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COMMUNICATION FROM THE COMMISSION

Publication of the total number of allowances in circulation in 2024 for the purposes of the Market Stability Reserve under the EU Emissions Trading System

(C/2025/3180)

1. Introduction

In 2015, the European Parliament and the Council adopted Decision (EU) 2015/1814 ([1]) ('the MSR Decision') to create a Market Stability Reserve (the 'MSR' or 'the reserve'), as part of the EU Emissions Trading System (the 'EU ETS') set up by Directive 2003/87/EC ([2]) ('the ETS Directive'). The MSR has been in operation since 2019. Its purpose is to avoid having a structural surplus of allowances on the EU carbon market, with the associated risk that this would prevent the EU ETS from giving the investment signal needed to meet the EU's emission reduction target. The MSR is also intended to make the EU ETS more resilient to supply-demand imbalances, so that the EU carbon market can function smoothly.

Under Article 1(4) of the MSR Decision, every year the Commission publishes the total number of allowances in circulation (TNAC) for the previous year. This figure determines the operation of the MSR, that is whether allowances are withdrawn from the auction volume and placed in the reserve or released from the reserve and auctioned. The annual publication of the TNAC is therefore an important feature of the MSR and the EU ETS.

On 3 June 2024, the Commission published the TNAC for 2023, which amounted to 1 111 736 535 ([3]). Accordingly, 266 816 768 allowances were to be placed in the reserve from 1 September 2024 to 31 August 2025. The number of allowances in the reserve that were invalidated on 1 January 2024 totalled 381 744 844.

This Communication is the ninth TNAC publication and concerns 2024. It details the underlying calculation and the number of allowances that will be placed in the reserve from 1 September 2025 to 31 August 2026. It also indicates the number of allowances in the reserve that were invalidated on 1 January 2025.

2. Functioning of the Market Stability Reserve

The MSR functions automatically when the TNAC is outside the set range. Allowances are withdrawn from the auction volume and placed in the reserve if the TNAC exceeds the threshold of 833 million. The intake rate of the reserve is set at 24 % of the TNAC when this number is above 1 096 million. When the TNAC is between 833 million and 1 096 million, the intake is the difference between the TNAC and 833 million. If the TNAC is less than the threshold of 400 million, 100 million allowances are released from the reserve and auctioned. Allowances are either placed in or released from the reserve over the course of 12 months. From 2023 onwards, any allowances held in the reserve on 1 January every year above the threshold of 400 million are no longer valid.

Under Article 1(5) of the MSR Decision and in line with this Communication, 24 % of the TNAC on 31 December 2024 or the difference between the TNAC and 833 million will be placed in the reserve over a 12-month period starting on 1 September 2025. A corresponding number of allowances will be deducted from the auction volumes of EU Member States, the three European Economic Area - European Free Trade Association countries (Iceland, Liechtenstein and Norway) and, for the generation of electricity in Northern Ireland, the United Kingdom. These allowances will be deducted in line with countries' respective auction shares.

([1]) Decision (EU) 2015/1814 of the European Parliament and of the Council of 6 October 2015 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading scheme and amending Directive 2003/87/EC (OJ L 264, 9.10.2015, p. 1).

([2]) Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (OJ L 275, 25.10.2003, p. 32).

([3]) Communication from the Commission - Publication of the total number of allowances in circulation in 2023 for the purposes of the Market Stability Reserve under the EU Emissions Trading System established by Directive 2003/87/EC (OJ C, C/2024/3415, 3.6.2024, ELI: http://data.europa.eu/eli/C/2024/3415/oj).

Under Article 1(5) of the MSR Decision, until 31 December 2030, any allowances distributed for the purposes of solidarity and growth in the EU ETS ([4]) are not included in the calculation of the relevant shares for the purposes of the MSR.

3. **Total number of allowances in circulation**

Under Article 1(4) of the MSR Decision, the TNAC in a given year shall be the cumulative number of allowances issued in respect of installations and shipping companies and not placed in the reserve in the period since 1 January 2008, including the number of allowances that were issued pursuant to Article 13(2) of Directive 2003/87/EC, in the version in force on 18 March 2018, in that period and entitlements to use international credits exercised by installations under the EU ETS, up to 31 December of that given year, minus the cumulative tonnes of verified emissions from installations and shipping companies under the EU ETS between 1 January 2008 and 31 December of that same given year, and any allowances cancelled in accordance with Article 12(4) of Directive 2003/87/EC.

In short, the TNAC relevant for the operation of the MSR is calculated using the updated formula:

TNAC = Supply – Demand

The two elements of the calculation are described in detail in this Communication. An overview of all figures is presented in the table at the end.

The first paragraph of Article 1(4a) of the MSR Decision lays down that as from 2024, the calculation of the total number of allowances in circulation in any given year shall include the cumulative number of allowances issued in respect of aviation and the cumulative tonnes of verified emissions from aviation under the EU ETS, excluding emissions from flights on routes covered by offsetting calculated pursuant to Article 12(6) of Directive 2003/87/EC, between 1 January 2024 and 31 December of that same given year.

The EU ETS covers emissions from maritime transport activities from 1 January 2024. Accordingly, the number of allowances issued in respect of shipping companies and the verified emissions from shipping companies from 1 January 2024 to 31 December 2024 are included in the TNAC calculation for 2024. The second paragraph of Article 1(4a) of the MSR Decision lays down that the allowances cancelled pursuant to Article 3gb of Directive 2003/87/EC shall be considered as issued for the purposes of the calculation of the total number of allowances in circulation.

Supply

The supply of allowances on the EU carbon market consists of the following elements:

— Allowances banked ([5]) from phase 2 of the EU ETS (2008-2012), which amounted to 1 749 540 826 ([6]).

— Allowances allocated for free from 1 January 2013 to 31 December 2024 ([7]), including the allowances allocated from the New Entrants Reserve (NER). This volume amounts to 8 747 619 334 allowances ([8]).

([4]) Under Article 10(2)(b) of Directive 2003/87/EC.

([5]) Allowances issued during phase 2 of the EU ETS (2008-2012), which were not surrendered to cover verified emissions or cancelled were 'banked' for use at the beginning of phase 3 of the EU ETS (2013-2020). These allowances were deleted and simultaneously an equal number of allowances was created in phase 3. This number therefore represents the exact number of ETS allowances in circulation at the start of phase 3 of the EU ETS.

([6]) COM (2015) 576 - Report from the Commission to the European Parliament and the Council - Climate action progress report, including the report on the functioning of the European carbon market and the report on the review of Directive 2009/31/EC on the geological storage of carbon dioxide.

([7]) Under Article 1(4a) of the MSR Decision, for aviation, allowances allocated for free from 1 January 2024 to 31 December 2024 are considered.

([8]) The allowances allocated for free are based on the data extracted from the Union Registry on 1 April 2025, including EU ETS data for the aircraft operators under the administration of Switzerland.

— Allowances auctioned from 1 January 2013 ([9]) to 31 December 2024 ([10]), and allowances used for flexibility purposes in 2021-2024 under Article 6 of Regulation (EU) 2018/842 ([11]) ('the Effort Sharing Regulation'). According to auction reports on the common auction platform and the relevant opt-out platforms ([12]), the volume of allowances auctioned, including 'early auctions', was 8 190 671 500. To this volume, 28 855 152 allowances must be added under the flexibility set out in Article 6(2) of the Effort Sharing Regulation ([13]).

— Allowances monetised for the NER300 programme. A total of 300 000 000 allowances were monetised by the European Investment Bank.

— International credits exercised for emissions from 2013 to 31 December 2020 ([14]). Installations used 497 248 017 international credits for the emissions they generated ([15]).

— Under Article 1(4) of the MSR Decision, allowances placed in the MSR are no longer part of the TNAC calculation.

Demand

Demand for allowances on the EU carbon market includes the total verified emissions from compliance entities from 1 January 2013 ([16]) to 31 December 2024 ([17]), which amount to 18 365 179 314 tonnes ([18]), and 705 930 allowances cancelled during this period under Article 12(4) of the ETS Directive.

Total number of allowances in circulation

Based on the above, the TNAC in 2024 amounts to 1 148 049 585 allowances.

Holdings of the Market Stability Reserve

Following the invalidation of allowances on 1 January 2024, 400 000 000 allowances remained in the reserve.

([9]) This figure includes 'early auctions' i.e. allowances valid for phase 3 of the EU ETS (2013-2020), which had been auctioned before 1 January 2013.

([10]) Under Article 1(4a) of the MSR Decision and given that the EU ETS covers maritime transport activities from 1 January 2024, for aviation and shipping, allowances auctioned from 1 January 2024 to 31 December 2024 are considered.

([11]) Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26).

([12]) Auction reports: European Energy Exchange (https://www.eex.com/en/market-data/market-data-hub/environmentals/eu-ets-auctions) and Intercontinental Exchange (https://www.ice.com/report/148).

([13]) Regulation (EU) 2018/842 creates a one-off flexibility provision whereby Member States can have up to a maximum of 100 million EU ETS allowances collectively cancelled in 2021-2030, so they can comply with their greenhouse gas emission reduction targets under this Regulation. The flexibility provision concerns Member States with targets significantly above both the EU average and their cost-effective reduction potential, as well as Member States that did not allocate any free EU ETS allowances to industrial installations in 2013. A cancellation is made from the auctioning volume of the Member State concerned under Article 10 of the ETS Directive. Cancelled allowances are considered as EU ETS allowances in circulation when determining the TNAC for the purposes of the MSR in a given year.

([14]) International credits cannot be used for compliance from 2021.

([15]) Based on an extract of the Union Registry from 1 April 2025. These international credits concern only those exchanged for EU allowances in phase 3 of the EU ETS (2013-2020). Approximately 1,1 billion international credits that could be used directly for compliance purposes in phase 2 of the EU ETS (2008-2012) are reflected in the number of allowances banked from phase 2.

([16]) Corresponding to the verified emissions in the period 2008-2012 (phase 2), see footnote 5.

([17]) Under Article 1(4a) of the MSR Decision, and given that the EU ETS covers maritime transport activities from 1 January 2024, for aviation and shipping, verified emissions from 1 January 2024 to 31 December 2024 are included.

([18]) The total verified emissions are based on the data extracted on 1 April 2025 from the Union Registry and from the Swiss ETS Registry for the EU ETS emissions of aircraft operators under the administration of Switzerland. The figure includes verified emissions reported by 31 March 2025 – the reporting deadline in the EU ETS. Emissions reported after this date are not reflected in the total.

In line with the communications on the TNAC in recent years, the following volumes of allowances were placed in the reserve:

— 181 567 159 allowances from 1 January 2024 to 31 August 2024 ([19]);

— 88 938 927 allowances from 1 September 2024 to 31 December 2024 ([20]).

On 31 December 2024, there were 670 506 086 allowances in the MSR. On 1 January 2025, 270 506 086 of these allowances were invalidated under Article 1(5a) of the MSR Decision. The remaining holdings of the reserve amount to 400 000 000 allowances.

4. **Conclusion**

In line with the MSR Decision, a total of 275 531 900 allowances will be placed in the reserve over the course of 12 months from 1 September 2025 to 31 August 2026.

Next year's publication of the TNAC will determine the MSR's operation from September 2026 until August 2027.

Overview

Supply	
a) Allowances banked from phase 2 (2008-2012)	1 749 540 826
b) Allowances allocated for free from 1 January 2013 to 31 December 2024, including from the NER	8 747 619 334
c) Allowances auctioned from 1 January 2013 to 31 December 2024, including early auctions	8 190 671 500
d) Allowances used for flexibility purposes in 2021-2024 under Article 6 of Regulation (EU) 2018/842	28 855 152
e) Allowances monetised for the NER300 programme	300 000 000
f) International credits used for emissions from 2013 to 31 December 2020	497 248 017
Sum (supply)	19 513 934 829
Demand	
a) Verified emissions (in tonnes) under the EU ETS from 1 January 2013 to 31 December 2024	18 365 179 314
b) Allowances cancelled under Article 12(4) of Directive 2003/87/EC up to 31 December 2024	705 930
Sum (demand)	18 365 885 244
Total number of allowances in circulation	1 148 049 585

([19]) Communication from the Commission, Publication of the total number of allowances in circulation in 2022 for the purposes of the Market Stability Reserve under the EU Emissions Trading System (OJ C 172, 15.5.2023, p. 1). As concluded in point 4 of this Communication, 272 350 737 allowances would be placed in the MSR from 1 September 2023 to 31 August 2024. The volume corresponding to the period from 1 January to 31 August 2024 was 181 567 159.

([20]) C/2024/3415, as referenced in footnote 3. As concluded in point 4 of this Communication, 266 816 768 allowances would be placed in the MSR from 1 September 2024 to 31 August 2025. The volume corresponding to the period from 1 September to 31 December 2024 was 88 938 927.