Electricity

Energy Research Strategy

Wednesday 16 April 2025

Electricity price sighs under sunshine and tariffs

As a result of recession fears stemming from the trade war, combined with relatively low demand for fossil power generation, the EU ETS price reached a low last week. The (for now) weakened trade tariffs and parties taking positions with the current low price levels play an important role in the recovery currently visible. In addition, Dutch and European figures have been published on emissions from ETS companies. While Dutch figures provide practical insights into the progress of the energy transition, their use should be carefully interpreted in an ETS operating at the EU level. At the EU level, emissions reductions were greater than the emissions cap required, which may have implications for the market stability reserve and thus the ETS price in the longer term.

In the electricity market, the monthly contract in particular experienced a sharp drop in prices. The price drop on the gas market due to trading tariffs and an increase in the expected number of sunshine hours are responsible for this. The annual contract is also under pressure, although to a lesser extent. The need to fill relatively empty gas reserves is putting a floor on the gas price for the time being, which is feeding through to the electricity price. In the imbalance market, an extreme price level of EUR 1,895/MWh was reached several times on April 10. This phenomenon is difficult to separate from the fact that purchasing on the day-ahead market is divided into hourly trading blocks. With an upcoming change of trading blocks from an hour to 15 minutes, the risk of these extreme imbalance prices should decrease.

Trade tariffs put pressure on ETS price

Negative sentiment regarding the macroeconomic outlook has caused a drop in prices in the ETS market. Less economic activity creates the expectation of lower demand for ETS allowances from industry over time

Downward price pressure in energy markets, along with low demand for fossil power generation, depressed spark and dark spreads, which is also reflected in the ETS price. All in all, the December contract dropped back to nearly EUR 60/ton on April 9. This marked a low, after which recovery followed. Meanwhile, the benchmark contract is trading at around EUR 66/ton.

Volatility especially evident in the monthly contract

Source: LSEG Eikon

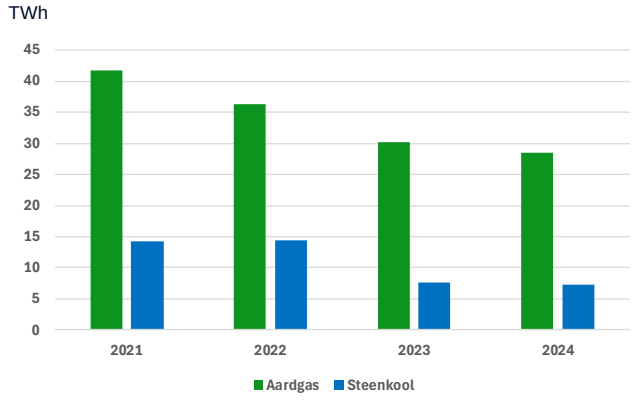
With the current state of global trade, the ETS price will be more susceptible to macroeconomic developments. While relatively low prices may provide temporary rebounds, the macroeconomic outlook is not favorable.

Dutch emissions in a European system

In early April, the Dutch Emissions Authority (NEa) published figures on greenhouse gas emissions from Dutch ETS companies in 2024. Emissions were found to increase by 2.9% (1.8 million tons) from a year earlier. This represents a break in trend from the previous seven years, in which emissions declines were recorded (except for a correction after the corona pandemic in 2021).

Zooming in on industry shows that there was a slight increase in emissions. This is mainly due to the steel industry, where maintenance in 2023 caused relatively low emissions. In the electricity sector, emissions remained more or less flat. Although renewable energy accounted for a larger share of the electricity mix, at the same time electricity demand increased. As a result, the absolute amount of emissions from coal and gas remained almost the same compared to 2023. A long period of *dunkelflaute* at the end of 2024 and (again) additional production in the steel industry were mainly to blame.

Electricity production from coal and gas in NL



Source: National Energy Dashboard

At the EU level, total ETS emissions fell by 5%. Noteworthy in this light is the reporting from the European Commission, which states that the EU is on track to meet the target reduction target for the ETS sectors in 2030, namely 62% compared to 2005 (it is currently 50%)[1] . Because the EU ETS has a declining emissions cap, it is a logical consequence (and therefore not very newsworthy) that the EU ETS reduction target will be met . [2]

Operation of market stability reserve affects ETS price

Although the name "linear reduction factor" suggests so, in practice the EU ETS emissions cap does not decrease (perfectly) linearly. There are several reasons, such as *backloading* (postponing the issuance of emission allowances) and *banking* (storing emission allowances for later use) that result in a somewhat more erratic decrease in the emission cap in practice.

What the European Commission and the NEa do not devote a news item to is the effect of emissions figures on the supply-demand balance of the EU ETS. This is where the market stability reserve (MSR) plays an important role. The MSR is a mechanism that can increase the number of allowances to be auctioned (when there is a "shortage" in the market) or decrease it (when there is a "surplus" in the market). It activates automatically when the total number of allowances in circulation (also known as TNAC) reaches an upper or lower limit and is intended to provide more price stability.

[1] https://climate.ec.europa.eu/news-your-voice/news/eu-emissions-trading-system-has-reduced-emissions-sectors-covered-50-2005-2025-04-04_en

[2] If a company does not have enough allowances to cover its emissions, it must then buy those allowances. On top of that, a penalty per allowance is applied. In practice, this makes it unlikely that the emissions cap will be exceeded.

Because the EU ETS emissions reduction reached 5% in 2024, more emissions were reduced in that year than the emissions cap (4.3%) would have required. As a result, the TNAC is increasing. Depending on how many allowances are currently in the MSR, the increase in TNAC has an impact on the long-term supply of allowances. How this works is explained in chapter five of our thematic report 20 years of the EU ETS.

At the end of 2023, there were 1,112 million allowances in circulation (the TNAC). Due to this size, the number of allowances to be auctioned in the compliance year 2024 - 2025 would decrease in favor of the MSR. Because this caused the MSR to exceed its upper limit in size, the so-called cancellation procedure took effect. This led to allowances in the MSR being permanently cancelled and thus never again appearing on the ETS market. As a result of the more than required emission reduction of the EU ETS in 2024, there is once again a chance that allowances will be cancelled. The cancellation procedure thus ensures that the EU ETS emissions reduction in 2030 exceeds the predetermined 62% (compared to 2005).

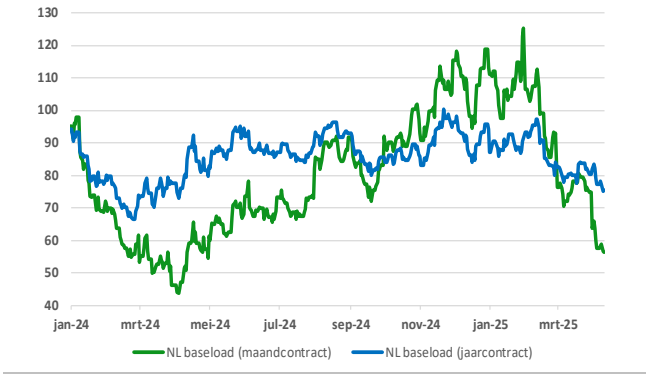
In sum, this means that an "over-performance" of emissions reductions in a given year may actually have the effect of reducing the supply of allowances in the longer term. The desirability of this can be debated, but there is no question that an "over-performance" of emission reductions can also be the result of macroeconomic factors, a risk currently hanging over the market. The uncomfortable consequence is that companies could be steered toward higher ETS prices via an economic recession.

Also negative sentiment in gas and electricity markets

Developments regarding U.S. trade tariffs put pressure on energy prices. The decline in gas prices also caused a strong downward price movement in the Dutch electricity market. This is especially true for the active monthly contract, which is already trading lower due to the seasonal increase in (the expected) number of sunshine hours.

Volatility especially evident in the monthly contract

EUR/MWh



Source: LSEG Eikon

The trade war creates expectations of lower than previously estimated economic growth in Europe, possibly even leading to a recession. Here, the Chinese backlash against trade tariffs, in which tariffs on U.S. imports were raised three times to 125%, plays an important role. This not only amplifies the potential negative economic impact on the global economy, but also means that China has not imported any U.S. LNG since February. Although Chinese LNG imports come mainly from Australia, Qatar, Russia and Malaysia, there will still be more LNG available for Europe, especially in the spot

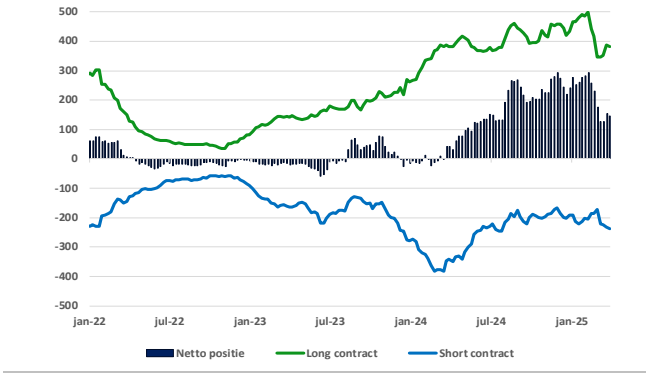
market. This depresses the TTF price. However, these are supplies that China already does not badly need in the first place due to a relatively mild winter.

However, the still tight supply and demand situation in the global LNG market is putting a floor in the market. This can be seen in the development of the electricity contract for delivery in 2026. The percentage drop in the monthly contract (in addition to falling gas prices, seasonal effects) was greater than in the annual contract.

The still relatively high number of long positions in the TTF market supports the analysis that there is upward back pressure in the gas market. This is mainly due to the fact that there will be high demand for LNG in Europe next summer to replenish relatively empty gas supplies. Although the number of long positions did fall firmly over the past two months, market participants are still well over net long. Given the high demand and tightness in the market, the market expectation is that there is room for upward price movement.

Number of long positions high despite rates

EUR/MWh



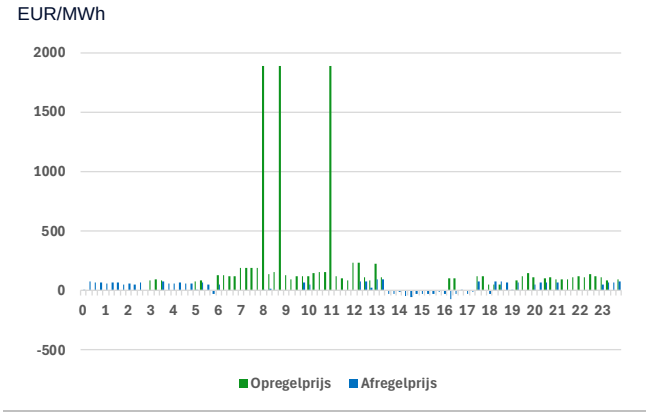
Source: LSEG Eikon

The European Commission (EC) is trying to limit the upward price pressure caused by relatively empty gas reserves by making the filling obligation more flexible. Thus, not only is it being extended by two years, but some adjustments are also on the table. Although the law has yet to pass the European Parliament, the 90% minimum fill obligation appears to be giving way to a more flexible target anyway. In addition, the idea is that the obligation must be achieved between Oct. 1 and Dec. 1, instead of before Nov. 1. However, a more flexible filling obligation will not prevent speculative positions from being taken based on the fact that filling is required in the coming months. Filling the relatively empty gas storage facilities will therefore result in upward pressure on prices, particularly for the supply of gas in the summer. Although the spread between supply this summer and next winter has turned in the right direction, at over EUR 1/MWh the difference is still too small to stimulate large-scale storage.

Change day-ahead trading reduces risk of extreme imbalance prices

On April 10, imbalance prices for up-regulating power (in response to a supply shortage) rose several times in the morning to the extreme level of EUR 1,895/MWh. Among other things, the extreme upward adjustment prices occurred in the first quarter of an hour, while solar power generation capacity rose rapidly during that time. Strictly speaking, this does not necessarily lead to the conclusion that a less-than-expected solar output was the reason for the imbalance prices. It is plausible, however, that these differences between expectation and actual generation contributed to it.

Imbalance prices NL on April 10, 2025



Source:

The fact that the imbalance prices in question occurred in the first (or last) quarter of an hour in the morning does not seem to be a coincidence. This pattern occurs more often, especially on sunny days. This is mainly the result of the fact that trading in the day-ahead market currently still takes place in one-hour time blocks. Starting June 11, 2025, trading in the day-ahead market will change from hourly time blocks to 15-minute time blocks. The change should address this cause of extreme imbalance prices

The day-ahead market plays an important role in trading electricity from renewable energy. The trading that takes place in hourly blocks in this market is based on the expectation of electricity supply and demand. As more and more solar generation capacity is added to the electricity system, solar electricity generation also rises faster and faster in the morning hours (especially on a sunny day). Because the generation capacity at 9:01 a.m. is significantly lower than at 9:59 a.m., when trading blocks of one hour, a seller must make a choice in the amount of solar power to sell in this market.

As a result, in these cases for hourly trading blocks, there is a relatively high probability that expectation of generation does not match actual generation. This creates imbalance. By trading on the day-ahead market to time blocks of fifteen minutes, this risk decreases. After all, renewable electricity providers can better respond to the actual generation of solar power on a quarter-hourly basis.

German coalition agreement: more gas and renewable, less coal

On April 9, a coalition agreement was reached between CDU/CSU and SPD. German industry is in dire straits, putting a lot of pressure on the new government to change this. This is relevant to the Netherlands, as the industrial sector here is closely linked to that of Germany. In addition, Germany is potentially both a major demander and supplier of electricity in the Dutch market, given its interconnection capacity of 5 GW.

The new German coalition wants a capacity market containing 20 GW of new flexible production capacity. It emphasizes that this will be done through a technology-neutral auction. Given the quantity, the emphasis is likely to be on gas capacity, and less on batteries and demand-side management. It is expected that gas power plants will eventually switch to hydrogen or be equipped with a *Carbon Capture and Storage* (CCS) installation. This seems necessary to meet European climate targets.

An interesting fact in this is that the new German coalition supports the European climate target in 2040. A condition in this for Germany is that member states must be given the option of offsetting part of their emissions, rather than just reducing them. This provides an important insight into how Germany intends to combine meeting its climate goals with building 20 GW of additional gas-fired

power plants. The focus on CCS is due in no small part to the difficult development of a green hydrogen market, leaving this option befuddled with uncertainty.

A capacity market is of great importance to ensure security of supply in the long term, as the coalition agreement states that coal must be phased out by 2038 at the latest, as was previously the objective. A successful establishment of a capacity market is therefore a prerequisite for the final phasing out of coal.

Expansion of renewable generation capacity will continue unabated, including the use of two-way *contracts for differences* (cfd's)[3] . Further expansion of renewables must be accompanied by the necessary infrastructure (grid reinforcements) to prevent further grid congestion. Splitting the German energy market into different bidding zones is a common argument for more efficient renewable energy development. In the agreement, however, the coalition parties have indicated they will not pursue this.

German ambitions to reduce electricity costs

The new German coalition aims to cut electricity costs to help the struggling energy intensive industry. For this, the energy tax on electricity is to be reduced to the European minimum. In addition, the so-called *Strompreiskompensation* will be extended. The Dutch equivalent of this is the indirect cost compensation for the European emission trading system, also called IKC. Large electricity consumers can be compensated by this scheme for the passed-on CO2 costs associated with electricity production. This measure is intended to prevent CO2 leakage effects and is thus approved within EC state aid rules until 2025

The ambition to extend the IKC makes Dutch policy in this regard extra relevant to the industry. Whereas Germany never abolished the measure, the Netherlands decided to do so in 2022. With this, the Rutte IV cabinet tried to meet the call to abolish "fossil subsidies" as much as possible. Because surrounding countries did not take this step (Germany, but also Belgium and France), a competitive disadvantage was created. This resulted in a temporary extension of the IKC scheme in the Spring Memorandum of 2024, which stated that companies could claim compensation before 2024. It remains to be seen whether the IKC scheme will be upheld in the Netherlands in 2025 as well.

In brief

9 GW of available capacity on the high-voltage grid outside peak hours - Companies that are currently on the waiting list and are willing to switch off during peak times can get an earlier connection as a result. This will be up to 15% of the time, according to TenneT, with the TSO indicating a day in advance how much and when to switch off. Such contracts will be accompanied by a discount on regular tariffs. VVD MP Erkens submitted written questions about TenneT's message on April 9. In this he asks, among other things, Minister Hermans of Climate and Green Growth (KGG) how this space will be deployed and whether it might be possible that the regional grid operators also have space that is currently unknown.

European advisory body argues for reform in electricity market - In its report *The future of the supply and pricing of electricity in the EU*, the *European Economic and Social* Committee (EESC) argues for a focus not only on climate neutrality, but also on affordability and security of supply. Here more government involvement, for example in the form of a so-called e-facility, is desirable. An e-facility is a government-founded or financially supported party that is active to the electricity market. This company must ensure that the electricity system continues to work properly, focusing on the above three focal points. CDA MP Bontenbal submitted written questions about this to the responsible Minister Hermans on April 9.

[3] A two-way CfD is a subsidy scheme where the government pays extra if the market price is lower than a pre-agreed price (*strike price*) and producers repay the government if the market price exceeds the *strike price*.

Trump signs decree to keep US coal plants open - The US president is attempting to end "discrimination" against coal in the electricity mix. Coal plants about to close will be kept open longer. Also, the stricter emission standards for coal and gas plants introduced by President Biden in the *Clean Power Plan 2.0* will disappear. In addition, coal mining on federal land will become easier and permitting for coal projects will be faster.

The question is to what extent the policy is going to have an effect. Coal is increasingly being pushed out of the mix for economic reasons by renewable sources and gas power plants, with the latter in particular being relatively cheap in the US.

Global electricity demand increases due to need for data centers for AI, says IEA - The energy agency highlights in report *Energy and AI* that data centers are getting bigger and clustering, which could create electricity supply bottlenecks. In advanced economies, data centers will account for more than 20% of demand growth by 2030. For countries such as the US and Japan, this rises to as much as 50%.

Energy Agenda

Organisation	Date	Event
European Central Bank (ECB)	17-Apr-25	Interest rate meeting Eurozone
ENTSO-e	28-Apr-25	Bidding Zone Review
European Union	06-May-25	Trade day ETS2
Organisation of Petroleum Exporting Countries (OPE	14-May-25	Publication Monthly Oil Market Report
International Energy Agency (IEA)	15-May-25	Publication Monthly Oil Market Report
European Council	19-May-25	EU-UK summit
Organisation of Petroleum Exporting Countries (OPE	28-May-25	Meeting of the Joint Ministerial Monitoring Committe
European Commission (EC)	Q3-25	CBAM Review Report

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