REF OSSERVATORIO ENERGIA

Jan-22

Short-Term Targets Update

Persisting tensions hitting commodities led prices to record highs, putting the Reference levels proposed in our previous updates of the Osservatorio Energia Energy Outlook out of reach. A preliminary **review of our annual Reference targets for the 2022 to 2025 TTF, PSV, CO2 and PUN** is consequently proposed here, taking into account short-term risk factors, market expectations for the first half of 2022, and their potential impact on the next years.

The **new Reference targets** incorporate the **risk of tension persisting on the gas market over the first semester of this year** and impacting on prices till the next winter season. The average TTF and PSV for years 2022 and 2023 are revised more than 80% and 60% higher, with a realignment towards the medium to long-term equilibrium starting in year 2023 and bringing prices back to the old Reference levels in year 2024. **The CO2 is seen as staying on an upward path**, supported by the expectation of reforms aimed at strengthening the ETS system, and aligns with the old High scenario for the all 2022-2025 period, with the new References lying 40% above the old ones on average. The electricity price review incorporates both the gas price and CO2 targets upward revision. The **new Reference PUN for years 2022 and 2023** is respectively almost 70% and 40% higher than the old one, while for years 2024 and 2025 lies 10% above the old one.

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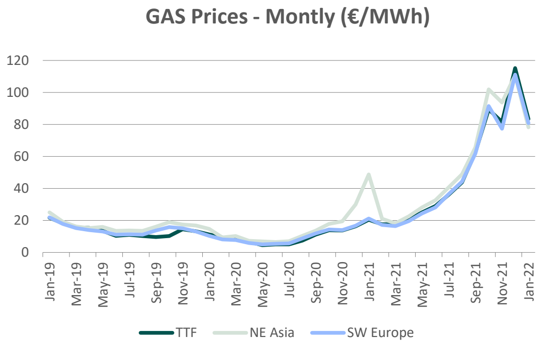
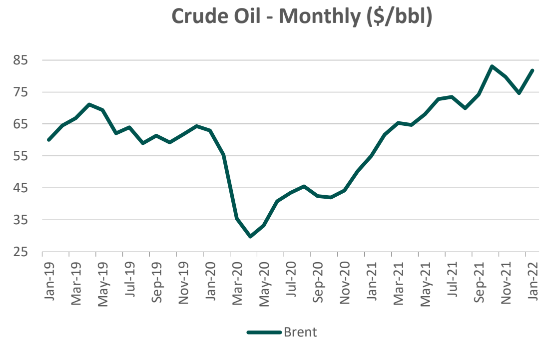
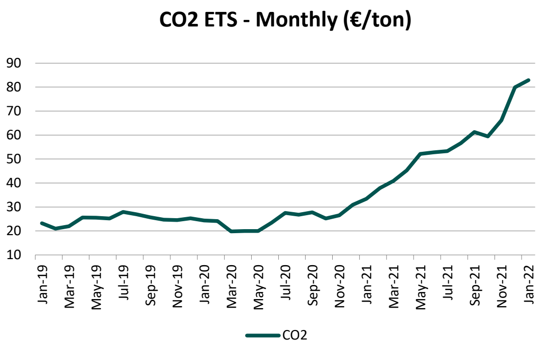
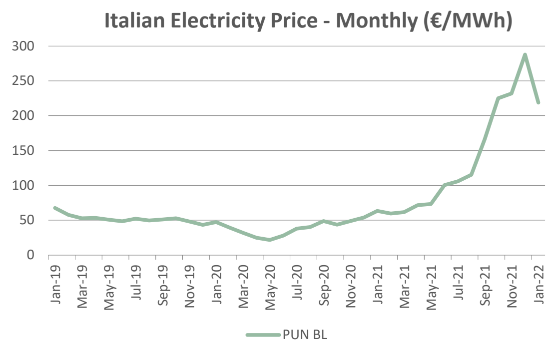
EXTREME DYNAMICS KEEP STRESSING THE ENERGY MARKET









Year 2021 witnessed unprecedented high gas prices, following Asian LNG stronger than expected demand growth having combined with production and transportation bottlenecks, geopolitical tensions, the North Stream II pipeline's suspension and low Russian supplies. Coal demand remained high too, driven by China power shortages, and both its Asian and European price moved higher.

The European Coal price surge and **the parallel CO_2 price up-move (subdued compared to gas) were not enough to guarantee the aimed coal to gas switching though.**

High commodities prices drove the **electricity market price** upward trend over the second half of the year to new highs. The generation mix was in line with previous years. Coal production recovered over the last months of the year though to a 5% of the national production in November and December on average.

Gas supplies from Russia remain the focus of attention, storage and demand also significant:

- The German Government stated the impossibility of approving the entry into operation of **Nord Stream 2** in the first half of 2022
- Tension at the **Ukraine** border fuels reactions from both the American and European sides threatening economic sanctions in the event of an invasion
- **Storage** levels in Europe remain below the historical average
- The framework for the **electricity market remains highly dependent on that of gas**. Prices have also supported by the closure of nuclear power plants in France, which has led to a reduction in imports into Italy and a simultaneous increase in demand for gas in Europe.

Low Storage Levels and Reduced Flows from Russia Keep the Market Under Pressure

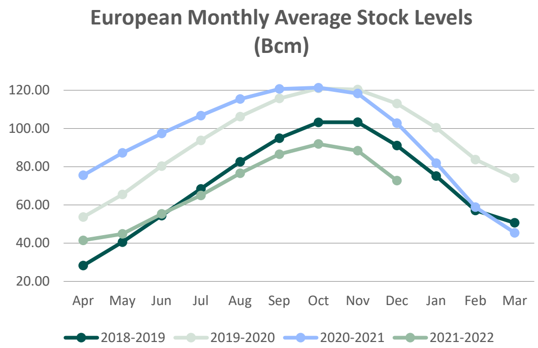
An increase of LNG arrivals since the beginning of January and expectations for a slightly milder February recently lowered the perception of the risk for European storages running out of gas this winter. An expected deep cold spell in January has not materialized so far and the arrivals of LNG cargoes this month weight on the European gas market.

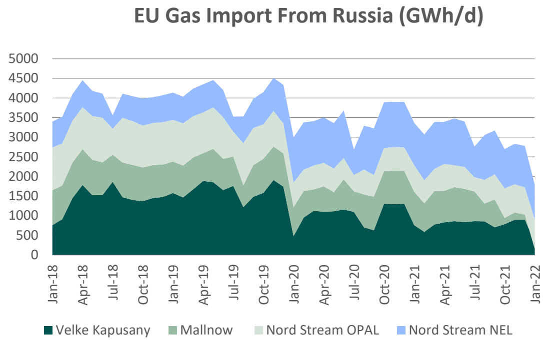
However, **the risk for a resumption of the upward trend remians high in H1-22**.

The European storage levels just neared 73 Bcm at the end of December, 29% below December 2020, with the gas prices significant increase having led the winter-summer time-spread to null over the injection season, weighing on the overall stocking process, and leading to the European gas stock levels crisis.

The progressive reduction of Russian flows in evidence. Imports from Velke Kapusany and Mallnow entry points decreased over the last months:

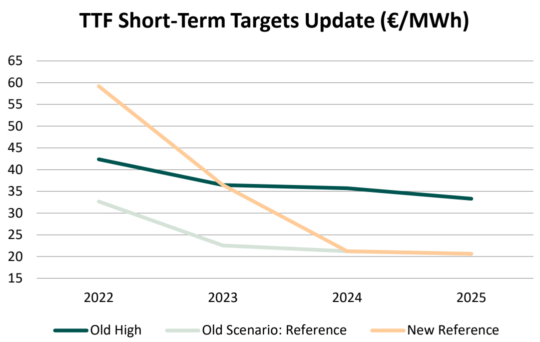
- flows at Mallnow reversed to negative (from Germany to Poland) since the last week of December
- Any capacity to pump gas to Europe through the Yamal pipeline was booked by Gazprom

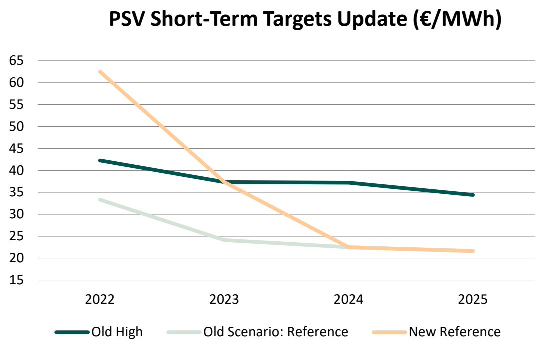




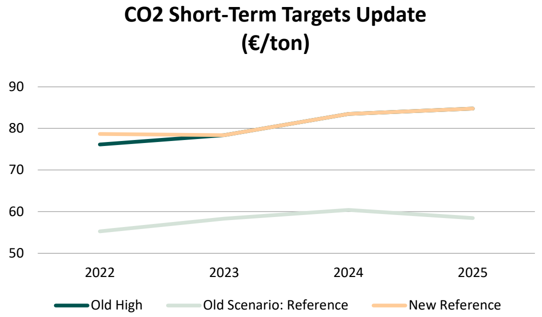
A Normalization of Market Conditions is Still Seen as Possible in the Medium-term

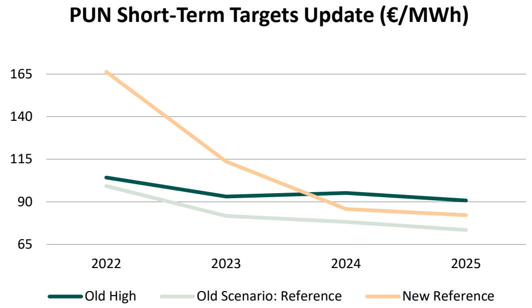
Our Reference scenario is therefore revised upwards, incorporating in the **very short term (H1) the risk of tension persisting on the gas market**. The expectation is for the beginning of a progressive normalization over the second part of the year. However, the recent tension on supplies long tail deriving from last year dynamics could keep the gas prices in proximity of the higher band of variability previewed last November (High scenario) through year 2023, therefore delaying the return of the quotations in proximity of the levels Reference previewed in November to years 2024 and 2025.





We expect **the CO2 price to stay on an upward path**, supported by the expectation of reforms aimed at strengthening the ETS system set to be implemented over the next months by the Fit for 55 package. The CO2 price evolution will therefore be in line with the High scenario proposed last November also for the years 2024 and 2025.





The **electricity price** review incorporates both the expected tightness of the gas price and its permanence above the upper band of the range of variability in the short term (H1), a slow normalization towards year 2024 and the expectation that the price of CO2 will overall old above the current ones.

The price targets for the PUN are therefore slightly higher than those of our previous Reference scenario also in the period 2024-2025.

Should the gas market tightness ease (amid a stock cycle normalization in the summer months and/or a rapid commissioning of NS2), we ~~would~~ expect a progressive decline in both gas and electricity price, with a possible return to our previous Reference levels already during 2023.

The possibility of a deeper and/or faster fall in prices is not seen as high for now, but cannot be ruled out. Signals for a slowdown in growth in both Asia and the United States are in fact in evidence and risk for the spread of new Covid-19 variants limiting activities and possibly depressing demand still looms.

Old Scenario: High				
	TTF €/MWh	PSV €/MWh	PUN €/MWh	CO2 €/ton
2022	42	42	104	76
2023	36	37	93	78
2024	36	37	95	83
2025	33	34	91	85

Old Scenario: Reference				
	TTF €/MWh	PSV €/MWh	PUN €/MWh	CO2 €/ton
2022	33	33	99	55
2023	23	24	82	58
2024	21	22	78	60
2025	21	22	73	58

New Scenario: Reference				
	TTF €/MWh	PSV €/MWh	PUN €/MWh	CO2 €/ton
2022	59	62	166	79
2023	36	37	114	78
2024	21	22	86	83
2025	21	22	82	85

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