

IETA's reaction to the proposed Market Stability Reserve (MSR)

1. Introduction

The International Emissions Trading Association (IETA) is the leading voice of the business community on market-based climate policy. IETA's 130+ entities are involved in markets across the entire carbon value chain, and promote emissions trading as one of the principal policy instruments available to manage greenhouse gas (GHG) emissions. The cross-sectoral membership base ensures that IETA advocates policies that serve to improve the functioning of carbon markets rather than defend a specific sectoral interest.

IETA members believe emissions trading is effective because it is economically efficient, it is specifically designed to deliver an explicit environmental objective, and it provides a clear price signal. Climate change policy should also efficiently direct capital within the market towards low and zero carbon emission investment. To achieve this objective, **an emissions market requires both scarcity of emission allowances to create the price signal, and also long-term clarity and predictability of rules and targets.**

In light of the above-stated principles, **IETA members largely welcome the proposal to introduce a reserve in the EU ETS, and believes the measure improves the EU ETS by increasing its supply flexibility.** There are strong arguments to introduce a well-designed MSR as soon as possible to address the current supply-demand imbalance in the EU ETS. At a time of strong criticism of the scheme's effectiveness and questions concerning its medium to long term stability, the proposal sends an important and clear political signal of the support of policy makers for the instrument as the central pillar of the EU's Climate Policies. Furthermore, the transparency and predictability of the mechanism, are consistent with the very spirit of the EU ETS.

Market participants also believe it is important to get as much clarity as soon as possible on the broader package forming the EU's climate and energy policies, e.g. on the level of GHG targets for the EU as a whole, the balance between ETS and non-traded sectors and the commitment to deal with carbon leakage post-2019 by providing rules that are long term, predictable and adequate in order to minimise the regulatory risk faced by operators. A political commitment on how to deal with industrial competitiveness should be in place by the time MSR is adopted.

Before the legislative proposal was issued IETA had reflected in detail on possible design aspects for such a reserve, to try to ensure its introduction serves to improve the functioning of the EU ETS (see [here](#)). The attention paid to this mechanism was to address a particular design flaw in the EU ETS linked to the level of rigidity of the supply and causing severe supply/demand imbalance.



With the legislative proposal now on the table, this paper reflects IETA's views on what has been proposed.

2. What is being proposed?

The Commission has proposed amending the design of the EU ETS, by creating the MSR, to provide greater flexibility of the scheme and move away from the current fixed supply of allowances. At times of large surplus compared to verified emissions, some allowances would be moved into the reserve instead of being auctioned; conversely, when there are insufficient allowances in circulation, compared to verified emissions, allowances would be taken from the reserve and added to the auction volumes. The objective of creating the MSR would be to enable the EU ETS to adapt to large changes in demand levels for allowances. It would also be used to tackle the current surplus in the EU ETS.

A more detailed description of the Commission's proposal of the MSR is included in Annex 1.

3. IETA's reaction to the proposal to create a reserve of allowances in the EU ETS

As a supporter of carbon markets, IETA believes the EU ETS needs to be reformed as it is no longer functioning within a framework of scarcity, a situation which is expected to continue in the foreseeable future. IETA members largely support the decision to put forward a first legislative proposal to reform the EU ETS.

IETA welcomes the **political signal** that this proposal represents of the commitment to strengthen the EU's flagship initiative, the EU ETS.

An important feature of the proposal is that it respects the **market-based nature of the EU ETS** and ensures continuity of a system that allows price discovery, which is an important consideration.

The **volume-based and rules-based approach** of the proposal is in line with the majority of IETA members' views. It ensures market participants can easily understand and estimate the changes in auction volumes for the following year, as soon as data on the volumes of allowances in circulation are published. It is important that these data are published promptly.

The proposal also respects the principle of automaticity, rather than discretionary interventions. It is **transparent and predictable**, as the formulae would be spelled out in the ETS legislation itself. A key requirement for the introduction of such a reserve is that ad hoc interventions are avoided in the future.



For the MSR to be workable, market participants prefer to rely on the use of **existing data and the use of the existing institutional set-up**, albeit with a clearer announcement schedule, to avoid relying on a new institution or relying on questionable data.

4. How the Market Stability Reserve meets its objectives

IETA members believe there are two objectives associated with the creation of a reserve. First, it is useful to improve the scheme's resilience by avoiding a large imbalance between supply and demand in situations of excessive and unforeseen demand shocks; second it serves to tackle the current surplus in the system. The proposed MSR would have no impact on free allocations, nor on the total cap of allowances; such considerations are part of a separate, wider debate linked to the level of targets in the 2030 framework.

In an ideal situation, the reserve could be used to deal with future shocks only, but IETA members believe the current structural surplus needs to be tackled. In the absence of this being done through other means, the reserve would serve the purpose of reducing the current oversupply in the market.

As discussed in the following paragraphs, the majority of IETA members believe that the mechanism as proposed by the Commission contributes to the fulfilment of the dual objectives of mitigating the impact of future shocks and addressing the impact of the existing surplus. However, as explained in section 5, its effectiveness in doing so could be greatly improved by a targeted change of key parameters.

4.1. Dealing with future demand shocks

IETA believes that the MSR will improve the robustness of the EU ETS in case of future shocks that would result in changes in demand levels for allowances. It does this by introducing flexibility in the system's supply of allowances. Such shocks could result from e.g. economic growth or slowdown, technological breakthroughs, policy overlap, etc. A review of historical developments appears to point out that the magnitude of such shocks is consistent with the proposed parameters.

However, as it is hard to predict what type of shocks may occur in the future, close monitoring of the parameters is necessary to ensure that the reserve adapts to large sudden changes in the balance between supply and demand.

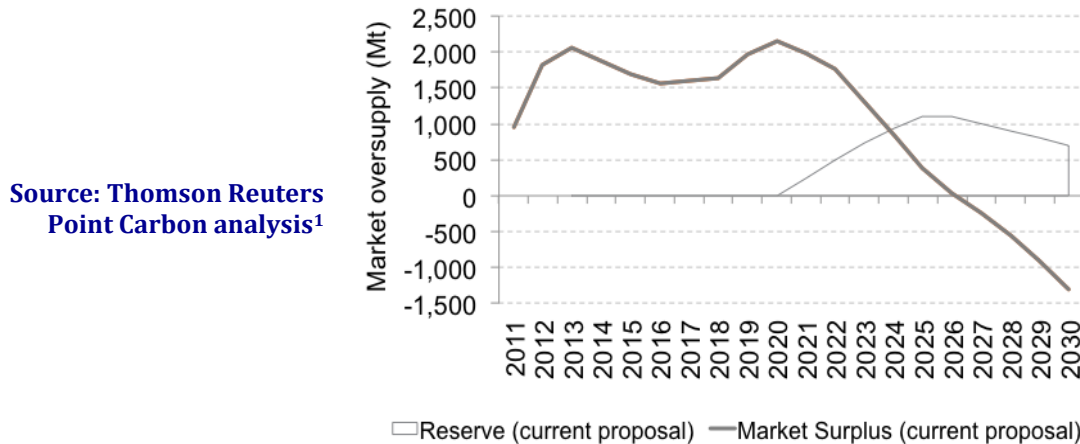
4.2. Tackling the existing surplus

The objective of reducing the existing surplus in the system is necessary due to the current lack of scarcity in the market, which is a necessary aspect for a well-functioning cap and trade scheme.



In relation to this objective, the majority of IETA members believe that the MSR as proposed is only partially effective as it will not remove the surplus until well into Phase 4.

The surplus in the market is expected to continue until the second half of Phase 4 with the current assumptions regarding hedging of allowances by the power sector, banking by industrial players, EU economic growth, etc.



We recognise that the MSR would not be a stand-alone measure and other policy changes, such as a tighter cap due to the expected change in the linear reduction factor, would also play an important role in addressing the surplus.

We believe however, that the surplus should be tackled at the earliest possible date, as missing scarcity reduces operators' participation in the market. The lack of variety in market players translates into further price volatility, therefore undermining long-term project planning.

An important point of consideration for IETA is the expected serious impact resulting from the re-introduction of the 900 million backloaded allowances into an already oversupplied market during 2019 and 2020. We would expect this to add to the supply-demand imbalance in the system. From a market efficiency perspective, it is therefore important for policy makers to address these risks.

4.3. Other potential objectives of the reserve

The MSR does not distinguish the causes of the surplus, and there is therefore potential for the reserve to help deal with a surplus that has been largely caused by

¹ The impact of the MSR on the market balance is calculated without taking into account power forward hedging patterns. This is because the oversupply in the market according to the Commission proposal is based on Verified Emissions. Therefore, the power forward hedging in the model is only reflected when it comes to the determination of the resulting price impact – see Annex 2.



other ‘competing’ policies that have been driving emission reductions. However, IETA members believe prevention is better than cure: **it is essential to ensure better future coordination of policies, and we do not believe the MSR should, by itself, address the impact of overlapping policies in the longer term.** Although some policy overlap is inevitable, it can, if not properly integrated, undermine the cost-efficient nature of the EU ETS in incentivising GHG emission reductions. Greater consideration should be given to this issue in the discussions on the EU’s 2030 Climate and Energy package, in order to understand better the extent to which the MSR can efficiently handle these interactions without undermining the overall goal of decarbonising the ETS sectors at the least cost.

Another objective of the MSR is that it should serve to confirm the central role of the EU ETS in the EU’s climate and energy policies. The debate is intensifying internationally in preparation for the 2015 climate agreement, and trading systems are emerging in other regions of the world. This proposal sends an important political signal internationally on the EU’s commitment to using market instruments – with the EU ETS as its central policy – for reducing GHG emissions cost-effectively.

5. IETA’s reflections on the parameters to meet the objectives of the reserve

5.1. Tackling future shocks

IETA believes that finding a way to address the expected future inflow of 900 million allowances in the system at the end of Phase 3, is one of the most important considerations. A majority of its members supports a direct transfer of the 900 Mt backloaded EUAs into the reserve and a start date of MSR as early as possible, to avoid large volatility being caused at the end of Phase 3. The proposed smoothening formula is only partially effective and should be considered an extreme backstop solution.

In any case, regardless of the time of the implementation date, **the earlier the decision to create an MSR, the better the market is able to adapt** to upcoming changes.

5.1.1. Timing of implementation

A majority of IETA members believes that it is important that the MSR starts as soon as possible.

The timing is also relevant in light of the amendment to the ETS Directive which was adopted in December 2013 and which states that the Commission would not modify the timing of auction of allowances more than once during Phase 3 for a maximum of 900 million allowances.



From a market efficiency perspective, an earlier introduction of this mechanism, before the backloaded allowances are returned to market, would ensure an earlier transition to better balancing of supply and demand and an earlier restoration of the effectiveness of the EU ETS. It would avoid an unnecessary increase of the existing surplus due to the return of these allowances, and avoid creating a price volatility that could undermine the credibility of the ETS and lead to a less cost-efficient path to de-carbonization.

Depending on the time of early implementation between 2017 and 2020 the number of allowances moved into reserve by 2020 would vary between 200 and 700 Mt². Therefore, in combination with Article 2 of the Commission's MSR proposal (the "smoothing formula"), an early implementation in 2017 and 2018 would be able to partly outweigh the effect of the reintroduced backloaded volumes in 2019 and 2020. However there would still be another 421 million allowances released from the backloaded volumes in the first two years of phase 4. Therefore, while implementing the MSR before backloaded allowances are reintroduced would lead to a slight decrease of the oversupply during the first year(s) of operation, the stabilising effect of the MSR would be limited over a four year period. This is due to the total volume of backloaded allowances, and the effect of the proposed 'smoothing formula'³.

There are therefore particular market considerations to take into account in this reflection, concerning the future large fluctuations that will occur from the return of backloaded allowances into the market.

5.1.2. Moving the backloaded allowances into the reserve

A majority of IETA members believes that the backloaded allowances should be moved directly into the MSR.

The 900 million allowances should go straight into the reserve rather than return to the market through auctioning, to avoid contributing to the greater supply-demand imbalance at the end of Phase 3. Such an option does not affect the total cap of allowances, which will be part of the debate on the EU's 2030 targets and of the ETS in 2030.

5.1.3. Smoothing formula

IETA believes the proposed formula to smoothen auction volumes between Phases could be useful in limiting the impact of a shock in the system if the

² See Annex 3 for detailed estimates on the accumulated volume of allowances that would enter the reserve by 2020 if MSR is implemented earlier.

³ Estimates from Thomson Reuters Point Carbon analysis.



MSR were implemented in 2021 and the 900 million allowances were returned to market. However, the proposed formula would not be sufficient to prevent the expected imbalance in the system at the end of Phase 3, and would still result in allowances being added to an oversupplied market. While it would dampen the reintroduction of these surplus allowances to the balance, it would not be useful in assisting the MSR in meeting its objective of preventing shocks to the system.

Therefore other options should be considered to tackle the surplus in the market, as highlighted in section 5.1 (early introduction, direct transfer of backloaded allowances into reserve). Should these options not be the preferred option of policy makers, then the proposed smoothing formula would be a useful fall-back option.

5.1.4. Allocation granted to installations that close

In situations where installations close, and where allowances were allocated to these installations, we would support not adding these allowances to the auction volumes, but instead moving these allowances automatically into the reserve.

5.1.5. Time-lag

The current proposal suggests a time lag of 2 years, between the year for which the allowances in circulation are calculated (N, for which the data is published by 15 May in year N+1), and the year in which the changes in auction volumes would take place (N+2). Such a time lag could give a countervailing response when current demand is growing but the intervention determined 2 years earlier indicates surplus increasing. IETA members believe that shortening this period could help improve the reactivity of the scheme to changes in demand, and would recommend changes to auction volumes taking place in July of year N+1, rather than for the changes to be implemented in January of year N+2.

5.2. Tackling the existing surplus

5.2.1. Rate at which allowances are moved into the reserve and the rate at which allowances are returned to market from the reserve

IETA members **recommend increasing the rate of return of allowances as the proposed 100 million allowances may not be enough to compensate for large short-term shortages of allowances.** Market participants favour a more symmetrical approach to both low and high demand level fluctuations, and not a focus on removing allowances from the market. The rate at which the reserve removes and releases allowances plays a fundamental role in determining the effectiveness of the measure. The role of the MSR in preventing shocks leading to excessive deficit is at least as important as its role in preventing excessive surplus.



Hence IETA calls on the rate of release to be set using the same criteria used in setting the rate of withdrawal from the market and into the reserve.

5.2.2. The level of the lower and upper thresholds

IETA believes that the thresholds have been set appropriately given the current understanding of market supply-demand balance. However, such dynamics are likely to change and this parameter should be closely reviewed.

The 400Mt and 833Mt thresholds closely depend on the hedging needs for power utilities and industrial installations, whose estimates vary.

As hedging needs are difficult to predict and could vary over time, these parameters should be looked at carefully in the review foreseen by the Commission to ensure that they serve to improve the balance between the supply and demand levels of allowances.

5.3. Other parameters

5.3.1. Review by 2026

IETA believes that the timing of the review is appropriately set, and that a review of the parameters should be foreseen no later than five years after their entry into force. If the mechanism starts earlier than 2021, the review should be brought forward accordingly. However, IETA believes it to be critical that review criteria are identified as soon as possible in order to allow for a systematic monitoring of the most appropriate parameters.

IETA supports close monitoring of the effectiveness of the reserve, and to make the necessary changes to the parameters in case there is evidence they are not achieving the MSR's objectives. This is particularly important in the early years of its introduction, as the effectiveness of the MSR's parameters will also depend on the broader framework of the EU's Climate and Energy policies under which the MSR will operate. The annual report on the state of the carbon market could serve as the basis to justify whether a review is needed. It is important to balance this with the need for predictability for market operators, and we recommend that any changes to the parameters take place under the Directive, with sufficient lead-time, to allow market players time to adapt.

We recommend determining assessment criteria for evaluating whether the parameters of the reserve should be reviewed. One such criterion to determine the success of the MSR could be a figure published in the annual the report on the state of the carbon market, which would confirm the supply-demand balance in the



system. If there is evidence that the reserve is not adequately helping improve the balance between supply and demand then a review should be foreseen.

5.3.2. Governance

IETA members believe it is important this mechanism be in line with the functioning of the EU ETS, and therefore support a transparent, rules-based approach to introducing a reserve in the EU ETS, rather than creating a new body to manage the functioning of the reserve.

The Commission should publish, in its annual publication on the state of the carbon market, the amount of allowances in the EU ETS and a comparison against verified emissions. If there is evidence that the chosen parameters do not address the balance of allowances in the market, then the Commission, ahead of the review, should convene an experts' group to assess at what level the parameters should be set. The rules would be changed, based on the analysis from the state of the carbon market report and also on recommendations from the experts, rather than on a purely discretionary basis. IETA does not support creating a new institutional body, due to the political, administrative and financial burden that this would involve.

In view of any periodic reviews, it is important for further clarity to be provided on how the various parameters have been set. Special attention should be paid on using up to date information on in-Phase data and hedging patterns.

5.3.3. Article 29A

The reference to changes in auction volumes resulting from excessive price increases, as defined under Article 29A of the ETS Directive, is an additional trigger, which adds to the potential complexity of the MSR. It would appear that the MSR triggers and Article 29A of the ETS Directive work in conjunction, thereby leading to a risk of double regulation.

Article 29A is a historical and unused parameter that goes against the market-based nature of the MSR, and confuses its objective, which is designed to focus on quantity and not on prices. **IETA members do not support this price-based criteria being used in the MSR for adapting auction volumes, and believe the criteria should be based on volumes of allowances.** Moreover, this price-based trigger is one-way only to tackle very large percentage price rises. In addition it only works when prices are comparatively low, and, the effect of releasing 100 million allowances on a market experiencing such a price rise remains unclear.



6. Other priorities to address

It is important to recognise that the MSR will not operate in a secluded manner, and therefore its effectiveness in achieving one of its objective - to tackle the existing surplus in the EU ETS - is also closely linked to other parameters such as the level of the EU's 2030 climate and energy targets and the share of emission reductions between covered and non-covered sectors.

Clarity on the EU's GHG targets for 2030, as well as the change in the EU ETS linear reduction factor is essential. These will determine the cap for the EU ETS, and will play a key role in the supply-demand balance. Moreover, **clarity on measures post-2019 to tackle concerns linked to carbon leakage is needed.** These discussions should run side by side with the discussions on the MSR. By the time MSR is adopted, political commitment on a proposal to tackle the issue of competitiveness needs to be provided.

Creating a Market Stability Reserve will not address all the difficulties that the ETS scheme is faced with. Once there is political agreement on the 2030 targets we expect the Commission will set out its proposals on the revision of the Linear Reduction Factor and post-2019 carbon leakage measures. Although these discussions form part of another debate beyond the scope of the proposal for creating a Market Stability Reserve, IETA believes clarity on these other policies is necessary by the time MSR is adopted.

7. Conclusions

As the leading voice of the business community on market-based climate policy with 130+ entities involved in markets across the entire carbon value chain, IETA believes that emissions markets require both scarcity of emission allowances to create the price signal and long-term clarity of rules and targets.

In light of the above-stated principles, the majority of IETA members welcomes the proposal to introduce a reserve in the EU ETS. IETA believes the measure improves the EU ETS by increasing its supply flexibility and sends a political signal of the commitment to strengthen the EU's flagship initiative.

In principle, IETA believes that the MSR will improve the robustness of the EU ETS in case of future shocks but could and should not alone address the impact of overlapping policies; the majority of IETA members also believes that the MSR as proposed is only partially effective in reducing the existing surplus. Our review indicates that the proposed MSR's effectiveness could be improved by modifying some of the parameters:



- **Timing** - A majority of the IETA members believes that it is important that the MSR starts as soon as possible and that the backloaded allowances should be moved directly into the MSR; the proposed smoothing formula is believed to be only partially effective and should be considered an extreme backstop solution; shortening the time lag in adjusting auctions could improve the reactivity of the scheme.
- **Inflows and outflows** - IETA members recommend increasing the rate of return of allowances as the proposed 100 million allowances may not be enough to compensate for a large short-term shortage of allowances.
- **Thresholds** - IETA believes that the thresholds have been set appropriately given the current understanding of market supply-demand balance. However, such dynamics are likely to change and this parameter should be closely reviewed.
- **Governance and review** - IETA believes that the timing of the review is appropriately set, and that a review of the parameters should be foreseen no later than five years after the entry into force of the MSR; it also believes it to be critical that review criteria are identified as soon as possible in order to allow for a systematic monitoring of the most appropriate parameters; the reviews should be performed by the Commission in consultation with an ad-hoc expert group representing the views of the various stakeholders.

IETA members believe it is important to get as much clarity as soon as possible on the broader package forming the EU's climate and energy policies (e.g. on the level of GHG targets for the EU as a whole, the balance between ETS and non-traded sectors and the commitment to deal with carbon leakage post-2019) by providing rules that are long term, predictable and adequate in order to minimise the regulatory risk faced by operators.



Annexes

Annex 1

The Commission's proposal to introduce a reserve in the EU ETS is one of the options that had been considered for reforming the EU ETS in view of tackling the surplus of allowances. Six options were originally put forward in the Commission's Carbon Market Report from 2012; one of those has now evolved into a proposal for creating a Market Stability Reserve.

(1) Objectives of the reserve

The main objectives of the reserve are to allow the scheme to be more resilient to future large shocks and to tackle the supply-demand imbalance (i.e. tackle the existing surplus).

(2) Reserve

- The reserve will depend on the number of allowances in circulation, i.e. the cumulative surplus, which is defined as EUAs issued + Kyoto credits used for compliance - (Verified emissions + EUAs in the reserve).
- In times of surplus (defined as more than 833 million allowances in circulation), 12% of these allowances would be moved into the reserve rather than auctioned.
- In times of shortage (defined as allowances in circulation being 400 million allowances or less), 100 million allowances would be released from the reserve and auctioned to the market.
- Another way to release allowances into the market would be linked to price spikes, as defined under Article 29a of the ETS Directive. In such a situation, 100 million allowances would return to market through auctioning.
- The calculations would look at the data from verified emissions from Year N-2 (but looking at verified data from 2008 until N-2), and the changes in auction volumes would take place in Year N, starting in 2021. Each year, in May, the number of allowances in circulation from the previous year would be published. This means that in May 2020, the Commission will publish the total number of allowances in circulation in 2019, and the effects would impact auction volumes in 2021.
- 12% of the allowances in circulation will be moved into the reserve, unless the amount to be placed into the reserve is less than 100 million allowances.
- Allowances in the reserve are bankable between phases and will be available for release in later periods.
- The Commission will review the parameters within 5 years after entry into force and is to take place no later than 2026



(3) Smoothing auction volumes between Phases of the EU ETS

- The proposal includes a formula to ensure a smoother transition between one Phase to the next, to avoid sudden changes in auction volumes and price shocks.
- It proposes to average annual auction volumes so that if auction volumes in the last year of a Phase exceed the average amount to be auctioned in the first two years of the new Phase by more than 30%, then the difference would be evenly distributed over those 3 years.

Annex 2

Methodology used for the graphs on supply-demand balances with the MSR

The market surplus has been estimated using European Commission data for the EU ETS cap consistent with a 40 percent GHG reduction target for 2030 and Thomson Reuters Point Carbon's (TRPC) forecast of EU ETS emissions in the power, industrial and aviation sectors but before 2013 emissions data was available. The emissions forecast assumes an EU ETS wide GDP growth of 1.7 percent on average between 2014 and 2020 and 1.9 percent on average between 2021 and 2030, based on IMF forecasts as well as TRPC's in-house country-by-country analysis. Power emissions have been calculated by a least cost dispatch model which determines the optimal mix between conventional fuels and takes renewable generation as a pre-determined exogenous variable based on a 27% renewable energy share of final energy consumption by 2030. The model uses projections of power demand based on economic growth and energy efficiency improvements in line with the 17.5% energy savings target by 2020 set out in the Energy Efficiency Directive. Improvements in energy efficiency are assumed to continue at the same pace in the post-2020 period. The amount of fuel switching is determined based on current fuel price forward curves as well as the IEA's long-term projections in the World Energy Outlook. Industrial emissions are forecast based on econometric models which take into account GDP and other macroeconomic variables. The industry sector is assumed not to abate emissions until it uses all of its surplus allowances. Aviation emissions are forecast based on flight growth trends and take into account fuel efficiency improvements. Only intra-EU flights are included for the whole forecast period. TRPC's view on the market balance assumes no further credit limit beyond phase 3.

Annex 3

Accumulated volume in the reserve by 2020 if MSR is implemented earlier

We note that the following accumulated volume of allowances would be expected to have entered into the reserve by 2020 if MSR were introduced during Phase 3, with the proposed parameters⁴:

⁴ See Annex 4 for graphs on these estimated amounts that would be moved into the reserve

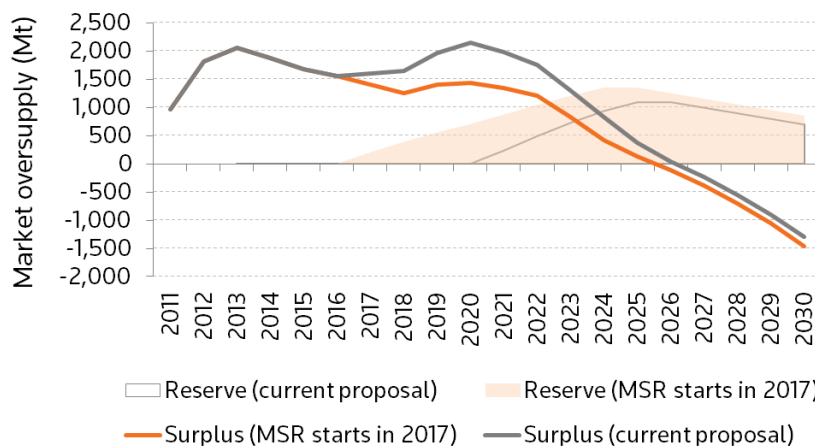


- If MSR was introduced in 2017, 708 Mt allowances would be moved into the reserve by 2020⁵
- If MSR was introduced in 2018, 554 Mt allowances would be moved into the reserve by 2020⁶
- If MSR was introduced in 2019, 390 Mt allowances would be moved into the reserve by 2020⁷
- If MSR was introduced in 2020, 197 Mt allowances would be moved into the reserve by 2020⁸

Annex 4

Supply-demand balance if MSR were to be introduced earlier than 2021⁹

Supply-demand balance if MSR is introduced in 2017



Source: Thomson Reuters Point Carbon analysis

⁵ This assumes a market accumulated surplus of 1,457 Mt in 2017, 1,255 Mt in 2018, 1,406 Mt in 2019 and 1,444 Mt in 2020

⁶ This assumes a market accumulated surplus of 1,255 Mt in 2018, 1,584 Mt in 2019 and 1,597 Mt in 2020

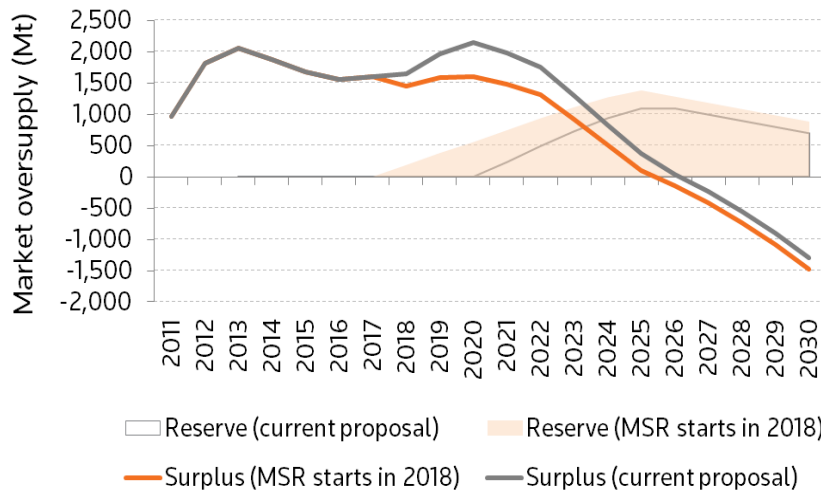
⁷ This assumes a market accumulated surplus of 1,771 Mt in 2019 and 1,791 Mt in 2020

⁸ This assumes a market accumulated surplus of 1,954 Mt in 2020

⁹ The impact of the stability reserve on the market balance is calculated without taking into account power forward hedging patterns. This is because the oversupply in the market according to the Commission proposal is based on Verified Emissions. Therefore, the power forward hedging in the model is only reflected when it comes to the determination of the resulting price impact – see Annex 2

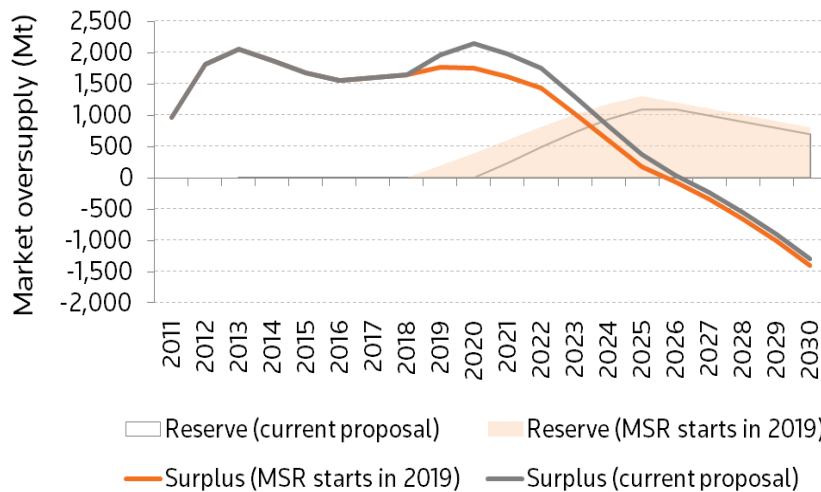


Supply-demand balance if MSR is introduced in 2018



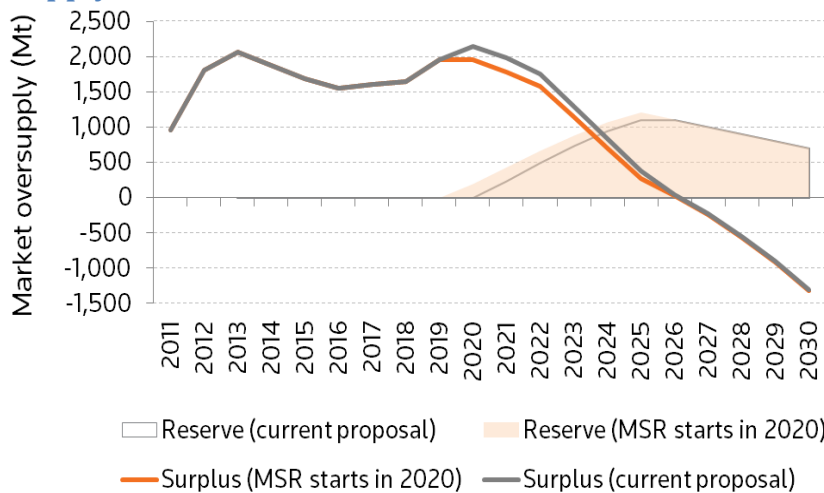
Source: Thomson Reuters Point Carbon analysis

Supply-demand balance if MSR is introduced in 2019



Source: Thomson Reuters Point Carbon analysis

Supply-demand balance if MSR is introduced in 2020



Source: Thomson Reuters Point Carbon analysis