

Electricity Monitor

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Carbon price proves supportive for power prices

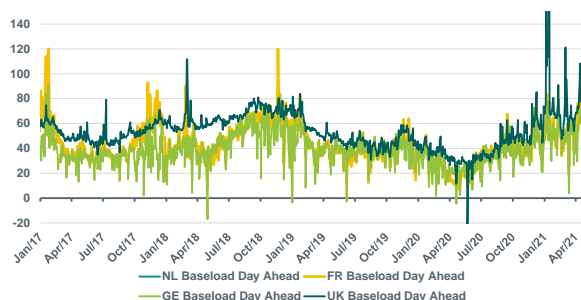
- ▶ Electricity prices are trading relatively high
- ▶ EU ETS price reaches a new record high... again
- ▶ Coal prices and carbon emissions hurt profitability of coal fired power plants
- ▶ Gas prices elevated due to strong demand and low inventories

Electricity prices high due to EU ETS and commodity prices

During the first months of the year, the upward trend in electricity prices in Northwest Europe continued. This was due to the combination of continuously rising commodity prices and a record price for EU ETS allowances. In addition, demand for electricity is increasing, as economies emerge from their lockdowns. Normally, the price of electricity would start to decline around this time of year based on seasonality patterns. After all, more power generation from renewable energy sources and less consumption of fossil fuels - for heating houses and generating electricity - lead to lower prices in the spring and summer. So far this year, the seasonal pattern has not materialised yet.

Electricity: day-ahead prices on the rise

x EUR/MWh



Source: Bloomberg

Electricity prices CAL22

x EUR/MWh



Source: Bloomberg

EU ETS breaks through EUR 48/tonne

The price of CO₂ allowances traded in the EU Emission Trading Scheme (ETS) has touched a record high of EUR 48.30/tonne. This means that EU ETS prices have increased by 50% in 2021. Initially, the market anticipated the adjustment of the European CO₂ reduction targets for 2030. But even after the European Commission reached an agreement, the price continued to rise. One reason is the purchase of emission rights by companies to meet their compliance obligations for 2020. This deadline expires on 30 April.

Another reason is the market's anticipation of the new climate targets. A tighter target for 2030 will lead to an accelerated reduction in the number of emission allowances available to meet these targets. Greater scarcity should lead to faster action to make sustainability possible, and otherwise to a higher carbon price. Market speculation on the latter aspect therefore reflected an anticipated greater scarcity of emission rights and pushes prices higher.

The previous European CO₂ reduction target was 40% compared to 1990. The proposal was to increase this CO₂ reduction to 55%. Eventually, the European Commission (EC) reached an agreement on 21 April. Emissions will have to be reduced by 52.8% in 2030 compared to 1990 levels. In addition, a greater amount of CO₂ must be absorbed by natural CO₂ storage reservoirs (sinks) such as soil, forests and oceans, bringing the total net reduction to 56.6%. Furthermore, the process has been set in motion to formulate a 2040 target, and it has been agreed that after 2050 there may only be negative emissions in Europe. And this while, just this week, the International Energy Agency's (IEA) Executive Director Fatih Birol stated that CO₂ emissions in 2021 are likely to show the largest annual increase since 2010, just after the financial crisis. Despite all hopes that the measures to fight the coronavirus would trigger a lasting effect on energy use, it proves to be difficult to implement change whilst restoring economic growth. The use of coal in Asia in particular weighs heavily in this regard.

EU ETS reaches new record high

x EUR/tonne



Source: Bloomberg

Rising too fast?

The purpose of the EU ETS is to reduce CO₂ emissions and thus to limit the rise in global temperature rise to two degrees, and if possible one and a half. The (threat of a) higher price for CO₂ emissions should be an extra incentive for companies to reduce CO₂ emissions faster. At the moment, however, the price of emission rights is rising so fast that countries like Poland and Denmark have called for action. They believe that the role of market speculators on the price of emission allowances has become too large and leads to unnecessarily high volatility and too high prices. Bloomberg New Energy Finance (BNEF) recently raised its expectations of the future CO₂ price by almost 40%. According to BNEF, the price could rise to EUR 108/t by 2030. Market expectations - including those of [ABN AMRO](#) - are much lower, with an average price to 2030 of around EUR 50/tonne, rising to almost EUR 80/tonne in 2030.

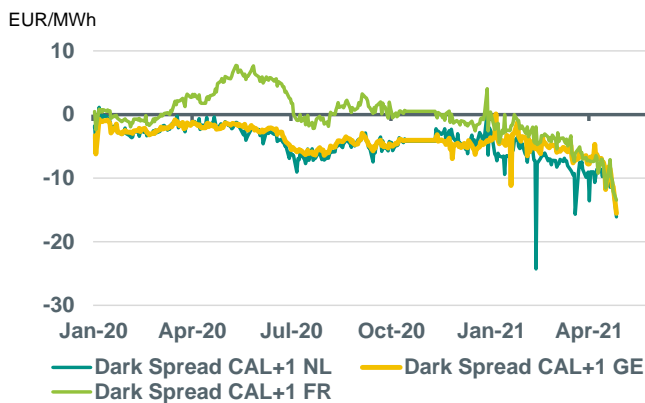
Poland and Denmark have no problem with a moderate increase in the ETS price due to the scarcity created by the EC in order to eventually become carbon-neutral in 2050. But market speculation makes the price rise so fast, that it harms investments in the energy transition. Investments that, of course, sometimes take years to be implemented and thus become profitable. Poland and Denmark therefore call on the EC to fight market speculation. It is expected that in June the EC will come up with proposals to adjust the EU ETS to meet the new targets for CO₂ emissions in 2030.

The heat is on

The price of coal generally follows the trend for natural gas. However, whether the raw material is in demand or not differs strongly per region. In Asia, we see a large growth in demand for energy. Coal plays an important role in the generation of electricity. In China alone, we see that the growth in demand for coal almost entirely compensates for the decline in the use of coal elsewhere in the world.

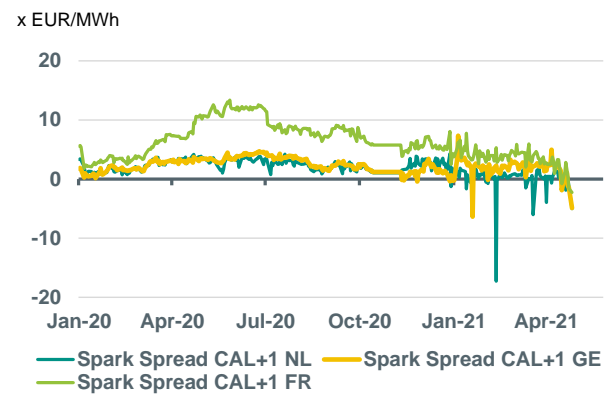
Here in Europe, the picture is more nuanced. In the past, a high price for natural gas would normally lead to more demand for coal. But as the CO₂ price has also risen sharply and the growth in demand is partly compensated by a rising supply of renewable energy, this gas-to-coal turn has not yet happened. In fact, if we look at the profitability of coal-fired power stations (dark spread), it is coming under increasing pressure. This increases the market pressure on coal-fired power stations enormously, quite apart from the political pressure.

Dark spread dives further into red



Source: Bloomberg

Also spark spread turns negative



Source: Bloomberg

Gas stocks low after a long winter

However, the above right-hand figure shows that the profitability of gas-fired power stations (spark spread) is now also negative. The high CO₂ price also puts pressure on the efficiency of gas-fired power stations. In addition, the price of natural gas is relatively high. The gas price has a high correlation with the weather. This is not so strange, after all, when it is very cold we use more gas to heat our homes. In addition, we also see an increasing demand for electricity in the summer - most of which is still generated in gas power stations - to run air conditioners when it is extra hot.

After the cold winter, stocks were already lower than during the previous two winters. But the relatively cold period during the first half of April increased the demand for natural gas for heating again. As a result, inventories decreased even further. Due to the lower stock level and the later start of the build-up, the demand for gas will persist for longer. We therefore expect gas prices to remain high for longer before the decline resulting from lower seasonal demand sets in. LNG supplies to Europe have been substantial in recent weeks. With India increasingly in lockdown and LNG demand from Asia possibly easing temporarily, pressure on LNG prices cannot be ruled out. It may become interesting to increase European LNG imports further.

We have revised our gas price estimates slightly higher

As a result of the cold weather and related higher demand for natural gas, the price recovery that we had anticipated for the second half of the year is already a fact. Although the price may fall slightly when stocks are replenished, the price will still be slightly higher on average in 2021. Therefore - as already described in our [Energy Monitor](#) last week - we have revised our estimates for both TTF gas price (calendar year +1) and Henry Hub (future for delivery next month)

upwards. For TTF, we now expect an average price of EUR 17/MWh in 2021 (this was EUR 15/MWh). We have raised our estimate for the average price of Henry Hub in 2021 from USD 2.40/mmBtu to 2.60/mmBtu.

Gas prices rise due to high demand and low stocks

EUR/MWh



Source: Bloomberg

Also US Henry Hub price remains relatively high

x USD/mmBtu



Source: Bloomberg

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