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NEWS & ANALYSIS

BBL, IUK Q1 2019 capacity to attract bids

- **NBP-TTF Q1 2019 spread narrows to 5.059 p/th Thursday**
- **BBL, IUK total transportation costs seen at 4.44 p/th, 4.85 p/th**
- **PRISMA to auction Q1 2019, Q4 2018 transport capacity Monday**

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NBP bull run enters second day

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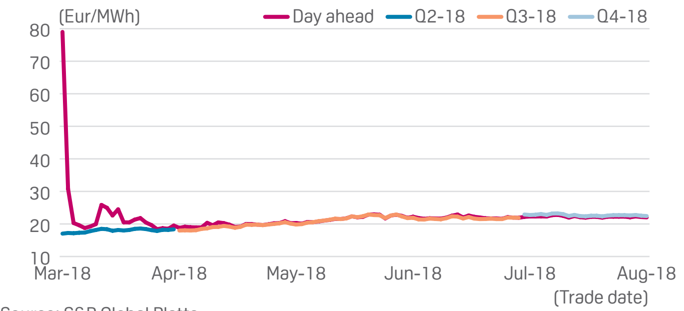
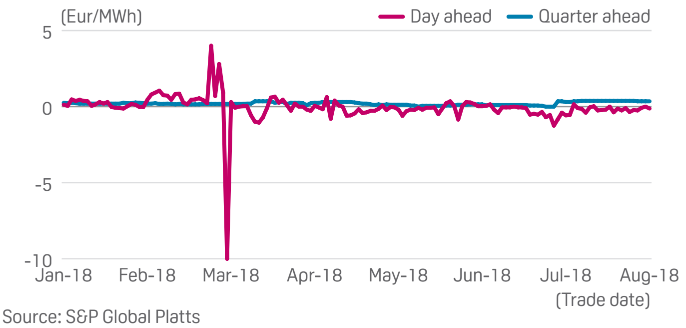
TTF TIME ARBITRAGE



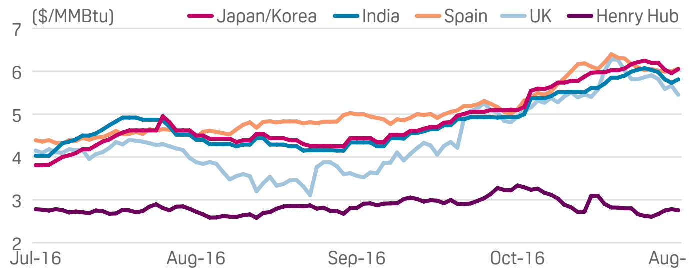
Source: S&P Global Platts

PEG NORD-TTF LOCATION SPREADS



Source: S&P Global Platts

US GULF COAST LNG NETBACKS VS. HENRY HUB



Netbacks = Destination price - Shipping costs (inclusive of boil-off, bunker fuel, daily charter rates and canal fees where relevant).
Source: S&P Global Platts

PLATTS EUROPEAN GAS MIDPOINTS, AUGUST 3, 2018

	p/th	Eur/MWh	$/MMBtu	% change D-1
UK NBP				
Day ahead	59.000	22.600	7.682	+0.85 ▲
September	58.775	22.514	7.653	+1.16 ▲
Dutch TTF				
Day ahead	58.234	22.300	7.581	+1.02 ▲
September	58.038	22.225	7.555	+1.02 ▲
Belgian Zeebrugge Beach				
Day ahead	58.000	22.217	7.553	+0.61 ▲
September	58.050	22.236	7.559	+1.13 ▲
French PEG Nord				
Day ahead	58.234	22.300	7.581	+1.59 ▲
September	58.364	22.350	7.598	+1.02 ▲
French TRS				
Day ahead	67.896	26.000	8.839	+3.38 ▲
September	64.827	24.825	8.439	+0.91 ▲
German GASPOOL				
Day ahead	58.495	22.400	7.615	+1.82 ▲
September	58.364	22.350	7.598	+1.02 ▲
NetConnect Germany				
Day ahead	57.907	22.175	7.538	+0.68 ▲
September	58.168	22.275	7.572	+1.02 ▲
Austrian VTP				
Day ahead	59.539	22.800	7.751	+0.77 ▲
September	59.735	22.875	7.776	+0.55 ▲
Italian PSV				
Day ahead	64.697	24.775	8.422	+1.95 ▲
September	63.326	24.250	8.244	+0.94 ▲
Spanish PVB*				
September	68.549	26.250	8.924	+1.35 ▲

*Formerly AOC.
All prices assessed at 16:30 London time. At month roll, the day-on-day percentage change for month-ahead contracts will reflect delivery-month comparison where applicable.

NEWS & ANALYSIS

BBL, IUK Q1 2019 gas capacity expected to attract bids Monday ...from page 1

Gas transport capacity between the Netherlands and the UK for delivery in the first quarter of 2019 is currently "in the money" and is expected to attract interest from traders in the quarterly auction process, scheduled for Monday.

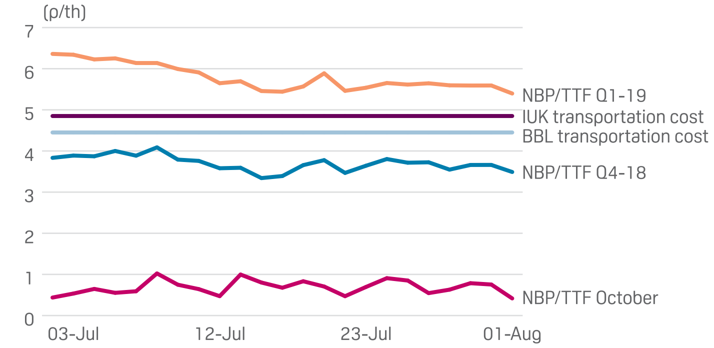
A successful allocation at the BBL interconnector of the 25 million cu m/day of capacity on offer will make the UK supply outlook over the next Winter season look more comfortable against the backdrop of otherwise limited supply from flexible sources such as storage and LNG.

The PRISMA auction starting Monday is the first in 2017-18 gas year to auction transport capacity for Q1 2019, a European gas trader said.

The Northwest European gas market seems to have already started to price in capacity being sold, with the NBP-TTF Q1 2019 spread narrowing to 5.059 p/th on Thursday from 6.36 p/th on July 2, according to S&P Global Platts assessments.

The full transportation cost to use the BBL (including Bacton and Zeebrugge entry/exit fees) for annual and quarterly capacity is 4.44 p/th, Platts Analytics estimated, leaving a margin beyond the price spread to interested shippers.

NBP/TTF SPREADS IN THE MONEY FOR Q1-2019



Source: S&P Global Platts

Traders are also looking at transport capacity through the IUK pipeline, from Belgium to the UK, with transportation costs slightly higher than BBL, at around 4.85 p/th, all fixed and variable costs accounted for, Platts Analytics estimated.

The IUK capacity available for Q1 2019 will be 3.53 million cu m, according to the PRISMA website.

As a result "BBL will be used before IUK, if more capacity is needed then IUK will get booked," Platts Energy Analyst Christopher Arnold said.

UK fundamentals

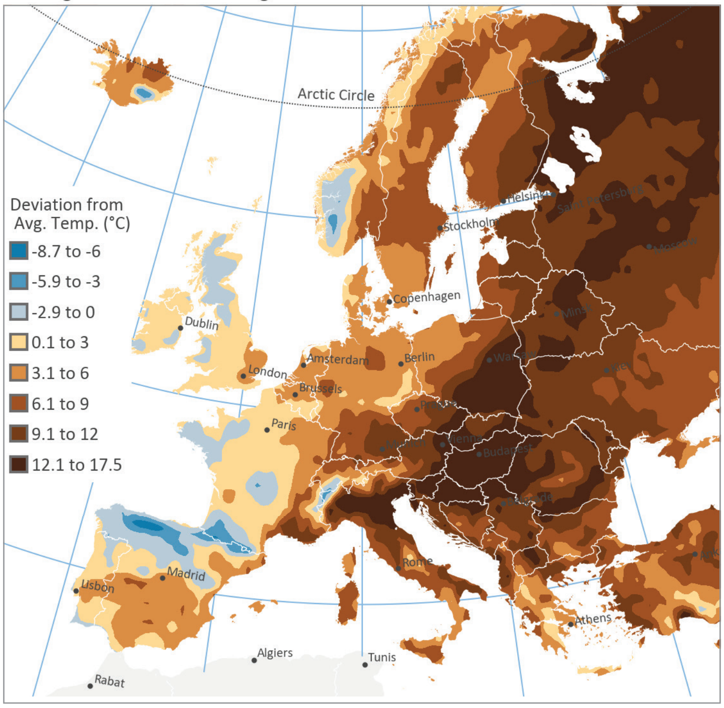
The current Q1 2019 price at the UK NBP has been trading above the delivered cost of gas from TTF through the BBL, suggesting full use of the pipeline, and just below the mid-point of the UK coal-switching channel as the UK system is pricing in flexibility in the power sector. The expectation is that coal-fired plants will come on line, reducing demand for gas-fired generation.

Only 50% of the capacity of the UK coal-to-gas switching channel will be used, equivalent to 14 million-15 million cu m/day of gas consumption, implying lower gas demand from the power sector than a year earlier, according to Platts Analytics.

With long-term storage facility Rough no longer available, the swing in supply is expected to come from Norway, domestic production and imports from the Continent while LNG imports expected to be limited given the higher prices in Asia.

7-DAY-AHEAD TEMPERATURE DEVIATION FORECAST

August 03 forecast for August 10



Source: S&P Global Platts, Custom Weather

The JKM swap price for Q1 2019 was assessed by Platts at $11.65/MMBtu Thursday or $3.23/MMBtu above the equivalent contract for the UK NBP, indicating very limited LNG deliveries in Q1 2019.

OTM capacity

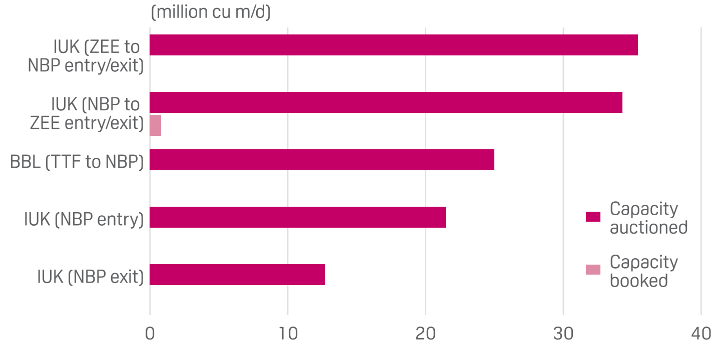
Transport capacity for Q4 2018 will also be available for sale on the BBL and IUK interconnectors. Though the Q4 gas capacity is seen well out of the money as the corresponding NBP-TTF spread is below transportation costs. It is therefore is set to attract little to no bids at Monday's auction.

For traders looking at Q4 delivery a more profitable deal is expected to be the purchase of capacity in November and December. The NBP-TTF spread are at 7.089 p/th for November at 6.052 p/th for December, both above the transportation cost of BBL and IUK.

The monthly auctions for the month ahead are held by PRISMA on October 15 for November and on November 19 for December.

"Now we look at it day by day or just the month-ahead. Can't blame the TSOs that they apply uplifts for booking capacity on a short-term basis" a European gas trader said.

CAPACITY AUCTIONNED BOOKED TO DATE ON THE BBL, IUK



Source: PRISMA

On the IUK, the annual capacity product offered has also attracted very little interest. Of the 104 million cu m/d of capacity (bundled and unbundled) available to bid on both sides of the IUK, only 828,000 cu m was booked to date.

This capacity was sold exclusively on the IUK between the UK and Belgium, known as the forward flow for the 2018-19 gas year. Nothing has been sold to date in the other direction.

The spread between NBP and both TTF and ZEE price is highly seasonal and is wider in winter when the UK gas system is seeking supplies from the Continent to meet high heating demand and it narrows in the summer driven by continental storage injection demand and limits on import capacity from Norway to the Continent.

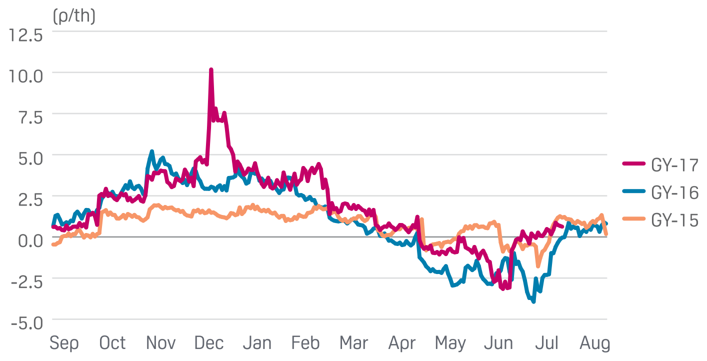
Yet for hedging purposes, traders will be inclined to buy a large share of capacity ahead of the profitable November month and leave the rest for shorter-term speculation. "You have to believe in the spreads and buy capacity [ahead of time]," the trader added.

Available capacity

The BBL's physical capacity is 45 million cu m/d, an increase from the 37 million cu m/d before December 2010, when a fourth compressor station was added.

About 20 million cu m/d is booked until January 12, 2022, as 12.5 million cu m/d is owned by the launching customers GasTerra, Eon (Uniper) and Wingas and 7.5 million cu m/d of capacity was bought in the 2007 Open season.

NBP/TTF MONTH-AHEAD SPREAD



Source: S&P Global Platts

The remaining 25 million cu m/d are sold at auction on PRISMA in annual, quarterly, monthly, daily and within-say bases.

To date from the 25 million cu m/d of capacity available for sale on the BBL, zero volumes of capacity have been booked in annual auctions as the spreads have been out of the money. — *Antoine Simon, Fabio Reale*

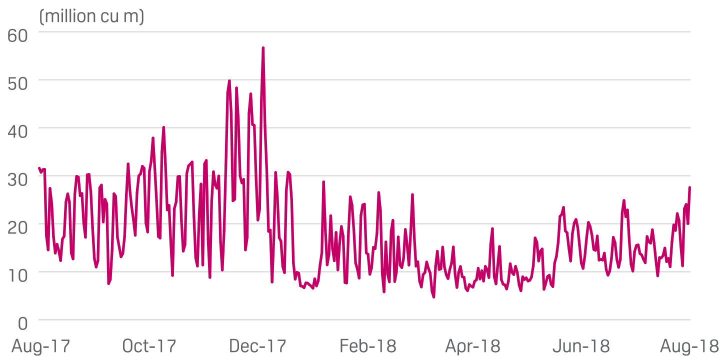
Spanish gas-for-power demand nudges 2018 high, set for further rise

- **28 million cu m used during Thursday's gas day**
- **Enagas nominations for Friday at 30 million cu m**
- **LNG regas hits five-week high to cover gas burn**

Demand for natural gas from Spanish gas-fired power plants came close to reaching a 2018 high during Thursday's gas day due to high temperatures over the country, with Friday's gas-for-power demand expected to increase further, an analysis by S&P Global Platts showed Friday.

Data from S&P Global Platts Analytics showed that Spanish gas-for-power demand hit a six-and-a-half month high of 28 million cu m during Thursday's gas day, the highest daily volume used since January 8, and close to double the July average of 15 million cu m/d.

SPANISH GAS-FOR-POWER DEMAND



Source: S&P Global Platts Analytics

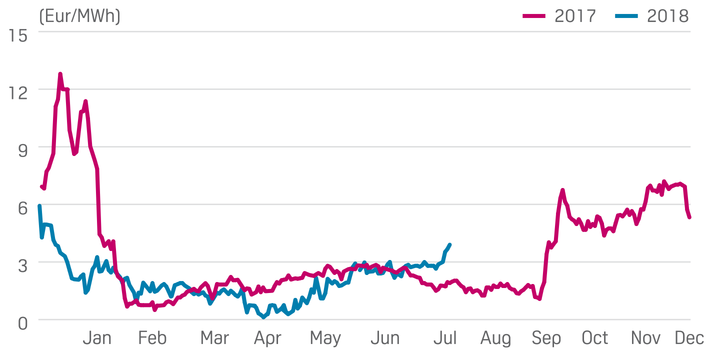
Moreover, Enagas 11:00 CEST (0900 GMT) nominations put Friday's gas-for-power demand at 317.08 GWh (30 million cu m), which would be the highest since mid-December last year.

To compensate for the higher gas-for-power demand, LNG regasification in the country increased to a five-week high of 39 million cu m during Thursday's gas day, further boosted by weaker pipeline imports from neighboring France and steady flows of pipeline gas imported from Algeria.

LNG stocks held in tank in Spain began Friday's gas day at 874 million cu m of natural gas equivalent, higher than at the same time last year where stocks were 672 million cu m.

The expected need to replenish LNG stocks allied to concerns over power imports from France due to potential weaker nuclear generation has seen the PVB prompt extend its premium to the TTF equivalent.

PVB/TTF MONTH-AHEAD BASIS SPREAD



Source: S&P Global Platts

Indeed, the PVB front-month contract was assessed at a Eur3.90/MWh premium to the TTF equivalent on Thursday, the highest prompt spread between the two hubs since early January and comfortably higher than the average PVB premium of Eur1.664/MWh for September 2017 delivery, Platts price data showed. — *Gary Hornby*

EU CO2 prices up 3.7% in Week 31

- **Carbon price takes support from high temperatures**
- **Thermal generation rises on week**
- **August auction supply drops in thin trading**

EU carbon dioxide allowance prices under the EU Emissions Trading System gained 3.7% in Week 31, taking support from high temperatures in Europe and the start of reduced primary supply in August.

EUA futures contracts for December 2018 delivery on the ICE Futures Europe exchange rallied as high as Eur17.85/mt ($20.70/mt) on Thursday — the highest price for the contract since 2011 and the highest price for the nearest-December contract since 2008.

December 2018 EUAs were quoted at Eur17.75/mt by mid-afternoon Friday compared with Eur17.12/mt at the close on July 27.

Persistent and unusually high temperatures across Europe continued to provide a bullish driver for carbon prices in Week 31, pushing up power demand for cooling, reducing the efficiency of power generating units, lowering hydro reserves, and with more stable weather conditions cutting supply from wind.

"The market rebound this week is likely due, in my view, to tight power market conditions, reduced auction volumes and perhaps also lower coal prices which means CO2 prices had margins to rise without having an impact on power prices," said an analyst at a European utility.

"In the short-term, I would hold a cautious stable view as we hit a strong resistance at Eur18.18/mt. Eur18/mt is also the CO2 price floor wanted by the Netherlands in 2020, so we could start to see profit-taking at around that point, which would send a bearish signal," the analyst said.

The heatwave contributed to rising consumption of hard coal and natural gas for power generation compared with Week 30, according to ENTSO-E figures.

Combined use of lignite, hard coal and gas for power in the five largest EU member states rose Thursday to its highest since March 20 at 90.9 GW on average over a 24 hour period.

This was primarily driven by higher gas for power in the UK at an average of 12.9 GW, Italy at 13.9 GW and Spain at 8.25 GW, the figures showed.

Higher thermal power output raises CO2 emissions, driving demand for EUAs.

This factor combined with an almost 50% cut in auction supply in August as governments reduce sales in the summer period.

Trading volume on EUA futures contracts showed a marked drop, with some market participants away on vacation. Daily volume on the exchanges fell as low as 7.25 million mt on Thursday, compared with an average of 14.7 million mt/day in Week 30.

Looking at the long-term picture, Week 31 saw fresh analyst views on EUA prices in 2019 and 2020, with Germany's Berenberg bank forecasting a rise to Eur25/mt in 2019 — an approximate level which the bank expects coal-to-gas fuel switching to occur in the power generating sector.

But this view is dependent on supply in the coming years being insufficient to cover utility hedging demand, forcing CO2 abatement.

In addition, the fuel-switching price remains highly dependent on underlying fuel price dynamics, and any drop in gas prices or rise in coal would lower the carbon price needed to prompt fuel switching.

"Specific EUA price levels may ultimately depend on the marginal supply source for EUAs going forward," said Jeff Berman, director of emissions and clean energy at S&P Global Platts Analytics.

"Emissions reductions via power sector coal-gas switching represents one point on the EUA supply curve. However, higher EUA prices may be required to free up new supply, by encouraging industrial emitters to sell from their remaining surplus, or even reducing emissions themselves," he said Friday.

Looking ahead to Week 32, auction supply is set to fall to 11.94 million mt of EUAs from five auctions, compared with 14.5 million mt in Week 31.

On the demand side, the heatwave is expected to continue in the first part of the week, with temperatures in most of Europe expected to say well above normal levels by August 7, according to CustomWeather forecasts on Thursday.

Conditions will be especially hot, with temperatures of at least 12 degrees Celsius above normal in parts of Spain, France, the Netherlands, southern Germany, northern Italy and large areas of southeastern Europe, it said. — Frank Watson

July heat, wind lull offset by hydro, nuclear, solar, coal gains across EU4

- **Gas output down 3.9 GW on year, coal up 0.5 GW for EU4**
- **Hydro up 5 GW, solar up 2.3 GW, wind down 3.3 GW on year**
- **French nuclear, German coal fuel record exports to hotspots**

Gas-fired power output during July across much of Continental Western Europe remained below July 2017 levels with increased hydro, nuclear and solar output as well as a ramp-up for German coal offseting bullish hotspots stemming from low wind, reduced Nordic hydro and nuclear outages in Belgium, TSO data aggregated by S&P Global Platts Analytics show.

The data covering demand and supply for Germany, France, Spain and Italy for July shows an average 2.5 GW demand gain on the year mainly due to warmer-than-usual temperatures.

Spanish demand was actually down for July with the heatwave in July mainly impacting Northern Europe.

The heatwave focus shifted towards Southern Europe in early August with forecasts of above 40 C temperatures across Iberia, boosting demand for power and impacting supply from thermal plants including some nuclear reactors on the Rhone river in Southern France.

The surge in Continental hydro eased in July, but output for Spain, France and Italy was still up over 5 GW compared to July last year.

That compares to a growing hydro deficit across Scandinavia reversing power flows on the Dutch and German interconnectors with Sweden, Norway and Denmark.

Wind levels remained well below average with a combined 3.3 GW decline on the year for the EU4 countries.

Solar meanwhile surged to records in Germany and France, adding a combined 2.3 GW with some analysts seeing solar especially during peak demand hours as an additional reason for gas plant output below expectations despite spot power prices reaching multi-year-highs.

Thermal gap kept shrinking in July

Within the shrinking 'thermal gap', coal performed better than gas in July despite the continued rally in EUA carbon allowance prices, which tripled since last summer reaching fresh seven-year highs.

Gas plant output in July was on average 3.9 GW lower than in July last year, while coal plant output was up 0.5 GW on the year, the data

SWINGS IN POWER GENERATION FUNDAMENTALS

July 2018 vs July 2017

	Power demand	Less flexible generation					Thermal gap	Make up of thermal Gap	
		Hydro	Nuclear	Wind	Solar	Lignite		CCGT	Coal
Germany	577	-194	1096	-1461	1731	1417	844	-640	1484
France	847	1813	2293	-724	346	-	-680	-299	-381
Italy	1267	991	-	-7	13	-	-759	-927	168
Spain	-198	2423	151	-1115	167	-	-2769	-2024	-746
Total	**2493**	**5033**	**3540**	**-3306**	**2257**	**1417**	**-3365**	**-3890**	**525**

(All values in average MW/day)

Source: S&P Global Platts Analytics

shows, with German coal accounting for a 1.5 GW gain alone.

German lignite coal plants, which follow different pricing signals than hard-coal, ramped up to their highest since January, up 1.4 GW above July 2017 levels.

Most German coal plants remain ahead of gas in the merit order with coal-fired generation margins rebounding from record-lows in May, Platts fuel switching data shows.

Gas plant generation margins across Southern Europe also declined sharply compared to 2017 levels with the power system generally better supplied.

But gas plant utilization improved compared to Q2 which registered an average 4.7 GW decline for gas, and a 4.1 GW decline for coal across the four key markets.

Heatwave conditions will stretch deep into August with thermal plant restrictions becoming more widespread especially hitting French nuclear and German coal.

Low Nordic hydro levels and Belgian nuclear outages will also continue to weigh into the autumn with combined German and French power exports already running at record-highs with an average 13 GW flowing across their external borders so far this year.

This set of data does not track cross-border flows, but as a whole the four markets have a net power surplus mainly because of Germany and France, which are Europe's biggest exporters of electricity.— Andreas Franke

China adds US LNG to list of products for potential 25% import tariff

China has added US LNG to its list of products liable to a potential 25% import duty if the US follows through on threats to expand its existing round of tariffs on Chinese exports, according to an announcement Friday by the Customs Tariff Commission of the State Council.

The move by Beijing comes in response to US President Donald Trump's decision earlier this week to explore the possibility of 25% tariff on $200 billion worth of Chinese products as the trade war between China and the US continues to escalate.

US LNG imports into China do not attract any duty currently.

The trade war between the US and China escalated in June when China announced an additional 25% tariff on $50 billion worth of US goods, including energy and agricultural products. But LNG, demand for which is rising in China, was not on the list.

China is on track to become the largest buyer of US LNG this year. It has imported more than 1.25 million mt to date this year, compared with 1.61 million mt in the whole of 2017, behind Mexico and South Korea, according to data from S&P Global Platts Analytics.

China became the largest contributor to global LNG consumption growth in 2017. It surpassed South Korea as the world's second-largest LNG importer and its share of global LNG demand is expected to rise to the same level as Japan's by 2030. — Robert Perkins, Staff, Sapna Dogra

UK's Serica to buy Total North Sea stakes if Iran sanctions waived

- **Total deal depends on US waiver for Rhum**
- **'Advance talks' underway with US**
- **Rhum provides 4% of UK gas demand**

BP and UK independent Serica Energy are in "advance stage" talks with US authorities to obtain an exemption from sanctions for the Rhum gas field in the North Sea, which is 50% Iranian-owned, as Serica prepares to buy both BP's stake in the field and Total's stakes in the nearby Bruce and Keith fields, it said Friday.

In a statement, Serica announced plans to bulk up its planned purchase of BP's stakes in the three fields by also buying Total's stakes (42.25% and 25% respectively) in Bruce and Keith, with the purchases from Total conditional on the purchase from BP.

The deals continue a trend of the oil majors exiting traditional North Sea fields, while remaining active in the less-explored West of Shetland area.

BP and Serica are "actively engaged in advance stage discussions with both UK and US governments to provide the basis on which the necessary licence consents can be obtained and thereby enable continuing operations on the Rhum field after expiry of the existing OFAC Licence," Serica said, referring to the US Office of Foreign Assets Control, which enforces US sanctions.

The Rhum field supplies about 4% of UK demand and was shut down in 2010 for four years due to sanctions against National Iranian Oil Company, before agreement was reached to hold Tehran's share of revenues for release in future. Last September BP obtained a license from OFAC to ensure continued operation of the field, since when the US has decided to reinstate sanctions against Iran, and the license expires on September 30.

Rhum has been producing around 134 MMcf/d of gas in recent months, with about 1,000 b/d of liquids. Oil and gas from the field is transported via Bruce and Keith, in which Iran has no ownership, for onward shipment through the Frigg gas pipeline and Forties oil pipeline. Bruce and Keith are much depleted, but together have been producing about 2,500 b/d of oil and 60 MMcf/d of gas.

The UK authorities have said little publicly about the effort to ensure a waiver of sanctions for Rhum; regulator the Oil & Gas Authority told Platts last month it was working with the UK government on the matter.

The planned purchase of Total's stakes in Bruce and Keith, amounting to reserves totaling 11 million barrels of oil equivalent, together with the BP stakes means Serica would hold 50% of Rhum, 78.25% of Bruce and 59.83% of Keith. Total plans to retain 1% of Bruce for possible later sale.

The Bruce and Keith purchases "will further strengthen Serica's position as one of the leading mid-tier independent oil and gas producers on the UK continental shelf and will provide incremental benefits to the company," Serica said.

Serica has only negligible production from an 18% stake in the Erskine field, which has had numerous technical disruptions.

Under the deal with Total it would not pay for its stakes from existing cash holdings, but would pay $5 million initially from Bruce and Keith production dating from January 1 this year, with a further $15 million to be paid in installments over 24 months subject to Rhum being allowed to keep producing.

BP previously said Serica would make an initial payment of GBP12.8 million ($16.6 million) for the UK major's stakes in Rhum, Bruce and Keith, and BP would gain a share of future cash flows, including to cover BP's liabilities for eventual decommissioning of the facilities. — Nick Coleman

GASPOOL to revise Options, conversion for forthcoming winter

- **German market operator to present new measures early Sept**
- **Short term supply sourcing and H-L gas conversion under review**
- **Conditions in previous winter provide rationale for change**

German gas market coordinator GASPOOL will soon present new measures to secure winter supplies of Low Calorific Value, 'L-Gas', into their network collective, it said on its website Friday.

GASPOOL said it has carried out an in-depth review of previous winter months, and was in the process developing new potential long-term option contracts and gas quality conversion requirements for the upcoming winter.

Options contracts in a network context refer to agreements between shippers and the market operator to supply further quantities of gas should certain price or other network conditions be met on any given day. Should a shipper be called on to act on a request from GASPOOL, they would need to change their physical flows to meet the requirements of the overall network. This is often offered as an incentive during a tendering process — the conditions of which GASPOOL is now looking to change.

GASPOOL is also suggesting that they are considering a variable fee for H-L gas conversions, which will provide criteria by which the market operator can change the conversion fee when system conditions require it, having viewed that the fee cap currently set at Eur0.45/MWh offered insufficient incentive for L-Gas imports.

"We are going to increase the reserve volumes to be held available under Long-Term Option contracts so that we will be able to respond swiftly and flexibly if we should again experience tight balancing situations similar to those seen in the winter months of the 2017-18 gas year, which particularly affected the low-cal sector." GASPOOL Managing Director Joerg Ehmke said.

Rationale

GASPOOL's decision to re-evaluate these mechanisms was based on many important operational factors.

In the gas winter of 2017, GASPOOL's L-Gas balancing actions cumulatively increased supply by 10.9 TWh, quadruple the previous winter's, while the volume weighted average price of L-Gas balancing actions came too Eur23.81/MWh, having barely surpassed Eur20/MWh in the previously year.

Conversely, H-Gas balancing quantities totaled a supply reduction of 4.1 TWh. This surplus of H-Gas and deficit of L-Gas led to a 41-fold year on year increase of conversion volumes to nearly 5.1 TWh, as it was economically attractive for L-Gas portfolio managers to supply their customers with converted H-Gas.

GASPOOL also found itself to be the only actor in market areas with L-gas entries; "a single buyer situation." They also found themselves as the only capacity holders at Dutch L-Gas border points, and frequently resorted to obtaining Dutch L-Gas volumes to balance the system.

For the potential change in long-term options, GASPOOL said that in gas year 2017, L-Gas quantities secured by this method were over 2.5 times greater than in previous years, and forecast that locational physical performance in response to large purchases could worsen, and so there exists a requirement to adjust option demands.

The next long-term option tendering round is set to take place in early November, with the new measures finalized and incorporated into this process. — Neil Hunter

Hungary's MOL Q2 European gas production down 9.1% on year

- **Lower Croatian output behind drop, natural decline**
- **Midstream profits drop on high costs, flat revenue**

Hungary's MOL extended a decline in Europe-wide natural gas production in the second quarter of 2018, down 9.1% year on year to 44,600 b/d of oil equivalent, led by falling output in Croatia, MOL said in its quarterly earnings report Friday.

The natural decline of mature fields was primarily responsible for the drop in Croatian production, by 11% to 19,000 boe/d in Q2. Within this, offshore output fell another 21% year on year to 6,400 boe/d, while onshore output also decreased, down 5.2% year on year to 12,600 boe/d. Hungarian output also fell, down 7.2% to 24,500 boe/d.

MOL said it is continuing with production optimization programs in order to arrest the decline in CEE gas output. The company completed 18 well workovers in Hungary in Q2, resulting in a 2,500 boe/d production uplift (including both oil and gas) at the end of the quarter.

In Croatia, the company completed 21 well workovers in Q2. The recent acquisition of offshore assets from Italy's ENI should result in additional output of 2,500 boe/d, MOL said.

At MOL's oil-focused UK North Sea operation, gas output fell 9.6% year on year to 1,100 boe/d in Q2, as the ramp-up of production at the Catcher field was offset by lower output elsewhere.

MOL's European gas output in the first half of 2018 was down 5.9% year on year at 46,500 boe/d. Production appeared to be broadly on target in the first half of the year, as group-wide gas output (which includes Pakistan, MOL's only non-European gas-producing operation) was 52,700 boe/d, versus about 51,000 boe/d planned on average for 2018.

Average natural gas prices realized by MOL reached $35.03/boe in Q2. This is up 25% year on year, though down 1.4% from the previous quarter.

MOL spent $63.9 million on upstream investments in Q2 (including both oil- and gas-focused projects), down 8.4% year on year. Within this, field development spending totaled $43.1 million, down 20% after the completion of earlier projects in Croatia and the UK. Exploration spending was up 83%, led by works in Hungary and Croatia.

MOL's gas midstream operations — comprising Hungarian pipeline operator FGSZ — saw EBITDA fall 16% year on year in Q2. Revenues were flat, as stronger domestic shipping volumes (led by gas storage), rising international transit and higher revenue from short-term capacity bookings were offset by lower revenue from annual capacity bookings. Meanwhile, higher gas prices raised energy costs, MOL said. — Balazs Szladek

Croatia's Krk LNG open season deadline extended to September

- **Extension requested by potential terminal users**
- **Process fundamentally unchanged**

The deadline for the binding open season second round procedure for the 6 Bcm/year LNG import terminal on Croatia's Krk Island and the associated pipeline has been extended from August 3 to September 28, Croatia's gas TSO Plinacro and the developer LNG Croatia said Thursday.

LNG Croatia said it had opted to prolong the deadline for closing the second round to September 28, at the latest, "following the receipt of requests from potential terminal users for an extension of the timeframe for bid submission." This practically means bidders may submit supplemented or new bids until that date.

In coordination with Plinacro and Hungary's natural gas TSO FGSZ, LNG Croatia approved a new timetable for implementing the remainder of the second binding round. The new timetable for booking capacity in the second round of the open procedure will be forwarded to all companies that registered for participation in the process, LNG Croatia said.

Plinacro and LNG Croatia will jointly implement the LNG project, which includes construction of the LNG terminal on the island of Krk and a pipeline for delivery of gas from the LNG terminal.

Plinacro said it has harmonized its own open season time schedule for carrying out the relevant procedure with the LNG Croatia open season procedure; however, two separate open season procedures (one by Plinacro/FGSZ and another by LNG Croatia) will be carried out since Plinacro/FGSZ and LNG Croatia offer different products.

After a binding offer is accepted by the terminal operator, the respective customer will be able to sign a long-term contract with LNG Croatia to finally book the previously allocated capacity.

The planned start of operations of the LNG Terminal is envisaged for January 1, 2021, the Croatian TSO said in a statement. Therefore, the annual capacity product for gas year 2020/2021, for entry at the Omišalj and Dravaszerdahely interconnection, will be available from January 1, 2021, and charged accordingly. — *Vladimir Pekic*

German energy-related carbon emissions seen 3% lower in H1: AGEB

- **Primary energy demand for H1 down 1% on mild spring**
- **Hard coal demand down 14% on year**
- **Gas up 2.6% on cold Q1, oil down 2.8% vs H1 2017**

German energy-related carbon emissions are estimated to have fallen 3% year on year in the first half of 2018 after primary energy consumption dropped 1% as a mild spring more than offset the 5% demand gain during a cold first quarter, German research group AG Energiebilanzen (AGEB) said based on initial estimates.

Adjusted for weather anomalies, primary energy demand would be up 1.5%, it said.

Last year, German carbon emissions dropped 0.5% to 905 million mt of CO2 equivalent, according to government data, with power plants reducing emissions by 4% or 13.7 million mt to 318.5 million mt. Emissions in the transport sector last year increased by over 2%, with transport emissions now above 1990 levels, it said.

Compared with 1990, total emissions are down some 28% with Germany lagging behind its national target of a 40% cut by 2020. In June, the government admitted for the first time that it will miss this 2020 target with emissions on track for only a 32% cut over 1990.

Oil and gas keep dominating German energy mix

Within the energy mix, gas demand was up 2.6% year on year, driven mainly by strong heating demand in February and March and despite a dip in gas for power generation.

Hard coal demand plunged 14%, with lignite coal demand in the first half also down 3% year on year, it added.

Demand for oil products fell 3% year on year in the first six months of the year, driven by a 12% decline in light heating oil, but with higher oil prices also causing a decline for other producsts, AGEB, which bases its data on comprehensive industry data, said.

Demand for renewables surged 4.4% year on year, now accounting for 14% of primary energy demand, the data shows.

Oil and gas continue to dominate the energy mix of Europe's biggest economy, with a 33.3% and 25.5% share respectively, it said.

The combined share of hard and lignite coal in the German energy mix dropped to 20.8%.

GERMAN PRIMARY ENERGY MIX H1 2018 (vs H1 2017)

	H1 2018	H1 2017
Oil	33.3	33.8
Gas	25.5	24.6
Coal	20.8	22.5
Nuclear	5.9	5.4
Renewables	14	13.2

Source: AGEB

Germany's net power export surplus reached a new record, accounting for 0.5% in the national primary energy mix, with nuclear still accounting for 5.9%. — *Andreas Franke*

PSV spot gas prices sees slower annual gains than TTF

- **PSV spot averages Eur24.220/MWh, up 38% on year**
- **Premium to TTF falls by 17% on year to Eur2.032/MWh**
- **Gas-for-power begins August strong, firm northern imports**

Italian PSV natural gas spot pricing posted a solid annual increase in July, but increased slower than other European gas hubs year on year, S&P Global Platts price data shows.

PSV spot delivery averaged Eur24.220/MWh during July, marginally above June's average of Eur23.814/MWh, but up 38% from Eur17.559/MWh in July 2017.

However, the Dutch TTF spot rose by 47% on an annual basis and the UK NBP by close to 60%, with PSV pricing cushioned from increases due to its lack of reliance on Russian gas flows into Germany, which were hit by maintenance works last month.

As a result, the PSV/TTF spot basis came in at Eur2.032/MWh in July compared to the Eur2.457/MWh in the same month last year.

Imports from Austria, sourced from Russia, picked up on the back of the Yamal and Nord Stream works last month, climbing 27% on an annual basis to 2.807 Bcm, cushioning the PSV spot from larger increases on the year, data from S&P Global Platts Analytics showed.

Moreover, demand in the country was down 3% year on year to 4.149 Bcm, allowing for more gas to be placed back into storage reservoirs due to the more comfortable system.

Storage injections of 1.871 Bcm were 6% higher than the 1.770 Bcm from July 2017.

However, some tightness resulted from weaker imports from Northwest Europe via Switzerland, which fell 28% on an annual basis, potentially due to the narrower PSV/TTF spot basis.

August has started with a bang in terms of gas-for-power demand in the country, and with temperatures set to warm further in the early part of the month, this could see a large drag on gas deliveries into the north of the country in order to balance the system in addition to maintaining injections at the required pace. — *Gary Hornby*

ITALIAN SUPPLY/DEMAND BALANCE

(million cu m)	Jul-18	Jul-17	% Change
Production	389	372	5
LNG imports	635	930	-32
Total pipe imports	4,996	4,755	5
Tunisia	1,059	1,110	-5
Austria	2,807	2,215	27
Libya	368	371	-1
Slovenia	0	0	-
Switzerland	761	1,058	-28
Storage (Withdrawal)	39	31	24
Total Supply	**6,059**	**6,088**	**0**
Storage (Injection)	1,871	1,770	6
Total end user demand	4,149	4,280	-3
Industrial	1,096	1,142	-4
LDC	953	926	3
Power	2,020	2,125	-5
Other end users	79	86	-8
Total Demand	**6,020**	**6,050**	**0**

Source: S&P Global Platts Analytics

MARKET COMMENTARY

NBP bull run enters second day as buying pervasive ...from page 1

UK spot gas continued to have a major bullish influence on the NBP curve Friday, as some major changes in supplies to the system took hold, leaving the system short for the day.

National Grid's line-pack assessment stood at 3 million cu m short at 1630 GMT, with demand predicted to out-turn at 155 million cu m. Forecast consumption for Saturday, Sunday and Monday at 1630 GMT was 148 million cu m, 145 million cu m and 170 million cu m, respectively.

The within day NBP price was assessed upwards at 59.40 p/th, with day -ahead closing at 59 p/th. Both of these contracts finished above September and October delivery, which were assessed at 58.775 p/th and 58.975 p/th, respectively, both rising 0.675 p/th on Friday.

Demand for CCGT power generation continued to rise, with nominations reaching 59 million cu m by market close. The continued warm weather and lower wind generation contributed to this increase.

The system was beset by many supply changes, which contributed to the spot's bullishness.

Flows into the St Fergus SAGE terminal ceased as planned maintenance was performed for Friday's gas day. This restricted UK and Norwegian Continental Shelves supplies entering the grid at this location, with a 57 million cu m/d loss of capacity, although it has been flowing at a rate of 12 million cu m/d prior to shut-down. Norwegian flows via Langeled jumped to 63 million cu m/d by way of compensation.

St Fergus NSMP sub-terminal flows also fell back to 15 million cu m/d, down 10 million cu m/d from Thursday as planned offshore maintenance got underway. The Cygnus field entering at Bacton Perenco also began its planned maintenance period.

Storage nominations totaled 7 million cu m of net withdrawal for Friday, in response to high spot prices. This helped bring the system closer to balance.

Further out, the influence of the spot could be felt as the near curve maintained its shape as the system fundamentals pushed it up. Winter 18 saw the biggest gain on the seasons, up 0.625 p/th to 64 p/th. The remainder of the curve saw patterns consistent with the addition of risk premium, as seasonal products beyond the front winter moved upward in pairs, defying movement on the fuels complex.

TTF, NCG gas curves bullish on lower supplies

- **Near term temperatures in Berlin to remain 5-7 C above norms**
- **H-cal gas flows from Belgium, Germany and Norway ease**
- **Dutch, German curves shed 10-20 euro cent/MWh**

The TTF and NCG gas contracts were bullish across the curves Friday, amid lower forecast supplies from Belgium and Germany and strong gas-for-power demand supporting prompt prices.

The TTF day-ahead price rose 22.5 euro cent/MWh to Eur22.3/MWh, while the rest of the curve rose around 10-20 euro cent/MWh, similar to the German NCG and Gaspool curves.

Temperatures in Amsterdam were expected to remain 3 C above norms next week. In Berlin, temperatures are expected to remain 5-7 C above norms in the coming week, CustomWeather data showed.

Hot temperatures next week are expected to continue lending support to the German and Dutch gas-for-power demand, amid water cooling restrictions.

Dutch imports of Belgium and German H-cal gas were expected to continue to ease Saturday, following the same downward trend since the beginning of the week. Flows imported from Belgium were due to ease to 2.1 million cu m, down from 7.8 million cu m, via the border point at Zelzate. Similarly, German import flows via the Oude border point on the Dutch-German border are due to fall to 30.9 million cu m, from 36.1 million cu m Friday.

Elsewhere, Norwegian supply to the Dutch-German border at Emden-Dornum were also lower on day at 142 million cu m, compared with 146 million cu m Thursday, data from Norwegian gas operator Gassco showed.

PLATTS UK NBP ASSESSMENTS, AUGUST 3, 2018

UK NBP market	p/th	Change D-1 (p/th)	Eur/MWh	$/MMBtu
Within day	59.400	+0.900	22.753	7.734
DA 11:00 am	58.650	+0.250	22.466	7.637
Day ahead	59.000	+0.500	22.600	7.682
Weekend	58.450	+0.450	22.389	7.611
Working week+1	58.750	+0.500	22.504	7.650
Balance month	58.550	+0.550	22.428	7.624
September	58.775	+0.675	22.514	7.653
October	58.975	+0.675	22.590	7.679
November	63.600	+0.750	24.362	8.281
December	65.975	+0.675	25.272	8.590
Q4 2018	62.800	+0.675	24.055	8.177
Q1 2019	65.200	+0.575	24.975	8.490
Q2 2019	53.050	+0.350	20.321	6.908
Q3 2019	50.450	+0.450	19.325	6.569
Winter 18	64.000	+0.625	24.515	8.333
Summer 19	51.750	+0.400	19.823	6.738
Winter 19	59.450	+0.425	22.772	7.741
Summer 20	47.350	+0.350	18.137	6.165
Winter 20	56.200	+0.350	21.527	7.318
Summer 21	47.000	+0.300	18.003	6.120
Winter 21	55.850	+0.200	21.393	7.272
Summer 22	46.200	+0.175	17.697	6.016
Gas year 2018	57.875	+0.500	22.169	7.536
Cal 2019	56.475	+0.475	21.633	7.354

ICE UK NBP FUTURES, AUGUST 3, 2018 (p/th)

Month	Close	Previous	Change	Low	High	Volume
Sep-18	58.770	57.930	0.840	58.010	58.950	6495
Oct-18	58.970	58.100	0.870	58.270	59.100	3715
Nov-18	63.590	62.740	0.850	63.600	63.630	1175
Dec-18	65.970	65.170	0.800	—	—	925
Jan-19	66.340	65.630	0.710	—	—	975
Q4 2018	62.835	61.995	0.840	62.390	62.960	240
Q1 2019	65.241	64.533	0.708	65.200	65.320	255
Q2 2019	53.084	52.566	0.518	—	—	—
Q3 2019	50.515	49.904	0.611	—	—	—
Q4 2019	57.312	56.829	0.483	—	—	—
Q1 2020	61.664	61.244	0.420	—	—	—
Q2 2020	48.237	47.857	0.380	—	—	—
Q3 2020	46.534	46.154	0.380	—	—	—
Win 18	64.025	63.250	0.775	63.340	64.100	675
Sum 19	51.792	51.228	0.564	51.500	51.900	90
Win 19	59.476	59.024	0.452	59.150	59.550	45
Sum 20	47.381	47.001	0.380	47.300	47.300	5

Source: ICE Futures Europe

ICE ENDEX UK OCM, AUGUST 2, 2018

	No. trades	SAP (p/th)	Energy (therms)	Values (GBP)
NBP total	112	59.0900	7,759,000	4,584,793

OCM – On-the-day Commodity Market

Source: ICE ENDEX

PLATTS UK NBP INTRA-DAY GAS PRICES: AUGUST 3

p/th	Within day (A)	Next day (B)	EFA day ahead
August 3	58.500	58.250	58.313
August 4	58.250	58.250	58.250
August 5	58.250	58.650	58.550

Prices assessed at 1100 UK time. EFA day-ahead is calculated at A*6/24 plus B*18/24. This reflects the difference between the 5am-start gas day and the 11pm-start EFA power day. During Monday-Thursday only the top row contains data, other rows used ahead of weekends and bank holidays.

Dutch L-cal gas domestic production was expected to fall Saturday by 2 million to 52.3 million cu m, data from S&P Global Platts Analytics showed.

ZEE/NBP spot basis widens, outright extends Thursday's move higher

- **ZEE/NBP spot basis widens 0.15 p/th to a 1 p/th discount**
- **UK gas imports weakest since end of annual shutdown**
- **Temperatures in Brussels to be back to average by August 9**

The Zeebrugge Beach day-ahead natural gas contract rose at a slower rate than its NBP equivalent in the final trading session of Week 31, widening the basis spread between the two as a result.

The ZEE day-ahead contract rose 0.35 pence/therm day on day to be assessed at 58 p/th at the 1630 London market close (1530 GMT), and with the NBP spot price having risen 0.50 p/th, the basis spread widened 0.15 p/th to a 1 p/th discount. The outright contract's increase came after it rose 0.75 p/th on Thursday.

This could indicate that flows to Belgium from the UK via the Interconnector are set to begin Week 32 at lower rates than of late.

IUK 1600 BST nomination data put Interconnector flows at 28 million cu m, which would be the weakest level of daily imports since the return of the pipeline from its annual shutdown in late June. Flows averaged 49 million cu m/d in July.

Flows over the weekend look set to be stronger than on Monday, as the ZEE/NBP weekend basis was assessed at 0.825 p/th in the negative.

LNG regasification from the Zeebrugge terminal was nominated at 2 million cu m for Friday's gas day, but was set to rise to 7 million cu m for Saturday's gas day on the back of an arrival from Norway at the facility, data from S&P Global Platts Analytics show.

Elsewhere, Norwegian flows into the Zeebrugge receiving terminal were running at 41 million cu m/d Friday afternoon, Norwegian gas grid operator Gassco said, shrugging off field maintenance during Friday's gas day that reduced production capacity by 22 million cu m/d.

Flows into Belgium from Germany were nominated at 7 million cu m for Friday's gas day, with net H-cal exports to the Netherlands nominated at 4 million cu m.

TRS spot contract surges on N/S link unplanned interruption

- **North-South link flows cut by 100%, compared with 53.78% Thursday**
- **Fos sendouts cut by 28.6% Friday, compared with 12.48% Thursday**
- **Export flows to Switzerland to fall to 1.2 mil cu m**

The French TRS day-ahead contract surged Friday, as a result of an unplanned capacity restriction which struck the French North-South link during the day.

GRTgaz could not be reached to explain the cause and duration of the work, though data on its website said North-South link flows were cut by 100% Friday, compared with 53.78% Thursday.

As a result, the TRS spot rose by 85 euro cent/MWh to Eur26/MWh, further increasing its premium to PEG Nord to Eur3.7/MWh.

France's southern gas region TRS is forecast to remain tight on the back of further maintenance works at its Fos LNG terminal, with sendouts also cut by 28.6% Friday, compared with 12.48%, GRTgaz data showed. Regasification flows out of Fos are expected to fall to 15.7 million cu m Saturday, compared with 21.5 million cu m Friday and 21.3 million cu m Thursday, data from S&P Global Platts Analytics showed.

Regasification flows at the northern France LNG terminals in Dunkirk and Montoir were expected to remain unchanged Saturday at 3.8 million

PLATTS DUTCH TTF ASSESSMENTS (Hi-cal gas)

August 3, 2018	p/th	Eur/MWh	Change D-1 (Eur/MWh)	$/MMBtu
Day ahead	58.234	22.300	+0.225	7.581
Weekend	58.038	22.225	+0.275	7.555
Balance month	58.103	22.250	+0.250	7.564
September	58.038	22.225	+0.225	7.555
October	58.495	22.400	+0.225	7.615
Q4 2018	59.539	22.800	+0.250	7.751
Q1 2019	60.062	23.000	+0.200	7.819
Q2 2019	52.684	20.175	+0.175	6.858
Q3 2019	51.118	19.575	+0.125	6.654
Q4 2019	54.839	21.000	+0.075	7.139
Q1 2020	55.753	21.350	+0.075	7.258
Winter 18	59.800	22.900	+0.225	7.785
Summer 19	51.901	19.875	+0.150	6.756
Winter 19	55.296	21.175	+0.075	7.198
Summer 20	48.180	18.450	+0.125	6.272
Winter 20	52.097	19.950	+0.175	6.782
Summer 21	47.070	18.025	+0.150	6.128
Gas year 2018	55.883	21.400	+0.200	7.275
Cal 2019	54.643	20.925	+0.150	7.113
Cal 2020	50.856	19.475	+0.125	6.620
Cal 2021	49.485	18.950	+0.150	6.442

ICE ENDEX DUTCH TTF GAS FUTURES (Eur/MWh)

August 3, 2018	Settle	Change	Volume
First month	22.261	+0.325	3745
Second month	22.439	+0.335	945
Third month	22.913	+0.359	555
First quarter	22.809	+0.344	280
Second quarter	23.070	+0.337	385
Third quarter	20.215	+0.259	—
Fourth quarter	19.618	+0.235	10
First season	22.938	+0.340	260
Second season	19.915	+0.247	115
Third season	21.213	+0.172	15
Fourth season	18.441	+0.175	—
First year	20.975	+0.250	135
Second year	19.500	+0.176	5
Third year	18.964	+0.162	50
Total volume			**6500.00**

Source: ICE ENDEX

PLATTS BELGIAN ZEEBRUGGE BEACH ASSESSMENTS

August 3, 2018	p/th	Change D-1 (p/th)	Eur/MWh	$/MMBtu
Day ahead	58.000	+0.350	22.217	7.553
Weekend	57.625	—	22.073	7.504
September	58.050	+0.650	22.236	7.559
October	58.575	+0.675	22.437	7.627
Q4 2018	60.075	+0.700	23.012	7.823
Q1 2019	61.575	+0.600	23.586	8.018
Winter 18	60.825	+0.650	23.299	7.920
Summer 19	52.550	+0.400	20.129	6.843
Winter 19	57.275	+0.425	21.939	7.458
Summer 20	49.125	+0.350	18.817	6.397
Gas year 2018	56.700	+0.525	21.719	7.383

Platts NBP-Zeebrugge basis differentials

	p/th	Change D-1 (p/th)	Eur/MWh
Day ahead	-1.000	-0.150	-0.383
September	-0.725	-0.025	-0.278

PLATTS ZEEBRUGGE BEACH DAY-AHEAD FLOW DATE PRICES

Flow date	p/th	Eur/MWh
August 4	57.625	22.073
August 5	57.625	22.073
August 6	58.000	22.217

PLATTS SPANISH PVB/LNG DIFFERENTIALS, AUG 03, 2018

Platts EAM* minus Spanish PVB gas**

	p/th	Eur/MWh	Change D-1 (Eur/MWh)	$/MMBtu
September differential	0.203	**0.078**	-0.211	**0.026**

*Cargoes lifted Free On-Board (FOB) from production/reload ports across the East Atlantic. Further information on the EAM is available in the Platts Liquefied Natural Gas Assessments and Netbacks methodology and specifications guide at www.platts.com.

**Formerly AOC.

cu m of combined, the data forecast. The tightness is expected to hammer export flows to Switzerland as a result. Flows are expected to fall to 1.2 million cu m Saturday, compared with 19.6 million cu m Friday.

Temperatures were forecast to rise progressively towards the end of the week in Paris, rising from 1 degrees Celsius above seasonal norms to 7 C above norms next week, CustomWeather forecast.

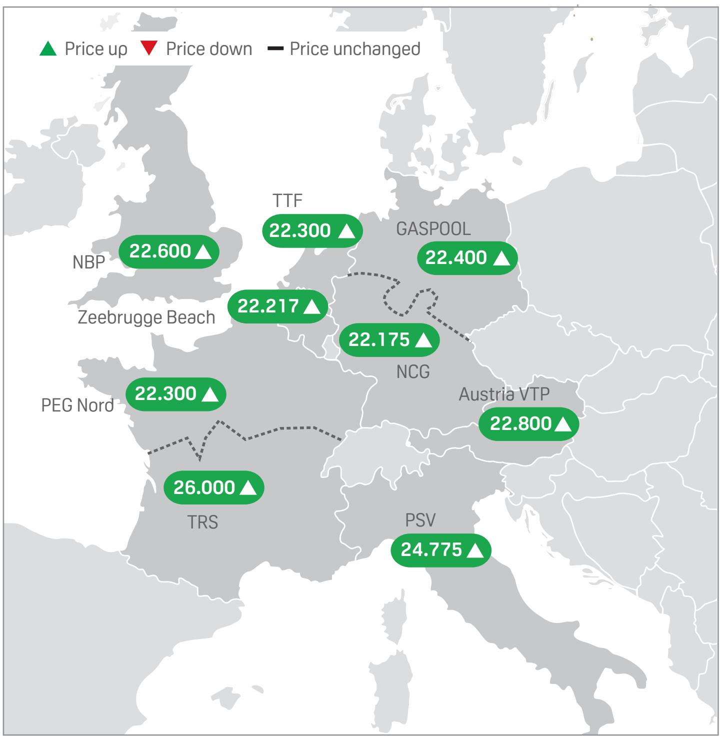
PSV spot posts strong increase, curve follows

- **PSV/TTF basis at plus Eur2.475/MWh Friday**
- **Gas-for-power demand to remain strong**
- **Libyan imports fall, injections recover**

The PSV natural gas day-ahead contract ended the trading week in a bullish mood, with above-average temperatures set to remain in Italy over the weekend and into the early part of Week 32.

The PSV day-ahead contract rose by almost half a euro to be

PLATTS DAY-AHEAD GAS PRICES, AUGUST 3 (Eur/MWh)



NBP and Zeebrugge Beach are assessed in p/th and converted to Eur/MWh. Currency movements may result in the Eur/MWh values for these hubs displaying an opposite day-on-day change to that of the primary assessments in p/th.

Source: S&P Global Platts

PLATTS EUROPEAN ASSESSMENTS, AUGUST 3, 2018

	p/th	Eur/MWh	Change D-1 (Eur/MWh)	$/MMBtu
French PEG Nord				
Day ahead	58.234	22.300	+0.350	7.581
Weekend	57.450	22.000	—	7.479
September	58.364	22.350	+0.225	7.598
Q4 2018	60.453	23.150	+0.250	7.870
Winter 18	60.649	23.225	+0.225	7.895
Cal 2019	55.492	21.250	+0.150	7.224
French TRS*				
Day ahead	67.896	26.000	+0.850	8.839
Weekend	68.157	26.100	—	8.873
September	64.827	24.825	+0.225	8.439
German GASPOOL				
Day ahead	58.495	22.400	+0.400	7.615
Weekend	58.429	22.375	—	7.606
September	58.364	22.350	+0.225	7.598
Q4 2018	59.539	22.800	+0.225	7.751
Winter 18	59.670	22.850	+0.250	7.768
Cal 2019	54.969	21.050	+0.150	7.224
NetConnect Germany				
Day ahead	57.907	22.175	+0.150	7.538
Weekend	57.842	22.150	—	7.530
September	58.168	22.275	+0.225	7.572
Q4 2018	59.735	22.875	+0.250	7.776
Winter 18	59.931	22.950	+0.225	7.802
Cal 2019	55.100	21.100	+0.175	7.173
Austrian VTP				
Day ahead	59.539	22.800	+0.175	7.751
Weekend	59.474	22.775	—	7.742
September	59.735	22.875	+0.125	7.776
Italian PSV				
Day ahead	64.697	24.775	+0.475	8.422
Weekend	61.824	23.675	—	8.048
September	63.326	24.250	+0.225	8.244
Q4 2018	65.023	24.900	+0.275	8.465
Winter 18	65.023	24.900	+0.225	8.465
Cal 2019	60.062	23.000	+0.150	7.819
Spanish PVB**				
September	68.549	26.250	+0.350	8.924
October	68.549	26.250	+0.300	8.924
Q4 2018	68.810	26.350	+0.250	8.958
Q1 2019	69.071	26.450	+0.300	8.992
Winter 18	68.940	26.400	+0.275	8.975
Cal 2019	61.498	23.550	+0.225	8.006
Cal 2020	56.340	21.575	+0.200	7.334

*TRS – Trading Region South. **PVB – Formerly AOC.

MIBGAS SPANISH PVB PRICES, AUGUST 3, 2018

	Reference price (Eur/MWh)	Change (Eur/MWh)	Total volume (MWh)
Day ahead	25.59	+0.25	27068
Month ahead	26.26	+0.36	26400

Note: The reference price is the average weighted price of all trades within a single trading session for a specific product.

Source: Mibgas

EEX GERMAN NETCONNECT GAS PRICES, AUG 3, 2018

EEX gas spot price

	Settlement price (Eur/MWh)	Change (Eur/MWh)
NCG day ahead 10 MW	22.17	+0.05

EEX gas futures

	Settlement price (Eur/MWh)	Change (Eur/MWh)	Total volume (MWh)
NCG month ahead	22.36	0.33	0
NCG month ahead+1	22.61	0.37	0
NCG quarter ahead	22.89	0.32	0
NCG quarter ahead+1	23.10	0.31	0
NCG year ahead	21.21	0.30	0
NCG year ahead+1	20.00	0.37	0

Source: EEX

POWERNEXT FRENCH PEG NORD GAS PRICES, AUG 3, 2018

Spot daily average price

	Daily average price (Eur/MWh)	Change (Eur/MWh)	Total volume (MWh)
PEG Nord day ahead	22.22	+0.17	164919

Powernext gas futures

	Settlement price (Eur/MWh)	Change (Eur/MWh)	Total volume (MWh)
PEG Nord month ahead	22.38	0.34	0
PEG Nord month ahead+1	22.78	0.22	0
PEG Nord quarter ahead	23.16	0.30	0
PEG Nord quarter ahead+1	23.19	0.18	0
PEG Nord season ahead	23.18	0.24	0
PEG Nord season ahead+1	20.15	0.25	0
PEG Nord season ahead+2	21.54	0.16	0

Source: Powernext

assessed at Eur24.775/MWh at the 16:30 (1530 GMT) London market close, a strong Eur2.475/MWh premium to the TTF equivalent.

The hot weather has boosted gas-for-power demand in the country with power demand on the increase for cooling. Gas-for-power averaged 91 million cu m/d Monday through Thursday, in comparison to the July average of 65 million cu m/d, data from S&P Global Platts Analytics showed.

Gas-for-power demand fell back from 96 million cu m on Wednesday's gas day to 88 million cu m on Thursday's gas day, and was nominated at 74 million cu m for Friday's gas day, data from operator Snam showed.

Due to the weaker gas-for-power demand, storage injections were set to recover, nominated at 56 million cu m for Friday's gas day after having averaged 49 million cu m/d Monday through Thursday compared to the 60 million cu m/d July average.

In terms of supply, flows of gas into northern Italy were nominated at 134 million cu m at the end of the working week, with southern Italian imports nominated at a more sedate 35 million cu m on the back of lower flows from Libya — a mere 10 million cu m for Friday's gas day.

The bullish spot market aided the upward moves further down the PSV curve, as the September contract climbed 22.5 euro cent to close at Eur24.25/MWh — the Q4 2018 and Winter 19 contracts were assessed at a Eur24.90/MWh parity, with Cal 19 ending the week valued at an even Eur23/MWh.

PVB extends gains, gas-for-power continues to rise on heat

- **September climbs further 35 euro cent to Eur26.25/MWh**
- **Gas-for-power nominated at 365.82 GWh for Friday**
- **Algerian LNG cargo to berth Saturday at Cartagena, Spain**

Contracts on the Spanish PVB natural gas hub continued to increase in value as gas-for-power demand in the region continued to be at the fore due to the continuing warm weather over the Iberian region.

SUBSCRIBER NOTES

Platts to discontinue several gas price assessments

S&P Global Platts has taken the decision, following a period of industry consultation, to discontinue several natural gas price assessments from October 1, 2018. Platts remains committed to providing quality market information, commentary and in-depth analysis in all European gas markets and would look to strengthen reporting on the below markets' activity, news, events and policy.

All affected codes and symbols are listed below.

In addition, due to the discontinuation of the UK NBP Month-ahead+2 contract (NGAAI00), Platts will also discontinue the associated spark spreads, clean spark spreads, and the clean spark spreads (CPS), of which the symbols are also listed below.

Platts invites comments and queries to power@spglobal.com with copy to pricegroup@spglobal.com.

For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

	p/th	$/MMBtu	Eur/MWh	Eur/Gj
UK NBP				
Month-ahead+2	NGAAI00	GNCWM30	AALJS00	GNCUM30
Month-ahead+3	NGAAK00	GNCWM40	AALJU00	GNCUM40
Quarter-Ahead+2	NGAAQ00	GNCWQ30	AALKA00	GNCUQ30
Quarter-Ahead+3	NGAAS00	GNCWQ40	AALKC00	GNCUQ40
Season-Ahead+4	AAOXC00	GNCWSN4	AAOXH00	AAOXM00
Season-Ahead+5	AAOXD00	GNCWSN5	AAOXI00	AAOXN00
Season-Ahead+6	GNCVSN7	GNCWSN7	GNCTSN7	GNCUSN7
Season-Ahead+7	GNCVSN8	GNCWSN8	GNCTSN8	GNCUSN8
Dutch TTF				
Quarter-Ahead+2	GTFVQ03	GTFWQ30	GTFTQ03	GTFUQ03
Quarter-Ahead+3	GTFVQ04	GTFWQ40	GTFTQ04	GTFUQ04
Quarter-Ahead+4	GTFVQ05	GTFWQ50	GTFTQ05	GTFUQ05
Quarter-Ahead+5	GTFVQ06	GTFWQ60	GTFTQ06	GTFUQ06
Season-Ahead+4	GTFVSN5	GTFWSN5	GTFTSN5	GTFUSN5
Season-Ahead+5	GTFVSN6	GTFWSN6	GTFTSN6	GTFUSN6
Belgian Zeebrugge Beach				
Month-ahead+1	AADOU00	GZBWM20	AALKS00	AADOG00
Quarter-Ahead+1	AAGDF00	GZBWQ20	AALKY00	AAGDT00
Season-Ahead+2	AAOXP00	GZBWSN2	AAOXS00	AAOXV00
Season-Ahead+3	AAOXQ00	GZBWSN3	AAOXT00	AAOXW00
French PEG Nord				
Quarter-Ahead	GPGVQ01	GPGWQ01	GPGTQ01	GPGUQ01
Season-Ahead	GPGVSN1	GPGWSN1	GPGTSN1	GPGUSN1
Cal Year-Ahead	GPGVZ00	GPGWZ00	GPGTZ00	GPGUZ00
German GASPOOL				
Quarter-Ahead	GBBVQ01	GBBWQ01	GBBTQ01	GBBUQ01
Season-Ahead	GBBVQ01	GBBWSN1	GBBTSN1	GBBUSN1
Cal Year-Ahead	GBBVZ00	GBBWZ00	GBBTZ00	GBBUZ00
NetConnect Germany				
Quarter-Ahead	GERVQ01	GERWQ01	GERTQ01	GERUQ01
Season-Ahead	GERVSN1	GERWSN1	GERTSN1	GERUSN1
Cal Year-Ahead	GERVCY1	GERWCY1	GERTCY1	GERUCY1

		GBP/MWh	Eur/MWh
UK SPARKS			
Month-ahead+2 45%	spark spread	UKHM300	UEHM300
Month-ahead+2 45%	clean spark spread	UKIM300	UEIS300
Month-ahead+2 45%	clean spark spread CPS	CKHM300	CEHM300
Month-ahead+2 50%	spark spread	UKFM300	UEFM300
Month-ahead+2 50%	clean spark spread	CKFM300	CEFM300
Month-ahead+2 50%	clean spark spread CPS	CKGM300	CEGM300
Month-ahead+2 60%	spark spread	UKSM300	UESM300
Month-ahead+2 60%	clean spark spread	CKSM300	CESM300

Platts proposes adding Spanish PVB spot gas assessments

S&P Global Platts is seeking feedback on a proposal to expand the daily Spanish PVB gas price assessments from October 1, 2018.

Platts is proposing to add Day-ahead and a weekly Weekend contract to the current Spanish PVB assessments, which would be published on European Power

Alert page 0823, on Natural Gas Alert pages 0056, in Platts Market Data category EG and in European Gas Daily.

The initial assessments would be published in Eur/MWh with the following currency and unit conversions: pence/therm, $/MMBTu and Eur/Gj. The day-ahead contract would be assessed daily on UK workdays. The weekly weekend contract would be assessed on Fridays or the last working day of the week in the event of a public holiday.

In addition, Platts is proposing to also publish corresponding spark spreads and clean spark spreads with 45% and 50% efficiency for the Spanish Day-ahead contract.

Platts invites comments and queries to power@spglobal.com with copy to pricemethodology@spglobal by August 10 2018.

For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make available comments not marked as confidential upon request.

Gas-for-power demand in Spain hit a 6.5-month high of 28 million cu m during Thursday's gas day and, according to Enagas 1600 CEST (1400 GMT) nominations, was due to come in at 365.82 GWh (35 million cu m) during Friday's gas day.

LNG regasification has stepped up to cover the higher gas burn, and looked set to end the week above Thursday's five-week high of 39 million cu m in the process, data from S&P Global Platts Analytics showed.

In addition, the Berge Arzew — sailing from Algeria — was due to berth at Cartagena on Saturday, boosting stocks as a result.

In terms of pricing, the PVB day-ahead remained at a discount to the front-month after having settled at Eur25.59/MWh on the MIBGAS exchange compared to the September contract which was assessed at Eur26.25/MWh at the 16:30 (1530 GMT) London market close, up 35 euro cent day on day.

The PVB September's premium to the TTF equivalent rose further to be assessed at Eur4.025/MWh, highlighting the disconnect between the two hubs in terms of price direction.

The October contract was assessed at parity with the September contract after a day-on-day increase of 30 euro cent, Eur3.85/MWh higher than its TTF peer, with the Q4 2018 contract up by 25 euro cent to be assessed at Eur26.35/MWh, Eur3.55/MWh higher than the TTF sister contract.

This indicates that the PVB premium to TTF is set to fall in the coming months, potentially making Spain less competitive compared to Northwest Europe during the first part of the upcoming winter-delivery period.

CustomWeather forecasts point to temperatures hovering 4-9 degrees Celsius above seasonal norms in Iberia over the weekend and at the start of Week 32, however, cooler conditions are forecast Tuesday-Thursday.

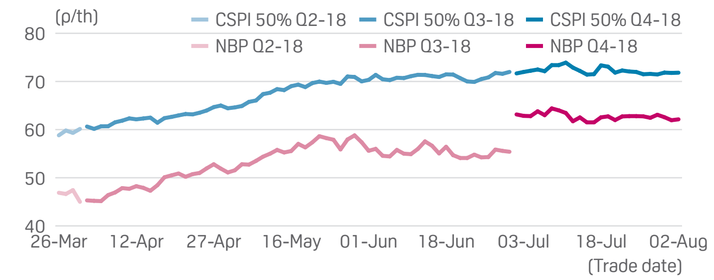
FUEL SWITCHING SNAPSHOT

CROSS FUEL COMPARISONS, AUGUST 3, 2018

	p/th	Eur/MWh	$/MMBtu
Coal CIF ARA			
September	77.462	29.664	10.086
Q4 2018	75.887	29.062	9.881
UK gas prices at NBP			
Balance month	117.100	44.844	15.247
September	117.550	45.017	15.306
October	117.950	45.170	15.358
Q4 2018	125.600	48.099	16.354
Dutch gas at TTF			
September	116.076	44.452	15.114
October	116.990	44.802	15.233
Q4 2018	119.078	45.602	15.505
Fuel oil 1% (NW Europe cargoes)			
September	256.101	98.076	33.347
October	254.267	97.373	33.108
Q4 2018	252.279	96.612	32.849
Electricity (UK baseload)			
September	173.058	66.270	22.534
October	173.352	66.390	22.572
Q4 2018	181.118	69.360	23.583
Electricity (German baseload)			
September	130.302	49.900	16.966
October	133.044	50.950	17.323
Q4 2018	133.853	51.260	17.429

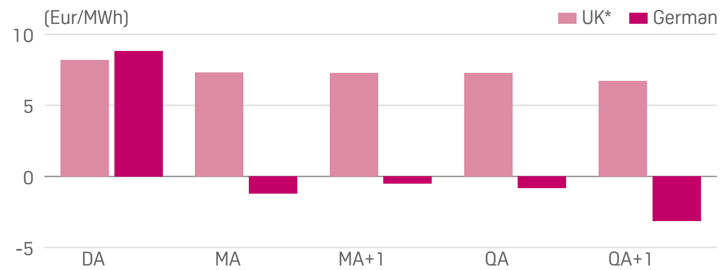
Prices in this table show the cost of electricity generated from each fuel, taking into account the following plant efficiencies: CCGT gas plant 50% HHV, coal 35%, fuel oil 32%. Assumed calorific value: fuel oil 17,800 Btu/lb, Coal 6,000 kcal/ton. HHV – high heating value.

COAL SWITCHING PRICE INDICATOR VS NBP – QUARTER AHEAD



CSPI includes CPS – Carbon Price Support. Efficiency at Higher Heating Value.
Source: S&P Global Platts

CLEAN SPARK SPREAD, AUGUST 2 (50% EFFICIENT)



*UK spreads include UK-specific CPS – Carbon Price Support.
Source: S&P Global Platts

PLATTS COAL SWITCHING PRICE INDICATOR (CSPI)

August 2, 2018	UK (p/th)	UK (Eur/MWh)	Netherlands (Eur/MWh)
Month ahead	72.97	27.93	18.72
Quarter ahead	71.82	27.49	18.33
Year ahead	69.20	26.49	17.45

Efficiency used is 50% for gas plants, 35% for UK coal plants and 40% for Dutch coal plants. Platts CSPI is the theoretical threshold at which gas is more competitive than coal in power generation. When the gas price is higher than the CSPI, CCGTs are more expensive to run than coal-fired plants.

PLATTS DAILY SPOT VS NWE OIL-INDEXED GAS INDICATOR

August 3, 2018	Eur/MWh	p/th	$/MMBtu
NBP day ahead – current month	-1.362	-3.672	-0.538
NBP month ahead – month ahead	-2.174	-5.796	-0.816
NBP month ahead+1 – month ahead+1	-2.705	-7.183	-0.998
	Eur/MWh	p/th	$/MMBtu
TTF day ahead – current month	-1.662	-4.438	-0.639
TTF month ahead – month ahead	-2.463	-6.533	-0.914
TTF month ahead+1 – month ahead+1	-2.895	-7.663	-1.062

The differential table shows the difference between the spot gas price and the indicator.

PLATTS AUGUST 2018 NWE OIL-INDEXED GAS INDICATOR

	Eur/MWh	Change M-1	p/th	$/MMBtu
Current month	23.962	+0.697	62.672	8.220
Month ahead	24.688	+0.726	64.571	8.469
Month ahead+1	25.295	+0.607	66.158	8.677

The Monthly NWE oil-indexed gas contract indicator is a modeled price reflecting the cost of gas sold in NW Europe under a traditional long-term sales contract indexed against fuel oil and gasoil. The model does not include any adjustment for discounts from contract renegotiations. Prices are originally calculated in Euro per MWh, then converted to p/th and $/MMBtu using current exchange rate.

FOREX INDICATORS, AUGUST 3, 2018

	GBP	US $
Euro	0.8910	1.1599
US $	0.7680	1.0000

Source: S&P Global Platts assessments at 16:30 London time.

WEATHER SUMMARY, AUGUST 3, 2018

Week normal high/low temps (C) and projected deviations from normal

Celsius	Normal	03	04	05	06	07	08	09
Central Europe								
Berlin	26/14	+5	+6	+2	+2	+4	+8	+8
Frankfurt-Am-Main	27/16	+6	+7	+3	+3	+6	+6	+3
Prague	25/13	+7	+7	+5	+3	+4	+8	+8
Vienna	27/16	+4	+5	+5	+3	+5	+7	+7
Warsaw	25/15	+6	+5	+4	0	+1	+5	+9
Northwest Europe								
Amsterdam	23/14	+5	+4	+2	+4	+7	+4	+1
Brussels	24/14	+6	+6	+3	+5	+8	+4	+1
London	24/14	+4	+3	+2	+3	+3	-2	-3
Paris	26/16	+5	+4	+2	+5	+6	0	-1
Scandinavia								
Copenhagen	23/14	+5	+4	+1	+3	+5	+7	+5
Helsinki	22/13	+7	+5	+4	-1	+1	+2	+4
Oslo	21/12	+4	+5	+3	0	+2	+4	+3
Stockholm	23/14	+4	+4	+3	0	+2	+4	+6
Southern Europe								
Lisbon	29/19	+7	+8	+8	+5	0	-3	-3
Madrid	34/17	+8	+7	+5	+6	+6	+5	+1
Milan	29/18	+2	+2	+2	+2	+1	+1	+1

Source: CustomWeather, 03Aug18/06:54 AM EDT/1054 GMT