

Auctions by the *Common Auction Platform*

October, November, December 2021

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:

4, 5, 6(PL), 7, 11, 12, 13(PL), 14, 18, 19, 20(PL), 21, 25, 26, 27(PL), 28 October 2021;

1, 2, 3(PL), 4, 8, 9, 10(PL), 11, 15, 16, 17(PL), 18, 22, 23, 24(PL), 25, 29, 30 November 2021;

1(PL), 2, 6, 7, 8(PL), 9, 13, 14, 15(PL), 16, 20 December 2021;

Aviation Allowances:

No auctions in October 2021;

10 November 2021;

No auctions in December 2021;

Cancelled auctions:

No auctions in October 2021;

No auctions in November 2021;

No auctions in December 2021;

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 6 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 30(7) 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 October, November, December 2021 auctions at a glance:

	General Allowances			Aviation Allowances		
	Oct	Nov	Dec	Oct	Nov	Dec
General						
Number of auctions	16	18	11	-	1	-
Total volume auctioned	38.452.000	43.483.000	26.358.000	-	613.500	-
Amount raised from the auctions (€)	2.284.052.960	2.843.456.625	2.127.412.425	-	37.748.655	-
Average Auction Clearing Price (€/allowance)	59,40	65,39	80,71	-	61,53	-
Total bid volume	62.101.000	63.439.500	37.589.000	-	1.370.500	-
Average Cover ratio	1,6	1,5	1,4	-	2,2	-
Monthly HHI	1.322	1.447	1.122	-	4.014	-
Participation						
Number of eligible bidders	92	93	93	92	93	93
Number of participating bidders ⁽¹⁾	32	33	32	-	7	-
Number of successful bidders ⁽¹⁾	29	32	31	-	5	-
Average number of bidders per auction	21,9	20,7	19,5	-	7,0	-

Average number of successful bidders per auction	17,5	17,4	16,8	-	5,0	-
Auction data						
Average total volume bid per bidder per auction	179.384	173.816	176.366	-	195.786	-
Average bid size (volume per bid)	51.746	45.101	45.502	-	50.759	-
Average volume won per bidder per auction	140.606	144.139	145.810	-	122.700	-
Average range of bids (€)	19,01	16,53	35,18	-	1,46	-
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 and Poland from the start of the Third trading period auctions (November 2012) to December 2021 are EUR 74,664,998,705 and of aviation allowances EUR 651,695,830. Looking exclusively at the Fourth trading period (January 2021 - December 2021) the total revenues from the auctions of general allowances are EUR 25,581,263,350 and of aviation allowances EUR 171,307,490. 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.

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

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.

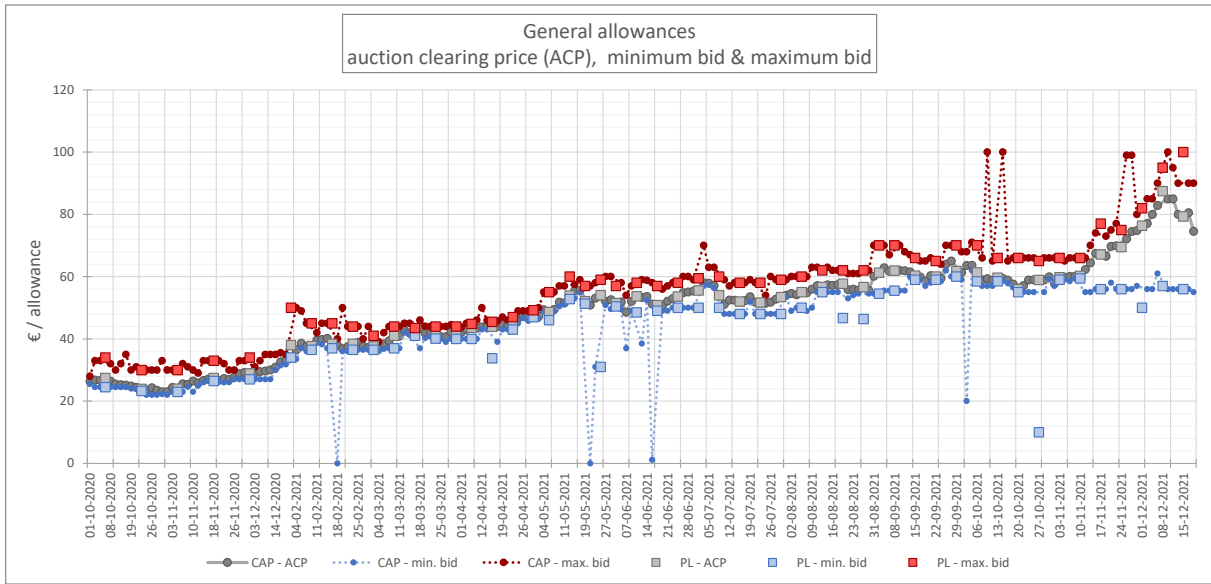
Table 1: General allowances - main statistics on the results of the auctions per month

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 (€)
Dec 21	26,358,000	37,589,000	2,127,412,425	1.4	19.5	16.8	80.71
Nov 21	43,483,000	63,439,500	2,843,456,625	1.5	20.7	17.4	65.39
Oct 21	38,452,000	62,101,000	2,284,052,960	1.6	21.9	17.5	59.40
Sep 21	40,527,000	64,777,000	2,489,433,875	1.6	21.3	16.8	61.43
Aug 21	26,656,500	58,272,500	1,502,176,915	2.2	22.0	15.9	56.35
Jul 21	53,050,500	78,671,000	2,834,823,470	1.5	24.9	20.0	53.44
Jun 21	55,627,000	80,288,000	2,933,509,560	1.4	26.1	19.6	52.74
May 21	39,896,500	61,722,500	2,080,915,820	1.5	24.0	18.5	52.16
Apr 21	49,762,000	81,098,000	2,230,370,115	1.6	25.3	16.7	44.82
Mar 21	58,915,500	101,135,000	2,384,370,530	1.7	24.5	17.8	40.47
Feb 21	49,762,000	86,028,000	1,870,741,055	1.7	26.7	20.4	37.59
Jan 21	-	-	-	-	-	-	-
Dec 20	30,115,500	45,640,500	890,427,730	1.5	24.9	19.6	29.57
Nov 20	64,166,500	98,183,000	1,680,636,490	1.5	26.8	20.0	26.19
Oct 20	64,172,500	102,287,000	1,617,594,100	1.6	27.2	21.1	25.21
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

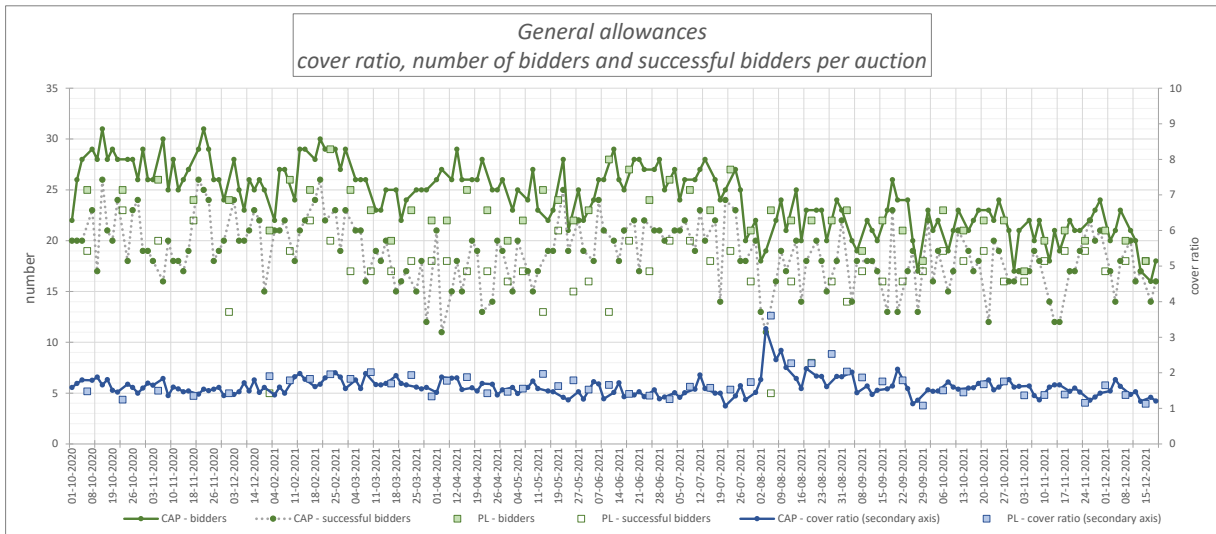
2015 total	413,874,000	1,337,010,500	3,154,940,925	3.2	18.3	13.3	7.62
2014 total	335,052,000	1,796,711,000	1,977,712,120	5.4	17.6	11.9	5.90
2013 total	530.488.000	1.761.639.500	2.349.853.340	3,3	18,4	13,2	4,43

During October, November, December 2021, 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 -0.06, -0.10, -0.35 respectively, and this difference had a standard deviation of EUR 0.12, 0.13, 0.30 respectively.

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

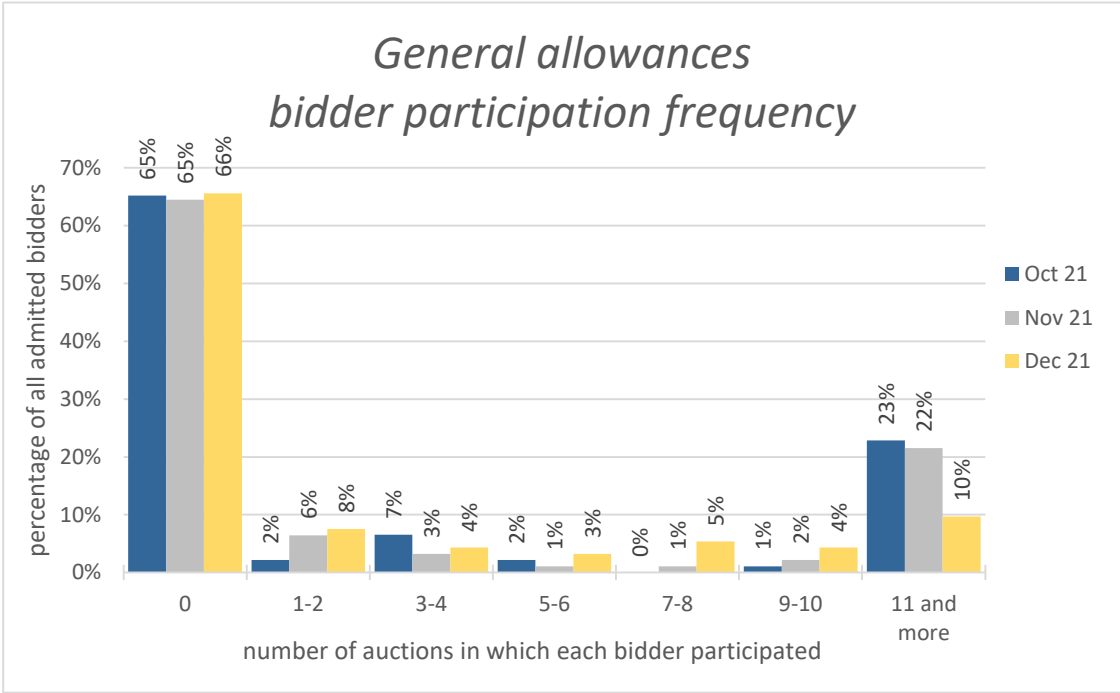


Graph 2: General allowances - cover ratio (left axis), number of bidders and successful bidders (right axis) per auction



The number of eligible bidders is provided in Section 2. Out of these 32, 33 and 32 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]
Dec 21	11	32	37,589,000	176,366	174,833	231,424	830	3.9	45,502
Nov 21	18	33	63,439,500	173,816	170,996	268,268	1,424	3.8	45,101
Oct 21	16	32	62,101,000	179,384	177,431	257,777	1,211	3.5	51,746
Sep 21	17	33	64,777,000	179,524	178,942	256,547	1,335	3.7	48,842
Aug 21	17	34	58,272,500	157,063	155,809	257,972	1,295	3.5	45,182
Jul 21	17	41	78,671,000	187,375	185,983	317,457	1,407	3.3	56,336
Jun 21	18	39	80,288,000	173,524	171,190	291,658	1,487	3.2	54,646
May 21	13	35	61,722,500	199,572	198,465	340,064	1,049	3.4	59,136
Apr 21	16	35	81,098,000	201,640	201,236	334,619	1,460	3.6	55,620
Mar 21	19	38	101,135,000	219,296	217,963	320,113	1,662	3.6	60,872
Feb 21	16	40	86,028,000	203,245	201,944	300,469	1,508	3.5	57,512
Jan 21	-	-	-	-	-	-	-	-	-
Dec 20	7	33	45,640,500	272,617	260,803	411,236	674	3.9	68,921
Nov 20	15	38	98,183,000	254,149	243,027	394,064	1,404	3.5	72,130
Oct 20	15	35	102,287,000	259,306	249,480	397,654	1,430	3.5	73,311

(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
Dec 21	11	31	26,358,000	145,810	142,476	218,273	424
Nov 21	18	32	43,483,000	144,139	138,923	230,916	675
Oct 21	16	29	38,452,000	140,606	136,840	216,414	537
Sep 21	17	29	40,527,000	146,820	142,200	224,108	615
Aug 21	17	31	26,656,500	109,081	100,212	185,608	519
Jul 21	17	35	53,050,500	160,072	156,954	253,238	668
Jun 21	18	37	55,627,000	161,071	158,934	251,871	716
May 21	13	35	39,896,500	171,028	166,931	291,217	489
Apr 21	16	32	49,762,000	193,896	185,679	294,286	564
Mar 21	19	34	58,915,500	180,245	174,823	237,097	710
Feb 21	16	36	49,762,000	170,363	154,062	233,780	645
Jan 21	-	-	-	-	-	-	-
Dec 20	7	28	30,115,500	251,273	213,585	337,965	325
Nov 20	15	35	64,166,500	224,324	214,604	340,736	590
Oct 20	15	33	64,172,500	213,031	202,437	332,633	597

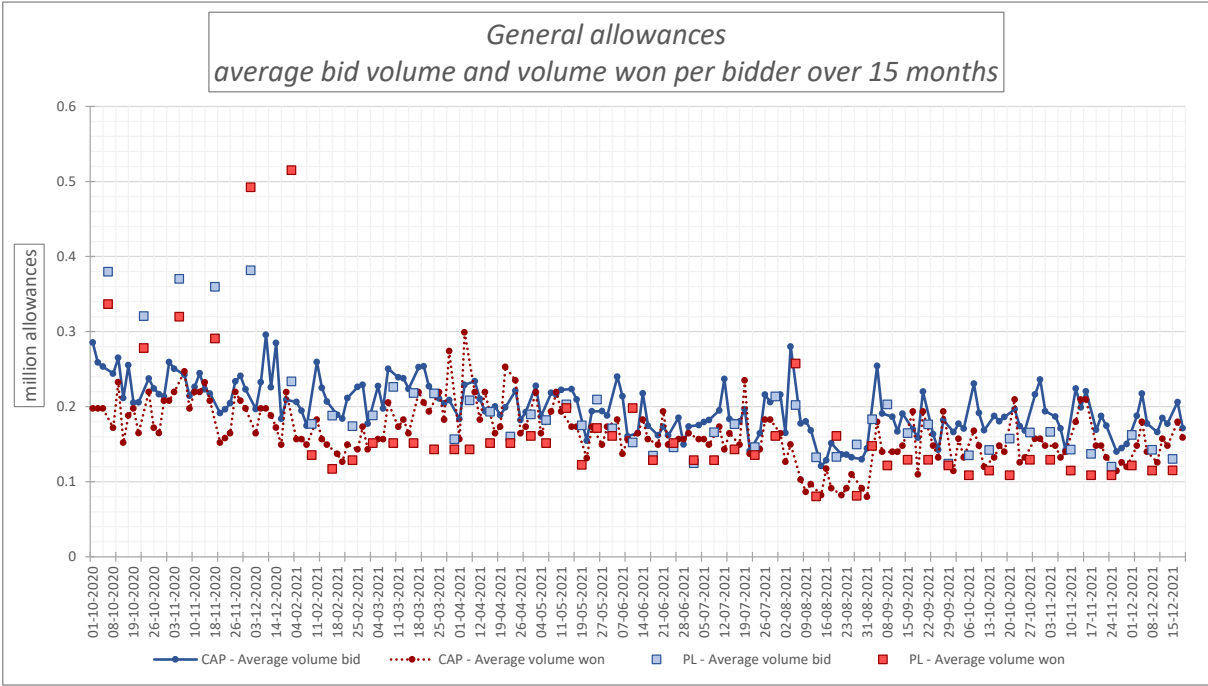
(1): Number of unique individual bidders or unique successful bidders present in a whole month.

[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

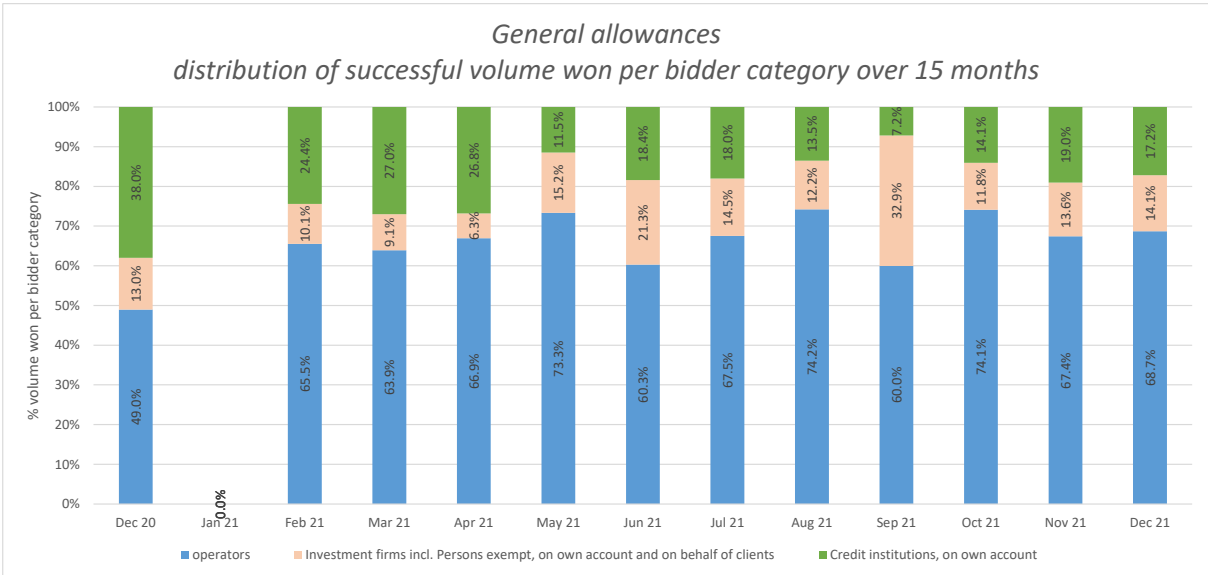
Graph 4: General allowances - average bid volume and volume won per bidder over 15 months



1.1.3. Type of bidders - general allowances

The volume submitted by intermediaries on behalf of a client³ during the reporting period was respectively 0, 0 and 0, the remaining volume bid was 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



³ The data related to bidding on behalf of clients reflects the self-assessment of the respective trader.

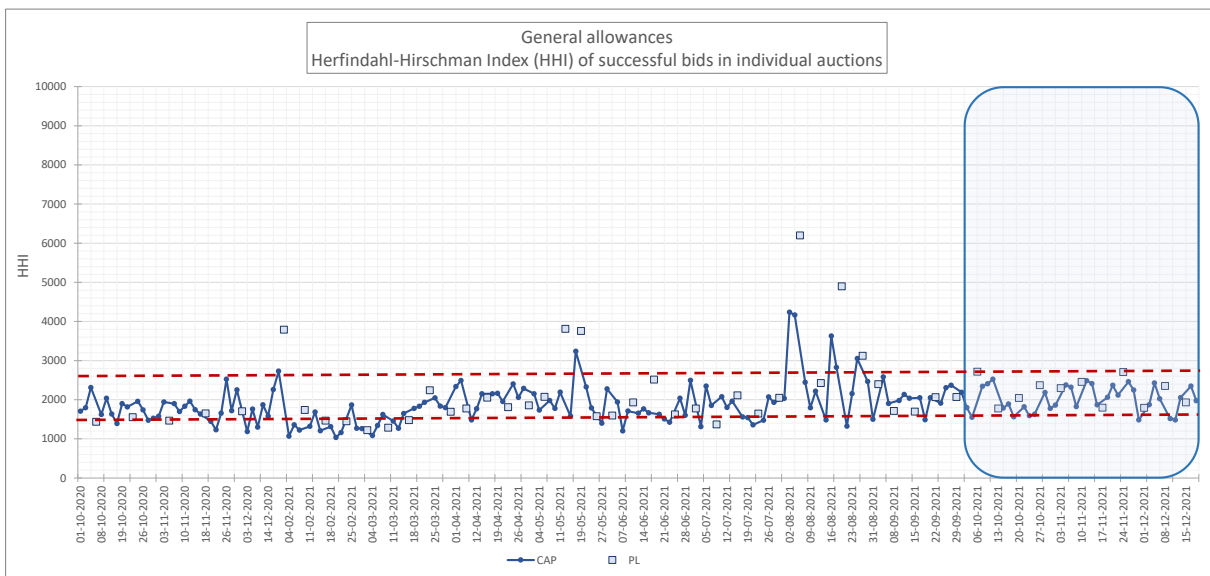
Table 4: General allowances – distribution of volume won per bidder category and their standard deviations

Month	% volume won coming from bidding on behalf of a client	Bidder category	% volume won	Standard deviation of % of volume won
Oct 21	0%	Operators (including Business groupings)	74.10%	15.1% points
		Investment firms (including persons exempt)	11.83%	8.0% points
		Credit institutions	14.07%	13.7% points
Nov 21	0%	Operators (including Business groupings)	67.41%	16.2% points
		Investment firms (including persons exempt)	13.56%	6.0% points
		Credit institutions	19.03%	14.4% points
Dec 21	0%	Operators (including Business groupings)	68.69%	15.9% points
		Investment firms (including persons exempt)	14.15%	6.3% points
		Credit institutions	17.17%	15.7% points

1.1.4. Concentration - general allowances

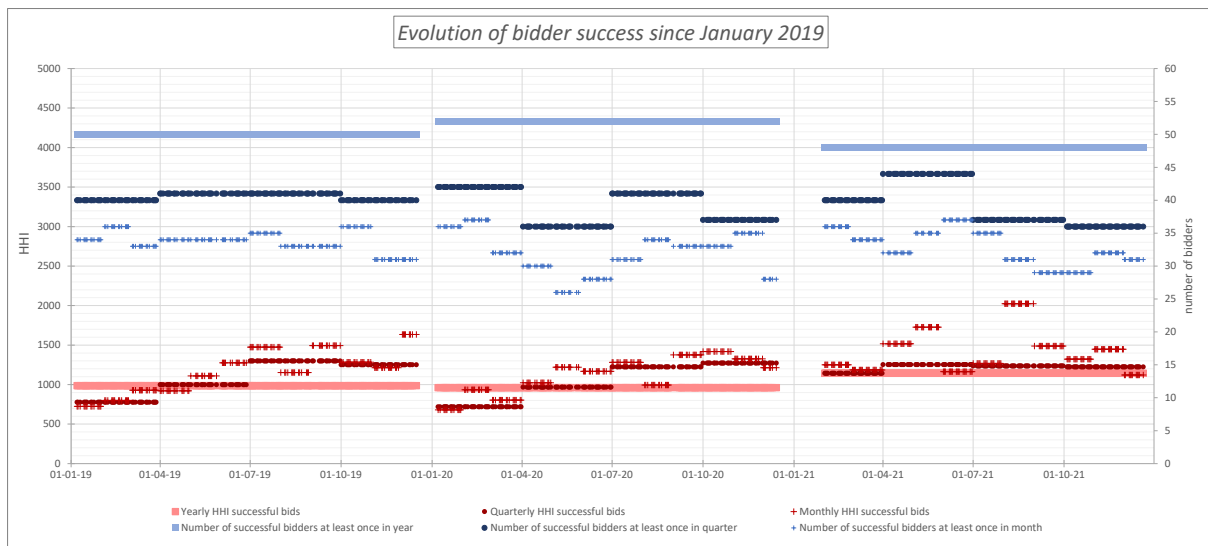
The Herfindahl-Hirschman Index (HHI) of successful bids is used to measure market concentration⁴. The HHI ranges from a value of 0 (perfect competition) to 10 000 (a single buyer). A common interpretation of the HHI is that a score below 1 500 is 'not-concentrated,' between 1 500 and 2 500 is 'moderately 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



⁴ 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 2014⁵. Pursuant to the published *auction calendar*, only *aviation allowances* for the calendar year 2012 were auctioned in 2014⁶; 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 (€)
Dec 21	-	-	-	-	-	-	-
Nov 21	613,500	1,370,500	37,748,655	2.2	7.0	5.0	61.53
Oct 21	-	-	-	-	-	-	-
Sep 21	614,500	1,044,500	36,870,000	1.7	7.0	5.0	60.00
Aug 21	-	-	-	-	-	-	-
Jul 21	614,500	1,486,000	32,660,675	2.4	5.0	4.0	53.15
Jun 21	-	-	-	-	-	-	-
May 21	614,500	1,949,500	33,318,190	3.2	6.0	5.0	54.22
Apr 21	114,000	508,000	4,962,420	4.5	7.0	2.0	43.53
Mar 21	614,500	1,104,500	25,747,550	1.8	7.0	6.0	41.90
Feb 21	-	-	-	-	-	-	-
Jan 21	-	-	-	-	-	-	-
Dec 20	-	-	-	-	-	-	-
Nov 20	891,500	2,026,000	21,244,445	2.3	10.0	6.0	23.83

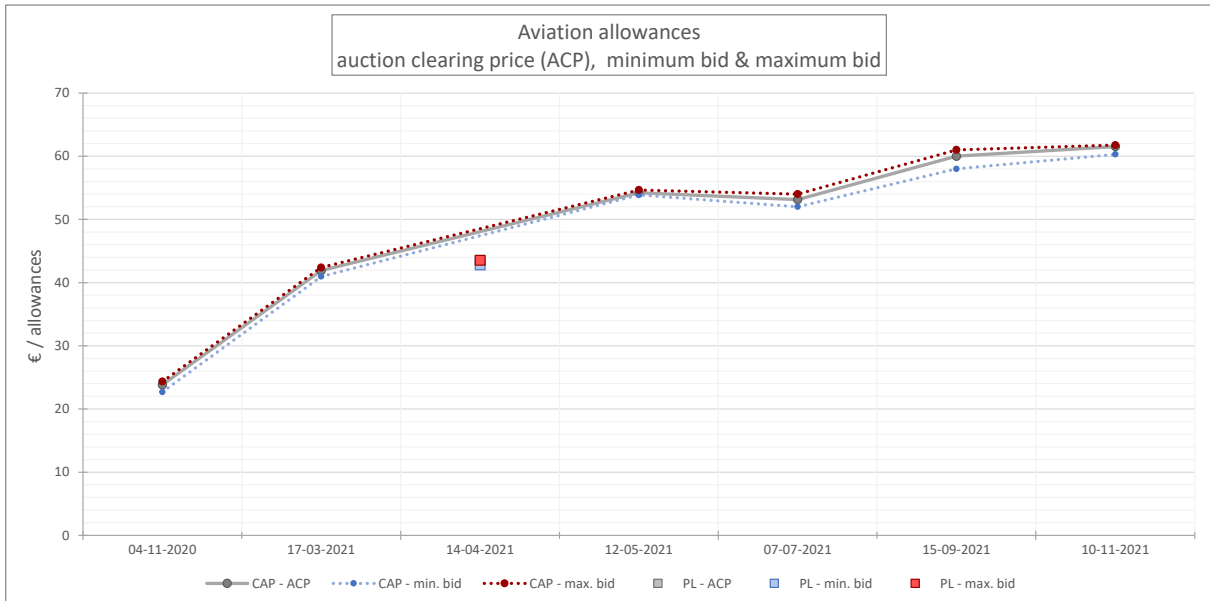
⁵ The auctions were suspended end 2012, see the Regulatory update published by the Commission on 16 November 2012: https://ec.europa.eu/clima/news-your-voice/news/auctions-2012-aviation-allowances-put-hold-2012-11-16_en

⁶ 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

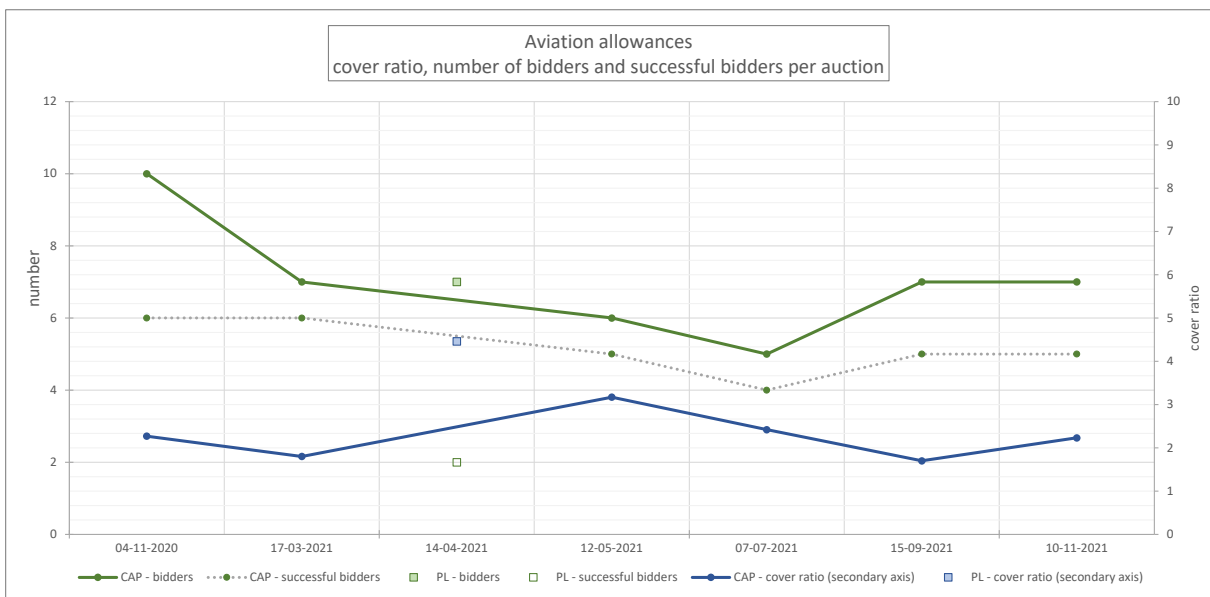
Oct 20	-	-	-	-	-	-	-
2021 total	3,185,500	7,463,000	171,307,490	2.6	6.5	4.5	53.78
2020 total	5,049,500	13,474,500	119,509,185	2.7	8.0	5.0	23.67
2019 total	4,701,000	13,172,500	119,584,255	2.8	8.7	5.9	25.44
2018 total	3,941,000	10,830,000	73,956,020	2.7	8.8	6.1	18.77
2017 total	3,329,500	10,300,000	23,771,460	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
2015 total	11,641,000	39,026,000	81,846,705	3.4	11.0	7.5	7.03
2014 total	6,570,500	28,201,500	39,454,510	4,3	13,0	8,0	6,00

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

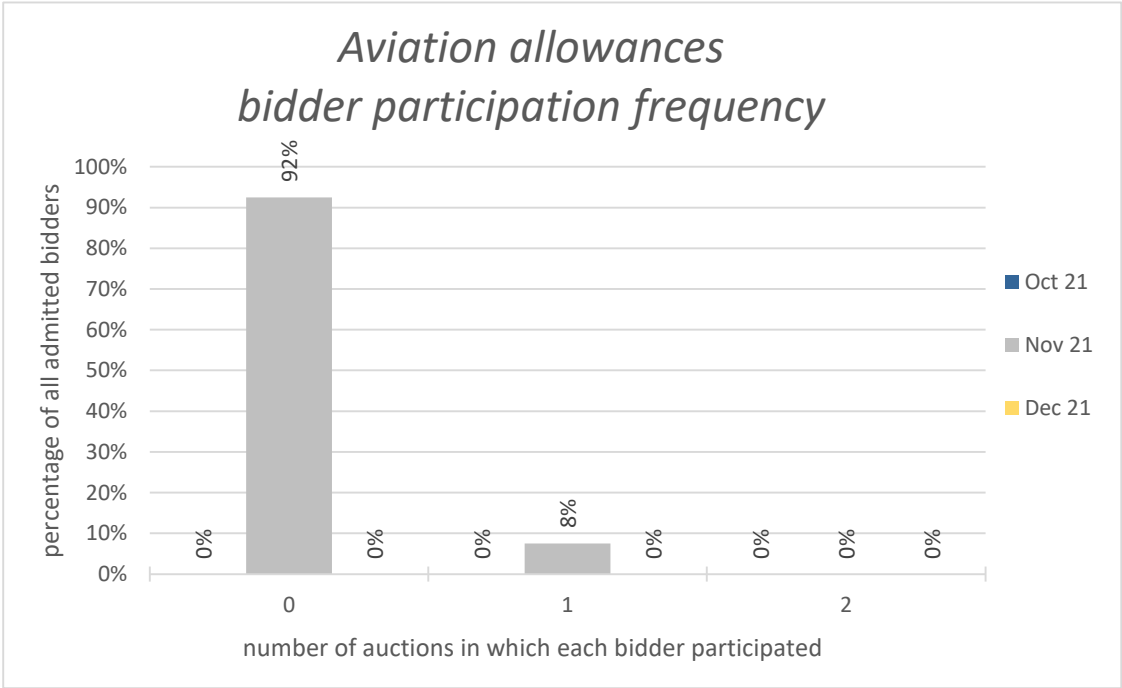
Graph 8: Aviation allowances - auction clearing price (ACP) & maximum prices bid & minimum prices bid



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]
Dec 21	-	-	-	-	-	-	-	-	-
Nov 21	1	7	1,370,500	195,786	195,786	210,922	27	3.9	50,759
Oct 21	-	-	-	-	-	-	-	-	-
Sep 21	1	7	1,044,500	149,214	149,214	137,952	33	4.7	31,652
Aug 21	-	-	-	-	-	-	-	-	-
Jul 21	1	5	1,486,000	297,200	297,200	206,783	18	3.6	82,556
Jun 21	-	-	-	-	-	-	-	-	-
May 21	1	6	1,949,500	324,917	324,917	213,955	26	4.3	74,981
Apr 21	1	7	508,000	72,571	72,571	48,341	25	3.6	20,320
Mar 21	1	7	1,104,500	157,786	157,786	195,077	29	4.1	38,086
Feb 21	-	-	-	-	-	-	-	-	-
Jan 21	-	-	-	-	-	-	-	-	-
Dec 20	-	-	-	-	-	-	-	-	-
Nov 20	1	10	2,026,000	202,600	202,600	246,771	34	3.4	59,588
Oct 20	-	-	-	-	-	-	-	-	-

(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
Dec 21	-	-	-	-	-	-	-
Nov 21	1	5	613,500	122,700	122,700	123,118	9
Oct 21	-	-	-	-	-	-	-
Sep 21	1	5	614,500	122,900	122,900	152,587	21
Aug 21	-	-	-	-	-	-	-
Jul 21	1	4	614,500	153,625	153,625	116,936	7
Jun 21	-	-	-	-	-	-	-
May 21	1	5	614,500	122,900	122,900	61,471	9
Apr 21	1	2	114,000	57,000	57,000	44,000	2
Mar 21	1	6	614,500	102,417	102,417	74,683	11
Feb 21	-	-	-	-	-	-	-
Jan 21	-	-	-	-	-	-	-
Dec 20	-	-	-	-	-	-	-
Nov 20	1	6	891,500	148,583	148,583	156,098	15
Oct 20	-	-	-	-	-	-	-

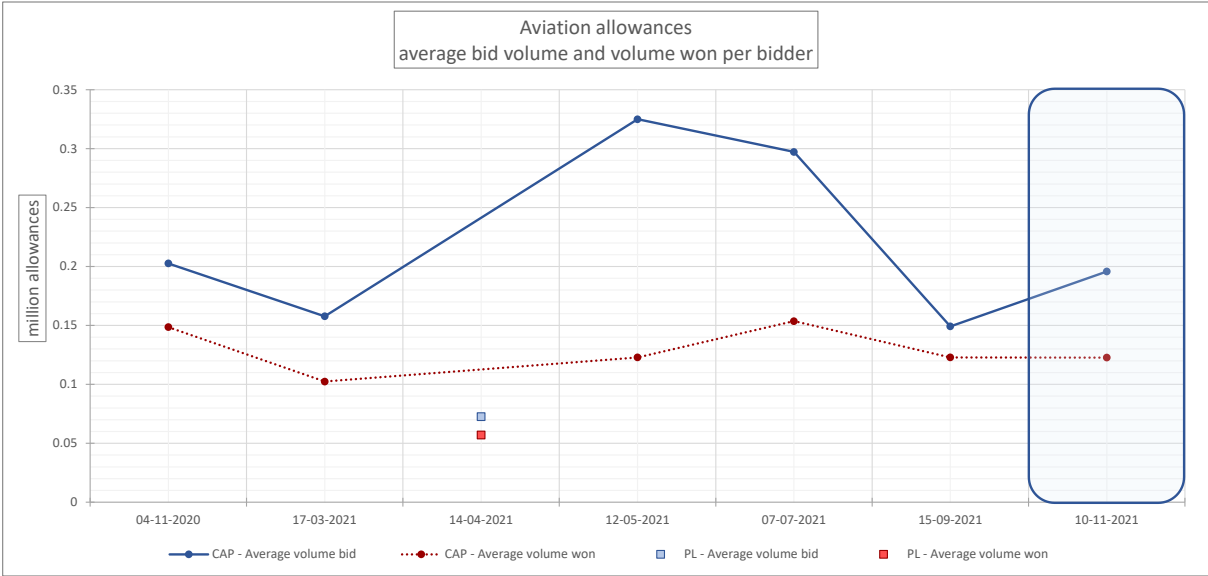
(1): Number of unique individual bidders or unique successful bidders present in a whole month.

[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



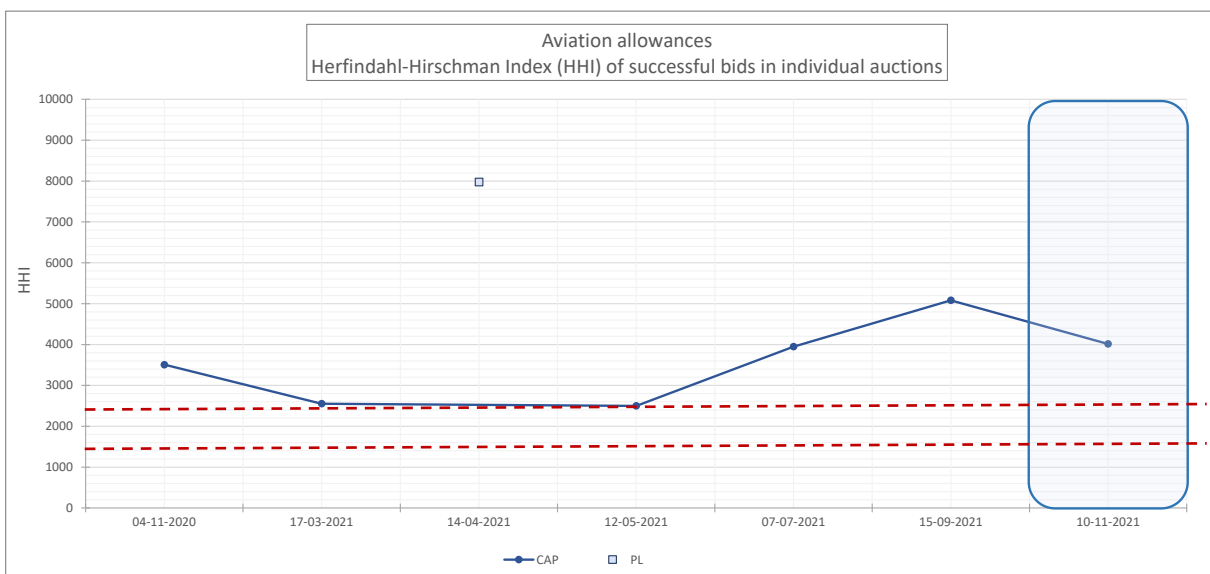
1.2.3 Type of bidders – aviation allowances

The volume submitted by intermediaries on behalf of a client⁷ during the reporting period was respectively -, 0 and -, 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 concentration⁸. 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



⁷ The data related to bidding on behalf of clients reflects the self-assessment of the respective trader.

⁸ 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 auctions⁹.

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	Oct 21	-	-	-	-	-	-	157
	Nov 21	-	-	-	-	-	-	160
	Dec 21	-	-	-	-	-	-	161
Participants eligible to bid in the auctions	Oct 21	66	1	11	4	-	10	92
	Nov 21	67	1	11	4	-	10	93
	Dec 21	67	1	11	4	-	10	93
(Of which:) Participants eligible to bid in the auctions on behalf of clients	Oct 21	-	-	2	2	-	2	6
	Nov 21	-	-	2	2	-	2	6
	Dec 21	-	-	2	2	-	2	6
(Of which:) Auction-only access	Oct 21	2	-	-	-	-	1	3
	Nov 21	3	-	-	-	-	1	4
	Dec 21	3	-	-	-	-	1	4

⁹ This assessment is based on the auction participants' activity in EEX's secondary market and general market knowledge of EEX.

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: 04/03/2022

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 11, 13 and 32 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 Regulation (EU) No 1031/2010 — Timing, administration and other aspects of auctioning of greenhouse gas emission allowances pursuant to Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowances trading within the Community, Official Journal L 302, 18.11.2010, p. 1, as subsequently amended. See: http://ec.europa.eu/clima/policies/ets/cap/auctioning/documentation_en.htm .
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(31) 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.
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>EUA</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 4 2021
(reported in euros)**

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

Cumulated Revenues since November 2012 (start of Phase III)	General allowances	Aviation allowances	General and aviation allowances
Austria	1,210,110,635	16,885,730	1,226,996,365
Belgium	2,212,443,825	20,911,685	2,233,355,510
Bulgaria	2,532,081,680	6,568,765	2,538,650,445
Croatia	458,595,610	4,350,640	462,946,250
Cyprus	173,059,075	8,559,600	181,618,675
Czech Republic	3,095,552,620	8,320,115	3,103,872,735
Denmark	1,097,714,030	19,511,410	1,117,225,440
Estonia	782,349,815	1,362,310	783,712,125
Finland	1,489,847,825	15,453,835	1,505,301,660
France	4,999,780,690	91,742,335	5,091,523,025
Greece	3,353,251,125	35,833,605	3,389,084,730
Hungary	1,288,136,600	7,031,060	1,295,167,660
Iceland	64,069,370	6,553,230	70,622,600
Innovation Fund	3,497,067,760	-	3,497,067,760
Ireland	749,764,000	15,152,910	764,916,910
Italy	8,786,166,735	99,819,685	8,885,986,420
Latvia			

	249,533,615	3,813,440	253,347,055
Liechtenstein	1,552,230	-	1,552,230
Lithuania	456,273,265	2,339,525	458,612,790
Luxembourg	87,700,260	2,448,005	90,148,265
Malta	99,306,725	4,064,490	103,371,215
Modernisation Fund	3,751,704,290	-	3,751,704,290
The Netherlands	3,059,275,995	31,979,800	3,091,255,795
Norway	1,371,872,210	54,070,085	1,425,942,295
Poland	13,592,746,785	15,873,915	13,608,620,700
Portugal	1,694,463,565	23,124,880	1,717,588,445
Romania	3,654,432,195	11,820,610	3,666,252,805
Slovak Republic	1,359,702,465	1,319,105	1,361,021,570
Slovenia	431,888,535	976,650	432,865,185
Spain	8,256,130,225	115,652,830	8,371,783,055
Sweden	808,424,950	26,155,580	834,580,530
TOTAL	74,664,998,705	651,695,830	75,316,694,535

Annex 1b Auction revenues per Member State and for Poland from 12 November 2012 to the end of Quarter 4 2021

(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	306,587,515	4,363,565	310,951,080
Belgium	527,265,525	5,896,070	533,161,595
Bulgaria	830,904,805	1,969,470	832,874,275
Croatia	110,679,550	1,563,270	112,242,820
Cyprus	76,987,450	1,427,870	78,415,320
Czech Republic	601,890,280	2,104,870	603,995,150
Denmark	287,599,630	5,311,365	292,910,995
Estonia	248,064,910	572,365	248,637,275
Finland	404,596,115	4,394,330	408,990,445
France	1,445,968,160	23,091,870	1,469,060,030
Greece	1,003,930,960	10,696,600	1,014,627,560
Hungary	286,201,215	1,969,470	288,170,685
Iceland	3,877,225	1,864,835	5,742,060
Innovation Fund	2,163,244,755	-	2,163,244,755
Ireland	145,283,265	3,957,365	149,240,630
Italy	2,495,760,590	25,184,400	2,520,944,990

Latvia	61,335,960	1,113,965	62,449,925
Liechtenstein	239,965	-	239,965
Lithuania	85,310,185	917,035	86,227,220
Luxembourg	7,339,215	738,530	8,077,745
Malta	29,525,810	1,218,600	30,744,410
Modernisation Fund	3,751,704,290	-	3,751,704,290
The Netherlands	885,185,715	8,801,000	893,986,715
Norway	174,517,275	8,634,835	183,152,110
Poland	5,588,638,015	4,962,420	5,593,600,435
Portugal	505,942,270	7,957,835	513,900,105
Romania	480,095,920	3,821,965	483,917,885
Slovak Republic	275,832,390	332,330	276,164,720
Slovenia	129,808,000	270,800	130,078,800
Spain	2,452,410,180	30,526,530	2,482,936,710
Sweden	214,536,210	7,643,930	222,180,140
TOTAL	25,581,263,350	171,307,490	25,752,570,840

Annex 2 Results of individual auctions on behalf of participating Member States and Poland during the reporting period

(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 - October 2021																			
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
04-10-2021	63.56	20.00	68.00	63.07	63.57	2,515,500	3,721,500	1.48	21	16	159,885,180	74	38	3.52	50,291	177,214	244,652	157,219	215,539
05-10-2021	63.66	62.00	71.00	63.81	63.61	2,515,500	3,759,500	1.49	22	19	160,136,730	76	37	3.45	49,467	170,886	219,483	132,395	184,718
06-10-2021	61.36	58.44	70.00	61.35	61.11	2,066,500	3,111,500	1.51	23	19	126,800,440	70	24	3.04	44,450	135,283	229,548	108,763	221,850
07-10-2021	58.99	57.00	66.00	59.43	58.91	2,515,500	4,381,000	1.74	19	15	148,389,345	75	33	3.95	58,413	230,579	316,700	167,700	266,146
11-10-2021	59.33	57.00	100.00	60.28	59.35	2,515,500	4,022,500	1.60	21	17	149,244,615	75	39	3.57	53,633	191,548	322,959	147,971	260,216
12-10-2021	58.86	57.00	65.00	59.12	58.93	2,515,500	3,878,500	1.54	23	21	148,062,330	71	46	3.09	54,627	168,630	264,223	119,786	248,411
13-10-2021	59.63	58.50	66.00	59.89	59.71	2,066,500	2,988,500	1.45	21	18	123,225,395	83	47	3.95	36,006	142,310	184,066	114,806	170,226
14-10-2021	59.43	58.59	100.00	60.39	59.43	2,515,500	3,940,500	1.57	21	19	149,496,165	80	39	3.81	49,256	187,643	249,970	132,395	204,964

18-10-2021	58.85	57.82	65.00	58.98	58.79	2,515,500	3,974,000	1.58	22	17	148,037,175	69	28	3.14	57,594	180,636	277,330	147,971	220,370
19-10-2021	57.58	56.52	66.00	58.00	57.49	2,515,500	4,282,500	1.70	23	18	144,842,490	79	33	3.43	54,209	186,196	245,803	139,750	188,441
20-10-2021	56.00	54.98	66.00	56.39	55.92	2,066,500	3,466,500	1.68	22	19	115,724,000	77	33	3.50	45,019	157,568	218,712	108,763	184,786
21-10-2021	57.10	55.00	66.00	57.22	56.74	2,515,500	4,526,000	1.80	23	12	143,635,050	82	23	3.57	55,195	196,783	285,570	209,625	227,851
25-10-2021	58.94	55.00	66.00	59.24	58.93	2,515,500	3,830,000	1.52	22	20	148,263,570	68	34	3.09	56,324	174,091	210,750	125,775	185,817
26-10-2021	58.96	55.00	66.00	59.12	58.86	2,515,500	4,034,500	1.60	24	19	148,313,880	76	29	3.17	53,086	168,104	244,951	132,395	191,771
27-10-2021	58.92	10.00	65.00	58.29	58.75	2,066,500	3,642,500	1.76	22	16	121,758,180	74	29	3.36	49,223	165,568	249,373	129,156	216,032
28-10-2021	58.93	55.00	66.00	59.18	58.70	2,515,500	4,541,500	1.81	21	16	148,238,415	82	25	3.90	55,384	216,262	310,308	157,219	248,404

General Allowances - November 2021

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
01-11-2021	59.98	59.21	66.00	60.15	59.93	2,515,500	4,013,000	1.60	17	16	150,879,690	77	35	4.53	52,117	236,059	311,616	157,219	213,503

02-11-2021	57.80	57.00	66.00	57.94	57.70	2,515,500	4,070,500	1.62	21	17	145,395,900	79	28	3.76	51,525	193,833	270,827	147,971	217,653
03-11-2021	59.78	59.01	66.00	60.21	59.85	2,066,500	2,829,500	1.37	17	16	123,535,370	71	43	4.18	39,852	166,441	239,073	129,156	211,344
04-11-2021	59.81	59.00	65.00	59.88	59.74	2,515,500	4,108,500	1.63	22	17	150,452,055	96	39	4.36	42,797	186,750	295,036	147,971	258,210
08-11-2021	60.06	58.50	66.00	60.41	60.10	2,515,500	3,420,500	1.36	20	19	151,080,930	72	39	3.60	47,507	171,025	286,529	132,395	244,319
09-11-2021	60.11	59.37	66.00	60.37	60.06	2,515,500	3,121,500	1.24	22	18	151,206,705	70	32	3.18	44,593	141,886	218,380	139,750	211,086
10-11-2021	60.25	59.40	66.00	60.71	60.40	2,066,500	2,858,000	1.38	20	18	124,506,625	62	43	3.10	46,097	142,900	279,528	114,806	212,472
11-11-2021	62.31	55.00	66.00	62.14	62.17	2,515,500	4,037,000	1.60	18	14	156,740,805	68	25	3.78	59,368	224,278	349,779	179,679	283,119
15-11-2021	64.40	55.00	70.00	64.08	64.16	2,515,500	4,180,000	1.66	21	12	161,998,200	77	21	3.67	54,286	199,048	301,224	209,625	288,579
16-11-2021	67.50	56.00	74.00	66.90	67.25	2,515,500	4,188,000	1.66	19	12	169,796,250	88	24	4.63	47,591	220,421	272,428	209,625	233,664
17-11-2021	67.14	56.00	77.00	67.13	67.19	2,066,500	2,879,000	1.39	21	19	138,744,810	86	48	4.10	33,477	137,095	204,490	108,763	169,245
18-11-2021	66.51	56.00	73.00	66.11	66.33	2,515,500	3,720,500	1.48	22	17	167,305,905	75	29	3.41	49,607	169,114	261,940	147,971	234,154
22-11-2021	69.70	58.00	75.00	69.34	69.63	2,515,500	3,937,000	1.57	21	17	175,330,350	94	40	4.48	41,883	187,476	282,306	147,971	257,386
23-11-2021	69.88	56.00	77.00	69.43	69.86	2,515,500	3,664,000	1.46	21	19	175,783,140	81	40	3.86	45,235	174,476	266,459	132,395	230,226
24-11-2021	69.51	56.00	75.00	69.16	69.64			1.16	20	19		65	46	3.25					

						2,066,500	2,399,500				143,642,415				36,915	119,975	222,404	108,763	221,413
25-11-2021	72.15	56.00	99.00	72.09	72.31	2,515,500	3,083,000	1.23	22	22	181,493,325	91	58	4.14	33,879	140,136	266,157	114,341	240,250
29-11-2021	74.48	56.00	99.00	74.14	74.48	2,515,500	3,329,500	1.32	23	20	187,354,440	89	45	3.87	37,410	144,761	254,943	125,775	235,159
30-11-2021	74.82	57.00	80.00	74.24	74.78	2,515,500	3,600,500	1.43	24	21	188,209,710	83	40	3.46	43,380	150,021	192,443	119,786	174,281

General Allowances - December 2021

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
01-12-2021	76.38	50.00	82.00	75.29	76.21	2,066,500	3,410,000	1.65	21	17	157,839,270	87	34	4.14	39,195	162,381	211,384	121,559	174,036
02-12-2021	77.10	56.00	85.00	76.25	76.96	2,515,500	3,755,000	1.49	20	17	193,945,050	75	31	3.75	50,067	187,750	236,683	147,971	218,926
06-12-2021	80.00	56.00	85.00	79.09	79.65	2,515,500	4,563,000	1.81	21	14	201,240,000	88	22	4.19	51,852	217,286	282,116	179,679	278,207
07-12-2021	82.87	61.00	90.00	82.53	82.70	2,515,500	4,083,000	1.62	23	18	208,459,485	75	29	3.26	54,440	177,522	251,927	139,750	227,309
08-12-2021	87.45	57.00	95.00	86.32	87.48	2,066,500	2,853,000	1.38	20	18	180,715,425	67	36	3.35	42,582	142,650	205,539	114,806	206,538
09-12-2021	84.93	56.00	100.00	84.09	85.02			1.39	21	20		81	48	3.86					

						2,515,500	3,489,000				213,641,415				43,074	166,143	195,315	125,775	179,266
13-12-2021	85.00	56.00	95.00	83.98	84.78	2,515,500	3,697,000	1.47	20	16	213,817,500	79	27	3.95	46,797	184,850	202,993	157,219	184,563
14-12-2021	79.99	56.00	90.00	79.85	80.45	2,515,500	3,014,500	1.20	17	17	201,214,845	73	59	4.29	41,295	177,324	248,473	147,971	233,627
15-12-2021	79.29	56.00	99.99	79.27	79.62	2,074,000	2,346,000	1.13	18	18	164,447,460	68	57	3.78	34,500	130,333	183,943	115,222	181,316
16-12-2021	80.50	56.00	90.00	80.03	80.43	2,515,500	3,296,500	1.31	16	14	202,497,750	71	34	4.44	46,430	206,031	272,285	179,679	271,782
20-12-2021	74.57	55.00	90.00	74.31	74.92	2,542,500	3,082,000	1.21	18	16	189,594,225	66	47	3.67	46,697	171,222	222,297	158,906	233,644

Aviation Allowances - October 2021

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 - November 2021

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
10-11-2021	61.53	60.30	61.76	61.34	61.46	613,500	1,370,500	2.23	7	5	37,748,655	27	9	3.86	50,759	195,786	210,922	122,700	123,118

Aviation Allowances - December 2021

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.