

Last Week at a Glance

Week 10, 2023



BRENT M+1

86.18 \$/bbl

Oil prices rose due to renewed optimism around demand from top oil importer China.

Outlook:
(Horizon 1 week)



GAS TTF Y+1

48.97 €/MWh

TTF gas fell amid healthy supplies and high storage levels.

Outlook:
(Horizon 1 week)



POWER GE Y+1

131.98 €/MWh

German power declined tracking weaker gas prices.

Outlook:
(Horizon 1 week)



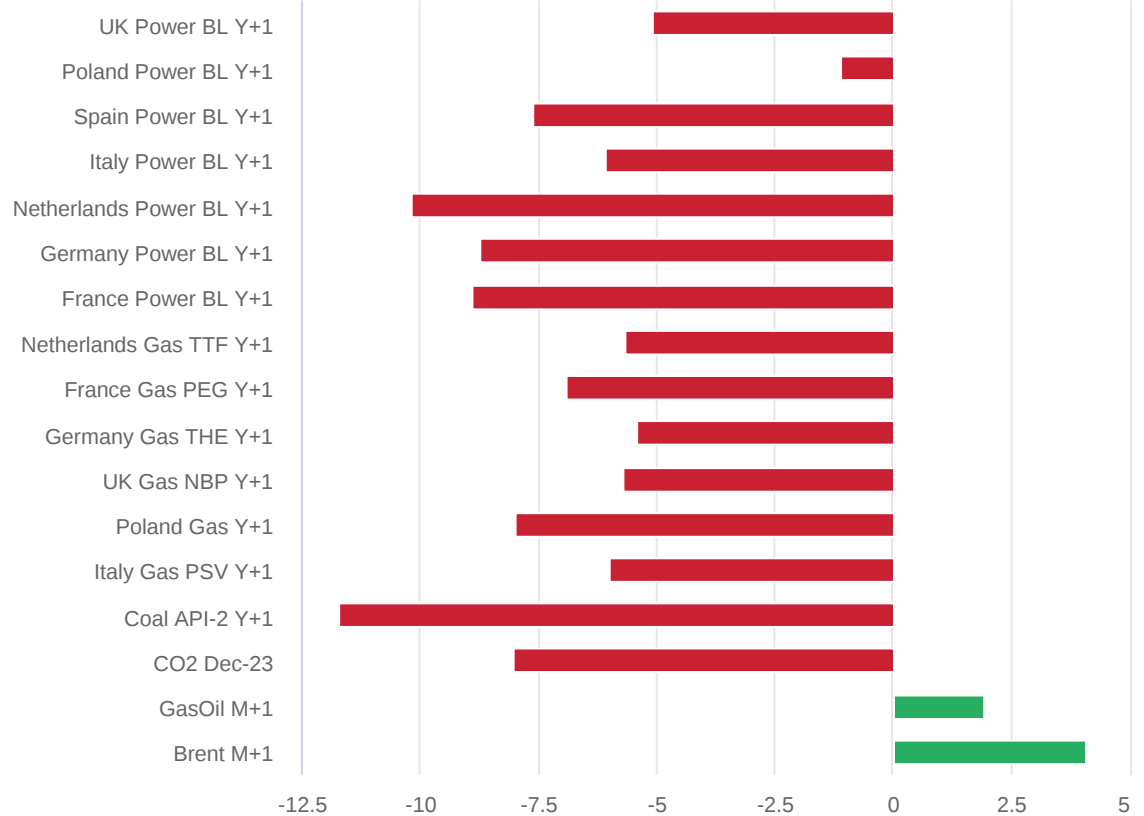
Highlights

EVOLUTION OF MAIN ENERGY PRODUCTS IN THE LAST WEEK

UK Power BL Y+1	▼ (-5.07%)
Poland Power BL Y+1	▼ (-1.11%)
Spain Power BL Y+1	▼ (-7.62%)
Italy Power BL Y+1	▼ (-6.08%)
Netherlands Power BL Y+1	▼ (-10.16%)
Germany Power BL Y+1	▼ (-8.73%)
France Power BL Y+1	▼ (-8.91%)
Netherlands Gas TTF Y+1	▼ (-5.64%)
France Gas PEG Y+1	▼ (-6.91%)
Germany Gas THE Y+1	▼ (-5.4%)
UK Gas NBP Y+1	▼ (-5.7%)
Poland Gas Y+1	▼ (-7.96%)
Italy Gas PSV Y+1	▼ (-6.01%)
Coal API-2 Y+1	▼ (-11.7%)
CO2 Dec-23	▼ (-8.03%)
GasOil M+1	▲ (1.95%)
Brent M+1	▲ (4.1%)

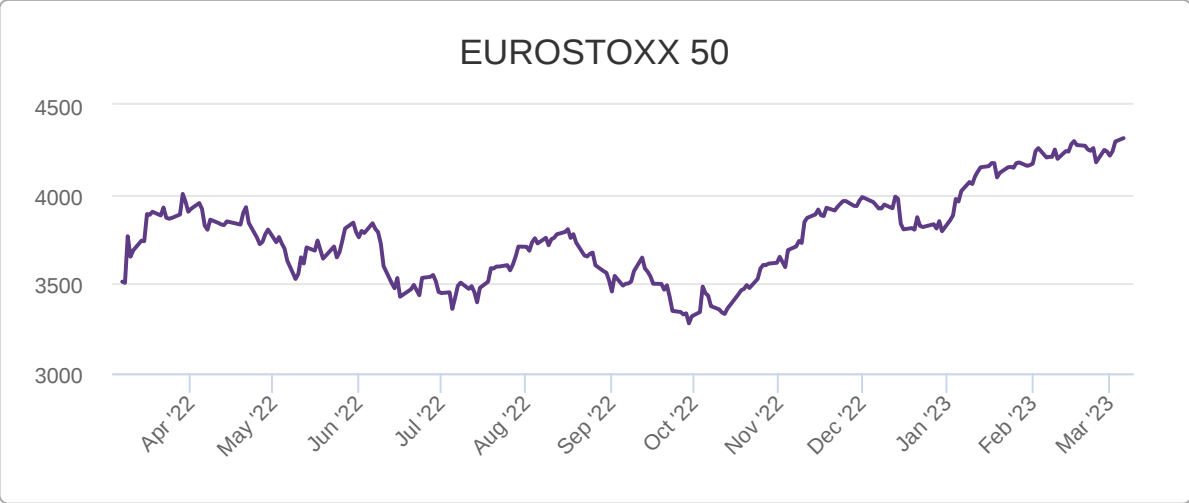
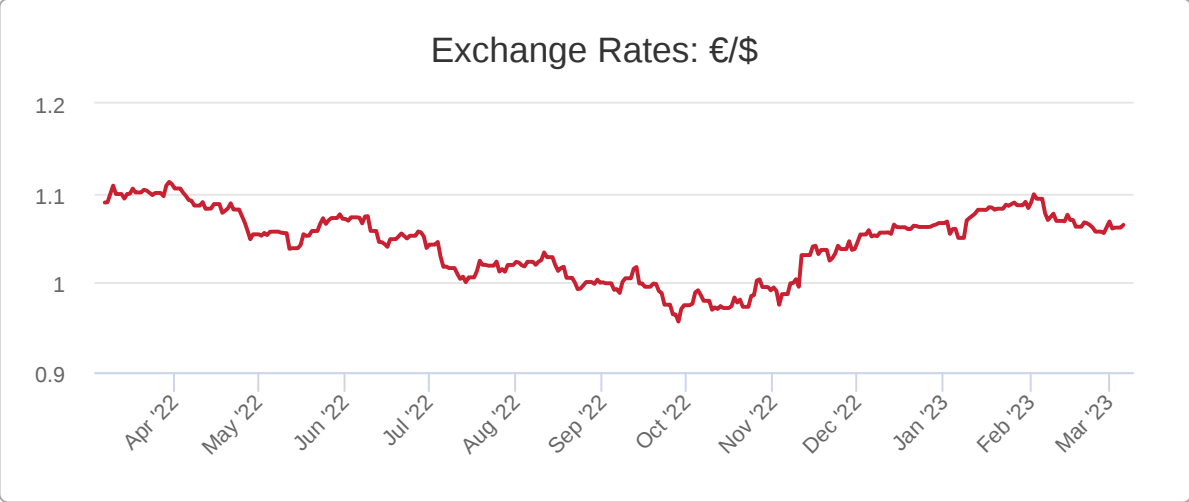
% Change Current Week vs Week-1

Evolution of main energy products in the last week



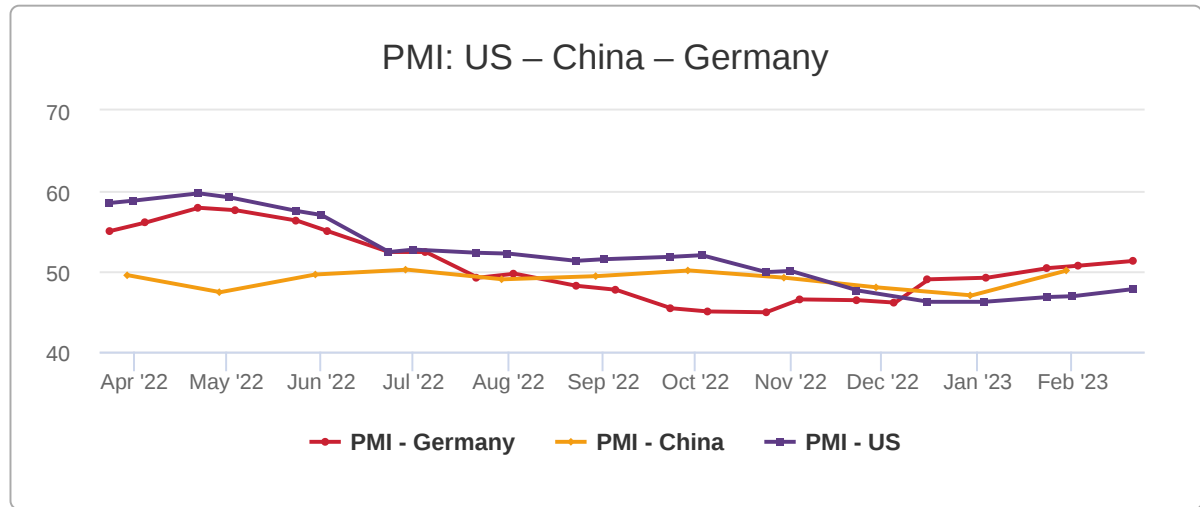
General Overview

✓ The EUR/USD rate increased on a weekly basis. The European currency received support amid expectations that the European Central Bank will adopt a hawkish stance. On the other hand, the greenback faced challenges as US Treasury bond yields increased and there was uncertainty regarding the Federal Reserve's future tightening path.



✓ The purchasing managers index is a composite indicator of a country's manufacturing activity. It takes into account order intake, production, employment, shipments and stocks in the manufacturing sector.

- PMI < 50: contraction in the activity
- PMI > 50: expansion in the activity



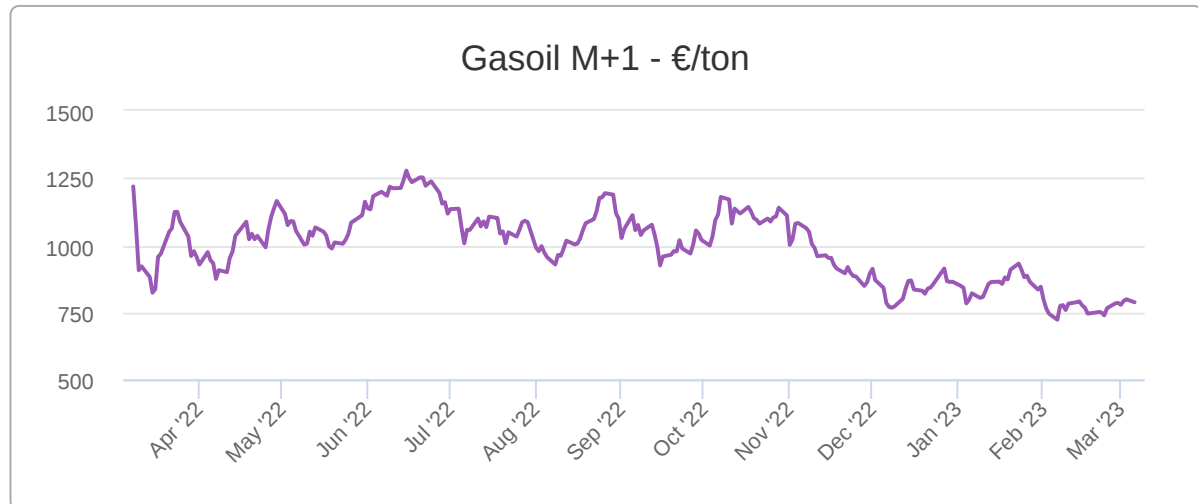
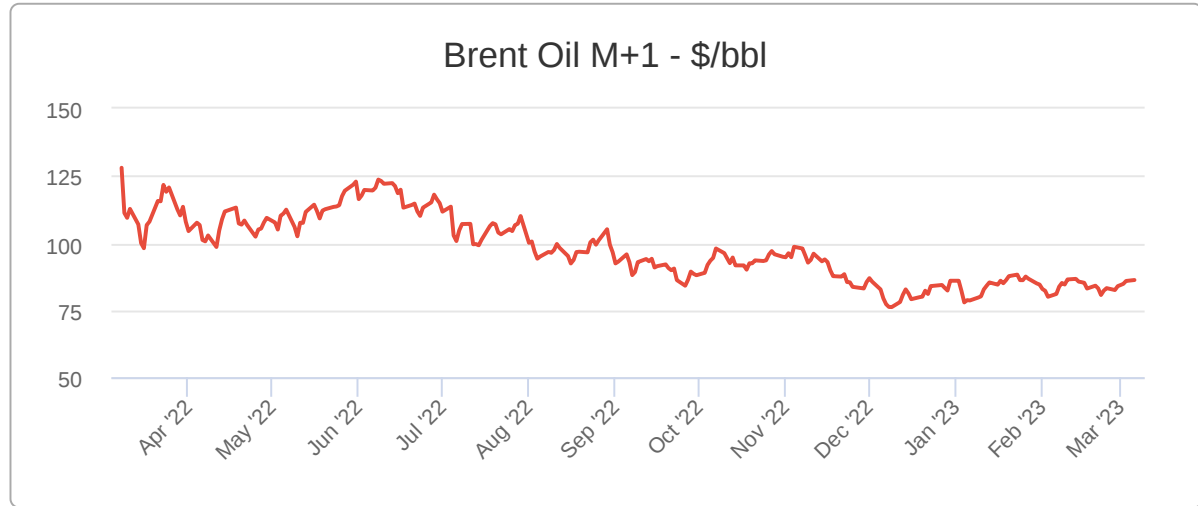


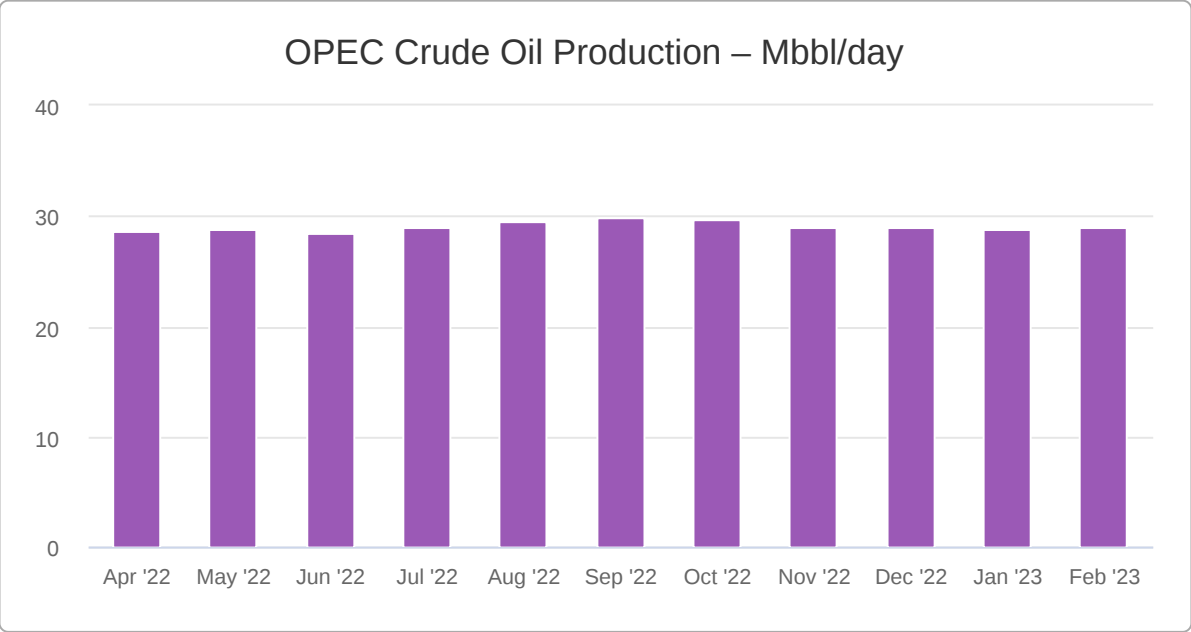
Oil

✓ Despite new US inventory level data showing that stock levels in the country are growing, oil prices continued to climb on a weekly basis, on renewed optimism around demand from top oil importer China.

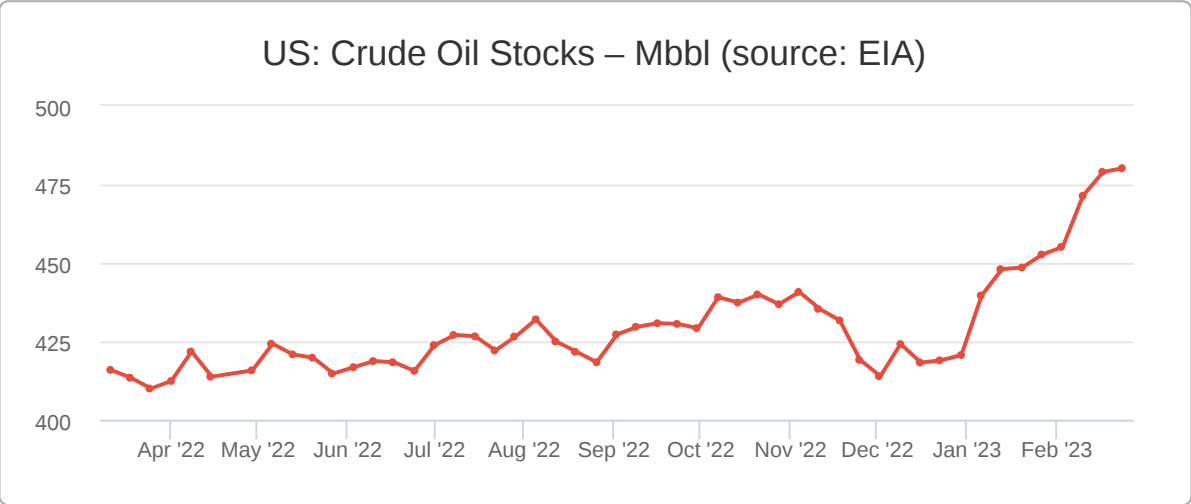
A Reuters survey found that OPEC's crude oil production for February had increased by an average of 150,000 bpd compared to January.

Following a Reuters survey in early March, OPEC's crude oil production for February increased to an average of 28.97 million barrels per day (bpd), up by 150,000 bpd from January. However, despite the increase, the February production level is still 700,000 bpd lower than OPEC's crude oil production in September.





✓ The US drilling rig count fell by eight units to 592 in the week ended on March 3, Baker Hughes energy services firm said in its closely followed report on Friday.



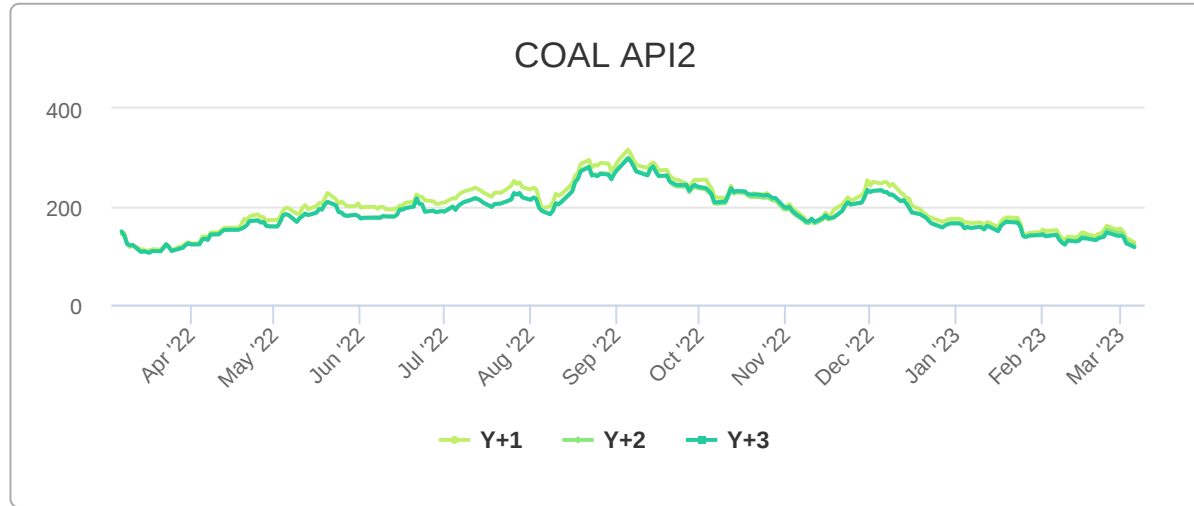
Coal & CO2

- ✓ European coal prices fell on a weekly basis amid muted demand at a time of still healthy supply.

European coal imports dropped to a one-year low in February, due to high stocks and weaker demand, according to Kpler.

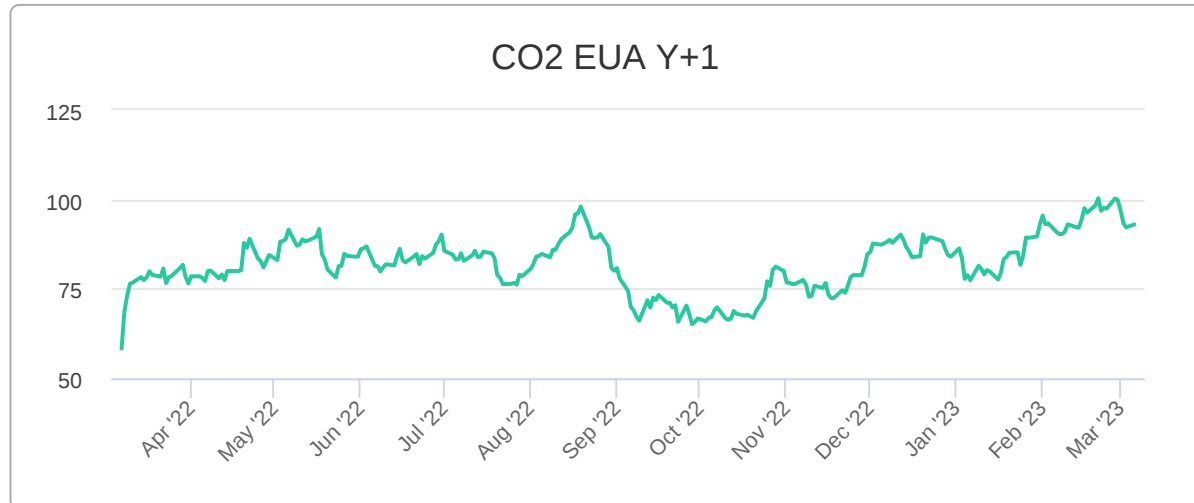
Preliminary Kpler data showed that in February, seven European countries, namely the Netherlands, Belgium, Germany, France, the UK, Italy, and Spain, imported approximately 6.8 million tonnes of all coal types. This amount was 7.5% lower than January's import and the lowest since February 2021 when around 6 million tonnes were delivered.

In February, the Netherlands, where the two of the largest import hubs, at Rotterdam and Amsterdam, are located, received 3.3 million tonnes of coal, or a decrease of 5% compared to the previous month, and the lowest amount since September.



- ✓ European carbon prices fell on a weekly basis amid profit taking, the downward evolution on the gas markets and forecasts for increased wind generation in Germany.

On Thursday, the International Energy Agency (IEA) reported that the European Union (EU) experienced a 3% decline in CO2 emissions last year (or 70 million tonnes) due to various factors, such as a mild winter, energy conservation measures, and an increase in green power capacity.



Natural Gas

Natural Gas Storage Total EU 28

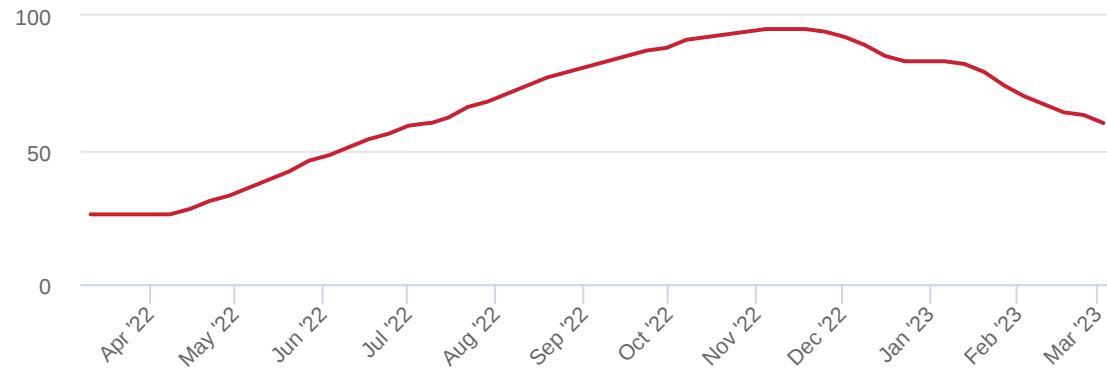
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Outlook:



Gas Storage Inventory in % (EU)



Natural Gas Storage

 United Kingdom	42%
 Germany	68%
 France	39%
 Spain	80%
 Portugal	96%
 Italy	59%
 Netherlands	62%



LNG Storage

LNG Storage Total EU 28

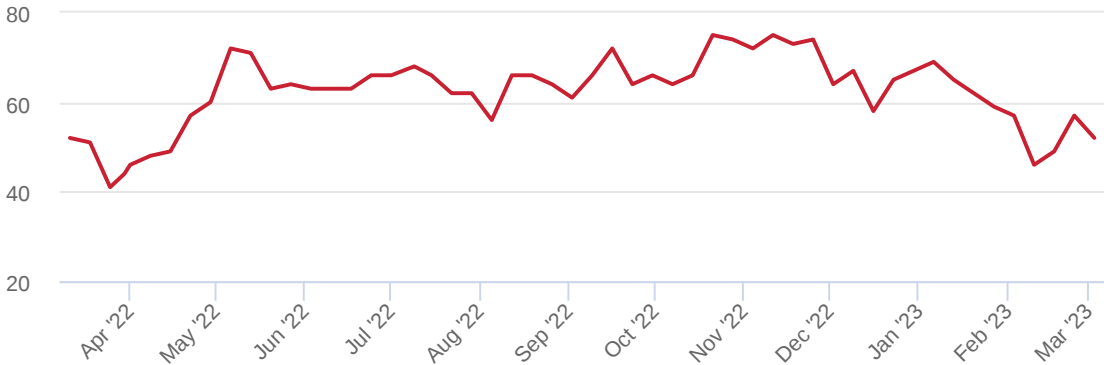
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Outlook:



LNG Storage Inventory in tsd. cubic meter LNG (EU)



LNG Storage

 United Kingdom	49%
 France	76%
 Spain	47%
 Portugal	61%
 Italy	61%
 Netherlands	50%



Henry Hub - TTF - JKM

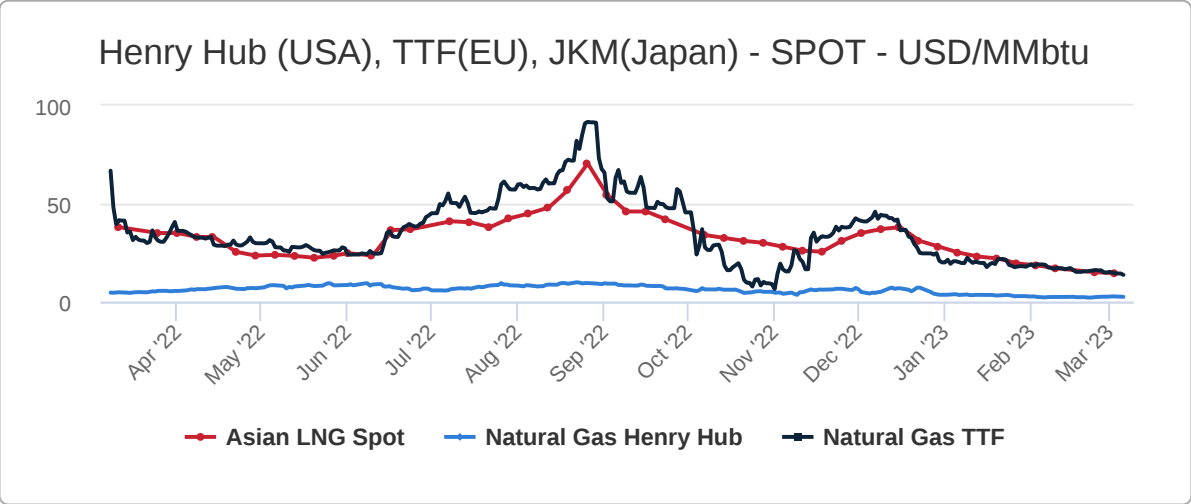
✓ Asian spot liquefied natural gas (LNG) prices fell due to tepid demand which is forecasted to last until end of March.

An upside for LNG prices is currently limited due to the absence of North Asian buyers in the spot market, high gas inventories in Europe and the partial restart of the U.S. Freeport LNG facility after an eight-month outage caused by a fire.

American natural gas prices rose due to increased demand and higher exports.

In February 2022, the amount of gas being sent to the seven major US LNG export facilities increased to 12.8 billion cubic feet per day (bcfd) from 12.3 bcfd in January but, remained below the monthly record of 12.9 bcfd set in March 2022.

However, US gas demand is expected to decrease next week, despite forecasts of colder weather until March 17, as power generators are expected to use less gas to generate electricity.



TTF

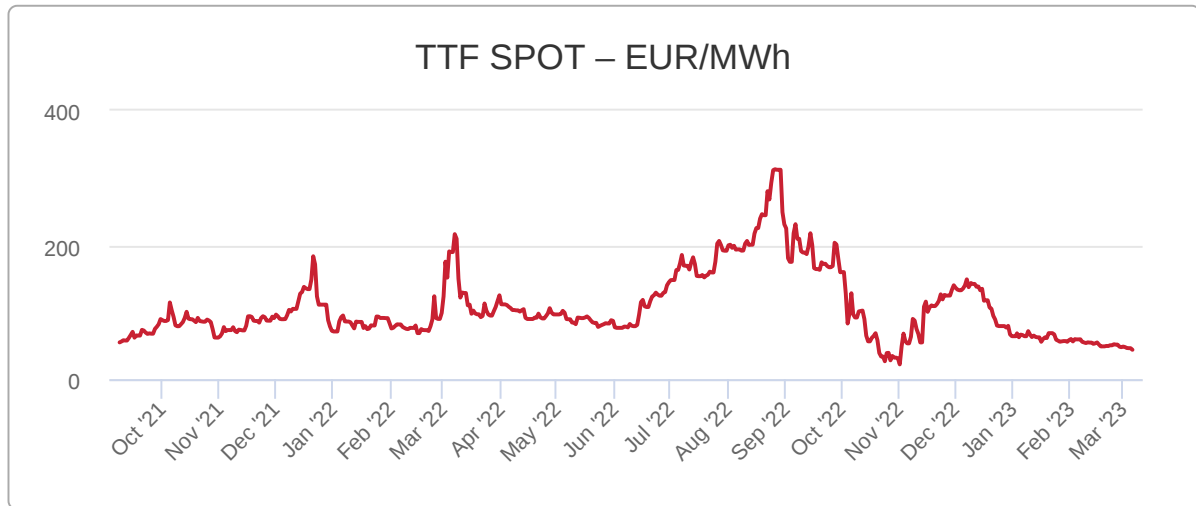
MARKET AVERAGE	PERIOD	PRICE €/MWh
Month M-12	March 22	127.4
Month M-1	February 23	53.3
Month M	March 23	46.5
Current Year	2023	57.1
Year Y-1	2022	121.1

- ✓ TTF spot price decreased amid strong Norwegian and LNG flows which put pressure on near-term gas prices.

According to Kpler ship tracking data, European LNG imports in February decreased compared to the previous month, reaching 15.6bcm, but still remained close to recent record highs.

Despite a 5% decline in February from the previous month, LNG supply to Europe and Turkey remained 18% higher than the same period last year, according to Kpler. This was due to regional efforts to find alternative sources of natural gas as pipeline flows from Russia were curbed amid the ongoing conflict in Ukraine.

Turkey was the biggest importer with 2.8bcm of LNG last month, followed by France with almost 2.5bcm and the UK with 2.2bcm.

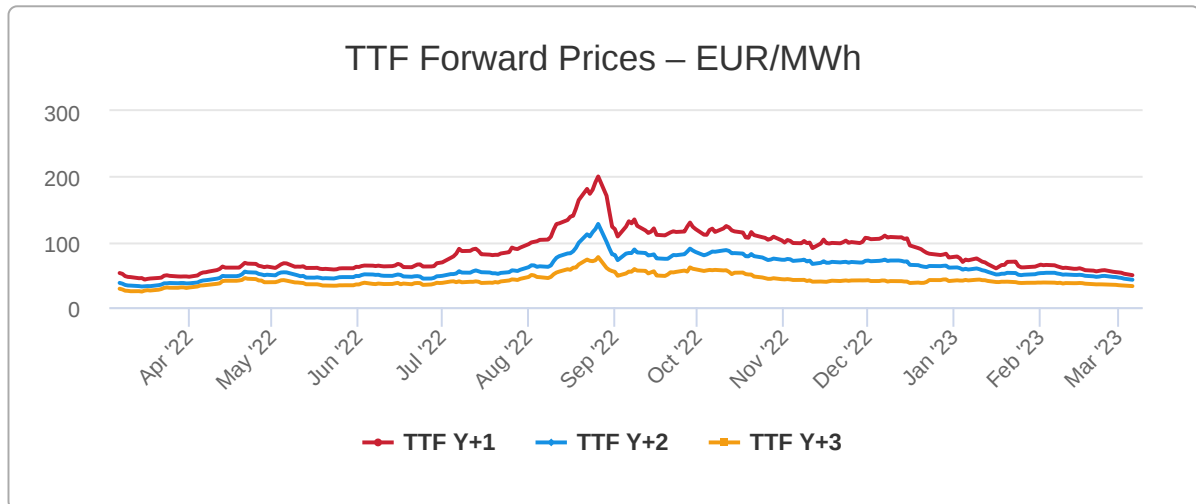


SPREAD €/MWh	12-MONTH MOVING AVERAGE	LAST WEEK AVERAGE
TTF Y+2 vs Y+1	-24.2	-7.3
TTF Y+3 vs Y+1	-42.7	-17.4

- ✓ TTF gas prices experienced a decrease amid healthy supplies and high storage levels.

Russia's gas exports to Europe on Tuesday are set to increase by more than 2% compared to Monday, with over 61 million cubic meters of gas being exported, according to data from pipeline operators.

Gas Transmission System Operator of Ukraine reported that nominations at the Velke Kapusany crossing between Ukraine and Slovakia were at 36.8mcm, showing a slight increase of 0.9mcm from the previous day.



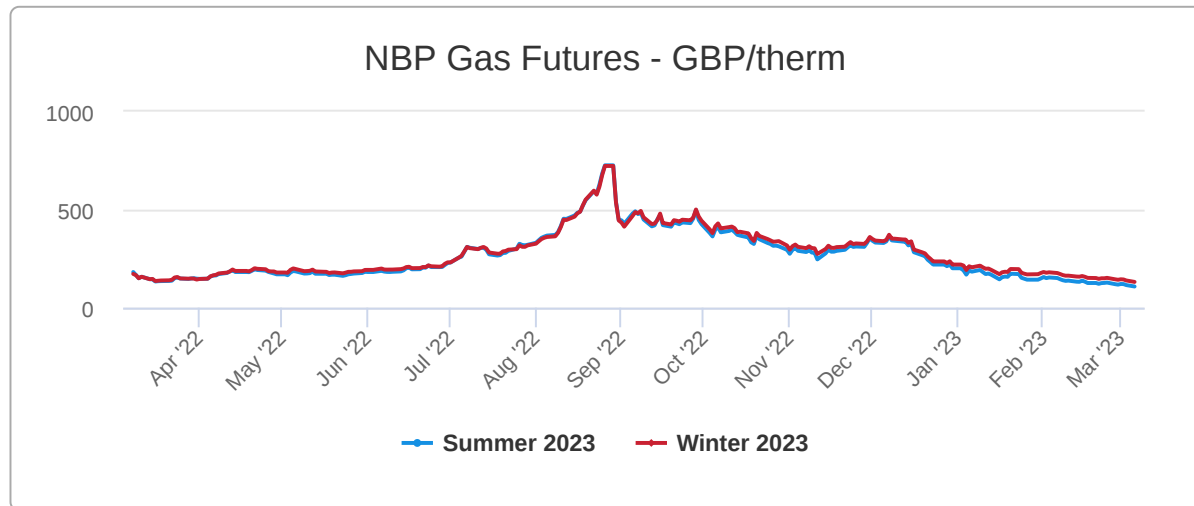
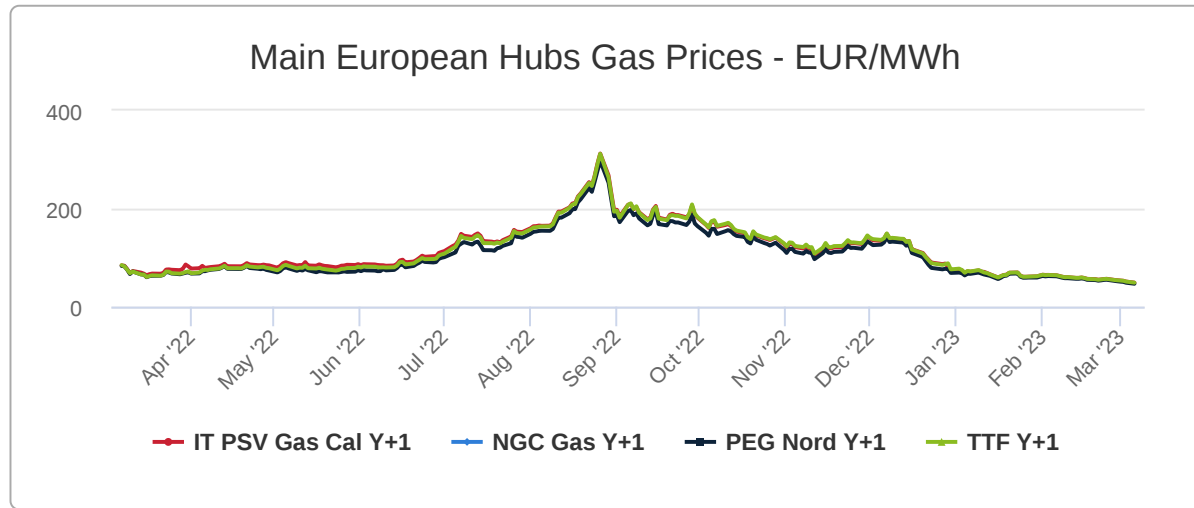
Gas shipments through the Turkstream pipeline into southeast Europe, via the Strandzha 2 entry point between Turkey and Bulgaria, increased by 0.3mcm and were reported at 24.6mcm.

European Gas

Spread vs TTF	12-Month moving average	Last Week average
PSV (IT)	1.9	0
TRF (FR)	0	1.9
NCG (GE)	-7.3	-2.3

✓ Gas storage sites in the EU could reach full capacity by September this year. However, despite the potential surplus of gas, prices are not expected to return to pre-energy crisis levels. Lower demand from industry and the power sector has led to an increase in European gas storage levels above the usual range for this time of year.

According to forecasts - EU storage units could end this winter between 45-61% full, with an average of 55%, thereby bolstering Europe's security of supply. However, despite high European gas storage levels, the continent still has difficulties in finding alternatives to Russian pipeline supplies due to greater energy demand from China.



German Power

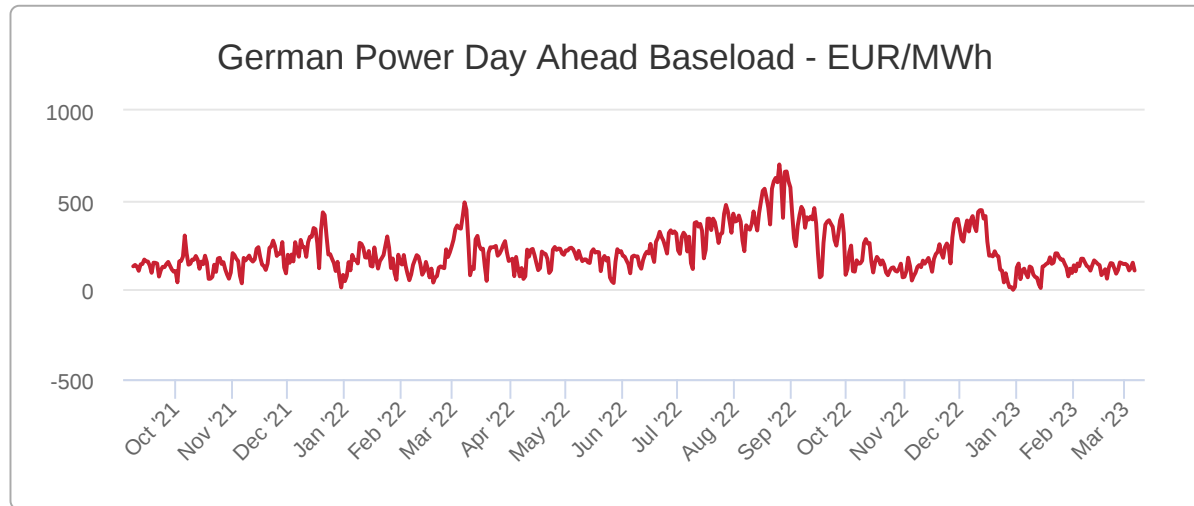
MARKET AVERAGE	PERIOD	PRICE €/MWH
Month M-12	March 22	249.3
Month M-1	February 23	130.1
Month M	March 23	128
Current Year	2023	125.3
Year Y-1	2022	235.3

- ✓ The German day-ahead power fell due to increased wind power generation levels.

According to forecasts collected by Montel, wind power generation is expected to increase significantly from 9.9 GW on average to 29.9 GW. Montel's Energy Quantified (EQ) predicted that the average wind generation would be 30.4 GW, which is 10.2 GW above the seasonal average.

Average solar output was expected to rise 0.8 GW to 3.6 GW, with peak generation rising from 12.3 GW to 13.3 GW. The combined midday wind and solar peak should soar almost 30.7 GW to around 48 GW.

Temperatures were expected to rise 0.4C to 2.3C on average. However, still 1.9C below the seasonal norm.

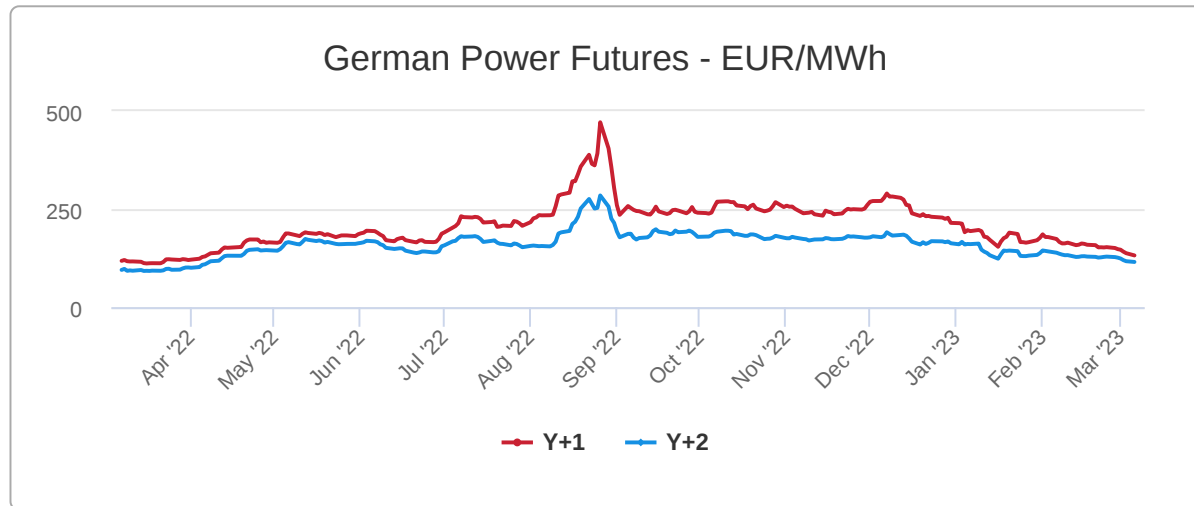


SPREAD €/MWH	12-MONTH MOVING AVERAGE	LAST WEEK AVERAGE
GE BL Y+2 vs Y+1	-49.4	-18.6
GE BL Y+3 vs Y+1	-71.7	-27.6

- ✓ German power prices on the forward curve declined weighed by weak gas prices and milder weather forecasts.

German gas storage levels, which are currently at 67.7% of capacity according to Gas Infrastructure Europe, and the approach of spring are putting pressure on prices.

The utilities have criticized Germany's planning laws, saying they contradict Economy minister Robert Habeck's plan to have around 25 GW of new gas-fired capacity in place by 2030. Klaus Eder, the managing director of the municipal utilities of the cities of Ulm and Neu Ulm, pointed out that the slow planning laws in Germany could cause a delay of up to seven years before approval was granted.



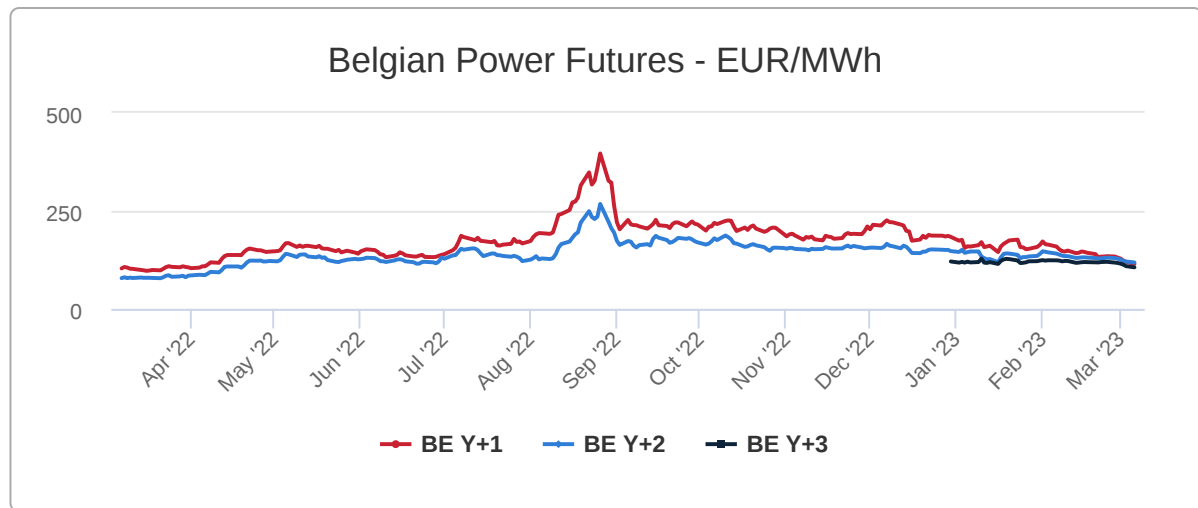
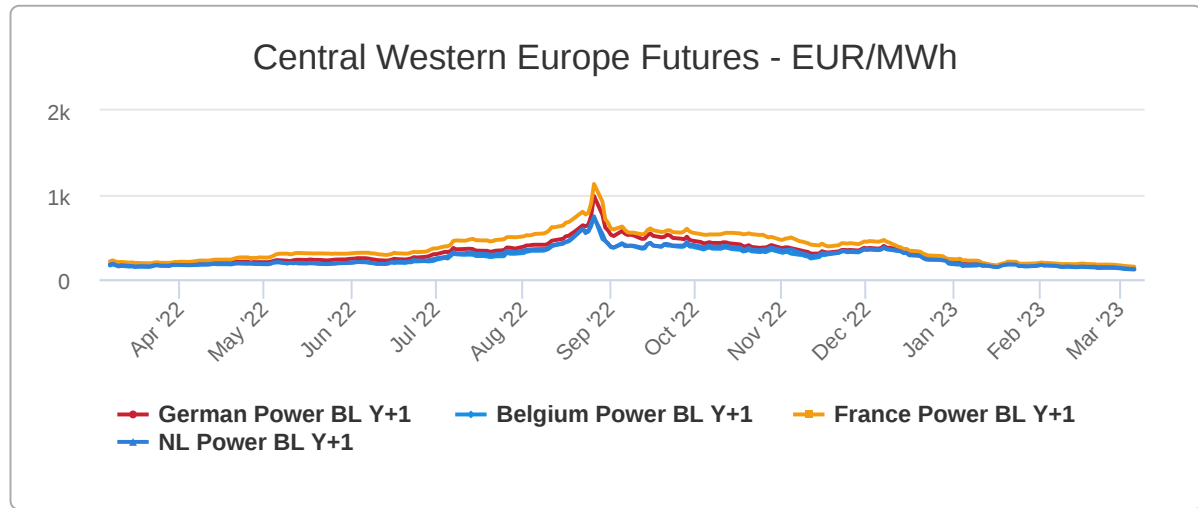
Central Western Europe

SPREAD VS GE POWER	12-MONTH MOVING AVERAGE	LAST WEEK AVERAGE
BE	-53.4	-44.1
FR	60.5	-9.5
NL	-44.5	-37.4

✓ On Thursday, lawmakers in France voted in favour of eliminating the legal cap on nuclear energy's share in the country's total energy mix as part of broader efforts to build newer and more modern nuclear plants.

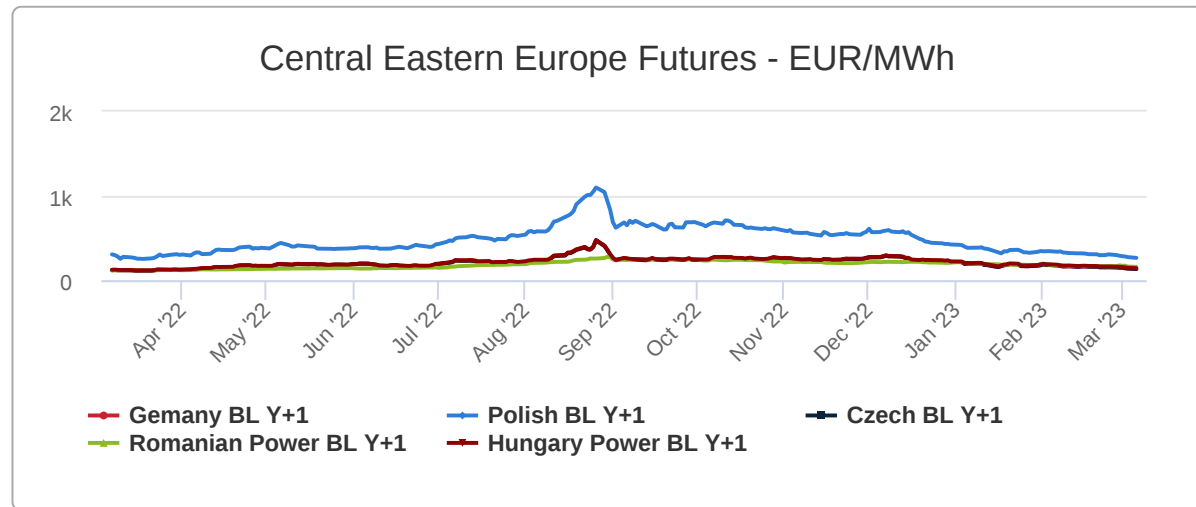
On Thursday, a vote took place in the Committee for Economic Affairs (EPR2) regarding a larger legislative package that includes the construction of six new European Pressurized Reactors 2, as part of France's efforts to build newer, more contemporary nuclear plants. The first of these, EPR2, is expected to start operations in 2035.

The strike by French energy workers protesting against government's pension reforms has been extended to the country's four liquefied natural gas (LNG) terminals, according to the operators and the FNME-CGT union. The strike began earlier and has now been extended until next Tuesday.



Central Eastern Europe

SPREAD VS GE POWER	12-MONTH MOVING AVERAGE	LAST WEEK AVERAGE
Polish BL Y+1	272.4	134.5
Czech BL Y+1	2	0.5
Romanian Power BL Y+1	-24.4	25.2
Hungarian Power BL Y+1	6.6	10.4



✓ TotalEnergies is expanding its renewable energy business in Poland through the acquisition of Polska Grupa Biogazowa (PGB), the country's main biogas producer, and a 200-megawatt development pipeline of solar projects. With 130 employees, PGB generates renewable heat and power from biogas sourced from organic waste, with a total power generation capacity of 166 GWh per year. The acquisition boosts TotalEnergies' biogas production capacity to 1.1 TWh and enhances the company's position in Poland, the fourth-largest potential market in Europe for biogas and biomethane production.

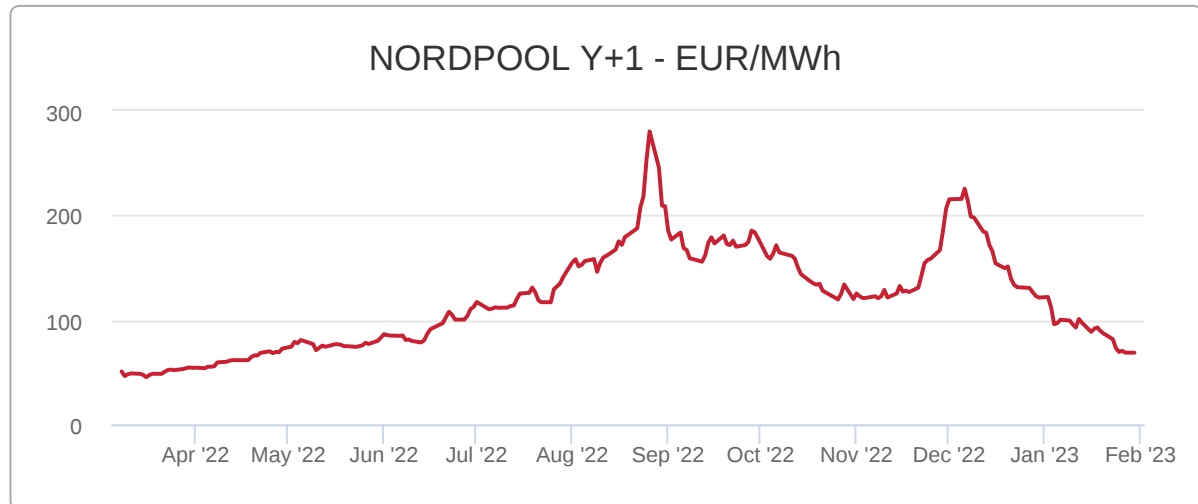
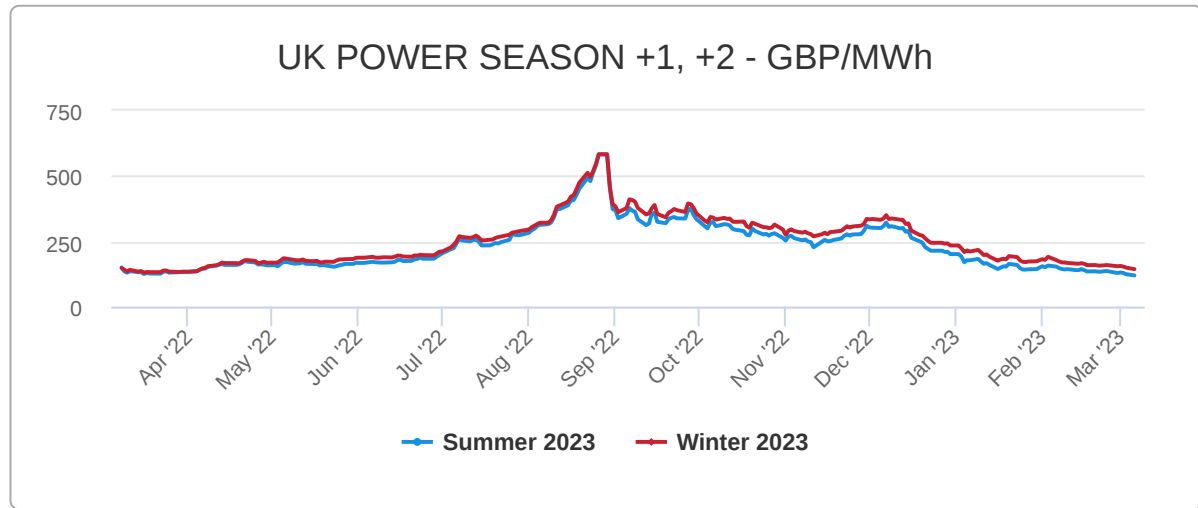
Hungary plans to import liquefied natural gas (LNG) from Egypt starting in 2026 to meet its energy needs, according to Hungarian Prime Minister Viktor Orbán.

The Czech Republic could face a higher dependency on electricity imports from 2030 as it plans to phase out coal-fired power plants, according to the Czech Transmission System Operator.

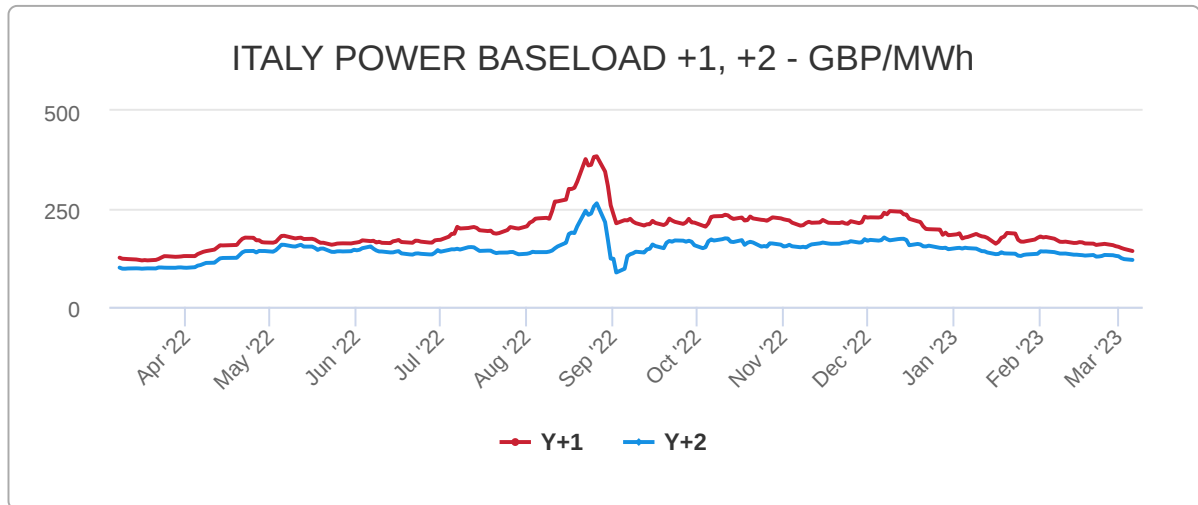
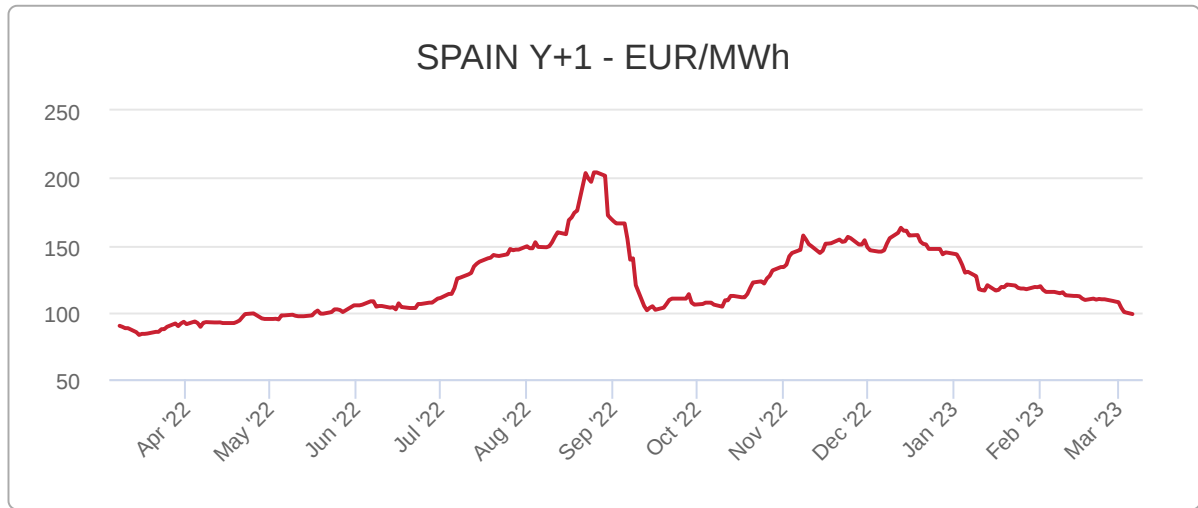
UK - Nordpool

- ✓ National Grid ESO issued notices for additional generation capacity for Tuesday due to tight supply and could also offer payments to consumers to reduce their power usage on Wednesday.

UK Energy Secretary Grant Shapps pledges greater energy independence for the UK in the wake of Russia's war in Ukraine, as he meets with US Energy Secretary Jennifer Granholm in London for the first time. The US-UK Strategic Energy Dialogue comes at a critical moment for international collaboration, and the ministers will also meet with green innovators to facilitate joint investment and scaling up for British and American companies.

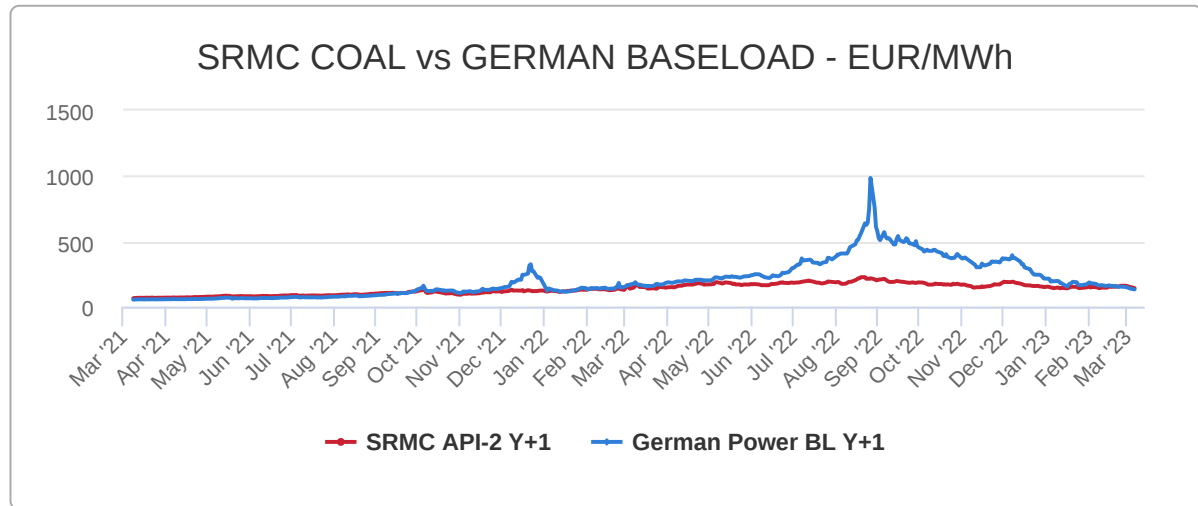


Electricity Spain - Italy



Short Range Marginal Cost

SPREAD SRMC	12-MONTH MOVING AVERAGE	LAST WEEK AVERAGE
Coal API-2 vs German Power Baseload Y+1	-132.2	10.1
Gas THE Y+1 vs German Power Peakload Y+1	-287.7	-121.2



TECHNICAL ASSUMPTIONS	GAS	COAL
Efficiency Factor	50%	36%
Management Cost	3.8	4.4

