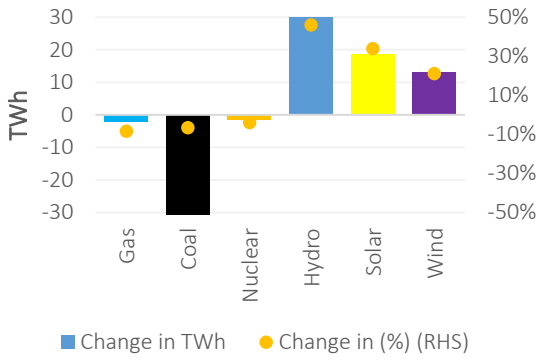
In June 2024, China's apparent gas demand, which covers domestic gas production, pipeline gas and LNG imports, rose by 6% y-o-y to reach 34.6 bcm, driven by a recovery in economic activities and lower LNG prices (Figure 28). Electricity production from gas decreased by 8% y-o-y, while total electricity production rose by 5% to reach 817 TWh driven by cooling demand in the southern regions (Figure 29). Coal remained the dominant fuel in the power mix with 55%, followed by non-hydro renewables (20%), hydro (18%), nuclear (4%) and gas (3%). Industrial gas demand drove overall growth in Jiangsu province's gas consumption in June and the first half of 2024, while power-sector demand lagged.

Figure 28: Gas consumption in China



Source: GECF Secretariat based on data from Refinitiv

Figure 29: Y-o-Y electricity production June 2024



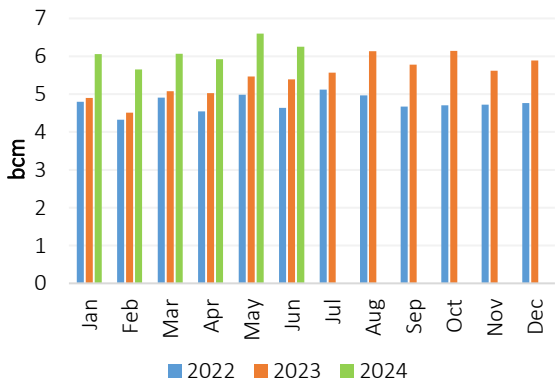
Source: GECF Secretariat based on data from Ember

In the first half of 2024, Chinese gas consumption increased by 9% y-o-y to 212 bcm.

2.2.2 India

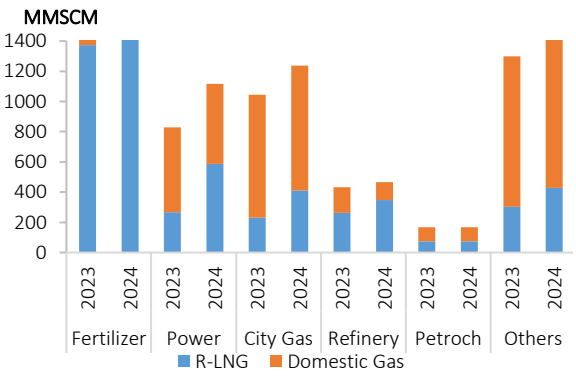
In June 2024, India's gas consumption increased by 16% y-o-y to 6.2 bcm, marking its eighteenth consecutive month of y-o-y growth (Figure 30). In the sectoral breakdown, the fertilizer sector accounted for 27% of gas demand, followed by city gas distribution (20%), power generation (18%), refining (7%) and the petrochemical sector (3%) (Figure 31). Indian gas-based power utilities operated at full capacity following the power ministry's directive for them to increase generation during the extreme heatwave.

Figure 30: Gas consumption in India



Source: GECF Secretariat based on data from PPAC

Figure 31: India's gas consumption by sector in June 2024



In the first half of 2024, India's gas consumption increased by 20% y-o-y to 36 bcm.

2.2.3 Japan

In July 2024, Japan's gas consumption rose by 1.3% y-o-y to 7.8 bcm (Figure 32). The month saw a temperature anomaly of +2.16°C, making it the hottest July on record, with hundreds of daily records registered across the country. That resulted in an increase in power demand for cooling, which boosted gas consumption in the power generation sector by 4.2% y-o-y (Figure 33). By contrast, the city gas sector recorded a decline of 2.9% y-o-y in gas consumption due to lower demand from commercial and industrial users.

Figure 32: Gas consumption in Japan

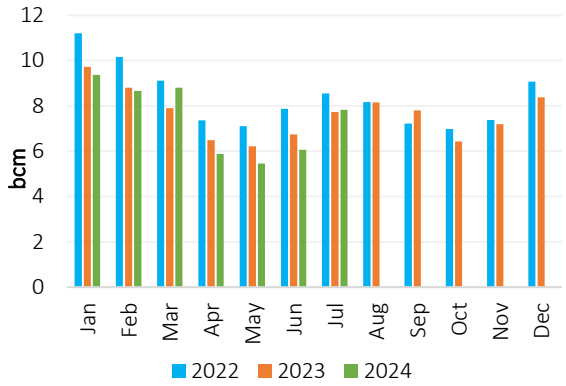
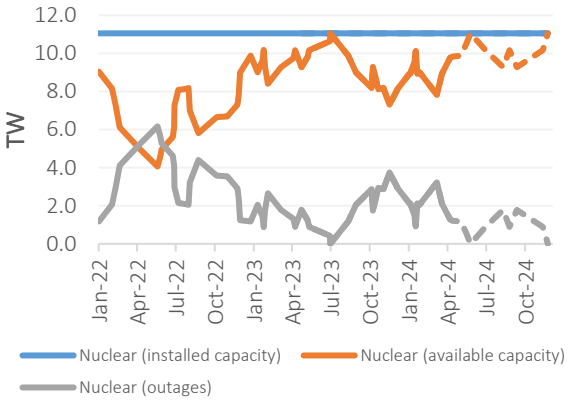


Figure 33: Nuclear availability in Japan



Source: GECF Secretariat based on data from Refinitiv

For the period Jan- Jul 2024, Japan's gas consumption decreased by 3% y-o-y to 52 bcm.

2.2.4 South Korea

In July 2024, South Korea's gas consumption increased by 0.2% y-o-y to 3.8 bcm (Figure 34). This increase was driven by a 0.2% y-o-y rise in the power generation sector and a 0.3% increase in the city gas sector. Additionally, the HDD in South Korea increased by 6.8% y-o-y. July 2024 in South Korea recorded an average temperature of 26.2°C, making it the third hottest July on record, behind 1994 and 2018, with temperatures 1.6°C above norm (Figure 35).

Figure 34: Gas consumption in South Korea

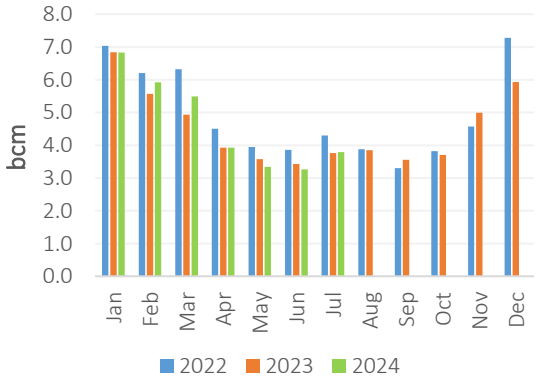
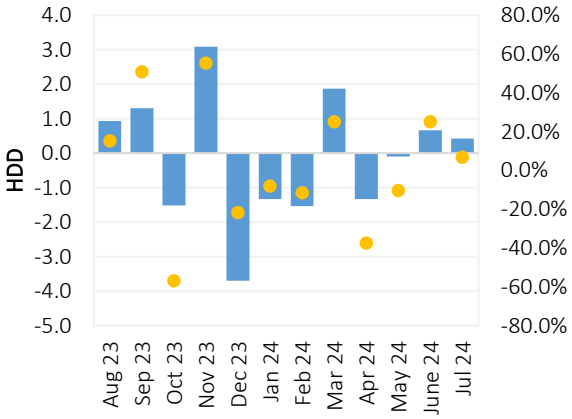


Figure 35: HDD in South Korea (y-o-y change)



Source: GECF Secretariat based on data from Refinitiv

For the period Jan-Jul 2024, South Korea's gas consumption rose by 2% y-o-y to 33 bcm.

2.3 North America

2.3.1 US

In July 2024, the US gas consumption dropped by 1.4% y-o-y to 74 bcm (Figure 36). The power generation sector led the decline. By contrast, the industrial, residential and commercial sectors recorded a growth in gas consumption of 0.6%, 2.6% and 1.8% y-o-y respectively.

Power generation from gas saw an 1.6% y-o-y decrease, whereas the overall electricity production declined by 0.9%. The month saw a decrease in generation from coal, nuclear, hydro and wind sources, driven by lower electricity demand for cooling (Figure 37). In the power mix, gas continued to lead with a 48% share, followed by non-hydro renewable (15%), nuclear (16%), coal (17%) and hydro (4%).

Figure 36: Gas consumption in the US

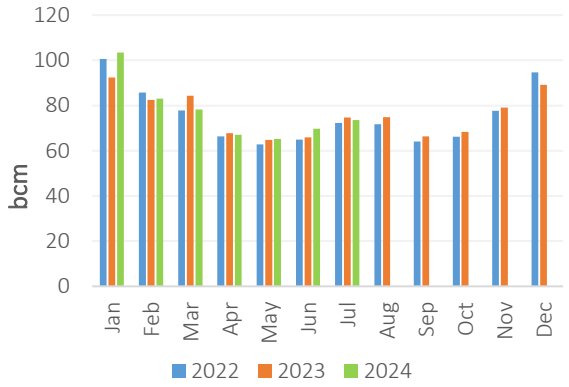
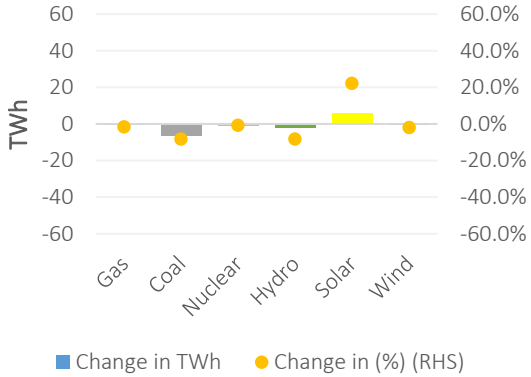


Figure 37: Electricity production in the US in July 2024 (y-o-y change)



Source: GECF Secretariat based on data from EIA, Ember and Refinitiv

For the period Jan-Jul 2024, the US gas consumption increased by 2% y-o-y to reach 538 bcm.

2.3.2 Canada

In July 2024, Canada's gas consumption rose by 6.2% y-o-y to reach 8.2 bcm (Figure 38). This rise was driven by the power generation/industrial sector with an increase of 7% y-o-y (Figure 39). However, the residential and commercial sectors recorded a decline of 2% and 3% y-o-y respectively.

Figure 38: Gas consumption in Canada

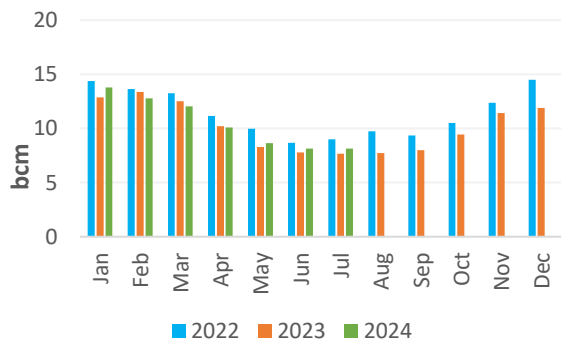
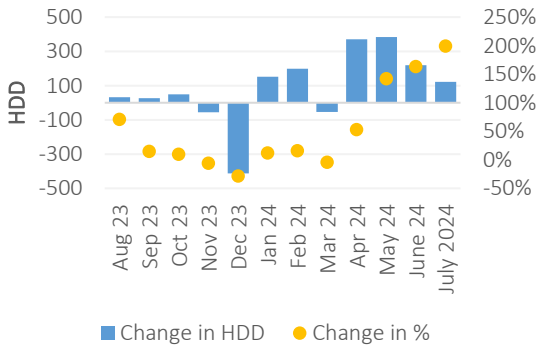


Figure 39: HDD in Canada (y-o-y change)



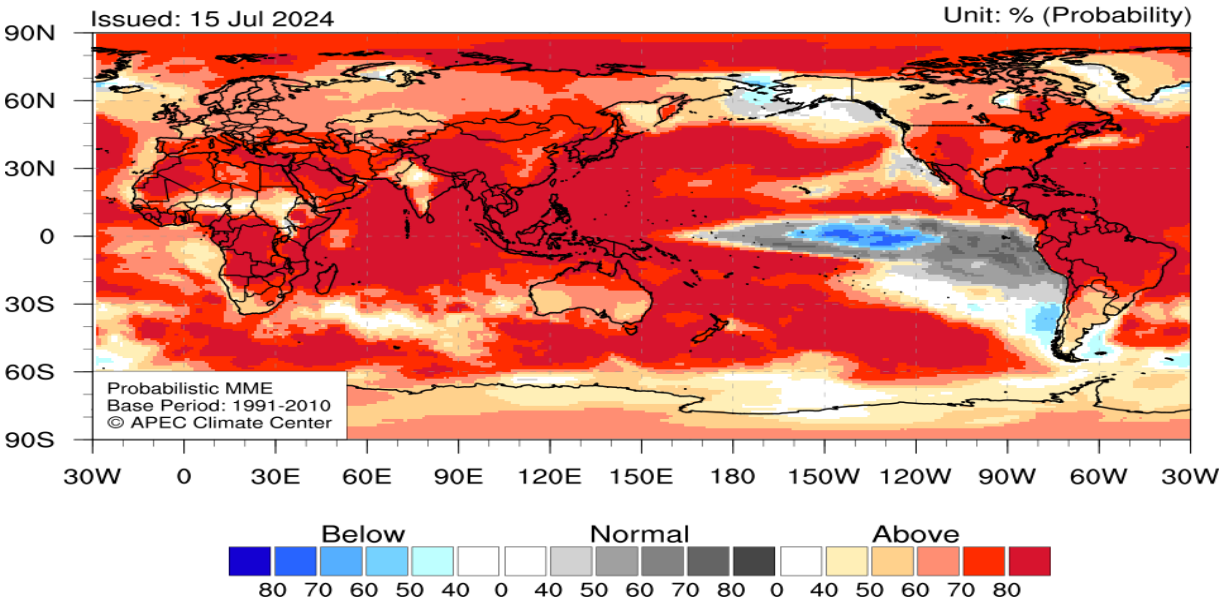
Source: GECF Secretariat based on data from Refinitiv

2.4 Weather forecast

2.4.1 Temperature

According to the APEC Climate Center, a pronounced likelihood of above normal temperatures is predicted for most of the globe (excluding the central and eastern tropical Pacific) for the period August to October 2024 (Figure 40).

Figure 40: Temperature forecast August to October 2024

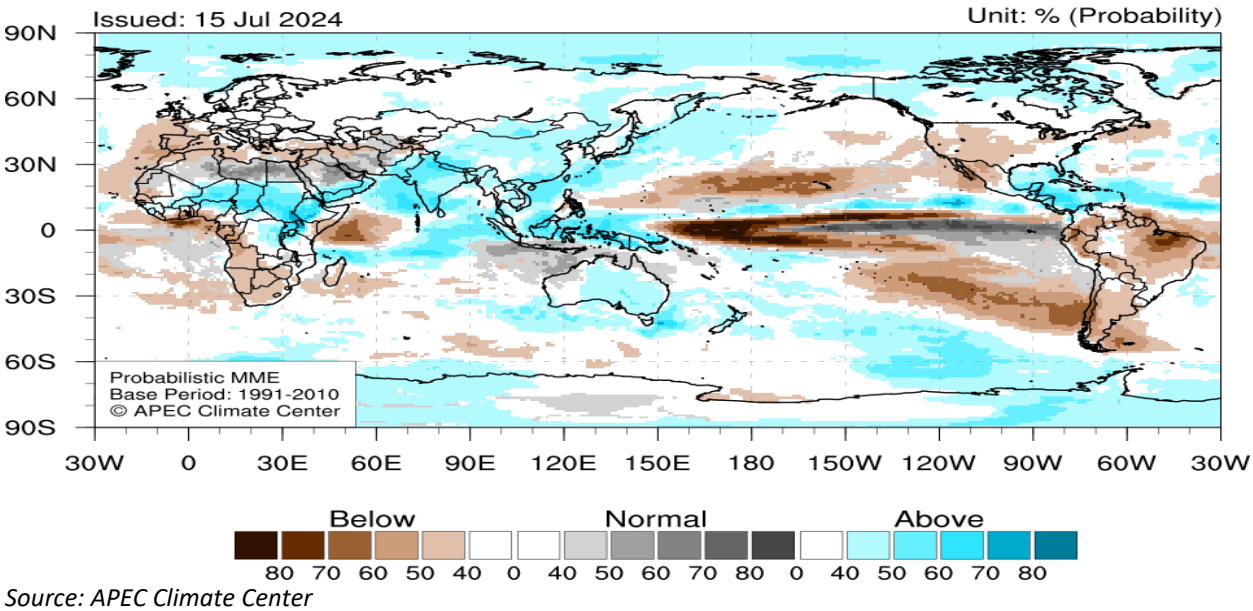


Source: APEC Climate Center

2.4.2 Precipitation

According to the same source, above normal precipitation is predicted for the region spanning central Africa, the western Indian Ocean, the Arabian Sea, South Asia, the off-equatorial western South Pacific, Central America, the Caribbean Sea, the Gulf of Mexico, and the tropical North Atlantic for the period August to October 2024 (Figure 41).

Figure 41: Precipitation forecast August to October 2024



Source: APEC Climate Center

3 Gas Production

3.1 Europe

In June 2024, Europe continued the strong rebound in its monthly gas production, with a 13% y-o-y surge, resulting in a total output of 14.3 bcm (Figure 42). This increase primarily originated from the significant rise in Norway's gas production, overcoming the remarkable decline in the UK and the Netherlands' output. In the first half of 2024, the cumulative gas production in Europe reached 96.2 bcm, representing a 4% y-o-y rise.

3.1.1 Norway

Norway's gas production witnessed a remarkable 33% y-o-y surge to achieve 10.2 bcm (Figure 43). This high output was driven by the near absence of maintenance outages in June 2024, combined with the effect of low output in the previous year. Only, the 15.4 mmcm/d Visund gas field underwent a planned maintenance, which stopped its production for only one day. In the first half of 2024, cumulative gas production in Norway reached 64.6 bcm, representing a 9% uptick, mainly driven by an increase in gas output from the giant Troll field and the reduced downtime.

3.1.2 UK

The UK gas production declined by 25% y-o-y to 2.1 bcm. Planned outages in the 53 mmcm/d Easington Langeled and the 23.5 mmcm/d Vesterled gas terminals reduced their capacities for a period of 6 and 1 days, respectively. In the first half of 2024, the cumulative gas production in the UK reached 16.4 bcm, representing an 8.3% y-o-y reduction, mainly driven by the sustained decline in the gas output from mature UK fields.

3.1.3 Netherlands

The Netherlands experienced a 13% y-o-y decline in its gas output, which stood at 0.65 bcm. In the first half of 2024, cumulative gas production in the Netherlands reached 5.4 bcm, representing an 18% reduction compared to the same period in 2023. This decrease in gas production is mainly due to reduced output from ageing Dutch fields.

Figure 42: Europe's monthly gas production

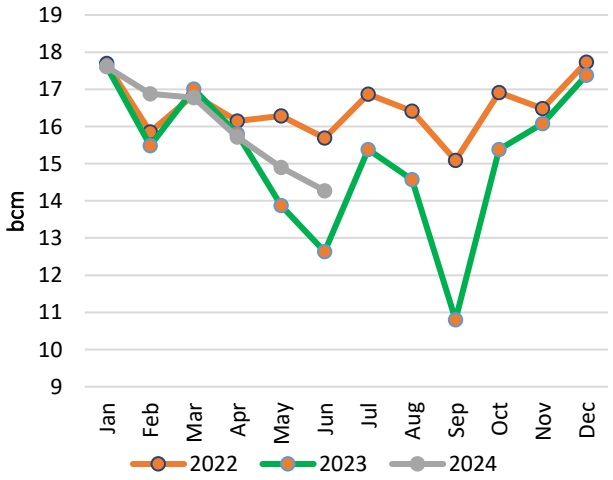
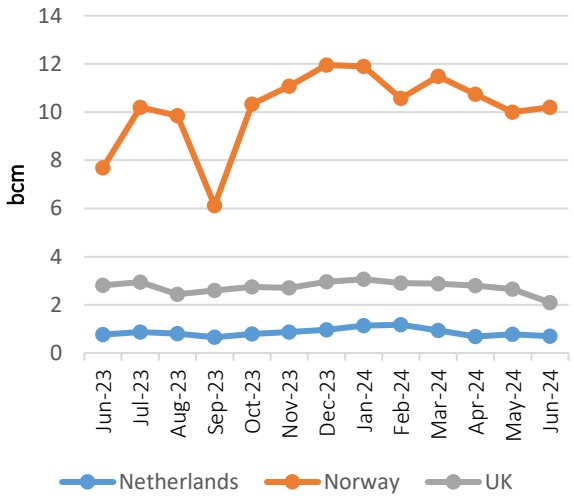


Figure 43: Gas production in key European countries



Source: GECF Secretariat based on data from Refinitiv and the Norwegian Offshore Directorate

3.2 Asia Pacific

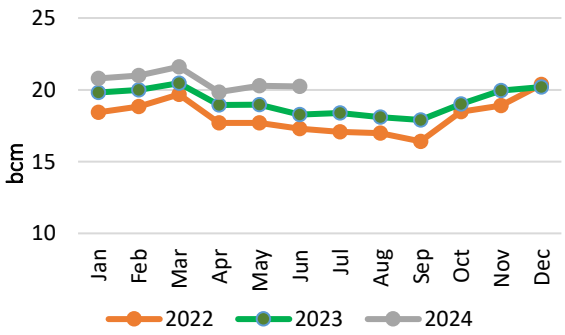
3.2.1 China

In June 2024, China's gas production reached 20.3 bcm, representing an 11% y-o-y rise (Figure 44). Coal bed methane production continued its staggering growth to stand at 1.6 bcm, with a 51% y-o-y rise. Notably, CNOOC announced a major offshore exploration breakthrough in Bohai Bay basin, with a new oil and gas discovery in the Longkou 7-1 field. The LK7-1-1 exploration well encountered a total of 76 m oil and gas pay zones and was tested to produce 1 mcm/d of gas. This gas discovery proves the technical ability of the national company to perform in both technically and operationally challenging environments. In the first half of 2024, Chinese gas production achieved a record high with a 123.8 bcm, and 6.2% y-o-y rise.

3.2.2 India

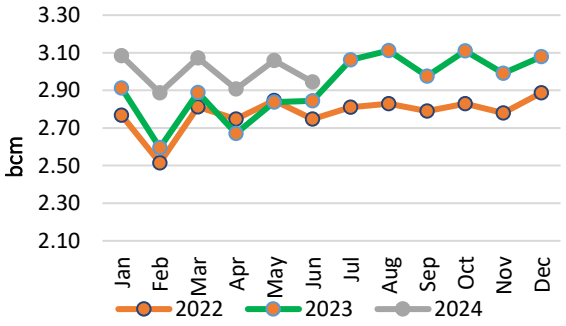
In June 2024, India's gas production increased by 3.5% y-o-y to reach 3 bcm (Figure 45). The offshore gas fields' output rose by 4% y-o-y to reach 2.15 bcm, with a 73% share of total production. In the first half of 2024, cumulative gas production reached 18 bcm, a 7.5% y-o-y rise, driven by the rejuvenation of some mature gas fields.

Figure 44: Trend in gas production in China



Source: GECF Secretariat based on data from the National Bureau of Statistics of China

Figure 45: Trend in gas production in India



Source: GECF Secretariat based on data from the Ministry of Petroleum and Natural Gas (PPAC)

3.2.3 Australia

In May 2024, Australia's gas production reached 13.5 bcm, mirroring last year production level (Figure 46). Gas production from CBM fields rose by 1.5% y-o-y to 3.5 bcm, representing 26% of the total domestic production (Figure 47). For the period Jan- May 2024, cumulative gas production reached 67.6 bcm, representing a 1.4% y-o-y rise.

Figure 46: Trend in gas production in Australia

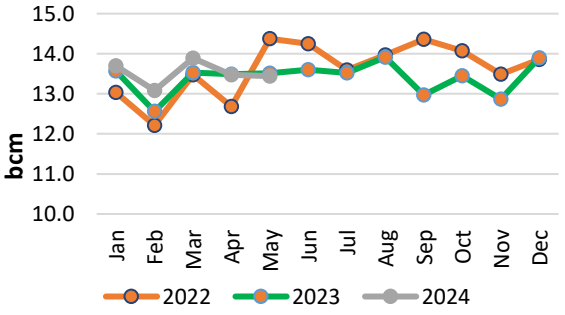
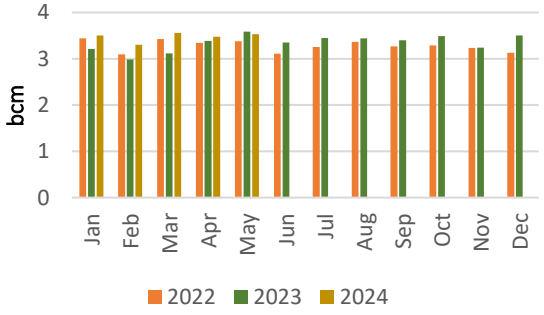


Figure 47: Trend in CBM production in Australia



Source: GECF Secretariat based on data from the Australian Department of Energy

3.3 North America

3.3.1 US

In July 2024, the US total gas production witnessed a 0.8% y-o-y decline to reach a monthly output of 98.6 bcm (Figure 48), reflecting the effect of the announced cuts in gas production by some major producers amidst low Henry Hub gas prices. In terms of distribution, shale gas production in the Appalachia region accounted for 30.5% of the total gas production, while the Permian shale oil play with its associated gas production represented 21%.

Figure 48: Trend in gas production in the US

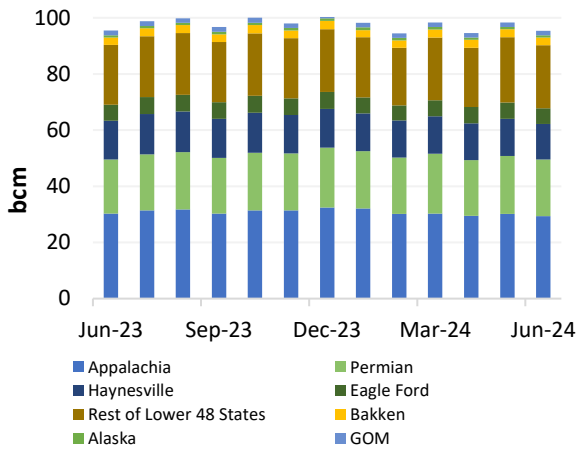
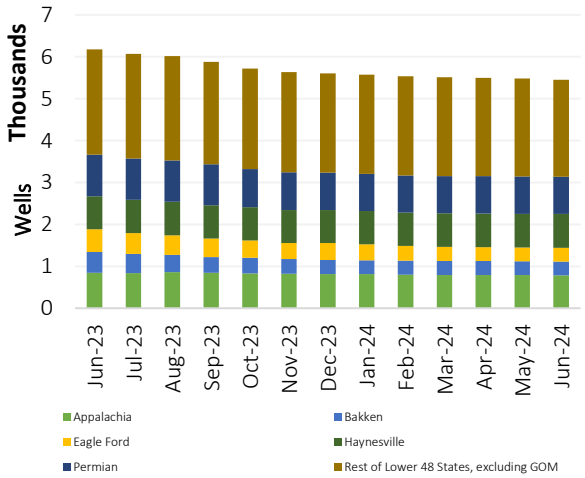


Figure 49: DUC wells count in the US



Source: GECF Secretariat based on data from the EIA

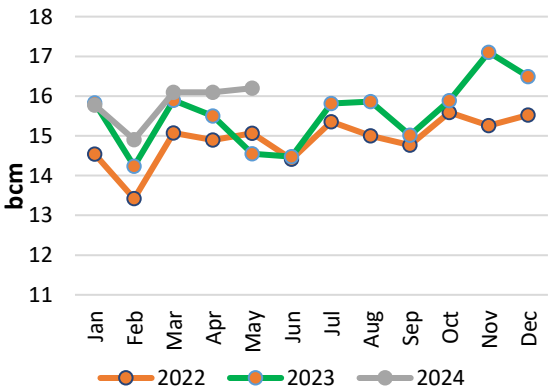
As of June 2024, the number of oil and gas drilling rigs operating in the seven key shale oil and gas regions in the US stood at 565, representing a reduction of 9 rigs compared to May 2024, driven by the reduction in number of rigs in Appalachia. The Permian basin accounted for the major share of the current drilling rigs with more than 55%. Additionally, in June 2024, the total number of drilled but uncompleted (DUC) wells in the seven major regions amounted to 5,452, marking a 30-well m-o-m decrease (Figure 49). With the current low Henry Hub prices, private producers continued the slowdown of their drilling activity, aiming to reduce cost burden, and therefore increased the reliance on their inventory of DUCs.

3.3.2. Canada

In May 2024, Canada's gas production reached 16.1 bcm, representing an 11% y-o-y increase (Figure 50), driven by the increased output from tight oil plays. The State of Alberta accounted for 9.8 bcm, representing 61% of the total Canadian gas production.

For the period Jan- May 2024, cumulative gas production reached 79 bcm, a 3.9% y-o-y rise.

Figure 50: Trend in gas production in Canada



Source: GECF Secretariat based on data from CER

3.4 Latin America and the Caribbean (LAC)

3.4.1 Brazil

In June 2024, Brazil's marketed gas production declined by 14.5% y-o-y to reach 1.4 bcm (Figure 51), driven by the elevated level of reinjection. Notably, pre-salt fields were responsible for more than 79% of production, with the Tupi field in the Santos pre-salt basin emerging as the largest gas-producing field at 0.35 bcm. The cumulative output for the first half of 2024 reached 8.5 bcm, representing a 7.4% y-o-y decline. In the meantime, 56% of gross production was reinjected into reservoirs, while gas flaring represented 2% of gross production (Figure 52).

Figure 51: Trend in gas production in Brazil

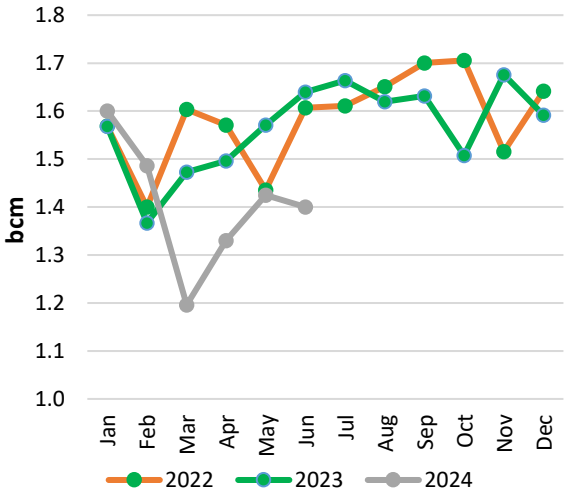
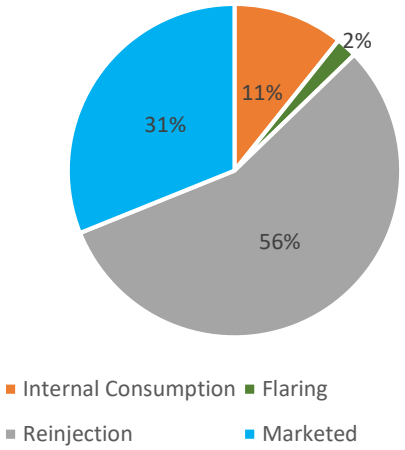


Figure 52: Distribution of gross gas production in Brazil



Source: GECF Secretariat based on data from the Brazilian National Agency of petroleum (ANP)

3.4.2 Argentina

In June 2024, Argentina's gas production increased by 8% y-o-y to reach a total output of 4.4 bcm (Figure 53). Shale gas production rose by a remarkable 26% y-o-y to reach 2.3 bcm, representing 52% of the total production, driven by increased output and the debottlenecking of the Vaca Muerta shale gas basin (Figure 54). In addition, tight gas reservoir production reached 0.55 bcm, representing a 12% share. In the first half of 2024, the accumulated gas output stood at the level of 25 bcm, representing a 5.2% y-o-y increase.

Figure 53: Trend in gas production in Argentina

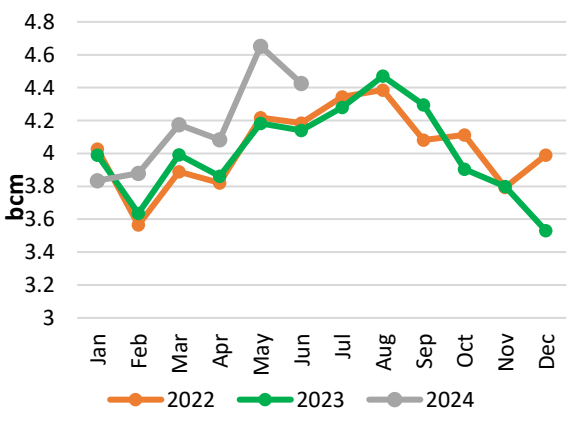
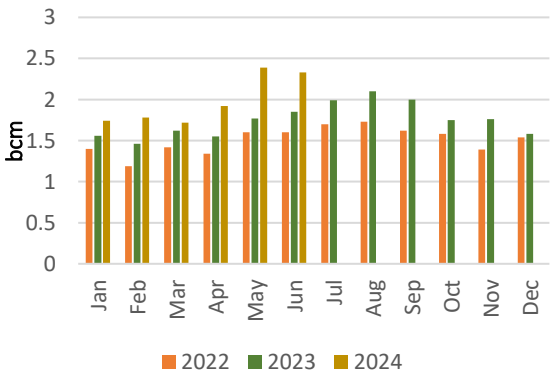


Figure 54: Trend in shale gas production in Argentina



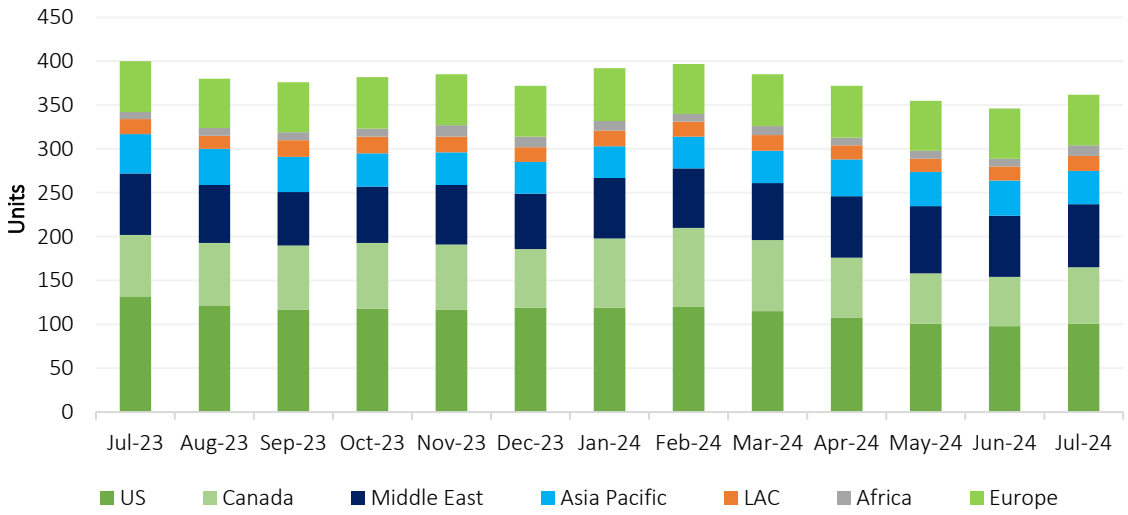
Source: GECF Secretariat based on data from Argentinian Ministry of Economy

3.5 Other developments

3.5.1 Upstream tracker

In July 2024, the global number of gas drilling rigs reversed its declining trend and increased by 16 units m-o-m to reach 362 rigs (Figure 55). This market development was mainly driven by the ramp up of the drilling activity in Algeria, in addition to the push of drilling activity for tight oil plays in North America.

Figure 55: Trend in monthly global gas rig count



Source: GECF Secretariat based on data from Baker Hughes

In June 2024, the total volume of discovered gas and liquids amounted to 290 million barrels of oil equivalent (boe) (Figure 56). Of this, natural gas accounted for the majority with 85% (42 bcm), while liquid oil constituted only 15% (45 million bbl). Six new discoveries were announced, 4 of them were offshore. In terms of regional distribution, Asia Pacific dominated the new discovered volumes with 76%, mainly in China, while Europe accounted for 24%, driven by multiple relatively small discoveries in Norway (Figure 57). The Lingshui gas discovery, located in the South China sea, offshore China, was the most significant announced gas discovery, with estimated recoverable gas resources of 40 bcm.

Cumulative discovered volumes in the first half of 2024 amounted to 2.5 billion boe.

Figure 56: Monthly gas and liquid discovered volumes

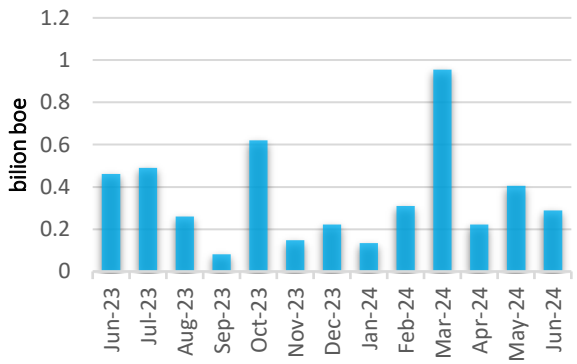
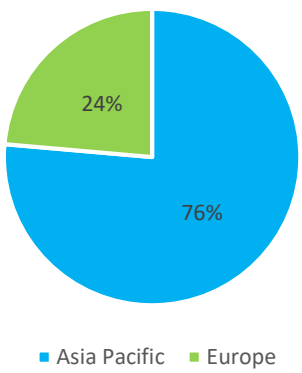


Figure 57: Discovered volumes in June 2024 by region



Source: GECF Secretariat based on Rystad Energy

3.5.2 Other regions

Kuwait Oil Company announced a major oil and gas discovery in Al-Nukhida field: According to Kuwait Oil Company (KOC) statement, the company discovered "huge commercial amounts" of light oil and associated gas in Al-Nukhida field offshore field. The field is located at the east of Kuwait's Failaka Island. The initial estimated area of the field is about 96 square km, representing a breakthrough in Kuwait's exploration offshore activities. The preliminary estimates of recoverable reserves from the field are about 2.1 billion bbl of oil and 145 bcm of gas. KOC highlighted the significance of the offshore exploration project as a national endeavour, aiming to enhance the country's hydrocarbon reserves sustainability, meet global demand and elevate its status as a reliable oil and gas producer.

Angola is set to launch a new oil and gas licensing round in 2025: According to Angola's National Petroleum Agency (ANPG) announcement, the country is set to launch a new a new oil and gas licensing round in Q1 2025. This upcoming bid round will offer 29 opportunities in oil and gas-rich basins. This round is also expected to include - for the first time - exploration rights in 5 marginal fields, within producing blocks with proven petroleum systems. This approach is to help enhance the upstream investment in Angola and minimize the associated financial risks.

Bolivia's YPFB announced a new gas discovery in Mayaya field: According to the state-owned YPFB company's announcement, Bolivia, a GECF Member Country, discovered a new gas field in the Mayaya field, with estimated recoverable reserves of 50 bcm. This discovery is considered an important boost for the Bolivian upstream sector, and it would help the state meet the domestic demand and the ongoing export contracts. YPFB plans to drill three additional wells, as well as build new pipeline infrastructure to connect into the existing grid.

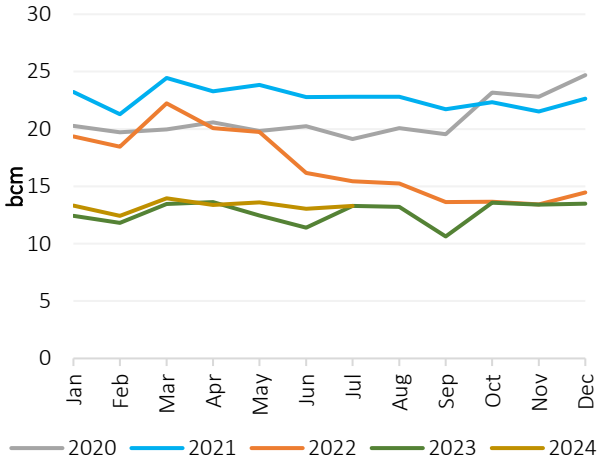
4 Gas Trade

4.1 PNG trade

4.1.1 Europe

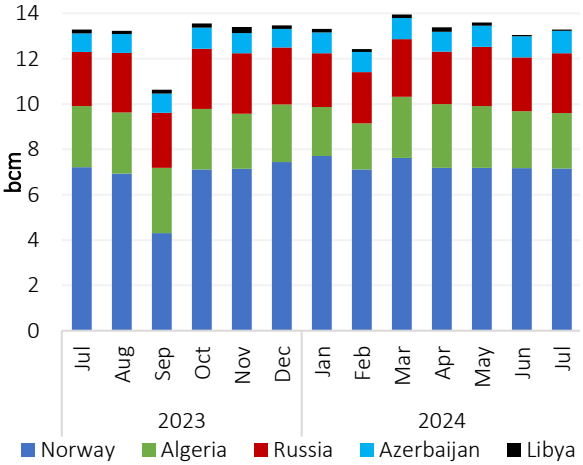
In July 2024, the EU imported 13.3 bcm of PNG, which was the same level as the volume imported one year ago (Figure 58). However, this volume was 2% higher m-o-m. During this month, the EU increased PNG imports from Russia, Azerbaijan and Libya (Figure 59). Nevertheless, in recent months, the total volume of PNG imported by the region has remained at a stable level.

Figure 58: Monthly PNG imports to the EU



Source: GECF Secretariat based on data from Refinitiv

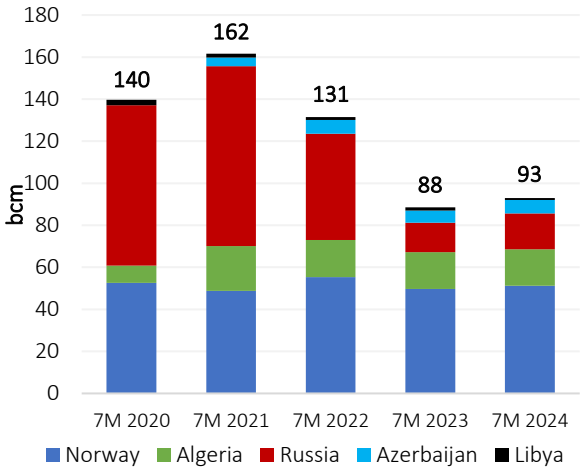
Figure 59: Monthly EU PNG imports by supplier



Source: GECF Secretariat based on data from Refinitiv

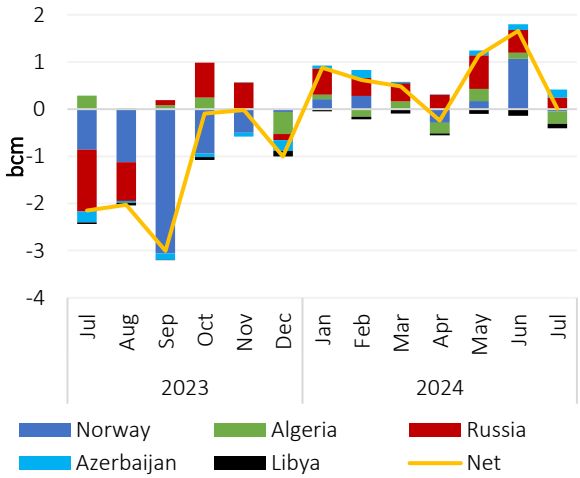
In the period from January to July 2024, the EU imported a total of 93.0 bcm of PNG imports, which represented an increase of 5% or 4.5 bcm, when compared with the volume imported during the same period in 2023 (Figure 60). This was driven by an increase of 3.1 bcm of imports from Russia, 1.4 bcm of imports from Norway, and 0.7 bcm from Azerbaijan, compared with the volumes imported in the same period in 2023. Both Russia and Azerbaijan continued to record y-o-y increases in PNG supply to the EU in each month of 2024 thus far (Figure 61).

Figure 60: Year-to-date EU PNG imports by supplier



Source: GECF Secretariat based on data from Refinitiv

Figure 61: Y-o-y variation in EU PNG supply

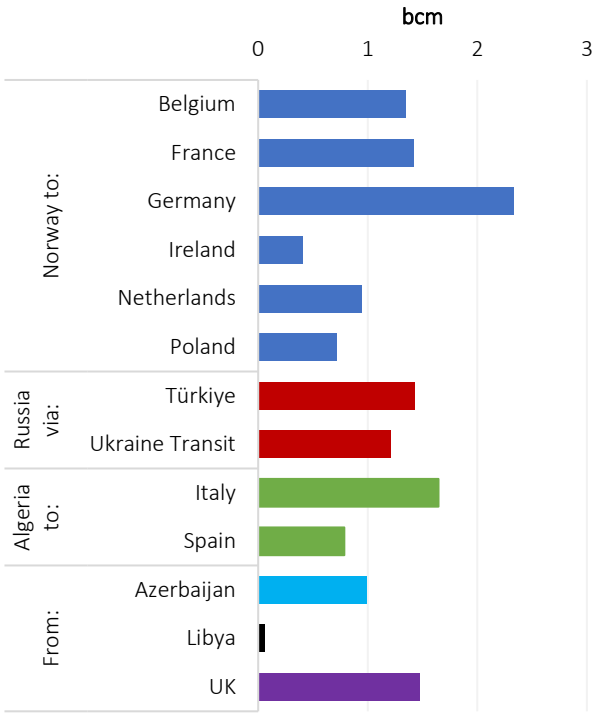


Source: GECF Secretariat based on data from Refinitiv

Figure 62 shows the PNG imports to the EU via the major supply routes in July 2024. There was a 29% increase in PNG imports from Russia via Turkstream during the month. Norway's PNG supply to Germany increased by 10% m-o-m, while flows to the Netherlands declined by 20% m-o-m. Algerian PNG exports to Italy decreased by 5% m-o-m to reach 1.6 bcm, but was still the second largest supply route in July 2024. Furthermore, there were 1.5 bcm of regasified LNG imported from the UK, a 55% increase m-o-m.

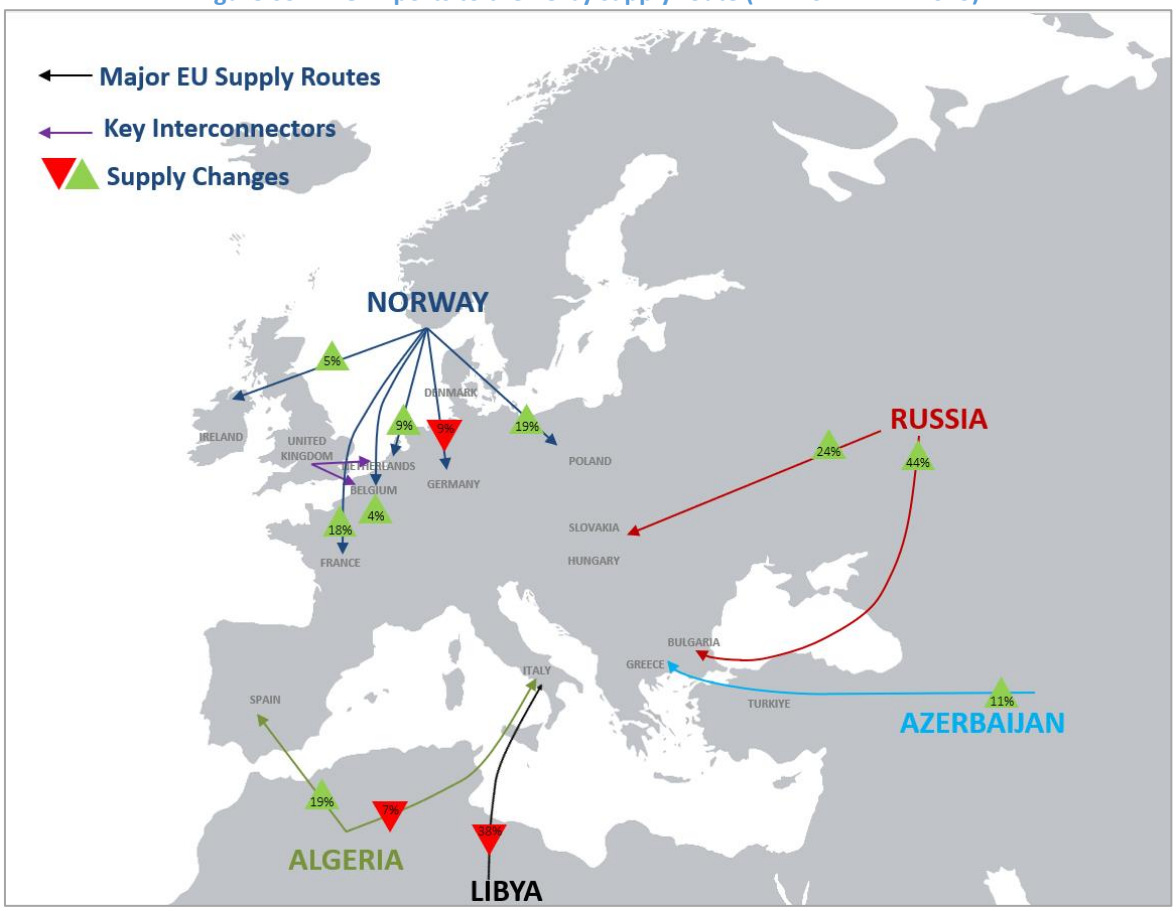
Figure 63 displays the PNG imports to the EU via the major supply routes during the first seven months of 2024, versus the same period in 2023. Russian PNG flows via both supply routes increased y-o-y. Norway's supply to France rose by 18% y-o-y, while supply to Germany fell by 9%. With the startup of new import capacity in the region, there was a 58% decrease in net PNG flows from the UK.

Figure 62: EU PNG imports by supply route, in July 2024



Source: GECF Secretariat based on data from Refinitiv

Figure 63: PNG imports to the EU by supply route (7M 2024 v 7M 2023)

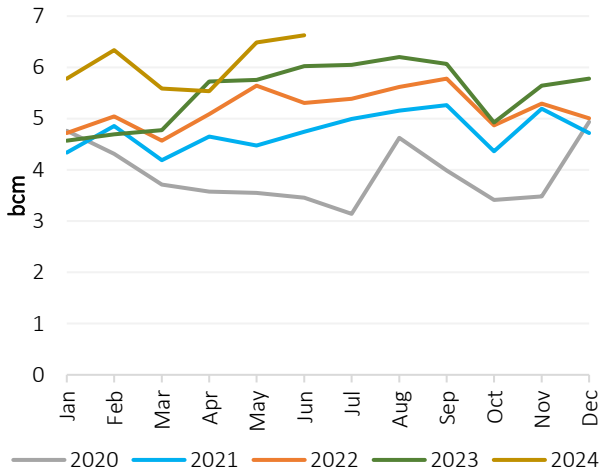


Source: GECF Secretariat based on data from Refinitiv

4.1.2 Asia

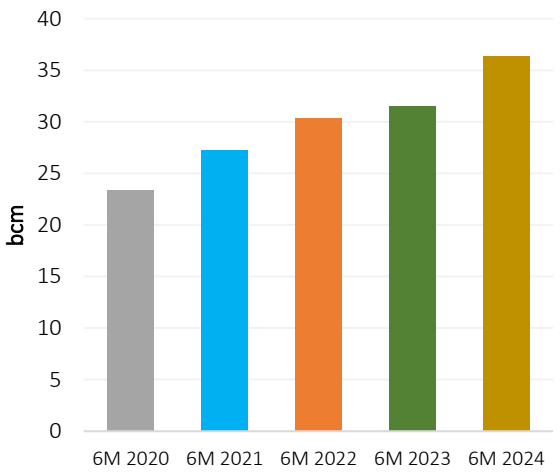
In June 2024, China imported an estimated 6.6 bcm of PNG, which represented an increase of 10% when compared with the volume imported one year ago (Figure 64). The country has been expanding its PNG imports over the recent months, and the import volume for June 2024 was also 2% higher m-o-m. With the total volume of gas imports having decreased during the month, the share of PNG in China's supply mix in June 2024 was 46%. During the first half of 2024, China's PNG imports reached 36 bcm, which represented a 15% increase compared with the same period in 2023 (Figure 65).

Figure 64: Monthly PNG imports in China



Source: GECF Secretariat based on data from Refinitiv and General Administration of Customs China

Figure 65: Year-to-date PNG imports in China



Source: GECF Secretariat based on data from Refinitiv and General Administration of Customs China

Singapore imported 0.49 bcm of PNG from Indonesia and Malaysia in April 2024, which was 10% less than one year ago, but which was unchanged compared to the previous month (Figure 66).

In the same month, Thailand imported 0.42 bcm of PNG from Myanmar, which was a decrease of 5% y-o-y, as well as a decrease of 10% compared with the previous month (Figure 67).

Figure 66: Monthly PNG imports in Singapore

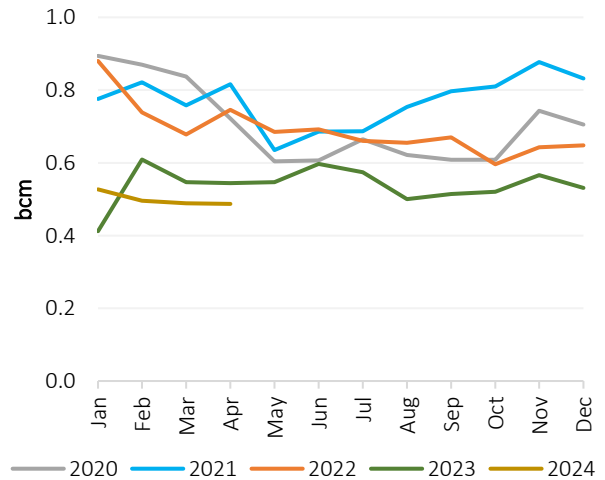
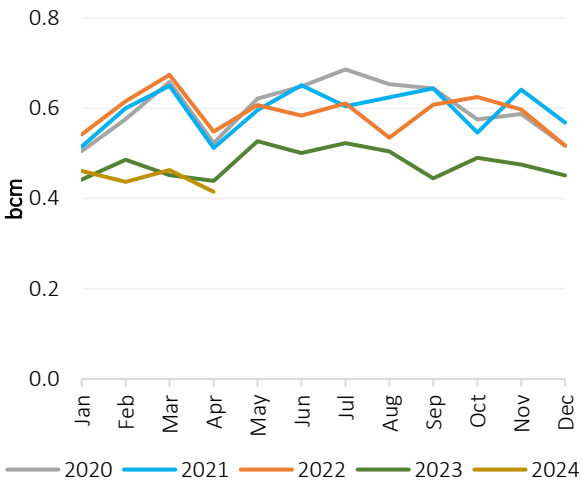


Figure 67: Monthly PNG imports in Thailand



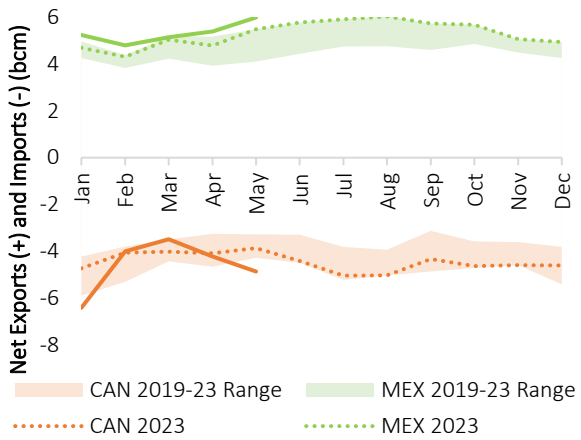
Source: GECF Secretariat based on data from JODI Gas

4.1.3 North America

There were 4.9 bcm of net PNG flows from Canada to the US in May 2024, which was 26% higher y-o-y, and 15% more than in the previous month (Figure 68). Additionally, there were 6.0 bcm of PNG exports from the US to Mexico during the month, representing a 9% increase y-o-y, as well as an 11% increase from the previous month.

Net flow of PNG from the US to the other countries was 1.1 bcm during the month. The average monthly flows in the region in May 2024 comprised 6.8 bcm from Canada to the US, and 1.9 bcm from the US to Canada.

Figure 68: Historical net PNG trade in the USA



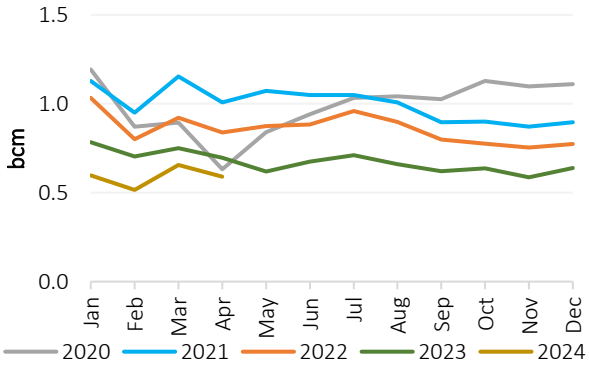
Source: GECF Secretariat based on data from US EIA

4.1.4 Latin America and the Caribbean

In April 2024, Bolivia exported 0.59 bcm of PNG to Brazil and Argentina (Figure 69). This volume was 15% less than the level exported one year ago, as well as 10% lower compared with the previous month.

In the same month, Argentina exported 0.29 bcm of PNG supply to Chile, which represented a 13% increase compared with the previous year, but which was 5% lower when compared to the previous month.

Figure 69: Monthly PNG exports from Bolivia



Source: GECF Secretariat based on data from JODI Gas

4.1.5 Other developments

Turkmenistan to supply gas to Iraq: Turkmenistan has developed a scheme to exports pipeline gas supply to Iraq, initially via a swap agreement with Iran. Under the terms of the plan, Turkmenistan may deliver 10 bcma of gas via existing pipelines to northern Iran, following which Iran will then export the same volume to Iraq. Moreover, Turkmenistan and Iran have discussed potentially expanding the current capacity of the pipelines between both countries to 40 bcma, then possibly extending the infrastructure to provide transit access across Iran directly into Iraq in future.

Slovakia to import pipeline gas from Poland: Slovak utility company ZSE Group has signed an agreement for the purchase of pipeline gas from Polish gas supplier PGNiG Supply & Trading, starting from 1 January 2025 for a period of one year. The source of this gas would be regasified LNG cargoes which will be delivered at the Klaipeda LNG import terminal in Lithuania, where PGNiG has secured capacity. The gas supply will utilise the Poland-Slovakia Gas Pipeline which was commissioned in August 2022. This bidirectional pipeline has a capacity of 4.7 bcma in the direction towards Slovakia, and 5.7 bcma in the direction towards Poland.

4.2 LNG trade

4.2.1 LNG imports

In July 2024, global LNG imports reached 32.72 Mt, representing a 1.8% (0.57 Mt) y-o-y increase and reversing two consecutive monthly y-o-y declines (Figure 70). This is a record high for global LNG imports in July. The Asia Pacific and MENA regions led the increase, offsetting lower LNG imports in Europe and LAC (Figure 71). A significant spot LNG price spread between Asia Pacific and Europe pulled more LNG cargoes into the Asia Pacific region. From January to July 2024, global LNG imports rose by 0.9% (2.07 Mt) y-o-y to 239.30 Mt.

Figure 70: Trend in global monthly LNG imports

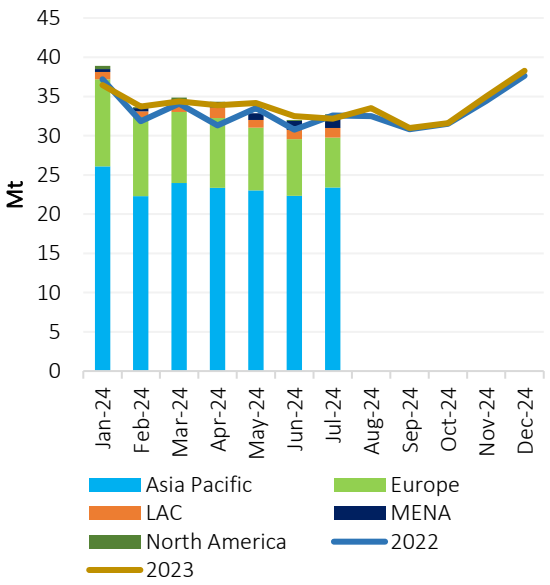
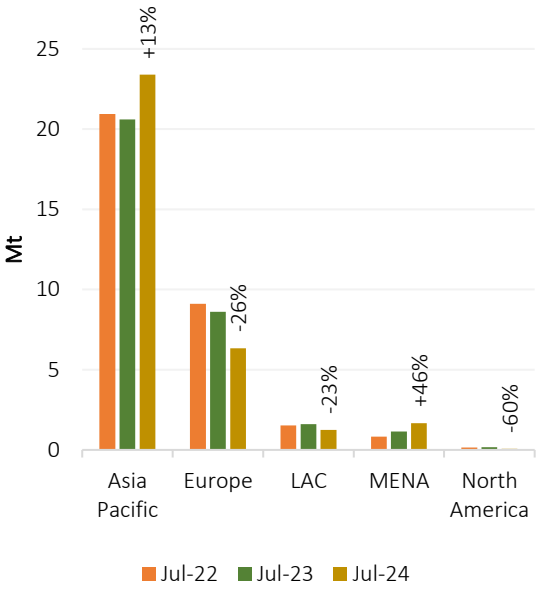


Figure 71: Trend in regional LNG imports



Source: GECF Secretariat based on data from ICIS LNG Edge

4.2.1.1 Europe

In July 2024, European LNG imports continued to slide, falling by 26% (2.28 Mt) y-o-y to 6.34 Mt, the lowest level since September 2021 (Figure 72). The weaker LNG imports in Europe was attributed to lower gas consumption, high gas storage levels, stable pipeline gas imports, and a significant spot LNG price spread between Asia Pacific and Europe. France, Germany, Greece, Italy, the Netherlands and Spain accounted for the bulk of the decline in the region's LNG imports (Figure 73). During the period January to July 2024, Europe's LNG imports decreased by 21% (15.59 Mt) y-o-y to 60.63 Mt.

In France, the decline in LNG imports was driven by lower gas consumption, increased pipeline gas imports from Norway, planned maintenance at the Montoir regasification terminal, and ample gas storage. Despite an uptick in Germany's gas consumption, the drop in its LNG imports was attributed to planned maintenance at the Wilhelmshaven regasification terminal and decreased pipeline gas exports to neighbouring countries. In Greece and Italy, LNG imports fell in July due to stronger pipeline gas imports from Azerbaijan and Russia. In the Netherlands, lower gas consumption, higher pipeline gas imports from Norway, and a drop in pipeline gas exports to Germany led to a decline in LNG imports. Meanwhile, lower gas consumption curbed Spain's LNG imports. Furthermore, a price spread of $1.80/MMBtu between spot LNG prices in Europe and Asia Pacific supported the flow of flexible LNG cargoes into Asia Pacific over Europe.

Figure 72: Trend in Europe's monthly LNG imports

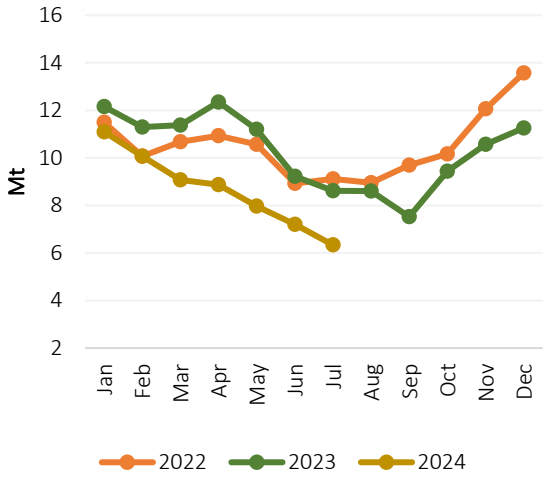
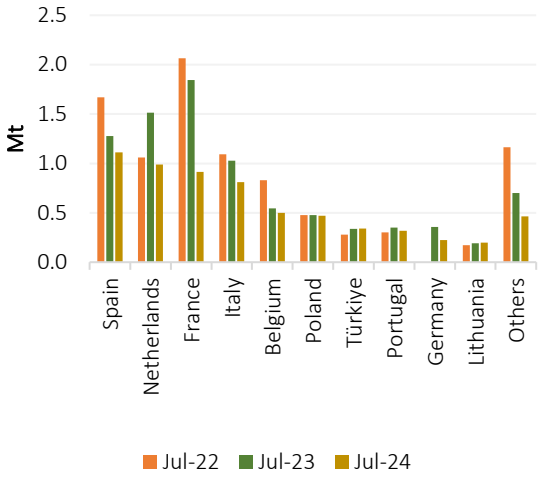


Figure 73: Top LNG importers in Europe



Source: GECF Secretariat based on data from ICIS LNG Edge

4.2.1.2 Asia Pacific

In July 2024, LNG imports in the Asia Pacific region jumped by 14% (2.80 Mt) y-o-y to 23.40 Mt (Figure 74). Heatwaves across several Asian countries boosted the region's LNG imports. At a country level, India, Indonesia, Japan, South Korea, Taiwan and Thailand drove the increase in LNG imports (Figure 75). Between January and July 2024, Asia Pacific's LNG imports stood at 164.51 Mt, representing a growth of 11% (15.81 Mt).

India, Japan, and South Korea experienced significant heatwaves in July, which boosted gas consumption in the electricity sector for cooling. This, in turn, led to stronger LNG imports in these countries. In Indonesia, stronger gas consumption supported the rise in LNG imports, particularly from Australia and the US, and higher intra-country trade. An increase in gas consumption in the electricity sector, due to lower nuclear availability following the retirement of the Maanshan 1 nuclear facility in July, fuelled the growth in Taiwan's LNG imports. Furthermore, stronger gas consumption and lower pipeline gas imports from Myanmar continued to drive the increase in Thailand's LNG imports.

Figure 74: Trend in Asia's monthly LNG imports

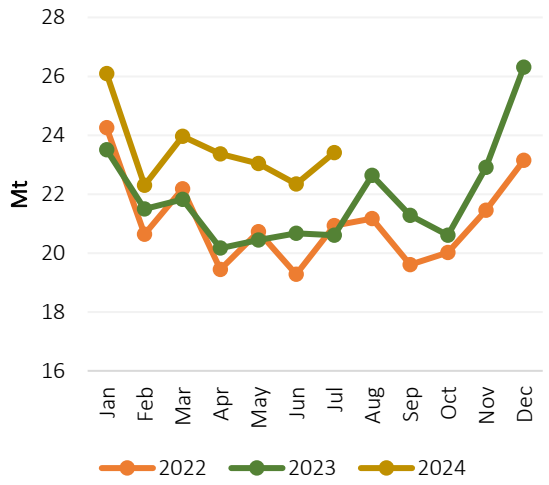
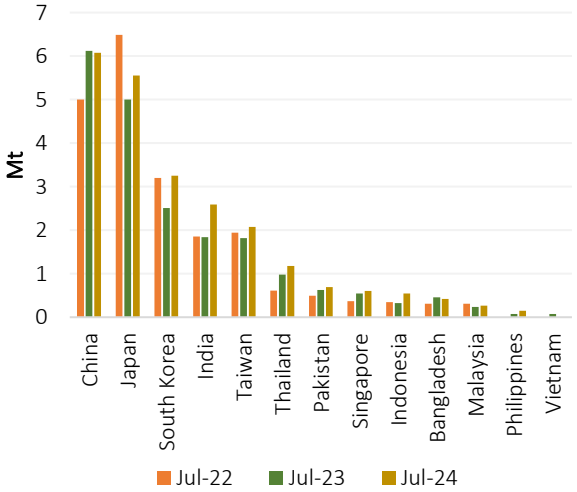


Figure 75: Top LNG importers in Asia Pacific



Source: GECF Secretariat based on data from ICIS LNG Edge

4.2.1.3 Latin America & the Caribbean (LAC)

In July 2024, LNG imports in the LAC region fell by 23% (0.37 Mt) y-o-y to 1.24 Mt (Figure 76), which is the lowest level for the month of July since 2020. Argentina and Jamaica recorded significant declines in LNG imports (Figure 77). During the period January to July 2024, LNG imports in the LAC region was up marginally by 2.7% (0.20 Mt) y-o-y to reach 7.68 Mt.

Despite increased gas consumption for heating due to colder-than-usual weather, stronger domestic gas production and recent pipeline gas supply agreements with Bolivia and Chile curbed Argentina's LNG imports. In Jamaica, disruptions in LNG deliveries and damage to electricity infrastructure caused by Hurricane Beryl in July, along with the drop in LNG reloads to Puerto Rico, led to a decline in LNG imports.

Figure 76: Trend in LAC's monthly LNG imports

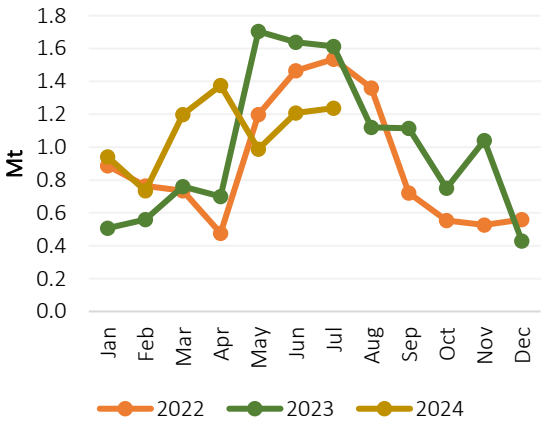
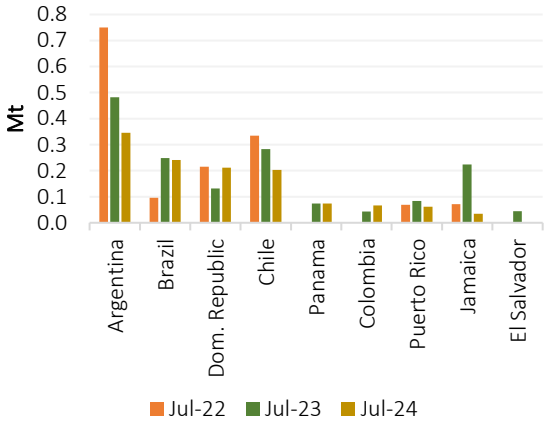


Figure 77: Top LNG importers in LAC



Source: GECF Secretariat based on data from ICIS LNG Edge

4.2.1.4 MENA

In July 2024, LNG imports in the MENA region surged by 46% (0.53 Mt) y-o-y to 1.67 Mt (Figure 78), marking the highest monthly imports since July 2018. This increase was primarily driven by Egypt (Figure 79), which resumed LNG imports for the first time since 2018 to compensate for a shortfall in domestic gas availability. Additionally, Egypt is utilising the Aqaba LNG import terminal in Jordan to meet its gas demand. From January to July 2024, the MENA region's LNG imports rose sharply by 39% (1.55 Mt) y-o-y to 5.49 Mt.

Figure 78: Trend in MENA's monthly LNG imports

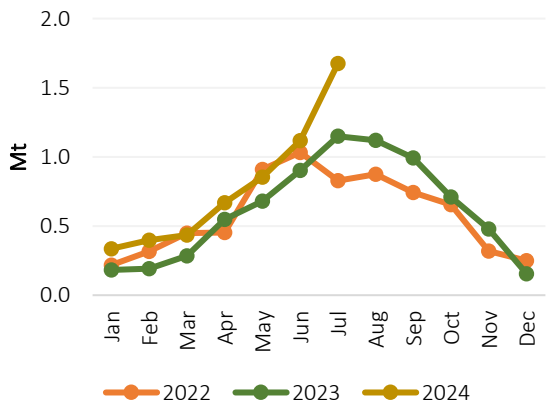
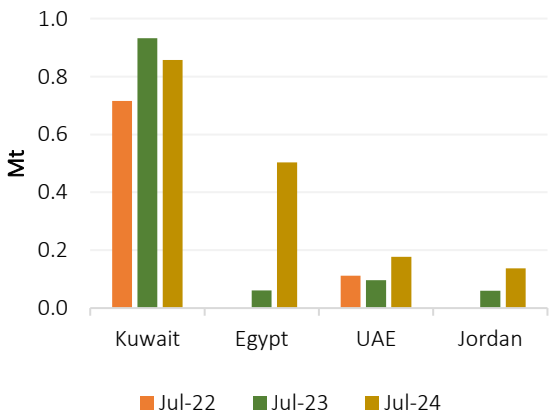


Figure 79: Top LNG importers in MENA



Source: GECF Secretariat based on data from ICIS LNG Edge

4.2.2 LNG exports

In July 2024, global LNG exports increased marginally by 1.1% (0.36 Mt) y-o-y to 33.36 Mt (Figure 80). This growth was supported by higher exports from non-GECF countries and an uptick in LNG re-exports, which offset lower exports from GECF Member Countries. Non-GECF countries maintained their dominance in global LNG exports with a market share of 53.0%, up from 52.8% in July 2023. The market share of LNG re-exports also increased from 0.6% to 1.2% during the same period, while GECF's market share declined slightly from 46.6% to 45.8%. Between January and July 2024, global LNG exports reached 239.41 Mt, representing an increase of 1.1% (2.63 Mt) y-o-y. The US, Qatar and Australia were the top three LNG exporters globally in July 2024 (Figure 81).

Figure 80: Trend in global monthly LNG exports

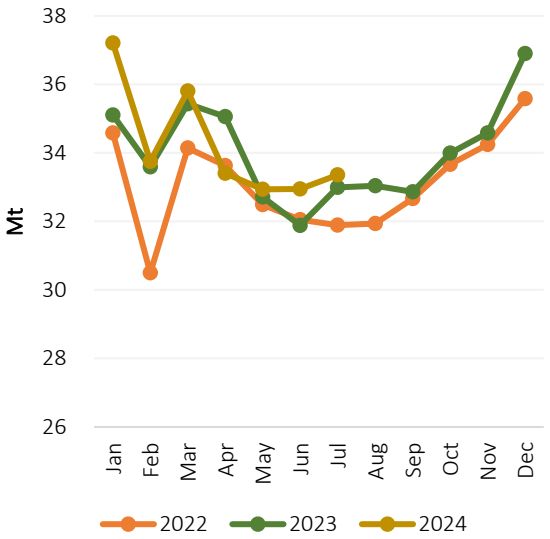
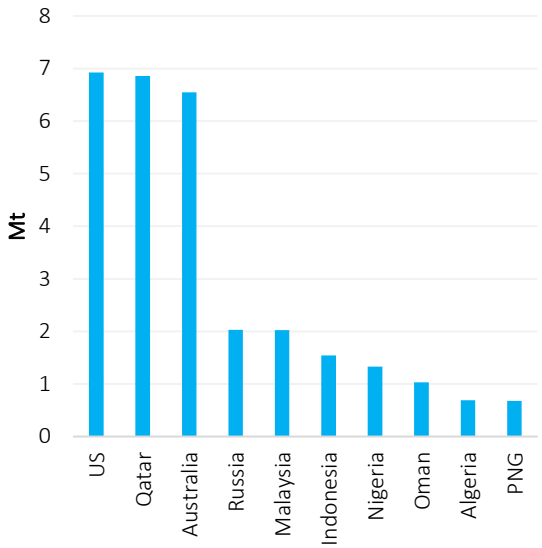


Figure 81: Top 10 LNG exporters in July 2024



Source: GECF Secretariat based on data from ICIS LNG Edge

4.2.2.1 GECF

In July 2024, LNG exports from GECF Member and Observer Countries declined slightly by 0.6% (0.10 Mt) y-o-y to 15.28 Mt, marking the fourth consecutive monthly y-o-y decline (Figure 82). The weaker LNG exports came mainly from Algeria, Egypt and Qatar, which were partially offset by higher exports from Mozambique, Nigeria, Peru and the United Arab Emirates (Figure 83). Between January and July 2024, the cumulative LNG exports from GECF Member Countries were up marginally by 0.1% (0.17 Mt) y-o-y to stand at 112.61 Mt.

In Algeria, the decline in LNG exports was primarily due to reduced output from the Arzew LNG facility, while exports from the Skikda LNG facility remained steady compared to the previous year. In Egypt, lower feedgas availability led to a drop in LNG exports, with the last cargo shipped from the Idku LNG facility at the end of April. The decrease in Qatar's LNG exports led to weaker shipments to European countries, which were partially offset by higher exports to the Asia Pacific region. Conversely, Mozambique's LNG exports increased, supported by the continued ramp-up in production at the Coral South FLNG facility. Nigeria's LNG exports were boosted by improved feedgas availability, and in Peru, lower unplanned outages at the Peru LNG facility contributed to a rise in exports. In the United Arab Emirates, lower unplanned maintenance supported the surge in its LNG exports.

Figure 82: Trend in GECF monthly LNG exports

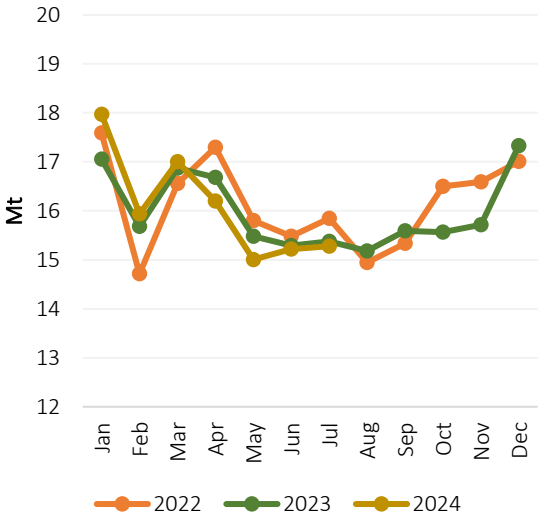
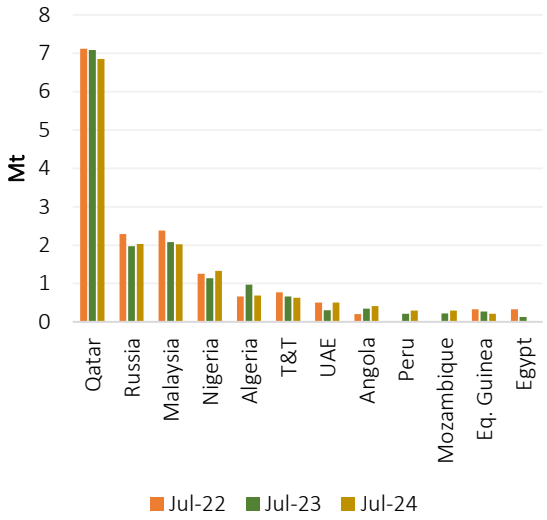


Figure 83: GECF's LNG exports by country



Source: GECF Secretariat based on data from ICIS LNG Edge

4.2.2.2 Non-GECF

In July 2024, non-GECF's LNG exports grew slightly by 1.4% (0.25 Mt) y-o-y to 17.69 Mt (Figure 84). The slight uptick in LNG exports came mainly from Australia and Indonesia, which offset a decline in US LNG exports (Figure 85). During the period January to July 2024, LNG exports from non-GECF countries increased by 3.3% (4.01 Mt) y-o-y to 125.30 Mt.

The increase in Australia's LNG exports was driven by reduced planned maintenance at the GLNG and Prelude LNG facilities, as well as a decrease in unplanned outages at the Ichthys LNG facility. In Indonesia, the ramp-up in production at Tangguh LNG train 3 led to higher LNG exports. Conversely, US LNG exports fell to the second lowest monthly level in 2024, primarily due to weaker exports from the Freeport LNG facility. This decline was only partially offset by increased exports from the Calcasieu Pass and Sabine Pass LNG facilities. The drop in exports from Freeport LNG was due to a precautionary shutdown ahead of Hurricane Beryl and damage to its fan air coolers caused by the hurricane.

Figure 84: Trend in non-GECF monthly LNG exports

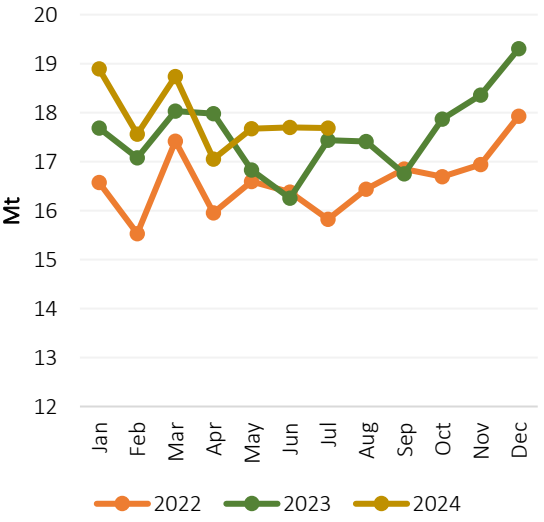
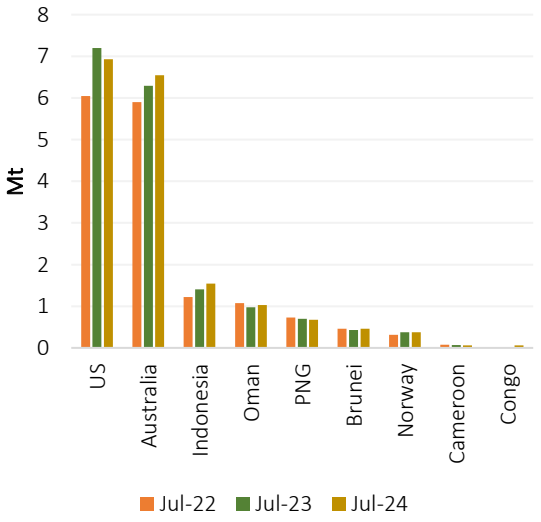


Figure 85: Non-GECF's LNG exports by country



Source: GECF Secretariat based on data from ICIS LNG Edge

4.2.3 Global LNG re-exports

In July 2024, global LNG re-exports surged by 112% (0.21 Mt) y-o-y to 0.39 Mt, marking the highest level since November 2023 and the first y-o-y increase since October 2023 (Figure 86). The rise was primarily driven by increased re-exports from Spain and Indonesia, which offset a decline in China (Figure 87). Spain regained its position as the top LNG re-exporter, with its re-exports reaching their highest level since December 2022. However, between January and July 2024, global LNG re-exports declined by 51% (1.55 Mt) y-o-y, totalling 1.58 Mt.

Spain re-exported three standard-sized LNG cargoes in July—one each to Argentina, Egypt, and Puerto Rico—and one small cargo to Italy. Naturgy re-exported the cargo to Puerto Rico to fulfil a long-term contract with EcoElectrica. Additionally, one full cargo and two partial cargoes were re-exported from the Arun LNG facility in Indonesia. The full cargo went to Bangladesh, while the two partial cargoes were sent to Japan. Meanwhile, the decrease in LNG re-exports from China was attributed to a decline in LNG re-exports outside the country.

Figure 86: Trend in global monthly LNG re-exports

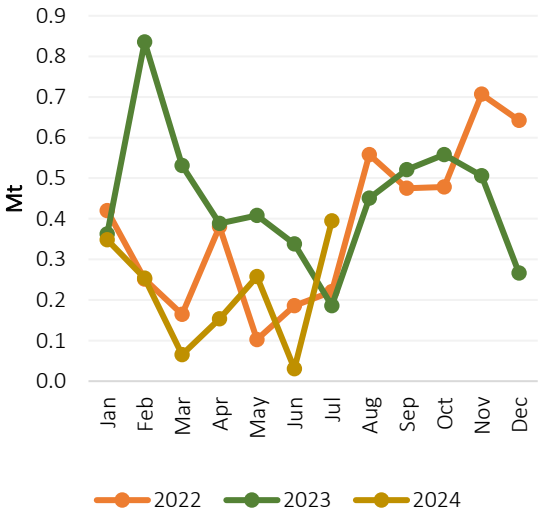
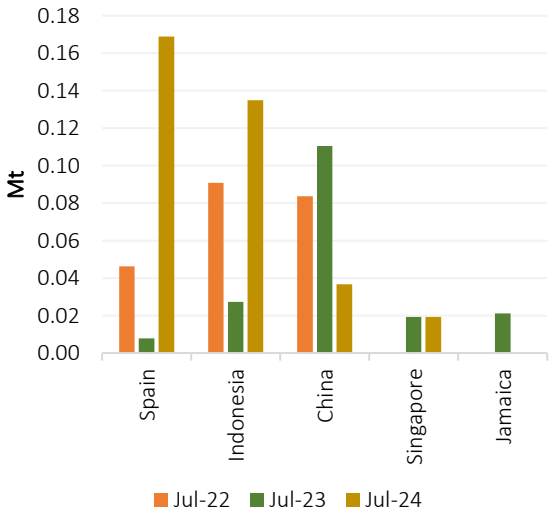


Figure 87: Global LNG re-exports by country



Source: GECF Secretariat based on data from ICIS LNG Edge

4.2.4 Arbitrage opportunity

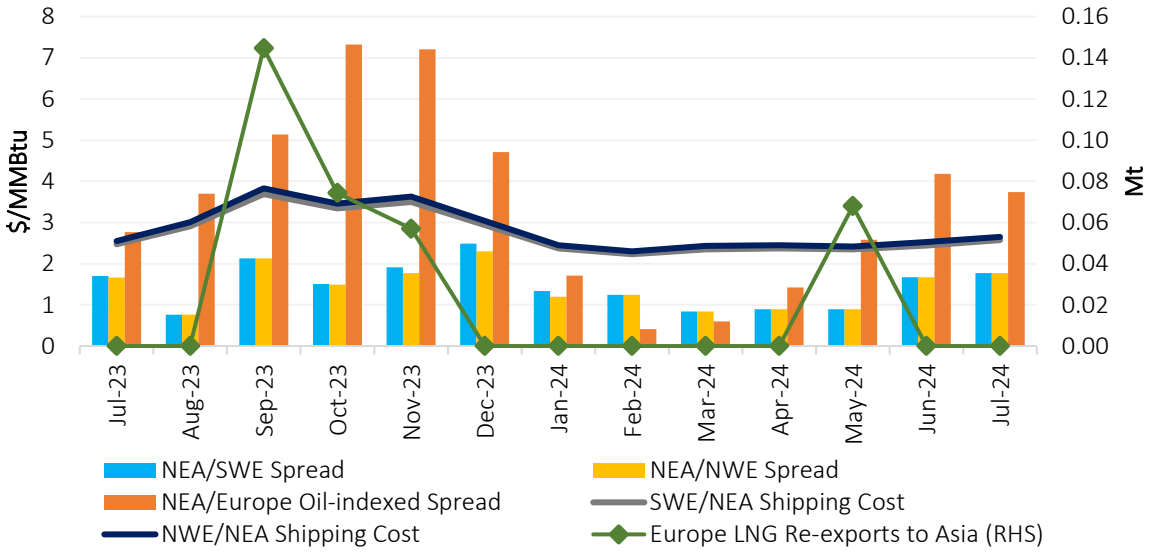
In July 2024, no arbitrage opportunities existed for LNG re-exports from Europe to Asia Pacific, despite higher price spreads between the two markets. The spot LNG shipping costs from Europe to Asia Pacific remained higher than the price spreads between the regions (Figure 88). Although the price spread between spot LNG prices in Asia Pacific and oil-indexed prices in Europe decreased from the previous month, it still exceeded the spot LNG shipping costs.

The NEA/SWE and NEA/NWE price spreads each increased by 6.0% ($0.10/MMBtu) m-o-m each to $1.77/MMBtu, due to the sharper decline in European spot LNG prices compared to the Asian spot LNG price. Conversely, the price spread between spot LNG prices in Asia Pacific and oil-indexed prices in Europe dropped by 11% ($0.44/MMBtu) m-o-m to $3.74/MMBtu.

Spot LNG shipping costs for the NEA/SWE and NEA/NWE routes rose by 5.3% ($0.13/MMBtu) and 4.7% ($0.12/MMBtu) m-o-m to $2.57/MMBtu and $2.65/MMBtu, respectively. It's important to note that shipping costs can vary depending on the vessels used, with medium- to long-term chartered vessels potentially offering lower costs. Europe did not re-export any LNG cargoes to Asia Pacific in July 2024.

In comparison to July 2023, the NEA/SWE and NEA/NWE price spreads, as well as the price spread between NEA spot LNG and European oil-indexed gas prices, increased by 4.1% ($0.07/MMBtu), 6.6% ($0.11/MMBtu), and 35% ($0.97/MMBtu) y-o-y, respectively. Similarly, the NEA/SWE and NEA/NWE spot shipping costs each rose by 4.0% ($0.10/MMBtu) y-o-y.

Figure 88: Price spreads & shipping costs between Asia & Europe spot LNG markets

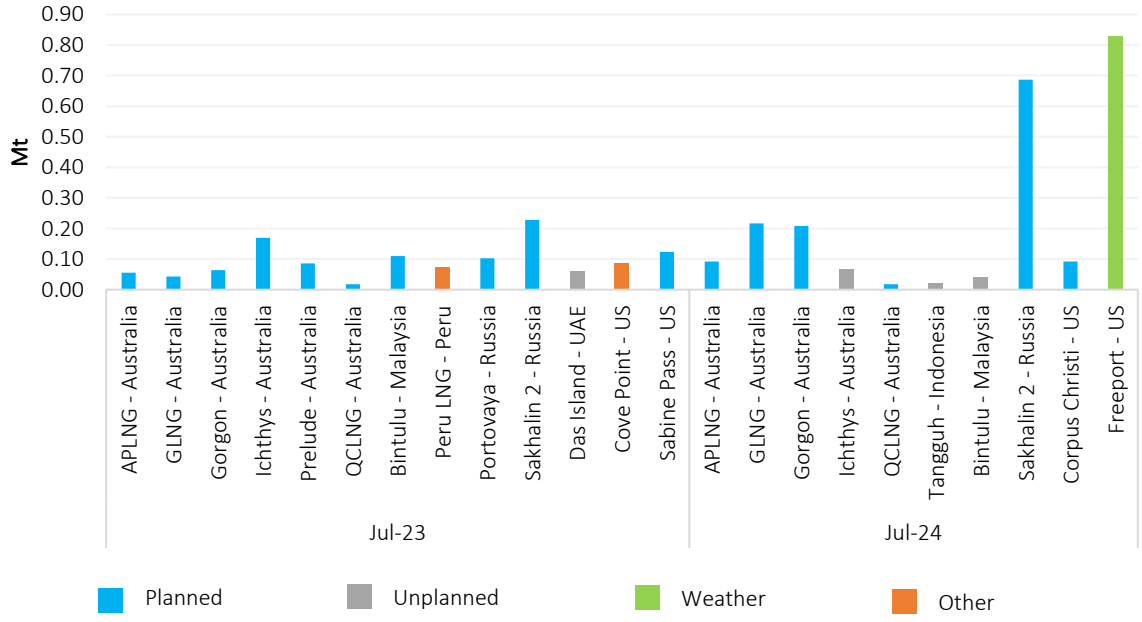


Source: GECF Secretariat based on data from GECF Shipping Model, Argus and ICIS LNG Edge

4.2.5 Maintenance activity at LNG liquefaction facilities

In July 2024, the cumulative effect of scheduled maintenance, unplanned outages, and other factors at liquefaction plants worldwide surged to 2.77 Mt, a significant increase compared to the same period last year (Figure 89). Key contributors to these impacts included minor damage at the Freeport LNG facility caused by Hurricane Beryl, along with planned maintenance activities at the GLNG, Gorgon, and Sakhalin 2 LNG facilities.

Figure 89: Maintenance activity at LNG liquefaction facilities during July (2023 and 2024)



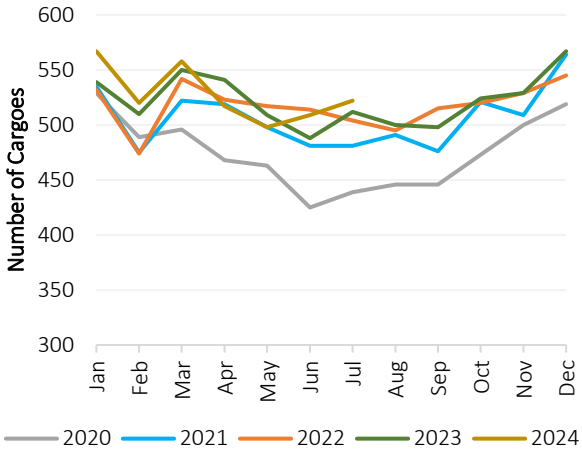
Source: GECF Secretariat based on information from Argus, ICIS LNG Edge and Refinitiv

4.2.6 LNG shipping

In July 2024, there were 522 LNG cargoes exported, which was 2% more than one year ago, as well as an increase of 3% from the number of shipments in the previous month (Figure 90). From January to July 2024, there were 3,690 cargoes exported, which was an increase of 41 shipments when compared with the same period in 2023.

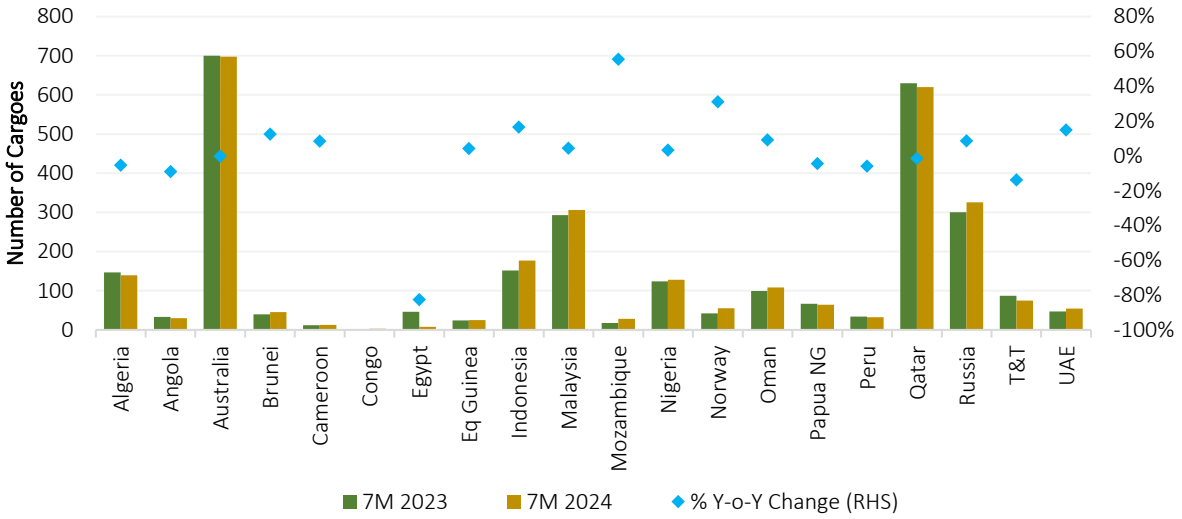
During this period, there were 26 more cargoes exported by Russia, and 25 more cargoes exported by Indonesia (Figure 91). Mozambique delivered 56% more cargoes, followed by Norway at 31% and Indonesia at 16%.

Figure 90: Number of LNG export cargoes



Source: GECF Secretariat based on data from ICIS LNG Edge

Figure 91: Changes in LNG cargo exports



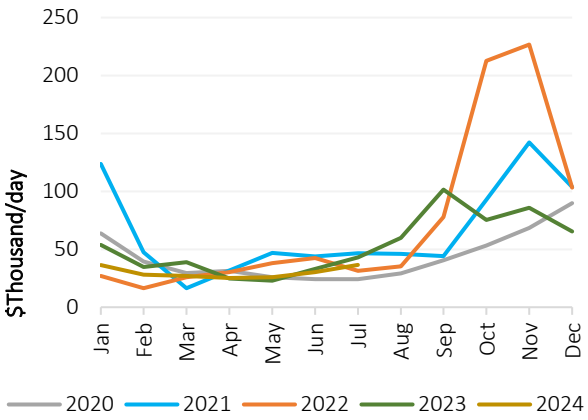
Source: GECF Secretariat based on data from ICIS LNG Edge

In July 2024, there was a 20% m-o-m increase in the monthly average spot charter rate for steam turbine LNG carriers, reaching $36,500 per day (Figure 92). Compared with the previous year, this monthly average charter rate was 15% lower y-o-y, but was similar to the level of the five-year average price for the month. The other segments of the global LNG carrier fleet also increased charter rates during the month. The average spot charter rate for TDFE vessels rose by 31% m-o-m to reach $59,600 per day, while the average spot charter rate for two-stroke vessels increased by 30% m-o-m to reach $78,800 per day.

There was a continuation of the trend of recent months, with just a few instances of movements in the daily charter rate during July 2024. For most of the month, vessel availability on the market remained high due to the delayed restart of full operations of the US's Freeport LNG export terminal, which contributed to keeping charter prices stable. On the other hand, demand for LNG cargoes picked up due to increasing temperatures in parts of Japan, which supported price gains.

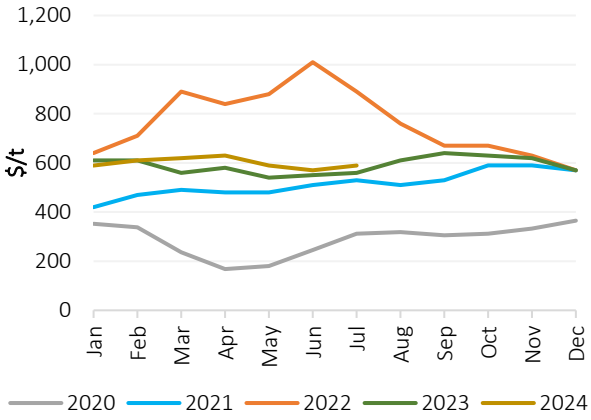
In July 2024, the average price of shipping fuels reached $590 per tonne, which was an increase of 4% m-o-m, and was also 5% higher y-o-y (Figure 93).

Figure 92: Average LNG spot charter rate



Source: GECF Secretariat based on data from Argus

Figure 93: Average price of shipping fuels

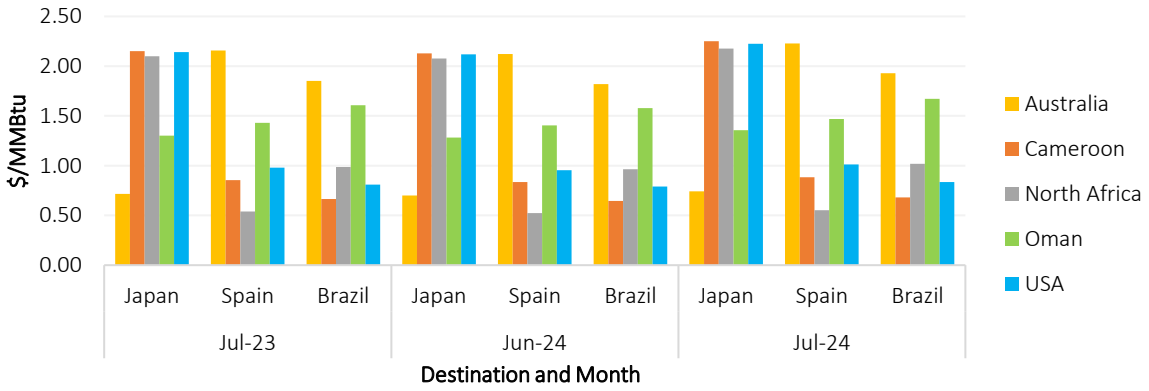


Source: GECF Secretariat based on data from Argus

In July 2024, there were increases in the average LNG carrier spot charter rate and in the cost of LNG shipping fuels compared with the previous month, along with a decrease in the delivered spot LNG prices. As a result, the net effect was an increase in the LNG spot shipping costs for steam turbine carriers relative to the previous month, by up to $0.20/MMBtu on certain routes (Figure 94).

When compared with one year ago, the cost of shipping fuels and the delivered spot LNG prices were higher in July 2024, while the monthly average spot charter rate was lower, which resulted in LNG shipping costs of up to $0.10/MMBtu higher than July 2023.

Figure 94: LNG spot shipping costs for steam turbine carriers



Source: GECF Shipping Cost Model

4.2.7 Other developments

Golar and PAE ink 20-year agreement for FLNG deployment in Argentina – On July 5, 2024, Golar LNG and Pan American Energy (PAE) signed a 20-year agreement to deploy a floating LNG (FLNG) vessel in Argentina. The project is expected to use the 2.45 Mtpa Hilli FLNG vessel, with an option to replace it with another FLNG. The vessel will process gas from Argentina's Vaca Muerta shale formation, with the first LNG exports slated for 2027. The project will be owned and operated by Southern Energy S.A., a joint venture between PAE (90%) and Golar (10%).

Hurricane Beryl significantly reduced output at the Freeport LNG facility – On July 8, 2024, Hurricane Beryl made landfall on the US Gulf Coast, significantly impacting production at the Freeport LNG facility. In July 2024, the facility exported only 0.56 Mt of LNG, a sharp decline

from 1.21 Mt in the same month the previous year. As a precaution, the Freeport LNG facility halted production on July 7, ahead of the hurricane's arrival. The hurricane caused minor damage to the facility's fin fan air coolers, necessitating repairs before operations could resume. By the end of July, all three production trains were back online.

ADNOC sells equity from Ruwais LNG to international partners – On July 10, 2024, Abu Dhabi National Oil Company (ADNOC) sold a 40% equity stake in the 9.6 Mtpa Ruwais LNG facility to international partners, while retaining a 60% majority stake in the project. BP, Mitsui & Co., Shell, and TotalEnergies each acquired a 10% equity stake. The Ruwais LNG project reached its final investment decision in June 2024 and is slated to become operational by 2028.

UAE increasing its LNG carrier fleet: The United Arab Emirates (UAE) is expanding the size of its LNG carrier fleet, with the announcement of an order of at least eight new LNG carriers. The shipbuilding orders were placed through the Logistics and Services (L&S) subsidiary of the state company ADNOC. South Korean shipyards Samsung Heavy Industries and Hanwha Ocean were awarded the contracts, which are worth $2.5 billion in total. These carriers are expected to have a capacity of 174,000 m3 each, and delivery will begin in 2028. The size of the ADNOC L&S fleet will therefore grow from 14 to at least 22 vessels.

In terms of LNG agreements, six contracts were signed in July 2024 (Table 1).

Table 1: New LNG sale agreements signed in July 2024

Contract Type	Exporting Country	Project	Seller	Importing Country	Buyer	Volume (Mtpa)	Duration (Years)
HoA	US	Texas LNG	Texas LNG			0.5	
SPA	Portfolio	Portfolio	Glencore Singapore	China	Shenzhen Energy	0.5-0.6	5-10
SPA	US	Portfolio	Shell	Portfolio	MET Group		10
SPA	Portfolio	Portfolio	Woodside Energy	Taiwan	CPC	0.6	10
HoA	UAE	Ruwais LNG	ADNOC	Portfolio	Shell	1	
HoA	UAE	Ruwais LNG	ADNOC	Portfolio	Mitsui	0.6	

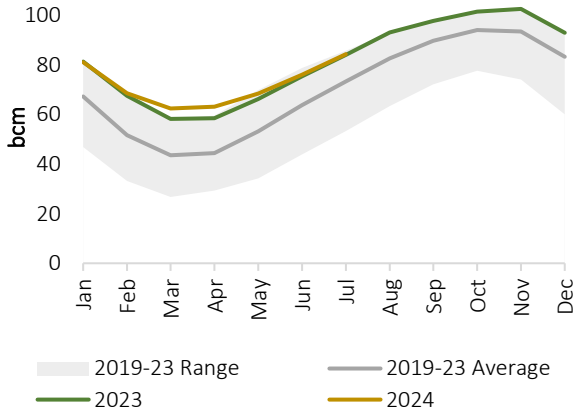
Source: GECF Secretariat based on Project Updates and News

5 Gas Storage

5.1 Europe

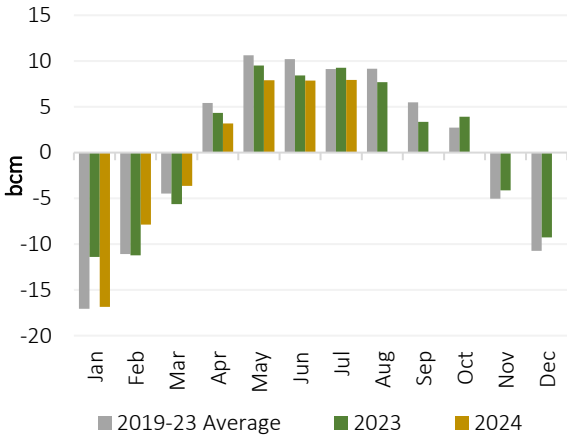
The restocking of gas storage sites continues in the countries of the EU. In July 2024, the average daily volume of gas in underground storage in the EU increased to 84.4 bcm, up from 76.1 bcm in the previous month (Figure 95). With this increase, the average capacity utilisation of UGS sites in the region now stands at 81%. In line with the trend of recent months, the average storage level in July 2024 was the second highest on record for that particular month. Moreover, the average monthly storage level was just 0.2 bcm higher than the average level of July 2023. In addition, there were 11.0 bcm more gas in storage in July 2024 than the five-year average for the month.

Figure 95: Monthly average UGS level in the EU



Source: GECF Secretariat based on data from AGSI+

Figure 96: Net gas injections in the EU

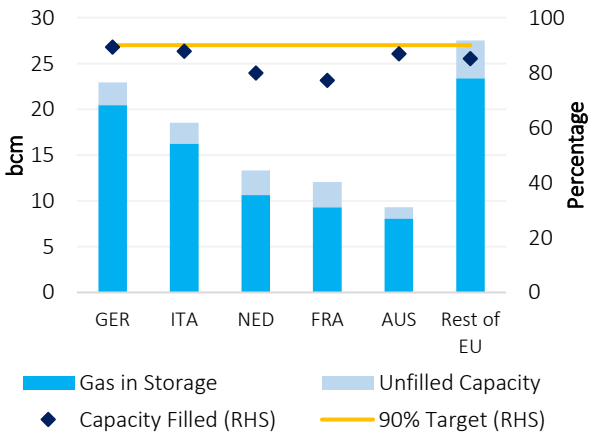


Source: GECF Secretariat based on data from AGSI+

In July 2024, there were 7.9 bcm of net gas injections in storage sites in the region, which was the same level of net gas injections during the previous two months (Figure 96). Of this volume, there were 8.6 bcm of gas injections and 0.7 bcm of gas withdrawals. Over the course of the net gas restocking season in the EU, an estimated 27.4 bcm of gas has been injected into underground gas storage sites in the region.

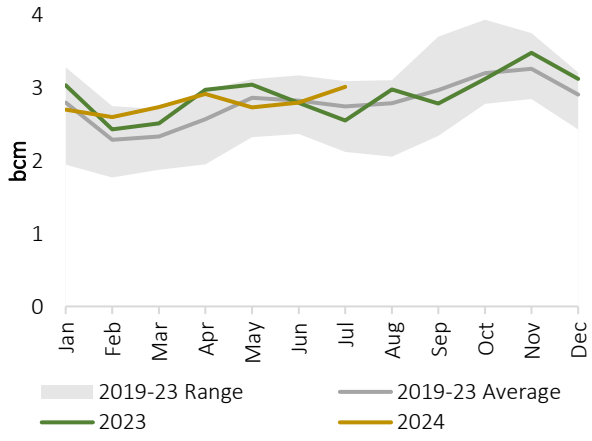
The average storage level in Germany, Italy and Austria reached close to the 90% mark by 30 July 2024 (Figure 97). In addition, the combined amount of LNG stored in the EU countries reached 3.0 bcm in July 2024, which was an increase of 18% y-o-y, as well as being 10% higher than the five-year historical average for that month (Figure 98).

Figure 97: UGS in EU countries as of July 30, 2024



Source: GECF Secretariat based on data from AGSI+

Figure 98: Total LNG storage in the EU



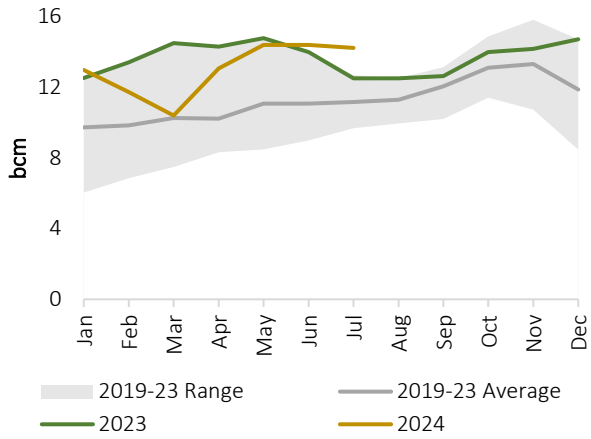
Source: GECF Secretariat based on data from ALSI

5.2 Asia

In July 2024, the combined volume of LNG in storage in Japan and South Korea was estimated to be 14.2 bcm, which was 14% higher y-o-y, and also 3.1 bcm greater than the five-year average for the month (Figure 99).

In recent months, both countries have been replenishing LNG stocks, in anticipation of summer cooling demand, which traditionally is highest in July and August in the region. The combined LNG storage level in July was 1% lower m-o-m, with storage in Japan and South Korea accounting for 7.4 bcm and 6.9 bcm respectively.

Figure 99: LNG in storage in Japan and South Korea



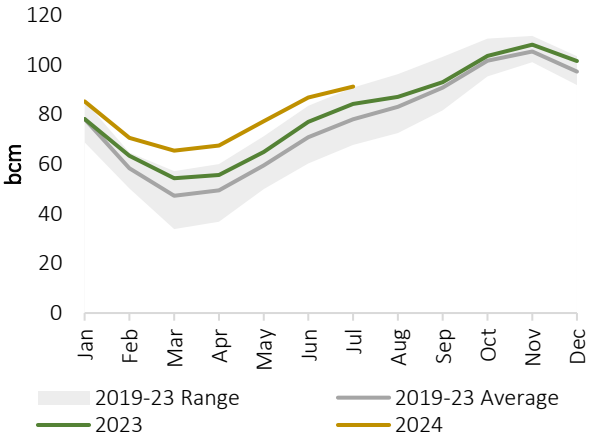
Source: GECF Secretariat based on data from Refinitiv

5.3 North America

The US is also experiencing the net gas injection season, and the average daily volume of gas in storage in July 2024 increased to 91.2 bcm, up from 86.8 bcm in the previous month (Figure 100). The average capacity utilisation of the UGS sites in the US reached 68%. The rate of net gas injections in the US slowed compared to the month before, as the total storage level continues to trend above the five-year range.

There was 7.0 bcm more gas in storage than one year ago, and 13.1 bcm more than the five-year average. The total gas stored during the 2024 restocking season in the US thus far has reached 27.9 bcm.

Figure 100: Monthly average UGS level in the US



Source: GECF Secretariat based on data from US EIA

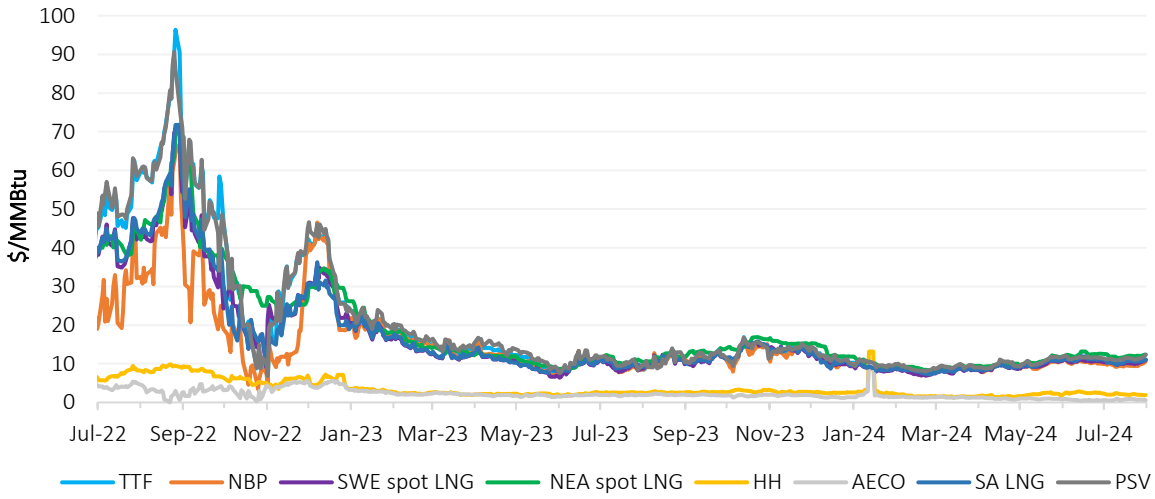
6 Energy Prices

6.1 Gas prices

6.1.1 Gas & LNG spot prices

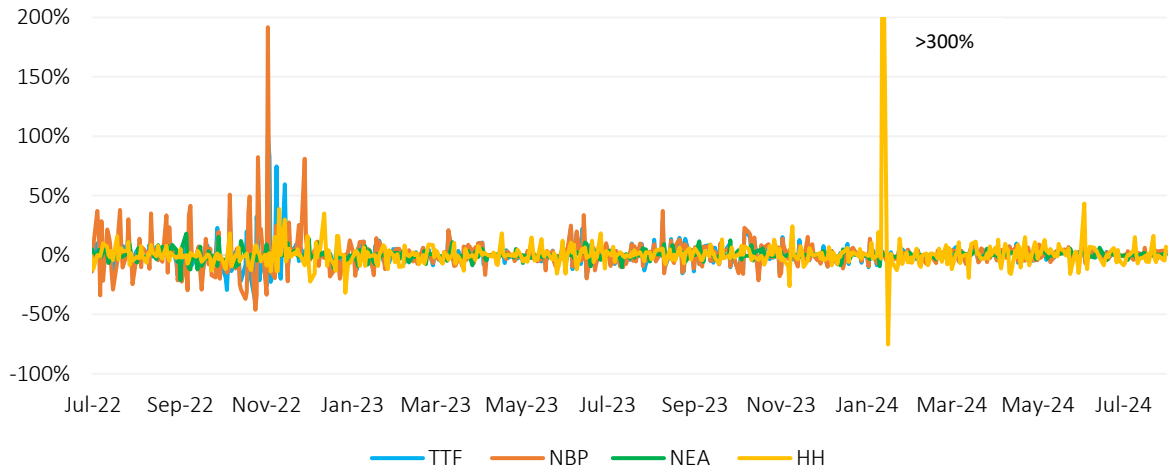
In July 2024, gas and LNG spot prices in Europe and Asia declined after a four-month rally, with volatility remaining relatively low (Figure 101 and Figure 102). The downward trend was driven by subdued demand and ample supply in both regions. Although concerns over the return of Freeport LNG supply added some bullish sentiment, they did not significantly impact prices. In the coming months, expectations of above-normal temperatures may increase gas demand for cooling, potentially supporting prices. However, high gas storage levels and robust LNG supply may temper any price gains.

Figure 101: Daily gas & LNG spot prices



Source: GECF Secretariat based on data from Argus and Refinitiv Eikon
Note: SA LNG price is an average of the LNG delivered prices for Argentina, Brazil and Chile based on Argus assessment.

Figure 102: Daily variation of spot prices

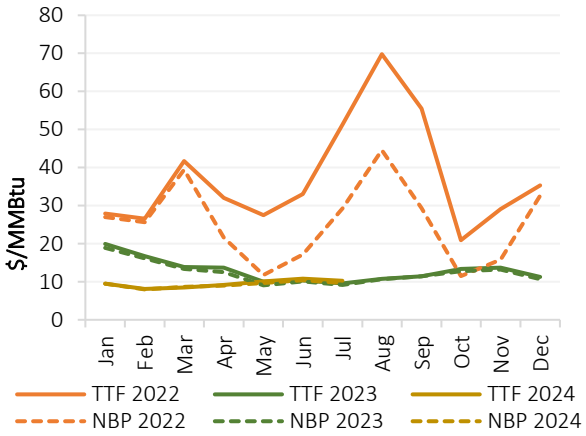


Source: GECF Secretariat based on data from Argus and Refinitiv Eikon

6.1.1.1 European spot gas and LNG prices

In July 2024, TTF spot gas prices averaged $10.24/MMBtu, reflecting a 5% decrease m-o-m and a 7% increase y-o-y. In addition, NBP spot prices averaged $9.68/MMBtu, reflecting a 7% decrease m-o-m and a 6% increase y-o-y (Figure 103). The SWE spot LNG prices averaged $10.22/MMBtu in July 2024 (5% decrease m-o-m and 11% increase y-o-y). In addition, the PSV spot price averaged $11.31/MMBtu (2% decrease m-o-m and 9% increase y-o-y).

Figure 103: Monthly European spot gas prices



Source: GECF Secretariat based on data from Refinitiv Eikon

European gas and LNG spot prices declined after a four-month rally, driven by robust supply and muted demand. Consistent storage injections across the region exerted downward pressure on spot prices. Norwegian supply remained steady with minimal outages and maintenance activities compared to previous months. Although uncertainties surrounding the restart of Freeport LNG trains, shut down as a precaution ahead of Hurricane Beryl's landfall, and an extended outage at France's Montoir regasification terminal added some bullish sentiment, overall bearish conditions prevailed. As a result, daily TTF spot prices fell below $10/MMBtu during this period.

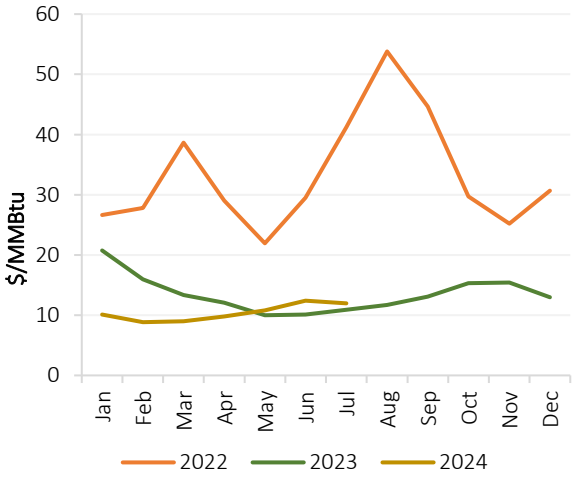
For the period January to July 2024, TTF and NBP averaged $9.49/MMBtu and $9.27/MMBtu, respectively, representing substantial declines of 29% and 22% y-o-y, respectively.

6.1.1.2 Asian spot LNG prices

In July 2024, the average Northeast Asia (NEA) spot LNG price experienced a 3% decline m-o-m, reaching an average of $11.99/MMBtu. This represented a 10% increase y-o-y (Figure 104).

Asian LNG prices inched down after climbing steadily for four consecutive months, primarily due to subdued demand and ample supply in the region. While concerns over the return of Freeport LNG supply added some bullish sentiment, they did not significantly impact prices. As a result, daily NEA spot LNG prices fell below $12/MMBtu during this period.

Figure 104: Monthly Asian spot LNG prices



Source: GECF Secretariat based on data from Argus and Refinitiv Eikon

For the period January to July 2024, the average NEA spot LNG price stood at $10.42/MMBtu, representing a decline of 22% y-o-y.

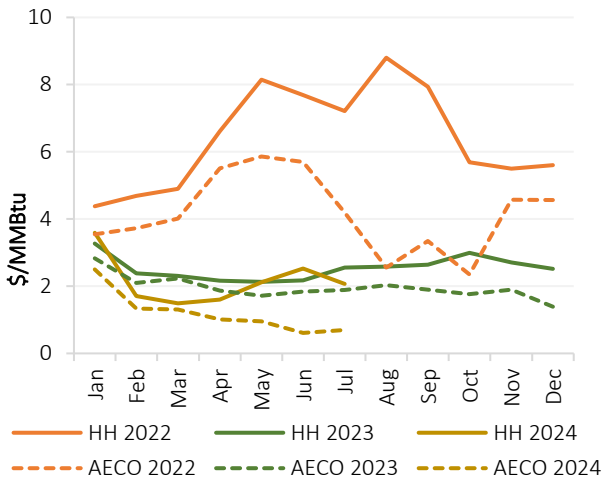
6.1.1.3 North American spot gas prices

In July 2024, the HH spot gas price averaged $2.07/MMBtu, reflecting a sharp decline of 18% m-o-m. Additionally, it was 19% lower than the average price of $2.55/MMBtu observed in July 2023 (Figure 105).

Henry Hub prices plummeted following a five-month climb, primarily due to increased gas production and high storage levels, which were around 8% higher y-o-y. As a result, daily HH spot prices fell below $2/MMBtu during this period.

Meanwhile, in Canada, the AECO spot price averaged $0.70/MMBtu in July 2024, reflecting a 15% increase m-o-m and a 63% decrease y-o-y. Despite an increase compared to previous months, strong gas production continued to weigh on prices. Consequently, daily AECO spot prices remained below $1/MMBtu.

Figure 105: Monthly North American spot gas prices



Source: GECF Secretariat based on data from Argus and Refinitiv Eikon

For the period January to July 2024, the HH spot price averaged $2.16/MMBtu, representing an 11% decline y-o-y. Meanwhile, the AECO spot price averaged $1.20/MMBtu, marking a 42% decrease y-o-y.

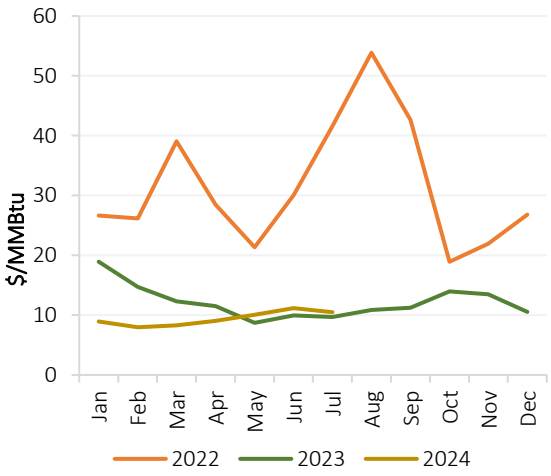
6.1.1.4 South American spot LNG prices

In July 2024, the South American (SA) LNG price experienced a 11% m-o-m increase, averaging $10.49/MMBtu. Additionally, the SA LNG price was 8% higher compared to the average price of $9.70/MMBtu observed in July 2023 (Figure 106).

LNG spot prices in South America continued to align with the trends observed in European and Asian spot prices. The average delivered prices for LNG in Argentina, Brazil and Chile averaged $10.52/MMBtu, $10.23/MMBtu and $10.73/MMBtu, respectively.

For the period January to July 2024, the SA LNG spot price averaged $9.43/MMBtu, representing a decline of 23% y-o-y.

Figure 106: Monthly South American spot LNG prices



Source: GECF Secretariat based on data from Argus
Note: SA LNG price is an average of the LNG delivered prices for Argentina, Brazil and Chile based on Argus assessment

6.1.2 Spot and oil-indexed long-term LNG price spreads

In July 2024, the average Oil-indexed I LNG price was $12.98/MMBtu, reflecting a 1% increase m-o-m and 5% increase y-o-y. Similarly, the Oil-indexed II LNG price averaged $10.12/MMBtu, reflecting a 1% decrease m-o-m and a 10% increase y-o-y (Figure 107). Furthermore, Oil-indexed I prices traded at a marginal premium of $1/MMBtu over NEA spot LNG prices. Additionally, Oil-indexed II prices showed a discount of $2/MMBtu over the NEA spot LNG prices.

In Europe, the Oil-indexed III price averaged $8.25/MMBtu in July 2024, remaining at the same level as the previous month, but representing a 1% decline y-o-y (Figure 108). Moreover, the average Oil-indexed III price held a discount of $2/MMBtu over the average SWE LNG price.

From January to July 2024, the Oil-indexed I LNG price exhibited a 2% decrease y-o-y, while the Oil-indexed II LNG price showed a 4% increase y-o-y. Additionally, the Oil-indexed III LNG price for the same period reflected a 6% decrease y-o-y.

Figure 107: Asia: Spot and oil-indexed price spread

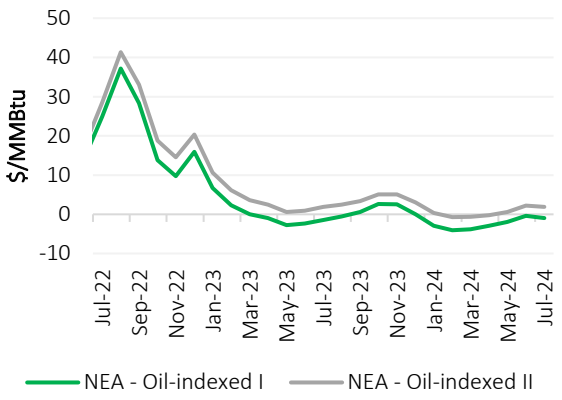
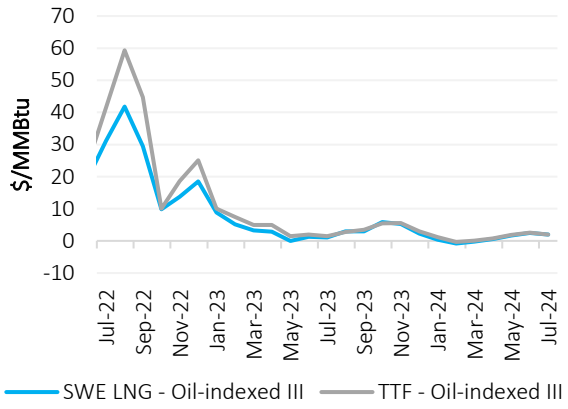


Figure 108: Europe: Spot and oil-indexed price spread



Source: GECF Secretariat based on data from Argus and Refinitiv Eikon
Note: Oil-indexed I LNG prices are calculated using the traditional LTC slope (14.9%) and 6-month historical average of Brent. Oil-indexed II LNG prices are calculated using the 5-year historical average LTC slope (11.4% for 2024) and 3-month historical average of Brent. Oil-indexed III LNG prices are based on Argus' assessment for European oil-indexed long-term LNG prices.

6.1.3 Regional spot gas & LNG price spreads

In July 2024, the NEA-TTF price spread remained positive, increasing compared to the previous month. The average premium of NEA LNG spot price over the average TTF spot price was $1.75/MMBtu (Figure 109).

NBP continued to trade at a discount to TTF, averaging $0.56/MMBtu in July 2024 (Figure 110). The negative NBP-TTF spread reflected a loosening UK gas market balance, with increased pipeline gas flows from the UK to Northwest Europe.

Furthermore, the spread between NWE LNG and TTF was negligible, indicating increasingly lower utilisation at regasification terminals in the region (Figure 111). The NWE LNG-SA LNG price spread was negative, averaging -$0.27/MMBtu (Figure 112). Meanwhile, the NEA-HH and TTF-HH spreads both widened to $9.92/MMBtu and $8.17/MMBtu, respectively (Figure 113 and Figure 114). The premium of Asian spot prices over North American spot prices increased compared to the previous month, while the premium of European spot prices declined slightly.

Figure 109: NEA-TTF price spread

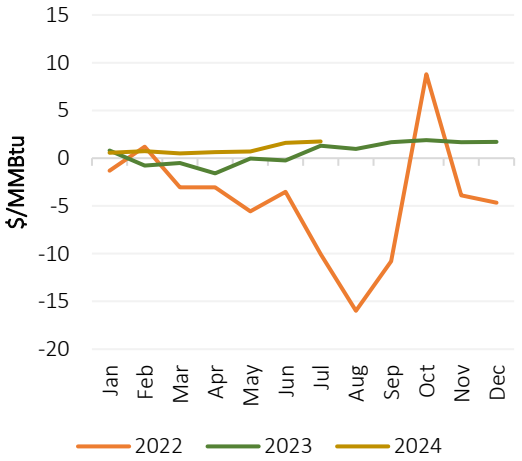


Figure 110: NBP-TTF price spread

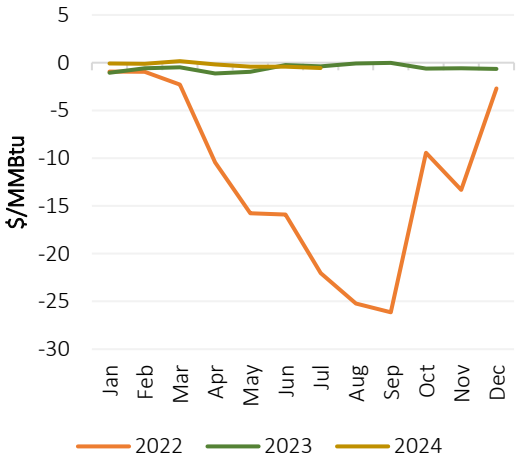


Figure 111: NWE LNG-TTF price spread

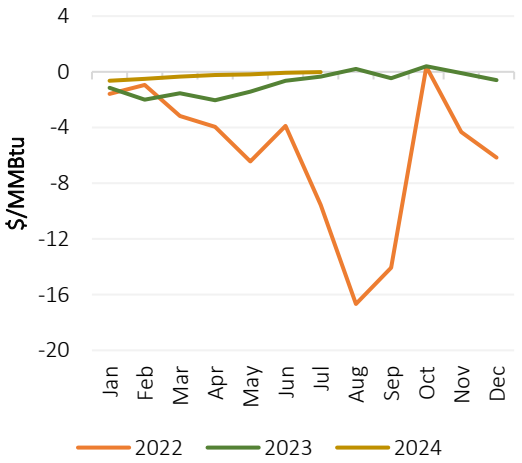


Figure 112: NWE LNG – SA LNG price spread

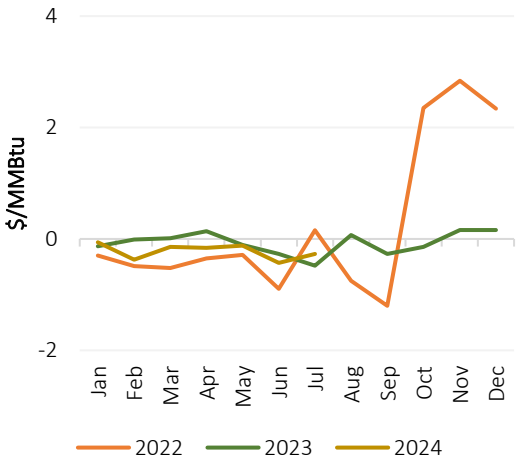


Figure 113: NEA-HH price spread

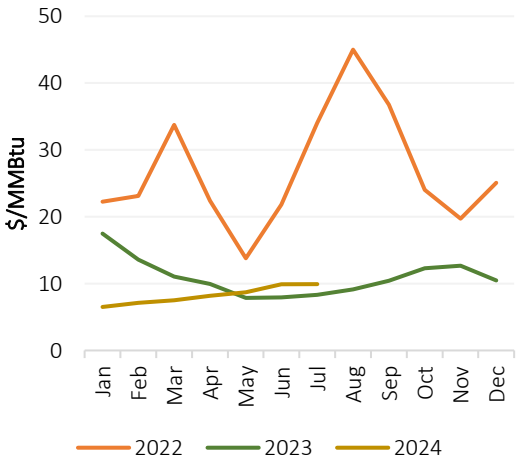
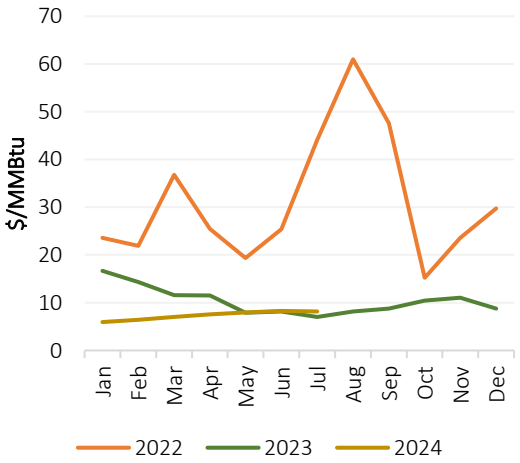


Figure 114: TTF-HH price spread



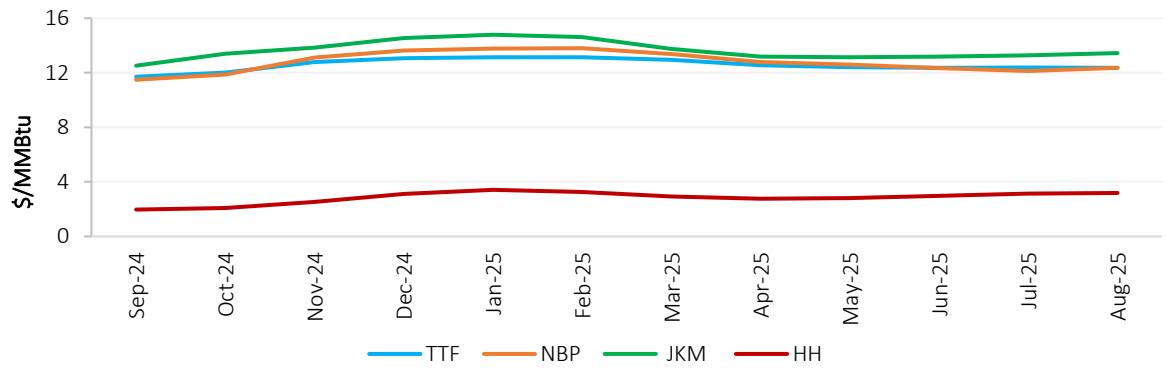
Source: GECF Secretariat based on data from Argus and Refinitiv Eikon

6.1.4 Gas & LNG futures prices

For the six-month period spanning September to February 2024, the JKM-TTF futures price spread is expected to be positive, indicating that Asian LNG prices are likely to maintain a premium over European spot prices. During this period, JKM is expected to trade at a premium of above $1/MMBtu compared to TTF. Additionally, the NBP-TTF spread is expected to be slightly negative in September and October 2024, with TTF expected to maintain an average premium of $0.2/MMBtu over NBP spot prices (Figure 115).

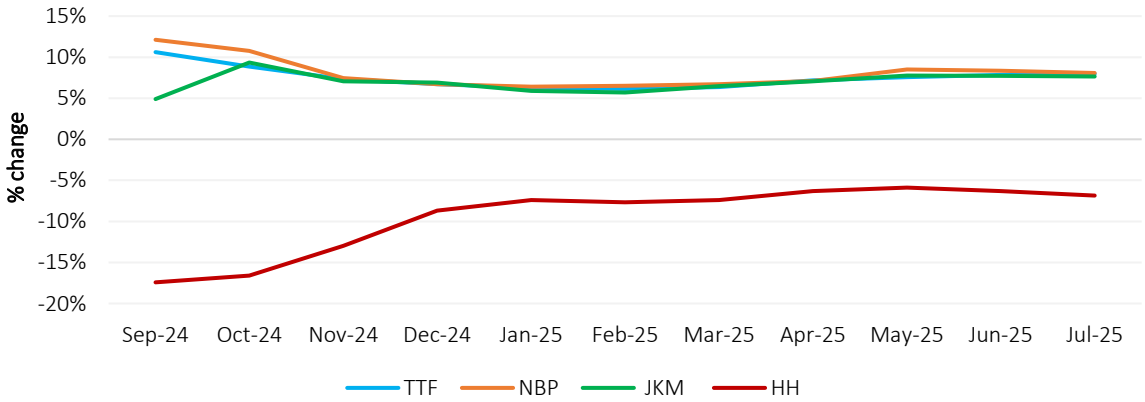
Moreover, as of August 4, 2024, the average futures prices for TTF, NBP and JKM during the same six-month period are $12.64/MMBtu, $12.95/MMBtu and $13.95/MMBtu, respectively. Furthermore, gas and LNG futures prices for TTF, NBP and JKM for the six-month period from September to February 2024, (as of August 4, 2024) are higher than the futures prices expectations considered on July 9, 2024 (as reported in the GECF MGMR June 2024). Additionally, the average Henry Hub futures price is $2.73/MMBtu, which is lower than previous expectations (Figure 116).

Figure 115: Gas & LNG futures prices



Source: GECF Secretariat based on data from Refinitiv Eikon
Note: Futures prices as of August 4, 2024.

Figure 116: Variation in gas & LNG futures prices



Source: GECF Secretariat based on data from Refinitiv Eikon
Note: Comparison with the futures prices as of July 6, 2024, as reported in GECF MGMR July 2024.

6.2 Cross commodity prices

6.2.1 Oil prices

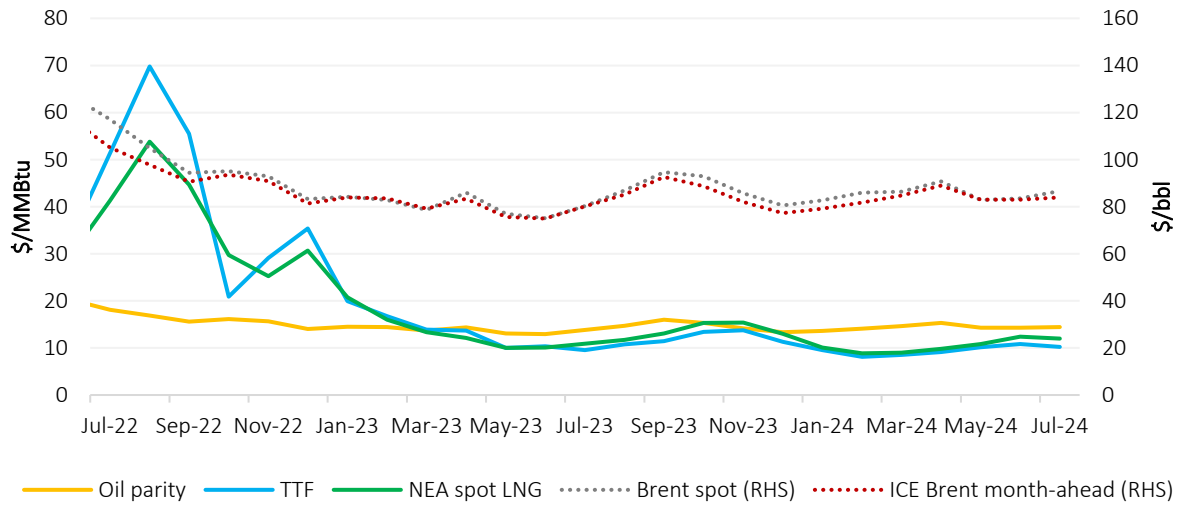
In July 2024, the average Brent spot price was $86.63/bbl, reflecting increases of 4% m-o-m and 8% y-o-y (Figure 117). The Brent month-ahead price averaged $83.88/bbl, reflecting increases of 1% m-o-m and 5% y-o-y.

The increase in oil prices was influenced by concerns over potential supply disruptions in the US due to Hurricane Beryl, escalating geopolitical tensions in the Middle East, and rising demand. However, price gains were limited by concerns over lower oil imports from China.

Furthermore, in July 2024, TTF spot prices maintained a discount of $4/MMBtu to the oil parity price. Similarly, NEA LNG spot prices maintained a discount of $2/MMBtu to the oil parity price.

From January to July 2024, the average Brent spot price was $85.54/bbl, representing a 6% increase y-o-y. Similarly, the average Brent month-ahead price was $83.49/bbl, representing a 4% increase y-o-y.

Figure 117: Monthly crude oil prices



Source: GECF Secretariat based on data from Argus and Refinitiv Eikon
Note: Conversion factor of 5.8 was used to calculate the oil parity price in $/MMBtu based on the ICE Brent month-ahead price.

6.2.2 Coal prices

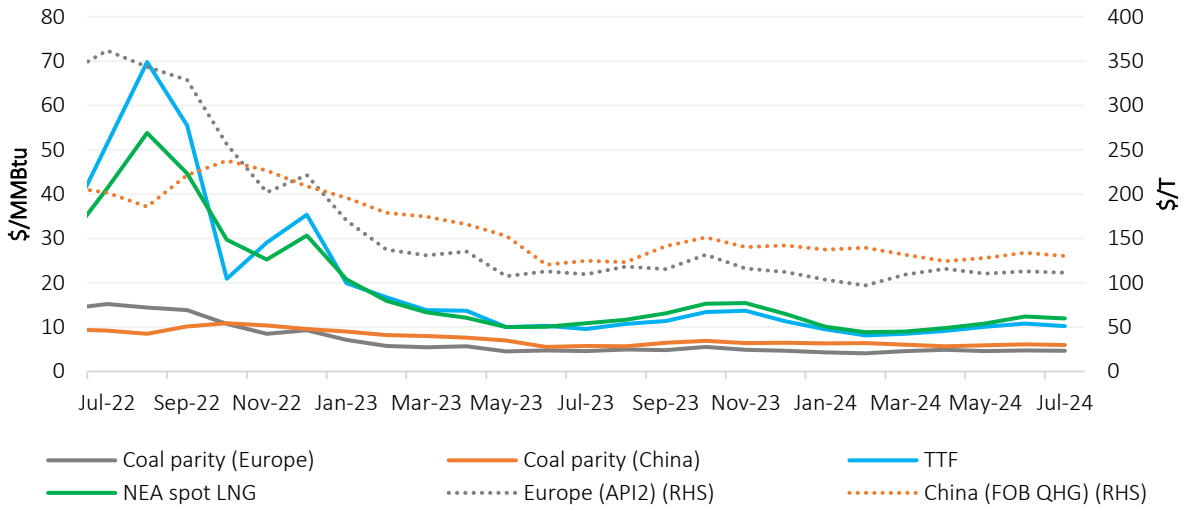
In July 2024, the European coal price (API2) averaged $111.52/T, reflecting a 1% decrease m-o-m and a 2% increase y-o-y. Meanwhile, in China, the QHG coal price averaged $130.37/T, reflecting a 3% decrease m-o-m and a 4% increase y-o-y (Figure 118).

European coal prices decreased, mirroring the bearish movement of TTF spot prices. Weak coal demand in the region persisted as gas-fired generation remained more competitive. Additionally, in China, coal prices also declined.

The premium of TTF spot price over the API2 parity price increased to $6/MMBtu in July 2024. Additionally, the premium of NEA spot LNG price over the QHG parity price increased to $6/MMBtu.

From January to July 2024, the European API2 averaged $108.54/T, representing a 16% decrease y-o-y. Meanwhile, the Chinese QHG price averaged $132.19/T, reflecting a 17% decline y-o-y.

Figure 118: Monthly coal parity prices



Source: GECF Secretariat based on data from Argus and Refinitiv Eikon
Note: Conversion factors of 23.79 and 21.81 were used to calculate the coal prices in $/MMBtu for Europe (API2) and China (QHG) respectively.

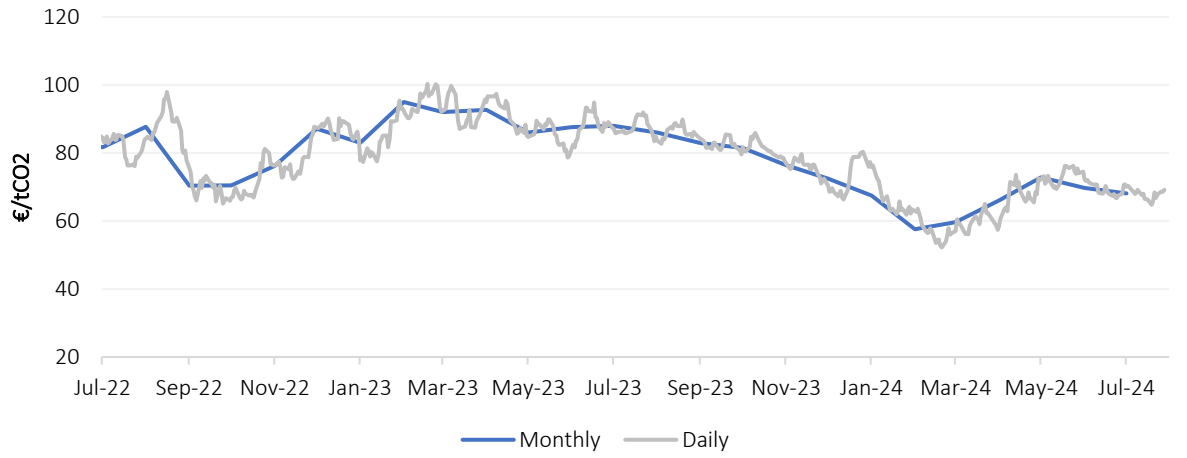
6.2.3 Carbon prices

In July 2024, EU carbon prices averaged €68.17/tCO_2, reflecting declines of 2% m-o-m and 23% y-o-y (Figure 119).

EU carbon prices declined for the second consecutive month, driven by softening demand for EU allowances. This decline was influenced by healthy wind and solar output combined with moderate cooling demand in the region.

For the period January to July 2024, EU carbon prices averaged €65.92/tCO2, representing a decline of 26% y-o-y.

Figure 119: EU carbon prices

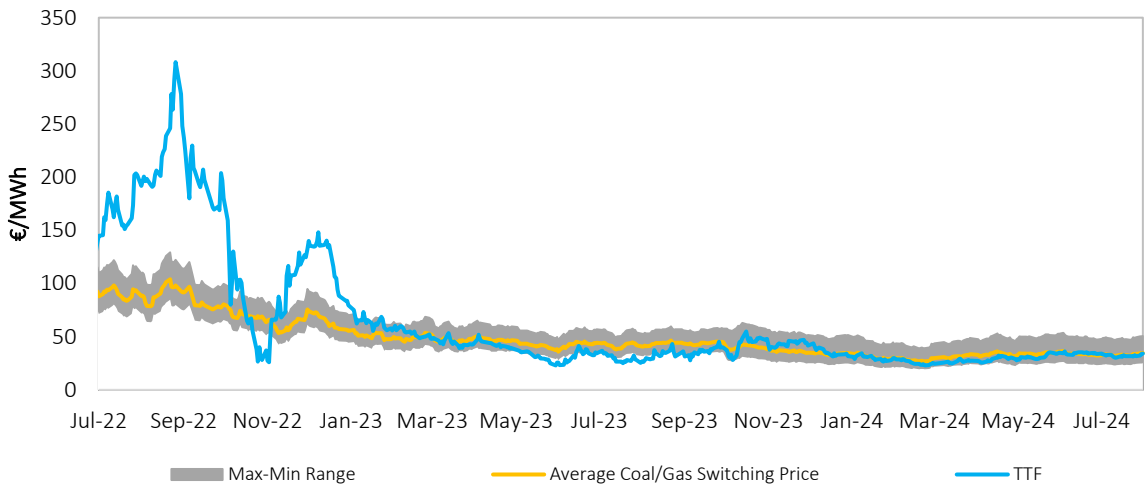


Source: GECF Secretariat based on data from Refinitiv Eikon

6.2.4 Fuel switching

In July 2024, daily TTF spot prices remained within the range that is favourable for coal-to-gas switching. The average coal-to-gas switching price experienced a decrease of 2% m-o-m to reach €32.96/MWh. Notably, the average monthly spread between the TTF spot price and the coal-to-gas switching price turned slightly negative, averaging -€1/MWh (Figure 120). Looking ahead to September 2024, the TTF spot price is likely to remain within the coal-to-gas switching range.

Figure 120: Daily TTF vs coal-to-gas switching prices



Source: GECF Secretariat based on data from Refinitiv Eikon
Note: Coal-to-gas switching price is the price of gas at which generating electricity with coal or gas is equal. The estimate takes into consideration coal prices, CO_2 emissions prices, operation costs and power plant efficiencies. The efficiencies considered for gas plants are max: 56%, min: 46%, avg: 49.13%. The efficiencies considered for coal plants are max: 40%, min: 34%, avg: 36%.

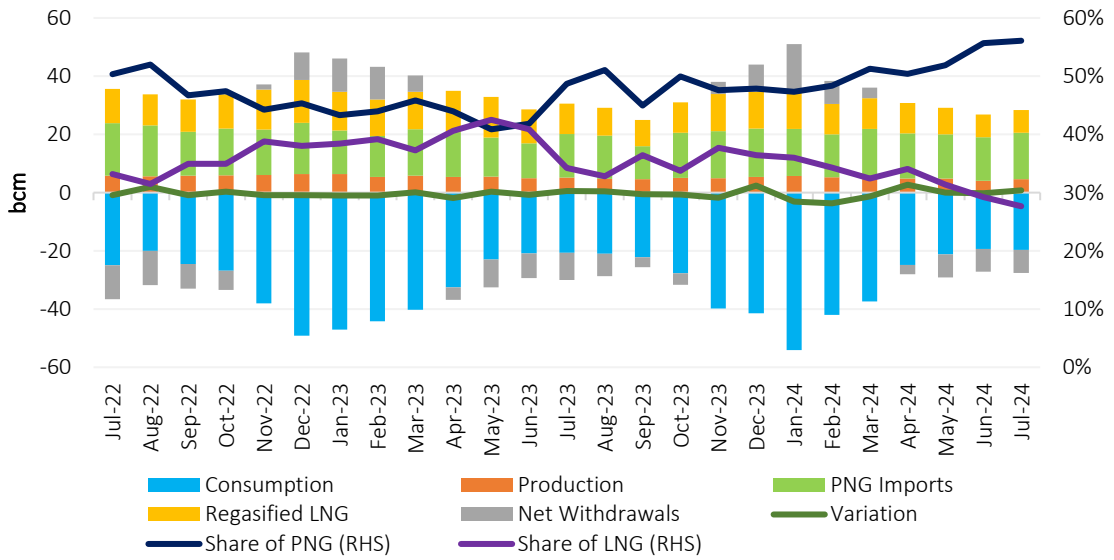
Annexes

Gas Balance

1) EU + UK

In July 2024, the share of regasified LNG in the combined gas supply of the EU and UK sub-region decreased to 28%, down slightly from 29% in June 2024, and significantly lower than the 34% recorded in July 2023. Meanwhile, the share of pipeline gas imports remained stable compared to June 2024 at 56% but saw a notable increase from 49% a year earlier (Figure 121). The m-o-m rise in pipeline gas imports and domestic gas production, along with stable regasified LNG send-out, contributed to the increase in the share of pipeline gas imports and the slight decline in the share of regasified LNG. On a y-o-y basis, the higher share of pipeline gas imports was due to a substantial increase in these imports, while the drop in regasified LNG send-out led to its reduced share.

Figure 121: EU + UK monthly gas balance



Note: Variation refers to losses and statistical differences
Source: GECF Secretariat based on data from AGSI+, JODI Gas and Refinitiv

Table 2 below provides data on the gas supply and demand balance for the EU + UK for the month of July 2024.

Table 2: EU + UK gas supply/demand balance for July 2024 (bcm)

	2023	Jul-23	Jul-24	YTD 2023	YTD 2024	Change* y-o-y	Change** 2024/2023
(a) Gas Consumption	380.85	20.70	19.70	228.60	218.55	-5%	-4%
(b) Gas Production	63.46	5.21	4.61	38.62	34.62	-11%	-10%
Difference (a) - (b)	317.39	15.50	15.09	189.98	183.93	-3%	-3%
PNG Imports	174.88	14.89	15.91	100.57	109.04	7%	8%
Regasified LNG	143.59	10.46	7.85	89.06	68.57	-25%	-23%
Net Withdrawals	-4.86	-9.27	-7.94	-3.32	1.46	-14%	-144%
Variation	3.78	-0.59	-0.72	3.67	4.87		

Source: GECF Secretariat based on data from AGSI+, JODI Gas and Refinitiv
(*): y-o-y change for July 2024 compared to July 2023
(**): y-o-y change for YTD 2024 compared to YTD 2023

2) OECD

Table 3 below provides data on the gas supply and demand balance for all OECD countries, including OECD Americas, OECD Asia Oceania and OECD Europe for the month of May 2024.

Table 3: OECD's gas supply/demand balance for May 2024 (bcm)

	2023	May-23	May-24	YTD 2023	YTD 2024	Change* y-o-y	Change** 2024/2023
(a) OECD Gas Consumption	1770.0	123.2	121.6	787.9	785.0	-1.3%	-0.4%
(b) OECD Gas Production	1700.0	141.3	140.1	704.3	708.9	-0.8%	0.7%
Difference (a) - (b)	70.0	-18.1	-18.6	83.6	76.1	2.8%	-9.0%
OECD LNG Imports	329.9	26.2	23.2	150.0	134.2	-11.7%	-10.6%
LNG Imports from GECF	140.8	11.4	10.3	64.8	57.1	-9.4%	-11.9%
LNG Imports from Non-GECF	189.1	14.9	12.9	85.2	77.1	-13.4%	-9.5%
OECD LNG Exports	238.4	19.2	19.9	98.9	101.3	3.7%	2.5%
Intra-OECD LNG Trade	154.9	12.7	9.9	69.0	63.2	-21.9%	-8.4%
OECD Pipeline Gas Imports	499.0	44.7	39.0	223.0	204.9	-12.6%	-8.1%
OECD Pipeline Gas Exports	479.8	43.5	38.2	213.7	193.3	-12.2%	-9.6%
Stock Changes and losses	40.7	26.3	22.7	-23.2	-31.6		

Source: GECF Secretariat based on data from ICIS LNG Edge and IEA Monthly Gas Statistics
(*): y-o-y change for May 2024 compared to May 2023
(**): y-o-y change for YTD 2024 compared to YTD 2023

3) India

Table 4 below provides data on the gas supply and demand balance for India for the month of June 2024.

Table 4: India's gas supply/demand balance for June 2024 (bcm)

	2023	Jun-23	Jun-24	H1 2023	H1 2024	Change* y-o-y	Change** 2024/2023
(a) India Gas Consumption	62.15	5.22	5.59	30.79	33.24	7.1%	7.9%
(b) India Gas Production	35.09	2.84	2.95	16.75	17.95	3.6%	7.2%
Difference (a) - (b)	27.06	2.38	2.65	14.04	15.28	11.3%	8.8%
India LNG Imports	30.27	2.42	3.54	14.26	18.40	46.5%	29.0%
LNG Imports from GECF	23.57	1.93	1.95	11.52	13.31	1.0%	15.6%
LNG Imports from Non-GECF	6.70	0.49	1.59	2.74	5.09	227.4%	85.8%
Stock Changes and losses	3.21	0.04	0.89	0.22	3.12		

Source: GECF Secretariat based on data from ICIS LNG Edge and India's PPAC
(*): y-o-y change for June 2024 compared to June 2023
(**): y-o-y change for H1 2024 compared to H1 2023

Abbreviations

Abbreviation	Explanation
AE	Advanced Economies
AECO	Alberta Energy Company
bcm	Billion cubic metres
bcma	Billion cubic metres per annum
bcm/yr	Billion cubic metres per year
CBAM	Carbon Border Adjustment Mechanism
CBM	Coal bed methane
CCS	Carbon, Capture and Storage
CCUS	Carbon Capture, Utilization and Storage
CDD	Cooling Degree Days
CNG	Compressed Natural Gas
CO_2	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
CPI	Consumer Price Index
DOE	Department of Energy
EC	European Commission
ECB	European Central Bank
EEXI	Energy Efficiency Existing Ship Index
EMDE	Emerging Markets and Developing Economies
EU	European Union
EU ETS	European Union Emissions Trading Scheme
EUA	European Union Allowance
Fed	Federal Reserve
FID	Final Investment Decision
FSU	Floating Storage Unit
FSRU	Floating Storage Regasification Unit

G7	Group of Seven
GDP	Gross Domestic Product
GECF	Gas Exporting Countries Forum
GHG	Greenhouse Gas
HDD	Heating Degree Days
HH	Henry Hub
IEA	International Energy Agency
IMF	International Monetary Fund
IMO	International Maritime Organization
JKM	Japan Korea Marker
LNG	Liquefied Natural Gas
LAC	Latin America and the Caribbean
LT	Long-term
MMBtu	Million British thermal units
mmcm	Million cubic metres
MENA	Middle East and North Africa
METI	Ministry of Trade and Industry in Japan
m-o-m	month-on-month
Mt	Million tonnes
Mtpa	Million tonnes per annum
MWh	Megawatt hour
NEA	North East Asia
NBP	National Balancing Point
NDC	Nationally Determined Contribution
NGV	Natural Gas Vehicle
NZBA	Net-Zero Banking Alliance
OECD	Organization for Economic Co-operation and Development
PNG	Pipeline Natural Gas

PPAC	Petroleum Planning & Analysis Cell
PSV	Punto di Scambio Virtuale (Virtual Trading Point in Italy)
QHG	Qinhuangdao
R-LNG	Regasified LNG
SA	South America
SPA	Sales and Purchase Agreement
SWE	South West Europe
T&T	Trinidad and Tobago
TANAP	Trans-Anatolian Natural Gas Pipeline
TCFD	Task Force on Climate-Related Financial Disclosure
Tcm	Trillion cubic metres
tCO2	Tonne of carbon dioxide
TTF	Title Transfer Facility
TWh	Terawatt hour
UGS	Underground Gas Storage
UAE	United Arab Emirates
UK	United Kingdom
UQT	Upward Quantity Tolerance
US	United States
y-o-y	year-on-year

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