

Auctions by the *Common Auction Platform*

April, May, June 2024

Auction platform: European Energy Exchange (EEX)

Member States: This report has been prepared on behalf of the following Member States participating in the joint action: Austria, Belgium, Bulgaria, Republic of Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden (participating Member States), and Poland.

Auction dates/reporting period:

General Allowances:

2, 4, 8, 9, 10(PL), 11, 15, 16, 18, 22, 23, 24(PL), 25, 29, 30 April 2024;

2, 6, 7, 8(PL), 13, 14, 16, 20, 21, 22(PL), 23, 28, 30 May 2024;

3, 4, 5(PL), 6, 10, 11, 13, 17, 18, 19(PL), 20, 24, 25, 27 June 2024;

Aviation Allowances:

No auctions in April 2024;

15 May 2024;

No auctions in June 2024;

Cancelled auctions:

No auctions in April 2024;

No auctions in May 2024;

No auctions in June 2024;

Auctioning is the default method of allocating allowances within the EU emissions trading system (EU ETS). Since the start of the *Third trading period* in 2013, over 7 billion allowances allocated under the EU ETS have been auctioned. Auctioning of emission allowances at that scale is unprecedented and delivers valuable experience for auction design in other carbon markets and for other environmental assets.

Auctioning is the most transparent and efficient method of allocating allowances and puts into practice the principle that the polluter should pay.

The auctions are conducted pursuant to the modalities stipulated in the *Auctioning Regulation*. The European Energy Exchange (EEX) in Leipzig is the common platform for the large majority of countries participating in the EU ETS. EEX also acts as Germany's auction platform. Poland may appoint an opt-out auction platform but is using for the time being the common auction platform. Allowances for Northern Ireland are also auctioned on EEX.

The numbers of *General Allowances* to be auctioned by each State on behalf of which they are auctioned are determined on the basis of their historical share of emissions from installations covered by the EU ETS.

At least half of auctioning revenues, or the equivalent in financial value, and all of the revenues from auctioning allowances to the aviation sector, should be used by the Member States to combat climate change in Europe or other countries.

For further information: https://ec.europa.eu/clima/eu-action/eu-emissions-trading-system-eu-ets/auctioning_en

Editor's note:

This report has been prepared by the Commission on behalf of the participating Member States and Poland assembling for publication the information provided by the common auction platform on a monthly basis for those Member States, in accordance with Article 10(4) of the ETS Directive.

Methodology: For reasons of confidentiality and proper enforcement of the applicable rules, the report refers to reporting on the auctions held based on information provided by EEX. EEX is consulted before each publication. Any data not directly related to the auctions is based only on public reports.

The report is in accordance with the template agreed with the participating Member States.

Disclaimer: The authors have made every effort to ensure that the information provided is complete, correct and precise for the reporting period. Nevertheless, the report is based on limited information available to the authors in a market context where much information has to remain confidential. The authors did not actively verify the information and EEX's compliance with the specific rules and provisions applicable under European or national law. Therefore, the authors and the Member States on whose behalf this report was drafted deny any responsibility or liability whatsoever for its contents, regardless of the nature of such contents. Any reliance by any person or entity on the information provided in this report is solely at that person's or entity's own risk. Monthly averages provided are weighted by each auction's auction volume, unless otherwise indicated.

Glossary: terms and expressions written in *italics* are included in the glossary.

Introduction

The reports include data on the auctions performed by the *common auction platforms* on behalf of the *participating Member States* and Poland.

The auctions for the *participating Member States* were conducted by EEX in its capacity as *Common Auction Platform* appointed pursuant to Article 26(2) of the Auctioning Regulation (also referred to as transitional common auction platform or TCAP) until 18 August 2016 and since then by EEX appointed as *Common Auction Platform* pursuant to Article 26(1) of the Auctioning Regulation (also referred to as second common auction platform or CAP2). On 4 November 2020, the European Commission signed a five-year contract with EEX and its clearing system for the services of the third common auction platform (CAP3) under the EU Emissions Trading System (EU ETS).

In accordance with the second subparagraph of Article 29(6) of the Auctioning Regulation, pending the procurement, appointment and listing of its opt-out auction platform, Poland concluded in December 2020 an agreement with EEX to make use of the common auction platform to auction its share of allowances in the absence of listing of its auction platform.

The member states of the European Free Trade Association (EFTA) that are Party to the European Economic Area (EEA)¹ started on 3 June 2019 making use of the *Common Auction Platform* by aggregating their volumes to those auctioned on behalf of the *participating Member States*.

¹ Iceland, Liechtenstein and Norway.

Executive summary

In the reporting period, EEX, in its capacity as the *Common Auction Platform (CAP3)*, conducted auctions of *general allowances* and *aviation allowances* for the *fourth trading period* on behalf of the *participating Member States*. During this period, EEX held auctions for *general allowances* and *aviation allowances* on behalf of Poland.

All auctions were held successfully, in line with the Auctioning Regulation. No irregularities or deviations from the requirements were observed. The table below contains a summary of the information concerning the conducted auctions.

The April, May, June 2024 auctions at a glance:

	General Allowances				Aviation Allowances		
	Apr	May	Jun		Apr	May	Jun
General							
Number of auctions	15	13	14		-	1	-
Total volume auctioned	44,913,500	38,714,500	41,818,500		-	906,000	-
Amount raised from the auctions (€)	2,855,869,630	2,732,546,595	2,879,887,165		-	62,831,100	-
Average Auction Clearing Price (€/allowance)	63.59	70.58	68.87		-	69.35	-
Total bid volume	73,336,500	60,023,500	65,482,500		-	2,368,000	-
Average Cover ratio	1.6	1.5	1.6		-	2.6	-
Monthly HHI	934	1,263	984		-	1,512	-
Participation							
Number of eligible bidders	106	105	106		106	105	106
Number of participating bidders ⁽¹⁾	36	37	35		-	15	-
Number of successful bidders ⁽¹⁾	34	34	34		-	9	-
Average number of bidders per auction	26.5	23.8	24.4		-	15.0	-

Average number of successful bidders per auction		19.6	18.0	17.6		-	9.0	-
Auction data								
Average total volume bid per bidder per auction		185,035	197,033	193,611		-	157,867	-
Average bid size (volume per bid)		45,534	46,659	46,604		-	37,000	-
Average volume won per bidder per auction		157,836	173,356	181,628		-	100,667	-
Average range of bids (€)		67.40	57.56	552.87		-	52.19	-
Cancelled Auctions		0	0	0		-	0	-

(1): Number of unique individual bidders or unique successful bidders present in a whole month.

1. Results of the auctions

The total revenues from the auctions of general allowances accrued to the participating Member States, Poland and Northern Ireland from the start of the third trading period auctions (November 2012) to June 2024 are EUR 157,042,952,085, and of aviation allowances EUR 1,469,082,595. Looking exclusively at the fourth trading period (January 2021 - June 2024) the total revenues from the auctions of general allowances are EUR 107,959,216,730 and of aviation allowances EUR 988,694,255. Further data is provided in Annex 1.

Information on *general allowances'* auctions is provided in section 1.1, and on *aviation allowances* in section 1.2 hereafter. Detailed information per auction covered by the present report is available in the EEX website².

1.1. General allowances auctions

1.1.1. Clearing prices and participation - general allowances

An overview of the auction results for the *participating Member States* and Poland is provided in Table 1.

Table 1: General allowances - main statistics on the results of the auctions per month

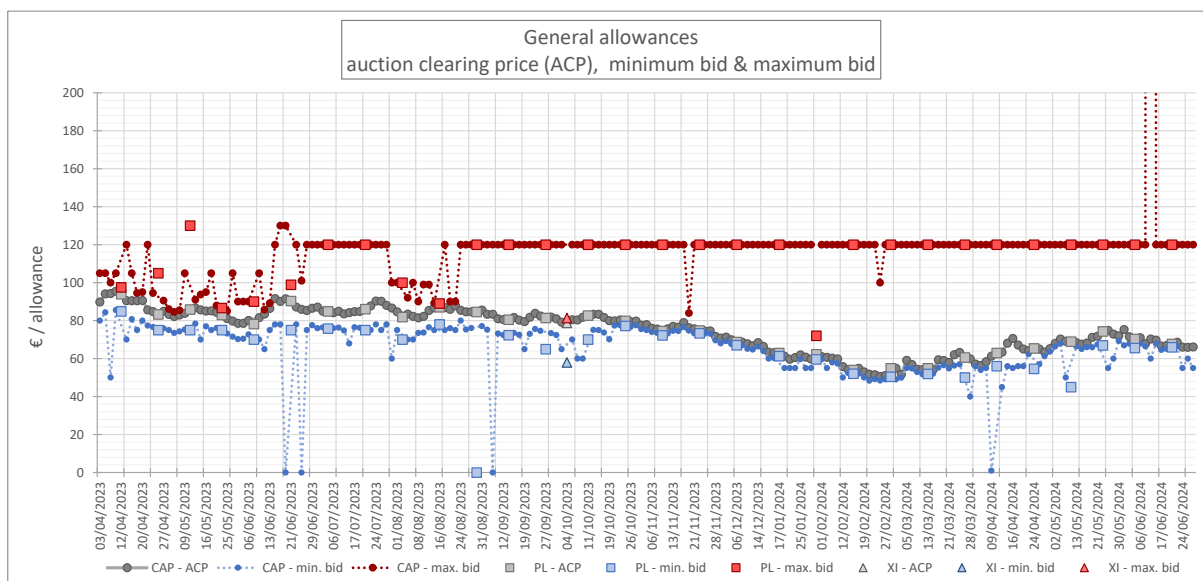
Month	Total auction volume	Total bid volume	Total revenue (€)	Average Cover ratio[1]	Average number of bidders	Average number of successful bidders	Average auction clearing price (€)[2]
Jun 24	41,818,500	65,482,500	2,879,887,165	1.6	24.4	17.6	68.87
May 24	38,714,500	60,023,500	2,732,546,595	1.5	23.8	18.0	70.58
Apr 24	44,913,500	73,336,500	2,855,869,630	1.6	26.5	19.6	63.59
Mar 24	41,819,000	67,513,000	2,412,987,625	1.6	26.6	18.6	57.70
Feb 24	44,913,500	73,215,500	2,482,957,180	1.6	24.7	19.3	55.28
Jan 24	29,416,000	48,676,000	1,810,670,875	1.7	24.8	18.1	61.55
Dec 23	24,604,500	38,313,500	1,686,160,400	1.6	21.4	18.4	68.53
Nov 23	46,156,500	69,632,000	3,479,368,685	1.5	21.2	17.5	75.38
Oct 23	50,192,000	82,938,500	4,048,501,990	1.7	20.7	17.0	80.66
Sep 23	40,086,500	73,748,500	3,273,588,055	1.8	20.9	16.4	81.66

² <https://www.eex.com/en/market-data/environmental-markets/auction-market>

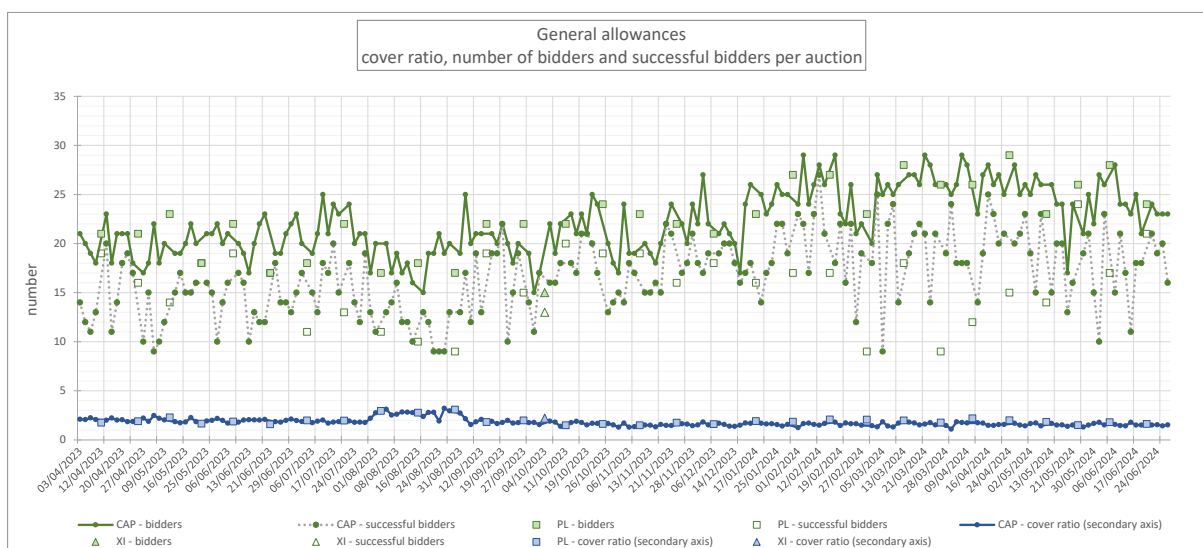
Aug 23	22,879,000	63,291,000	1,939,207,975	2.8	18.3	11.5	84.76
Jul 23	39,906,000	75,292,000	3,438,886,200	1.9	21.3	15.3	86.17
Jun 23	36,670,000	70,987,000	3,118,311,030	1.9	20.3	14.4	85.04
May 23	31,851,000	63,620,000	2,668,676,670	2.0	20.1	14.4	83.79
Apr 23	31,851,000	64,478,500	2,862,689,280	2.0	19.9	15.0	89.88
2023 total	426,978,000	803,399,500	35,506,829,260	1.9	20.6	15.9	83.16
2022 total	398,159,000	828,646,000	31,696,205,050	2.1	20.4	15.1	79.61
2021 total	482,490,000	775,121,500	25,581,263,350	1.6	23.4	17.9	53.02
2020 total	560,046,500	951,992,500	13,723,091,055	1.7	24.3	18.2	24.50
2019 total	460,978,500	906,546,500	11,357,236,835	2.0	24.1	17.2	24.64
2018 total	642,477,000	1,662,693,000	9,917,590,730	2.6	25.6	18.0	15.44
2017 total	648,415,500	1,761,212,000	3,744,838,845	2.7	21.2	14.6	5.78
2016 total	474,261,000	1,092,400,000	2,496,870,295	2.3	19.0	13.4	5.26
2015 total	413,874,000	1,337,010,500	3,154,940,925	3.2	18.3	13.3	7.62

During April, May, June 2024, the difference between the Auction Clearing Prices and the mean of the best-ask and best-bid prices on the EEX spot secondary market for general allowances at the closure of the auction bidding window was on average EUR 0.23, -0.08, -0.09 respectively, and this difference had a standard deviation of EUR 1.32, 0.24, 0.23 respectively.

Graph 1: General allowances - auction clearing price (ACP), maximum bid & minimum bid

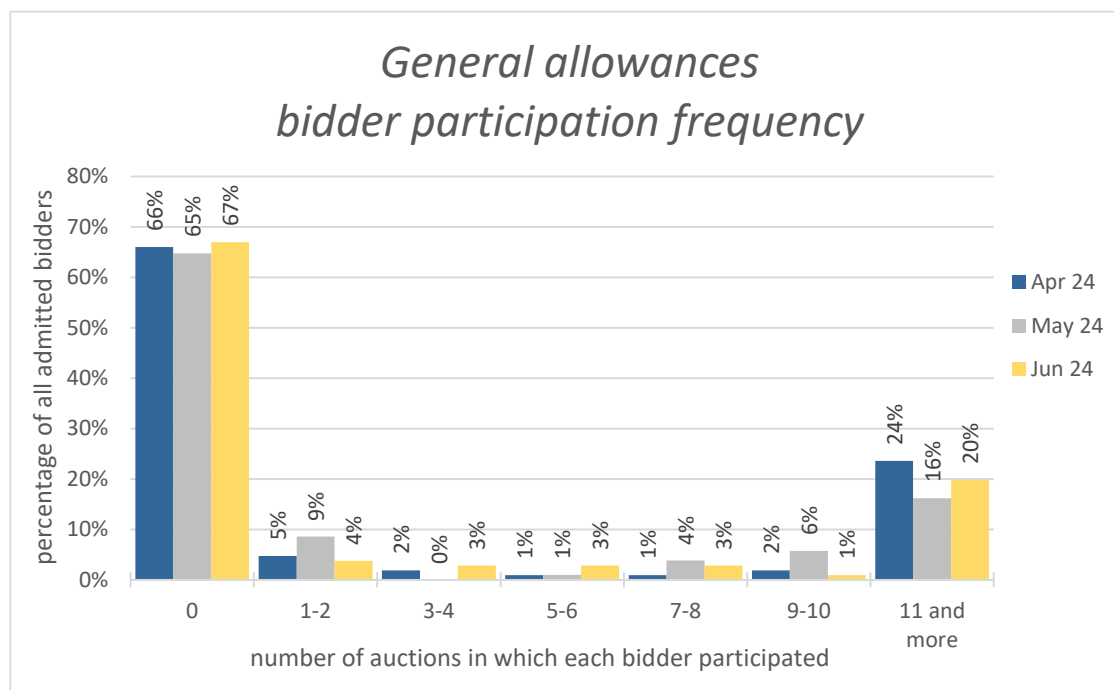


Graph 2: General allowances - cover ratio (left axis), number of bidders and successful bidders (right axis) per auction



The number of eligible bidders is provided in Section 2. Out of these 36, 37 and 35 different bidders participated in the auctions in respectively during the reporting period. Graph 3 indicates the participation frequency over these months.

Graph 3: General allowances -bidder participation frequency



1.1.2. Bidding behaviour - general allowances

Table 2 provides monthly data on the bids submitted over 15 months. See also Graph 4.

Table 2: General Allowances - monthly statistics on the submitted bids

Month	Nr of auctions	Nr of bidders ⁽¹⁾	Total volume of bids	Average total volume bid per bidder per auction ^[1]	Average total volume bid per bidder per auction over the month ^[2]	Standard deviation of total volume per bidder per auction over the month ^[3]	Total monthly nr of bids	Average nr. of bids per bidder per auction ^[4]	Average bid size ^[5]
Jun 24	14	35	65,482,500	193,611	190,911	238,434	1,421	4.1	46,604
May 24	13	37	60,023,500	197,033	193,624	252,747	1,300	4.2	46,659
Apr 24	15	36	73,336,500	185,035	184,263	216,317	1,608	4.0	45,534
Mar 24	14	37	67,513,000	182,447	181,487	236,283	1,444	3.9	47,146
Feb 24	15	37	73,215,500	200,047	197,880	233,197	1,523	4.1	48,433
Jan 24	10	34	48,676,000	198,043	196,274	229,537	968	3.9	50,386
Dec 23	8	32	38,313,500	226,194	224,056	303,570	717	4.2	53,643
Nov 23	15	33	69,632,000	220,146	218,969	245,568	1,282	4.0	54,585
Oct 23	17	32	82,938,500	244,123	238,329	311,320	1,506	4.3	56,338
Sep 23	13	28	73,748,500	272,633	272,135	391,170	1,183	4.4	62,413
Aug 23	17	31	63,291,000	205,254	203,508	335,640	1,258	4.0	50,436
Jul 23	15	33	75,292,000	239,078	236,025	350,571	1,250	3.9	60,517
Jun 23	15	30	70,987,000	234,781	233,510	355,596	1,264	4.2	56,493
May 23	13	30	63,620,000	243,965	243,755	376,281	1,174	4.5	54,897
Apr 23	13	32	64,478,500	250,996	248,952	344,835	1,301	5.0	49,791

(1): Number of unique individual bidders or unique successful bidders present in a whole month.

[1] Monthly weighted average of the average bid volume per bidder in each auction (total bid volume in each auction divided by number of bidders participating in that auction), weighted by volume auctioned in each auction.

[2] Average over the whole month of the volume bid by bidders each time they are present in an auction (computed as total volume bid for the month / sum over whole month of number of bidders present in each auction).

[3] Standard deviation of total volume bid per bidder in each auction over the month

[4] Monthly simple average of the average number of bids per bidder in each auction (total number of bids in each auction divided by number of bidders participating in that auction).

[5] Monthly weighted average of the average bid size per bidder in each auction (total bid volume in each auction divided by number of bids in that auction), weighted by volume auctioned in each auction

Table 3 provides monthly data on successful bids over 15 months. See also Graph 4.

Table 3: General Allowances - monthly statistics on successful bids

Month	Nr of auctions	Nr of successful bidders ⁽¹⁾	Total auction volume	Average volume won per bidder per auction[1]	Average volume won per bidder per auction over the month[2]	Standard deviation of volume won per bidder per auction over the month[3]	Total monthly nr of successful bids
Jun 24	14	34	41,818,500	181,628	169,306	238,800	510
May 24	13	34	38,714,500	173,356	165,447	264,712	472
Apr 24	15	34	44,913,500	157,836	154,342	204,836	602
Mar 24	14	34	41,819,000	176,290	162,089	235,928	503
Feb 24	15	34	44,913,500	164,865	157,040	218,262	514
Jan 24	10	32	29,416,000	166,924	163,422	222,609	303
Dec 23	8	27	24,604,500	168,543	167,378	285,837	261
Nov 23	15	31	46,156,500	179,458	176,170	229,769	518
Oct 23	17	29	50,192,000	183,013	175,497	224,251	616
Sep 23	13	27	40,086,500	197,289	188,200	297,163	449
Aug 23	17	26	22,879,000	120,052	116,730	177,980	327
Jul 23	15	29	39,906,000	178,830	173,504	212,177	437
Jun 23	15	25	36,670,000	175,945	170,558	242,356	472
May 23	13	26	31,851,000	176,424	170,326	268,674	465
Apr 23	13	30	31,851,000	171,999	164,180	210,176	560

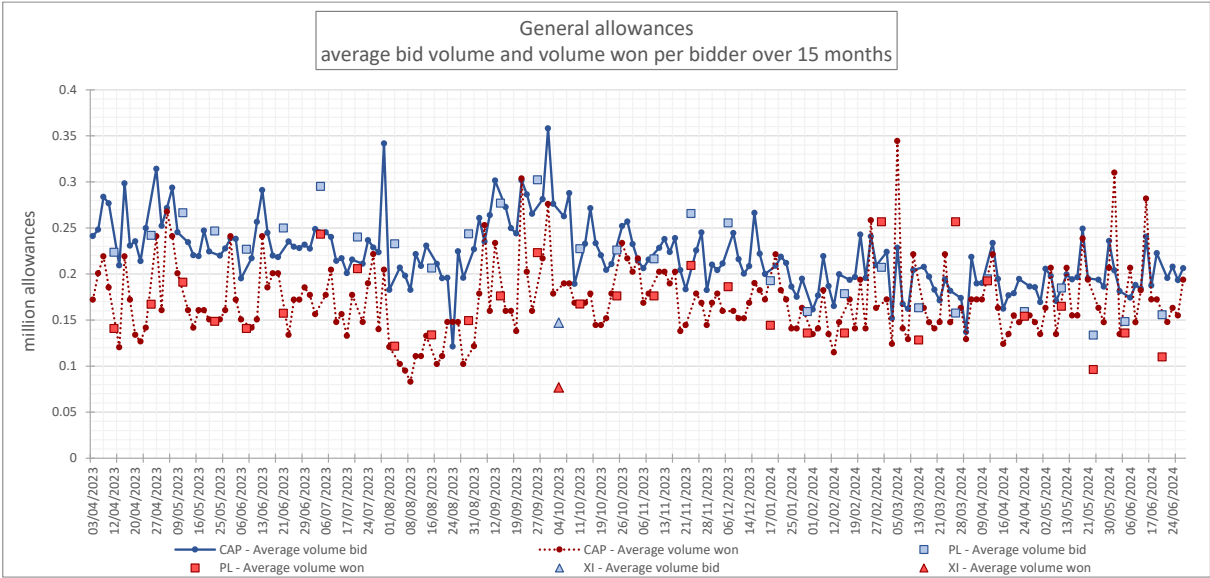
(1): Number of unique individual bidders or unique successful bidders present in a whole month.

[1] Monthly weighted average of the average volume won per bidder in each auction (total volume won in each auction divided by the number of successful bidders in that auction), weighted by volume auctioned in each auction.

[2] Average over the whole month of the volume won per bidder each time they are successful in an auction (computed as total volume auctioned for the month / sum over whole month of number of bidders successful in each auction).

[3] Standard deviation of volume won per bidder in each auction over the month

Graph 4: General allowances - average bid volume and volume won per bidder over 15 months



1.1.3. Type of bidders - general allowances

No successful bids for aviation allowances were submitted by intermediaries, the remaining successful bids were done on own account. The shares in the total successful bid volume per bidder category are indicated in Graph 5 and in Table 4.

Graph 5: General allowances - distribution of successful won volume per bidder category over 15 months

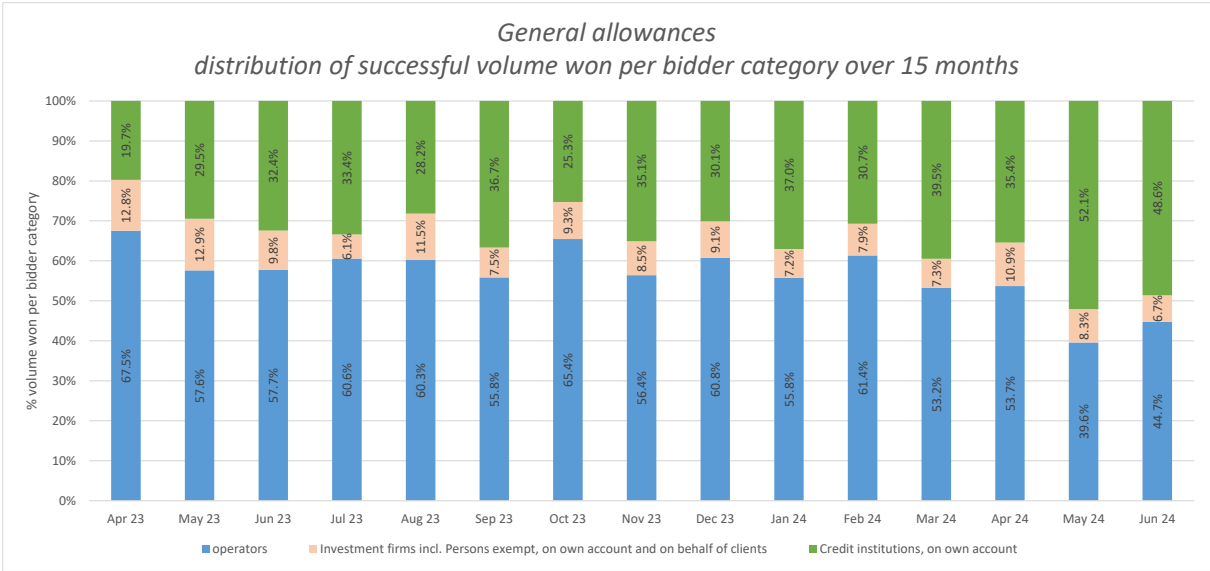


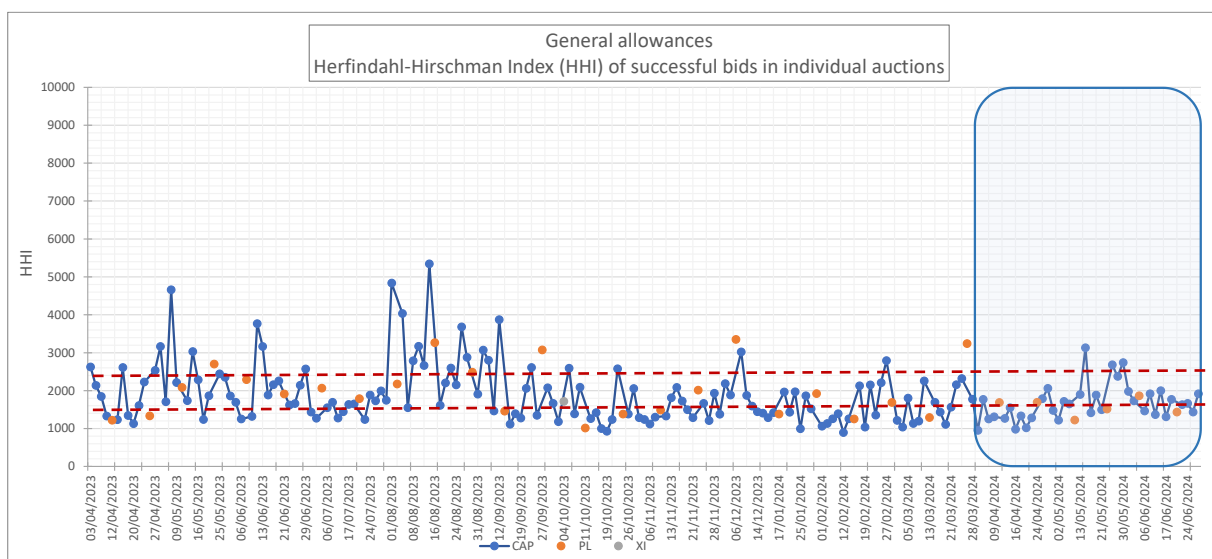
Table 4: General allowances – distribution of volume won per bidder category and their standard deviations

Month	% volume won coming from bidding on behalf of a client	Bidder category	% volume won	Standard deviation of % of volume won
Apr 24	0.00%	Operators (including Business groupings)	53.70%	13.6% points
		Investment firms (including persons exempt)	10.86%	5.5% points
		Credit institutions	35.44%	14.2% points
May 24	0.00%	Operators (including Business groupings)	39.59%	11.6% points
		Investment firms (including persons exempt)	8.33%	4.6% points
		Credit institutions	52.08%	9.7% points
Jun 24	0.00%	Operators (including Business groupings)	44.73%	10.1% points
		Investment firms (including persons exempt)	6.67%	3.2% points
		Credit institutions	48.59%	9.5% points

1.1.4. Concentration - general allowances

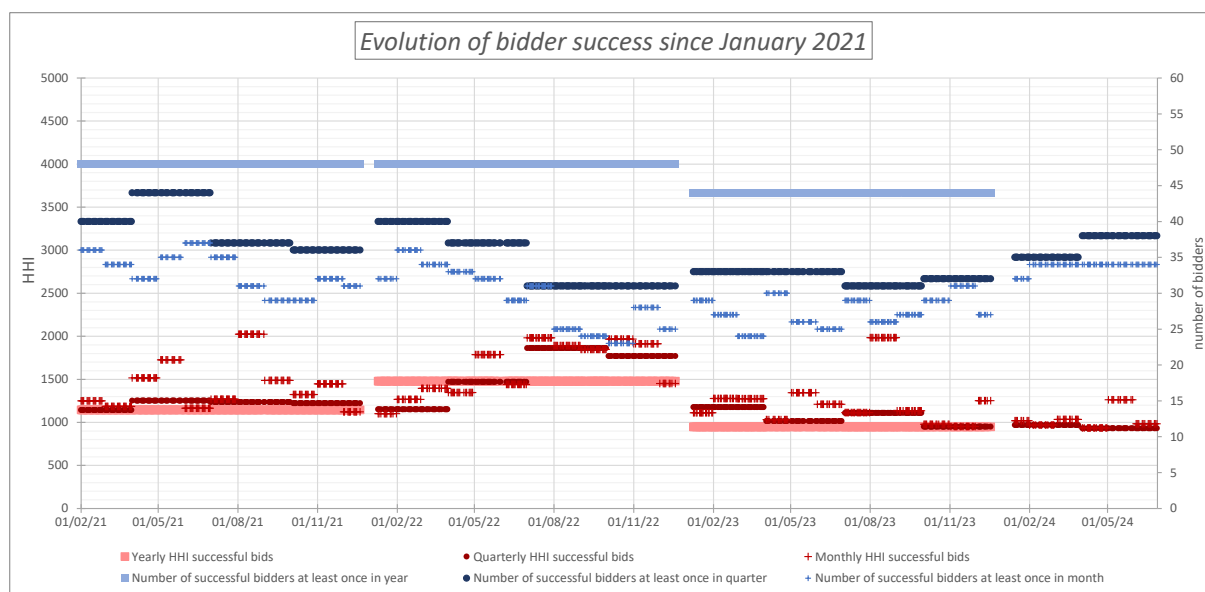
The Herfindahl-Hirschman Index (HHI) of successful bids is used to measure market concentration³. The HHI ranges from a value of 0 (perfect competition) to 10 000 (a single buyer). A common interpretation of the HHI is that a score below 1 500 is 'not-concentrated', between 1 500 and 2 500 is 'moderately concentrated,' and above 2 500 is 'highly concentrated' – these thresholds are indicated in Graphs 6 and 7. Graph 6 indicates the HHI of the individual auctions. Graph 7 indicates the monthly and quarterly HHI and successful bidder participation (number of bidders successful at least once in the period of interest) so as to show the variation over different periods, due to the turnover of participants in the auctions.

Graph 6: General allowances - Herfindahl-Hirschman Index of successful bids in individual auctions over 15 months



³ The HHI is calculated as the sum of the squares of all successful bidders' shares (in percentage points) of the total auctioned volume over the period of interest.

Graph 7: General allowances - Herfindahl-Hirschman Index of successful bids and successful bidder participation at monthly, quarterly and yearly level



1.2 Aviation allowances auctions

The auctioning of *aviation allowances* restarted as of November 2014⁴. Pursuant to the published *auction calendar*, only *aviation allowances* for the calendar year 2012 were auctioned in 2014⁵; the *aviation allowances* for the calendar years 2013-2015 were auctioned in 2015, in accordance with the published 2015 *auction calendar*. Poland decided to aggregate the *aviation allowances* for the calendar years 2012 to 2015 in a single auction held in May 2015.

1.2.1 Clearing prices and participation – aviation allowances

An overview of the auction results is provided in Table 5.

Table 5: Aviation allowances – main statistics on the results of the auctions per month

Month	Total auction volume	Total bid volume	Total revenue (€)	Average Cover ratio[1]	Average number of bidders	Average number of successful bidders	Average auction clearing price (€)[2]
Jun 24	-	-	-	-	-	-	-
May 24	906,000	2,368,000	62,831,100	2.6	15.0	9.0	69.35
Apr 24	-	-	-	-	-	-	-
Mar 24	906,000	1,537,000	52,457,400	1.7	14.0	14.0	57.90
Feb 24	-	-	-	-	-	-	-
Jan 24	906,000	1,674,000	56,172,000	1.9	13.0	11.0	62.00
Dec 23	169,500	810,000	11,814,150	4.8	10.0	4.0	69.70
Nov 23	766,500	1,973,000	60,898,425	2.6	10.0	8.0	79.45
Oct 23	-	-	-	-	-	-	-
Sep 23	775,500	2,398,000	61,884,900	3.1	12.0	6.0	79.80
Aug 23	-	-	-	-	-	-	-
Jul 23	775,500	1,645,000	66,165,660	2.1	13.0	9.0	85.32
Jun 23	-	-	-	-	-	-	-
May 23	775,500	2,362,500	66,367,290	3.1	15.0	7.0	85.58

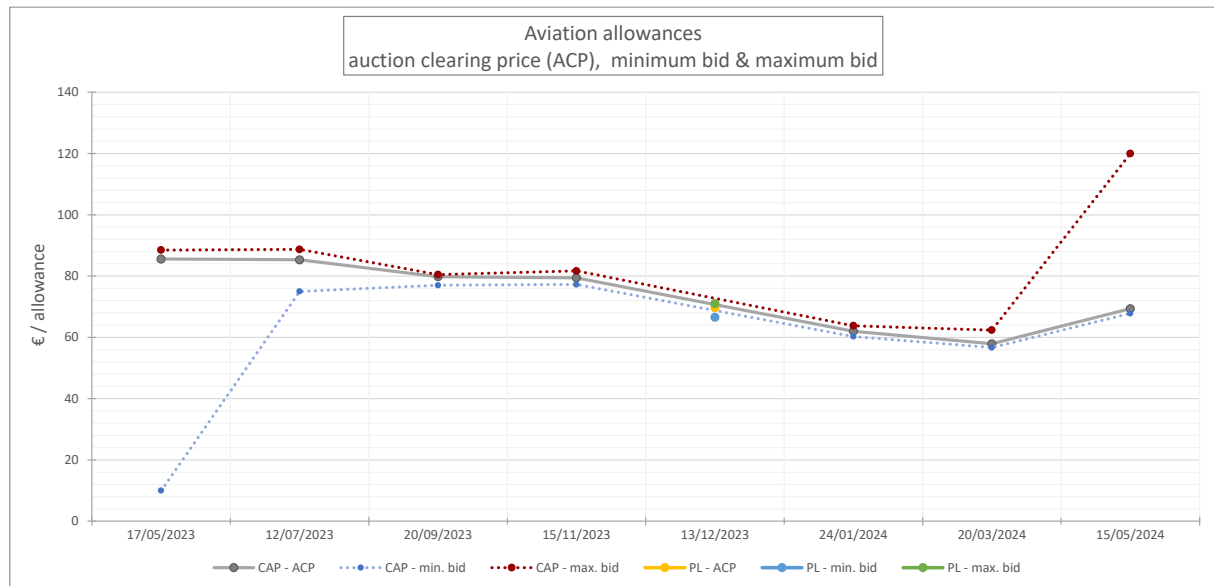
⁴ The auctions were suspended end 2012, see the Regulatory update published by the Commission on 16 November 2012: https://ec.europa.eu/clima/news-your-voice/news/auctions-2012-aviation-allowances-put-hold-2012-11-16_en

⁵ See also the regulatory update published by the Commission on 29 July 2014: https://ec.europa.eu/clima/news-your-voice/news/2014-aviation-auction-calendars-published-2014-07-29_en

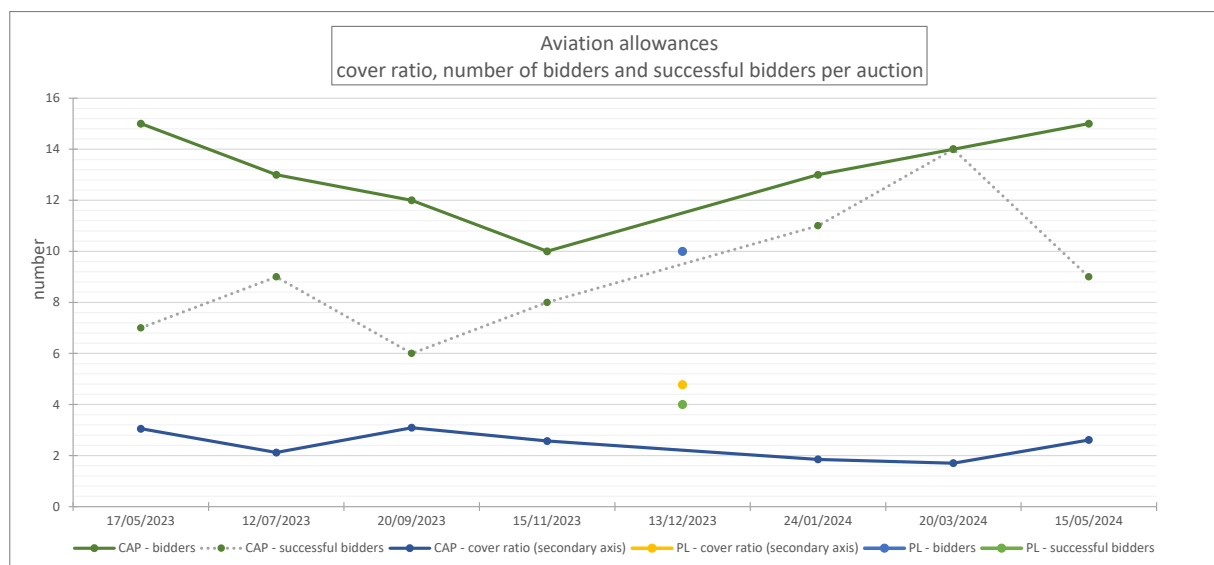
Apr 23	-	-	-	-	-	-	-
2023 total	4,813,500	12,242,500	394,645,890	2.8	11.4	7.4	81.99
2022 total	3,111,500	5,998,000	251,280,375	2.3	7.5	5.8	80.76
2021 total	3,185,500	7,463,000	171,307,490	2.6	6.5	4.5	53.78
2020 total	5,049,500	13,474,500	119,509,185	2.7	8.0	5.0	23.67
2019 total	4,701,000	13,172,500	119,584,255	2.8	8.7	5.9	25.44
2018 total	3,941,000	10,830,000	73,956,020	2.7	8.8	6.1	18.77
2017 total	3,329,500	10,300,000	23,771,460	3.1	7.5	6.5	7.14
2016 total	4,219,000	17,973,500	22,266,205	4.3	10.4	4.6	5.28

[1] The cover ratio is the ratio between the total bid volume and the auction volume.

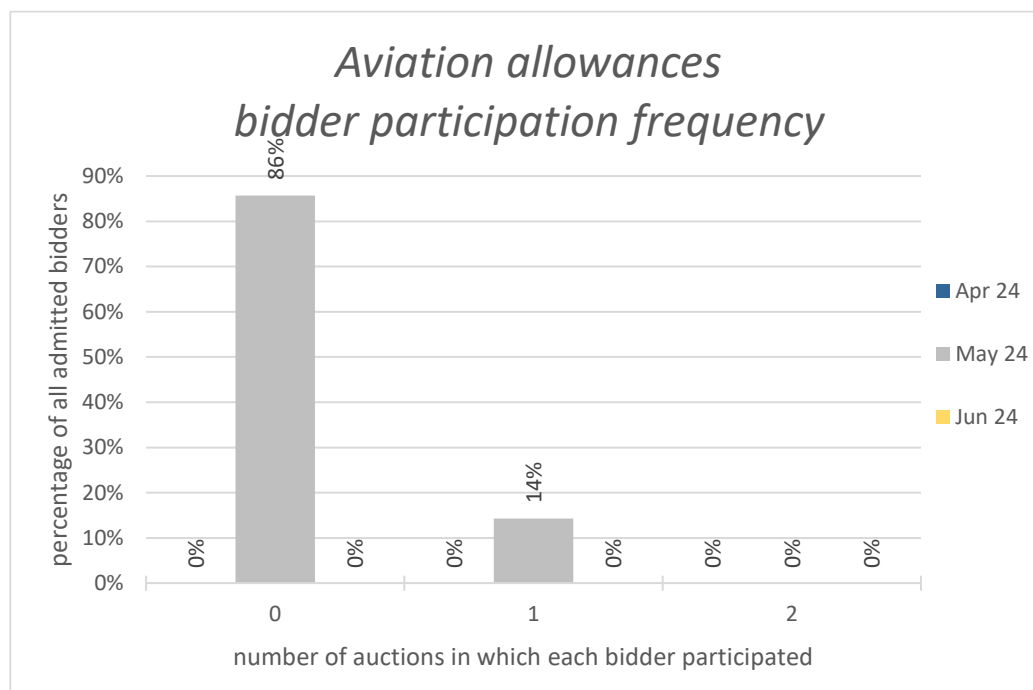
Graph 8: Aviation allowances - auction clearing price (ACP) & maximum prices bid & minimum prices bid



Graph 9: Aviation allowances - cover ratio (left axis), number of bidders and successful bidders (right axis) per auction



Graph 10: Aviation allowances – bidder participation frequency



1.2.2 Bidding behaviour – aviation allowances

Table 6 provides monthly data on the bids submitted over 15 months. See also Graph 11.

Table 6: Aviation allowances – monthly statistics on the submitted bids

Month	Nr of auctions	Nr of bidders ⁽¹⁾	Total volume of bids	Average total volume bid per bidder per auction[1]	Average total volume bid per bidder per auction over the month[2]	standard deviation of total volume bid per bidder per auction over the month[3]	Total monthly nr of bids	Average nr. of bids per bidder per auction[4]	Average bid size[5]
Jun 24	-	-	-	-	-	-	-	-	-
May 24	1	15	2,368,000	157,867	157,867	118,714	64	4.3	37,000
Apr 24	-	-	-	-	-	-	-	-	-
Mar 24	1	14	1,537,000	109,786	109,786	94,304	61	4.4	25,197
Feb 24	-	-	-	-	-	-	-	-	-
Jan 24	1	13	1,674,000	128,769	128,769	119,421	59	4.5	28,373
Dec 23	1	10	810,000	81,000	81,000	42,811	40	4.0	20,250
Nov 23	1	10	1,973,000	197,300	197,300	208,808	60	6.0	32,883
Oct 23	-	-	-	-	-	-	-	-	-
Sep 23	1	12	2,398,000	199,833	199,833	216,624	63	5.3	38,063
Aug 23	-	-	-	-	-	-	-	-	-
Jul 23	1	13	1,645,000	126,538	126,538	193,424	48	3.7	34,271
Jun 23	-	-	-	-	-	-	-	-	-
May 23	1	15	2,362,500	157,500	157,500	193,106	58	3.9	40,733
Apr 23	-	-	-	-	-	-	-	-	-

(1): Number of unique individual bidders or unique successful bidders present in a whole month.

[1] Monthly weighted average of the average bid volume per bidder in each auction (total bid volume in each auction divided by number of bidders participating in that auction), weighted by volume auctioned in each auction.

- [2] Average over the whole month of the volume bid by bidders each time they are present in an auction (computed as total volume bid for the month / sum over whole month of number of bidders present in each auction).
- [3] Standard deviation of total volume bid per bidder in each auction over the month
- [4] Monthly simple average of the average number of bids per bidder in each auction (total number of bids in each auction divided by number of bidders participating in that auction).
- [5] Monthly weighted average of the average bid size per bidder in each auction (total bid volume in each auction divided by number of bids in that auction), weighted by volume auctioned in each auction

Table 7 provides monthly data on successful bids over 15 months. See also Graph 11.

Table 7: Aviation Allowances – Monthly statistics on successful bids

Month	Nr of auctions	Nr of successful bidders ⁽¹⁾	Total auction volume	Average volume won per bidder per auction[1]	Average volume won per bidder per auction over the month[2]	Standard deviation of volume won per bidder per auction over the month[3]	Total monthly nr of successful bids
Jun 24	-	-	-	-	-	-	-
May 24	1	9	906,000	100,667	100,667	60,500	15
Apr 24	-	-	-	-	-	-	-
Mar 24	1	14	906,000	64,714	64,714	61,301	37
Feb 24	-	-	-	-	-	-	-
Jan 24	1	11	906,000	82,364	82,364	99,300	26
Dec 23	1	4	169,500	42,375	42,375	12,920	4
Nov 23	1	8	766,500	95,813	95,813	125,641	10
Oct 23	-	-	-	-	-	-	-
Sep 23	1	6	775,500	129,250	129,250	96,248	13
Aug 23	-	-	-	-	-	-	-
Jul 23	1	9	775,500	86,167	86,167	115,250	21
Jun 23	-	-	-	-	-	-	-
May 23	1	7	775,500	110,786	110,786	83,735	14
Apr 23	-	-	-	-	-	-	-

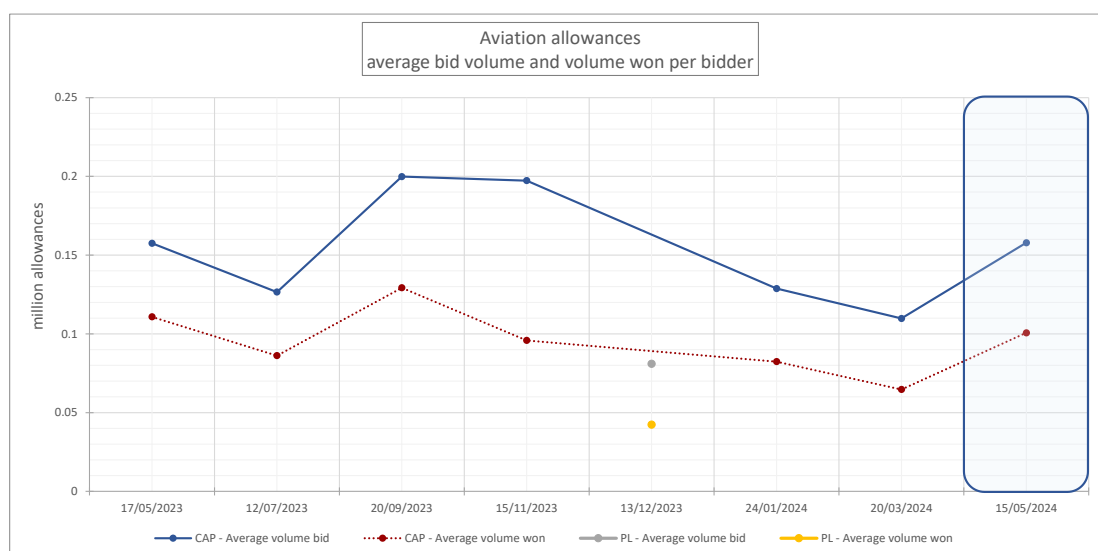
(1): Number of unique individual bidders or unique successful bidders present in a whole month.

[1] Monthly weighted average of the average volume won per bidder in each auction (total volume won in each auction divided by the number of successful bidders in that auction), weighted by volume auctioned in each auction.

[2] Average over the whole month of the volume won per bidder each time they are successful in an auction (computed as total volume auctioned for the month / sum over whole month of number of bidders successful in each auction).

[3] Standard deviation of volume won per bidder in each auction over the month

Graph 11: Aviation allowances - average bid volume and volume won per bidder



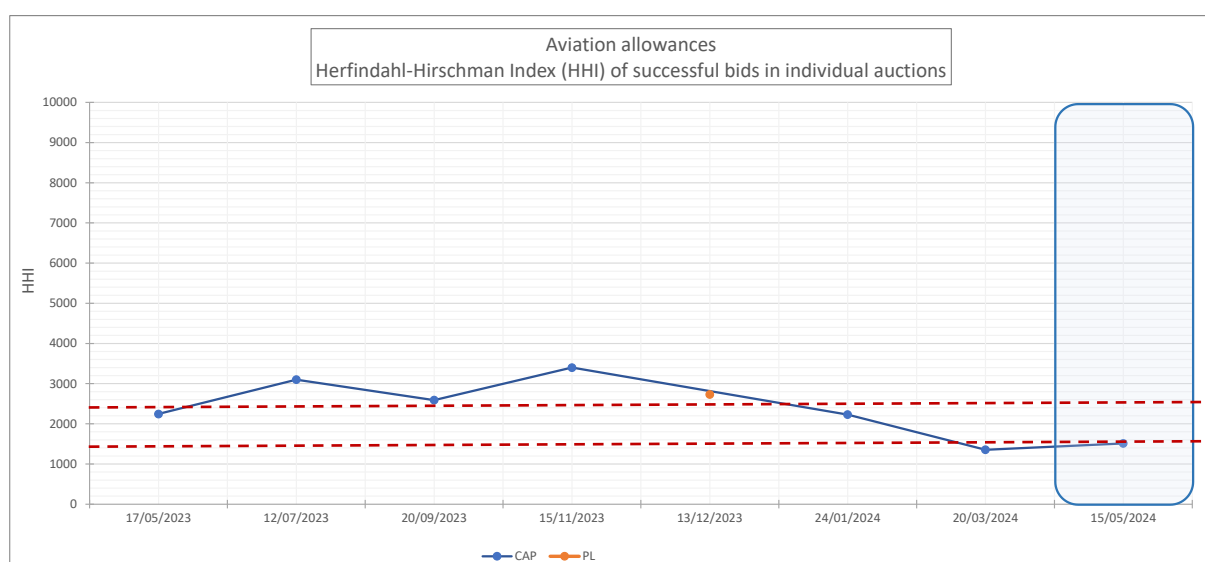
1.2.3 Type of bidders – aviation allowances

No bids for aviation allowances were submitted by intermediaries, the remaining volume bid was done on own account.

1.2.4 Concentration – aviation allowances

The HHI of successful bids is used to measure market concentration⁶. The HHI ranges from a value of 0 (perfect competition) to 10 000 (a single buyer). A common interpretation of the HHI is that a score below 1 500 is ‘not-concentrated’, between 1 500 and 2 500 is ‘moderately concentrated,’ and above 2 500 is ‘highly concentrated’. Graph 12 indicates the HHI of the individual auctions.

Graph 12: Aviation allowances - Herfindahl-Hirschman index of successful bids in individual auctions



⁶ The HHI is calculated as the sum of the squares of all successful bidders' shares (in percentage points) of the total auctioned volume over the period of interest.

Implementation of and compliance with the applicable rules

Fair and open access

EEX verified that each auction participant belonged to one of the categories of eligible bidders set out in Article 18 of the *Auctioning Regulation*. Table 9 presents the number of eligible bidders under each category in the reporting months.

Most of the active participants in the secondary carbon market are assumed to also have been admitted to bid in the auctions⁷.

Table 8: *Eligible participants to the auctions by category*

Number of participants		Operator		Investment firm	Credit Institution	Business grouping	Person exempt from MiFID requirements	Total
		Stationary	Aircraft					
Participants admitted to EEX's emissions spot secondary market	Apr 24	-	-	-	-	-	-	197
	May 24	-	-	-	-	-	-	197
	Jun 24	-	-	-	-	-	-	197
Participants eligible to bid in the auctions	Apr 24	74	2	11	8	1	10	106
	May 24	73	2	11	8	1	10	105
	Jun 24	74	2	11	8	1	10	106
(Of which:) Participants eligible to bid in the auctions on behalf of clients	Apr 24	-	-	3	2	-	1	6
	May 24	-	-	3	2	-	1	6
	Jun 24	-	-	3	2	-	1	6
(Of which:) Auction-only access	Apr 24	1	-	2	1	-	1	5
	May 24	1	-	2	1	-	1	5

⁷ This assessment is based on the auction participants' activity in EEX's secondary market and general market knowledge of EEX.

	Jun 24	1	-	2	1	-	1	5
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No irregularities or deviations from the admission and access requirements were found.

Transparency

Information on the auctions was published by EEX in accordance with Chapter XVI of the *Auctioning Regulation*.

No infringements of the confidentiality requirements were identified.

Technical and operational aspects

With regard to the operational performance of the auctions, no irregularities or deviations from the requirements were found.

EEX's Market Surveillance department surveyed all auctions with a view to detecting any *market abuse*, money laundering, terrorist financing or other criminal activities. No such wrongdoing was publicly reported.

Other aspects

No other problems or issues were identified.

2. Overview of, and any updates on breaches of provisions or ongoing proceedings

No breaches or problems of non-conformity were reported. There were no proceedings on such breaches or problems of non-conformity dating from before the reporting period.

Comments of the auction platform on the draft of this report

EEX reviewed the auction data presented in the report.

Date of publication: 31/07/2024

Glossary

Auction calendar	Document setting out the <i>bidding windows</i> , individual volumes and auction dates of the auctions in a given calendar year. See Articles 12, 13 and 31 of the <i>Auctioning Regulation</i> .
Auction Clearing Price	Price determined upon closure of the <i>bidding window</i> .
Auction-only access	Access to the auctions without becoming a member of or participant in other markets organised by the auction platform.
Auctioning Regulation	Commission Delegated Regulation (EU) 2023/2830 of 17 October 2023 supplementing Directive 2003/87/EC of the European Parliament and of the Council by laying down rules on the timing, administration and other aspects of auctioning of greenhouse gas emission allowances, <i>OJ L</i> , 2023/2830, 20.12.2023, ELI: http://data.europa.eu/eli/reg_del/2023/2830/oj .
Auctioneer	Entity appointed by a Member State that offers the allowances to be auctioned to the auction platform and receives the auction proceeds due to the appointing Member State. See Articles 22 and 23 of the <i>Auctioning Regulation</i> .
Best-bid and best-ask prices	The best-bid price is the highest price any buyer is willing to pay and the best-ask price is the lowest price any seller is willing to accept.
Business groupings	Groupings of operators or aircraft operators. See Article 18(1)(d) of the <i>Auctioning Regulation</i> .
Bidding window	Time during which bidders can submit bids. See Article 8(1) of the <i>Auctioning Regulation</i> .
Clearing	Processes preceding the opening of the <i>Bidding window</i> , during the <i>Bidding window</i> and following the closure of the <i>Bidding window</i> until <i>Settlement</i> , involving the management of any risks arising during that interval including margining, netting or novation or any other services carried out possibly by a <i>Clearing</i> or <i>Settlement</i> system. See Article 3(32) of the <i>Auctioning Regulation</i> .
Common auction platform	The auction platform appointed pursuant to Article 26(1) of the <i>Auctioning Regulation</i> . The <i>common auction platform</i> referred to as the third common auction platform, or CAP3, was appointed pursuant to Article 26(1) of the <i>Auctioning Regulation</i> , on 4 November 2020 for a period of 5 years, extendable for a period of maximum 7 years.
Cover ratio	Total bid volume divided by the available volume in the auction.
Credit institution	Credit institution as defined in EU legislation on credit institutions (Article 4(1) of Directive 2006/48/EC).
ETS Directive	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, as subsequently amended. See: http://ec.europa.eu/clima/policies/ets/documentation_en.htm.

Fourth trading period	The period 2021-2030.
General Allowance	Allowance to emit one tonne of CO ₂ -equivalent, see Article 3(a) of the <i>ETS Directive</i> , also referred to as <i>EUA</i> .
Aviation Allowance	Allowance to emit one tonne of CO ₂ -equivalent that can be used by aircraft operators, also referred to as <i>EUAA</i> . See Article 12(2a) and (3) of the <i>ETS Directive</i> .
Investment firms	Investment firms as defined in EU financial markets legislation (point (1) of Article 4(1) of Directive 2004/39/EC).
Market abuse	Insider dealing and market manipulation. See Article 36 of the <i>Auctioning Regulation</i> and Article 1 of Directive 2003/6/EC ('Market Abuse Directive').
Participating Member States	All EU Member States except Germany and Poland, which decided to opt out from the joint procurement of a common auction platform pursuant to Article 30 of the <i>Auctioning Regulation</i> .
Persons exempt from MiFID	Natural or legal persons exempt from the authorisation requirements in EU financial law because their trading and investment services activities are only ancillary to their main business (Article 2(1)(i) of Directive 2004/39/EC) and that have been authorised under national legislation implementing the rules laid down in the <i>Auctioning Regulation</i> to bid for allowances in the auctions. See Article 18(2) of the <i>Auctioning Regulation</i> .
Secondary market	Market in which persons buy or sell allowances either before or after they are allocated, either free of charge or through auctioning. To be distinguished from the 'primary market', consisting of the auctions of allowances.
Settlement	Payment on delivery of the allowances. See Article 3(34) of the <i>Auctioning Regulation</i> .
Spot secondary market	<i>Secondary market</i> for allowances with delivery within 5 days from the transaction.
Third trading period	The period 2013-2020, including the allowances referred to in Article 10(1) of the <i>Auctioning Regulation</i> auctioned in 2012. Allowances are valid during a given period without distinction as regards the year within that period. See Article 13 of the <i>ETS Directive</i> .

**Annex 1a Auction revenues per Member State and for Poland from 12 November 2012 to the end of Quarter 2 2024
(reported in euros)**

(The data used in this annex can also be obtained directly from the EEX website.)

<i>Cumulated Revenues since November 2012 (start of Phase III)</i>	General allowances	Aviation allowances	General and aviation allowances
Austria	2,154,603,015	37,667,835	2,192,270,850
Belgium	3,846,128,460	49,150,930	3,895,279,390
Bulgaria	5,172,068,245	16,036,720	5,188,104,965
Croatia	806,899,920	11,877,880	818,777,800
Cyprus	425,296,550	15,455,220	440,751,770
Czech Republic	4,840,468,350	18,342,840	4,858,811,190
Denmark	1,988,095,925	44,920,540	2,033,016,465
Estonia	1,591,252,680	3,974,370	1,595,227,050
Finland	2,756,523,205	36,462,830	2,792,986,035
France	9,583,025,150	202,414,515	9,785,439,665
Greece	6,604,805,160	86,998,035	6,691,803,195
Hungary	2,390,769,425	16,584,805	2,407,354,230
Iceland	74,390,475	15,473,270	89,863,745
InnoFund RRF	3,118,138,705	-	3,118,138,705
Innovation Fund	9,581,378,225	-	9,581,378,225
Ireland	1,169,469,985	34,055,950	1,203,525,935
Italy	16,683,769,185	220,380,240	16,904,149,425
Latvia	448,512,785	9,111,810	457,624,595
Liechtenstein	2,313,240	-	2,313,240
Lithuania	709,267,645	6,678,500	715,946,145
Luxembourg	117,334,170	5,940,010	123,274,180
Malta	196,770,930	9,917,630	206,688,560
Modernisation Fund	17,766,742,575	-	17,766,742,575
MS RRF	2,353,393,775	-	2,353,393,775
The Netherlands	5,863,481,120	74,058,950	5,937,540,070
Northern Ireland	247,041,110	-	247,041,110
Norway	1,909,829,535	95,431,930	2,005,261,465
Poland	25,720,156,625	37,241,940	25,757,398,565
Portugal	3,323,054,825	61,258,735	3,384,313,560
Romania	4,929,449,245	30,140,695	4,959,589,940
Slovak Republic	2,213,839,825	2,916,355	2,216,756,180
Slovenia	849,474,975	2,248,725	851,723,700
Spain	16,117,321,115	261,701,965	16,379,023,080
Sweden	1,487,885,930	62,639,370	1,550,525,300
TOTAL	157,042,952,085	1,469,082,595	158,512,034,680

Annex 1b Auction revenues per Member State and for Poland from January 2021 to the end of Quarter 2 2024

(reported in euros)

(The data used in this annex can also be obtained directly from the EEX website.)

<i>Cumulated Revenues since January 2021 (start of Phase IV)</i>	General allowances	Aviation allowances	General and aviation allowances
Austria	1,251,079,895	25,145,670	1,276,225,565
Belgium	2,160,950,160	34,135,315	2,195,085,475
Bulgaria	3,470,891,370	11,437,425	3,482,328,795
Croatia	458,983,860	9,090,510	468,074,370
Cyprus	329,224,925	8,323,490	337,548,415
Czech Republic	2,346,806,010	12,127,595	2,358,933,605
Denmark	1,177,981,525	30,720,495	1,208,702,020
Estonia	1,056,967,775	3,184,425	1,060,152,200
Finland	1,671,271,495	25,403,325	1,696,674,820
France	6,029,212,620	133,764,050	6,162,976,670
Greece	4,255,484,995	61,861,030	4,317,346,025
Hungary	1,388,834,040	11,523,215	1,400,357,255
Iceland	14,198,330	10,784,875	24,983,205
InnoFund RRF	3,118,138,705	-	3,118,138,705
Innovation Fund	8,247,555,220	-	8,247,555,220
Ireland	564,989,250	22,860,405	587,849,655
Italy	10,393,363,040	145,744,955	10,539,107,995
Latvia	260,315,130	6,412,335	266,727,465
Liechtenstein	1,000,975	-	1,000,975
Lithuania	338,304,565	5,256,010	343,560,575
Luxembourg	36,973,125	4,230,535	41,203,660
Malta	126,990,015	7,071,740	134,061,755
Modernisation Fund	17,766,742,575	-	17,766,742,575
MS RRF	2,353,393,775	-	2,353,393,775
The Netherlands	3,689,390,840	50,880,150	3,740,270,990
Northern Ireland	247,041,110	-	247,041,110
Norway	712,474,600	49,996,680	762,471,280
Poland	17,716,047,855	26,330,445	17,742,378,300
Portugal	2,134,533,530	46,091,690	2,180,625,220
Romania	1,755,112,970	22,142,050	1,777,255,020
Slovak Republic	1,129,969,750	1,929,580	1,131,899,330
Slovenia	547,394,440	1,542,875	548,937,315
Spain	10,313,601,070	176,575,665	10,490,176,735
Sweden	893,997,190	44,127,720	938,124,910
TOTAL	107,959,216,730	988,694,255	108,947,910,985

Annex 2 Results of individual auctions on behalf of *participating Member States* and Poland in April, May, June 2024

(The data used in the highlighted subsection of the tables presented in this annex can also be obtained directly from the EEX website.)

General Allowances - April 2024																			
Date	Auction Clearing Price	Minimum Bid price	Maximum Bid price	Mean Bid price	Median Bid price	Total Auction Volume	Total Bid Volume	Cover ratio	Nr of Bidders	Nr of Successful Bidders	Total Revenue	Nr of Bids	Nr of Successful Bids	Avg nr of bids per bidder	Average bid size	Avg total volume bid per bidder	standard deviation of total volume bid per bidder	Average volume won per bidder	Standard deviation of volume won per bidder
02/04/2024	57.07	56.01	120.00	58.54	57.55	3,099,500	3,423,000	1.10	25	24	176,888,465	85	70	3.40	40,271	136,920	147,560	129,146	146,441
04/04/2024	56.37	54.04	120.00	56.82	56.03	3,099,500	5,677,500	1.83	26	18	174,718,815	115	38	4.42	49,370	218,365	271,971	172,194	254,727
08/04/2024	58.41	54.99	120.00	59.05	58.01	3,099,500	5,498,000	1.77	29	18	181,041,795	123	37	4.24	44,699	189,586	215,146	172,194	192,874
09/04/2024	61.30	1.00	120.00	61.56	60.98	3,099,500	5,323,000	1.72	28	18	189,999,350	122	35	4.36	43,631	190,107	204,977	172,194	200,982
10/04/2024	63.00	55.99	120.00	62.89	62.00	2,310,000	5,062,500	2.19	26	12	145,530,000	104	15	4.00	48,678	194,712	192,304	192,500	194,800
11/04/2024	63.42	45.00	120.00	64.57	62.90	3,099,500	5,374,500	1.73	23	14	196,570,290	105	27	4.57	51,186	233,674	231,484	221,393	194,533
15/04/2024	68.17	56.00	120.00	68.64	67.85	3,099,500	5,255,000	1.70	27	19	211,292,915	113	35	4.19	46,504	194,630	234,628	163,132	227,342
16/04/2024	70.61	55.00	120.00	71.21	70.71	3,099,500	4,544,000	1.47	28	25	218,855,695	104	62	3.71	43,692	162,286	198,009	123,980	149,711
18/04/2024	67.15	55.99	120.00	68.88	67.04	3,099,500	4,598,000	1.48	26	23	208,131,425	107	46	4.12	42,972	176,846	205,698	134,761	193,837
22/04/2024	65.10	56.00	120.00	65.86	64.76	3,099,500	4,836,000	1.56	27	20	201,777,450	112	38	4.15	43,179	179,111	181,651	154,975	157,761
23/04/2024	64.28	62.40	120.00	67.43	64.21	3,099,500	4,861,500	1.57	25	21	199,235,860	108	47	4.32	45,014	194,460	205,303	147,595	192,292
24/04/2024	65.35	54.63	120.00	65.93	64.86	2,310,000	4,617,500	2.00	29	15	150,958,500	104	25	3.59	44,399	159,224	175,574	154,000	191,174
25/04/2024	65.08	56.99	120.00	65.61	64.85	3,099,500	5,220,000	1.68	28	20	201,715,460	101	35	3.61	51,683	186,429	252,562	154,975	248,625
29/04/2024	63.52	61.24	120.00	64.49	63.38	3,099,500	4,639,000	1.50	25	21	196,880,240	104	41	4.16	44,606	185,560	270,331	147,595	269,071
30/04/2024	65.26	63.71	120.00	66.76	65.26	3,099,500	4,407,000	1.42	26	23	202,273,370	101	51	3.88	43,634	169,500	207,109	134,761	208,784

General Allowances - May 2024																			
Date	Auction Clearing Price	Minimum Bid price	Maximum Bid price	Mean Bid price	Median Bid price	Total Auction Volume	Total Bid Volume	Cover ratio	Nr of Bidders	Nr of Successful Bidders	Total Revenue	Nr of Bids	Nr of Successful Bids	Avg nr of bids per bidder	Average bid size	Avg total volume bid per bidder	standard deviation of total volume bid per bidder	Average volume won per bidder	Standard deviation of volume won per bidder
02/05/2024	68.10	66.32	120.00	68.91	67.76	3,099,500	5,138,000	1.66	25	19	211,075,950	108	37	4.32	47,574	205,520	199,970	163,132	187,527
06/05/2024	70.30	67.89	120.00	71.19	69.83	3,099,500	5,342,000	1.72	27	15	217,894,850	118	32	4.37	45,271	197,852	233,550	206,633	259,371
07/05/2024	69.16	50.00	120.00	70.66	69.18	3,099,500	4,434,000	1.43	26	23	214,361,420	103	54	3.96	43,049	170,538	235,884	134,761	225,397
08/05/2024	68.99	45.00	120.00	69.50	68.62	2,310,000	4,249,500	1.84	23	14	159,366,900	97	26	4.22	43,809	184,761	163,681	165,000	139,251
13/05/2024	68.48	66.43	120.00	69.30	67.95	3,099,500	5,185,500	1.67	26	15	212,253,760	100	30	3.85	51,855	199,442	243,913	206,633	280,835
14/05/2024	67.67	65.04	120.00	69.27	67.44	3,099,500	4,657,500	1.50	24	20	209,743,165	90	37	3.75	51,750	194,063	332,625	154,975	355,642
16/05/2024	68.26	66.11	120.00	69.86	68.03	3,099,500	4,712,000	1.52	24	20	211,571,870	98	36	4.08	48,082	196,333	215,785	154,975	209,607
20/05/2024	71.24	65.99	120.00	73.48	70.92	3,099,500	4,233,500	1.37	17	13	220,808,380	78	28	4.59	54,276	249,029	253,898	238,423	286,805
21/05/2024	71.80	67.50	120.00	72.87	71.21	3,099,500	4,685,000	1.51	24	16	222,544,100	102	26	4.25	45,931	195,208	208,425	193,719	228,862
22/05/2024	74.31	67.00	120.00	74.99	74.32	2,310,000	3,475,000	1.50	26	24	171,656,100	97	51	3.73	35,825	133,654	175,197	96,250	156,275
23/05/2024	74.90	55.00	120.00	74.98	74.84	3,099,500	4,069,500	1.31	21	19	232,152,550	88	40	4.19	46,244	193,786	322,062	163,132	330,136
28/05/2024	72.90	60.00	120.00	74.94	72.84	3,099,500	4,655,500	1.50	25	21	225,953,550	115	50	4.60	40,483	186,220	281,446	147,595	294,837
30/05/2024	72.00	69.39	120.00	73.50	71.66	3,099,500	5,186,500	1.67	22	15	223,164,000	106	25	4.82	48,929	235,750	346,813	206,633	364,447

General Allowances - June 2024																			
Date	Auction Clearing Price	Minimum Bid price	Maximum Bid price	Mean Bid price	Median Bid price	Total Auction Volume	Total Bid Volume	Cover ratio	Nr of Bidders	Nr of Successful Bidders	Total Revenue	Nr of Bids	Nr of Successful Bids	Avg nr of bids per bidder	Average bid size	Avg total volume bid per bidder	standard deviation of total volume bid per bidder	Average volume won per bidder	Standard deviation of volume won per bidder
03/06/2024	75.35	67.00	120.00	75.45	74.42	3,099,500	5,507,000	1.78	27	10	233,547,325	108	18	4.00	50,991	203,963	280,386	309,950	306,568
04/06/2024	71.50	67.90	120.00	72.84	71.39	3,099,500	4,713,500	1.52	26	23	221,614,250	105	41	4.04	44,890	181,288	241,285	134,761	232,837
05/06/2024	70.30	65.55	120.00	71.94	70.00	2,310,000	4,155,000	1.80	28	17	162,393,000	109	34	3.89	38,119	148,393	185,223	135,882	200,168
06/06/2024	71.00	67.99	120.00	72.57	70.55	3,099,500	4,883,500	1.58	28	15	220,064,500	120	36	4.29	40,696	174,411	199,606	206,633	226,284
10/06/2024	67.82	66.43	120.00	69.58	67.79	3,099,500	4,512,000	1.46	24	21	210,208,090	111	49	4.63	40,649	188,000	257,584	147,595	256,630
11/06/2024	70.31	60.00	7075.00	137.30	70.09	3,099,500	4,418,500	1.43	24	17	217,925,845	106	38	4.42	41,684	184,104	208,024	182,324	210,267
13/06/2024	69.77	67.86	120.00	71.86	69.28	3,099,500	5,531,500	1.78	23	11	216,252,115	104	25	4.52	53,188	240,500	269,701	281,773	308,542
17/06/2024	66.66	64.59	120.00	68.40	66.39	3,099,500	4,683,500	1.51	25	18	206,612,670	94	31	3.76	49,824	187,340	204,503	172,194	200,732
18/06/2024	66.97	65.11	120.00	69.22	66.86	3,099,500	4,675,500	1.51	21	18	207,573,515	102	45	4.86	45,838	222,643	268,813	172,194	254,440
19/06/2024	67.75	65.96	120.00	68.51	67.73	2,310,000	3,737,500	1.62	24	21	156,502,500	94	45	3.92	39,761	155,729	179,550	110,000	155,911
20/06/2024	68.61	66.46	120.00	70.49	68.46	3,104,000	4,694,000	1.51	24	21	212,965,440	93	39	3.88	50,473	195,583	258,268	147,810	230,077
24/06/2024	66.06	55.00	120.00	66.57	65.87	3,099,500	4,780,500	1.54	23	19	204,752,970	94	35	4.09	50,856	207,848	263,650	163,132	240,097
25/06/2024	65.94	60.00	120.00	67.30	65.92	3,099,500	4,447,500	1.43	23	20	204,381,030	91	43	3.96	48,874	193,370	214,047	154,975	212,181
27/06/2024	66.17	55.00	120.00	67.25	65.96	3,099,500	4,743,000	1.53	23	16	205,093,915	90	31	3.91	52,700	206,217	272,368	193,719	278,809

Aviation Allowances - April 2024																			
Date	Auction Clearing Price	Minimum Bid price	Maximum Bid price	Mean Bid price	Median Bid price	Total Auction Volume	Total Bid Volume	Cover ratio	Nr of Bidders	Nr of Successful Bidders	Total Revenue	Nr of Bids	Nr of Successful Bids	Avg nr of bids per bidder	Average bid size	Avg total volume bid per bidder	standard deviation of total volume bid per bidder	Average volume won per bidder	Standard deviation of volume won per bidder
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Aviation Allowances - May 2024																			
Date	Auction Clearing Price	Minimum Bid price	Maximum Bid price	Mean Bid price	Median Bid price	Total Auction Volume	Total Bid Volume	Cover ratio	Nr of Bidders	Nr of Successful Bidders	Total Revenue	Nr of Bids	Nr of Successful Bids	Avg nr of bids per bidder	Average bid size	Avg total volume bid per bidder	standard deviation of total volume bid per bidder	Average volume won per bidder	Standard deviation of volume won per bidder
15/05/2024	69.35	67.81	120.00	69.90	68.88	906,000	2,368,000	2.61	15	9	62,831,100	64	15	4.27	37,000	157,867	118,714	100,667	60,500

Aviation Allowances - June 2024																			
Date	Auction Clearing Price	Minimum Bid price	Maximum Bid price	Mean Bid price	Median Bid price	Total Auction Volume	Total Bid Volume	Cover ratio	Nr of Bidders	Nr of Successful Bidders	Total Revenue	Nr of Bids	Nr of Successful Bids	Avg nr of bids per bidder	Average bid size	Avg total volume bid per bidder	standard deviation of total volume bid per bidder	Average volume won per bidder	Standard deviation of volume won per bidder
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: volume variables reported in tCO₂, monetary variables reported in €

(1): Number of unique individual bidders or unique successful bidders present in a whole month. (2): Average number of bids submitted over the whole month by each bidder in each auction. Computed as total number of bids for the month / sum over whole month of number of bidders present in each auction. (3): Average size of all bids submitted in all auctions over the month. Computed as total bid volume for the month / number of bids for the month. (4): Average over the whole month of the volume bid by bidders each time they are present in an auction. Computed as total volume bid for the month / sum over whole month of number of bidders present in each auction. (5): Standard deviation of the total volume bid, by each bidder in each auction, over the whole month. (6): Average over the whole month of the volume won by bidders each time they are successful in an auction. Computed as total auction volume for the month / sum over whole month of number of bidders successful in each auction. (7): Standard deviation of the total volume won by each bidder in each auction, over the whole month, (8): HHI Monthly value is computed considering successful bidder's market share over whole month.