Initial IETA reflections on the concept of an "Automatic Adjustment of Auction Volumes" in the EU ETS

An IETA contribution to proposals to make the EU-ETS more resilient to changes in external circumstances.

Executive Summary

IETA is closely engaged in the discussions concerning reform of the EU-ETS and the EU's framework on climate and energy towards 2030. IETA believes it is of paramount importance for these debates to re-center the EU-ETS as the EU's central climate policy instrument. Structural improvements to the EU-ETS are closely linked to the EU's long-term ambition towards 2030. This paper does not reiterate IETA's vision for a comprehensive EU ETS reform, which have already been outlined in our reply to the European Commission's consultation in March 2013 and include, better managing the interaction between the ETS and other policy mechanisms, the continued role for international credits, exploring the possibility of output based free allocation and the introduction of a dynamic reserve. This paper focuses on the latter aspect of managing the level of supply of allowances according to changes in demand and offers some criteria and thoughts on how such a mechanism might work in practice should policy makers choose to pursue the idea further. It should be stressed that this reflection paper does not prejudge policy makers' choice on the need for and means of comprehensive reform and whether or not a mechanism to introduce supply flexibility can or should substitute for such wider reform.

The purpose of this paper is to share market operators' reflections on how such a mechanism might look in practice, should there be a decision to introduce it as a means to strengthen the resilience of the scheme by redesigning the way supply reacts in the system and avoiding imbalance with demand levels.

As part of the reflection on whether or not to introduce such a mechanism, it is important to assess first of all whether it would lead to an improvement on EU-ETS market functioning compared to having no intervention. It is also essential to set out the criteria that any such a mechanism should fulfill and to evaluate the pros and cons of introducing such a mechanism and potential alternative designs.

IETA members look forward to engaging positively in these discussions in the coming months, and may update its reflection paper depending on how the debate evolves.

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I. Background to IETA's reflection on this mechanism

In view of the ongoing discussions on structural measures to reform the EU ETS, which IETA has contributed to in its submission to the stakeholder consultation on structural reform of the EU-ETS, setting clarity on the EU's long and medium term goals is essential. In parallel to this discussion on the framework in which the EU-ETS operates, IETA is looking at some of its original proposals in more detail, to evaluate the benefits and challenges of some of the proposals that would affect the design of the scheme itself.

In light of the challenges faced by the EU-ETS, IETA's membership is looking at a wide range of policy options, including how to ensure a continued role of international credits, exploring the possibility of output based free allocation and, it being the subject of this paper, the concept of introducing a design change into the scheme that would provide some automatic flexibility in the supply of auctioned allowances. Other Emissions Trading Schemes such as the one in California or the RGGI scheme already use some kind of allowance reserve mechanism, although they use a price reference rather than a volume-based approach. At a time when the EU is looking to reform its scheme, it would be valuable to compare differences in its design with other schemes. The focus on the flexibility of supply is an idea that emerged following concerns that supply in the EU ETS does not react to lower demand levels as it would in other commodity markets. One possible option that we are reflecting upon in this paper would be to introduce a special reserve allowances would be withheld from auctioning in times of oversupply, but would be re-introduced in the event of supply shortages (the criteria to determine such levels of oversupply or an insufficient level of allowances in the market need to be careful evaluated). It is important to note that this mechanism may address the difficulties linked to the fixed level of supply of the EU-ETS, but any proposal that seeks to address the current oversupply in the market would need to be addressed in a broader reform of the EU-ETS. This mechanism modifies the design of the scheme only and is a separate discussion to political considerations affecting the EU's long-term GHG emission reduction goal. Clarity on the EU's long-term goal and accompanying targets for 2030 are essential to form part of a comprehensive package on reforming the EU-ETS.

This paper is a reflection exercise on how this mechanism could be structured, should EU policy makers decide to implement it as part of the reform proposal of the EU-ETS.
Some of the fundamental elements to this mechanism are that the design of an automatic adjustment of auction volumes in the EU-ETS should be based on transparent and pre-defined criteria and be implemented only in tandem with other policy reforms. It alone would not solve all challenges affecting the EU-ETS. This mechanism would address the challenges linked to a rigid supply in the EU-ETS. Any such proposal should be looked at as being part of a broader reform package on the EU-ETS and not as a stand-alone measure. IETA's reflection on this mechanism looks at how it could work in practice, without prejudging the choice whether this mechanism should be part of the reform proposal of the EU-ETS.

There is no consensus amongst our members whether such a mechanism would be beneficial to introduce and whether **such a mechanism is preferable to simply letting**

the market function without any adjustment to large imbalances in the supply levels. **This paper does not represent an endorsement of such a mechanism, but aims to provide a constructive insight into how such a mechanism could be structured.** IETA is open to contributing to the debate and on the thinking behind this concept, ahead of any legislative proposal that the Commission publishes.

As discussions develop, IETA's thinking into the concept may be updated.

To put this paper in context, we view the main challenges affecting the EU ETS as the following:

- **Excess or insufficient liquidity** in the market can be exacerbated by the mismatch between demand (affected by economic cycles or due to conflicting policy instruments) and supply (rigid, fixed ex ante).
- The **ETS target is not aligned with the EU's long-term ambition**, as the current reduction pathway for ETS sectors will only reach 71% by 2050, thereby missing the objectives recommended by the EU 2050 Low Carbon Roadmap of -80-95% for the EU as a whole
- **Policy overlap** has diluted the steering mechanism of the ETS, which in turn will increase the societal costs to reach long-term abatement targets.

Discussions on a flexible supply response mechanism may not address the full range of difficulties affecting the scheme. Putting in place a transparent and predictable supply response mechanism could primarily help in addressing the challenge relating to a severe mismatch between supply and demand.

On one hand undue scarcity of EUAs and fragmentation into other policies, and correspondingly price spikes, risks leading to economic disruption that damages EU living standards and weakens the acceptability of the EU-ETS. On the other hand, constant excess supply of EUAs coupled with a lack of policy direction in the long-run, leads to inadequate signals for long-term investment, undermining plans to replace high carbon infrastructure, and implement the necessary emissions reduction technologies.

As a result, the objective of putting in place a supply response mechanism would be to make the EU-ETS scheme more resilient to supply/demand imbalances, induced by economic cycles. It would automatically adjust the auctioning volumes through the use of a Flexible Reserve, to lessen excessive supply-demand imbalances, and help make the system more resilient.

II. Key Criteria for a Supply Adjustment Mechanism

1) Clear objectives
The objectives of any proposed mechanism need to be both credible and deliverable by the proposed mechanism. To ensure effectiveness and cost-efficiency, any mechanism should be clearly designed to deliver on the objective to introduce some flexibility in the supply of allowances.

2) Market based
Any mechanism must complement and enhance the market and preserve price discovery in a free market.

3) Volume based
The mechanism should focus on the volume of allowances so as to balance supply/demand levels and address any emerging surpluses or deficits.

4) Automatic and exogenous
There should be clear, explicit, automatic market-oriented rules for the mechanism and these rules should be set out ex-ante in primary legislation, i.e. in the ETS Directive. Any governing body should only administer the rules and communicate actions. There should be no discretion in their decision-making, and rather the mechanism would rely on pre-determined criteria according to which changes in the supply of allowances would automatically occur.

5) Transparent and Simple
Any supply adjustment mechanism needs to enhance the functioning of the ETS by being as simple, transparent and predictable as possible. More complex interventions risk undermining confidence and trust if stakeholders cannot predict or understand its impact.

6) Neutral to the overall cap
The mechanism should aim to profile the release of allowances to better balance supply and demand rather than lead to the creation or cancellation of allowances. The total cap forms part of a separate discussion on the EU's targets and the linear reduction factor. This neutrality is essential to preserve the environmental integrity of the cap.

7) Based on existing architecture and data
Any mechanism should not require any change in the existing EU institutional set up**.** Any mechanism should be based on objective verified data (rather than forecasts). Usage of official and easily accessible data is essential, as the mechanism will not fly if it requires major additional data collection and reporting to implement.

8) Predictable
Any supply adjustment mechanism needs to avoid creating shocks of its own, e.g. excessive CO_2 price volatility and needs to maintain sufficient liquidity in the market. The parameters of the mechanism – for example, the size of any buffer band or any link to external variables (verified emissions, economic output) therefore must be set out in advance.

9) Robust to wider changes in the context of the ETS
The mechanism should be robust and adaptable to accommodate future changes in the market framework and resulting changes in the level of demand of allowances.

III. Design Options and Considerations

There are several potential designs, which meet the criteria outlined above. To date, discussion among IETA members has focused on one potential mechanism based on a flexible reserve into which allowances are placed or withdrawn when there is a surplus or deficit beyond a "Buffer Band". Annex 1 contains a fuller description of this mechanism. It should be stressed that this is, however, only one of several potential options and IETA members still need to fully appraise the potential workings and impact of this particular model, and explore fully potential alternatives. The option should therefore be seen as an illustration of how one mechanism might work for the purposes of discussion rather than forming a recommendation from IETA. In the course of discussing this option, several design considerations and questions have emerged which might guide the further appraisal of this and potential alternative mechanisms. These issues are discussed further below.

Automatic supply adjustment or a threshold approach
Supply response mechanisms could link the supply of allowances to exogenous variables, which act as a proxy for the likely demand for allowances (e.g, economic growth, renewables output, etc). This would lead to an automatic adjustment of allowance supply in line with evolving demand. Alternatively, a threshold approach might be taken, such that there is no change in supply unless a surplus or deficit develops exceeding a certain size. Further discussion on how these thresholds might be calibrated is required, although they too would require some automatic link to be established between the demand for allowances (ie, verified emissions, economic output) and the current supply of allowances.

Setting the parameters for intervention
In a flexible reserve approach, the cumulative surplus could then be compared to the thresholds of a buffer band, which would determine whether allowances enter into the reserve or are released from it. To ensure long-term credibility of the mechanism, clear and transparent rules need to be put in place for identifying the thresholds or triggers for an approach based on a flexible reserve.

Protecting the integrity of the cap
It is envisaged that an increase in the auction volume will only be possible if allowances in a flexible reserve are available, as this would correspond to re-injecting previously withdrawn allowances, always within the total cap of allowances. This element preserves the environmental integrity of the system.

Timing
The period over which a level of surplus would be allowed to accumulate within the system needs to be carefully considered. It could be assessed annually, over multiple years, or even over a complete phase. A balance needs to be struck between ensuring that the mechanism is effective in balancing supply and demand while at the same time preserving neutrality

with respect to the cap as a whole. Several considerations might play on the appropriate length of this window and require further discussion.

Scope of the mechanism
Most of the ongoing discussions on the scope of the mechanism are limited to auctioned allowances. A separate debate may be needed on whether removing allowances from auction distorts the market regarding market liquidity in terms of allowance availability, and whether free allowances need to be covered by any mechanism as well.

Governance
The institutional setup needs to be debated. The European Commission (or other institution) might play a role in overseeing a flexible reserve in reviewing the evolution of volumes of excess EUAs, calculating amounts of allowances to be added or withheld from auctions if conditions are met, and proposing amendments to the auction calendar for approval by the Climate Change Committee. It would need to provide adequate advance notice to market participants when information is ready for release, and issue clear notifications of changes to auction volumes. We believe any change in the design of the EU-ETS should operate within the existing institutions, and the adjustments need to be automatic and not subject to any political pressure. In its annual reports on the state of the carbon market, we envision that the European Commission would also report on the functioning of such a mechanism in a public and transparent manner.

Revision
Once in place, the fundamental elements of such a mechanism should not be revised. It would become a core component to the design of the ETS, which is expected to remain stable. However, depending on the timing of the mechanism, a periodic revision of the assumptions might be required in order to align the mechanism to changes in market conditions. Any revision needs to follow due process and ensure stakeholders are fully involved in this review process. In addition, a review every time the cap is changed should be foreseen, to keep the mechanism in line with the overall policy direction.

IV. Key issues that require further discussion

The following elements could create challenges to putting in place such a mechanism, and require careful consideration and further discussion amongst stakeholders and policy makers:

- **A careful cost-benefit analysis will need to be performed.** The test is whether the benefits of such a mechanism would outweigh the option of leaving the EU-ETS market to function without it. To evaluate the success of this mechanism, criteria need to be defined, in order to assess the benefits of introducing such a mechanism.

- **Special attention will have to be given to ensuring the consistency of the mechanism with political decisions over the stringency of the overall cap.** Under current market conditions, it is to be expected that the reserve will grow very

large quickly. For this reserve to not destabilise the market, it needs to be very clear what will happen to allowances put in the reserve. Allowances could either be kept indefinitely or cancelled after a specified time. The latter would imply a change to the cap, a step which IETA believes not to be useful, because the Buffer Band cannot replace permanent reforms necessary for the ETS. Changes to the cap itself need to be addressed as part of a separate discussion on broader EU-ETS reform proposals.

- **Timing of the mechanism's intervention will need to be explored.** According to the data publically available each year, auction volumes could be modified, at the earliest, starting from 1 July of the same year as when the data on verified emissions is produced. The timing of the period under consideration needs to be discussed. We could foresee the total volume to be withdrawn/re-injected would be spread evenly on a monthly basis, over the following period, according to the scheduled auction calendar.

- **Governance** issues, including which governmental body should be responsible for monitoring such a mechanism.

- Distributional effects and a potential risk of **distortion**, if the mechanism presented here is based on the overall market surplus but affects only part of the annual supply (auctioned allowances).
    - As mentioned above, a separate debate is needed on whether a review of free allocation rules should take place, but this forms part of a separate debate to the scope of this mechanism and concerns a debate on having an ex-post calculation for free allocation of allowances. Introducing a mechanism to allow flexibility in the supply only seeks to address the problem of rigidity in the market rather than addressing the problem of oversupply.

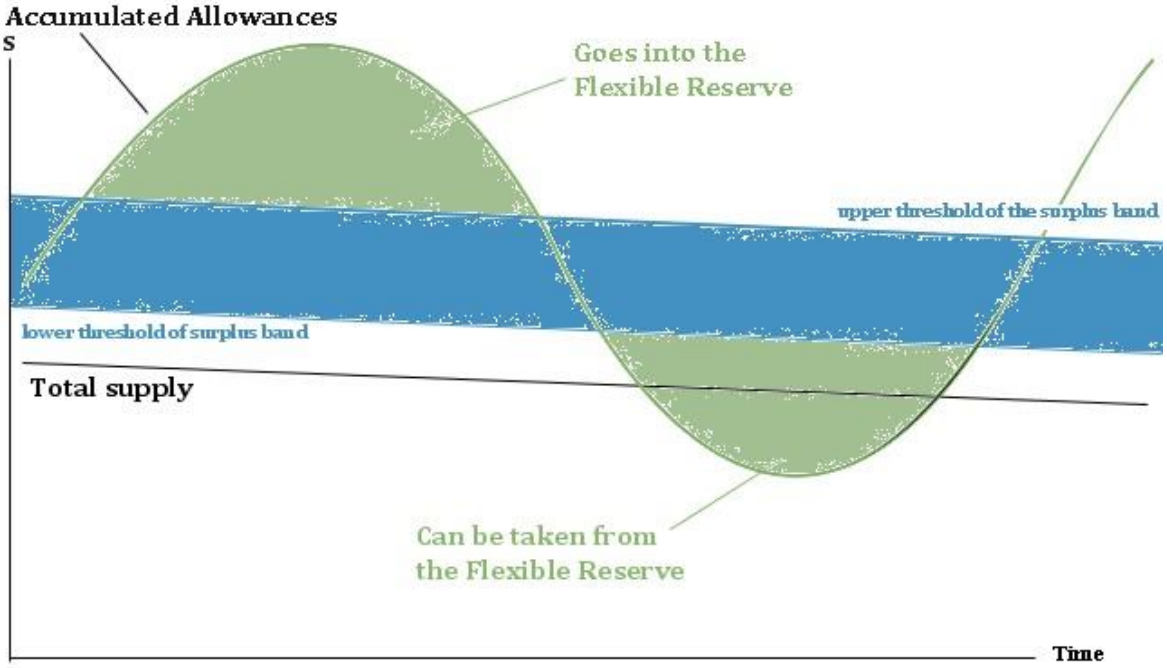
- **The system would add a further layer of complexity in negotiating linking emissions-trading-schemes.** As the EU considers linking with other jurisdictions, linking negotiations should also consider how any change in the amount of allowances available in the EU market would contribute to adding or removing allowances into the Flexible Reserve.

This proposal should be understood as part of a wider package for reforming the EU-ETS. As highlighted in the introduction, the purpose of this mechanism is to address the problem of rigidity in the supply/demand levels in the EU-ETS. An automatic adjustment of auction volumes is not intended to address other problems affecting the scheme. This proposal should be looked at in combination with other measures, which need to be introduced in parallel.

Annexe I – Description of a Buffer Band Option

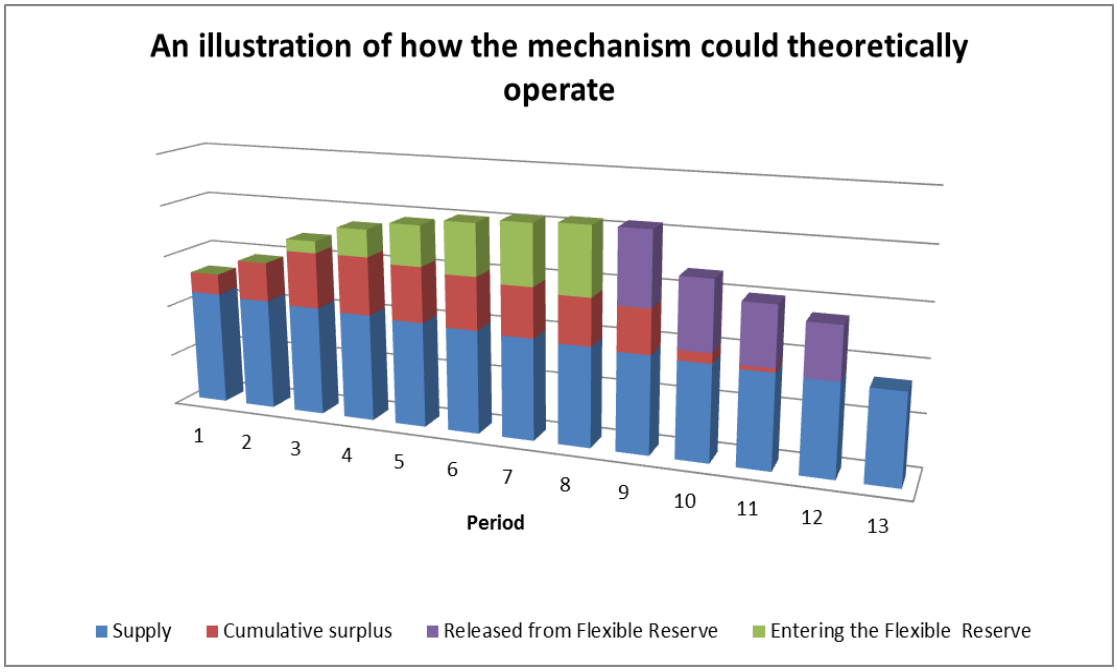
The mechanism considers putting surplus allowances into a Flexible Reserve in times of excessive oversupply, which could then re-enter the market when there is an insufficient volume of allowances. Such a Reserve would require introducing thresholds to determine the amount of allowances to enter or be removed from the Reserve. Careful consideration is needed to determine the criteria for putting in place these thresholds. Other elements require further discussion including whether a certain amount of surplus should be allowed in the market for hedging purposes, whether a minimum amount of auctioning should be guaranteed and when and how the unused allowances in the Flexible Reserve are brought back to the market. It is essential that the answer to these questions be clear and transparent, and is embedded in the ETS legislation. Should such a mechanism be introduced, we would foresee an automatic adjustment of the supply levels according to these pre-defined thresholds, rather than unpredictable politically-driven changes to the supply.

The graphs below seek to illustrate graphically the theoretical concept of an Automatic Adjustment of Auction Volumes:



Total Supply refers to the cap + international offsets. Accumulated allowances above the upper-threshold of the surplus band would automatically trigger the mechanism, whereby the surplus of allowances above the threshold would go into a reserve and (some) auctions scheduled for the following year would be withheld. These can later be reintroduced into the market, once the cumulative level of allowances falls below the lower threshold of the surplus band, as long as there are allowances in the Flexible Reserve.

The following graph illustrates a theoretical example of how changes to the cumulative surplus results in allowances entering or being released from the Flexible Reserve.



The supply consists of the cap and international offsets. In periods 1 and 2, the cumulative surplus is not yet big enough to trigger the reserve, i.e. the cumulative surplus does not exceed the upper threshold of the Buffer Band.
In the following periods, there is strong oversupply in the market, which then enters into the Reserve. Thereafter, the cumulative surplus starts shrinking slowly. In the periods 9, 10, 11, and 12, the cumulative surplus falls below the lower threshold of the Buffer Band, so that allowances from the Flexible Reserve re-enter into the market. In the very last period, the Flexible Reserve is empty, so no more allowances are released from it and into the market.