Argus Global Gas Markets

Gas and LNG markets, projects and infrastructure

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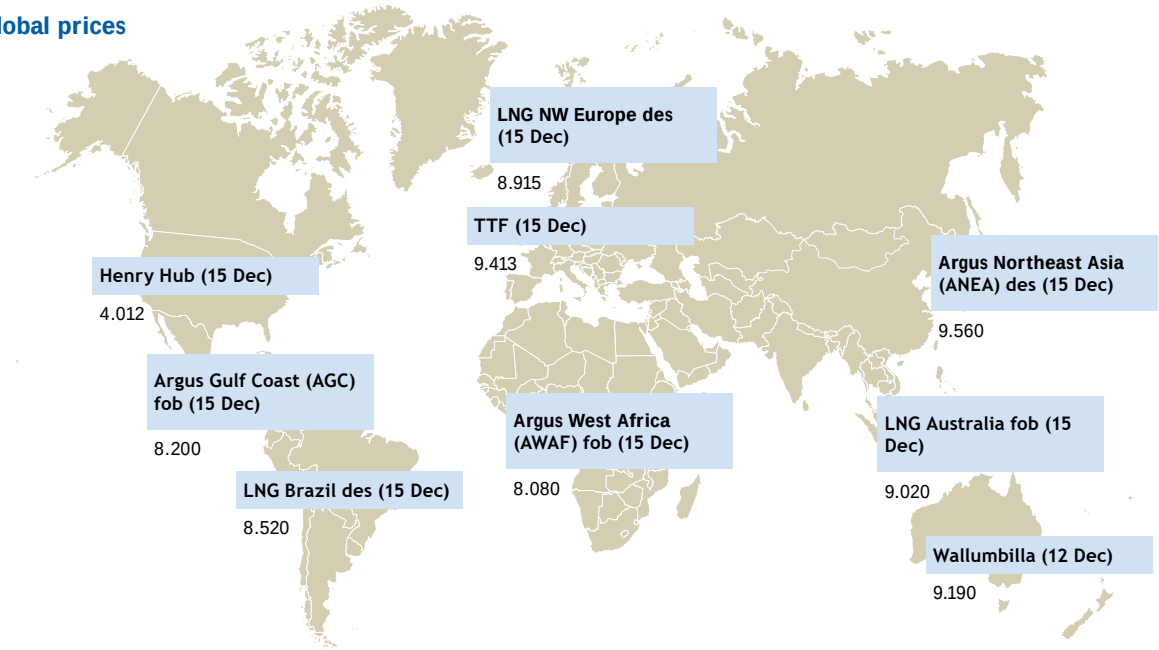
Key global prices

$/mn Btu



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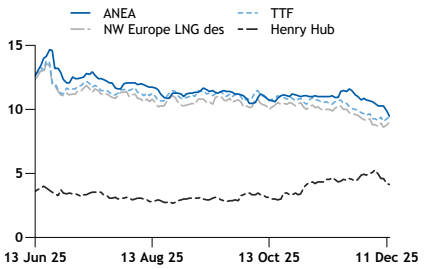

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Executive summary

At a recent LNG industry event in Istanbul there was a palpable change of mood compared with previous editions. The sea change in the US administration's policies, particularly regarding the energy transition, has left Europe isolated and forced it to backtrack on some of its climate proposals. The industry remains committed to slashing methane emissions, and it continues to engage with the European Commission to define the regulatory framework. But beneath the surface, relations remain tense (*p2*).

Turkey signed more LNG deals this month, underpinning a shift in its procurement strategy, now focused on seaborne supplies — even though state-owned firm Botas secured a one-year extension of its Russian pipeline gas contracts and is seeking to extend other pipeline deals with Iran and Turkmenistan (*pp3-5*). The new Czech government, while ideologically aligned with neighbouring Slovakia and Hungary, is unlikely to side with them in challenging the EU's Russian gas phase-out plans. But its policies may support gas demand in the country (*p6-7*). The UK government has put in motion a series of regulatory initiatives that could reshape the country's gas market from next year (*pp7-8*). And Italy plans to sell some of the gas bought and stored in 2022 to fund its controversial liquidity service (*p9*).

The LNG freight market could be tighter later this decade, as the current orderbook of newbuild LNG carriers is not sufficient to accommodate the planned increase in liquefaction capacity (*p10*). In northeast Asia, rising tensions in the East and South China seas pose risks for security of supply in Japan and South Korea (*p11*). And Papua New Guinea could see its second LNG export project reaching a final investment decision early next year (*p12*).

EDITORIAL

Gone quiet?

Europe is finding itself increasingly out of sync with the rest of the world regarding the transition away from fossil fuels

In the opening panel of the world LNG summit in Istanbul earlier this month, Abu Dhabi state-owned Adnoc Gas' senior vice-president for marketing, Rashid al Mazrouei, reminded the audience of the importance of the energy transition, as he argued the debate on that topic "has gone a bit quiet".

Indeed, 2025 did not yield major breakthroughs on policies aimed at accelerating decarbonisation. For the second year in a row, fossil fuels did not feature in the final text of the UN Cop summit, held in Brazil last month. And a Brazilian government proposal to commit to the creation of a roadmap on shifting away from fossil fuels was eventually left out of the final deal, although Brasilia pledged to continue pursuing the plan outside of the Cop framework. The International Maritime Organisation (IMO) voted in October to delay for a year a decision on its net-zero framework, after failing to reach a consensus on the proposed measures. And earlier this month the EU watered down its proposed sustainability reporting and due diligence regulations, which in their latest iteration no longer require firms to adopt transition plans for climate change mitigation.

But the lack of progress in advancing climate policies stemmed more from an active pushback led by the US administration since Donald Trump became president for the second time in January, than from a slowdown in the climate debate. The US withdrew from the Paris agreement immediately after Trump's inauguration and did not participate in Cop 30 in Brazil. Pressures from the administration were instrumental in the IMO decision, and it called for the EU to backtrack on its corporate sustainability due diligence directive (CSDDD).

'We don't waver with cycles of sentiment and politics' — Anatol Feygin, Cheniere chief commercial officer

The turnaround in US climate policies appears to have left Europe isolated, forcing it to scale back some of its proposals. While some on the opening panel welcomed the "moral leadership" that Europe has provided in this field, and accepted that "sometimes tough policy decisions are necessary to drive change", they see some EU actions as out of sync with the rest of the world. "I think the problem with that is that you have one region dictating to the world how it needed to manage the decarbonisation process," producer Nigeria LNG's former chief executive and managing director, Philip Mshelbila, says.

Public debate, private actions

Some of that advancement that al-Mazrouei sees lacking in the public debate may have continued behind closed doors, particularly regarding methane emissions reductions. "We don't waver with cycles of sentiment and politics," US LNG producer Cheniere's chief commercial officer, Anatol Feygin, told delegates at the Istanbul conference. The firm is "completely aligned with the efforts by the EU and, at times, the US on methane" disclosure and reduction, Feygin said, although he pointed at "a number of issues" with how the EU rules are structured. But there is a "very healthy engagement with Brussels to adjust for some of that", and methane regulation is "much easier to navigate than the CSDDD", which could have posed "a major supply risk" for Europe, he says.

Yet, in spite of the optimism expressed in public, the dialogue between the industry and the European Commission remains challenging. Last week, 10 industry associations wrote a joint letter to the commission expressing concerns about the impact of the new regulation, which could make a number of natural gas and crude oil importers effectively non-compliant as of 2027. This could jeopardise the EU's security of energy supply and lead to higher energy costs — despite the sharp growth in LNG supply expected in the coming years, EU buyers remain reluctant to sign new contracts because they are unsure if these volumes will comply with EU rules.

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Turkey sees LNG as cornerstone of energy strategy

Turkey is seeking a more balanced supply mix and is pressuring Russia for cheaper gas, writes Antonio Pecicia

Turkey has contracted even more LNG supply this month, adding to a spate of recent deals that underpin a shift in the government's procurement strategy. But it has also extended its long-term contracts with Russia, which Ankara considers important for security of supply — albeit only for one year, as it warns US LNG is challenging the competitiveness of Russian gas in Turkey.

"We are reshaping our supply portfolio, and LNG in the near future will play a bigger role in the Turkish energy market," Turkey's energy and natural resources minister Alparslan Bayraktar said in Istanbul earlier this month. The string of deals that state-owned Botas has signed over the past 15 months reflect a "significant change in perception", with LNG now seen more as a base-load source guaranteeing security of supply rather than a source of flexibility and a "peak demand management" tool, the minister says.

Since September 2024, Botas has contracted as much as 155bn m³ in the form of long-term LNG supplies, the minister says. The figure includes the latest two deals announced earlier this month with Italy's Eni and Germany's Sefe, for a combined volume of 1.1bn m³/yr over 10 years. These effectively represent extensions of the respective three-year deals previously signed, but total contracted LNG supply is still set to decline slightly after 2027 (*see table*).

The government likely see good reason to keep some of its domestic market share open for future discussion. Ankara is confident gas production from its offshore 785bn m³ Sakarya field in the Black Sea could double by the end of next year, and rise further to reach 40mn-45mn m³/d (14.6bn-16.4bn m³/yr) by 2028, from 3.5bn m³/yr at present, the minister says. And "LNG will be very competitive" from 2027, even though it may remain expensive in the coming months because short-term supplies remain "unfortunately very much linked to TTF", the minister said, albeit noting that even the Dutch hub is "becoming normalised".

'If [Gazprom] would like to increase the volumes they sell in the Turkish market, they need to be more competitive because the others are coming'

The shift in procurement strategy the minister outlines is mainly aimed at diversifying sources and securing more affordable and competitive gas, Bayraktar says. "We need to have a balanced supply portfolio. We don't want to rely on one single country, one single company for a very large volume," he says. Botas has opted to extend its two long-term gas contracts with Gazprom for just one year, as Turkey "needs Russian gas for its security of supply", Bayraktar says. But the minister declined to spell out plans for Russian gas supply beyond 2026.

Instead, he stressed the lack of competitiveness of Russian gas against LNG supplies. "Russian gas is becoming expensive. If [Gazprom] would like to increase the volumes they sell in the Turkish market, they need to be more competitive because the others are coming," he said, adding North American LNG is set to play a major role in the European market. Besides Botas' 21.75bn m³/yr of contracted Russian supply, Turkish private importers hold long-term contracts with Gazprom for a combined 10bn m³/yr, some stretching to 2042, the minister says. But he adds unlike Botas, private importers do not have obligations to bring this supply to Turkey, and at the moment are not receiving Russian supply because the price is too high.

A clash of indexes

As part of its diversification drive, Turkey is also seeking to have a "more diverse" pool of pricing formulas — including indexation to the TTF, crude oil and hybrid formulas combining both, Bayraktar said. But he also expressed the hope to introduce an Istanbul gas reference price "in the near future", or as soon as the Istanbul Energy Exchange becomes more liquid.

But in its quest to secure "more affordable" supplies, it is unclear how Botas intends to balance its indexation portfolio. The firm may have already secured a

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slightly lower price for Russian gas as part of the one-year extension, according to market participants. But it is unclear whether the firm was able to secure a return to oil indexation instead of the existing link to the TTF front-month contract — a move that Bayraktar had called for earlier this year, noting at the time the Dutch hub was highly volatile and more exposed to global gas market fluctuations.

Indeed, the recent decline in Brent crude prices has rendered oil-linked contracts cheaper. Yet forward TTF contracts suggest prices linked to the Dutch hub are also set to decline in the coming years, which would underpin the minister's comments on LNG competitiveness from 2027 onwards. By contrast, US LNG volumes priced against the country's Henry Hub benchmark have turned more expensive, as rapidly growing LNG export capacity absorbs a larger share of US upstream production. Volumes linked to the Henry Hub are set to account for a large share of Turkey's supply portfolio, which led Ankara to declare its intention to invest in the US upstream sector as a way to hedge its growing exposure to US prices.

As it seeks to diversify its gas supply portfolio, Turkey is also looking at the possibility of building some surplus supply that could be re-exported

An eye on exports

As it seeks to diversify its gas supply portfolio, Turkey is also looking at the possibility of re-exporting surplus supply — either to neighbouring countries or further afield, thanks to the flexibility of some of the LNG contracts it recently signed.

Alongside LNG and Russian pipelines, Turkey imports gas via pipeline from Iran and Azerbaijan, and this year started receiving flows from Turkmenistan, which was "a small step" but "big news for the Turkish market", Bayraktar says. Turkey aimed to receive 1.3bn m³ from Turkmenistan this year, but flows halted in July-September after totalling around 465mn m³ in March-June, according to figures from EPDK. And Turkmengaz has suspended indefinitely its pilot project for gas sales to Turkey, chairman Maksat Babayev said in October. Ankara is seeking to renew existing swap deals with Turkmenistan as part of negotiations for an extension of its long-term contract with Iran, which expires in June 2026, Bayraktar says. Iranian flows have been between 5.3bn and 9.4bn m³/yr since they started in 2014, while Azeri flows rose to a near-record 11.5bn m³ in 2024, EPDK data show.

Bayraktar sees "significant and constant growth" in Turkish gas demand, which he expects to total around 59bn-60bn m³ this year — up from around 54bn-55bn m³ in 2024, underpinned by low hydroelectric generation calling for stronger power sector gas burn as well as growing industrial consumption. This year the

Turkey's term LNG deals *bn m³/yr*

Firm	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Woodside					0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6							
Mercuria	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
BP	1.6	1.6	1.6																	
Shell		0.8	0.8	0.8																
Eni	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5							
Equinor	0.5	0.5	0.5																	
Sefe	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6							
Jera*	0.3	0.3																		
Hartree	0.3	0.3																		
Cheniere*	0.4	0.4	0.4																	
TotalEnergies†		1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6									
Sonatrach†‡	4.4	3.7																		
Oman LNG†	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4										
Shell†		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0									
Total	**14.0**	**19.7**	**15.4**	**12.9**	**12.7**	**12.7**	**12.7**	**12.7**	**12.7**	**12.7**	**11.3**	**5.7**	**5.7**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**
Total *mn t*^	**9.8**	**13.7**	**10.8**	**9.0**	**8.9**	**8.9**	**8.9**	**8.9**	**8.9**	**8.9**	**7.9**	**4.0**	**4.0**	**2.8**	**2.8**	**2.8**	**2.8**	**2.8**	**2.8**	**2.8**

**assumed duration †deals agreed before Sep 2025 ‡pro-rated, ends Oct 2027 ^using Botas' implied conversion factor (1 t of LNG ≈ 1,431 m³ of gas)*

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country needs "at least 3bn-4bn m³ of additional gas supply", he says. The country's overall consumption was 53.2bn m³ in 2024, EPDK figures show.

Even without volumes from Turkmenistan, Turkey may be able to accommodate an increase of 9-10pc in domestic demand next year relying just on contracted supply, *Argus* estimates, assuming production from Sakarya increases as planned and flows from Iran and Azerbaijan are in line with their highest on record.

A smaller rise in gas use may leave some volumes available for re-exports, which Ankara is keen to pursue, the minister says. A 2-3pc drop in overall gas demand, in the event of the winter being "a little bit mild or if the industry does not grow as expected", could equate to 1.8bn m³ of supply available for exports, Bayraktar notes. The commissioning of the first reactor at the Akkuyu nuclear plant, slated for early 2026, may also dampen power sector gas burn.

"In the southeast of Europe, this is quite significant. In Bulgaria, it is like 60pc of the market. In Macedonia, Moldova, [it is] even a bigger [share] of their annual need," he says. "A small volume for us can make a big impact on the southeast European market" and elsewhere, he adds, pointing at Turkey's recent gas exports to Syria. The total addressable market within eastern Europe could be 10bn m³/yr, which could be "the ultimate goal for Turkish exports", according to Bayraktar.

The Russian enigma

'Russian gas is not very competitive when it comes to export, so Europe can feel more relaxed because [...] we have much more competitive gas sources, including our own gas'

Yet the prospect of a continued, substantial presence of Russian gas in Turkey's gas supply mix may hamper Ankara's ambitions to position itself as a gateway into EU markets for LNG supply, given the bloc's plans to fully remove Russian gas from its energy mix from 2028. The draft EU regulation outlines a certification system to prevent its circumvention, but also specifies that gas entering the EU at the Turkish-Bulgarian border would be at first assumed to be of Russian origin.

Bayraktar downplays such concerns, suggesting only non-Russian supply would be made available for exports, and that the lack of commercial competitiveness makes Russian gas unsuitable for re-exports. "Russian gas is not very competitive when it comes to export, so Europe can feel more relaxed because [...] we have much more competitive gas sources, including our own gas," he says.

Instead, the minister pointed at infrastructure bottlenecks as the main stumbling blocks for re-exporting gas supplies. At present, Turkey can export 3.5bn m³/yr at the Strandzha 1-Malkoclar interconnection point with Bulgaria, and can "easily double" this capacity, the minister says. But capacity would remain capped at the same level because Bulgaria would also need to carry out upgrade works on its side of the border in order to be able to receive stronger flows.

A mismatch between the strategies of the two sides may be part of the issue. Bayraktar's comments suggest exports at the point may be determined by fluctuations in Turkish demand. By contrast, Bulgarian system operator Bulgartransgaz says it would be ready to carry out such works, but there is no firm market interest in long-term capacity at the point, leading the firm to prioritise investments at the Greek border where there is instead "huge interest" in capacity bookings.

Turkey may have greater scope to shed any excess supply by tapping the flexibility of its recently signed LNG deals, half of which are fob, the minister says. This "gives us the flexibility to trade even all of these cargoes", and "we are also working with TotalEnergies and some other companies" with a view of reselling some of these cargoes during periods of low demand while "receiving their cargoes during the winter", the minister says. Turkey also plans to install two more floating storage and regasification units to boost total import capacity, but is also looking at opportunities to sub-charter these vessels during periods of low demand — in line with its recent agreement with Egypt.

CZECH REPUBLIC

New government unlikely to fight Russian gas phase-out

The incoming government led by a populist has criticised receipts of Russian gas, but his policies may support gas demand, writes Jana Hernandez Mendoza

The incoming Czech government led by populist politician Andrej Babis may be aligned with Slovakia and Hungary in some EU policy energy areas, such as the Green Deal, but this might not include the phase-out of Russian gas.

Czech president Petr Pavel appointed Babis as prime minister on 9 December after the billionaire agreed to dispose of his conglomerate Agrofert — operating in food, chemical and agriculture among others — to avoid a potential conflict of interests. Babis secured 80 seats in the 200-strong Czech parliament in the October elections, and later formed a coalition with the far-right SPD and the newly established anti-environmentalist Motorists for Themselves parties to reach an overall majority. The president appointed the rest of the cabinet on 15 December.

The forthcoming Czech government will be right-wing, conservative and Eurosceptic, and likely side on many topics, including within the EU, with similarly oriented governments in Slovakia and Hungary. But Babis' position towards Russia and in turn a phase-out of Russian gas does not seem to be aligned with those two countries. Hungary and Slovakia have been vocal about their disagreement with the EU plan to phase out Russian gas and oil deliveries since it was announced, and plan to challenge the new EU law in the European Court of Justice as soon as it is approved, according to Hungary's foreign minister Peter Szijjarto.

Babis has been much less vocal in supporting Ukraine than the outgoing Czech government, and has called for the Russia-Ukraine conflict to be resolved by means of diplomacy. But he also declared that Russia "is and will remain the aggressor" in a parliamentary discussion on 4 March. Babis has criticised Czech receipts of Russian gas in April this year, and his ANO party programme does not include any mention of Russia or security of gas supplies.

Unlike Hungary and Slovakia, the Czech Republic does not have any long-term supply agreements with Russia still in place. A long-term contract between Gazprom and Czech state-controlled supplier Cez expired at the end of 2022, while Slovak SPP and Hungarian MVM are still tied to supply deals running until 2034 and 2036, respectively. It is unclear if the country has received any Russian spot supply since 2023. Net imports from Germany have been the main source of supply to the Czech Republic even after the Nord Stream flows halted, although volumes have dropped significantly, weighing on transit to Slovakia and other markets.

Babis' position towards Russia and in turn a phase out of Russian gas does not seem to be aligned with Hungary or Slovakia

Firms have turned to net imports from Slovakia in some months since the end of 2023 too. Inflows at the Lanzhot virtual interconnection point have been particularly strong in June and October-December last year — right before the transit of Russian gas through Ukraine stopped — having held in a range of 118-147 GWh/d per month in the period compared with 36-94 GWh/d per month over the rest of 2023.

But since Ukrainian transit stopped, there have been no flows of Russian gas to the Czech Republic. The Turkish Stream link is the only remaining route to deliver pipeline gas from Russia to Europe, and both Hungary and Slovakia receive at least some of their contracted volumes through this route. But there has not been a single day so far this year with gross imports from Slovakia at the Lanzhot point, Entsog transparency platform data show.

Czech-ing the flow

The new government's stance on energy and environmental policies may underpin continued gas use and support Czech gas demand in the forthcoming years.

Babis proposed Karel Havlicek from the ANO as the new minister of industry and trade. The Green Deal is "dead" in its current form and the European Commission must be forced to cancel it as soon as possible, the ANO's programme

CZECH REPUBLIC

says. The party supports the build-out of gas-fired power plants for grid flexibility, in part through capacity mechanisms, and a transition to "alternative sources" including gas combined heat power plants in the heating sector. At the same time, the party rejects a ban on gas boilers, or mandatory energy efficiency measures.

Such plans may further support gas demand, which has been edging higher in recent years. Temperature-adjusted gas consumption averaged 208 GWh/d in January-November, up from 205 GWh/d a year earlier and 202 GWh/d in the same period in 2023, energy regulator ERU data show. Gas-fired generation has also stepped up to roughly 407MW so far this year, from 386MW in 2024, while combined coal-fired output slowed to 2.7GW from 2.8GW.

Renewables met 18pc of the country's electricity needs this year, a small number compared with the EU average

And the country has substantial scope for coal replacement in the power sector, with coal-fired generation accounting for 34pc of total electricity output this year — the second-largest source of power supply after nuclear plants. By contrast, gas has made up a mere 5pc of Czech generation, and held in a range of 5-8 pc/yr in 2020-24 — well below renewables, which met 18pc of the country's electricity needs this year. This is a small number compared with the EU average.

Plans for a transition from coal to gas were already under way. Cez plans to convert all of its coal-fired power and heating plants to run on gas and biomass by 2029-30. Installed capacity of its hard-coal and lignite-fired power plants was 4.3GW as of 1 December. But even if Prague supports the transition to gas, it can do so only within limits set by EU law. The EU buildings directive requires member states to switch to fossil-free heating systems by 2040.

UK

Government eyes gas market regulatory push in 2026

Momentum is growing in the UK for regulatory changes aimed at reshaping the country's gas system, writes Isabel Valverde Sala

Natural gas has climbed up the UK government agenda in recent months, with regulation processes unfolding and culminating in 2026 likely to be pivotal for the future of the UK gas market.

The country's department for energy security and net zero (Desnz) launched a consultation in late November aimed at reviewing the UK's security of gas supply, including proposals aimed at ensuring infrastructure capacity, preparing the system for unplanned outages and ensuring a viable commercial model for the UK gas market. This is the latest of a series of consultations held by the ministry in recent months, with a view of gathering information and views from the market before laying down any proposals for market reforms.

The government had first announced its intention to address the challenges facing the country's gas system in a policy paper published in June, which minister of state for energy Michael Shanks described as "the first major publication on the gas system in many years". The document sets three core objectives for the coming years — preserving energy security in a context of declining production, ensuring continued investment in infrastructure, and managing a sustainable transition of the gas network "towards other uses in a context of declining production", the paper says.

Market participants can send their comments to the latest consultation until 18 February, and Desnz intends to publish a response to the feedback in the spring of 2026. The ministry is also set to launch a call for evidence on network investment and affordability before the end of this year as part of this programme. And next year, the department plans to issue another call for evidence on transitioning the gas network, according to the market update.

Separately, an ongoing parliamentary enquiry is at present gathering views from market participants on how to manage a declining gas domestic market.

UK

An ongoing parliamentary enquiry is gathering views from market participants on how to manage a declining gas market

Overall gas consumption across the UK has fallen at an average 8pc rate over the past three years, figures from system operator National Gas show. The call for evidence closes on 7 January and could eventually lead the Energy Security and Net Zero Committee to put forward its own proposals for debate in Parliament.

Small steps to move faster

The update to the market was the "first step in a long-term programme" aimed at transforming the country's gas system, and it may take years until the initiative turns into policy. But other government measures — including the North Sea Future Plan — may begin influencing the market sooner.

The plan, published as part of the government's 2025 budget, announced a new system of "transitional energy certificates" to encourage firms to produce gas from areas adjacent to operating fields as a means to maximise output from tapped-in resources. This would enable faster production compared with traditional licences, according to the government.

And ongoing efforts by the North Sea Transition Authority (NSTA) to retrieve as much gas as possible from active wells could slow down the decline in domestic gas production. The NSTA expects UK gas production to halve by 2030, compared with 2025 levels. The authority has worked with different well operators since 2024 to identify and reactivate shut-in wells, and it will continue to do so by engaging with new companies in the forthcoming months, it said in November.

After years in the making, UK energy market regulator Ofgem is also set to complete a regulatory impact assessment on the introduction of a single tariff for all entry and exit points into the country's gas grid by the first quarter of 2026, with the aim of making the UK a more attractive hub for gas transiting to Europe — particularly LNG supplies. If approved, the new tariff system could be implemented before the beginning of the 2026-27 gas year.

On the demand side, the government's £15bn ($20bn) warm homes plan is poised to add to the downward trend in gas demand by supporting households in implementing energy-efficiency measures. These include the extension of the boiler upgrade scheme (BUS) until the financial year 2029-30, and further funding for home insulation and solar panel installations, among other measures. The publication of the plan has been delayed to January from an expected release in December, Desnz told *Argus* on 15 December.

Regulatory changes affecting the power grid will also have an important impact on gas demand. UK power grid operator Neso earlier this month confirmed a major reordering of the country's electricity grid connection queue to speed up renewable energy projects and connection from demand sites. A quicker and easier access to the grid could incentivise operators of data centres, which are poised to be one of the most important drivers of electricity demand in the coming years, to connect to the electricity grid instead of building on-site gas-fired plants.

But even if that was the case, a large part of that electricity could still come from gas even if renewables and storage are deployed in line with expectations. In July, energy minister Ed Miliband asked Neso in a letter to keep 40.1GW of power generation in the country's capacity market by 2029-30 to assure energy security on days of limited renewable generation, a decision that clearly favours investment in flexible gas-fired generation. The Labour government has not disclosed specific targets on new gas-fired generation capacity. The Conservative government, in charge until last year, had said that the country needed to build a minimum of 5GW of new gas-fired capacity to partly offset the 15GW gas-fired capacity closures in the coming years — a third of the total fleet of 34.5GW in operation.

ITALY

Italy eyes sale of stored gas to fund liquidity service

The government hopes to raise €650mn through the sale of gas bought in 2022 but this may be an overestimate, write Stephen Jewkes and Antonio Pecicia

Italy plans to sell gas bought and stored in 2022 to fund its proposed liquidity service and reduce transport and distribution charges for industrial users, according to a draft decree. But while the plan may not entail the withdrawal of this gas in order to preserve its value, the government may still be overestimating the potential revenues that the sale might generate.

The draft decree foresees the sale of 2.1bn m³ bought and stored by GSE and gas transport company Snam in 2022 by 15 April 2026. The document does not specify the terms of its physical deliveries, but *Argus* understands those volumes would be sold in tank, with the operation not requiring their physical withdrawal from storage sites. This would avoid putting some significant pressure on prompt and near-curve contracts at the country's PSV gas hub.

Yet revenues may be overestimated even if PSV prices hold at their current levels. The government expects to raise €650mn through the sale, which seemingly factors in the effects of the new liquidity service the sale aims to fund — a measure designed to flatten the price spread between corresponding contracts at the Dutch TTF and Italian PSV hubs. This implies an average price of €26.93/MWh — broadly in line with the TTF calendar 2026 contract, which was most recently assessed by *Argus* at €26.78/MWh on 9 December, when the draft decree began to circulate — and some 6pc lower than the corresponding PSV contract.

The government estimates the move could cut PSV prices by €2/MWh and save €800mn for gas consumers and the same again for power users. But should the measure fail to reduce the spread, the gas sold to set up the mechanism will instead be sold "at prices higher than those contractually set (TTF)", returning the proceeds to Snam with a beneficial effect on transport costs. But firms may only have an incentive to buy volumes in stock in the first quarter of next year if prices are in line with summer 2026 contracts, market participants say. The TTF front-season market was changing hands at €26.35/MWh on 9 December — a 7pc discount to the corresponding PSV contract.

In any event, the sale of these volumes will represent a loss for public coffers, given that Snam and GSE paid much higher prices for securing them at the peak of the energy crisis that followed Russia's invasion of Ukraine in February 2022.

Constitutional compatibility

The draft legislation envisages phasing out incentives for biogas, biomass and bioliquids used to generate electricity by 1 January 2031

Rome plans to use the bulk of these funds — €450mn — to reduce gas transport and distribution charges for industrial users, which may result in a company using less than 200,000 m³/yr benefiting to the tune of €7.50/MWh, according to the draft seen by *Argus*. The remaining €200mn will be used to cover the costs of creating the liquidity service, and have the PSV-TTF spread reimbursed.

The measure has attracted widespread criticism from market participants, and its compatibility with both Italian constitutional law and European state aid rules has been questioned. But Italy's energy minister Gilberto Pichetto Fratin has pushed ahead with such plans in recent months, at least as a temporary measure while more long-term solutions are being considered. The same decree tasks regulator Arera to complete a more comprehensive proposal for a full integration between the Italian and German gas markets within 90 days from its approval, which is targeted by the end of the year — having already suffered many delays.

The draft legislation also envisages phasing out incentives for biogas, biomass and bioliquids used to generate electricity by 1 January 2031. This could save €7bn over five years. Italy is also looking to cut energy costs for consumers and businesses. The draft earmarks €250mn to reduce power costs for financially distressed families and €750mn to help small and medium-sized enterprises.

LNG FREIGHT

LNG supply growth outstrips carrier orderbook to 2030

With the acceleration of scrapping of LNG carriers, the number of newbuilds is insufficient to keep pace with supply growth, writes Cerys Edwards

The number of newbuild LNG carriers scheduled to deliver by 2030 will not be enough to transport the planned growth in global liquefaction capacity, particularly if the retirement of older vessels accelerates compared with recent years. But the balance in the freight market will depend heavily on the configuration of LNG trade flows over the rest of the decade.

Some 234 newbuild LNG carriers are scheduled to be delivered over 2026-2030, according to data from the International Maritime Organisation (IMO), with deliveries in 2026 set to be the quickest year on record. Typically, around 1½ ships are needed to transport 1mn t of new liquefaction supply to Europe, and three ships for the equivalent journey to Asia, Capital Clean Energy Carriers chief executive Jerry Kalogiratos said at the World LNG Summit in Istanbul in December.

Applying this basic assumption, the 234 newbuild carriers could transport some 158mn t/yr of new liquefaction capacity were the supply to deliver solely to Europe. But the newbuilds provide scope for just 78mn t/yr of new loading demand should the vessels deliver to Asia, which Kalogiratos considers the more probable scenario, given that buyers in southeast Asia are likely to consume more LNG in the forthcoming years. "There definitely looks like there is going to be a shortage", he says.

Both scenarios indicate that the present LNG carrier orderbook is not large enough to accommodate the 229mn t/yr of new export capacity scheduled to come on line by 2030, judging by the projects that have already reached a final investment decision (FID). And the LNG carrier market could tighten further if more projects reach FID. Even the roughly 80mn t/yr of additional production capacity that was sanctioned this year are "not yet covered," according to David Colson, vice president at French engineering firm GTT, which supplies nearly all of the membrane containment systems used in LNG vessel tanks.

A record 14 steam turbines have been sold for scrap so far in 2025, up from eight in the whole of 2024

The golden age of steam coming to an end?

The LNG freight market balance over the coming years will also largely depend on the number of older vessels being scrapped, which rose sharply this year.

A record 14 steam turbines have been sold for scrap so far in 2025, up from eight in the whole of 2024 and an average of five over 2020-24. And the pace of scrapping is likely to accelerate over the next few years, as vessels roll off long-term charter agreements, Kalogiratos says. Steam turbine carriers are "obsolete" as their high boil-off costs and smaller cargo capacity sizes do not provide the "flexibility that the current LNG trading environment requires", he added.

There are 29 operational LNG carriers that are 25 years old or older, including the 137,000m³ *Puteri Nilam* and same-sized *Al Jasra* which have in recent months idled in the strait of Malacca and Bay of Brunei, according to shiptracking data from Kpler. The oldest LNG carrier still in operation is the 128,000m³ *LNG Maleo*, which was built in 1989 and is controlled by Indonesia's state-owned Pertamina. As well as these vessels, there are a further 47 built in 2000-2005, including 11 idling in either Malacca or Brunei Bay. These are likely to be retired by 2030, given the average age of the vessels sold for scrap in 2025 was 26, Norwegian shipping firm Flex LNG said in its third-quarter earnings call last month.

Were all 76 vessels built before 2005 scrapped by 2030, it would limit the fleet growth to a total of just 158 LNG carriers. Under the scenario outlined above this number of vessels could transport 105mn t/yr of supply to Europe and just 53mn t/yr to Asia — both far below the planned capacity buildout. The LNG carrier orderbook could still grow in the coming years however, given slots for late 2028 delivery are still available at some South Korean shipyards.

NORTHEAST ASIA

East China Sea tensions put LNG security in focus

As regional tensions grow, South Korea's energy import dependence could be exposed, write Motoko Hasegawa and Evelyn Lee

Recent Chinese military manoeuvres around Taiwan and in surrounding waters have heightened concerns in northeast Asia over the security of seaborne energy lifelines, given the region's near-total reliance on imported oil and gas.

Japan says Chinese J-15 fighter jets twice locked radar on Japanese F-15 aircraft over international waters southeast of Okinawa earlier this month, an area critical to shipping lanes that carry crude oil and LNG to Japan and South Korea. China has rejected Japan's account, saying its forces were conducting routine operations in line with international law.

The incidents occur at a time of worsening Japan-China relations, following remarks by Japanese prime minister Sanae Takaichi warning of a potential crisis over Taiwan. They also highlighted long-standing tensions over the Diaoyu (Senkaku) islands in the East China Sea, where overlapping maritime claims and potential hydrocarbon resources remain a point of friction between Tokyo and Beijing. Rising tensions in the East China Sea or South China Sea could pose a direct threat to northeast Asia's LNG supply route, because cargoes from the Middle East, southeast Asia and Australia transit through the point. Qatari LNG — which accounts for 14pc of South Korea's overall LNG imports as well as 5pc of Japanese — typically transits through the strait of Malacca into the South China Sea, and from there to receiving terminals in Japan and South Korea via either the Taiwan strait or the Bashi Channel between Taiwan and the Philippines.

Typical Qatari LNG shipping routes

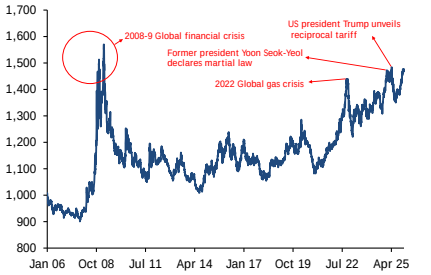
Japan and South Korea rely heavily on imported oil and gas, and a large portion of their supplies typically transits a dense chain of strategic chokepoints, making them structurally vulnerable to disruptions on shipping routes. Japan imported 5.7mn t of LNG from the Middle East in January-October, which made up 11pc of its total supplies, customs data show. South Korea's exposure is more acute, as the country is closer to China and more dependent on Middle East supplies, for which alternative routes entail more substantial diversions. Alongside Qatari cargoes, the bulk of Indonesian and Malaysian cargoes, as well as some Australian supplies, typically transit the waters surrounding Taiwan to reach South Korea. These three countries accounted for 52pc of South Korea's LNG supplies this year, according to shipping analytics firm Vortexa.

Currency pressures

Geopolitical tensions between China and Japan are adding to regional instability, exacerbating pressure on the South Korean won. This complicates Seoul's efforts to balance environmental objectives in winter.

The sharp depreciation of the won has pushed up the cost of imported energy in recent months, increasing generation costs for utilities. The won-US dollar exchange rate rose to 1,471:1 on 15 December, from a 2025 low of 1,350:1 on 30 June and 1,435:1 a year earlier, Bank of Korea data show. Higher fuel costs have been inflating South Korea's wholesale electricity prices, but increases cannot be passed on to end users under the country's heavily regulated power market.

South Korea-US exchange rate ***won/$***



The government has sought to cushion the impact by imposing less stringent restrictions on coal-fired generation so far this winter, as well as extending exemptions on import taxes for LNG and LPG until early next year. South Korea scales back coal-fired power generation during winter to mitigate fine-dust air pollution, with the energy ministry pledging to suspend up to 17 of its 53 state-owned coal-fired units in December-March. But coal-fired power output averaged 21.3GW from 1-15 December compared with 18.8GW during the same period a year earlier, according to data released by the Korea Power Exchange. At the same time, gas-fired output dropped to 18.2GW from 19.5GW.

PAPUA NEW GUINEA

Long-awaited Papua LNG nears the finish line

Government and operators see improving prospects for further LNG investment down the road, writes Tom Major

Recent law reforms in gas-exporting Papua New Guinea coupled with a two-year cost-cutting effort by TotalEnergies make the country confident in the imminent announcement of a final investment decision (FID) on its second LNG project.

The Pacific nation is already home to the ExxonMobil-operated PNG LNG joint venture, which has a nominal capacity of 6.9mn t/yr but has been routinely producing over 20pc above that level since it started operations a decade ago. The country is now expecting an FID on TotalEnergies' 5.6mn t/yr Papua LNG early next year. The process has already tested the parties involved, well before drilling rigs venture into PNG's vast jungles. But rising costs and uncertainties about potential oversupply in the LNG market in the medium term have failed to deter the government and TotalEnergies.

A rebidding phase to cut engineering, procurement and construction expenditure is ending after more than a year, resulting in slimmed-down project costs. A floating storage and offloading vessel will be used for exporting liquids and a narrower gas pipeline will be commissioned, to increase competition for the pipe-laying contract. The redesign and two-year FID delay have enabled the joint venture to revise down estimated expenditure to a much more reasonable level, TotalEnergies' EP PNG managing director Arnaud Berthet says.

Gas remains the transition fuel of choice for Asia, Berthet says, and Papua New Guinea is ideally located to meet this demand. Papua LNG's three electrical trains with a combined capacity of 4mn t/yr will reduce the project's carbon footprint, while 1mn t/yr of CO_2 by-product will be reinjected into gas reservoirs. Berthet is confident that the country's cost-competitiveness against more distant suppliers and the ability to access relatively secure shipping lanes could make Papua LNG attractive to customers in northeast Asia. Even assuming an average speed of 15 knots, cargoes can reach Tokyo in seven days.

Attention on Papua New Guinea is focused on Papua LNG, but momentum has built for the country's first offshore development — the long-awaited Pasca project in the Gulf of Papua. The $1.5bn liquids-focused phase 1, co-owned by Australian exploration firm Twinza Oil and Papua New Guinea's state-owned Mineral Resources Development, is targeting an FID in mid-2026. Phase 2 would involve a 750,000 t/yr floating LNG facility being built for first production in the early 2030s.

Small and diverse

Despite occasional tensions, the government has been able to keep landowner groups, investors and citizens on its side

With more than 800 languages and 1,000 tribes, Papua New Guinea is extraordinarily diverse for a small nation. This can lead to lengthy negotiations on land access and royalties, especially when pipelines and roads cross multiple jurisdictions.

But despite occasional tensions, the government has been able to keep landowner groups, investors and citizens on its side through production-sharing models and closely regulated energy and mining sectors. In March, it established independent regulator the National Petroleum Authority to oversee licensing, compliance and administration separately from the Department of Petroleum and Energy. The shift to a hybrid production-sharing model for new projects will be bolstered by a 0.5pc levy on gross oil and gas sales revenue, with laws to be introduced in early 2026, petroleum minister Jimmy Maladina says. This brings certainty for fiscal terms, he says, while a new licensing system will prevent warehousing of exploration blocks. The first release under this new system is due next year.

New developments and backfill schemes such as the 4.4 trillion ft^3 (125bn m^3) P'nyang gas field, plus exploration opportunities such as the one that led to the Wildebeest field discovery, mean operators are talking about a potential further 13 years of LNG development, a welcome prospect for an emerging economy.

IN BRIEF

EU Russian gas ban will be permanent: Commission

The EU's proposed ban on Russian gas imports would remain in place even if there is peace in Ukraine, energy commissioner Dan Jorgensen said ahead of the European Parliament vote on 17 December on the Russian gas phase-out regulation. "This is a no, and it's never again," Jorgensen said.

Hungary to buy up to 800mn m³ of Azeri gas for 2026-27

Hungarian state-owned wholesaler MVM Onenergy has agreed to buy up to 800mn m³ from Azeri state-owned supplier Socar under a two-year deal, which will take effect from 1 January 2026, Hungarian foreign minister Peter Szijjarto said. The agreement is a framework contract, and the actual volume of deliveries over the two-year period "will depend on prevailing market conditions", he said.

Serbia-North Macedonia to build gas link by 2028

Serbia and North Macedonia plan to build a 1.5bn m³/yr interconnector and bring it on line by early 2028. Serbia plans to obtain a construction permit for the 144km project valued at €153mn by mid-2026 and start work on it immediately afterwards, Serbian energy minister Dubravka Djedovic Handanovic said.

Dutch Zed LNG terminal delays start to 3Q 2029

The start date for the Netherlands' planned 5.8mn t/yr Zeeland Energy Terminal (Zed) is now planned for the third quarter of 2029, project developer VTTI said, marking a delay from the previous target of the second half of 2028. The terminal is set to raise aggregate Dutch import capacity to 28.5bn m³/yr.

ConocoPhillips' PPF Norwegian gas project reaches FID

Operator US firm ConocoPhillips, together with other licenceholders, has reached a final investment decision (FID) for Norway's Ekofisk Previously Produced Fields (PPF) project in the southern North Sea, with first gas expected by the end of 2028. The project consists of 11 production wells tied back to the Ekofisk complex, and ConocoPhillips plans to start production by the fourth quarter of 2028.

Alaska LNG receives final key permit

US firm Glenfarne's 20mn t/yr (2.67bn ft³/d) Alaska LNG project has received the final federal permit needed to advance, although the project's developers are still at least a year away from a financial decision on the liquefaction export terminal. Alaska LNG has already secured other key permits from the Federal Energy Regulatory Commission and the Department of Energy.

China's Shenergy starts up Shanghai LNG expansion

Chinese state-controlled Shenergy started operations at its newly completed 3mn t/yr first-phase expansion of its Shanghai LNG terminal on 12 December. The 147,100m³ *Shen Hai* LNG carrier delivered LNG to the terminal from Malaysia's 30mn t/yr Bintulu export terminal, according to vessel tracker Kpler.

TotalEnergies divests Malaysia gas block stake to PTTEP

TotalEnergies has agreed to divest part of its share in a Malaysian gas block to Thai state-owned energy firm PTTEP. TotalEnergies will sell an indirect interest of 9.998pc while retaining a 30.002pc stake in the SK408 block offshore Sarawak, Malaysia. PTTEP earlier this month announced its five-year investment plan starting in 2026, aimed at supporting long-term growth through strengthening and expanding investments in exploration and production internationally.

GLOBAL GAS MARKET OVERVIEW

KEY PRICE MOVEMENTS

- The Dutch TTF front-month price dropped to $9.41/mn Btu on 15 December from $9.64/mn Btu on 1 December.
- The Argus northeast Asia (ANEA) price for January fell to $9.55/mn Btu on 15 December from $10.84/mn Btu two weeks earlier
- Nymex futures for front-month delivery at the Henry Hub fell to $4.01/mn Btu from $4.92/mn Btu over the same period
- The Argus Round Voyage for inter-basin deliveries (ARV3) fell to $55,000/d from $93,000/d

Global gas markets see diverging trends

Global gas markets displayed divergent trends over the past two weeks, with European gas prices trending lower on easing supply concerns for the winter, while Henry Hub prices in the US rose to their highest since December 2022.

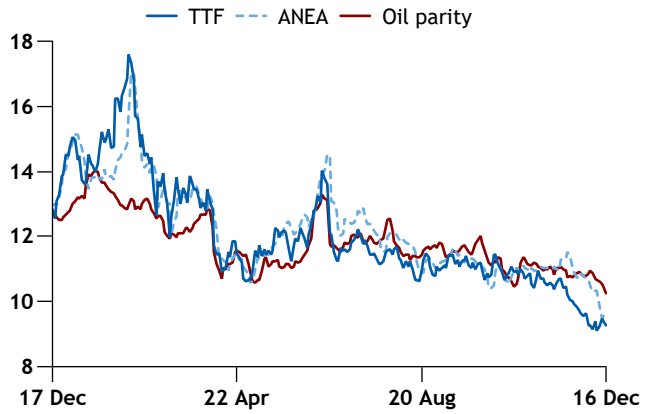
Mild weather and strong LNG deliveries helped to slow underground storage withdrawals in Europe, easing gas supply concerns for the remainder of winter. The Dutch TTF front-month price dropped to $9.09/mn Btu on 10 December, the lowest since 1 May 2024. This, combined with strong LNG deliveries, widened discounts held by northwest Europe-delivered prices against the corresponding TTF contracts. Europe received a total of 6.4mn t of LNG during the first half of this month, compared with 5.7mn t in November and 5.5mn t a year earlier for the same period, Vortexa data show. Spot LNG demand in Asia remained subdued on ample inventories, which continued to limit inter-basin competition and price volatility. The northwest Europe des price for January was at a discount of around 50¢/mn Btu to the corresponding TTF contract on 15 December, compared with a 41¢/mn Btu discount on 1 December.

By contrast, US domestic gas prices soared on colder weather, narrowing spreads between US and European LNG prices. The Transco zone 6 New York index — a key benchmark for deliveries to New York City — rose to $12.11/mn Btu on 8 December, which was the highest December daily price since 2022, according to the US EIA.

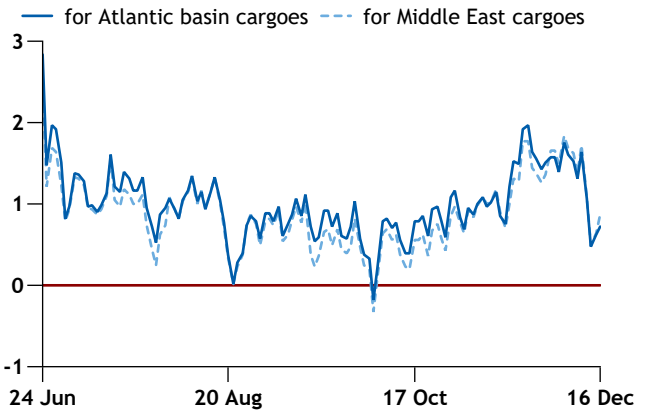
Strong weather-driven domestic prices and record-high feedgas supplies to LNG export terminals supported Henry Hub gas prices. Feedgas supplies increased to 18.6 trillion Btu/d for 1-15 December, compared with 17.9 trillion Btu/d for the same period in November and 13.9 trillion Btu/d a year earlier, Argus data show. Nymex futures for front-month delivery at the Henry Hub rose to $5.29/mn Btu on 5 December — the highest since 21 December 2022 — narrowing the discount to European des LNG to $5.19/mn Btu, the lowest since 15 April 2021.

A narrower spread and high freight rates in the Atlantic basin pushed up front-month indicative long-term LNG contract costs — 115pc of Henry Hub plus a $3/mn Btu liquefaction fee — above the spot Gulf coast fob price for the first time in two years. The price exceeded the Argus Gulf Coast fob price on 28 November and held a premium of 95¢/mn Btu on 5 December, before switching back to a discount on 9 December. While this dynamic did not alter fundamentals due to the liquefaction costs being considered sunk, it highlighted the tightening margins that US exporters may face as more liquefaction capacity comes on line through to the end of the decade.

TTF, ANEA vs oil parity *$/mn Btu*



ANEA vs NW Europe LNG des arbitrage *$/mn Btu*

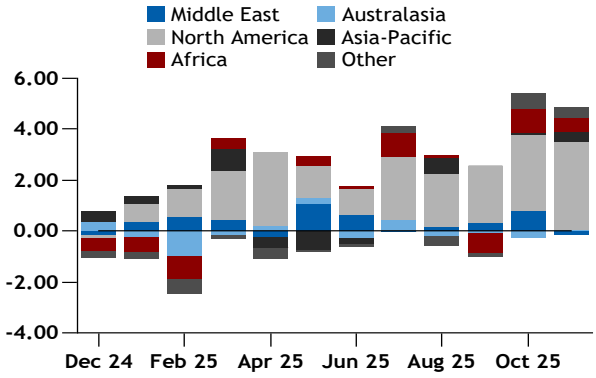


The spread for Atlantic basin cargoes compares the ANEA half-month 2 des with NW Europe half-month 1 des. The spread for Middle East cargoes compares both prices for the same delivery period, half-month 1

LNG TRADE FLOWS

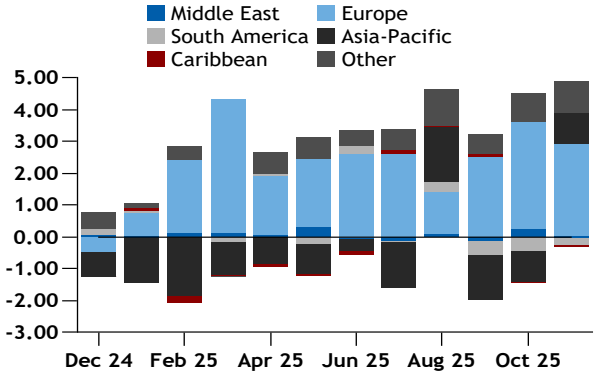
LNG exports, yoy change

mn t



LNG imports by region, yoy change

mn t



Global LNG export hit record high in Nov

Global LNG exports rose to a record high in November, supported by sharp growth in shipments from the US.

Aggregate exports rose by 11pc on the year to around 39mn t in November, data from Kpler show. Stronger shipments from the US drove the trend, rising by 40pc from a year earlier to 10.6mn t.

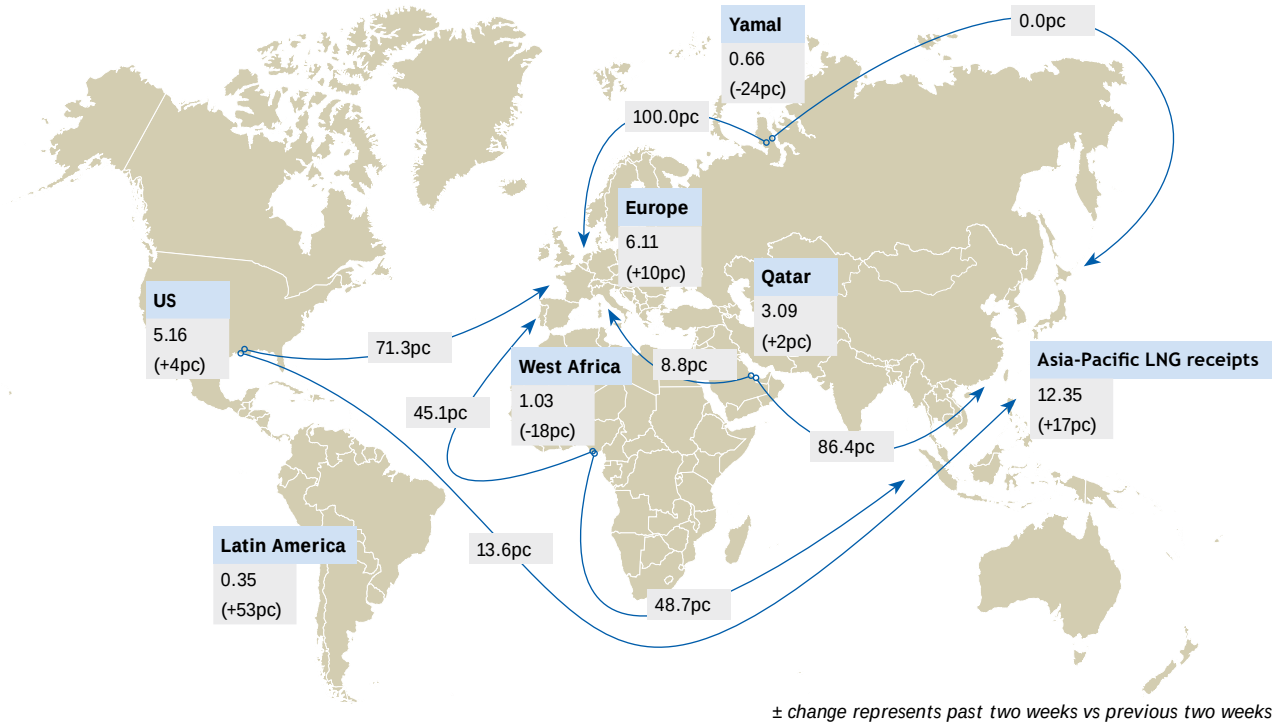
The growth in US loadings largely stemmed from the faster-than-expected ramp-up at Venture Global's 27.2mn t/yr Plaquemines facility in Louisiana, which started its first exports in late December 2024. The terminal loaded 2.1mn t of LNG last month, which was largely in line with shipments in October. Exports from nearly all US terminals posted year-on-year growth last month, while loadings from the 5.75mn t/yr Cove Point dropped by 101,000t to 389,000t.

Loadings from Canada posted the second-largest year-on-year increase last month. The 14mn t/yr LNG Canada, which shipped its first cargo in June, exported around 510,000t in November. But the start-up schedule at its 7mn t/yr second train was extended, delaying the voyages of six LNG carriers by an average of eight days. The train started its first production on 6 November and flaring associated with the start-up was scheduled to end on 10 November, but it was extended to 20 November, indicating delays to production.

Stronger exports from the two North American producers contributed to offsetting lower shipments elsewhere. Exports from Qatar and Australia edged down by 79,000t and 65,000t on the year to 6.56mn t and 6.63mn t, respectively.

Latest estimated gas imports and exports

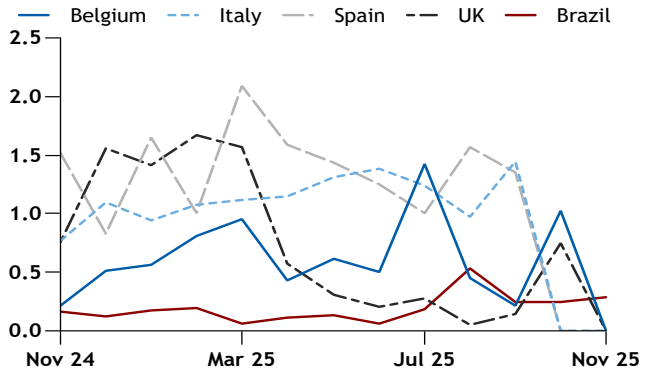
mn t



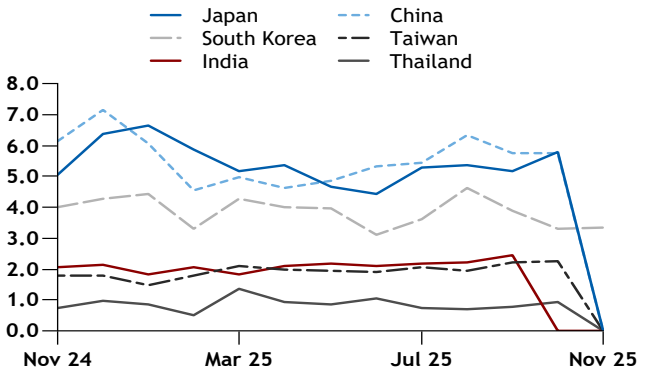
± change represents past two weeks vs previous two weeks

LNG TRADE FLOWS

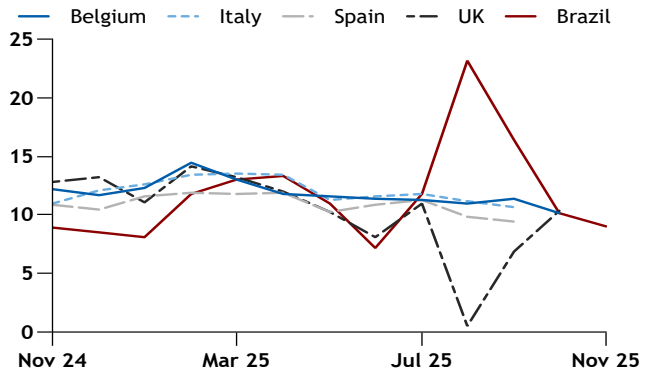
Atlantic basin LNG import volumes (customs data) *mn t*



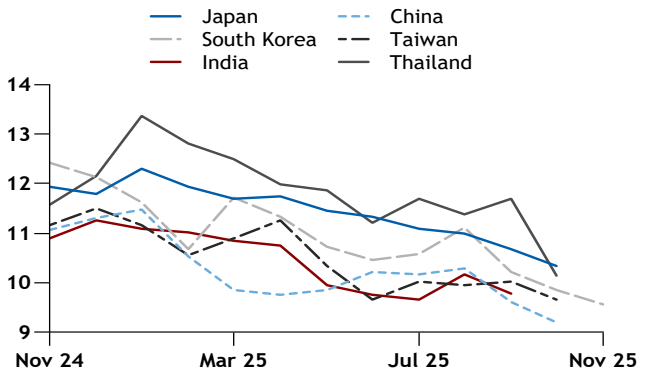
Asia-Pacific LNG import volumes (customs data) *mn t*



Atlantic basin LNG import prices (customs data) *$/mn Btu*



Asia-Pacific LNG import prices (customs data) *$/mn Btu*



Declared LNG import volumes *'000t*

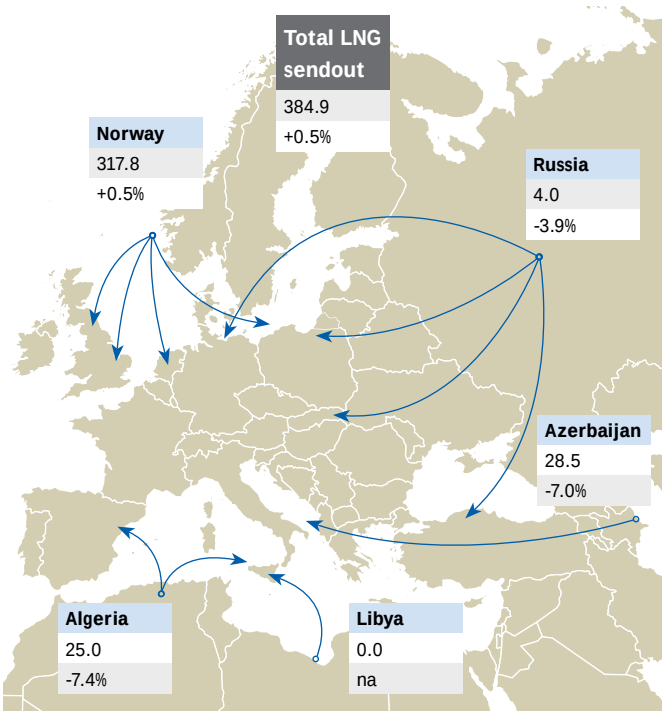
Importer	Jun	Jul	Aug	Sep	Oct	Nov
Northest Asia						
China	5,306	5,436	6,345	5,748	5,763	0
Japan	4,440	5,267	5,357	5,156	5,782	0
South Korea	3,092	3,601	4,607	3,867	3,291	3,352
Taiwan	1,901	2,073	1,928	2,219	2,249	0
South and southeast Asia						
India	2,078	2,168	2,198	2,440	0	0
Pakistan	29	28	35	25	25	19
Bangladesh	0	0	0	426	0	0
Thailand	1,063	728	695	794	926	0
Europe						
UK	203	276	50	147	750	0
Netherlands	1,641	1,610	1,523	1,533	1,480	0
Belgium	501	1,426	447	217	1,026	0
Germany	836	801	775	642	0	0
Poland	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0
France	0	0	0	0	0	0
Spain	1,249	1,009	1,563	1,357	0	0
Portugal	285	134	271	211	272	0
Italy	1,379	1,237	976	1,441	0	0
Croatia	134	194	64	0	0	0
Greece	117	180	210	294	79	0
Turkey	0	0	0	0	0	0
Latin America						
Brazil	60	190	538	245	243	284
Argentina	356	326	207	0	0	0
Chile	214	256	178	184	57	135

Declared LNG import prices *$/mn Btu*

Importer	Jun	Jul	Aug	Sep	Oct	Nov
Northest Asia						
China	10.20	10.16	10.29	9.60	9.20	
Japan	11.32	11.08	10.99	10.67	10.34	
South Korea	10.45	10.57	11.10	10.22	9.85	9.56
Taiwan	9.65	10.01	9.94	10.01	9.67	
South and southeast Asia						
India	9.76	9.65	10.18	9.77		
Pakistan	162.69	155.80	153.23	157.52	161.30	159.30
Bangladesh				10.51		
Thailand	11.21	11.70	11.38	11.69	10.13	
Europe						
UK	8.11	10.97	0.51	6.89	10.36	
Netherlands	12.09	12.48	12.50	12.56	11.67	
Belgium	11.33	11.32	10.95	11.37	10.12	
Germany	11.46	10.60	11.51	11.09		
Poland						
Lithuania						
France						
Spain	10.88	11.24	9.82	9.48		
Portugal	6.71	8.77	7.56	9.12	8.51	
Italy	11.62	11.81	11.21	10.65		
Croatia	12.29	12.55	11.58	13.40		
Greece	11.07	15.37	11.05	11.37	10.69	
Turkey						
Latin America						
Brazil	7.16	11.79	23.20	16.39	10.18	9.01
Argentina	11.30	12.47	12.26			
Chile	7.74	8.45	6.73	6.56	7.55	6.71

EUROPE

Supplies from key routes (month to date) *mn m³/d*



Weak demand improves supply outlook

EU gas storage withdrawals were slower in the first half of December because of milder weather, improving the outlook for Europe's supply balance for the remainder of the winter.

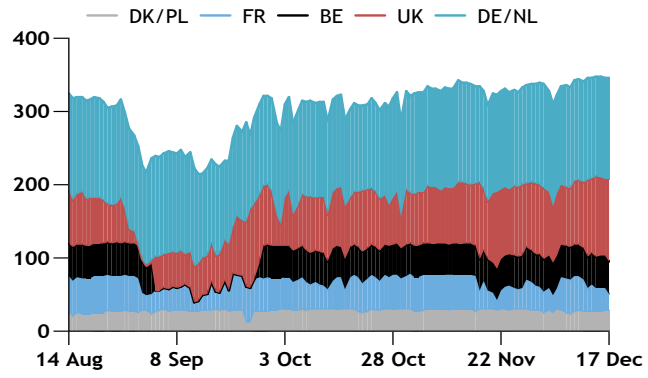
Aggregate demand across 14 of Europe's largest gas consumers — including the UK — held at 14.7 TWh/d on 1-15 December, well below a three-year average of 17.1 TWh/d for that period.

Consumption was weak largely because of unseasonably high temperatures across northwest Europe, which weighed on heating demand. Minimum temperatures in Berlin, Amsterdam and Essen held 2.3-3.0°C above long-term averages on 1-16 December, according to Speedwell weather data.

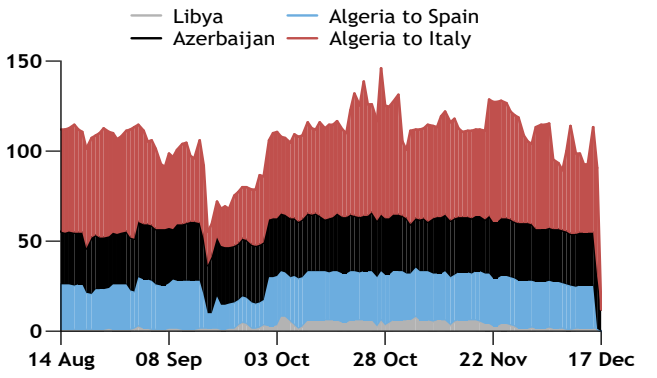
Weaker gas demand weighed significantly on aggregate EU storage withdrawals in the first half of this month. Firms withdrew 4.93 TWh/d from their underground stocks on 1-15 December, well below the preceding five-year average of 5.71 TWh/d for that period, transparency data from GIE show. This was also lower than withdrawals of 5.05 TWh/d in the second half of November, when a cold spell boosted gas use for heating.

Weak demand in the first half of December is likely to have contributed to the ongoing downward trend in the Dutch TTF prompt and near-curve markets. As withdrawals

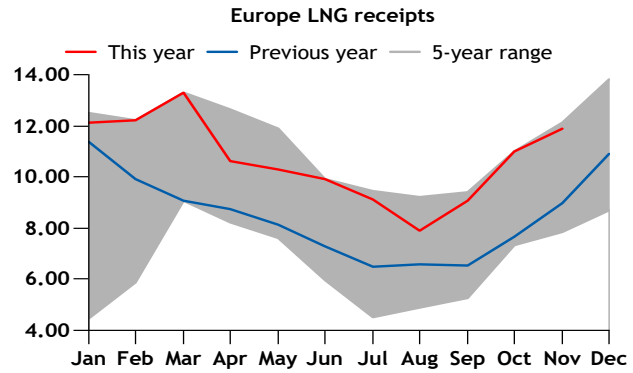
Norway pipeline supply to EU *mn m³/d*



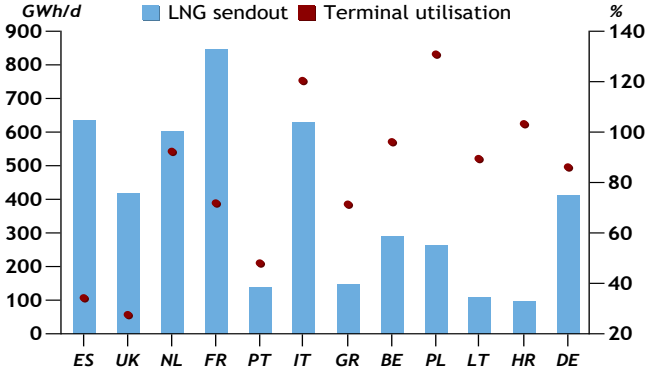
Supply to EU from southern routes *mn m³/d*



Europe LNG seasonality chart *mn t*



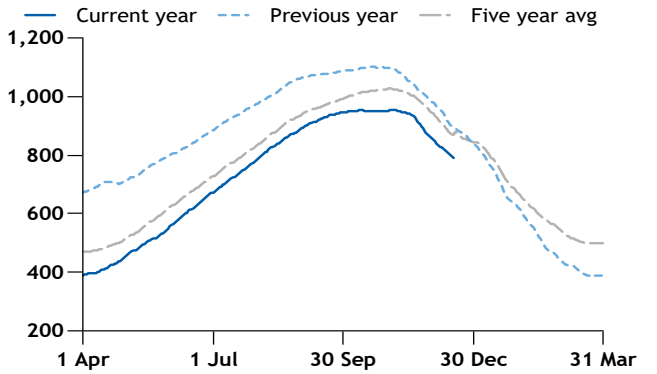
LNG sendout and terminal utilisation



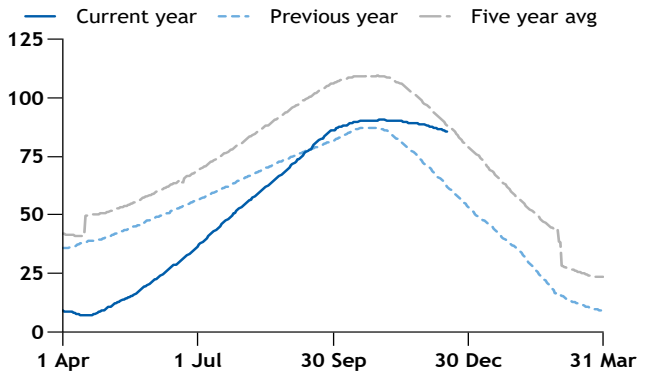
In the first half of the month the graph will show the figures for the full previous month, whereas in the second half of the month the graph will show month-to-date figures

EUROPE

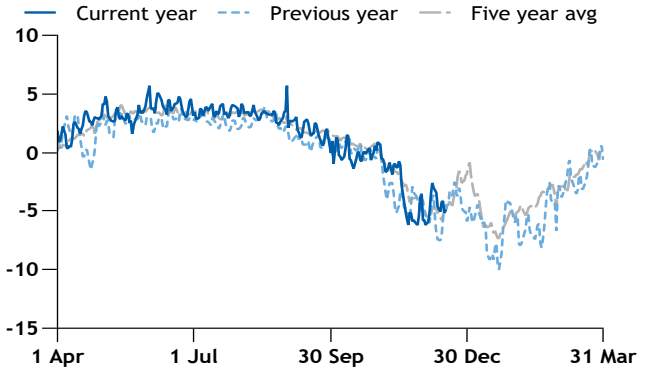
Total EU + UK gas stocks *TWh*



Ukraine stocks *TWh*



EU + UK storage movements *GWh/d*



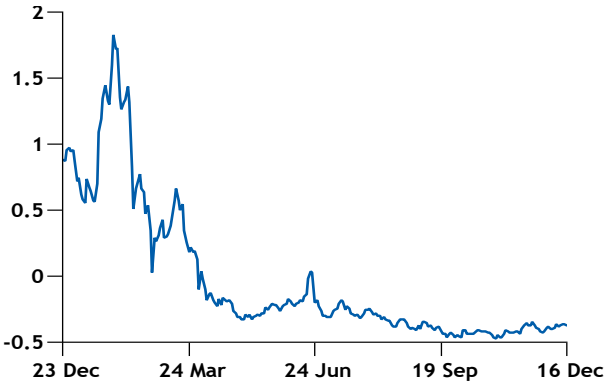
slow, more stocks are left available for later in the season, indicating a comfortable supply balance for the remainder of the winter, despite underground stocks still holding at a four-year low as of 17 December. The TTF front-month price closed at €26.805/MWh on 16 December, dropping by 5.1pc from €28.24/MWh on 1 December.

Sustained strong LNG imports also reduced the need for withdrawals and contributed to the positive supply outlook in Europe. Deliveries have been brisk, thanks to a combination of record-high Atlantic basin loadings and little-to-no interest from Asian buyers for uncommitted LNG cargoes. Regasification across the EU averaged 4.19 TWh/d on 1-15 December, up from the preceding three-year average of 3.92 TWh/d for the same period.

Weather-related demand is likely to step up in the last week of December, when temperatures are forecast to dip below the seasonal norm. Overnight lows in Essen, Paris and Amsterdam were on 17 December forecast to hold 2.2-4.4°C above the norm on 18-24 December, before falling to 2.5-3.7°C below average for the remainder of the month.

But aggregate consumption from businesses and industries tends to decline in the second half of December because activity falls over the holiday period, which could offset higher weather-related demand for heating. Total gas use across 14 of Europe's largest consumers has been 22pc lower in the second half of December compared with the first half of the month over the past five years.

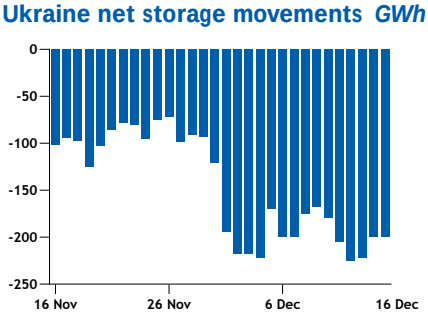
TTF summer-winter spread *$/mn Btu*



Aggregate EU, UK and Ukraine inventories and storage movements *TWh*

Month	Initial stocks	% of capacity	Net withdrawals (injections)	1 year earlier	5-year average
Jul 25	710	48.4	-4,035.0	942	1,316.0
Aug 25	839	57.3	-3,768.3	1,041	1,305.9
Sep 25	963	65.6	-2,214.8	1,140	1,296.7
Oct 25	1,033	70.2	-275.9	1,170	1,288.8
Nov 25	1,042	70.8	2,635.7	1,186	1,281.5
Dec 25	948	64.4	2,376.0	1,057	1,274.7

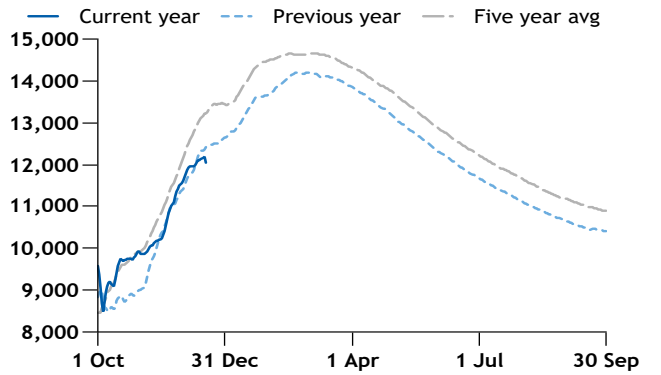
Ukraine net storage movements *GWh*



EUROPE

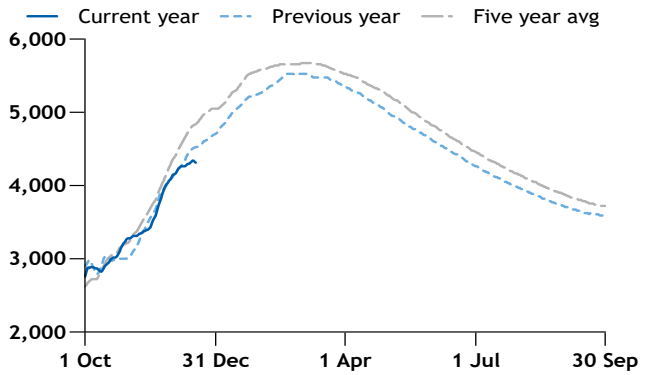
European demand by country, month to date										*GWh/d*
	Belgium	France	Germany	Italy	Netherlands	Poland	Portugal	Spain	UK	Total
Local distribution	330.6	893.1	1,517.0	1,435.4	528.4	580.0	61.4	na	1,770.9	**7,116.7**
Industrial	127.8	320.4	na	370.8	na	na	27.9	na	31.2	**878.1**
Power sector	105.3	82.2	na	945.6	na	na	35.5	358.3	443.4	**1,970.3**
Total consumption	**563.7**	**2,635.1**	**3,390.3**	**5,503.7**	**1,065.4**	**800.9**	**124.8**	**1,600.5**	**2,245.5**	**17,929.8**
±% year earlier	**-5.2**	**-14.0**	**-4.3**	**4.8**	**-0.3**	**7.5**	**-1.4**	**5.6**	**-5.3**	**-1.9**

Aggregate demand *GWh/d*



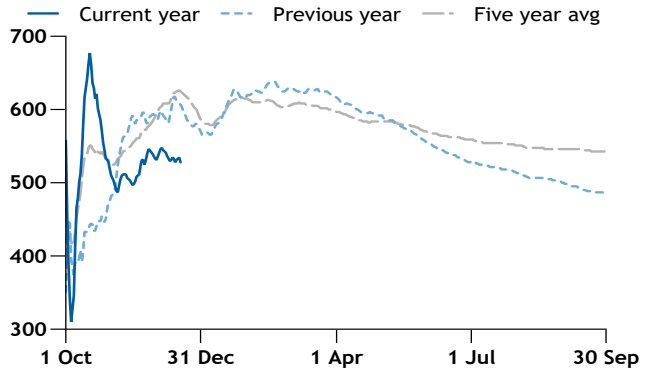
Includes data on Spain, UK, Netherlands, France, Portugal, Italy, Poland, Germany, Romania, Hungary, Czech Republic, Belgium, Bulgaria, Croatia

LDZ demand *GWh/d*



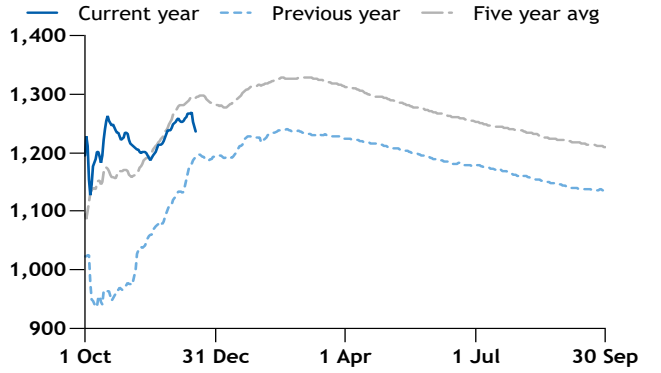
Includes data on UK, Netherlands, France, Portugal, Italy, Poland, Germany, Romania, Belgium, Hungary

Power sector gas demand *GWh/d*



Includes data on Spain, UK, France, Portugal, Italy, Belgium

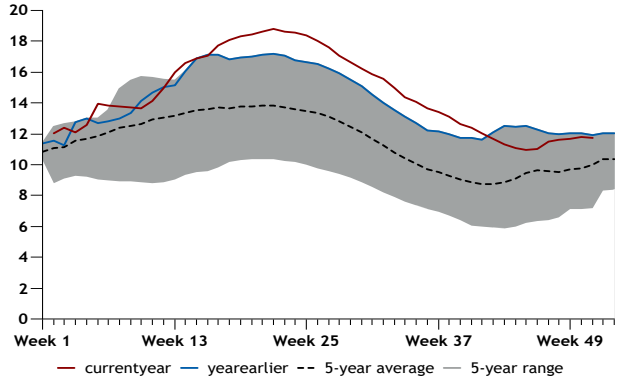
Industrial demand *GWh/d*



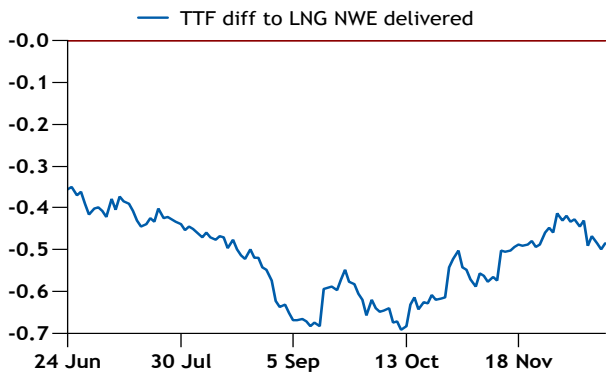
Includes data on UK, France, Italy, Portugal, Belgium

Click here to download European gas demand data

Spanish hydroelectric stocks *TWh*



NW Europe LNG des-TTF spread *$/mn Btu*

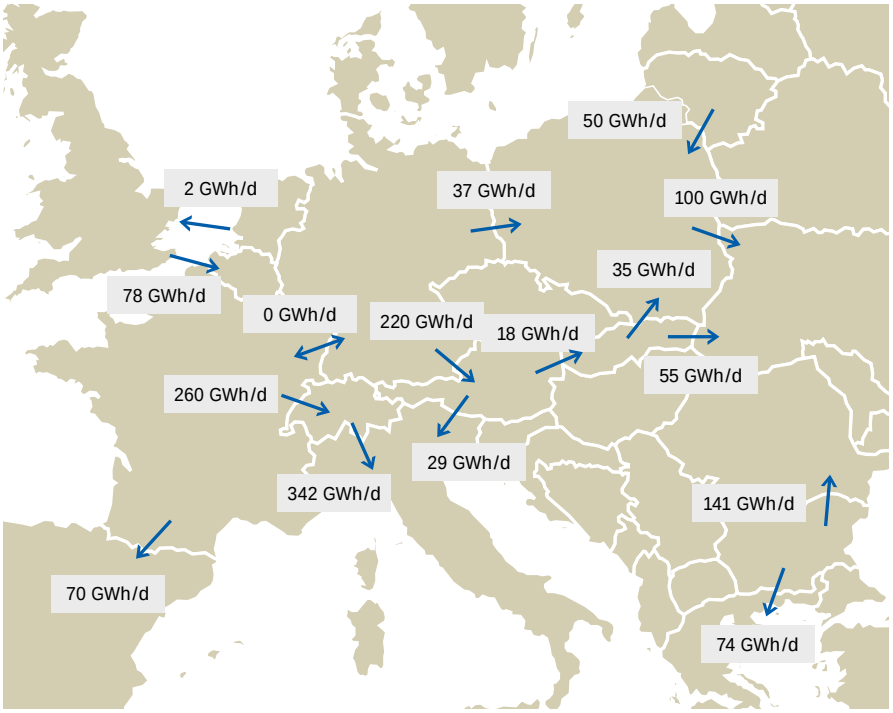


EUROPE

HIGHLIGHTS

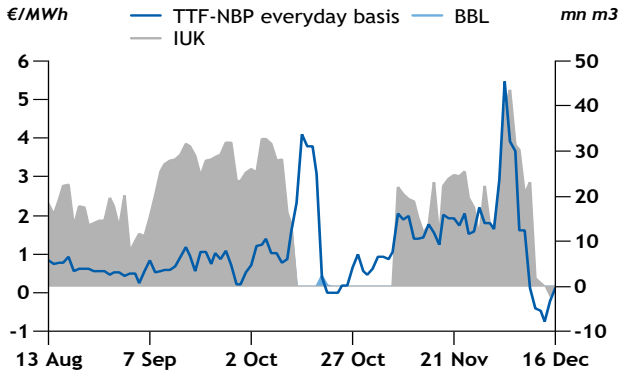
- The BBL has maintained net flows of 2 GWh/d towards the UK in the last 14 days. Firms net exported to Belgium on the interconnector over the same period.
- Net exports from France to Spain at Pirineos averaged 69 GWh/d on 2-15 December, up from 43 GWh/d on 18 November-1 December.
- Firms continued net importing at Passo Gries to Italy, but also turned to net imports from Austria at Tarvisio on some days.
- Exports to Slovakia from the Czech Republic were 87 GWh/d on 2-15 December, up from 41 GWh/d over the previous fortnight.

Cross-border flows (month to date)



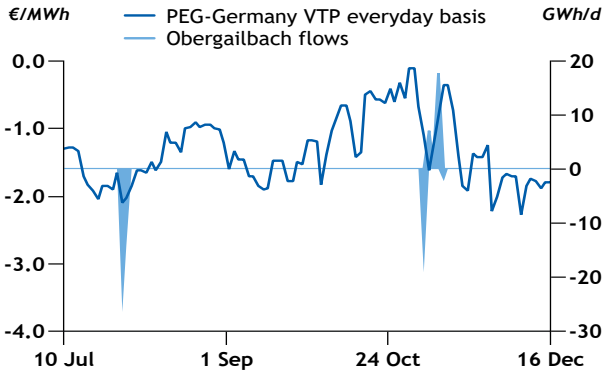
UK-EU gas flows

mn m³



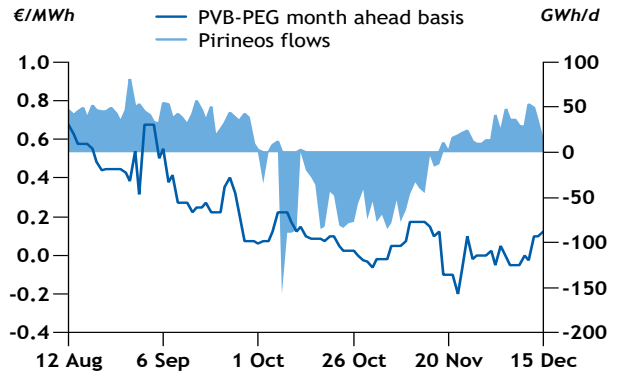
Germany-France gas flows

GWh/d



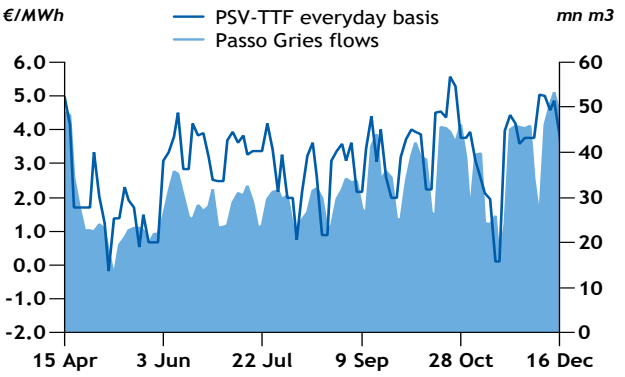
France-Spain gas flows

GWh/d



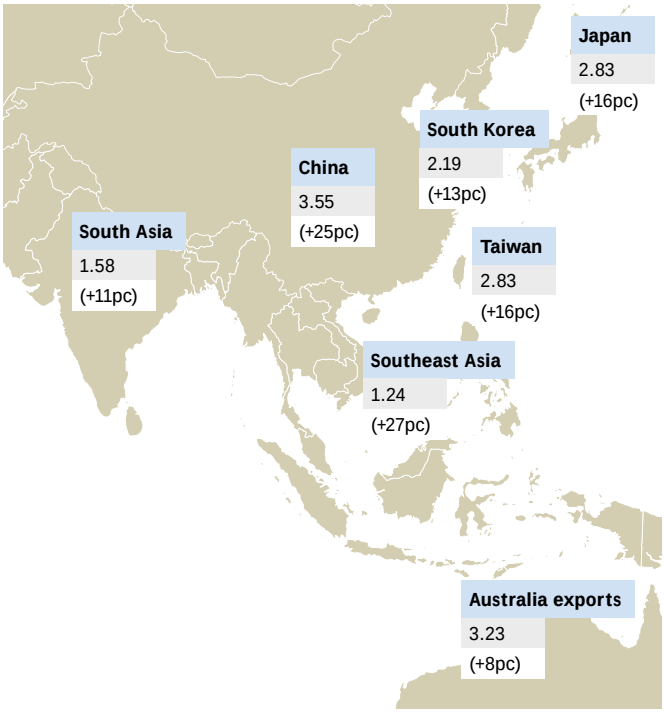
Switzerland-Italy gas flows

mn m³



ASIA-PACIFIC

LNG deliveries to Asia-Pacific *mn t*



LNG stocks at Japan's utilities decline

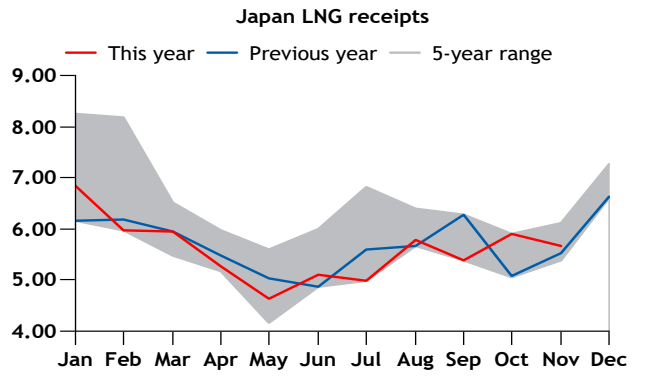
Japan's main power utilities slowed their LNG restocking in the week to 14 December as a result of stronger gas-fired generation driven by higher power demand.

The utilities' LNG inventories totalled 2.15mn t on 14 December, down by 1.4pc from a week earlier but still 4pc above 2.07mn t on 30 November, according to a weekly survey. The latest stocks were the same as inventory levels at the end of December 2024, but were 3.6pc lower than the end-of-December average of 2.23mn t for 2020-24.

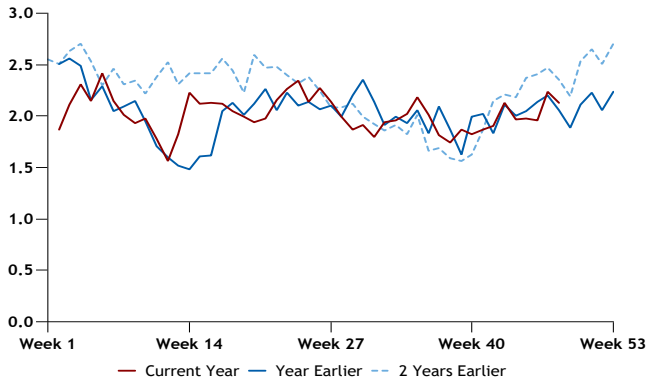
Lower temperatures across a large part of Japan lifted heating demand. The country's power demand averaged 106GW from 8-14 December, up by 3.8pc from a week earlier, according to power agency Occto. Firm demand prompted utilities to boost gas-fired output by 6.5pc on the week to an average of 36GW over 8-14 December. Coal and oil-fired generation also rose, by 5pc and 5.5pc, respectively, to 33GW and 471MW over the same period.

Generation economics for Japan's gas-fired plants running on spot LNG improved in the week to 14 December because of lower spot LNG prices. Margins for a 58pc-efficient gas-fired plant averaged ¥2.30/kWh ($14.84/MWh) on 8-14 December, up by 16pc from the previous week, based on *Argus'* regional spot LNG assessment.

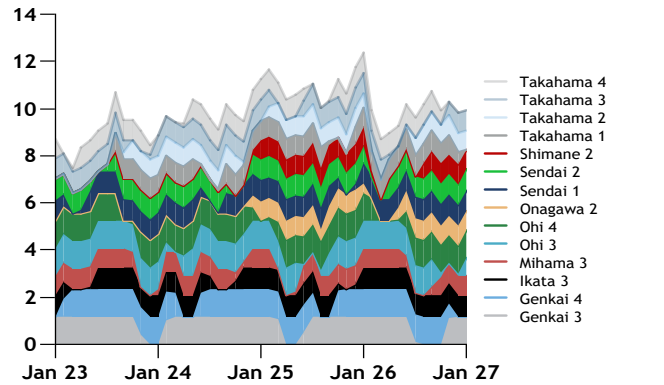
Japan seasonality chart *mn t*



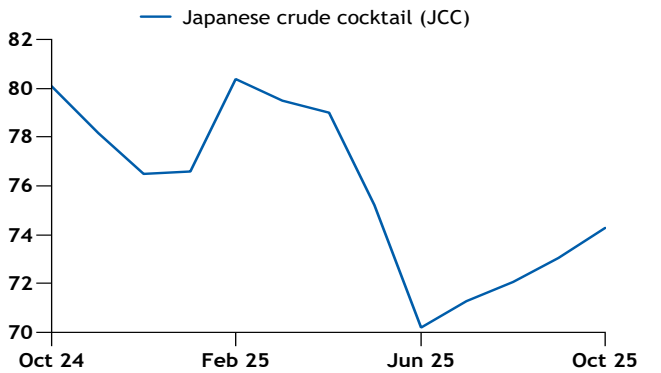
Japanese LNG stocks *mn t*



Japan nuclear availability *GW*



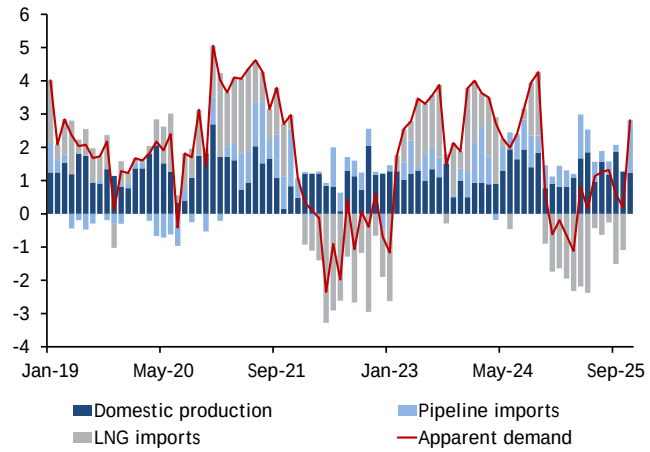
Japanese Crude Cocktail (JCC) *$/bl*



ASIA-PACIFIC

China supply balance

bn m³



Click here to download data on Chinese domestic production, pipeline imports and LNG receipts

China's gas output rises again in Nov

China produced more gas in November than a year earlier, data from the National Bureau of Statistics show.

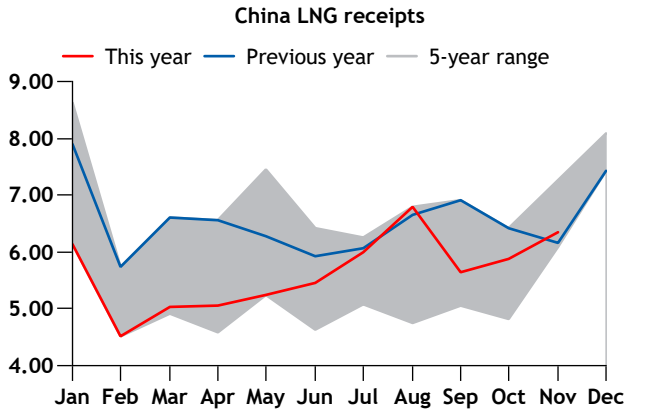
China produced 21.9bn m³ (17mn t) of gas in November, up from 20.7bn m³ (16mn t) in November 2024.

China's aggregate LNG and pipeline gas imports in November totalled 11.95mn t, up from 10.79mn t a year earlier — the first time the country's monthly gas imports have increased on the year since October 2024. This is likely to have been driven by higher LNG imports, judging by preliminary data from Vortexa, which could stem from a rally in domestic trucked LNG prices as this provided a financial incentive for firms to buy seaborne LNG.

China's gas supply mix — comprising LNG, pipeline imports and domestic production — reached an all-time high of 29mn t last month, surpassing the previous record of 28.3mn t in August. Chinese domestic production is likely to rise further in the coming years as the country intends to expand its domestic output and pipeline supply rather than LNG imports, state-owned PetroChina International said.

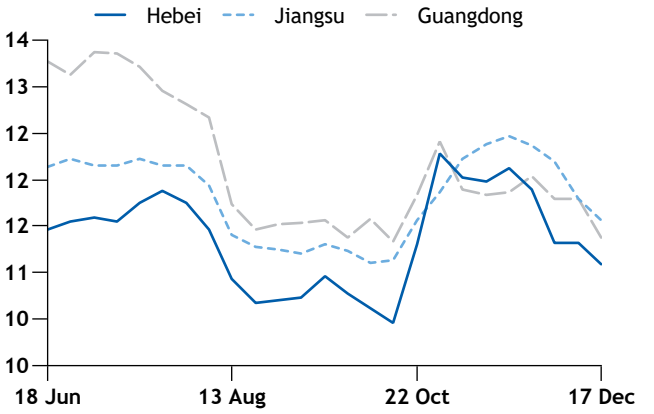
China LNG seasonality chart

mn t



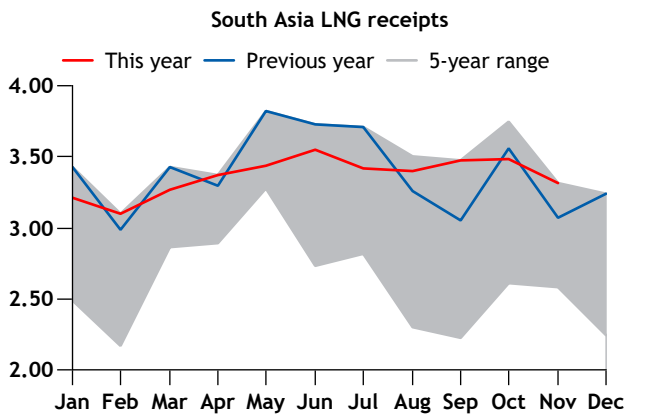
China domestic trucked LNG price

$/mn Btu



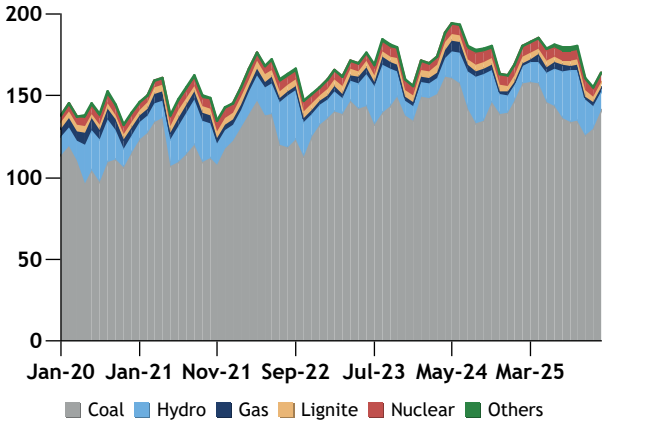
South Asia LNG seasonality chart

mn t



India power generation mix

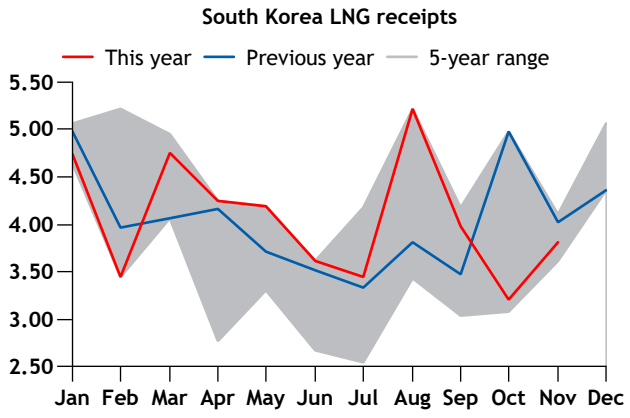
TWh



ASIA-PACIFIC

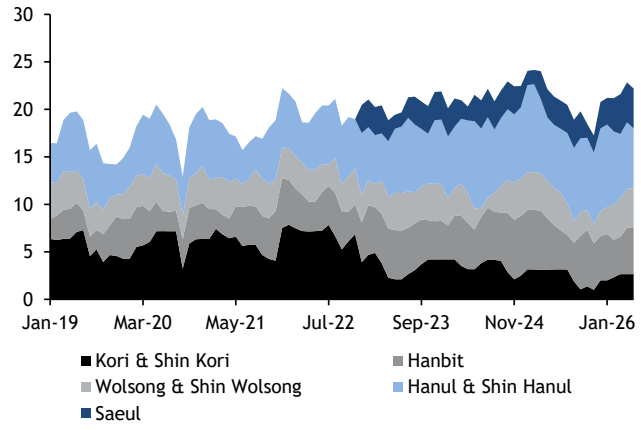
South Korea LNG seasonality chart

mn t



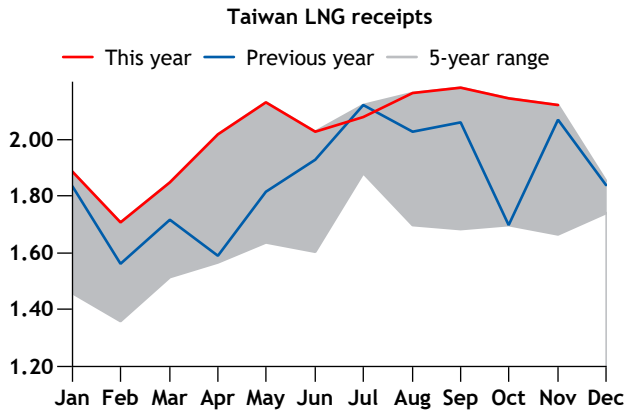
South Korea nuclear availability

GW



Taiwan LNG seasonality chart

mn t



S Korea burns more coal despite cap

South Korea has been ramping up coal-fired power generation to help stabilise wholesale electricity prices in response to a sharply rising exchange rate, which has weighed on gas-fired generation.

The country's coal-fired power output averaged 21GW during the first 12 days of December — compared with 18.6GW during the same period a year earlier, according to data released by the Korea Power Exchange (KPX). This is likely to have been to help meet power demand growth of 2GW when nuclear output was down by 1.1GW, although gas and oil-fired power output both fell, to 18.9GW and 240MW from 19GW and 270MW, respectively, a year earlier.

Higher coal-fired generation came despite the start of the seasonal fine-dust management period in December, during which the government scales back coal-fired output to mitigate air pollution. The environmental ministry had announced that up to 17 of its 53 state-owned coal-fired units could be shut down during December-March, with the remaining units subject to output caps. This appears to be a tighter restriction than last year's limit of 15 units, but the authorities also said the measures would be applied flexibly, depending on power market circumstances.

Coal-fired output increasing while gas and oil-fired generation fell indicates that Seoul is facing market conditions that impede the full implementation of its coal-fired plant restrictions. "There is an increasing pressure on the system marginal price [SMP] in the wholesale electricity market, which is prompting generators to increase the share of coal-fired power generation," a source familiar with the matter told *Argus*.

The SMP refers to the price of electricity at any given time, determined by the cost of the last unit of power that is dispatched to meet the current load. "But because there is a time lag between the input fuel costs and their reflection in the actual generation costs, the timing with which these costs are manifested in the market remains uncertain, thereby creating an additional layer of caution," the same source said.

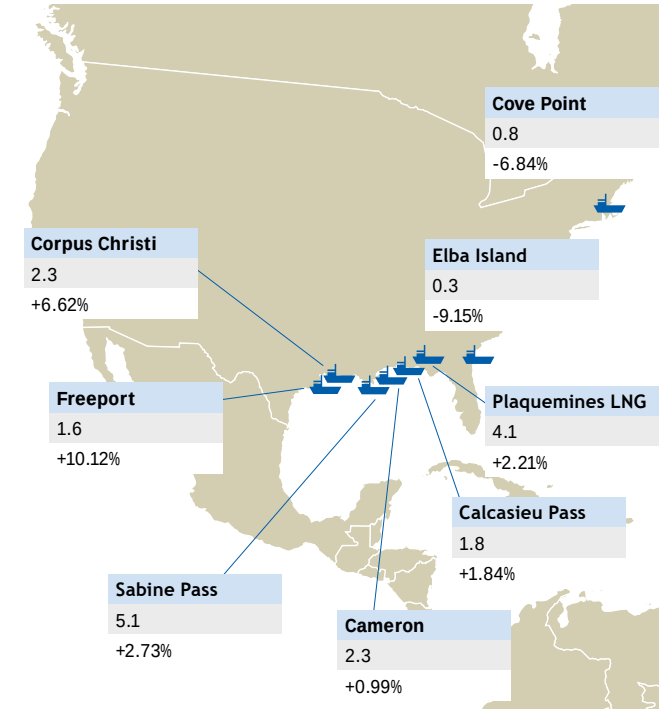
This also aligns with Seoul's decision to continue waiving import tariffs on LNG and LPG until early next year, in response to growing concerns over the rising exchange rate. The South Korean won has depreciated against major foreign currencies in recent months, with the won-US dollar exchange rate reaching 1,473.7 on 12 December, compared with 1,358.7 on 12 June and 1,431.9 a year earlier, according to data released by the Bank of Korea.

South Korea has a high level of import reliance, with its oil and gas being entirely imported. The country's energy import dependence stood at 94pc in 2024, according to government data, making South Korea highly vulnerable to energy price fluctuations.

AMERICAS

Feedgas flows to US LNG terminals

trillion Btu/d



Cove Point LNG feedgas supply falls

Feedgas nominations to the 5.75mn t/yr US Cove Point LNG terminal in Maryland dropped over the weekend of 13-14 December during cold weather and high natural gas spot prices in the US northeast and mid-Atlantic coast.

Flows fell to about 270mn ft³ on 14 December, about one-third of average nominations over the previous 30-day period. Pipeline data indicate flows rose on 15 December but remain below the 30-day average.

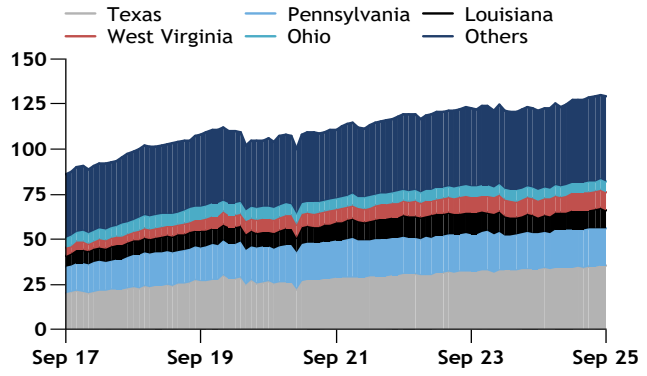
The drop coincided with high spot prices in regional markets. The Transco zone 6 non-New York index, an indicator for mid-Atlantic coast gas prices excluding the New York City region, spiked to $10.75/mn Btu on 12 December, the highest since 18 February. The Transco zone 6 NY index, an indicator for prices in New York City, reached $17.33/mn Btu on 12 December, the highest since 22 January.

Both prices were above delivered LNG prices in northwest Europe, where the price for January delivery on 12 December was $9/mn Btu. But spot prices across the northeast may decline this week because of milder weather.

Temperatures in Boston, Massachusetts, were forecast to average 38°F (3°C) on 16-18 December, up by 6°F from a week earlier and 3°F above the seasonal norm, according to AccuWeather.

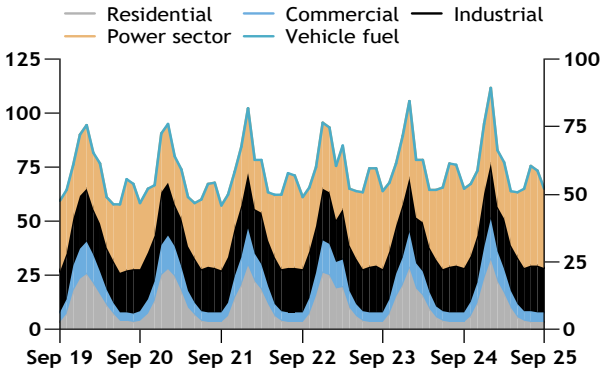
US production

bn ft³/d



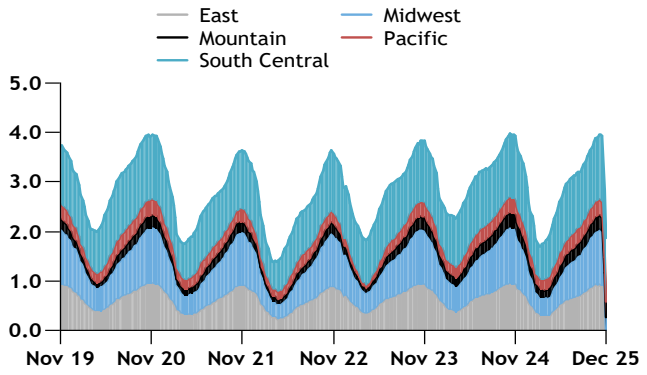
US demand

bn ft³/d



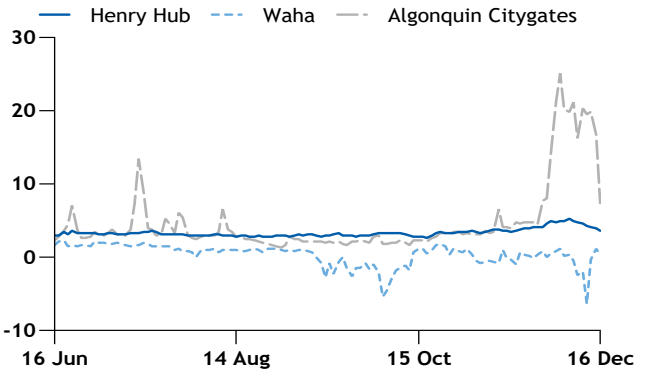
US stocks

trillion ft³



US domestic gas prices

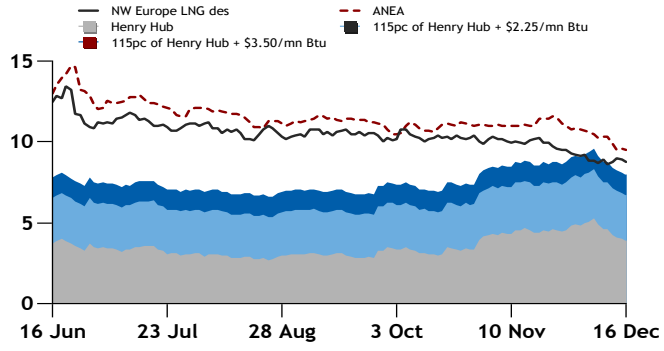
$/mn Btu



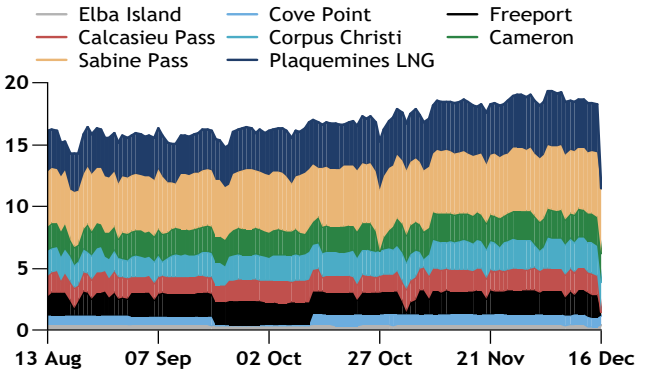
AMERICAS

US storage movements, stocks							*bn ft³*
Region	**5 Dec**	**28 Nov**	**Implied flow**	**Year ago (29 Nov)**	**% change**	**Five-year average (20-25)**	**% change**
East	843	888	-45	914	-7.8	865	-2.5
Midwest	1,030	1,088	-58	1,115	-7.6	1,056	-2.5
Mountain	277	288	-11	289	-4.2	232	19.4
Pacific	306	315	-9	310	-1.3	277	10.5
South Central	1,290	1,345	-55	1,310	-1.5	1,227	5.1
Total	**3,746**	**3,923**	**-177**	**3,937**	**-4.9**	**3,656**	**2.5**

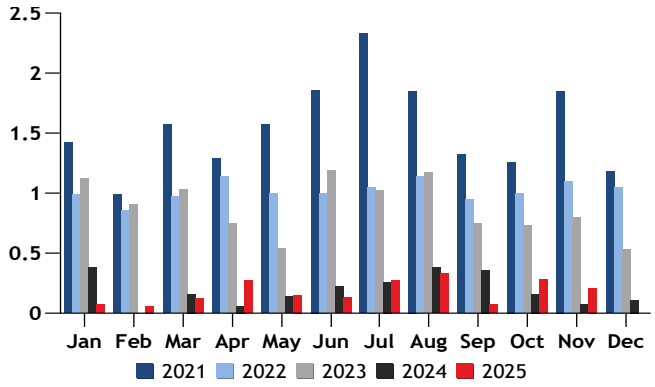
US long-term fob vs Europe, Asia spot des prices *$/mn Btu*



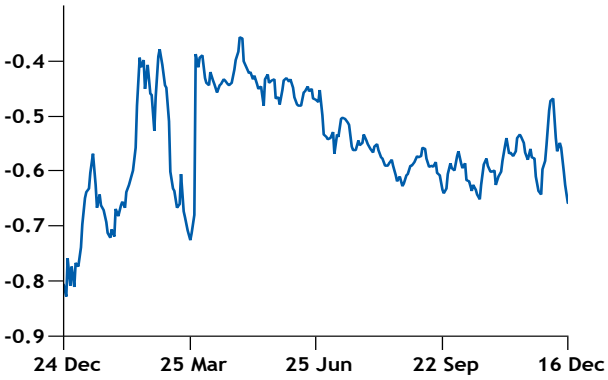
Feedgas flows to LNG plants *trillion Btu*



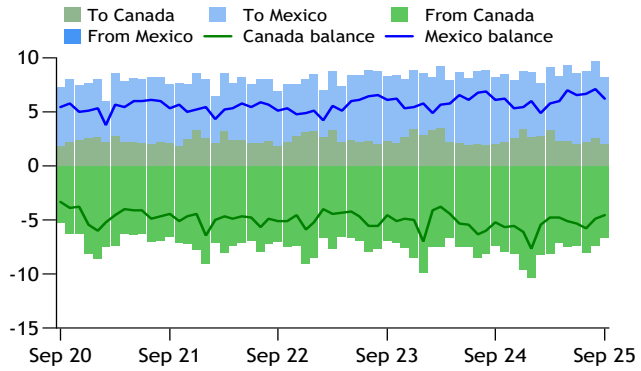
LNG tankers transiting Panama Canal *mn t*



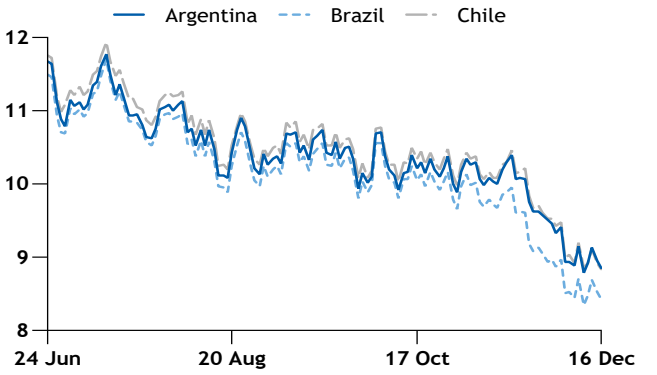
Henry Hub summer-winter spread *$/mn Btu*



US pipeline flows to Mexico *bn ft³/d*



LNG delivered to South America *$/mn Btu*



AMERICAS

South America LNG receipts *'000t*

Low renewables support Brazil's gas use

Weaker hydro and wind power output in Brazil boosted gas burn in November, despite lower electricity demand.

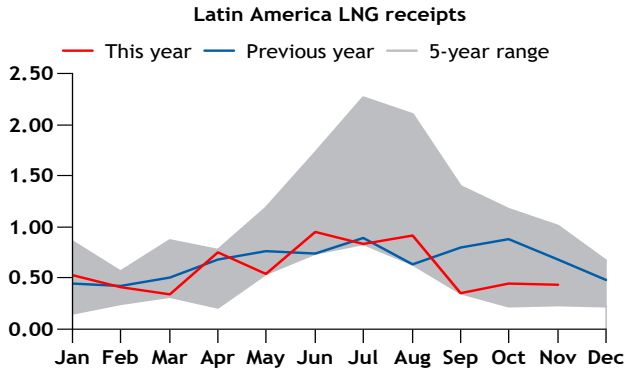
Gas-fired output rose by around 2TWh on the year to 5.24TWh in November, according to grid operator ONS. Coal-fired generation increased by 490GWh to 1.4TWh. Combined thermal generation rose despite a drop in overall power demand, which fell by 578GWh to 56.2TWh last month.

Thermal output had to increase to offset a sharp drop in renewable generation. Hydro and wind power output fell by as much as 3.6TWh and 1.1TWh to 33.2TWh and 10.1TWh, respectively. This was only partially offset by stronger solar generation, which increased by 1.7TWh on the year to 8.9TWh in November.

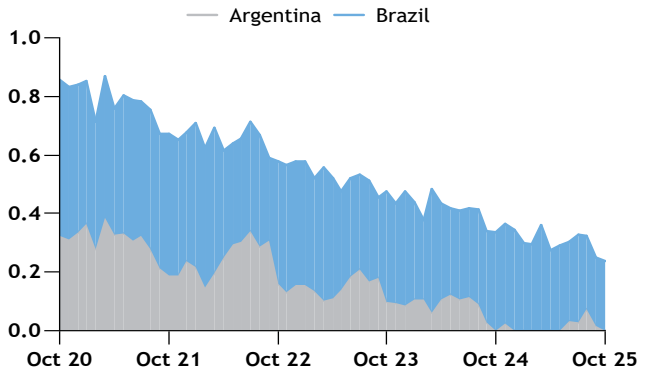
Gas-fired generation was able to increase thanks to stronger domestic supply availability. Brazil's domestic gas output increased by over 22pc on the year to a record high of 194.8mn m³/d in October, overtaking the previous record of 190.9mn m³/d in July.

Brazilian hydro stocks dropped to a more than 12-month low of 94.6TWh on 12 December, according to ONS data. Hydro reserves typically decline during June-December, but are now lower than 98.7TWh a year earlier and below the three-year average of 101.1TWh for the same date.

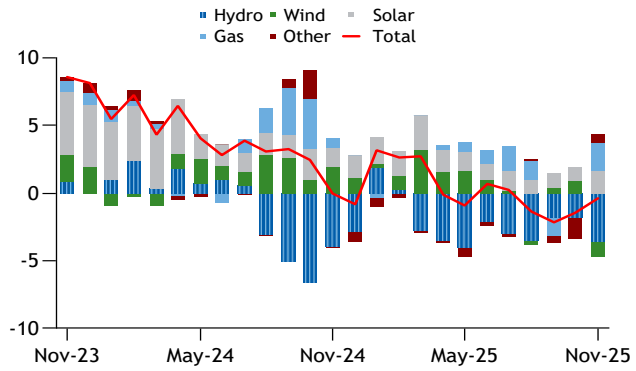
Latin America LNG seasonality chart *mn t*



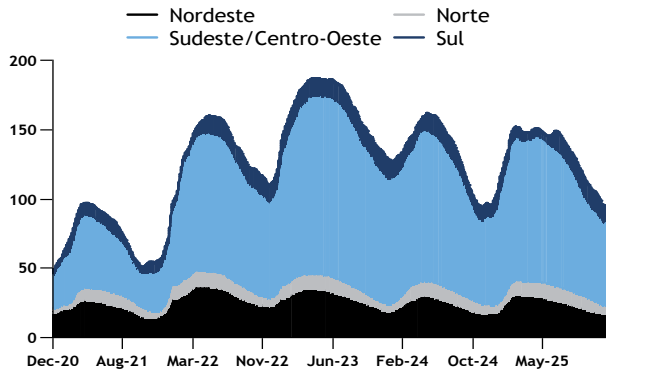
Bolivian flows to Argentina, Brazil *mn t*



Brazil power generation mix, yoy change *GWh*



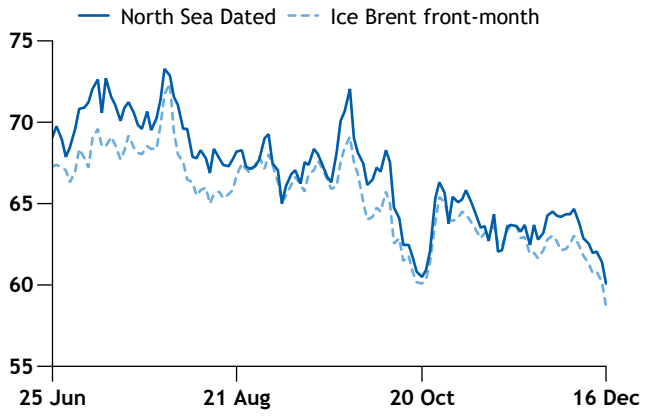
Brazil hydroelectric stocks *TWh*



RELATED MARKETS

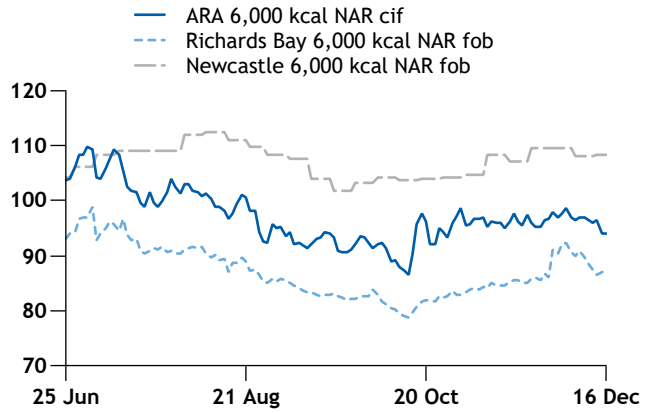
Crude prices

$/bl



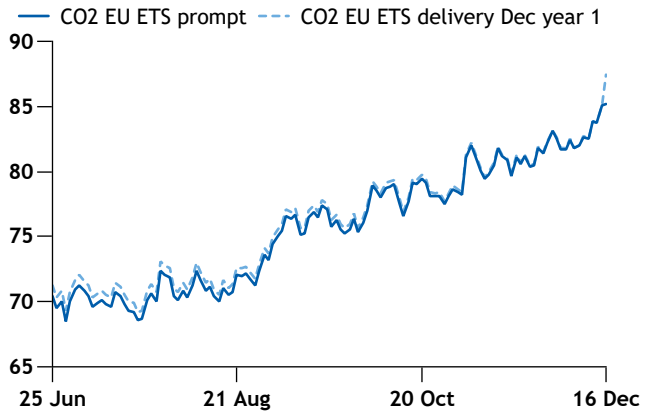
Coal prices

$/t



EU ETS

€/t



Crude prices ease on global surplus

Prices for Atlantic basin crude benchmark North Sea Dated and US marker WTI eased over the past fortnight. Crude prices have fallen modestly this year, despite the large supply overhang, because of the high share of exports subject to sanctions, the lengthening of supply routes and a tight refining system, the IEA said. And while oil on the water has been rising and inventories have been building in China, there has been a notable absence of stockbuilds in key Atlantic basin pricing hubs, which is supporting prices and keeping crude futures in backwardation, the agency said. Washington looks set to proceed with its crackdown on sanctioned tankers shipping Venezuelan crude, and Ukrainian forces have in recent weeks ramped up their attacks on Russian oil infrastructure. North Sea Dated fell by $2.82/bl in the two weeks to 15 December, to $61.43/bl, while WTI dropped by $2.50/bl over the same period to $56.82/bl.

Thermal coal prices fall back

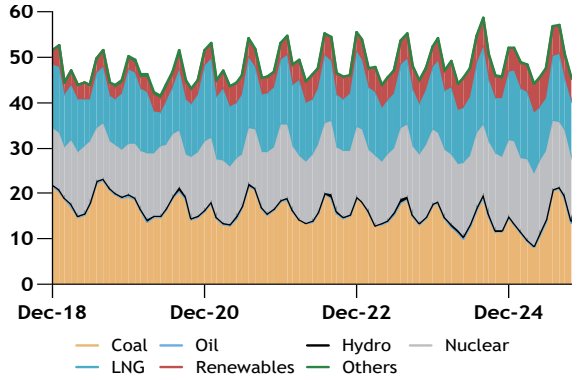
Global coal markets slowed down over the past two weeks, with prices in most key hubs falling after demand from China and South Korea eased. Chinese demand had been driven by winter restocking and government controls at domestic mines, but weaker power consumption kept inventories at ports and utilities high, reducing import demand. This weighed on prices in China and its two largest exporters, Australia and Indonesia. Cfr south China NAR 5,500 kcal/kg coal has fallen by $9.39/t since the beginning of December, to $89.30/t on 12 December. South Korean utility tenders had fallen owing to comfortable stockpiles and milder weather. Key fob Australian NAR 5,500 kcal/kg coal, which supplies China and South Korea, fell by $9.96/t to $74.66/t on 12 December. In Europe, a busy end-of-year trading period supported the NAR 6,000 kcal/kg cif ARA price at $96.54/t, up from $96.25/t at the end of November.

EU ETS prices rise on end-of-year trades

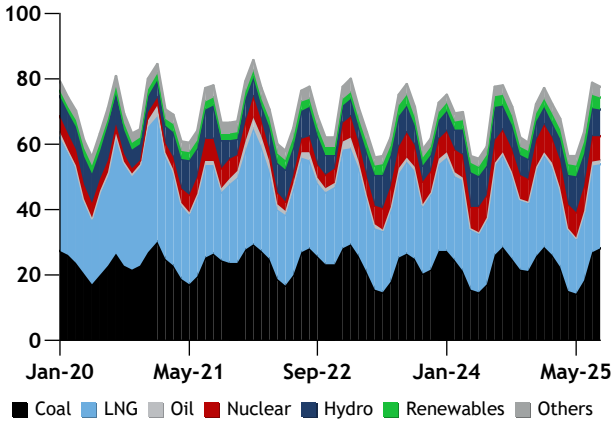
The EU emissions trading system (ETS) December 2025 contract expired at €85.07/t of CO_2 equivalent (CO_2e) on 15 December, €21.89/t CO_2e above the December 2024 contract's expiry at €63.18/t CO_2e. This marked the highest close for the front-year product since October 2023. The front year rose steadily throughout last week and the beginning of this week, as market participants closed out short positions on the December 2025 contract before its expiry and secured supply in anticipation of the three-week pause in primary market auctions. This year's final sale took place on 15 December, and auctions will not resume until 7 January. EU carbon prices found additional support from the revision of the 2026 auction calendar last week, which reduced the number of permits to be sold next year by 52mn because of adjustments relating to the phasing in of maritime emissions to the scheme.

GLOBAL GENERATION ECONOMICS

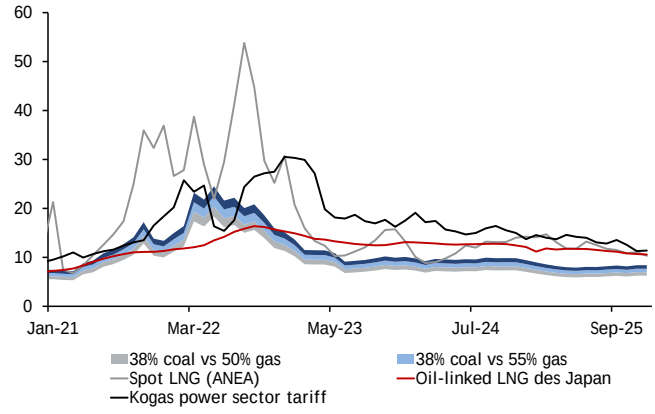
South Korea generation mix (Kepco) *GW*



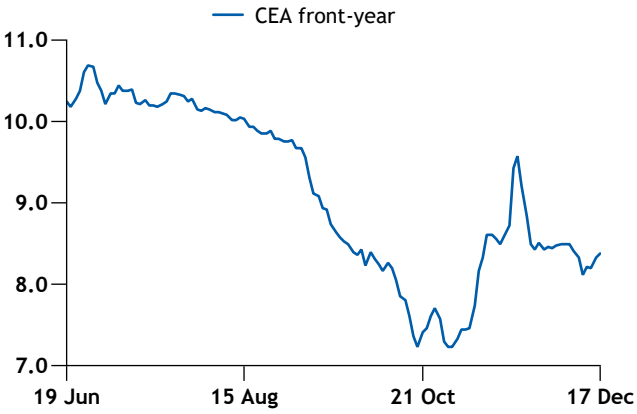
Japanese power generation mix *TWh*



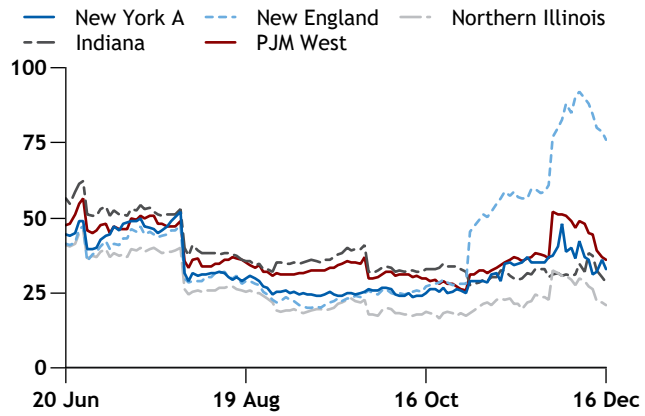
South Korea fuel switching *$/MWh*



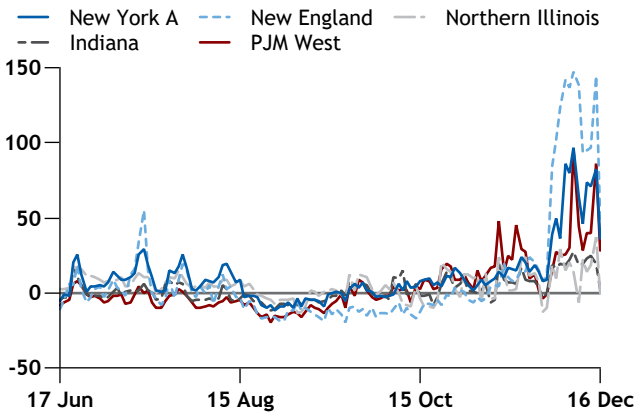
China carbon emission allowances *$/t*



US spark spreads *$/MWh*

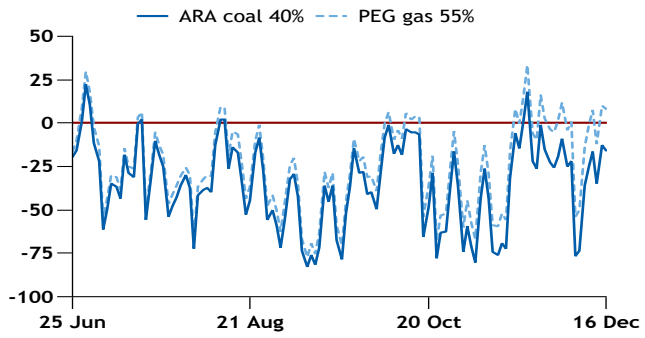


US dark spreads *$/MWh*

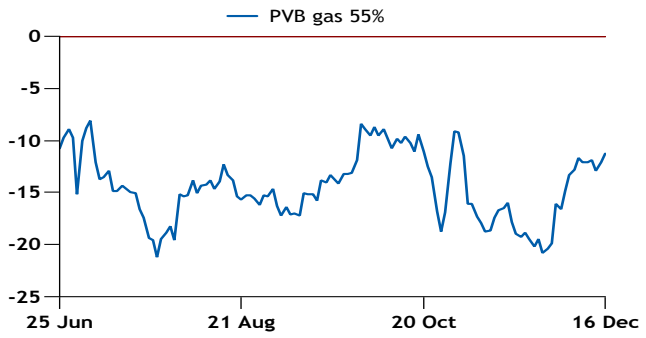


GLOBAL GENERATION ECONOMICS

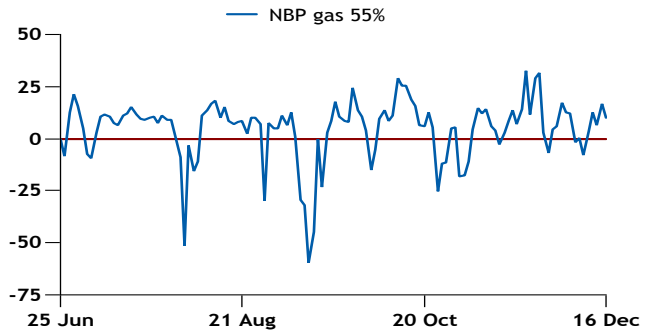
France ETS-adjusted spark spreads *€/MWh*



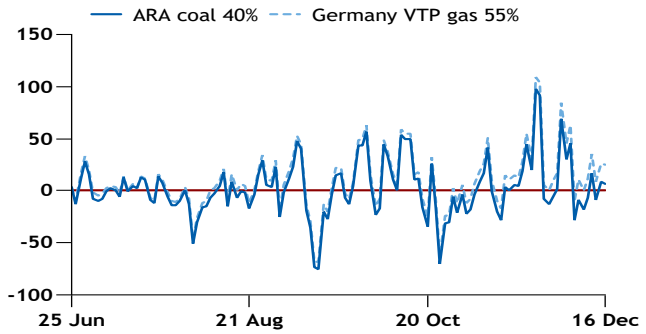
Spanish ETS-adjusted spark spreads *€/MWh*



UK sparks vs darks *£/MWh*

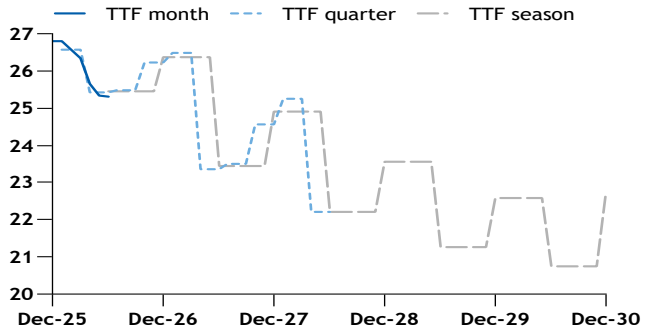


Germany sparks vs darks *€/MWh*

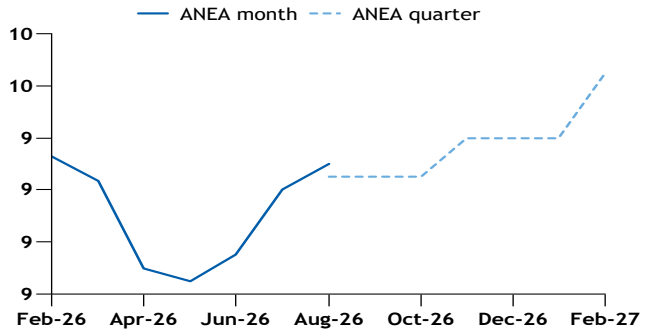


FORWARD CURVES

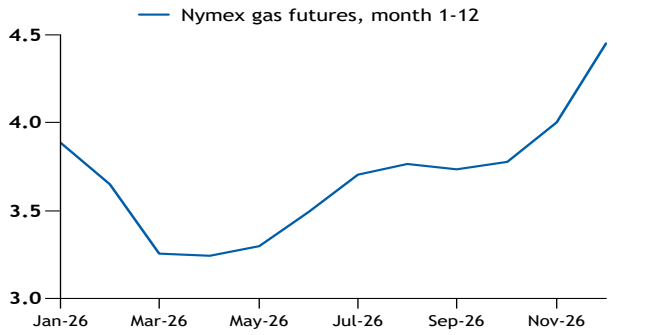
TTF *€/MWh*



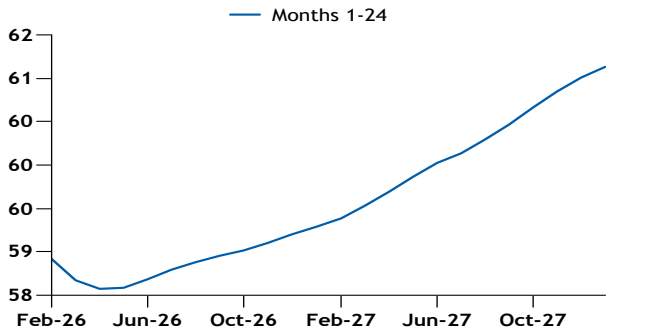
ANEA *$/mn Btu*



Henry Hub *$/mn Btu*

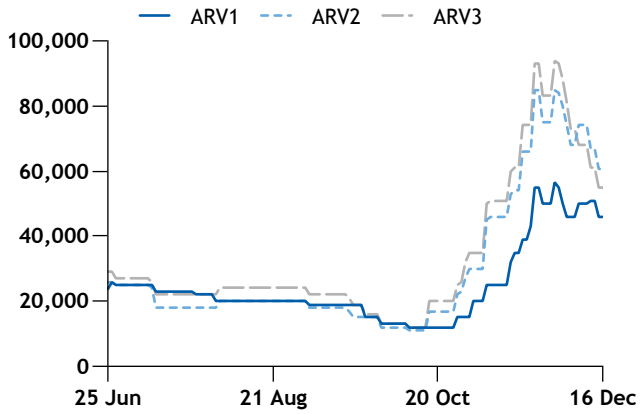


Ice Brent *$/bl*

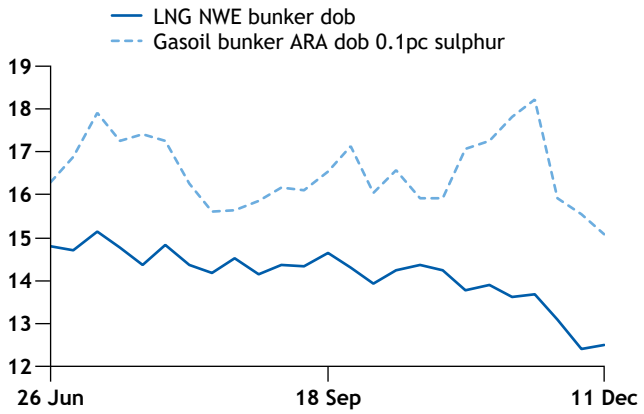


FREIGHT AND LNG AS MARINE FUEL

Argus Round Voyage (ARV) rates *$/d*



Marine fuels competition *$/mn Btu*



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