

Last Week at a Glance

Week 7, 2023



BRENT M+1

85.58 \$/bbl

Oil prices rose on a weekly basis amid supply concerns.

Outlook:
(Horizon 1 week)



GAS TTF Y+1

14.23 €/MWh

TTF year-ahead price fell on a weekly basis amid forecasts of milder weather and improved supply.

Outlook:
(Horizon 1 week)



POWER GE Y+1

50.93 €/MWh

German year-ahead power price declined following the gas prices and milder weather outlook.

Outlook:
(Horizon 1 week)



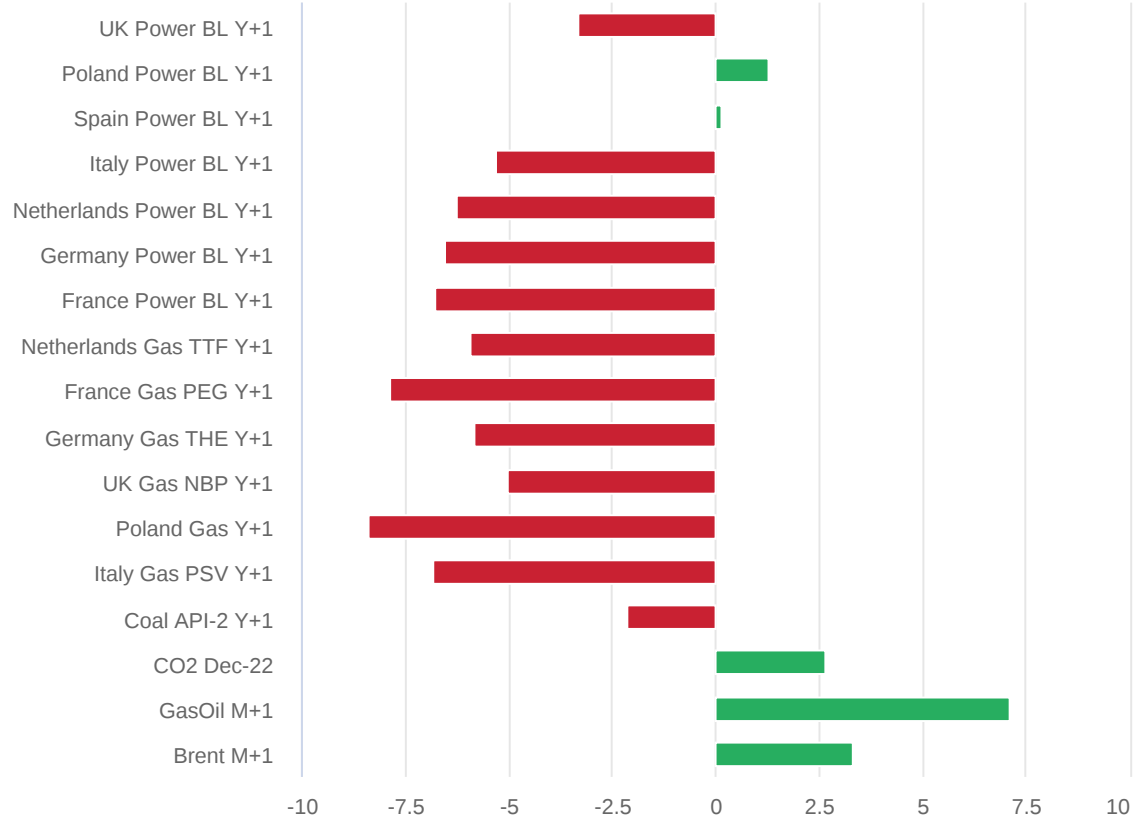
Highlights

EVOLUTION OF MAIN ENERGY PRODUCTS IN THE LAST WEEK

UK Power BL Y+1	▼ (-3.34%)
Poland Power BL Y+1	▲ (1.3%)
Spain Power BL Y+1	▲ (0.14%)
Italy Power BL Y+1	▼ (-5.32%)
Netherlands Power BL Y+1	▼ (-6.26%)
Germany Power BL Y+1	▼ (-6.54%)
France Power BL Y+1	▼ (-6.77%)
Netherlands Gas TTF Y+1	▼ (-5.92%)
France Gas PEG Y+1	▼ (-7.89%)
Germany Gas THE Y+1	▼ (-5.83%)
UK Gas NBP Y+1	▼ (-5%)
Poland Gas Y+1	▼ (-8.37%)
Italy Gas PSV Y+1	▼ (-6.81%)
Coal API-2 Y+1	▼ (-2.15%)
CO2 Dec-22	▲ (2.65%)
GasOil M+1	▲ (7.09%)
Brent M+1	▲ (3.33%)

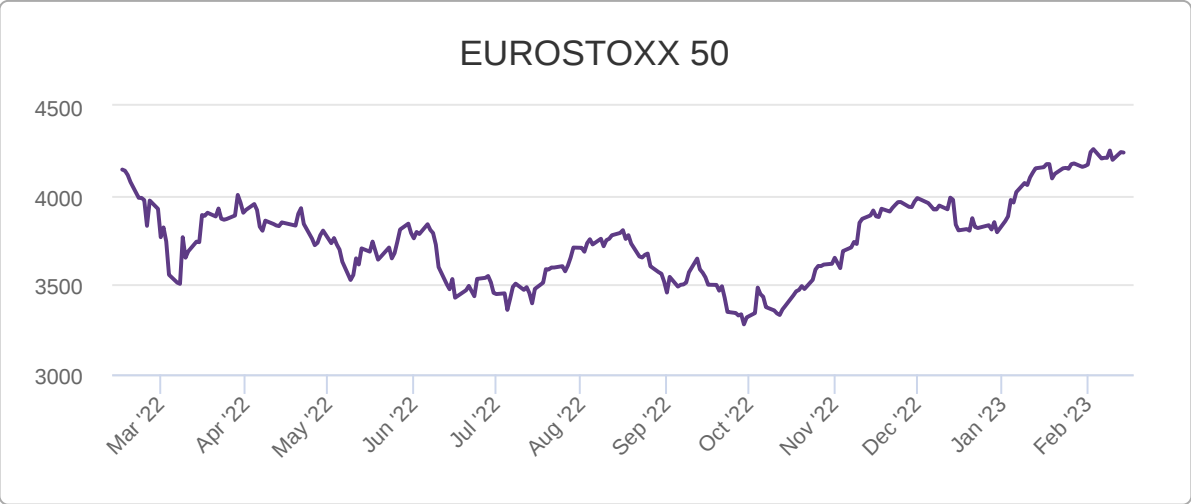
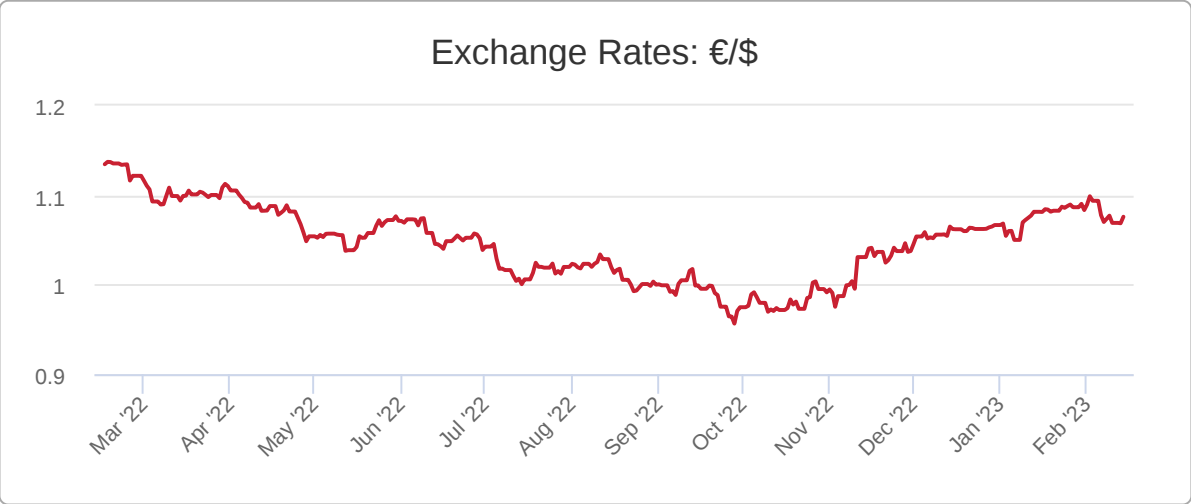
% Change Current Week vs Week-1

Evolution of main energy products in the last week



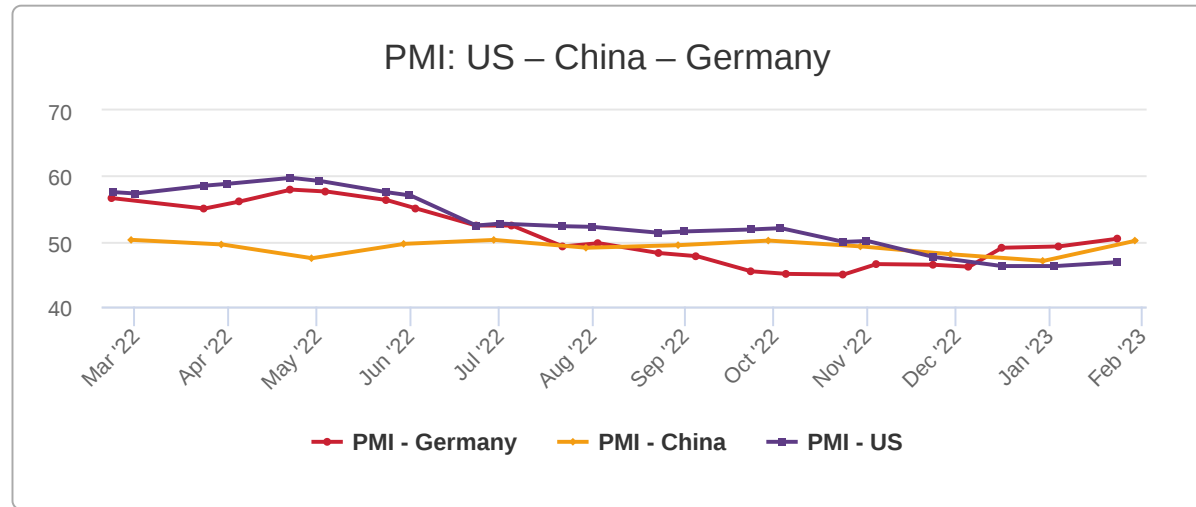
General Overview

✓ EUR/USD pair ended rather flat ahead of the release of U.S. inflation data. However, upbeat U.K. labor market data lent support to the market.



✓ 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





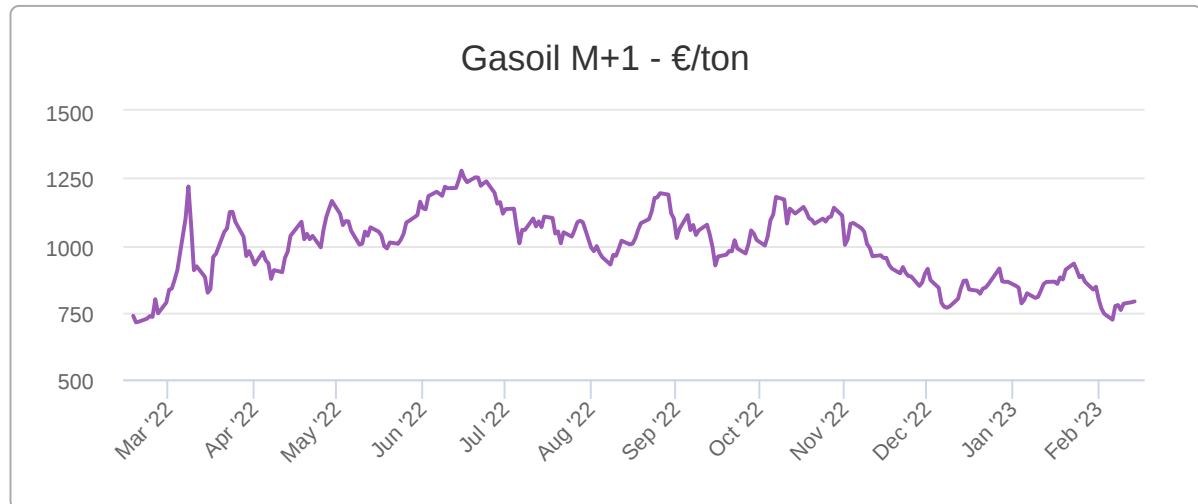
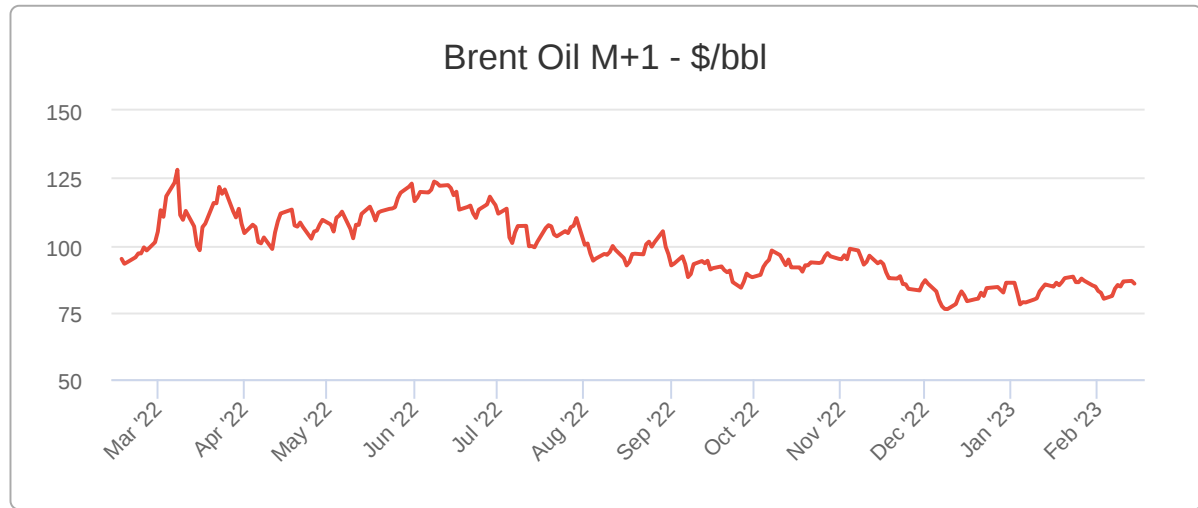
Oil

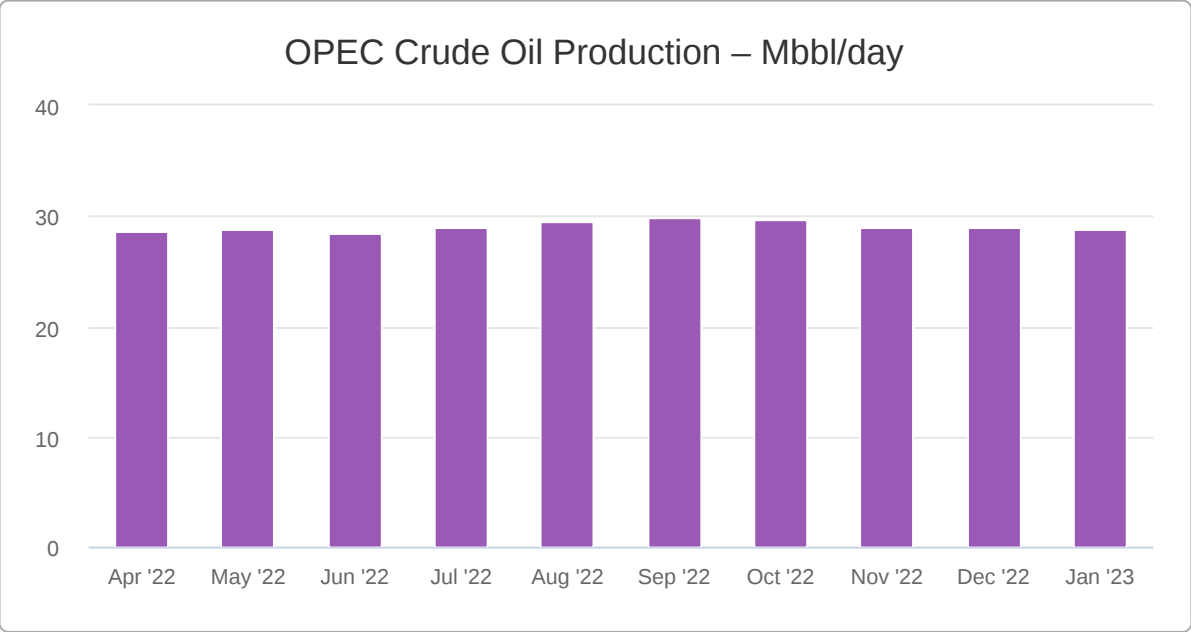
- ✓ Oil prices rose on a weekly basis amid supply concerns. However, news that the US intend to release more crude from its strategic reserves weighted on the market.

The US Department of Energy announced that it would sell an additional 26m barrels of crude oil from the Strategic Petroleum Reserve for the period from April to June.

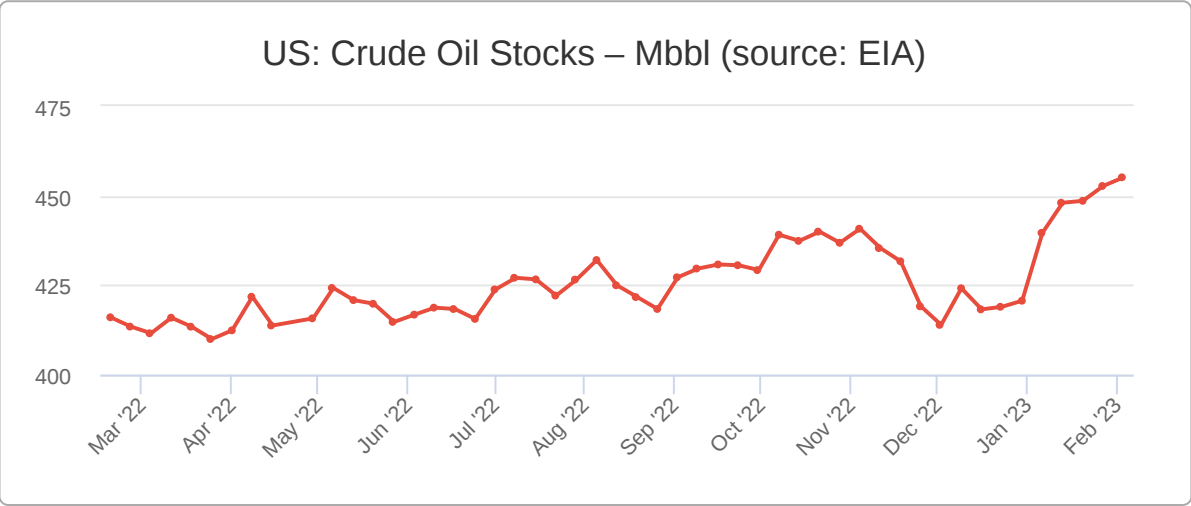
Russia announced a cut of 500,000 bbl/day in production in response to Western sanctions.

The statement by Federal Reserve's governor Michelle Bowman at the American Bankers Association Community Banking Conference in Orlando has raised concerns about the possibility of a recession, despite optimism about China's demand recovery. The governor's warning suggests that the Federal Reserve may have to tighten monetary policy to control inflation, which could negatively impact the economy.





✓ The number of oil rigs in the United States rose by 10 on a weekly basis, to 609 in the week ending February 10, the Baker Hughes rig count data released on Friday revealed. Year over year, oil rigs were up by 93.

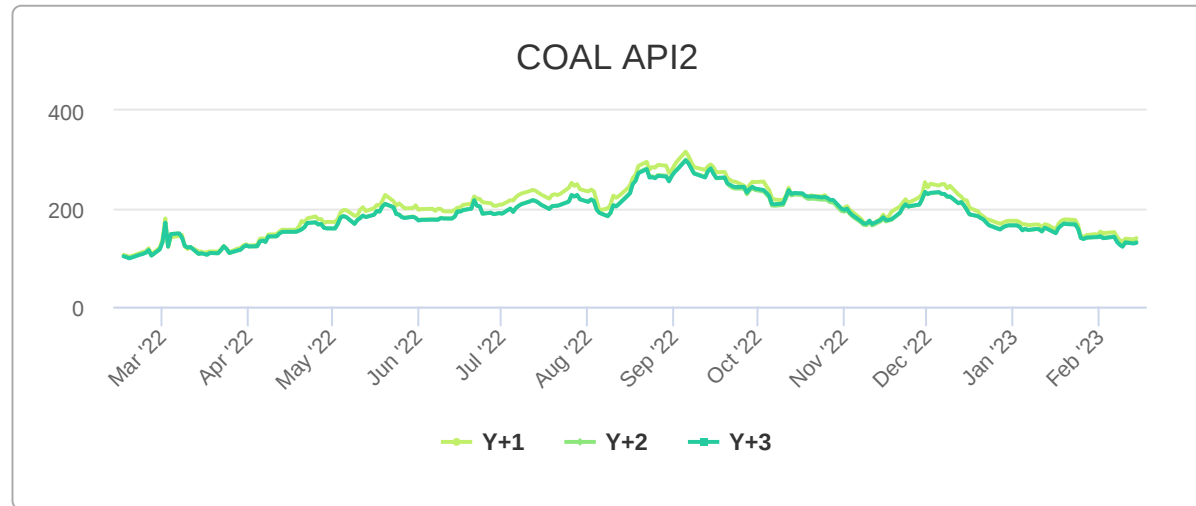


Coal & CO2

- ✓ European coal prices declined on a weekly basis amid healthy stocks and muted demand.

Following the first week of February, combined coal stocks at two of the main northwest European coal import hubs – EMO at Rotterdam and OBA at Amsterdam – were seen at 5.35m tonnes, around 2.6m tonnes higher in comparison with last year, according to Montel data.

Northwest Europe looked set to import 3.6m tonnes of thermal coal in February, compared with 3.7m tonnes in January and 4.8m tonnes in February 2022, according to DBX estimates last week.



- ✓ European carbon prices rose on a weekly basis following the approval by European Parliament's environment committee of draft plans to tighten market's supply cap.

Volatility was expected before the parliamentary vote on the REPowerEU measures, aimed at raising EUR 20bn from the carbon market to reduce the bloc's dependence on Russian fuels. If approved, the package will increase the supply of carbon credits through additional auctions.

Meanwhile, temperatures were likely to remain unseasonably warm for this month, while power sector emissions remained at their lowest levels since 2015, keeping current carbon fundamentals bearish.



Natural Gas

Natural Gas Storage Total EU 28

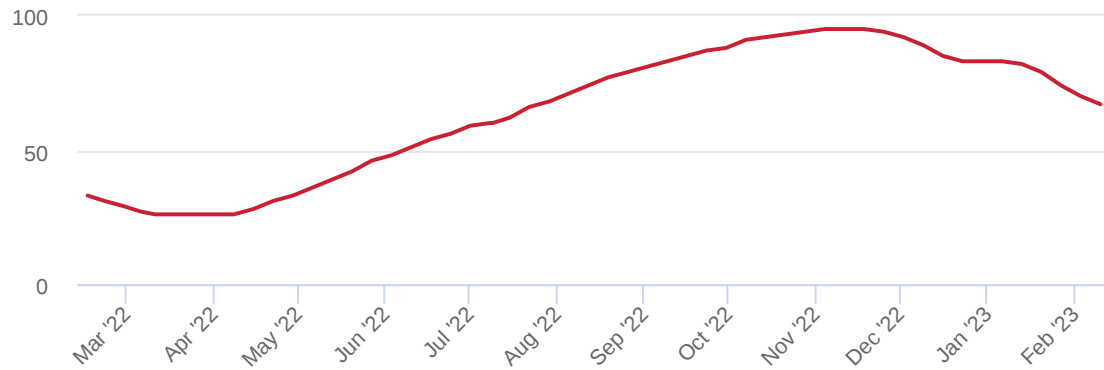
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Outlook:



Gas Storage Inventory in % (EU)



Natural Gas Storage

 United Kingdom	54%
 Germany	73%
 France	55%
 Spain	87%
 Portugal	98%
 Italy	67%
 Netherlands	65%



LNG Storage

LNG Storage Total EU 28

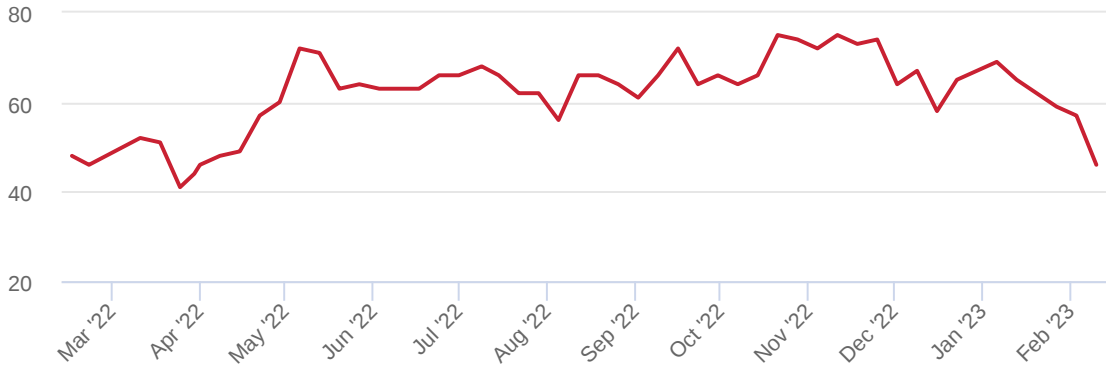
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Outlook:



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



LNG Storage

 United Kingdom	49%
 France	59%
 Spain	44%
 Portugal	19%
 Italy	41%
 Netherlands	57%



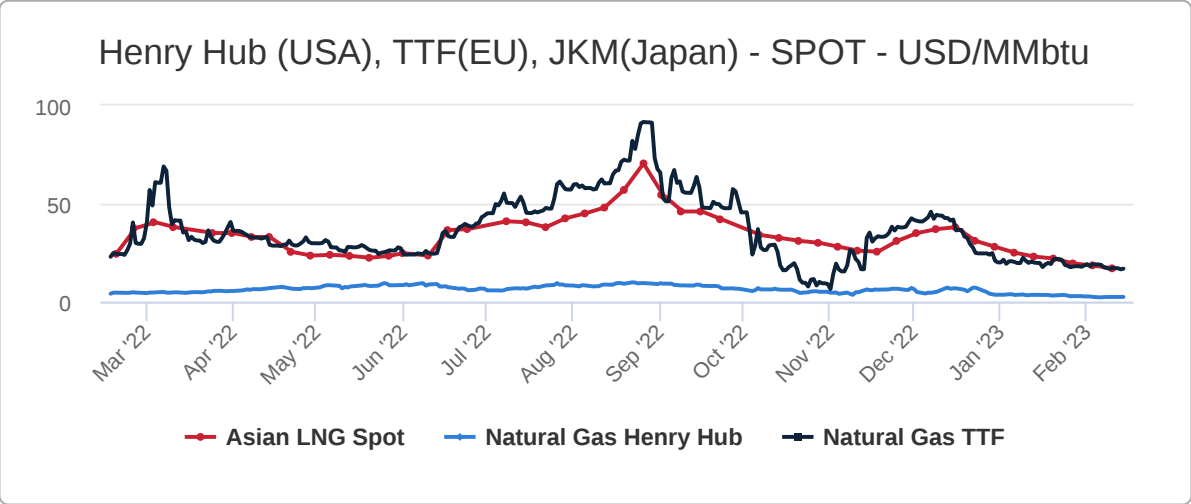
Henry Hub - TTF - JKM

✓ Asian spot liquefied natural gas (LNG) prices slipped amid high inventory levels and weather forecast which dampened the demand.

Asian spot LNG prices were at a premium to European natural gas prices, but now they trade at a discount and hit a record low since August 2021. This is due to a 40% decrease since the beginning of this year.

US liquefied natural gas slightly increased amid unseasonably weather and lower demand.

The first cargo has recently departed Freeport LNG after a fire in June temporarily shut down the plant. A second cargo has also been loaded at the terminal. The company has requested federal regulators to approve the first phase of its restart plan, so that full commercial operations can begin.



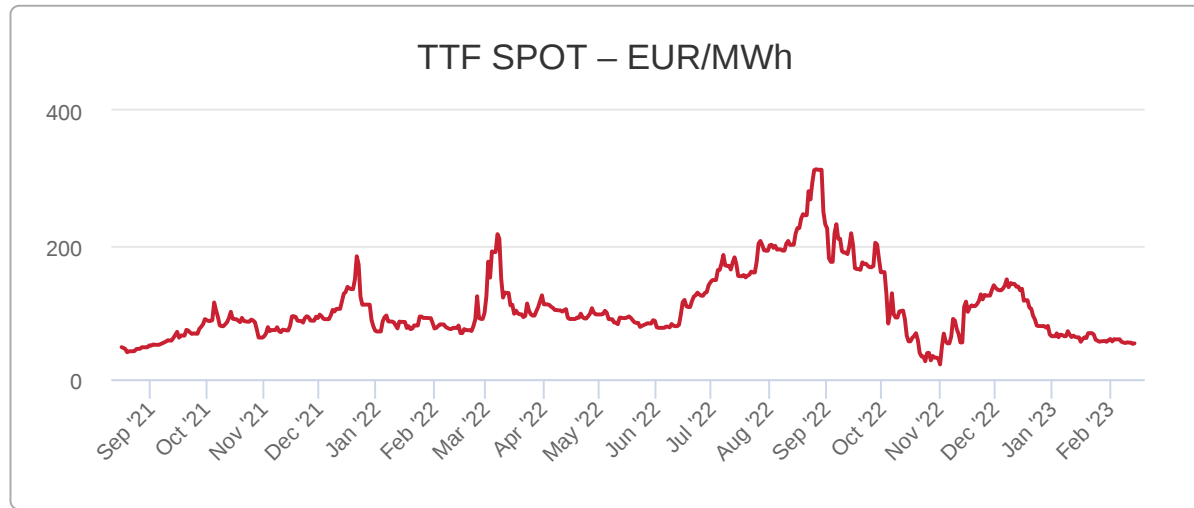
TTF

MARKET AVERAGE	PERIOD	PRICE €/MWH
Month M-12	February 22	80.5
Month M-1	January 23	62.5
Month M	February 23	56.3
Current Year	2023	60.6
Year Y-1	2022	121.1

- ✓ TTF spot price decreased amid temperatures above seasonal norm, therefore – lowering the demand for heating.

Weather forecasts for the near and medium term for the next month showed temperatures above average, which would limit demand for heating.

Temperatures in Germany, Europe's biggest gas consumer, could reach around 4C above average this weekend, following the forecast from SMHI.

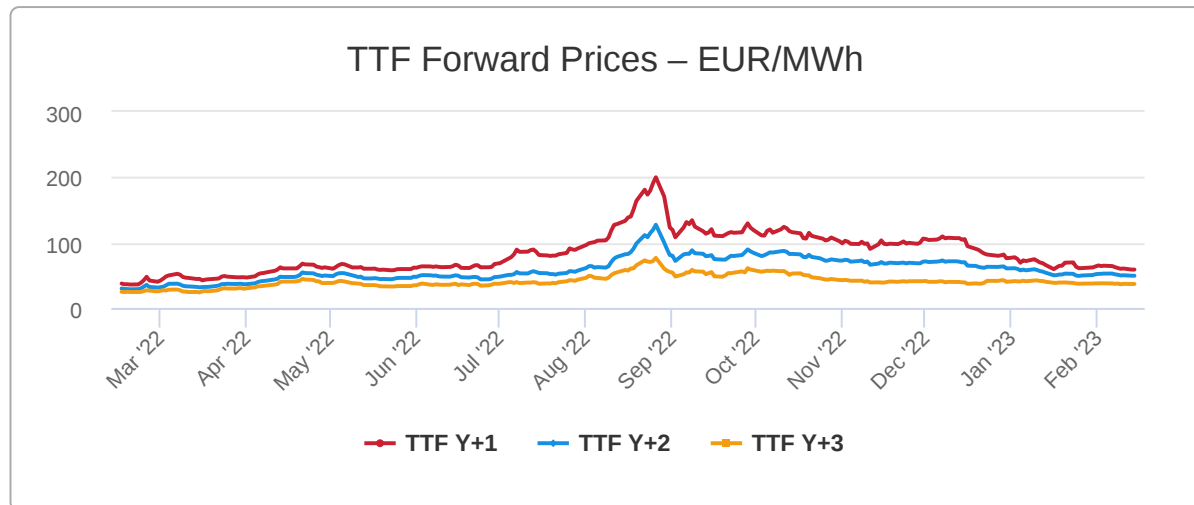


SPREAD €/MWH	12-MONTH MOVING AVERAGE	LAST WEEK AVERAGE
TTF Y+2 vs Y+1	-24.3	-9.4
TTF Y+3 vs Y+1	-42.5	-22

- ✓ TTF gas prices fell on a weekly basis amid forecasts of milder weather and improved supply.

Pipeline flows from Norway to Europe increased to 335 million cubic meters per day, due to the recovery from an outage at Troll, one of the North Sea's largest oil and gas fields, which had cut flows by 45 million cubic meters.

The second biggest terminal in the US, Freeport LNG has restarted exports following an eight-month stoppage.



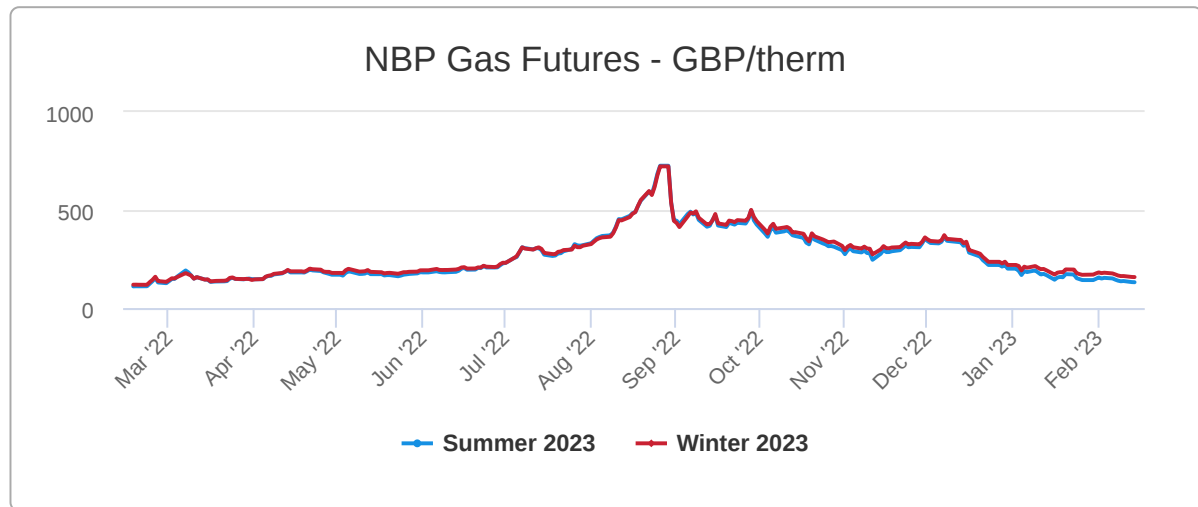
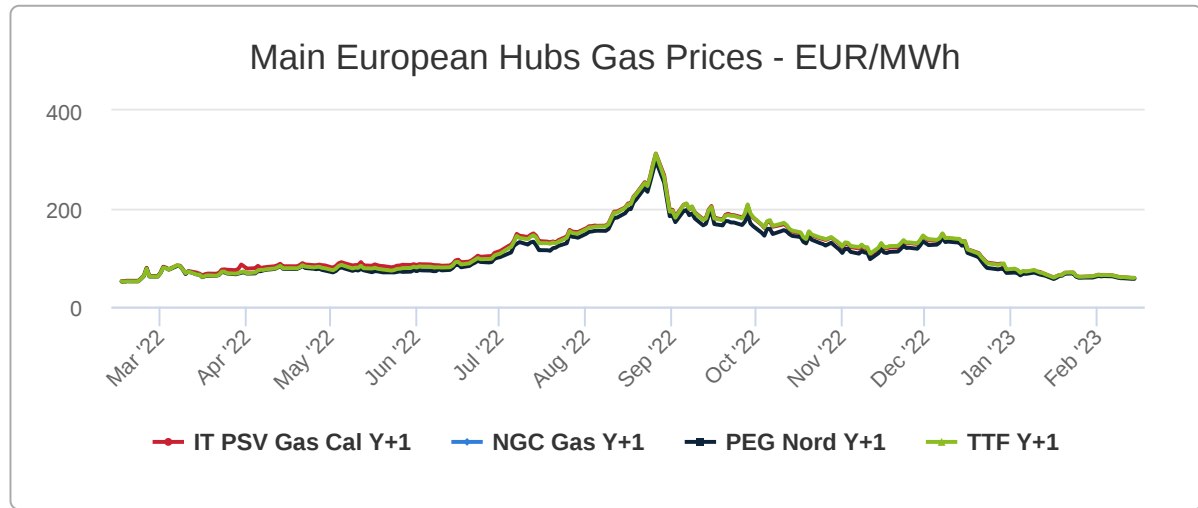
European Gas

Spread vs TTF	12-Month moving average	Last Week average
PSV (IT)	1.9	0
TRF (FR)	0	-6.8
NCG (GE)	-7.2	-1.9

- ✓ European gas storage is higher than average at 65% capacity, compared with the five-year average of 47% due to mild weather, increased LNG & pipeline gas deliveries, return of nuclear reactors to service in places like Germany and France, plus high wind output in some areas. This is contributing to low gas prices.

German gas storage operators group INES claimed last week that there is no risk of a shortage this winter due to lower demand and sufficient supply, as storage inventories are filled to capacity.

Russia's piped gas volumes to Europe this year are set to be lower in comparison to 2022. This means Europe will need to import a significant amount of liquified natural gas (LNG) to compensate for the decrease in piped gas from Russia.

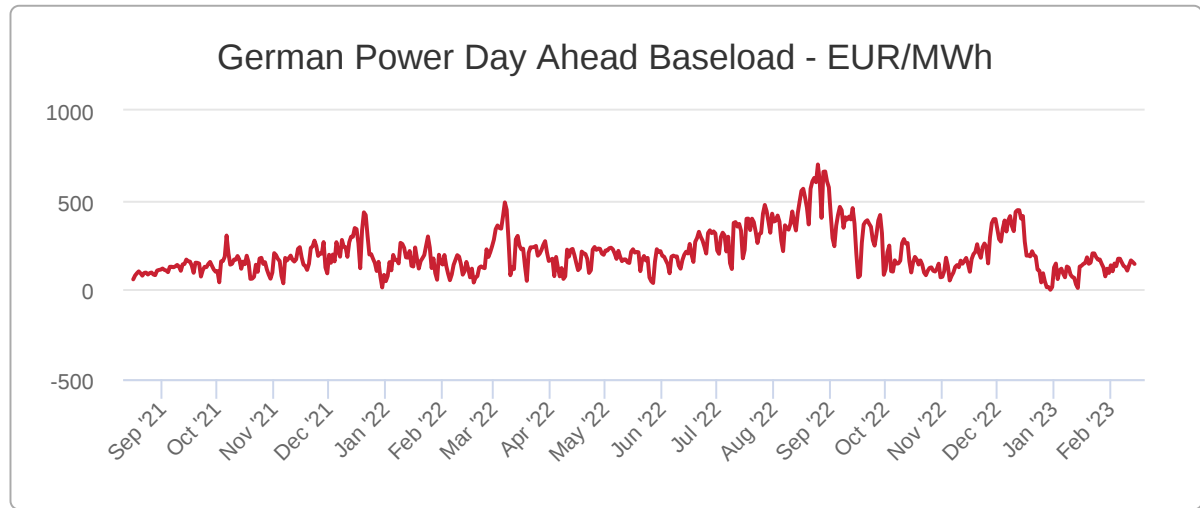


German Power

MARKET AVERAGE	PERIOD	PRICE €/MWH
Month M-12	February 22	132.1
Month M-1	January 23	120.4
Month M	February 23	141.2
Current Year	2023	126.8
Year Y-1	2022	235.3

- ✓ The German day-ahead power jumped due to low wind generation.

Wind power generation was last seen at 3.4 GW, which would still be 16.8 GW below the norm, but above previous forecasts of around 2.1 GW, according to data from EQ.



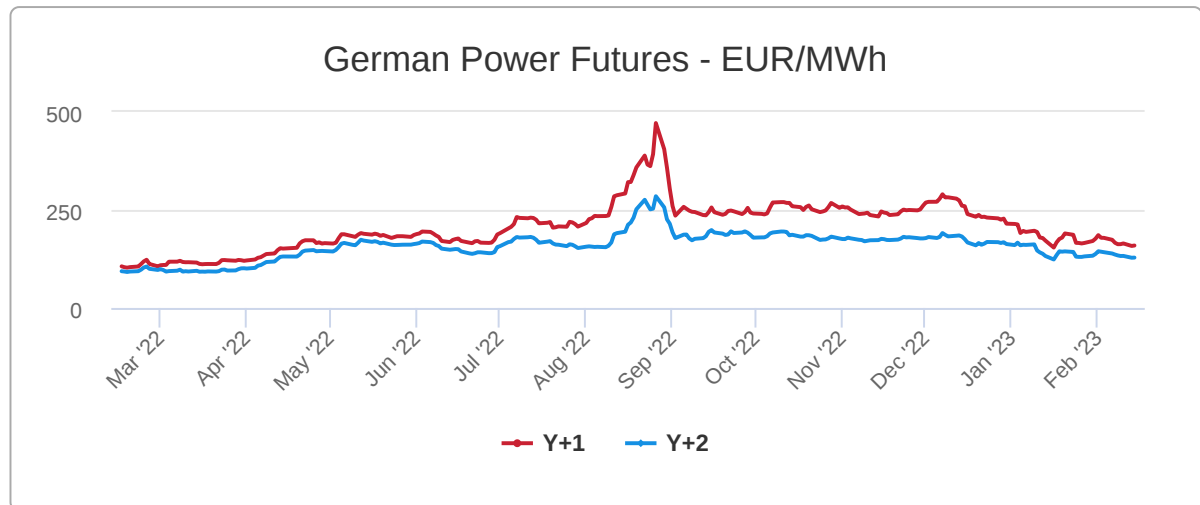
Temperatures in Germany should average 1.7C above the norm next week and 0.2C higher the week after that, according to data from Montel's Energy Quantified (EQ).

SPREAD €/MWH	12-MONTH MOVING AVERAGE	LAST WEEK AVERAGE
GE BL Y+2 vs Y+1	-48.8	-30.5
GE BL Y+3 vs Y+1	-70.9	-41.1

- ✓ German power futures prices declined following the gas prices and milder weather outlook.

German investment firm Aquila Capital has signed a power purchase agreement with Estonian utility Eesti Energia to supply 1.8 TWh of power, according to the companies' statement.

Germany will auction a huge number of hydrogen power plants, according to minister Robert Habeck - "Planning and auctioning needs to start now".



Achieving sufficient energy storage capacity is a challenge for transitioning to a decarbonized energy system, especially for renewable sources like hydrogen. Germany is facing this challenge as it phases out nuclear and coal power until 2030, requiring the installation of replacement power plant capacity to meet energy demands.

Central Western Europe

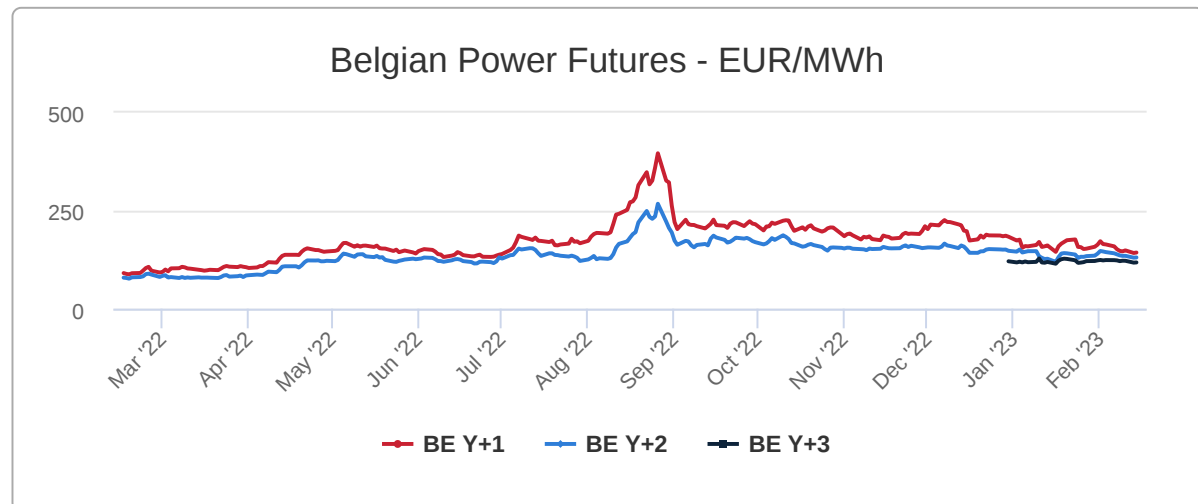
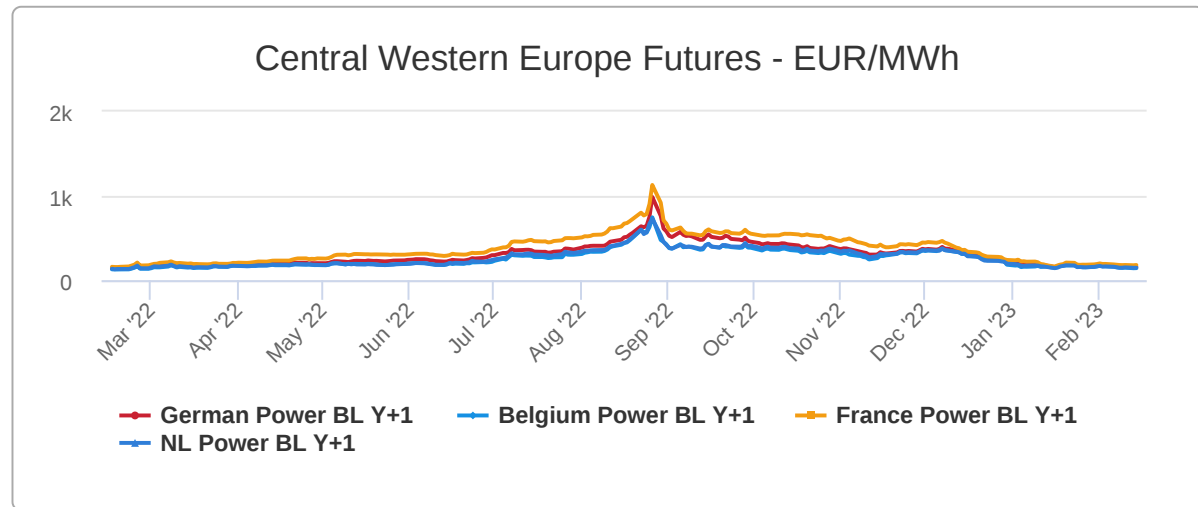
SPREAD VS GE POWER	12-MONTH MOVING AVERAGE	LAST WEEK AVERAGE
BE	-46	-17.2
FR	67.9	19
NL	-37.1	-12.3

✓ Germany and Belgium plan a second interconnector to increase cross-border electricity flows. Transmission operators Amprion GmbH and Elia Group SA will sign an agreement to conduct a feasibility study.

French President Emmanuel Macron has met with his nuclear policy council CPN to discuss strategies to revive France's nuclear power industry and pave the way for the implementation of the country's multiannual energy program, set to be presented in June.

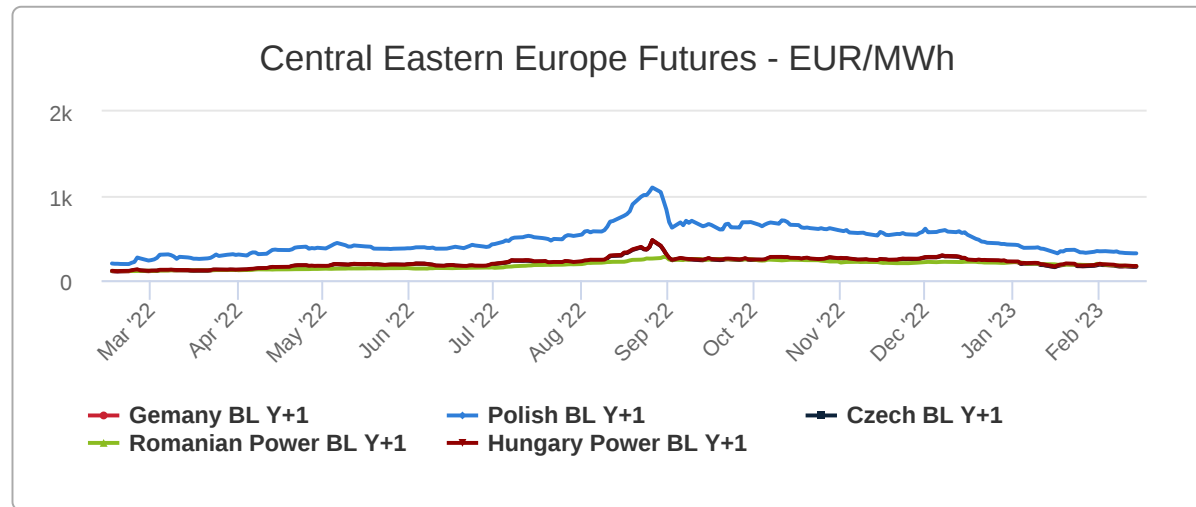
France currently hosts 56 nuclear reactors, which are 37 years old on average. The government intends to extend their operating life, initially projected at 40 years, to as much as possible. The French government also is planning to build six new nuclear reactors to help regain control over its energy future and ensure a secure supply of electricity. The first reactor is expected to become operational by 2035.

France has a heavy reliance on nuclear energy, with its reactors accounting for 70% of domestic electricity production and significant exports. However, breakdowns and extreme weather events led to France becoming a net power importer last year.



Central Eastern Europe

SPREAD VS GE POWER	12-MONTH MOVING AVERAGE	LAST WEEK AVERAGE
Polish BL Y+1	270.9	160.2
Czech BL Y+1	2	1.7
Romanian Power BL Y+1	-25.3	10.3
Hungarian Power BL Y+1	6.4	9.9



- ✓ The European Commission would allow new renewable power and related hydrogen production under draft EU "additionality" rules. This draft EU rule aims to ensure that the new renewable power and hydrogen production can be correlated monthly until the end of 2030 to support the growth of the renewable energy sector in the EU and meet the EU's decarbonization targets.

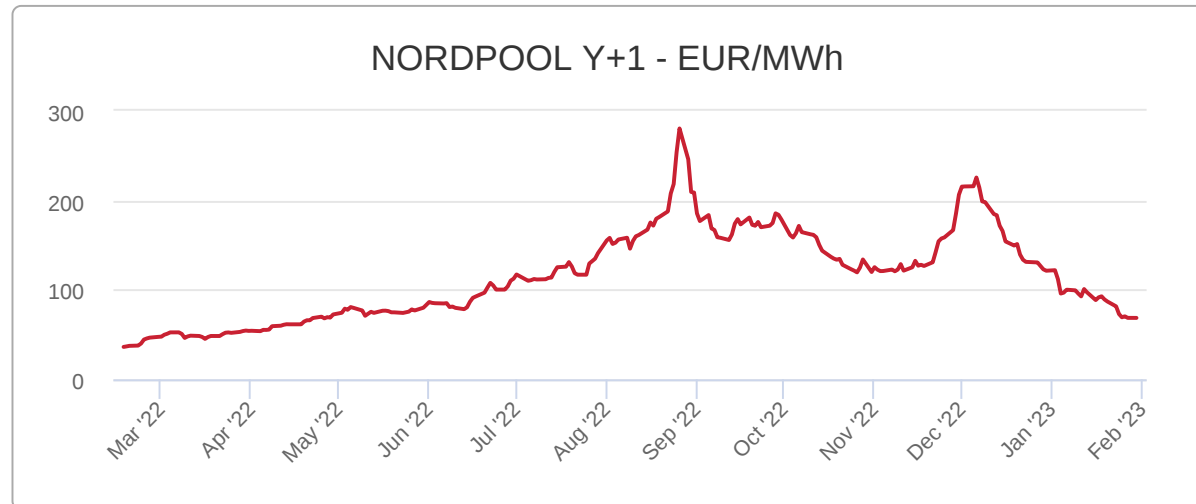
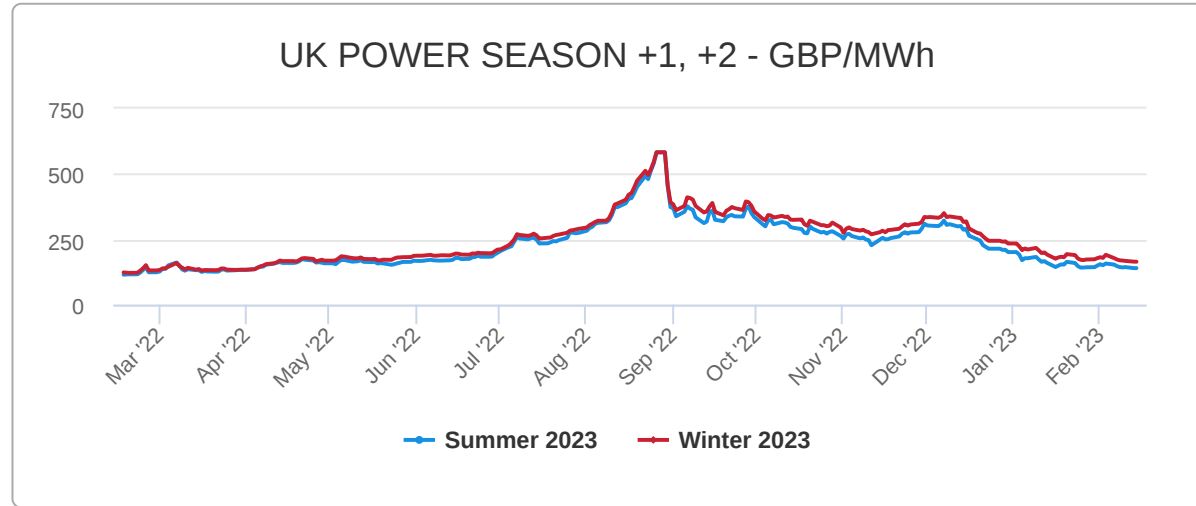
The EC aims to have 500 TWh of renewable power to meet the EU's goal to produce 10 million tonnes of renewable fuels of non-biological origin by 2030, which is 14% of total EU power use. The new rules would apply to both domestic and imported renewable hydrogen.

The European Parliament and EU Council of ministers have a two-month period (with possibility of extension to four months) to accept or reject the draft rules proposed by the European Commission. However, they do not have the ability to make individual changes to the rules.

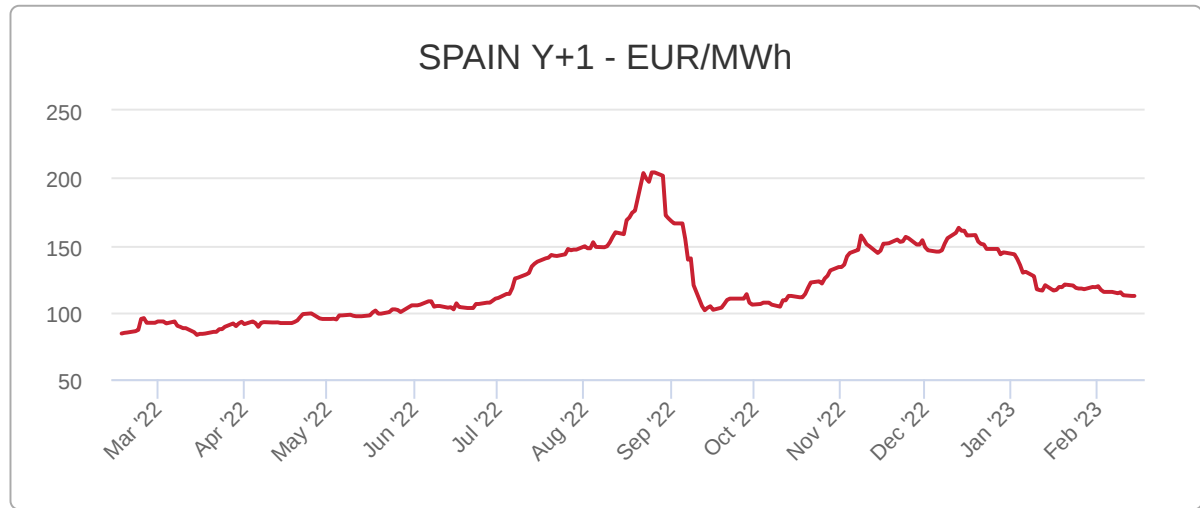
UK - Nordpool

- ✓ UK energy suppliers have pledged to stop installing prepayment meters in vulnerable customers' homes after negative reports of involuntary installations. The government made the announcement.

UK government is expected to spend less on energy schemes than originally estimated, with a predicted expenditure of 69 billion pounds, which is 50% lower than the original estimate, according to a UK spending watchdog. The mild winter this year is cited as the reason for the decrease in energy costs.

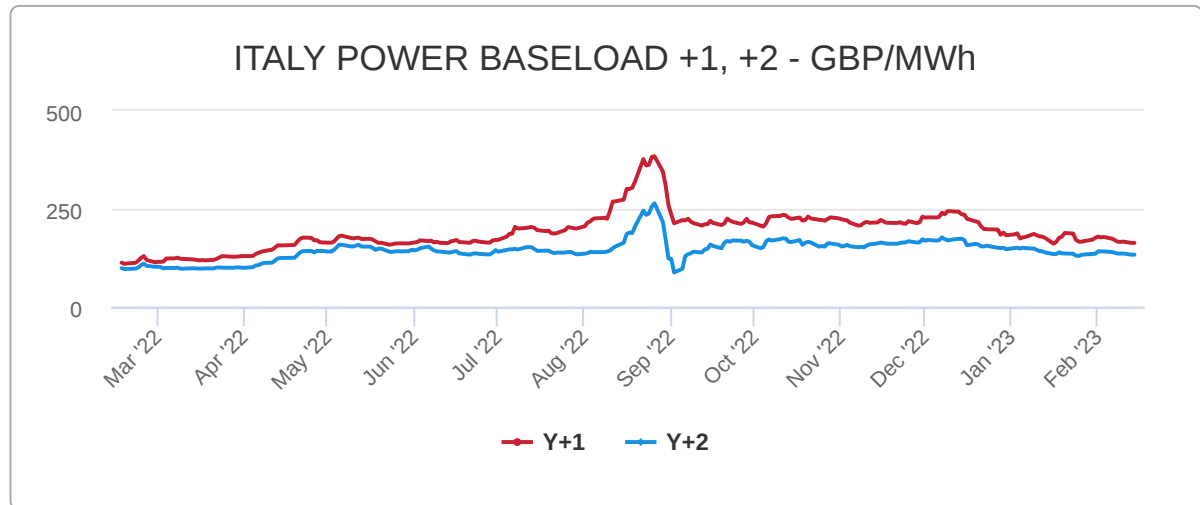


Electricity Spain - Italy



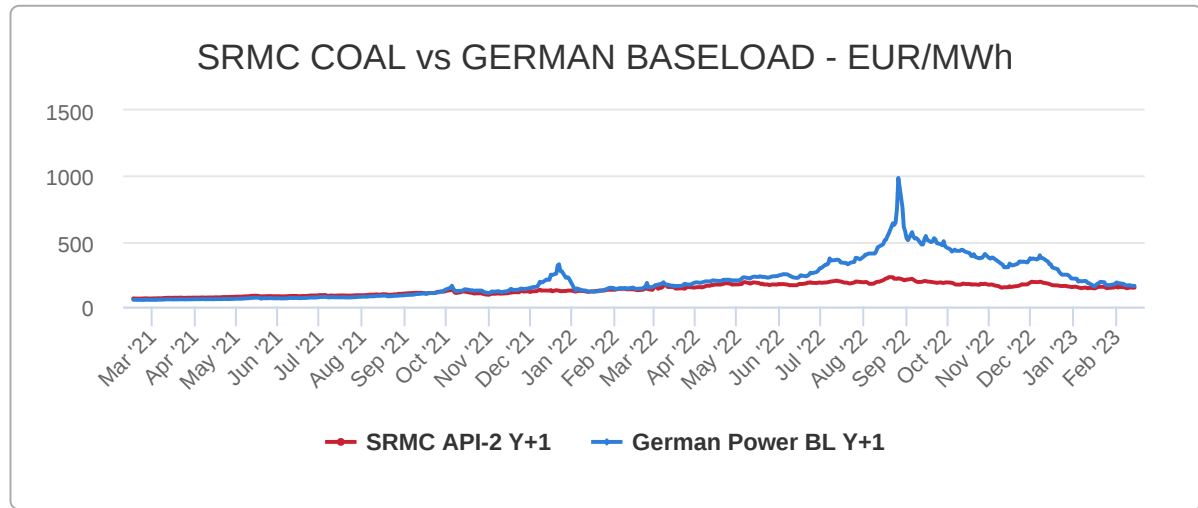
✓ Enel Green Power's renewable energy unit has signed a €560 million financing agreement with UniCredit to expand its Catania, Sicily-based solar panel factory, Tango (Italian PV Gigafactory). The investment will result in a 15x increase in capacity to 3 GW per year from 200 MW and contribute to the development of the industrial-scale manufacturing plant for PV modules at Enel Green Power subsidiary, 3Sun.

The first 400MW is expected to be operational in September 2023, while the entire expansion will be fully operational by July 2024.



Short Range Marginal Cost

SPREAD SRMC	12-MONTH MOVING AVERAGE	LAST WEEK AVERAGE
Coal API-2 vs German Power Baseload Y+1	-133.1	-18.8
Gas THE Y+1 vs German Power Peakload Y+1	-287.7	-144.3



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

