

The review of the Market Stability Reserve

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Roundtable on
Climate Change and
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Structure

- 1) The MSR Review Revisited**
- 2) MSR Assessment**
- 3) Scenario Analysis**
- 4) Key Takeaways**

The legal basis for the MSR Review

- **Article 3 of the MSR Decision** requires, periodically, an assessment of the MSR functioning, and the delivery of its objectives (reviews scheduled in **2021** and **2026**).
- Art. 3 indicates that **some elements to be included** in the review are:
 - i. **the MSR intake rate** (*‘the percentage figure for the determination of the number of allowances to be placed in the reserve’*);
 - ii. **the continued appropriateness of the upper and lower thresholds** (*‘the numerical value of the threshold’*);
 - iii. **and the relationship of the Reserve with competitiveness issues** (*‘impact of the reserve on growth, jobs, the Union's industrial competitiveness and on the risk of carbon leakage’*).
- **However, Art. 3 does not clarify how the analysis should be carried out, nor what the structure of the review should be.**

ERCST 2019 paper, “Preparing for the review of the MSR”

- Put forward practical proposals on how the review should be structured.
- As a starting point, **The MSR review should be centred on the reserve’s ability to meet its stated goals**, as indicated by the relevant legislation.
- In other words, the review should answer the following questions:
 - **is the MSR delivering upon its goals?**
 - in case the MSR would not be delivering, what are the **reasons behind its under-performance?**
 - What, if any, **changes should be made to the legislation?**

General approach behind the MSR

- The **rationale** for having a Market Stability Reserve, as opposed to *potential alternatives*, is to ensure:
 - a) the predictability in market intervention** (i.e. stability of governance) – *as opposed to a one-off cancellation of the built-up surplus*;
 - b) automatic adjustments of the volumes in the market**, in order to bring the supply-demand balance within a certain desirable bandwidth, as established by the regulator – *as opposed to adjustments triggered by price levels (e.g. establishing a price floor)*.
 - c) MSR emulates the way other energy commodities balance** in the long-term

Two goals of the MSR: addressing historical and new imbalances

- The MSR Decision highlights **2 goals of the MSR**:
 1. *Eliminate the historical structural supply-demand imbalance “within a reasonable amount of time”;*
 2. *Bring the TNAC within range of the MSR thresholds in case of new events, “within a reasonable amount of time”*

Necessary premises

Both Goal 1 and Goal 2 refer to historical and new potential sources of “**imbalance**”, to be dealt with by the MSR “within a **reasonable amount of time**”.

- i. what is a “**market balance**”, as opposed to market “imbalances”?*
- ii. what can be considered as a “**reasonable amount of time**”?*

We believe that the EU ETS “**market balance**” could be defined according to two elements:

- a) current scarcity on the market, to be identified according to the TNAC being within thresholds, as defined by the MSR Decision;**
- b) future expectation of market scarcity in the EU ETS, which is driven by both market and political expectations.**

Reasonable amount of time

- The **MSR Decision does not make an explicit reference** to the expected pace of reduction of the surplus.
- However, just achieving a reduction of the surplus would not be sufficient for the MSR to fulfil a positive role – **the MSR is put in place to *improve* the EU ETS ability to deal with market imbalances, compared to a scenario with no-MSR in place.**
- The focus of the review should be on what period of time would be “reasonable”, or “fast enough” for the MSR to play a positive role.
- If the EU ETS is to promote cost-effective decarbonisation, we assume **3 to 5 years** as being a “**reasonable**” timeframe for the MSR to absorb imbalances on the market, given that 3-5 years is the average time for businesses to take investment decisions (IEA, 2019).

Third goal of the MSR review: Competitiveness concerns

3. *Assessing the impact of the MSR on **growth, jobs, and competitiveness***
 - The emphasis of the MSR Decision on competitiveness issues points to the fact that this should be evaluated as a key and separate element in the review.
 - This is not to say that the MSR should be seen as the instrument to address each and every implication of the EU ETS on competitiveness, but only that **the review should evaluate if the MSR is having an impact on these “competitiveness concerns”**.

MSR Assessment: Indicators to monitor

The MSR review should focus on assessing the MSR's performance against the following 3 goals:

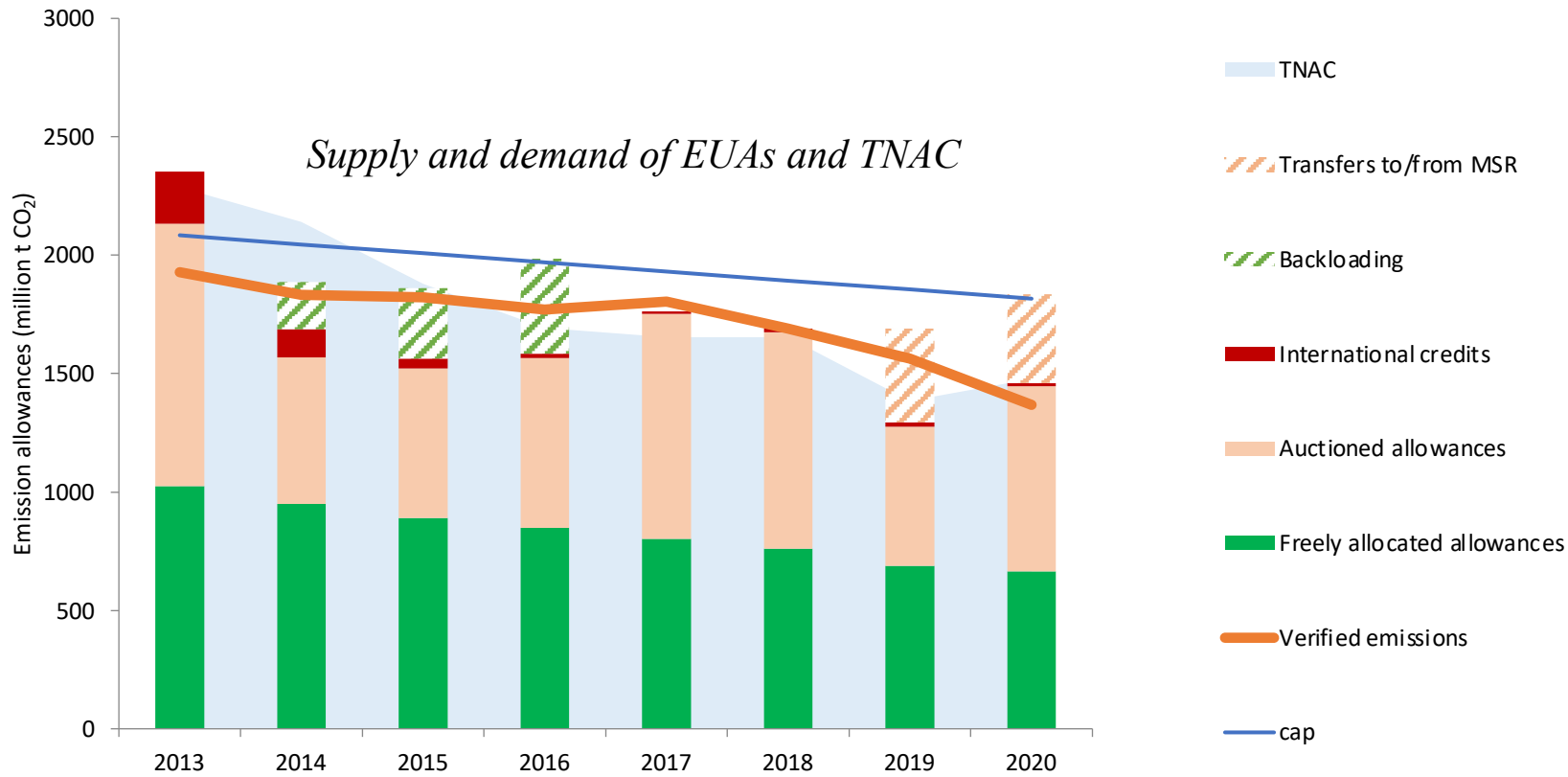


Goal 1 – Eliminate the historical structural imbalance	Goal 2 – Bring the TNAC within range of the MSR thresholds in case of new events	Goal 3 – Monitor the impact of the MSR on competitiveness
<p><u>Indicators for Goal 1:</u></p> <ul style="list-style-type: none"> a. TNAC for 2019-2020 b. Estimated TNAC for Phase 3 compared to TNAC for 2019-2020 c. Estimated number of allowances invalidated in 2023 compared with the difference between the 2018 TNAC and the MSR upper threshold 	<p><u>Indicators for Goal 2:</u></p> <ul style="list-style-type: none"> a.1. Yrs. to absorb variation caused by RES/EE achievements of MS in 2020 vs. 2020 targets a.2. Yrs. to absorb variation caused by RES/EE targets towards 2030 b.1. Yrs. to absorb variation caused by overlapping MS policies (e.g. coal phase outs) in the period 2019-2020 b.2. Yrs. to absorb variation caused by overlapping MS policies (e.g. coal phase outs) for the period to 2030 c.1. Yrs. to absorb variation caused by changes in economic growth in the period 2019-2020 c.2. Yrs. to absorb variation caused by changes in economic growth towards 2030 d. Cumulative impact of all the previous indicators for Goal 2, to be estimated through a comparison of different modelling scenarios indicating the long-term trend of the TNAC towards 2030 e. Alignment of hedging strategies to MSR thresholds 	<p><u>Indicators for Goal 3:</u></p> <ul style="list-style-type: none"> a. Carbon leakage impact of EUA price (both direct and indirect costs) b. Change in auction revenues for MS caused by the MSR c. Implications of the MSR on the innovation and modernisation funds

Goal 1: Eliminate historical structural imbalance

Indicator 1: 2019-2020 TNAC

TNAC dropped significantly in 2019, from 1.65b to 1.38b. However, **in 2020**, due to the economic crisis coupled with the UK auctioning two years of its supply, the **TNAC is estimated to have increased by over 90 million, to 1.48b.**



Source: European Commission, 2020; EEA, 2020; and EU TL, 2021

Indicator 2: estimated phase 3 TNAC compared to 2019-2020 TNAC

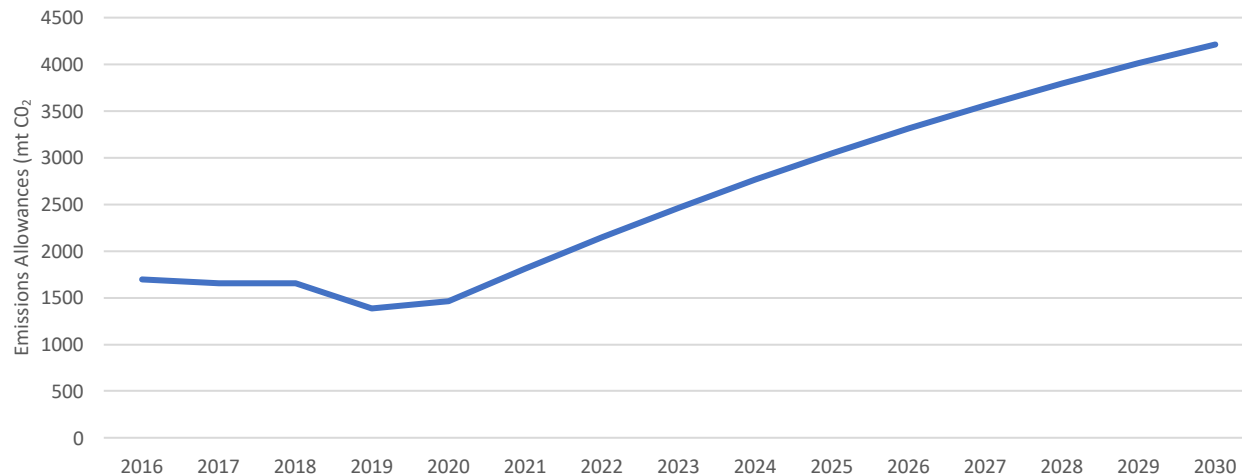
- Counterfactual assessment: “no-MSR” TNAC : the ‘counterfactual’ **2019 TNAC amount to 1.77b, and the 2020 TNAC number to 2.16b**, almost amounting to the surplus at the beginning of Phase 3
- Caveat 1: **MSR also impacts verified emission in the EU ETS through prices**. Thus, in a **no-MSR scenario, verified emissions would likely have decreased slower and TNAC would have been lower** as well
- Potential Conclusion: **The MSR does prevent the TNAC from spiralling out of control, but it is not capable of continuously reducing the surplus**, as 2020 indicates
- Caveat 2: **A significant number of allowances that ended up in the MSR have never been part of the TNAC in the first place**. (900 m Backloading + phase 3 unallocated allowances)
 - ✓ MSR has directly taken away from the market ‘only’ 772 million allowances over the last two years, what is ‘held’ in the MSR is estimated to be as high as 2.22b in 2020.

Indicator 3: allowances invalidated in 2023 vs historical surplus

- **Historical surplus:** number 2018 allowances >833m + backloaded and unallocated = **2.27b allowances**.
- BNEF estimates: **2.43b allowances are set to be invalidated in 2023**
- ***More than the entire historical surplus will be removed from the MSR and that surplus generated after 2018 will already be starting to get invalidated.***

Goal 2: bring the TNAC back in range of the MSR thresholds in case of new events

- **New events: changes from the regulatory scenario that the regulator had anticipated** when establishing the parameters, which might lead to new supply-demand imbalances in the market
 - They encompass **overlapping policies and changes in market conditions (economic shocks)**
 - We analyzed the **impact of all of these ‘events’**, by assessing a few likely emissions pathways
- **TNAC potential evolution in a no-MSR scenario** using the ‘baseline’ emissions pathway up till 2030 outlined in the EC 2030 IA for the CTP.

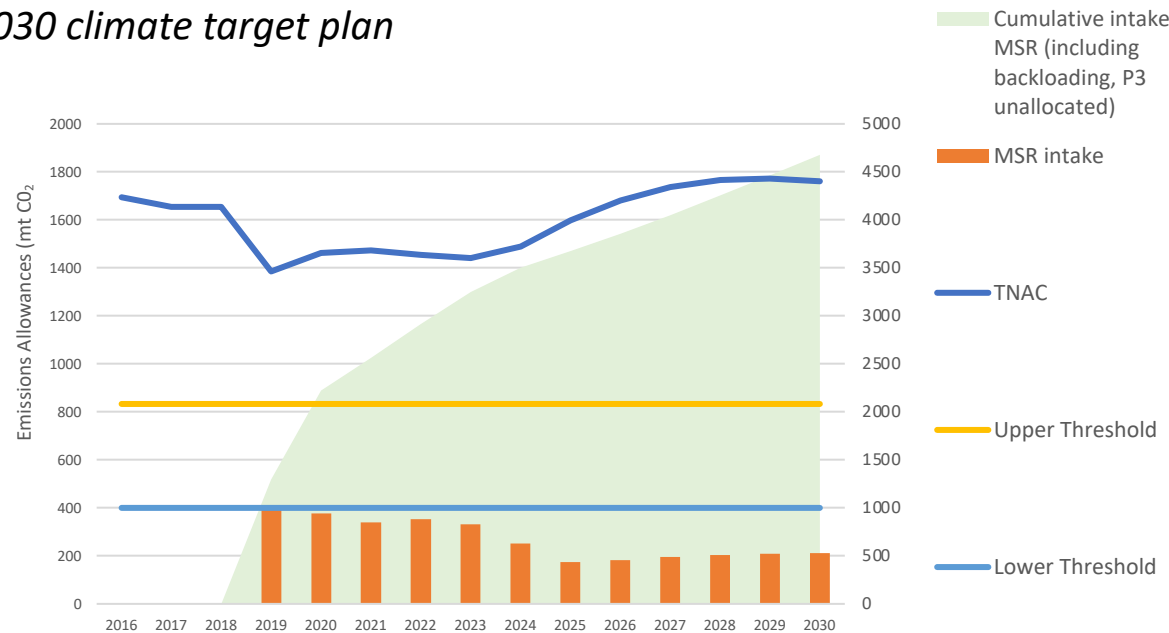


- ✓ Without the MSR, the TNAC would amount to over 4 billion by 2030
- ✓ MSR is crucial to keep the TNAC under control.

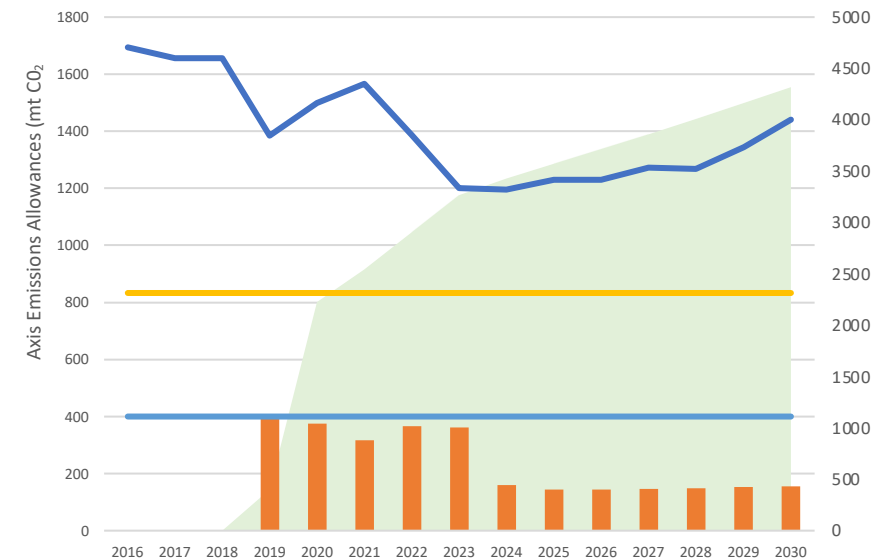
Is the MSR on track to bring the TNAC within the range of the thresholds?

- We tested this hypothesis against 2 scenarios
 - **While the MSR is effective in preventing the market surplus from spiralling out of control, the current design parameters are insufficient to contain the TNAC in the second part of the decade.**

Current MSR parameters + BSL emissions (linear) pathway from 2030 climate target plan



Current MSR parameters + BNEF old base case emissions pathway

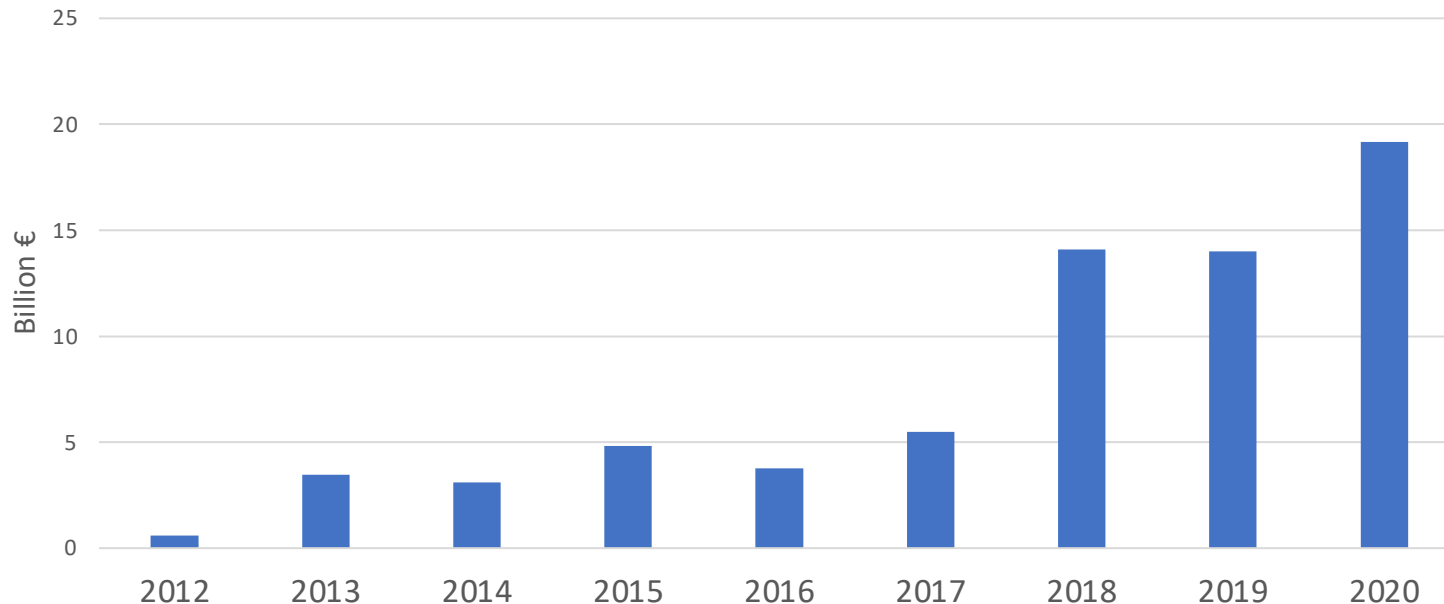


Goal 3: MSR impact on competitiveness

Carbon leakage Impact of EUA Prices

- The impact on **direct costs** for those sectors at risk of carbon leakage was likely **limited, as industry's emissions have so far been covered well by free allocation**
- Arguably, **MSR impact has been more significant on indirect costs**, for which not all MS have compensation schemes and full compensation is not authorized

Change in Auction Revenues



➤ In 2019-2020 alone, auction revenues generated almost as much as in the entire 2013-2018 period

MSR Implications on Innovation and Modernisation Funds

Innovation Fund (450m allowances 2020-2030) :

- Commission expected the volume of the Innovation Fund to be between **€6 billion** (at carbon price of €15/tCO₂) to **€11 billion** over 2020-2030 (at a price of €25/tCO₂)).
- Today, with carbon prices over €40/tCO₂, the value would increase up to **€19 billion**

Modernisation Fund (2% auctioning revenues 2021-2030):

- With prices of €20/EUA and €35/EUA, a value between **€6.3 billion and €11 billion** can be expected for the entire Fund over Phase 4.
- At current prices, the estimated value of the Fund would be over **€14 billion**.

Scenario Analysis

- **MSR review part of the broader revision of the key pieces of the EU climate regulatory framework**
- Scenarios should be interpretative lenses to better understand how the **MSR review dynamically interacts with the other pieces of the EU Climate Policy framework**
- The MSR, by impacting prices, will influence the way in which the EU will achieve the 2030 target
- **MSR parameters should be therefore calibrated** in such a way as to ensure that the pathway towards 2030 will be as smooth and effective as possible.

Our analysis uses **the following four scenarios for the ETS review:**

- ETS 63% emissions reduction target, no one-off reduction
- ETS 63% emissions reduction target, 100Mt one-off reduction in 2024
- ETS 55% emissions reduction target no one-off reduction
- ETS 55% emissions reduction target, 100Mt one-off reduction in 2024

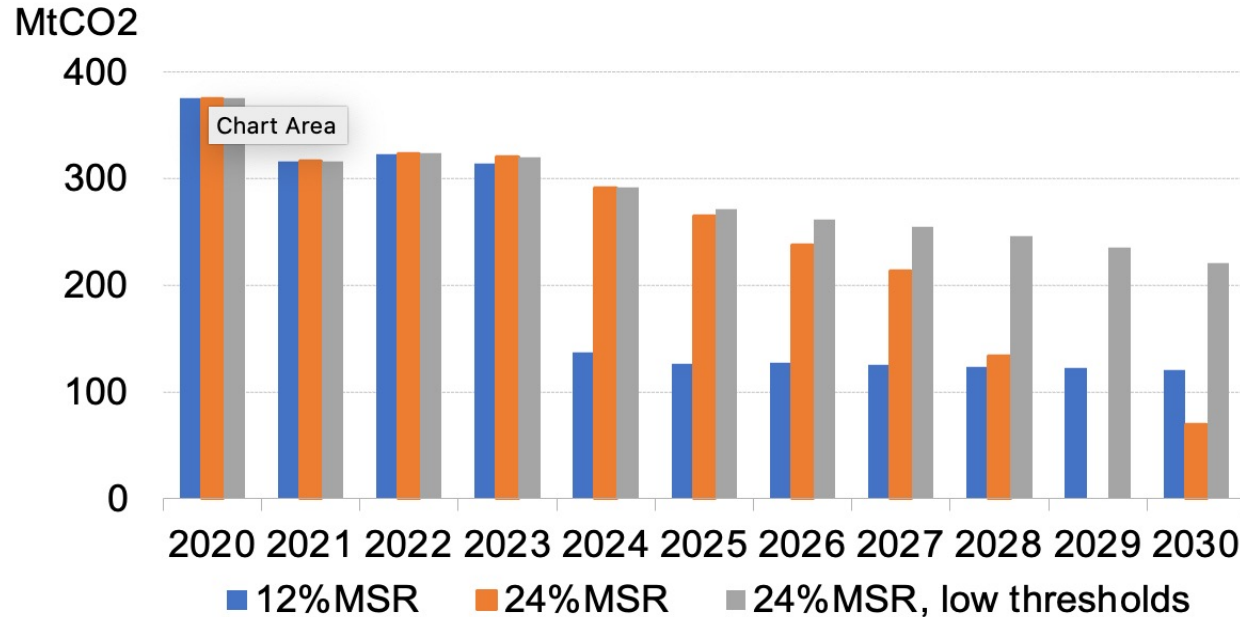
These scenarios are then tested for their sensitivity to different MSR parameters that will be the object of the upcoming MSR review. Particularly, MSR injection rates and thresholds are the following:

- MSR injection rate changes from 24% to 12% in 2024
- MSR injection rates stays at 24% throughout the period
- MSR injection rate stays at 24%, with the injection threshold lowered to 600Mt

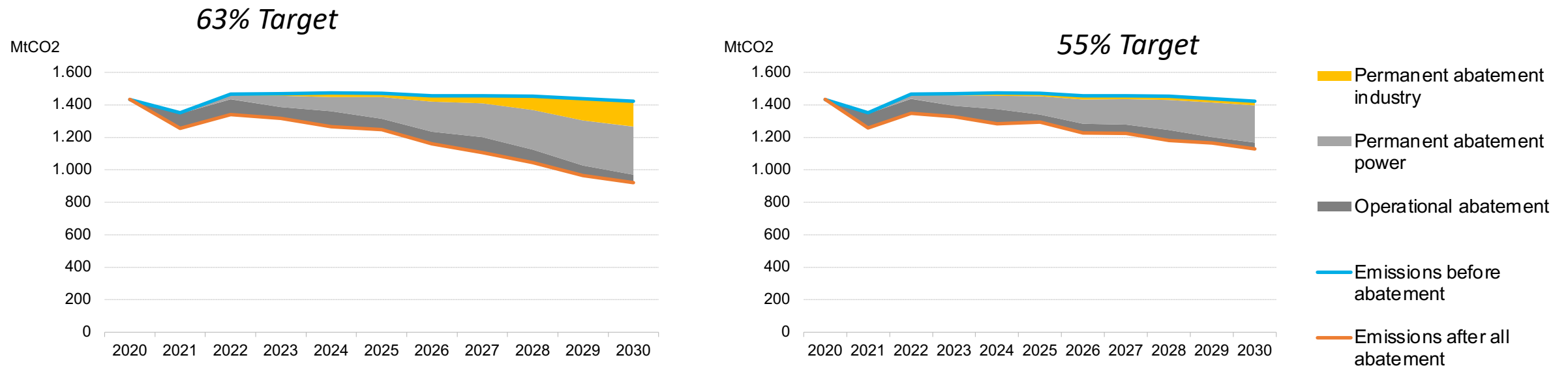
MSR Injections

- With a 12% MSR, an average of **186 million EUAs are injected annually** into the, for a **total of 1,838 billion EUAs**
- Starting in 2024, intakes in the 12% MSR scenario range between 120 and 138 MtCO₂, while they are obviously much higher with a 24% intake rate. Interestingly, **with a 24% MSR there is no injection in 2029.**
- **When compared to a 12% MSR intake, a 24% MSR and lower threshold scenario throughout the period will result in an extra one billion more allowances** to be withdrawn from auctions. Injections follow similar patterns even when the CAP is rebased in 2024.

MSR Injections, 63% No Rebase




- The overall target, and therefore the **CAP**, also determines how many sectors participate in the abatement efforts
- A linear reduction factor consistent with the **63% ETS target forces industry to abate its emissions** by 530 MtCO₂ starting in 2024.
- Under a 55% target, the industrial sector's permanent abatement would be close to zero



Key Takeaways


- The **MSR will navigate uncharted waters**, where the ETS is asked to incentivize industry emissions reductions
- The ETS will need both to **support heavy decarbonization and protect from carbon leakage**
- Industry will likely better cope with an smooth upward carbon prices' trajectory over the trading phase rather than with a bumpy one
- **A 12% MSR guarantees more price stability** while also respecting the MSR/LRF division of labour
- A 24% MSR risks to lead to price instability without significant additional benefits in terms of emissions reduction.

- Higher climate targets will translate into **changes in hedging behaviours**
- This will in turn affect the MSR, which is designed to adjust the CAP based on the number of allowances that market actors store for future use (TNAC).
- **EU Green Deal overlapping policies** will likely further affect the MSR intakes and ultimately the price impact of the MSR



MSR design needs to be flexible to cope with this uncertain and evolving environment:

- More **frequent reviews?** (aligned with market operational timeframes)
- More **dynamic parameters?** (flexible intake rate applied only to the EUA surplus)

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- For MSR injection reflect supply/demand , **aviation needs to be included in the TNAC calculations.**
 - Similarly, **ETS linking arrangements** with the **UK ETS** and potential **new EU ETSs** (Transport, buildings, maritime...) will be crucial for the MSR correct functioning

Thanks you for your attention!

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