



Balancing carbon markets

FSR Climate online debate

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Inputs by EDF R&D



Why does the MSR need a re-design?

MSR has been instrumental to absorb historical surplus and restore confidence (Sitarz et al., 2024)

- Adequate because TNAC largely reflected past oversupply (invalidation provision was key)
- Efficiency gains by frontloading abatement efforts beyond hedging horizon (Quemin & Trotignon, 2021)

Increased uncertainty on the evolution of the ETS regulation and the functioning of the market

- Cap decrease toward 0, relaxing of the cap, inclusion of CDR, question of international credits,...
- As market gets ever smaller, relevant (changes in) quantities/hedging will be harder to gauge

MSR unable to provide enough price predictability to drive investments in decarbonization

- TNAC is not a reliable indicator of actual scarcity or tightness of the market
- MSR will be inactive when TNAC falls within thresholds, yet possibly with highly different developments
 - Hedging has some inertia, and captures only one segment of market operations
 - Which impact of hedging of Industrial actors linked to the CBAM compliance with CBAM certificates ?

MSR should be re-designed to remain adequate and to increasingly provide more flexibility

- Transition from backward-looking to forward-looking market tightness management (Pahle et al., 2025)
- More responsive MSR required to adapt the supply (higher/lower) in a quicker way

Why would price based version of the MSR be fit for purpose?

The price seems a suitable, continuously available, and forward-looking indicator of anticipated market conditions

- ETS price would still be determined by supply/offer balance in response to supply changes set by given rules
- Already implemented in the ETS2 with the “safety valve”

Academic consensus that price-based supply adjustment mechanism would perform better
(Perino et al, 2022; Borghesi et al., 2023)

Need for a symmetrical mechanism – adjusting supply upwards and downwards

- High price trigger(s?) : crucial for competitiveness – safety valve in case of high compliance costs
- Low price trigger(s?) : critical to de-risk and incentivize low-carbon investment (Cason et al., 2023; Borghesi et al., 2025)
- Steps in between can further increase supply responsiveness and reduce volatility (Burtraw et al., 2022)

How to operationalize a price-based version of the MSR ?

Main parameters to be defined

- Level, number of price triggers
- Type of indicator : quarterly (or other) average, rolling average,...
- Frequency of adjustment
- Volume of adjustment

Understand trade-offs between the different options with careful impact assessment

- Decreasing relationship between the frequency and the volume of supply adjustment

Anticipating the possible evolutions of the parameter

- Which rule for updating price triggers and adjustment volumes over time?

What lessons could be learned from RGGI and California-Québec about the design of their own rules ?

- Which process could be developed to define such an evolution of the current design ?

➔ Such changes cannot happen overnight, the investigation/preparation should start asap based on foreign experience and academic analysis

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Thanks

