

# European Gas Daily

Volume 28 / Issue 146 / August 1, 2023

## News and Analysis

### Norway's Dvalin producing gas from two wells in eastern part of field: operator

- Two other western wells still undergoing testing
- Field has been beset by number of technical issues
- Dvalin gas processed by Nyhamna onshore plant

### New German floating LNG import vessel arrives into Bremerhaven port

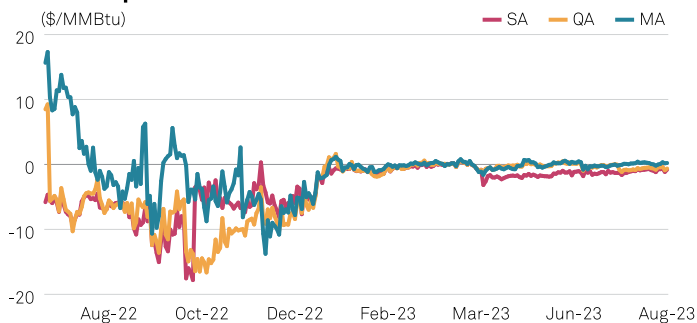
- FSRU now being prepared for deployment at Stade
- Transgas Force to have 7.5 Bcm/year of import capacity
- To be replaced from 2027 by onshore import terminal

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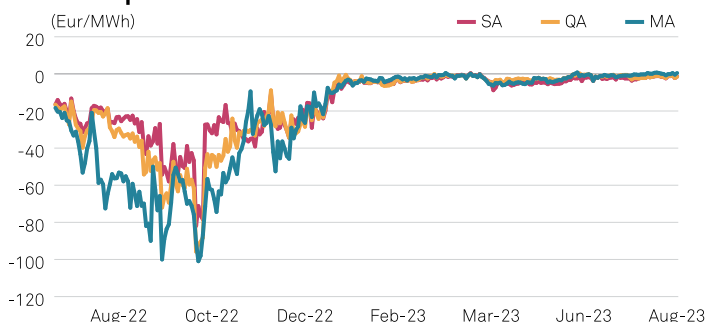
### European biomethane certificates, August 1, 2023

	Eur/MWh	GBP/MWh	Eur/mtCO <sub>2</sub> e
UK Waste RGGO Spot	30.978	26.650	0.01185
UK Crop RGGO Spot	27.491	23.650	
Denmark Waste Bio GO Spot	46.750		0.01788
Denmark Manure Bio GO Spot	68.775		
Netherlands Waste Bio GO Spot	46.750		0.01788
Netherlands Manure Bio GO Spot	68.775		
Germany Waste Bio GO Spot	51.325		0.01963

### PVB/NBP spreads



### PVB/TTF spreads



## Market Commentary

### European gas spot mixed; new yearly maintenance starts at NCS assets

- Dutch TTF, British NBP day-ahead contracts fall 3.2%, Italian PSV rises 1.3%
- NCS nominations fall, annual maintenance reduces capacity at assets

### High inventory priced into European gas curves amid Ukraine spill

- Day of steady front-month declines
- Gas storage stocks rise to 85.8% full July 30: GIE data

### Platts European gas midpoints, August 1, 2023

	p/th	Eur/MWh	\$/MMBtu	% change D-1
<b>UK NBP</b>				
Day ahead	63.500	25.192	8.091	-3.24 ▼
September	68.150	27.036	8.684	-4.05 ▼
<b>Dutch TTF</b>				
Day ahead	65.745	26.075	8.377	-3.16 ▼
September	68.708	27.250	8.747	-4.39 ▼
<b>Belgian Zeebrugge Beach</b>				
Day ahead	65.325	25.916	8.326	-1.80 ▼
September	68.525	27.185	8.734	-
<b>Belgian ZTP</b>				
Day ahead	65.682	26.050	8.369	-2.98 ▼
September	68.582	27.200	8.739	-
<b>French PEG</b>				
Day ahead	65.745	26.075	8.377	-3.25 ▼
September	68.204	27.050	8.691	-
<b>German THE</b>				
Day ahead	66.880	26.525	8.522	-2.66 ▼
September	69.906	27.725	8.907	-
<b>Austrian VTP</b>				
Day ahead	73.499	29.150	9.365	+0.43 ▲
September	74.381	29.500	9.478	-
<b>Italian PSV</b>				
Day ahead	76.146	30.200	9.703	+1.26 ▲
September	72.175	28.625	9.197	-
<b>Spanish PVB</b>				
Day ahead	66.250	26.275	8.442	-1.50 ▼
September	69.906	27.725	8.907	-2.38 ▼
<b>Czech VTP</b>				
Day ahead	71.040	28.175	9.052	-2.17 ▼
September	75.831	30.075	9.662	-
<b>Slovakian VTP</b>				
Day ahead	77.533	30.750	9.879	+0.41 ▲
September	78.415	31.100	9.992	-

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 and Analysis

### Norway's Dvalin producing gas from two wells in eastern part of field: operator

- Two other western wells still undergoing testing
- Field has been beset by number of technical issues
- Dvalin gas processed by Nyhamna onshore plant

The Dvalin gas field offshore Norway is currently producing from two wells in the eastern part of the field, while testing continues on the wells in the western part, operator Wintershall Dea said Aug. 1.

Dvalin — which has been beset by technical issues over the past few years — resumed production on July 29, according to transparency notes from grid operator Gassco.

In emailed comments, Wintershall Dea said production from the two eastern wells started over the weekend after a “thorough” technical evaluation of the safety barriers in the entire field was carried out.

While the eastern part of the field continues to ramp up, the two wells in the western sector are undergoing engineering testing in accordance with industry standards. This process is expected to be completed soon, the company said.

“This field sector could also start producing once the necessary safety barriers are confirmed and in compliance with applicable standards and regulations,” it said.

“A firm date for starting up the western field sector is yet to be decided.”

The four-well field has suffered a number of technical issues since it was first brought online in late 2020.

During initial flow tests, measurements showed that the gas contained mercury levels exceeding the maximum amount allowed in the system and the field was shut in for over two years.

Following a temporary restart in February 2023, new technical problems with the choke valves in the Christmas trees were experienced.

Then in June, Wintershall Dea said a new pre-start technical evaluation had identified a potential integrity issue in production wells.

### Norway output

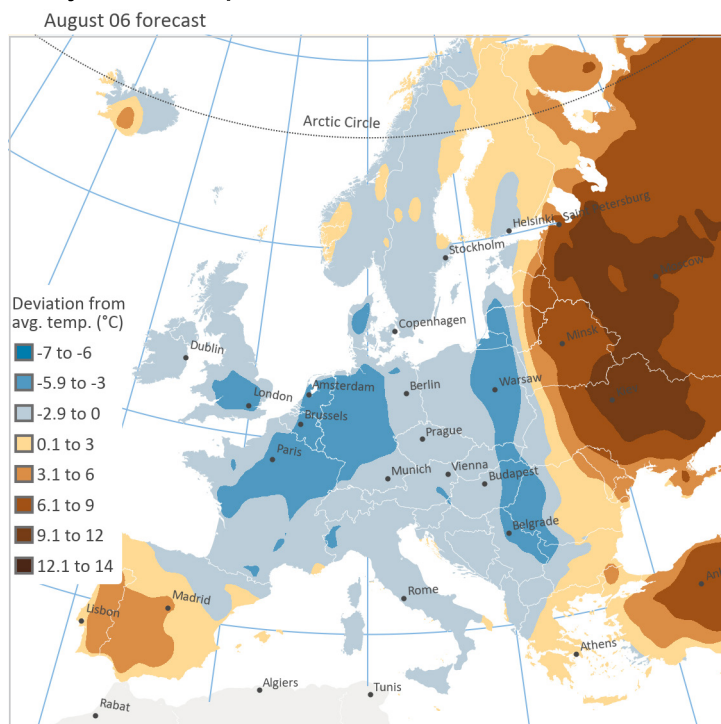
Gas from Dvalin — which has a technical production capacity of 9 million cu m/d — is sent to the Heidrun field for further processing before being exported via the Polarled pipeline into the Nyhamna processing facility.

Norway last year pledged to do as much as it could to boost gas deliveries to Europe to help mitigate the European energy crisis caused by much lower Russian supplies.

Producers were also motivated to maximize exports by high European gas prices through 2022, though prices have weakened in recent months due to healthy storage stocks and demand reductions.

Platts, part of S&P Global Commodity Insights, assessed the benchmark Dutch TTF month-ahead price at Eur27.30/MWh on July 31, down from an all-time high of Eur319.98/MWh on Aug. 26, 2022.

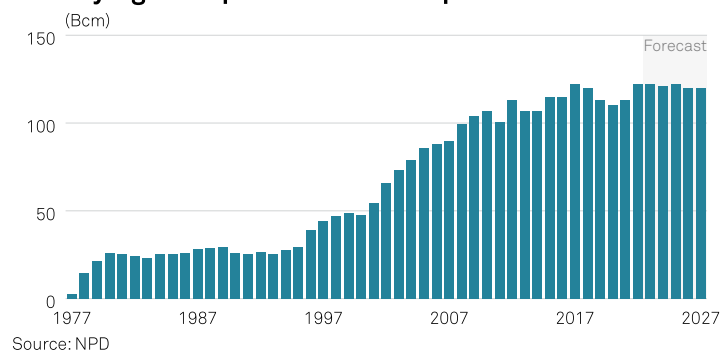
### 5-day-ahead temperature deviation forecast



Note: Deviations are based on 30-year average temperatures  
Source: S&P Global Commodity Insights, CustomWeather

Norwegian gas production totaled 122 Bcm in 2022 and was expected to remain flat in 2023 before reaching a new peak of 122.5 Bcm in 2025.

### Norway's gas output set to hit new peak in 2025



Source: NPD

— Stuart Elliott

### New German floating LNG import vessel arrives into Bremerhaven port

- FSRU now being prepared for deployment at Stade
- Transgas Force to have 7.5 Bcm/year of import capacity
- To be replaced from 2027 by onshore import terminal

The dedicated floating LNG import vessel to be deployed at Stade in northern Germany has arrived at the nearby port of Bremerhaven, operator Hanseatic Energy Hub (HEH) said July 31.

The FSRU is one of five chartered by the German government as part of state-backed efforts to replace Russian pipeline gas with LNG.

Two state-supported FSRUs are already in operation — one at Wilhelmshaven and one at Brunsbüttel — while a third FSRU developed by privately-owned Deutsche ReGas is currently in operation at Lubmin.

The FSRU to be deployed at Stade is the 7.5 Bcm/year capacity Transgas Force, which is expected to be ready to start operations by the end of 2023.

“The floating gas terminal Transgas Force has arrived in Bremerhaven and is now being prepared for our energy port in Stade,” HEH said.

“Chartered by the German government, the FSRU is an important building block for ensuring energy supplies in Germany in the short term,” it said.

According to S&P Global Commodity Insights data, the Transgas Force arrived at Bremerhaven on July 27.

Work to prepare the new jetty for the deployment of the Transgas Force began in January.

### Onshore terminal

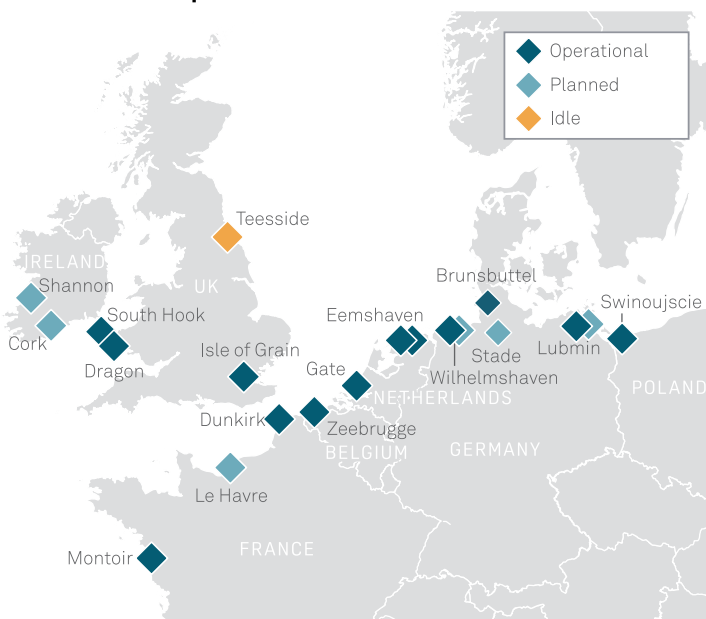
HEH also said that it was pushing “full steam ahead” with the development of its land-based zero-emission terminal at Stade which will replace the FSRU from 2027.

“Because one thing is clear — Germany needs a future-flexible energy infrastructure to drive the transformation of our energy supply sustainably and reliably,” it said.

Some 10 Bcm/year of long-term capacity has already been booked at the 13.3 Bcm/year permanent Stade terminal by utility EnBW (6 Bcm/year) and German state-owned trader SEFE, formerly a unit of Russia’s Gazprom (4 Bcm/year).

The agreements came with future flexibility to switch to ammonia as a hydrogen-based energy source, an option that is open to all HEH customers with a long-term contract of more than 10 years.

### Northwest European LNG terminals



Source: S&P Global Commodity Insights

Gas supply security remains one of Germany’s key energy sector priorities, with Berlin rushing to fill storage stocks last summer despite record price levels and securing new LNG

import infrastructure.

Delivered LNG prices into Europe have though now come down from their record highs from last summer.

Platts, part of S&P Global Commodity Insights, assessed the DES LNG marker for delivery to Northwest Europe at \$9.21/MMBtu on July 31, well down on the all-time high of close to \$75/MMBtu last August.

— Stuart Elliott

### Russian pipeline gas exports to China hit new daily record July 31: Gazprom

- Power of Siberia supplies exceed contract obligations
- Russia-China pipeline expected to flow 22 Bcm in 2023

Russia’s Gazprom said Aug. 1 that its gas exports to China via the Power of Siberia pipeline reached a new daily record on July 31 following a request for additional gas from China’s CNPC.

In a statement, Gazprom said the supply of gas via the pipeline exceeded daily contractual obligations.

“Gazprom delivered the requested volumes and set a new record for daily gas supplies to China,” it said.

Supplies via Power of Siberia had been expected to ramp up through the course of 2023 so the increase in deliveries should not come as a surprise.

Power of Siberia flows are expected to reach 22 Bcm in 2023, up from 15.4 Bcm last year, and hit their design capacity of 38 Bcm/year in 2027.

Gazprom began exports to CNPC via the Power of Siberia pipeline at the end of 2019 and supplied 4.1 Bcm in its first full year of operation in 2020 and around 10 Bcm in 2021.

Gazprom is also planning another route to China via Mongolia with a planned capacity of 50 Bcm/year — Power of Siberia 2 — as well as a new Far Eastern route to carry up to 10 Bcm/year.

Russia’s focus on the Chinese market had already increased even before the invasion of Ukraine in February 2022.

But with Gazprom having lost much of its market share in Europe, China is the obvious outlet for more pipeline gas.

The majority of Russia’s pipeline gas export capacity is designed to send gas to Europe, but supplies were sharply curtailed through 2022, leading to record prices last summer.

Platts, part of S&P Global Commodity Insights, assessed the benchmark Dutch TTF month-ahead price at an all-time high of Eur319.98/MWh on Aug. 26, 2022.

Prices have come down since thanks to healthy storage levels and demand curtailments but remain relatively high, with Platts assessing the TTF month-ahead price on July 31 at Eur27.30/MWh.

— Stuart Elliott

### Germany’s Uniper not expecting further losses from replacement gas buying

- Hedges gas supply obligations for 2023, 2024
- Action taken after Russia halted gas supplies in 2022
- Cost of procuring replacement gas effectively mitigated

German utility Uniper said Aug. 1 it did not expect any further financial losses from the procurement of gas volumes to replace lost volumes of Russian gas and that it had hedged its related gas supply obligations to customers for 2023 and 2024.

In its first-half earnings report, Uniper said that as a result no further capital increases by the German state would be necessary and there was no longer any need for a Eur5 billion tranche of the credit line from state-owned KfW.

Uniper — once one of Europe's biggest buyers of Russian gas — was forced to buy expensive gas on the spot market in the second half of 2022 after Russian deliveries via Nord Stream to Germany were sharply curtailed in mid-June and suspended completely at the end of August.

Uniper's losses prompted the German government to step in and nationalize the company at the end of 2022 as well as provide huge loans through KfW.

However, the fall in European spot gas prices in 2023 meant Uniper recorded no cumulative additional losses related to the procurement of replacement gas in the first half.

"The crisis last year demonstrated the central role Uniper plays in the energy market," CEO Michael Lewis said.

"We were financially stabilized by the German government just under eight months ago, and only a short time afterward we achieved the turnaround," Lewis said.

"We've significantly diversified our gas procurement. Our supply obligations to municipal utilities and industrial customers for 2023 and 2024 — which we entered into before the Russian supply disruption — are almost fully hedged by forward transactions," he said.

"Today I can therefore say with certainty that 2022 will not repeat itself for us."

### Future uncertainties

Uniper said the hedging of gas supply obligations for 2023 and 2024, including through forward contracts during Q2, meant the risk from the incremental cost of procuring replacement volumes had been effectively mitigated.

"Uniper has effectively hedged its gas supply obligations for this period through instruments including forward contracts," it said.

"In view of the Russian gas supply curtailments, Uniper now does not expect any incremental cost from the replacement procurement of gas volumes for 2023 and 2024."

Uniper said there were still uncertainties regarding the future development of the geopolitical situation as well as the duration and scope of the Russian gas supply restrictions for 2023.

But, it said, despite the ongoing geopolitical crisis caused by Russia's war against Ukraine and the disruption of supplies from Russia "there was no fear of a gas shortage in the first half of 2023."

"A relatively warm winter, imports of LNG, high gas storage levels at the start of the year, and consumer conservation led to a sharp decline in European gas prices in a continued volatile market environment," it said.

Platts, part of S&P Global Commodity Insights, assessed the benchmark Dutch TTF month-ahead price at a Eur27.30/MWh on July 31, well down on the all-time high of Eur319.98/MWh from late August last year.

Uniper said in November last year it had initiated arbitration proceedings against Russia's Gazprom Export in an attempt to recover billions of euros in damages related to the under-delivery of Russian gas.

Gazprom blamed sanctions-related maintenance issues with turbines at the Portovaya compressor station for the reduction and then suspension of exports via Nord Stream.

The two-string Nord Stream pipeline was subsequently hit by a suspected sabotage attack in late September, rendering the system unusable.

— Stuart Elliott

## Platts

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## European Gas Daily

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## BP lauds East Mediterranean gas development potential after ‘key’ move

- BP, ADNOC made offer for 50% in Israel’s NewMed Energy
- Would give BP ‘anchor’ in East Mediterranean: Looney
- LNG supply targets on track amid Tangguh expansion

BP CEO Bernard Looney said Aug. 1 that the company’s plans to expand into the East Mediterranean would prove a “key” move for the company given the region’s gas potential and proximity to the European market.

Speaking during the company’s Q2 results presentation, Looney said that both the expansion of current developments and potential exploration in the East Mediterranean would give BP a “real anchor” in the region.

This follows BP’s non-binding joint offer with the UAE’s ADNOC in March for the purchase of half of NewMed Energy, the largest shareholder in Israel’s offshore Leviathan gas field.

The deal was said to be worth around \$2 billion, with NewMed Energy setting up a committee to study the offer in March. The company is yet to release updated information regarding the proposal, however.

“We currently do not have any public information to share regarding the deal,” a NewMed Energy spokesperson told S&P Global Commodity Insights via telephone Aug. 1.

Looney said BP was a “natural partner” for ADNOC as it looks to expand its business in the East Mediterranean.

“At a macro level, it’s about the development of natural gas that’s close to markets, and close to Europe. That’s what we’re trying to do there,” Looney said.

“There’s huge demand for gas both in the region and in Europe, and I think we’ll look back on this as being a very key move for us,” he added.

Interest in upstream developments in the East Mediterranean remains strong, not least on the back of high European gas prices.

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Prices have come down since thanks to healthy storage levels and demand curtailments but remain relatively high, with Platts assessing the TTF month-ahead price on July 31 at Eur27.30/MWh.

### Leviathan expansion

NewMed and its partners at Leviathan — operator Chevron and Ratio Oil — are currently working to expand the field’s production capacity and in early July took the final investment decision on the first part of an expansion project.

The project involves a third subsea transmission pipeline that will be laid from the field to the Leviathan production platform, which will increase Leviathan production capacity from some 12 Bcm/year to 14 Bcm/year.

The expansion is the first part of plans to expand Leviathan, with the ultimate aim to bring output capacity to 21 Bcm/year and to deploy a floating LNG production facility.

“We’re very excited about the development going forward of Leviathan. We’re excited about further developments and

potential exploration over the years ahead,” Looney said.

“So this gives us a real anchor in the Eastern Mediterranean. There’s a lot of synergies across the countries that are involved there.”

BP was also reportedly among the bidders for new licenses offshore Israel in the country’s fourth licensing round.

### LNG on track

BP also stressed Aug. 1 its focus on growth optionality in its global gas portfolio, particularly through its LNG expansion projects and third-party offtakes, as it reiterated its plan to reach 25 million mt/year of LNG supply by 2025.

The company also said the US Freeport LNG export facility, which was closed until February after being hit by an explosion in June last year, had now returned to full contractual offtake.

In addition, BP also agreed to acquire the 27% stake in the Browse LNG project in Western Australia held by Shell in April, which would increase BP’s total stake in the project to 44%.

Meanwhile, BP’s expansion of its Indonesian Tangguh LNG facility involves a third LNG train adding some 3.8 million mt/year of capacity to the facility’s existing 7.6 million mt/year, according to Looney.

Looney added that both construction and commissioning of the Tangguh expansion is now complete, with start-up now in progress.

“It’s an important delivery milestone,” Looney concluded. “Contributing towards our LNG target of 25 million mt of LNG supply per annum in 2025.”

— Hassan Butt

## UK’s Chariot eyes early gas sales from new Morocco onshore license

- Takes 75% stake, operatorship of Loukos license
- Committed to developing asset ‘as quickly as possible’
- Similar gas prospects to the adjacent Anchois find

UK-based Chariot has signed an agreement for a new exploration license onshore Morocco, which has the potential to deliver early gas sales to the local market, it said Aug. 1.

Chariot — which is already developing the offshore Anchois gas discovery — agreed to take a 75% stake in and operatorship of the Loukos license, with Morocco’s ONHYM holding the remaining 25%.

Loukos covers an area of 1,371 sq km and is adjacent to Chariot’s Lixus and Rissana offshore licences, with the former containing the Anchois gas discovery.

Detailed evaluation has already started at Loukos based on existing modern 3D seismic data which has identified a conventional gas play geologically similar to the Anchois gas discovery.

“Loukos has the potential to deliver early gas sales due to the proximity to a significant and undersupplied industrial gas market,” Chariot said.

It said there were also further potential development synergies through the location of the planned Anchois processing facility and pipelines being situated on-block.

“In securing the Loukos license, we have continued to build

on our unique position within a basin-scale opportunity and we are committed to developing this asset as quickly as possible," Chariot technical director Duncan Wallace said.

OMHYM general director Amina Benkhadra added that she hoped Chariot's work would help accelerate the supply of gas to the Moroccan market.

### Anchois development

In May, Chariot entered into a new partnership with fuel retailer Vivo Energy to oversee the distribution of gas to industrial customers in Morocco, which it said would further support the commercial viability of Anchois.

Chariot and Vivo plan to establish a jointly owned special purpose vehicle for the purchase, transportation and distribution of gas to industrial end-users in Morocco and put in place long-term gas sales agreements.

Chariot already agreed in December last year a preliminary deal with Moroccan utility ONEE for the supply of 600 million cu m/year gas from Anchois for power generation.

Chariot CEO Adonis Pouroulis said Morocco had "significant" industrial gas demand, which the new partnership would supply into.

The company was awarded the Lixus license containing Anchois in April 2019 and following an appraisal well in early 2022 now sees total remaining recoverable resources of 1.4 Tcf (40 Bcm).

Morocco was cut off from its main Algerian gas supply source in November 2021 due to worsening political ties between the two countries, leaving it with just limited domestic production and forcing it to idle two gas-fired power stations.

It began importing regasified LNG from Spain via the GME pipeline working in reverse flow in June last year, but volumes remain relatively small.

Chariot also sees further gas potential outside of Anchois, while surplus gas from the offshore field could also be exported to Europe where prices remain relatively high.

Platts, part of S&P Global Commodity Insights, assessed the benchmark Dutch TTF month-ahead price on July 31 at Eur27.30/MWh.

— Stuart Elliott

### Uniper to accelerate its green transition, exit coal by 2029

- Gas share to shrink, renewables to rise
- Net zero target brought forward to 2040
- H1 coal output down third, gas dips 8%

Uniper plans to accelerate its transition away from fossil fuels, exiting coal by 2029 and reducing unabated natural gas' share in its generation portfolio from 50% to under 20%, Germany's biggest gas trader said Aug. 1.

The company, bailed out by the government in 2022, plans to lift investment to Eur8 billion by 2030 to achieve decarbonization of 80% of a 15 GW-20 GW portfolio, up from 20% now.

"Our successful stabilization and financial recovery have given us latitude for new growth and corporate transformation," CEO Michael Lewis said.

Uniper's new 2030 strategy would focus on the relationship between power and gas in Germany, the UK, Sweden and the

Netherlands, with new dispatchable power plant able to fire hydrogen to balance renewables.

Meanwhile, the state-owned company has brought forward its net zero target by 10 years to 2040.

Clean gas would account for the biggest share in Uniper's 2030 target generation portfolio, with unabated gas shrinking from 50% today to under 20%.

Uniper also targets 1 GW electrolyzer capacity by 2030.

Remaining coal assets including Datteln 4 will be sold or closed with its Dutch Maasvlakte plant to shut last in 2029.

New renewables and existing hydro and nuclear assets especially in Sweden are to account for the other half by 2030.

Focus was on growing wind and solar assets and renewable PPAs, maximize the value of hydro and nuclear and pursue selective growth in hydro, it said.

### Uniper power generation (TWh)

	H1-23	H1-22
UK Gas	5.5	5.6
Swedish Nuclear	3.7	4.7
Swedish Hydro	3.4	4.0
German Coal	3.3	5.0
German Hydro	2.7	2.5
German Gas	2.2	2.3
Dutch Coal*	1.8	2.1
Hungarian gas	1.1	1.3
UK Coal	1.0	2.1
Dutch Gas	0.4	0.6
<b>Total</b>	<b>25.1</b>	<b>30.4</b>

\*incl co-feed biomass

Source: Uniper

### European generation swings

Meanwhile, Uniper's European power generation in the first half of 2023 fell 18% on year to 25 TWh.

UK gas plant output was flat at 5.5 TWh, while German coal fell a third to 3.3 TWh.

UK coal also fell sharply to just 1 TWh with its Ratcliffe plant to close in 2024.

Nuclear and hydro output in Sweden fell 18% to 71 TWh.

Uniper had 80% or around 15 TWh of planned 2023 Nordic hydro and nuclear hedged at Eur40/MWh, it said.

For 2024, only 40% was hedged at Eur46/MWh.

Its German hydro plants, which generated 2.7 TWh in H1, were 85% hedged for 2024 at Eur28/MWh.

For 2025, only 30% of German hydro was hedged at Eur139/MWh, according to slides for an investor presentation.

The company already lifted its FY outlook on July 25 after benefitting from profitable hedging transactions in coal- and gas-fired power generation and the gas midstream business in H1.

— Andreas Franke

### Uniper set to commission Germany's third grid response gas unit

- Uniper to commission Irsching 6 in Aug
- Leipheim, Biblis units already operating
- Grid stabilizing units for south Germany

Uniper is to commission its 300-MW Irsching 6 gas-fired power plant in August, a manager of the state-owned company said Aug. 1.

The plant will be dispatched only at the request of grid

operator Tennet and will not operate in the wholesale market, COO Holger Kreetz said at a press conference.

The plant, developed by Ansaldo, achieved first power in May and has been in testing since.

A similar unit at Leipheim was officially started July 31, operator Leag said in a statement.

Siemens Energy built the remote-controlled plant in Bavaria in just two years, it said.

A third unit at Biblis operated by RWE for grid operator Amprion has been in operation since March.

The projects were planned to start last October to help stabilize networks in southern Germany after the nuclear exit, but have been delayed.

Germany also allowed its last reactors to operate until April easing potential grid issues last winter.

However, the costs of power grid stabilizing measures in Germany hit a record Eur4.2 billion in 2022, up 82% on year, regulator BNetzA said in July.

Curtailments of renewable power rose to 8.1 TWh, while reserve power plants generated 3.2 TWh, it said.

In addition, power plants used by grid operators within the market for redispatch measures generated some 11 TWh.

Platts, a unit of S&P Global Commodity Insights, last assessed German day-ahead gas at the THE hub at Eur27.25/MWh July 31, compared to Eur192/MWh one year ago.

— Andreas Franke

## Germany plans to tender 10 GW of H2-ready gas-fired power plant by 2026

- Berlin's power plant strategy takes shapes
- Plans adjusted to achieve EC approval
- Total 24 GW hydrogen-ready tenders planned

Germany plans to tender 10 GW of new hydrogen-ready gas-fired power plant capacity by 2026, the energy ministry said Aug. 1.

Berlin's strategy to bring forward 24 GW of new dispatchable plant capacity has seen the government adjusting details to gain approval for various support mechanisms from the European Commission.

Energy minister Robert Habeck said progress had been made in talks with the EC, with a sector consultation in the autumn ahead of a formal state aid approval process.

"Now we focus on the conversion of our power plants to hydrogen and set the course for achieving climate neutrality in the entire electricity sector [by 2035]," he said, noting "intensive and constructive talks with the EC to develop a joint understanding."

Berlin's new hydrogen strategy approved July 26 detailed plans to tender for 8.8 GW of hydrogen-ready power plant.

In addition, some 15 GW of dispatchable capacity would be needed by 2035, to be fueled by first by natural gas until clean hydrogen was available by 2035 at the latest, the ministry said.

Details of the planned power plant strategy and its supportive tenders are to be published towards the end of the parliamentary summer break, the ministry said.

### Three categories

Berlin plans three different categories to incentivize new dispatchable power plant.

First, sites with potential early access to hydrogen with some 4.4 GW of so-called "sprinter plants" capacity to be auctioned from 2024 to 2028, one year later than indicated in the hydrogen strategy.

Another 4.4 GW of so-called "hybrid plants" are to be tendered for site less likely to have an early hydrogen grid link and therefore plan to generate green hydrogen on site via electrolysis.

Finally, the H2-ready convertible power plants with mandatory hydrogen conversion by 2035 with the first 10 GW to be tendered 2024 to 2026 of which 6 GW will be reserve power plants, the statement said.

Another 5 GW could be tendered after 2026 following evaluation of the plans and include conversion of existing plant.

### Tender details unclear

Utility association BDEW welcomed the agreement on the "long-overdue power plant strategy" and called for urgency in determining the framework details for the tenders in 2024, it said.

BDEW is advocating a capacity-based remuneration for the power plants, noting that any details on the type of support have not yet been decided.

Gas association Zukunft Gas sees the step as a strong signal for gas alongside the new hydrogen strategy and the hydrogen grid plans, it said in a statement.

The lobby also called to include the existing 25 GW of gas plant capacity in any support mechanism and favors a capacity market as already launched in other European markets.

Platts, part of S&P Global Commodity Insights, assessed the cost of producing renewable hydrogen via PEM electrolysis in the Netherlands at Eur122/MWh on July 31 based on month-ahead power prices.

That compares to Eur27.30/MWh for Dutch TTF front-month gas, according to the July 31 Platts assessment.

— Andreas Franke

## Spanish solar PV output jumps 35% during July heatwave

- Operating rate hits approximately 35%
- Demand slumps to nine-year July low
- France imports bearish for gas output

Spanish grid-connected solar PV output increased 35% year on year in July to a monthly record high of 4.5 TWh, covering 21% of domestic demand in the month, according to data published by grid operator REE Aug. 1.

Prolonged hot weather and sunshine as well as an increasing generating base meant solar overtook wind and gas-fired

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generation in the supply stack, to second place behind nuclear, the data showed.

Grid-connected solar PV capacity has increased by 2.2 GW in 2023 to 20.9 GW at the start of July, meaning the operating rate was approximately 35% in the month.

REE's data also does not account for distributed generation, which accounts for additional installed capacity of approximately 6 GW.

Indeed, the boom in off-grid generation has begun to bite into grid demand, and possibly industrial demand too. Both factors have contributed to Spanish power demand in 2023 falling below even 2020's pandemic-hit levels.

For July, Spanish demand was 21.2 TWh, down 4% year on year and the lowest July demand since 2014, despite an uptick in cooling demand.

Spanish baseload for August delivery closed at Eur101.25/MWh on the OMIP exchange July 31, up 0.2% on the day.

### Spain power supply, demand balance July 2023

	Jul-23 (GWh)	Jul-22 (GWh)	Y/Y change (%)
<b>Inputs</b>			
Hydro	1345	1075	25
Wind	3760	4340	-13
Solar PV	4491	3323	35
Solar thermal	800	696	15
Other renewables	333	423	-21
Nuclear	5125	5074	1
Turbine pumping	275	162	69
CCGT	4415	8002	-45
Coal	287	836	-66
Cogeneration	1513	1073	41
Non-renewable waste	188	227	-17
France imports	880	0	NA
<b>Outputs</b>			
Pumping consumption	-522	-442	18
Balearic HVDC Link	-168	-66	155
France export	0	-990	NA
Portugal export	-1178	-1266	-7
Morocco export	-178	-149	19
Andorra export	-20	-23	-14
Balancing	-100	-248	-59
Peninsular demand	-21247	-22047	-4

Source: REE

key: NA - swing in flow direction

### Bearish gas

The weak Spanish power demand and record solar were accompanied in July by a 25% uptick in hydro output to 1.3 TWh as well as robust cogeneration, spurred by a rollover of a fiscal regime and solid nuclear output.

These factors, together with a swing in cross-border flows from France, meant gas-fired output dropped 45% year on year to 4.4 TWh.

Spain's gas-fired plants were cranked up to 14-year high rates in July 2022 as a temporary price cap incentivized exports to France.

With the reversal of flows as markets have normalized, this was bearish for Spanish gas demand in July.

Spanish gas demand fell 16% year on year in the month to 26.2 TWh (2.4 Bcm), dragged down by a 40% decline in gas to power demand to 10.4 TWh, Enagas data showed Aug. 1.

This has meant, however, that Spanish underground working storage reached 33.6 TWh, or 98% of maximum capacity at the end of the month.

— Gianluca Baratti

### Japan's Mitsui signs SPAs for Russian Arctic LNG 2 equity liftings

- Project set to start this year, ramp up early 2024
- Mitsui handles LNG marketing of 10% equity held by Japan Arctic LNG
- Russian supply accounts for 9.5% of Japan's LNG imports

Japan's Mitsui has signed sales and purchase agreements with customers for its equity lifting volumes from the Arctic LNG 2 project in northern Russia ahead of the first train starting up later this year, a company spokesperson told S&P Global Commodity Insights Aug. 1.

"We are working toward starting production from the first train [of the Arctic LNG 2 project] in 2023," said the spokesperson, adding that the company has signed SPAs that correspond to its equity lifting volumes from the project. He declined to elaborate on buyers and supply destinations.

Mitsui joined the Arctic LNG 2 project in 2019 via a subsidiary called Japan Arctic LNG, which secured substantial financial support from state-owned Japan Organization for Metals and Energy Security (JOGMEC) as part of wider Japanese efforts to ensure stable LNG supply and diversify import sources.

Mitsui handles LNG marketing for Japan Arctic LNG's 10% equity offtake volume of 1.98 million mt/year from the project.

Novatek CEO Leonid Mikhelson said July 20 that first LNG from the project was still expected before the end of 2023, with ramp-up to design capacity between January and March 2024.

"We are going to meet the deadlines of the first line's launch scheduled for 2023," Mikhelson said at a ceremony to mark the dispatch of the first train from Murmansk for delivery to the project site on the Gydan peninsula.

In all, Arctic LNG 2 will have three production trains, each with a capacity of 6.6 million mt/year, giving the project a total capacity of 19.8 million mt/year. The second and third trains are expected online in 2024 and 2026, respectively.

Novatek holds 60% in the project, alongside TotalEnergies (10%), Chinese companies CNPC and CNOOC (10% each) and Japan Arctic LNG (10%).

### Japan's exposure

Russia's invasion of Ukraine in 2022 has complicated the situation over imports of Russian energy, with Japan pledging to phase out its Russian coal and oil imports.

The Japanese government, however, has made it clear that it intends to maintain stakes in the Sakhalin 1, 2 and Arctic LNG 2 projects in Russia, considering their significance for national energy security.

Russia was the third largest LNG supplier to Japan in the first half of 2023, with its LNG supply accounting for 9.5% of the country's total LNG imports of 32.62 million mt, according to the Ministry of Finance data.

Daisuke Harada, director and economist at JOGMEC's energy research division, told S&P Global in response to a question on whether Japanese companies would be able to lift Arctic LNG 2 supply: "Given the current absence of European and US sanctions on an embargo on [Russian] natural gas imports, there is no barrier to lift [from Arctic LNG 2] like the inflows from Sakhalin 2 to date."

— Takeo Kumagai



## Japan's JERA starts up 650 MW No. 3 Anegasaki gas-fired unit

- Starts up all three new 1.95 GW GTCC units at Anegasaki
- Expects to use 1.9 mil mt/year of LNG under approved environment assessment

Japan's largest power generation company JERA started commercial operations Aug. 1 at the new 650 MW No. 3 gas-fired unit at the Anegasaki thermal power plant in Tokyo Bay, the company said, bringing all of the three combined cycle units on stream.

The commercial startup of the new No. 3 gas-fired unit follows the start of test runs in March at the Anegasaki thermal power plant, where it was starting up the 1.95 GW gas turbine combined-cycle power generation system (GTCC) this year.

It followed the commercial start up of the new No. 1 and No. 2 gas-fired units with a capacity of 650 MW each at the Anegasaki thermal power plant in February and April.

Under its environment assessment approved by the minister of the economy, trade and industry in June 2019, JERA had expected to consume about 1.9 million mt/year of LNG at the new 1.95 GW Anegasaki gas-fired units, a JERA spokesperson said.

— Takeo Kumagai

## Subscriber Notes

### Platts proposes to discontinue Belgian Zeebrugge beach gas assessments, basis differentials

Platts, part of S&P Global Commodity Insights, is proposing to discontinue all natural gas price assessments relating to Belgium's physical-trading trading hub at Zeebrugge beach (ZTP-P), effective Sept. 29, 2023.

This methodology change is in response to the Belgian market merger on Oct. 1, 2023, when Zeebrugge and ZTP-V will be combined into one virtual-trading location, ZTP.

From Sept. 29, 2023, onwards, the merged ZTP virtual hub will be assessed, databased and published in the existing symbols for the Belgian Zeebrugge Trading Point (ZTP), without any further change to existing methodology.

The following Belgian Zeebrugge Beach assessments symbols would be discontinued (in the order of pence/therm, Eur/MWh, \$/MMBtu and Eur/GJ):

- Day-ahead (AADON00, AALKK00, GZBWD00, AADNX00)
- Day-ahead+1 (AADON27, AALKK27, GZBWD27, AADNX27)
- Day-ahead+2 (AADON28, AALKK28, GZBWD28, AADNX28)
- Weekend (AADOP00, AALKM00, GZBWW00, AADYZ00)
- Month Ahead (AADOS00, AALKQ00, GZBWM10, AADOE00)
- Quarter Ahead (AADOY00, AALKW00, GZBWQ10, AADOK00)

- Season 1 (GZBVSNO, GZBTSNO, GZBWSNO, GZBUSNO)
- Season 2 (AAOX000, AAOR00, GZBWSN1, AAOU00)

The following Belgian Zeebrugge Beach Flow-Date Series symbols would be discontinued (in the order of pence/therm, Eur/MWh, \$/MMBtu and Eur/GJ):

- Day-ahead flow date (AADON21, AALKK21, GZBWF21, GZBUF21)
- The following Zeebrugge-NBP Basis Differential symbols would be discontinued:
- Day-ahead (AAMPI00 for p/th, AAMPL00 for Eur/MWh, AAMPJ00 for Eur/GJ)
- Day-ahead+1 (AAMPI27 for p/th, AAMPL27 for Eur/MWh)
- Day-ahead+2 (AAMPL28 for p/th, AAMPI28 for Eur/MWh)
- Month Ahead (AAMPM00 for p/th, AAMPP00 for Eur/MWh, AAMPO00 for Eur/GJ)

Belgian Zeebrugge assessments would no longer be published in European Gas Daily, European Gas Daily Monthly Averages, and on the Natural Gas and European Gas and Power newswires.

The full description of the existing natural gas methodology in Europe can be found here.

Platts publication schedule can be found here.

Please send comments, questions, alternative proposals or any other feedback regarding the above proposal by Aug. 15, 2023, to [pricegroup@spglobal.com](mailto:pricegroup@spglobal.com) and [eurogaspricing@spglobal.com](mailto:eurogaspricing@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.

### Platts invites feedback on its European Natural Gas methodology guide

As part of its commitment to open and transparent pricing and product specifications, Platts, part of S&P Global Commodity Insights, would like to invite feedback on its European natural gas methodology, specifically the guidelines described in the methodology guide posted online at [https://www.spglobal.com/commodityinsights/plattscontent/\\_assets/\\_files/en/our-methodology/methodology-specifications/eurogasmetho.pdf](https://www.spglobal.com/commodityinsights/plattscontent/_assets/_files/en/our-methodology/methodology-specifications/eurogasmetho.pdf)

Platts reviews all methodologies annually to ensure they continue to reflect the physical markets under assessment, and regularly assesses the relevance of methodologies through continuous contact with the market. Feedback on methodologies is always welcomed by Platts.

Please send all comments, feedback, and questions to [eurogas\\_pricing@spglobal.com](mailto:eurogas_pricing@spglobal.com) and [pricegroup@spglobal.com](mailto: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.

## Market Commentary

### European gas spot mixed; new yearly maintenance starts at NCS assets

- Dutch TTF, British NBP day-ahead contracts fall 3.2%, Italian PSV rises 1.3%
- NCS nominations fall, annual maintenance reduces capacity at assets
- Slovakian nominations into Ukraine begin via Budince entry point, at 15.1 mil cu m: EUSTREAM

Natural gas spot prices were mixed across the Continent Aug. 1, with new periods of annual maintenance beginning at assets on the Norwegian Continental Shelf, nominations continuing to Ukraine, and below-average temperatures still forecast near term.

Platts assessed the day-ahead contract at the influential Dutch TTF hub at Eur26.075/MWh Aug.1, down 85 euro cent, or 3.16%.

Total exit nominations from the Norwegian Continental Shelf stood at 316.4 million cu m Aug. 1, data from offshore grid operator Gassco showed. With exit nominations at 341.7 million cu m July 31, this was a drop of around 7.5% on the day as planned maintenance began at the Troll gas field and the Kollsnes gas processing plant in Norway.

“It was the Norwegian exports drop that lifted TTF yesterday,” one France-based trader remarked.

“[The] start of planned maintenance at Troll and Kollsnes (around 20 million cu m/d), and high injections,” a Germany-based trader stated as key reasons for recent price moves. “And less feedgas reported into US terminals.”

In the UK, Transmission System Operator National Gas put demand at 150.54 million cu m July 31, with day-ahead demand forecast slightly higher at 157 million cu m.

Platts assessed the British NBP day-ahead contract at 63.5 pence/therm Aug. 1 for a day-on-day decline of 2.125 p/th, or 3.24%, but several spot contracts in South and Central Europe rose slightly over the session.

In Italy, Platts assessed the PSV day-ahead contract at Eur30.20/MWh Aug. 1, rising 38 euro cent, or 1.26%, on the day. This left the Italian PSV spot price at a substantial premium of Eur4.125/MWh to the Dutch TTF equivalent contract.

“Regarding Italy, we have lower flows while demand remains stable on the consumption and injection side,” an Italian trader said before adding that “the market at the moment is very illiquid on the spot with lower-than-average volumes.”

Similarly, Platts assessed the Austrian CEGH day-ahead contract up 13 euro cent, or 0.43%, o at Eur29.15/MWh Aug. 1.

To the east, nominations from Slovakia to Ukraine through the Budince entry point began Aug. 1, with these reported at around 15.1 million cu m, according to transparency data published by the

### Platts UK NBP intra-day gas prices: August 1

p/th	Within day (A)	Next day (B)	EFA day ahead
August 1	67.300	67.575	67.506

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.

### Platts UK NBP assessments, August 1, 2023

	p/th	Change D-1 (p/th)	Eur/MWh	\$/MMBtu
<b>UK NBP market</b>				
Within day	64.000	-0.725	25.390	8.155
DA 11:00 am	67.575	+3.075	26.808	8.610
Day ahead	63.500	-2.125	25.192	8.091
Weekend	63.775	-0.750	25.301	8.126
Working week+1	65.000	-0.700	25.787	8.282
Balance month	64.500	-	25.588	8.219
September	68.150	-2.875	27.036	8.684
October	81.450	-2.200	32.313	10.378
November	107.075	-3.475	42.479	13.644
December	127.425	-3.650	50.552	16.237
January	132.025	-3.525	52.377	16.823
February	132.800	-	52.684	16.922
Q4 2023	105.375	-3.000	41.804	13.427
Q1 2024	130.500	-3.875	51.772	16.628
Q2 2024	123.525	-3.750	49.005	15.740
Q3 2024	123.025	-5.150	48.806	15.676
Q4 2024	137.825	-2.425	54.678	17.562
Q1 2025	140.075	-2.425	55.570	17.848
Winter 23	117.850	-3.525	46.753	15.017
Summer 24	123.275	-4.450	48.905	15.708
Winter 24	138.950	-2.425	55.124	17.705
Summer 25	108.825	-2.150	43.173	13.867
Winter 25	118.675	-1.750	47.081	15.122
Summer 26	87.675	-2.300	34.782	11.172
Gas year 2023	120.575	-3.975	47.834	15.364
Cal 2024	128.725	-3.800	51.068	16.402

### Platts Belgian Zeebrugge Beach assessments

August 1, 2023	p/th	Change D-1 (p/th)	Eur/MWh	\$/MMBtu
Day ahead	65.325	-1.200	25.916	8.326
September	68.525	-	27.185	8.734
Q4 2023	104.225	-2.525	41.348	13.284
Winter 23	114.825	-2.850	45.553	14.635
Summer 24	121.400	-3.150	48.162	15.473

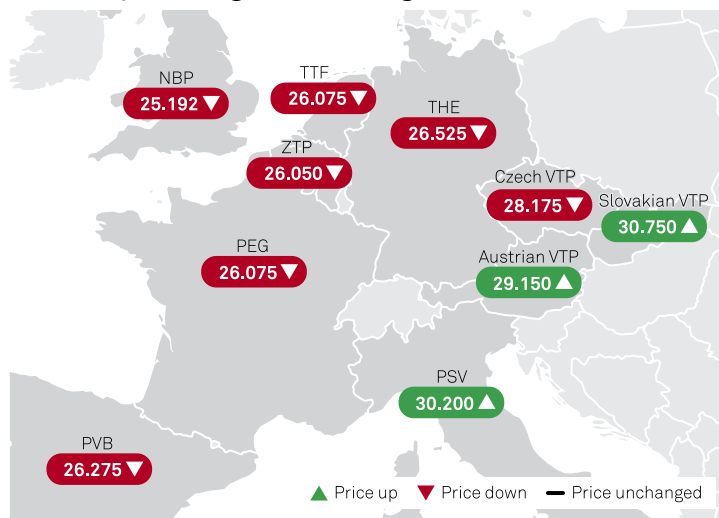
### Platts NBP-Zeebrugge basis differentials

	p/th	Change D-1 (p/th)	Eur/MWh
Day ahead	1.825	+0.925	0.724
September	0.375	-	0.149

### Platts Zeebrugge Beach day-ahead flow date prices

Flow date	p/th	Eur/MWh
August 2	65.325	25.916

### Platts day-ahead gas prices, August 01 (Eur/MWh)



NBP is 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 Commodity Insights

Slovak Gas TSO EUSTREAM.

Meanwhile, according to the same data, nominations into Ukraine through Velke Kapusany were at 7.42 million cu m, down slightly on the day from 8.9 million cu m July 31.

“Next week, we will have some auctions for October... and I believe they will keep bidding,” one European trader said. “They bought the exit from Hungary, and now they are buying also exits from Slovakia and Poland if I’m not wrong.”

“I think that it will continue going forward,” another source said. “I’m not sure about it increasing [in volume], but yes.”

Platts assessed the Slovakia VTP day-ahead contract at Eur30.75/MWh Aug. 1, up 13 euro cent/MWh, or 0.41%.

The same source also noted that this uptick in flows toward Ukraine was largely from the current robust state of gas storage stocks in the European Union.

Data from Gas Infrastructure Europe put these at 85.79% full as of the start of gas day July 30, up 0.39 percentage point.

The latest forecasts from CustomWeather show near-term temperatures dropping further across Northwest Europe at around 5 degrees Celsius below five-year averages by July 5-6.

Similarly, in Southern Europe, temperatures by the end of the week are forecast to fall slightly to around 3 C below five-year averages for the region, the same data showed.

Platts is a part of S&P Global Commodity Insights.

— Thomas Seth

## High inventory priced into European gas curves amid Ukraine spill

- Day of steady front-month declines
- Gas storage stocks rise to 85.8% full July 30: GIE data
- Spanish PVB opens clear front-month premium to TTF

High natural gas stocks in Europe helped wholesale derivatives ease lower Aug. 1, as a surplus discharged into Ukraine prompted a revision of future injection requirements.

With excess already flowing into Ukrainian territory likely destined for storage, market participants priced in a future surplus within Europe’s liquid markets with domestic injection capacity possibly unable to clear it.

Platts assessed the new Dutch TTF front-month contract for September delivery at Eur27.25/MWh (\$8.474/MMBtu), down Eur1.25.

The instrument reached an intraday high of Eur30.475/MWh in early exchanges, and trended downward with strong fluctuations thereafter, hitting an intraday low of Eur26.95/MWh shortly before the close.

Similarly, the NBP equivalent traded within a 67.20-76.325

## Platts Spanish PVB/LNG differentials, Aug 01, 2023

Platts MED\* minus Spanish PVB\*\* gas

	p/th	Eur/MWh	Change D-1 (Eur/MWh)	\$/MMBtu
September differential	-1.074	-0.426	-	-0.130

\*Cargoes delivered ex-ship (DES) at ports in the Mediterranean including Spain and Portugal, which can receive a minimum cargo size of 135,000 cu m. Further information on the MED is available in the Platts Liquefied Natural Gas Assessments and Netbacks methodology and specifications guide at [www.platts.com](http://www.platts.com).

\*\*Formerly AOC.

## Platts Dutch TTF assessments (Hi-cal gas)

August 1, 2023	p/th	Eur/MWh	Change D-1 (Eur/MWh)	\$/MMBtu
Day ahead	65.745	26.075	-0.850	8.377
Weekend	65.871	26.125	-0.850	8.393
Balance month	65.493	25.975	-	8.345
September	68.708	27.250	-1.250	8.747
October	82.387	32.675	-0.575	10.488
November	108.357	42.975	-1.225	13.810
December	122.855	48.725	-1.400	15.654
January	126.196	50.050	-1.500	16.080
February	126.889	50.325	-	16.168
Q4 2023	104.449	41.425	-1.100	13.309
Q1 2024	125.818	49.900	-1.525	16.032
Q2 2024	121.279	48.100	-1.350	15.453
Q3 2024	122.414	48.550	-1.325	15.598
Q4 2024	130.986	51.950	-1.550	16.690
Q1 2025	131.491	52.150	-1.425	16.755
Winter 23	115.039	45.625	-1.350	14.658
Summer 24	121.846	48.325	-1.325	15.526
Winter 24	131.239	52.050	-1.475	16.723
Summer 25	106.592	42.275	-0.775	13.582
Winter 25	110.311	43.750	-0.800	14.056
Summer 26	83.332	33.050	-0.425	10.618
Winter 26	86.421	34.275	-0.325	11.012
Summer 27	67.321	26.700	-0.050	8.578
Gas year 2023	118.443	46.975	-1.350	15.092
Cal 2024	125.124	49.625	-1.500	15.943
Cal 2025	113.526	45.025	-0.875	14.466
Cal 2026	90.707	35.975	-0.350	11.558
Cal 2027	73.373	29.100	-0.125	9.349
Cal 2028	69.969	27.750	+0.050	8.915
Cal 2029	72.616	28.800	-0.275	9.253

## Platts European assessments, August 1, 2023

	p/th	Eur/MWh	Change D-1 (Eur/MWh)	\$/MMBtu
<b>Belgian ZTP</b>				
Day ahead	65.682	26.050	-0.800	8.369
September	68.582	27.200	-	8.739
<b>French PEG</b>				
Day ahead	65.745	26.075	-0.875	8.377
September	68.204	27.050	-	8.691
<b>German THE</b>				
Day ahead	66.880	26.525	-0.725	8.522
September	69.906	27.725	-	8.907
<b>Austrian VTP</b>				
Day ahead	73.499	29.150	+0.125	9.365
September	74.381	29.500	-	9.478
<b>Italian PSV</b>				
Day ahead	76.146	30.200	+0.375	9.703
September	72.175	28.625	-	9.197
Q4 2023	106.403	42.200	-1.075	13.558
Winter 23	116.425	46.175	-1.425	14.835
Cal 2024	127.772	50.675	-1.500	16.281
<b>Spanish PVB</b>				
Day ahead	66.250	26.275	-0.400	8.442
September	69.906	27.725	-0.675	8.907
October	81.000	32.125	-	10.321
Q4 2023	100.478	39.850	-0.525	12.803
Q1 2024	122.666	48.650	-0.425	15.630
Winter 23	111.572	44.250	-0.475	14.217
Cal 2024	122.351	48.525	-0.625	15.590
Cal 2025	105.205	41.725	0.000	13.405
<b>Czech VTP</b>				
Day ahead	71.040	28.175	-0.625	9.052
September	75.831	30.075	-	9.662
<b>Slovakian VTP</b>				
Day ahead	77.533	30.750	+0.125	9.879
September	78.415	31.100	-	9.992

pence/therm intraday range, before closing 2.875 p/th lower on the day at 68.15 p/th.

Further out, a meaningful premium was wiped away from next summer's injection season, with the Summer 2024 TTF contract dropping Eur1.325 to close at Eur48.325/MWh, while its NBP counterpart slid 4.45 p/th for a 123.275 p/th assessment.

According to the latest Gas Infrastructure Europe data, pan-European storage inventory was at 85.8% capacity July 30, with unused space inaccessible for some shippers that are now having to resort to Ukraine shipments.

Despite the increased export, the transport was still interpreted as a spot surplus, which could be replicated going forward, with some risk premium even removed from the Winter

2024 TTF contract as a result, down Eur1.475 to Eur52.05/MWh.

On the global LNG market, the Platts JKM benchmark for Asian spot LNG was assessed at \$11.174/MWh for September delivery, after soaring 76 cents on the day.

Spain's LNG-rich PVB hub opened up a clear premium to TTF during the session, with September delivery assessed 67.5 euro cent lower to Eur27.725/MWh (\$8.907/MMBtu).

While this may help secure marginal LNG supply ahead of Northwest Europe, amid a lack of injection appetite in that region, the downstream-regasification price in Spain still remains adrift from the global market.

Platts is a part of S&P Global Commodity Insights.

— Neil Hunter



**Exchange Summary****ICE UK NBP futures, July 31, 2023 (p/th)**

Month	Close	Previous	Change	Low	High	Volume
Sep-23	70.750	67.730	3.020	66.580	72.390	3395
Oct-23	82.530	79.960	2.570	79.150	84.300	2055
Nov-23	109.330	106.890	2.440	105.250	111.130	1405
Dec-23	130.480	126.900	3.580	126.500	131.670	995
Jan-24	134.880	131.600	3.280	—	—	185
Feb-24	135.440	132.260	3.180	135.840	135.840	295
Mar-24	130.900	127.920	2.980	127.800	127.800	240
Apr-24	129.240	126.870	2.370	126.000	129.600	170
May-24	126.940	124.780	2.160	—	—	35
Jun-24	123.260	121.170	2.090	—	—	35
Jul-24	124.220	122.170	2.050	—	—	30
Aug-24	125.090	123.080	2.010	—	—	30
Sep-24	128.390	126.420	1.970	—	—	30
Oct-24	134.110	132.170	1.940	—	—	15
Nov-24	140.550	138.650	1.900	—	—	15
Dec-24	143.980	142.130	1.850	—	—	15
Jan-25	149.050	147.230	1.820	—	—	15
Feb-25	145.500	143.730	1.770	—	—	15
Mar-25	134.410	132.730	1.680	—	—	15
Apr-25	115.420	114.400	1.020	—	—	10
May-25	107.170	106.150	1.020	—	—	10
Jun-25	104.510	103.490	1.020	—	—	10
Jul-25	106.520	105.500	1.020	—	—	10
Aug-25	107.960	106.940	1.020	—	—	10
Sep-25	109.640	108.620	1.020	—	—	10
Oct-25	116.070	113.270	2.800	—	—	0
Nov-25	120.610	117.700	2.910	—	—	0
Dec-25	122.930	120.020	2.910	—	—	0
Jan-26	124.420	121.440	2.980	—	—	0
Feb-26	124.830	121.810	3.020	—	—	0
Mar-26	112.650	109.600	3.050	—	—	0
Apr-26	99.630	99.550	0.080	—	—	0
May-26	94.880	94.780	0.100	—	—	0
Jun-26	88.870	88.760	0.110	—	—	0
Jul-26	85.370	85.240	0.130	—	—	0
Aug-26	81.810	81.670	0.140	—	—	0
Sep-26	84.040	83.890	0.150	—	—	0
Oct-26	90.400	90.240	0.160	—	—	0
Nov-26	96.970	96.800	0.170	—	—	0
Dec-26	101.520	101.350	0.170	—	—	0
Jan-27	102.520	102.350	0.170	—	—	0
Feb-27	104.580	104.410	0.170	—	—	0
Mar-27	98.560	98.390	0.170	—	—	0
Apr-27	88.540	88.370	0.170	—	—	0
May-27	79.790	79.620	0.170	—	—	0
Jun-27	75.820	75.650	0.170	—	—	0
Jul-27	70.070	69.900	0.170	—	—	0
Aug-27	70.510	—	—	—	—	0

Source: ICE Futures Europe

**ICE ENDEX UK OCM, July 31, 2023**

	No. trades	SAP (p/th)	Energy (therms)	Values (GBP)
NBP total	177	61.7000	10,734,000	6,622,878

OCM – On-the-day Commodity Market

Source: ICE ENDEX

**ICE ENDEX Dutch TTF futures, July 31, 2023 (Eur/MWh)**

Month	Settle	Change	Volume
Sep-23	28.366	1.49	59979
Oct-23	33.183	1.20	24392
Nov-23	44.150	1.20	17357
Dec-23	50.061	1.38	12612
Jan-24	51.454	1.38	7857
Feb-24	51.800	1.39	6682
Mar-24	51.185	1.39	6057
Apr-24	49.835	1.26	3072
May-24	49.490	1.19	2517
Jun-24	49.527	1.10	2357
Jul-24	49.629	0.97	2127
Aug-24	50.105	1.24	2137
Sep-24	50.329	1.00	2252
Oct-24	51.029	0.90	1692
Nov-24	53.770	0.89	1547
Dec-24	55.379	1.05	1692
Jan-25	55.390	0.98	1075
Feb-25	54.240	1.06	1075
Mar-25	51.135	1.06	1045
Apr-25	46.051	0.72	260
May-25	43.255	0.71	260
Jun-25	41.520	0.70	260
Jul-25	41.688	0.61	270
Aug-25	42.568	0.61	270
Sep-25	42.823	0.61	290
Oct-25	42.884	0.63	240
Nov-25	44.369	0.63	220
Dec-25	45.419	0.63	220
Jan-26	46.743	0.57	120
Feb-26	45.308	0.57	120
Mar-26	41.808	0.70	120
Apr-26	36.055	0.13	60
May-26	33.105	0.13	60
Jun-26	32.410	0.13	60
Jul-26	32.115	0.13	60
Aug-26	33.170	0.13	60
Sep-26	33.645	0.13	60
Oct-26	33.310	-0.09	45
Nov-26	34.155	-0.09	45
Dec-26	34.960	-0.09	45
Jan-27	35.380	-0.15	10
Feb-27	35.163	0.01	10
Mar-27	33.854	0.01	10
Apr-27	27.554	-0.06	5
May-27	26.369	-0.06	5
Jun-27	26.214	-0.06	5
Jul-27	25.765	-0.06	5
Aug-27	26.600	—	5
<b>Total volume</b>			<b>160724.00</b>

Source: ICE ENDEX

**Mibgas Spanish PVB prices, August 1, 2023**

	Reference price (Eur/MWh)	Change (Eur/MWh)	Total volume (MWh)
Day ahead	27.55	+1.00	29
Month ahead	28.73	+1.73	30

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

Source: Mibgas

## Platts Spark Spreads

### Platts Peakload Spark Spreads, July 31, 2023

	Spark spread		Clean spark spread		Clean spark spread (CPS)	
	45%	50%	45%	50%	45%	50%
	efficiency	efficiency	efficiency	efficiency	efficiency	efficiency
<b>UK (GBP/MWh)</b>						
Day ahead	24.0808	28.9727	5.4655	12.2190	-1.8965	5.5932
Month ahead	25.1225	30.1452	6.5072	13.3915	-0.8548	6.7657
Month ahead +1	33.0820	38.4688	14.4667	21.7151	7.1047	15.0892
Quarter ahead	52.3543	60.5739	33.7390	43.8202	26.3771	37.1944
Quarter ahead +1	44.7849	54.9765	24.6549	36.8595	17.2929	30.2336
Season ahead	48.5446	57.7502	29.1720	40.3148	21.8100	33.6890
Season ahead +1	22.2286	31.9157	2.0986	13.7987	-5.2635	7.1729
Season ahead +2	48.3759	59.0983	26.7943	39.6748	19.4322	33.0490
Season ahead +3	22.5324	30.9491	-0.5009	10.2192	NA	NA

#### UK (Eur/MWh)

Day ahead	28.0891	33.7953	6.3752	14.2529	-2.2122	6.5242
Month ahead	29.3042	35.1630	7.5903	15.6206	-0.9971	7.8919
Month ahead +1	38.5886	44.8720	16.8747	25.3296	8.2873	17.6008
Quarter ahead	61.0688	70.6566	39.3550	51.1142	30.7676	43.3855
Quarter ahead +1	52.2395	64.1275	28.7588	42.9949	20.1714	35.2661
Season ahead	56.6250	67.3629	34.0278	47.0253	25.4403	39.2966
Season ahead+1	25.9286	37.2282	2.4479	16.0955	-6.1396	8.3668
Season ahead +2	56.4282	68.9354	31.2543	46.2788	22.6667	38.5501
Season ahead +3	26.2830	36.1007	-0.5843	11.9202	NA	NA

#### Germany (Eur/MWh)

Day ahead	14.4367	20.4200	-21.0701	-11.5361
Month ahead	20.8333	26.9000	-14.6734	-5.0561
Month ahead +1	32.3567	38.6900	-3.1501	6.7339
Quarter ahead	50.1800	59.6300	14.6732	27.6739
Quarter ahead +1	64.5022	75.9300	27.1958	42.3542
Year ahead	48.3889	59.7500	11.0824	26.1742

#### Netherlands (Eur/MWh)

Month ahead	13.7833	19.8500	-21.7234	-12.1061
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#### France (Eur/MWh)

Month ahead	35.2870	41.3700	-0.2200	9.4140
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The applicable heating value for all spark and clean spark spreads is High Heating Value (HHV). Details of methodology at [www.platts.com](http://www.platts.com).

### Platts Baseload Spark Spreads, July 31, 2023

	Spark spread		Clean spark spread		Clean spark spread (CPS)	
	45%	50%	45%	50%	45%	50%
	efficiency	efficiency	efficiency	efficiency	efficiency	efficiency
<b>UK (GBP/MWh)</b>						
Day ahead	22.6808	27.5727	4.0655	10.8190	-3.2965	4.1932
Month ahead	20.2725	25.2952	1.6572	8.5415	-5.7048	1.9157
Month ahead +1	23.3320	28.7188	4.7167	11.9651	-2.6453	5.3392
Quarter ahead	27.3043	35.5239	8.6890	18.7702	1.3271	12.1444
Quarter ahead +1	21.6849	31.8765	1.5549	13.7595	-5.8071	7.1336
Season ahead	24.4446	33.6502	5.0720	16.2148	-2.2900	9.5890
Season ahead +1	14.7786	24.4657	-5.3514	6.3487	-12.7135	-0.2771
Season ahead +2	21.3759	32.0983	-0.2057	12.6748	-7.5678	6.0490
Season ahead +3	11.0324	19.4491	-12.0009	-1.2808	NA	NA

#### UK (Eur/MWh)

Day ahead	26.4561	32.1623	4.7422	12.6199	-3.8452	4.8912
Month ahead	23.6469	29.5057	1.9330	9.9633	-6.6544	2.2346
Month ahead +1	27.2157	33.4991	5.5018	13.9567	-3.0856	6.2279
Quarter ahead	31.8492	41.4370	10.1353	21.8946	1.5480	14.1659
Quarter ahead +1	25.2944	37.1824	1.8137	16.0498	-6.7737	8.3210
Season ahead	28.5135	39.2514	5.9162	18.9138	-2.6712	11.1851
Season ahead+1	17.2385	28.5381	-6.2422	7.4055	-14.8297	-0.3232
Season ahead +2	24.9340	37.4412	-0.2399	14.7846	-8.8275	7.0559
Season ahead +3	12.8688	22.6865	-13.9985	-1.4940	NA	NA

#### Germany (Eur/MWh)

Day ahead	11.1367	17.1200	-24.3701	-14.8361
Month ahead	17.7233	23.7900	-17.7834	-8.1661
Month ahead +1	22.8167	29.1500	-12.6901	-2.8061
Quarter ahead	23.0400	32.4900	-12.4668	0.5339
Quarter ahead +1	25.4222	36.8500	-11.8842	3.2742
Year ahead	24.5289	35.8900	-12.7776	2.3142

#### Netherlands (Eur/MWh)

Month ahead	13.0333	19.1000	-22.4734	-12.8561
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#### France (Eur/MWh)

Month ahead	22.1270	28.2100	-13.3800	-3.7460
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#### Italy (Eur/MWh)

Month ahead	41.3733	47.6400	5.8666	15.6839
Quarter ahead	37.3733	46.9900	1.8666	15.0339
Year ahead	30.0556	41.6500	-7.2509	8.0742

#### Spain (Eur/MWh)

Day ahead	29.6450	35.5730	-5.8620	3.6170
Month ahead	24.7220	30.7000	-10.7850	-1.2560
Month ahead +1	25.6390	31.9500	-9.8680	-0.0060
Quarter ahead	26.0280	35.0000	-9.4790	3.0440
Quarter ahead +1	6.6940	17.6000	-30.6120	-15.9760
Year ahead	-7.9720	2.9500	-45.2790	-30.6260
Year ahead +1	-16.2220	-6.9500	-55.0990	-41.9390

The applicable heating value for all spark and clean spark spreads is High Heating Value (HHV). Details of methodology at [www.platts.com](http://www.platts.com).

## Fuel Switching Snapshot

### Cross fuel comparisons, August 1, 2023

	p/th	Eur/MWh	\$/MMBtu
<b>Coal CIF ARA</b>			
September	88.892	35.256	11.327
Q4 2023	92.913	36.851	11.839

#### UK gas prices at NBP

	p/th	Eur/MWh	\$/MMBtu
Balance month	129.000	51.164	16.437
September	136.300	54.060	17.367
October	162.900	64.610	20.757
Q4 2023	210.750	83.588	26.854

#### Dutch gas at TTF

	p/th	Eur/MWh	\$/MMBtu
September	137.416	54.502	17.510
October	164.774	65.353	20.996
Q4 2023	208.898	82.854	26.618

#### Fuel oil 1% (NW Europe cargoes)

	p/th	Eur/MWh	\$/MMBtu
September	326.387	129.452	41.589
October	322.169	127.779	41.051
Q4 2023	318.731	126.416	40.613

#### Electricity (UK baseload)

	p/th	Eur/MWh	\$/MMBtu
September	215.114	85.320	27.410
October	239.146	94.850	30.472
Q4 2023	311.535	123.560	39.696

#### Electricity (German baseload)

	p/th	Eur/MWh	\$/MMBtu
September	211.965	84.070	27.009
October	229.765	91.130	29.277
Q4 2023	287.427	114.000	36.624

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.

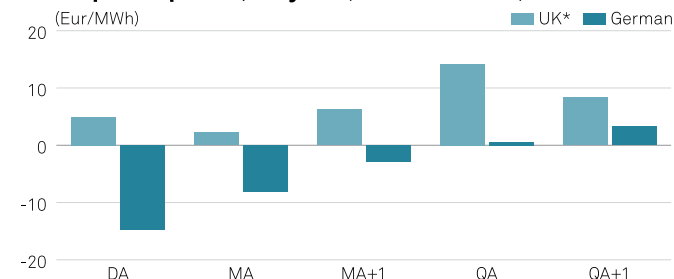
Source: S&P Global Commodity Insights, EEX

### TTF vs NWE oil-indexed gas indicator



Source: S&P Global Commodity Insights

### Clean spark spread, July 31 (50% efficient)



\*UK spreads include UK-specific CPS – Carbon Price Support.

Source: S&P Global Commodity Insights

### Platts Coal Switching Price Indicator (CSPI)

	UK (p/th)	UK (Eur/MWh)	Netherlands (Eur/MWh)
July 31, 2023			
Month ahead	105.37	41.94	38.12
Quarter ahead	108.87	43.33	39.34
Year ahead	115.40	45.93	41.54

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 1, 2023	Eur/MWh	p/th	\$/MMBtu
NBP day ahead – current month	-9.084	-22.622	-2.994
NBP month ahead – month ahead	-6.437	-15.954	-2.141
NBP month ahead+1 – month ahead+1	-0.699	-1.496	-0.298
TTF day ahead – current month	-8.201	-20.377	-2.708
TTF month ahead – month ahead	-6.223	-15.396	-2.078
TTF month ahead+1 – month ahead+1	-0.337	-0.559	-0.188

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

### Platts August 2023 NWE oil-indexed gas indicator

	Eur/MWh	Change M-1	p/th	\$/MMBtu
Current month	34.276	-1.829	86.122	11.085
Month ahead	33.473	-0.803	84.104	10.825
Month ahead+1	33.012	-0.461	82.946	10.676

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 1, 2023

	GBP	US \$
Euro	0.8603	1.0962
US \$	0.7848	1.0000

Source: S&P Global Commodity Insights at 16:30 London time.

### Weather summary, August 1, 2023

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

Celsius	Normal	01	02	03	04	05	06	07
<b>Central Europe</b>								
Berlin	26/13	-2	-2	-1	-1	-3	-5	-5
Frankfurt-Am-Main	27/16	-3	-4	-4	-3	-5	-5	-5
Prague	25/14	-1	-2	0	-1	-2	-3	-2
Vienna	28/16	-2	-1	-1	-4	-5	-3	-2
Warsaw	26/15	-1	0	-1	-1	-4	-4	-3

#### Northwest Europe

Amsterdam	23/14	-2	-1	-1	-2	-4	-4	-5
Brussels	24/14	-2	-1	-3	-3	-5	-4	-5
London	24/14	-1	-2	-2	-3	-3	-3	-4
Paris	27/15	-2	-1	-4	-4	-5	-4	-5

#### Scandinavia

Copenhagen	23/14	-2	-2	-2	-1	-3	-4	-3
Helsinki	22/13	-1	+1	0	+1	+2	+1	+1
Oslo	21/12	-1	-1	0	-1	-2	-2	-3
Stockholm	24/14	-3	-2	-3	-2	-2	-3	-2

#### Southern Europe

Lisbon	28/19	0	0	-2	+1	+4	+3	+1
Madrid	35/18	+2	+3	+1	-3	-1	+2	+3
Milan	29/18	-1	-4	-1	-4	-5	-3	-4

Source: CustomWeather, 01Aug23/06:54 AM EDT/1054 GMT



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