

THE EU ETS AFTER 2020 - IN BALANCE?

3. ASSESSING THE IMPACT OF THE NEW RULEBOOK FOR THE POST-2020 PERIOD

WITH THE POLITICAL deal achieved on the rules for phase 4 (2021-2030), participants in the European carbon market (EU ETS) will now focus on assessing the impact of the new rulebook for the post-2020 period in detail.

To understand the consequences of the political agreement, participants need to translate the legislative text into demand and supply numbers.

We at ICIS have done the math and adjusted our modelling to accurately reflect the phase 4 rules. The following article sums up the main elements of the phase 4 agreement and provides our analytical take.

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Overall, policymakers have included more flexibility in the post-2020 market architecture in order to be able to react to changing economic circumstances. We find these elements to have the potential to bring the market back into balance by reducing the accumulated oversupply in the market.

Please note that all modelling in this article assumes that UK installations will remain in the EU ETS until the end of the third trading period (2013-2020), and will leave the system at the start of the fourth trading period (2021-2030). This is our base case assumption, accounting for the proposed transition period by the EU Commission, with other scenarios remaining within the realms of possibility.

THE MAIN ELEMENTS OF PHASE 4

The linear reduction factor (LRF) defines the annual decrease of allowances provided to the market either via free allocation or via auctions. Policymakers agreed to increase the LRF to 2.2% per year during the fourth period (2021-2030). As a result, in the fourth trading period (phase 4) the cap will decrease to achieve a total 43% reduction of emissions in 2030 compared to 2005 levels. The clear intention by policymakers is to increase the ambition of the market at a later stage, also taking account of international climate negotiations.

In general, there are two main means of distributing allowances to the market: free allocation and auctions. By default, 43% of the total number of allowances available in a trading period is handed out free to market participants, with 57% being auctioned. These shares, however, are reduced, as allowances are required for other elements of the market such as funds, a reserve for new installations or the like.

The maximum allocation an installation can receive freely depends on its historic production multiplied by the benchmark of the product and adjusted for carbon leakage risk. Benchmarks define a reference value for emissions relative to a production activity. In order to consider technological progress, the benchmark values decrease by a product-specific flat-rate approach. The annual benchmark reductions have to stay within a corridor of between 0.2% and 1.6%.

NO CROSS-SECTORAL CORRECTION FACTOR NEEDED

In case the demand for free allocation exceeds the available number of allowances, a cross-sectoral correction factor (CSCF) is applied, reducing the free allocation for all installations by the same percentage. This happened during the current trading period (2013-2020) and was one of the major concerns of policy makers and industrials when debating the reform.

In order to reduce the likelihood of the CSCF, EU legislators adopted a flexible part of the cap. If a CSCF were to apply, up to 3% of the cap reserved from the auction share would be converted to free allocation to mitigate or completely prevent the CSCF-related allocation cut. Our modelling suggests that the CSCF will not apply. In case no CSCF is triggered or the maximum of the flexibility pot is not exploited, up to 50m EUAs would be transferred to the Innovation Fund and up to 0.5% of the cap would be added to the Modernisation Fund.

The New Entrant Reserve (NER) provides free allocation for new installations and for significant capacity increases and decreases at existing installations. The NER during phase 4 will be created from around 145 million unused allowances during the third trading period and 200 million allowances placed in the MSR. If unused by the end of phase 4, up to 200m allowances will be returned to the MSR.

Annual benchmark reductions have to stay within a corridor of between 0.2% and 1.6%

FUNDS CHANNEL AUCTION REVENUES TO INNOVATION AND MODERNISATION PROJECTS

The auction share is reduced by several elements before the auctions de facto take place. In the first place, 2% of the cap is reserved for the Modernisation Fund, taken from the auction share. The revenues of these auctions are set aside to create a monetary fund which is accessible to low income member states with GDP/capita below 60% of the EU average (in 2013). The Modernisation Fund will not support energy facilities using solid fossil fuels. We assume that auctions related to the Modernisation Fund are equally spread over all years of phase 4.

To support innovative low carbon projects, including renewable energy and CCS, an Innovation Fund will be established, consisting of 400m phase 4 allowances. In addition, 50m EUAs will be taken from the MSR and monetised in 2019-2020 to bridge the period between phase 3 and phase 4. The allowances will be monetised to generate cash that is used to support innovative projects. We assume a front-loaded monetisation over 2021 to 2025.

Member states with a GDP below 60% of the EU average in 2013 are allowed to support their electricity sectors with free allowances. For this, the entitled 11 member states are allowed to use up to 40% of their auction share. This can be increased to 60% of auction volume if a member state also receives solidarity auction volume, in which case it needs to shift a corresponding amount of allowances from the solidarity volume to the Modernisation Fund.

Member states can voluntarily cancel allowances from their auction volume to account for domestic policy measures (such as coal phase-out) corresponding to the average verified emission of the previous five years of the installations concerned. Given the uncertainty of the rules, we have not made any assumption of how many allowances would be cancelled. This is mainly due to the absence of any countries making statements about their willingness to sacrifice auction revenue for safeguarding the EU ETS.

MARKET STABILITY RESERVE - A MAIN PRICE DRIVER

In 2015 policymakers agreed to implement the Market Stability Reserve (MSR) withdrawing allowances as of 2019 in order to tackle the EU ETS supply and demand imbalance and make the market more resilient to external shocks. The MSR was initially designed to take out 12% of the market surplus until the latter drops below 833m.

With the post-2020 file EU legislators adopted a doubling of the intake rate to 24% from 2019-2023 (five years) and a corresponding doubling of the minimum withdrawal rate from 100m to 200m per year. This is the most ambitious measure in terms of price implications in the post-2020 reform. The MSR will lower the annual auction volume by around 400m allowances during the first years of its operation, gradually decreasing to levels around 100m allowances per year once the withdrawal rate is reverted to 12%.

Further, as of 2023, the MSR stock will be compared with the previous year's auction volume. If the MSR stock were higher than the previous year's auction volume, the surplus would be made invalid. This will lead to a significant decline of 2.4 billion allowances in MSR stock during one single year and several small-scale invalidations throughout the remainder of phase 4.

**MARKET BALANCE –
GETTING TIGHT**

The post-2020 reform in general tightens the market framework during phase 4 compared to the current market set-up (see Figure 1). Largely, this is achieved via volume-based measures such as the doubling of the MSR intake rate and the tightening of the reduction target to minus 43% by 2030. Our modelling shows that during the second half of phase 4 the fundamental balance is relaxing as higher carbon prices resulting from the doubled MSR withdrawal rate result in additional abatement (emission reductions).

The MSR doubling for the first five years of the mechanism’s operation will

change market participant behaviour already during phase 3. As of 2018, we expect market participants will build long positions to anticipate the MSR price effect. Within the first half of phase 4, the strengthened MSR will reduce the market surplus significantly, and this will push the abatement pressure forward in time.

Our modelling suggests that the carbon price will fall again during the second half of phase 4 due to the significant emission reductions realised during the early years of the trading period resulting from abatement. Paired with the reduced 12% MSR for the rest of the period and the inflow of the unused flexible share and the funds,

this leads to a yearly surplus during the second half of phase 4 and consequently decreasing prices.

Volume-based measures such as the doubling of the MSR intake rate and the tightening of the reduction target to minus 43% by 2030

FIGURE 1:
EU ETS Fundamental market balance

