

Energy Transition Monitor

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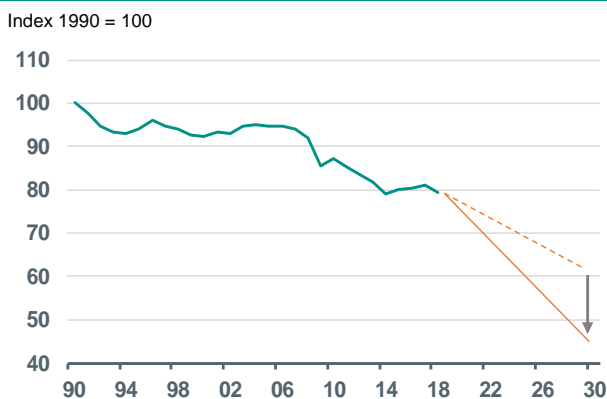
New EU CO₂-reduction goal will lead to a moderate ETS price gain

- ▶ **Ambitious EU climate plans to speed up carbon reduction to a 55% drop compared to 1990**
- ▶ **Revision of the EU ETS will lead to a faster reduction of the available number of emission rights**
- ▶ **Our base case scenario implies a moderate rise of EU ETS prices**

EU Carbon reduction will accelerate

Mid September the European Commission (EC) presented its plan to reduce EU greenhouse gas (GHG) emissions by at least 55% in 2030. This plan is part of a bigger ambition, namely to make the EU climate neutral in 2050. The increased reduction target is seen as much more ambitious than the previous target of 40% GHG-emission reduction compared to 1990.

EU carbon reduction from 1990 to 2030



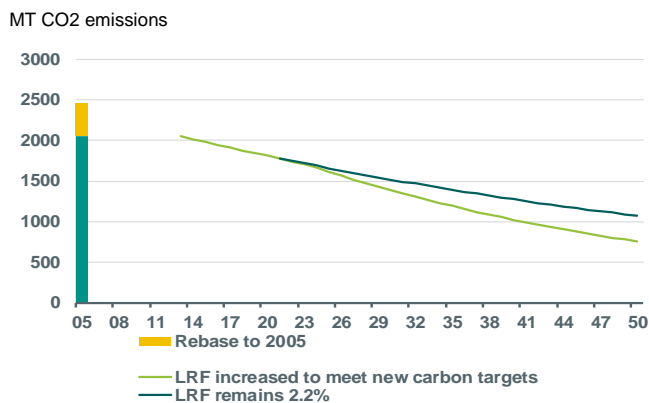
Source: Eurostat, ABN AMRO Group Economics

The next step is to set out the legislative proposals to implement the new targets. One important factor is the revision and expansion of the EU Emissions Trading Scheme (EU ETS, or ETS). The ETS is a political tool traded on financial markets. This tool is meant to guide carbon emitters towards a carbon-neutral economy in 2050.

The next phase in ETS

As scheduled, the ETS will enter phase IV next year (2021-2020). Due to the new ambition, the EU ETS needs to revise this phase again, after doing so early 2018. To meet the new targets, the pace of annual reductions in allowances must be increased. In other words, the Linear Reduction Path (LRP) must be increased from 2.2% to a higher percentage. The EC will come forward with proposals to revise the ETS – as well as revisions for renewable energy and energy efficiency targets. The proposals are expected by June 2021 and for the EU ETS possibly already in March 2021.

Reduction of ETS emission rights after 2021 revision



Source: EC, ABN AMRO Group Economics

With regards to the new carbon reduction targets and its impact on carbon pricing, it is good to keep two things in mind:

- First, a revised ETS will mean that the supply of carbon allowances will be reduced faster. But at the same time, the transition towards a carbon neutral economy will also speed up through the introduction of other policy instruments, possibly resulting in a drop in the demand for allowances. Governments may, for example, choose to phase-out coal-fired power plants well before ETS prices would have forced them to cut emissions. The impact of the new, and more ambitious, EU target on ETS-prices will therefore be the result of these two forces on the balance between supply and demand.
- Second, the further the energy transition materializes, the more expensive the carbon reduction solutions will be. Whether these can be done in time is strongly depending on technological development/innovation as well as advancements in policy and economics. Innovation simply needs time, and even if there is a technological solution, it should be economic viable to make the final investment decision. The faster the required advancements materialise, the lower the expected ETS price will be.

The current ETS limits emissions from over 11.000 heavy energy consumers, including power stations, industrial plants and airlines operating between these countries. The plan is to also include the transportation sector and the build environment (offices, homes, etc.). The more sectors will be included in the ETS, the more effective the EC can monitor and manage towards the end goal of a net-zero EU in 2050. However, including more sectors also means more uncertainties. This makes predicting future prices even more difficult than normal.

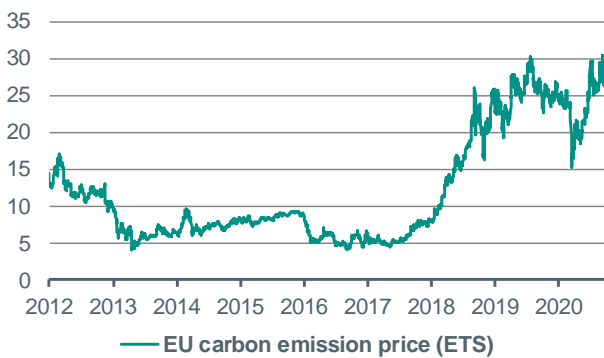
It makes sense to assume that the transition within the utility sector goes faster than the transition of the industry sector due to technical challenges. The new sectors transportation and build environment come with their own difficulties to become carbon neutral.

Future scenario's for ETS prices

Note that long-term forecasts of the ETS price level are highly uncertain as the most dominant factor that drives the long-term ETS prices is government policy. Announcement of new policies may therefore cause structural breaks in the ETS price development as we have noticed in recent years.

EU ETS prices on the rise

EUR/tonne



Source: Bloomberg

Looking at future ETS-prices, we have two scenario's regarding the price development of EU ETS towards 2030:

1) (base-case scenario) Moderate rise of ETS price

Average EUR 30-40/ton in phase IV

This scenario could imply positive news. After all, the cost of emission reduction technology may have dropped steeply, allowing companies to lower their carbon emissions at a relatively low price. At this moment, the biggest steps of lowering carbon emissions are seen in the power market. With the phase out of coal and the rapid build of renewable energy sources (mainly solar and wind), the demand for carbon allowances will continue to drop within this sector. Other sectors need more time and technological development to come to similar steps. For the industry sector but also international transportation, a level-playing field compared to international peers is needed to make investments viable.

Note that the moderate rise of ETS prices may also be driven by policy instruments that are introduced alongside the ETS. National governments may impose stricter emission standards upon companies under the ETS, may close down plants, or may push application of expensive emission reduction technologies through heavy subsidising before the ETS would have triggered investments. That would prevent ETS prices from rising faster.

Although the assumption in this scenario abatement can be achieved at lower costs, some sectors can abate faster than others. The ETS does provide time for companies which are more difficult to change. Some MTs of carbon in the industry sector are more expensive to reduce than the decarbonisation in the power sector. This is the main driver for an underlying upward pressure on ETS-prices in the coming years.

We do believe that, as soon as industry related companies are able to succeed in building their pilot projects and are able to scale up, that the cost price of the new techniques (like CCUS, hydrogen, geothermal, etc) will come down rapidly as we have seen with solar- and wind energy in recent years. If this does not happen, and still ETS prices remain low, the government is most likely providing too much subsidies.

In this scenario, ETS prices will average between EUR 30-40/tonne during phase IV (2021-2030: with prices being lower in the first half of the decade, and rising above EUR 50 towards 2030). Short term higher carbon emission prices can be seen. Although large consumers generally have large quantities of emission allowances on stock that were bought or freely allocated in previous years, market speculators may trigger volatility as soon as buying or selling opportunities occur.

On internal Final Investment Decisions (FID's): The ETS may not need to rise much in the short term to drive companies to make investments, as companies generally make investments based on an internal carbon emission price that reflects their long-term expectations of the ETS price. Such an internal ETS calculation price could make carbon reduction technologies economic viable and lead to a positive investment decision. As a result, a relatively low ETS Market price does not have to be the same as internal carbon calculation prices.

2) Steep rise of ETS prices

Average EUR 50/tonne in phase IV

If technological development is slow and governments and companies don't step up their actions to lower carbon emissions while the number of free allowances is reduced at a faster pace, the scarcity of the outstanding carbon allowances will lead to substantially higher prices. In this scenario, ETS prices could rise to an average of EUR 50/tonne in phase IV (2021-2030), with a higher average price at the end of the period (> EUR 80/tonne).

Eventually the rising ETS price will trigger companies to pursue expensive abatement projects and/or drive governments to aid companies with financial and regulatory support to make these projects a reality. Financial support may include subsidies, while regulatory support may encompass the removal of legal obstacles. As a result of the higher ETS prices, end-consumers of industry products may face higher prices as the ETS price is priced through.

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