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# AUCTIONS BY THE TRANSITIONAL COMMON AUCTION PLATFORM

The world's largest auctioning of emissions allowances

April 2015

# Auctions by the *Transitional Common Auction Platform*

## April 2015

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**Auction platform:** European Energy Exchange (EEX)

**Auction dates/reporting period:**

*General Allowances:*

2, 7, 9, 13, 14, 16, 20, 21, 23, 27, 28 and 30 April 2015;

*Aviation Allowances:*

22 April 2015

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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 1.4 billions of 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*. Two auction platforms are in place. 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. The second auction platform is ICE Futures Europe (ICE) in London, which acts as the United Kingdom's platform. Poland may appoint an opt-out auction platform but is using for the time being the common auction platform.

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, taking into account the free allocation volumes. Up to 2020 ten per cent are allocated to the least wealthy EU Member States and the remaining two per cent is given as a 'Kyoto bonus' to nine EU Member States which by 2005 had reduced their greenhouse gas emissions by at least 20% of levels in their Kyoto Protocol base year or period.

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: [http://ec.europa.eu/clima/policies/ets/cap/auctioning/index\\_en.htm](http://ec.europa.eu/clima/policies/ets/cap/auctioning/index_en.htm)

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**Editor's note:** This report has been prepared by the Commission on behalf of the following Member States: Austria, Belgium, Bulgaria, Republic of Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden. The report complies with the requirement laid down in the fourth paragraph of Article 10(4) of the *ETS Directive*.

**Methodology:** The report is based on the reports submitted by EEX, on the discussions in regular meetings between the Commission, its advisors and EEX and on any further relevant information available to the Commission. The authors of the report did not actively verify EEX's compliance with the specific rules and provisions applicable under European or national law. EEX has supplied the data used in this report and been consulted before its publication, whereas the *participating Member States* have been consulted on its template.

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. Any data not directly related to the auctions is based only on public reports.

**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. 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.

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## Executive summary

This report covers the auctioning of emission allowances in the period April 2015. In that period, EEX, in its capacity as the common auction platform, auctioned a total of 35 016 000 *general allowances* in 12 auctions and 1 493 500 *aviation allowances* in 1 auction for the *third trading period* on behalf of those EU Member States (*participating Member States*) that participate in the *Transitional Common Auction Platform (TCAP)*. In this period EEX did not auctioned for Poland.

All auctions were held successfully and no irregularities or deviations from the requirements were observed. The table below contains a summary of the information concerning the conducted auctions.

### **The April 2015 auctions at a glance:**

	<b>General Allowances</b> April	<b>Aviation Allowances</b> April
<b>General</b>		
Number of auctions	12	1
Total volume auctioned	35 016 000	1 493 500
Amount raised from the auctions (€)	247 358 860	10 081 125
Average Auction Clearing Price (€/allowance)	7.06	6.75
Total bid volume	83,493,500	3 475 500
Average <i>Cover ratio</i>	2.4	2.3
<b>Participation</b>		
Number of eligible bidders	66	66
Number of participating bidders <sup>(1)</sup>	29	11
Number of successful bidders <sup>(1)</sup>	26	11
Average number of bidders per auction	19.5	11
Average number of successful bidders per auction	15.2	11
<b>Auction data</b>		
Average total volume bid per bidder per auction	358 748	315 955
Average bid size (volume per bid)	104 562	99 300
Average volume won per bidder per auction	194 267	135 773
Average range of bids (€)	0.93	0.72

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

## Introduction

All the *participating Member States* were participating in the auctions as from January 2015.

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 contracted EEX to auction its share of allowances to be auctioned. These auctions started on 16 September 2013. Due to the *Back-loading*, no auctions were held for Poland from April to December 2014, the auctions restarted in January 2015.

Accordingly, the present report includes data on the auctions performed by the common auction platform on behalf of the *participating Member States* and Poland.

The Member States of the European Free Trade Association (EFTA) that are Party to the European Economic Area (EEA)<sup>1</sup> have also stated their intention to make use of the *Transitional Common Auction Platform* by aggregating their volumes to those auctioned on behalf of the *participating Member States*. The preparations for this are on-going.

## 1. Results of the auctions

The total revenues from auctions of *general allowances* accrued to the *participating Member States* and Poland from the start of the *Third trading period* auctions (November 2012) to April 2015 are EUR 5 706 099 150. The total revenues from auctions of *aviation allowances* accrued to the *participating Member States* and Poland from the start of the *Third trading period* auctions (November 2012) to April 2015 are EUR 92 706 715. The revenues per each *participating Member State* in the reporting period as well as cumulative data are 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 on the auctions held in the reporting period April 2015, including results per auction, is provided in Annex 2.

Please note that in all parts of this report monthly averages provided are weighted by each auction's auction volume, unless otherwise indicated.

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<sup>1</sup> Iceland, Liechtenstein and Norway.

## 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 from April 2014 to April 2015 is provided in Table 1.

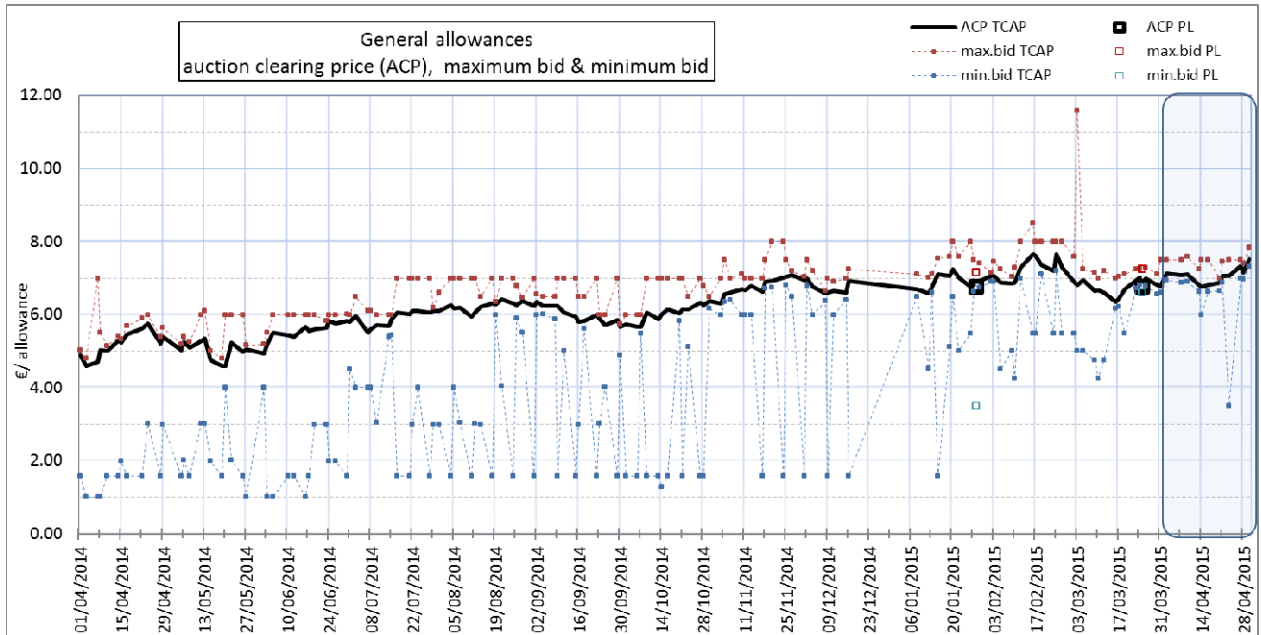
**Table 1:** General allowances - main statistics on the results of the auctions per month

Month	Total auction volume	Total bid volume	Total revenue (€)	Average Cover ratio <sup>2</sup>	Average number of bidders	Average number of successful bidders	Average auction clearing price (€)
April 2015	35 016 000	83 493 500	247 358 860	2.4	19.5	15.2	7.06
March 2015	43 706 000	155 841 500	295 627 000	3.6	19.2	13.5	6.76
February 2015	35 016 000	140 319 500	253 340 760	4.0	17.8	13.3	7.24
January 2015	32 034 000	118 905 000	220 605 860	3.7	18.5	13.6	6.89
Dec. 2014	14 838 500	68 610 000	100 283 525	4.6	15.4	11.5	6.76
Nov. 2014	22 476 000	91 484 000	152 218 710	4.1	15.4	11.3	6.77
Oct. 2014	24 349 000	124 425 000	147 030 500	5.1	15.5	11.2	6.04
Sept. 2014	26 222 000	157 822 500	157 556 760	6.0	15.4	11.2	6.01
Aug. 2014	11 208 000	90 982 500	69 928 580	8.1	12.6	8.0	6.24
July 2014	26 222 000	140 375 000	154 934 560	5.4	14.8	10.9	5.91
June 2014	22 476 000	136 372 000	124 329 740	6.1	17.6	10.8	5.53
May 2014	20 766 500	133 689 500	104 208 535	6.4	17.4	11.7	5.02
April 2014	23 130 000	177 597 500	119 948 325	7.7	17.7	10.8	5.19
<b>2014 total</b>	<b>335 052 000</b>	<b>1 796 711 000</b>	<b>1 977 712 120</b>	<b>5.4</b>	<b>17.6</b>	<b>11.9</b>	<b>5.90</b>
<b>2013 total</b>	<b>530 488 000</b>	<b>1 761 639 500</b>	<b>2 349 853 340</b>	<b>3.3</b>	<b>18.4</b>	<b>13.2</b>	<b>4.43</b>

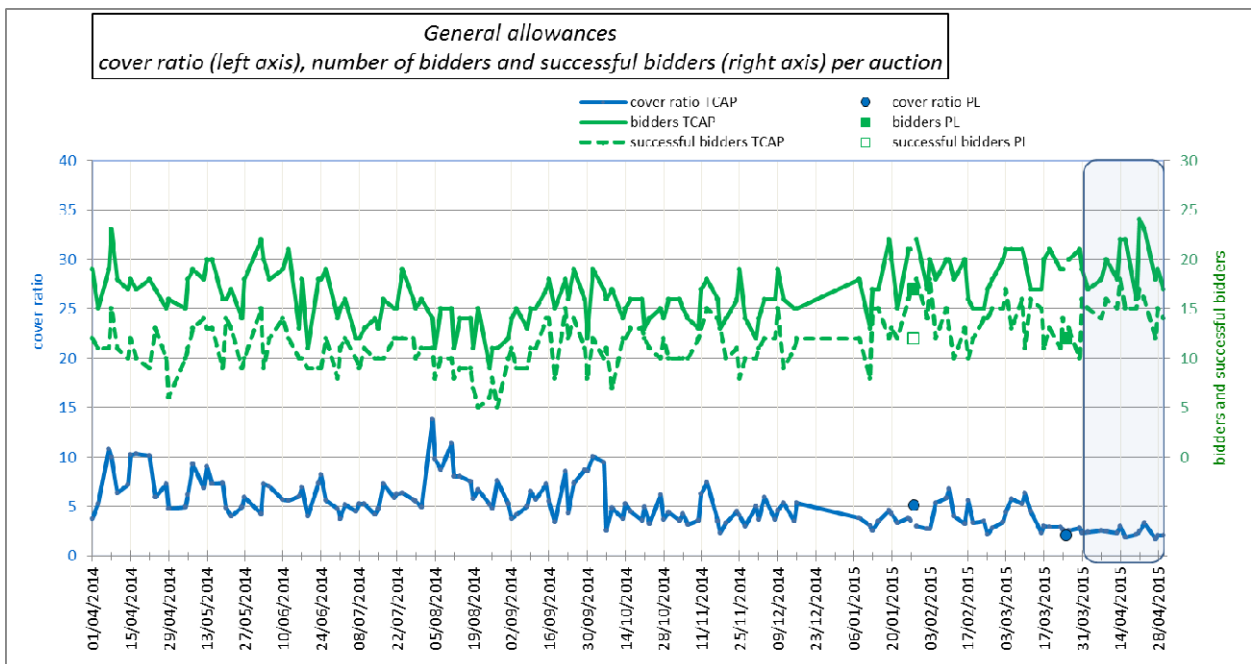
During April 2015, the difference between the Auction Clearing Prices and the mean of the *best-ask* and *best-bid* prices on the EEX *spot secondary market* for *general allowances* at the closure of the auction *bidding window* was on average EUR -0.01, and this difference had a standard deviation of EUR 0.02.

<sup>2</sup> Cover ratio is the ratio between the total bid volume and the auction volume.

**Graph 1: General allowances - auction clearing price (ACP), maximum bid & minimum bid<sup>3</sup>**



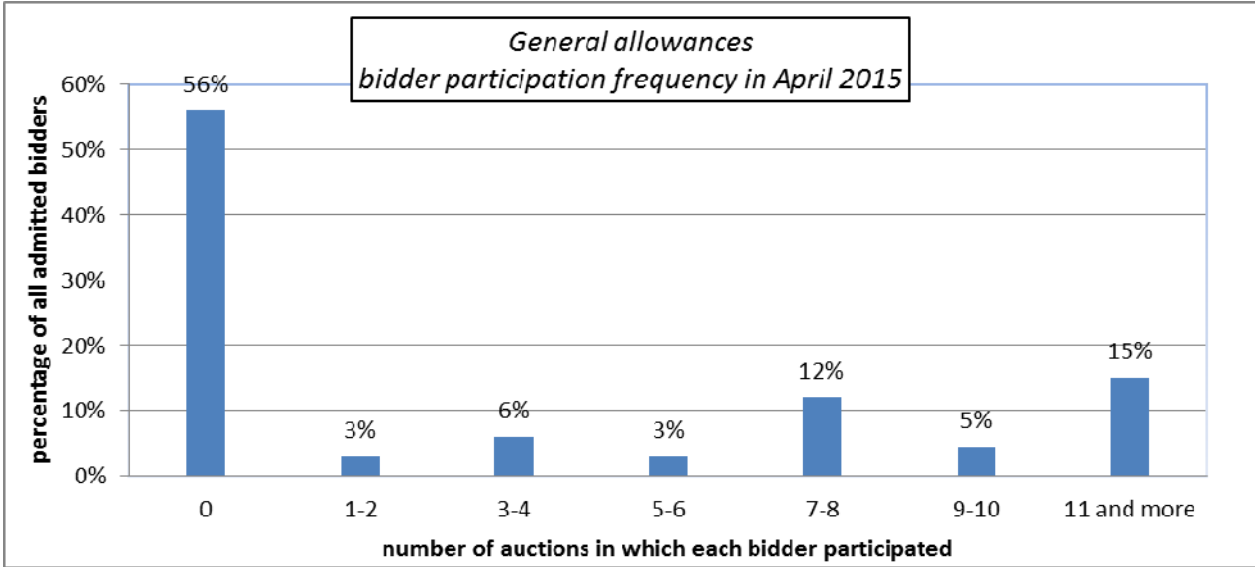
**Graph 2: General allowances - cover ratio (left axis), number of bidders and successful bidders (right axis) per auction**



There were 66 eligible bidders in April 2015. Out of these, 29 different bidders participated in the auctions in April 2015. Graph 3A indicates the participation frequency in April 2015.

<sup>3</sup> Auctions on behalf of Poland were held on the following days: 8/1/2014, 5/2/2014, 5/3/2014, 28/1/2015 and 25/3/2015.

**Graph 3A:** General allowances -bidder participation frequency in April 2015





### 1.1.2. Bidding behaviour - general allowances

Table 2 provides monthly data on the bids submitted from January 2014 to April 2015. See also Graph 4.

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

Month	Nr of auctions	Nr of bidders <sup>(1)</sup>	Total volume of bids	Average total volume bid per bidder per auction <sup>4</sup>	Average total volume bid per bidder over the month <sup>5</sup>	standard deviation of total volume bid per bidder per auction over the month <sup>6</sup>	Total monthly nr of bids	Average nr. of bids per bidder per auction <sup>7</sup>	Average bid size <sup>8</sup>
April 2015	12	29	83 493 500	358 748	356 810	453 453	798	3.4 <sup>++</sup>	104 562
March 2015	15	29	155 841 500	539 041	541 116	997 195	1108	3.9 <sup>++</sup>	138 843
Feb 2015	12	27	140 319 500	656 261	655 699	1 209 247	756	3.5 <sup>++</sup>	184 555
Jan 2015	11	29	118 905 000	594 654	585 739	850 655	809	4.1 <sup>++</sup>	147 380
Dec 2014	8	26	68 610 000	565 380	557 805	880 324	541	4.5 <sup>++</sup>	138 240
Nov 2014	12	27	91 484 000	487 754	494 508	823 645	702	3.8 <sup>++</sup>	132 316
Oct 2014	13	27	124 425 000	607 052	615 965	1 099 893	1 079	5.3 <sup>++</sup>	113 863
Sept 2014	14	27	157 822 500	742 000	734 058	1 118 338	1162	5.4 <sup>++</sup>	135 602
Aug 2014	12	24	90 982 500	602 194	602 533	692 190	973	6.4 <sup>++</sup>	94 199
July 2014	14	28	140 375 000	681 909	678 140	828 292	1 269	6.2 <sup>++</sup>	112 032
June 2014	12	33	136 372 000	660 091	646 313	816 730	1 107	5.3 <sup>++</sup>	124 763
May 2014	11	33	133 689 500	694 972	699 945	866 444	1 104	5.9 <sup>++</sup>	121 290
April 2014	12	28	177 597 500	836 027	837 724	980 403	1 095	5.2 <sup>++</sup>	159 901
March 2014	14	31	280 163 000	1 193 513	1 148 209	1 702 509	1 306	5.4 <sup>++</sup>	227 677
Feb 2014	13	33	216 991 500	832 851	847 623	1 251 932	1 006	3.9 <sup>++</sup>	216 967
Jan 2014	12	33	178 198 500	690 216	677 561	980 028	941	3.6 <sup>++</sup>	191 935

++: indicates simple average

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

<sup>4</sup> 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.

<sup>5</sup> 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).

<sup>6</sup> Standard deviation of total volume bid per bidder in each auction over the month.

<sup>7</sup> 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).

<sup>8</sup> 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.

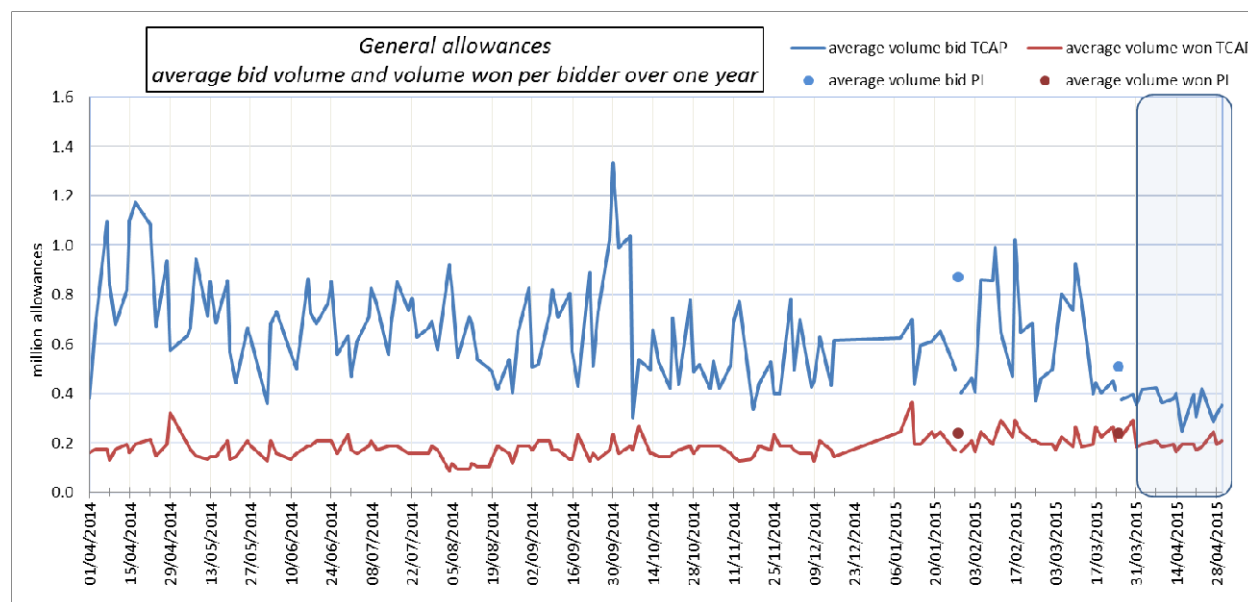
Table 3 provides monthly data on successful bids from January 2014 to April 2015. See also Graph 4.

**Table 3: General Allowances - monthly statistics on successful bids**

Month	Nr of auctions	Nr of successful bidders <sup>(1)</sup>	Total auction volume	Average volume won per bidder per auction <sup>9</sup>	Average volume won per bidder per auction over the month <sup>10</sup>	Standard deviation of volume won per bidder per auction over the month <sup>11</sup>	Total monthly nr of successful bids
April 2015	12	26	35 016 000	194 267	192 396	224 960	305
March 2015	15	29	43 706 000	220 982	215 300	270 467	362
Feb. 2015	12	24	35 016 000	224 610	218 850	227 190	256
Jan. 2015	11	25	32 034 000	223 767	213 560	238 463	249
Dec. 2014	8	25	14 838 500	164 821	161 288	182 952	172
Nov. 2014	12	23	22 476 000	170 316	165 265	173 792	206
Oct. 2014	13	23	24 349 000	172 199	167 924	189 785	308
Sept. 2014	14	22	26 222 000	173 941	167 019	207 239	295
Aug. 2014	12	18	11 208 000	124 351	116 750	131 148	169
July 2014	14	25	26 222 000	173 989	172 513	185 218	330
June 2014	12	29	22 476 000	180 673	174 233	194 252	212
May 2014	11	24	20 766 500	165 468	160 981	179 425	250
April 2014	12	25	23 130 000	186 447	177 923	223 208	196
March 2014	14	26	42 048 500	297 314	267 825	360 413	291
Feb. 2014	13	31	52 667 000	314 017	283 156	464 816	335
Jan. 2014	12	29	48 648 500	324 599	307 902	359 814	257

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

**Graph 4: General allowances - average bid volume and volume won per bidder over one year<sup>12</sup>**



<sup>9</sup> 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 total bid volume in each auction.

<sup>10</sup> 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).

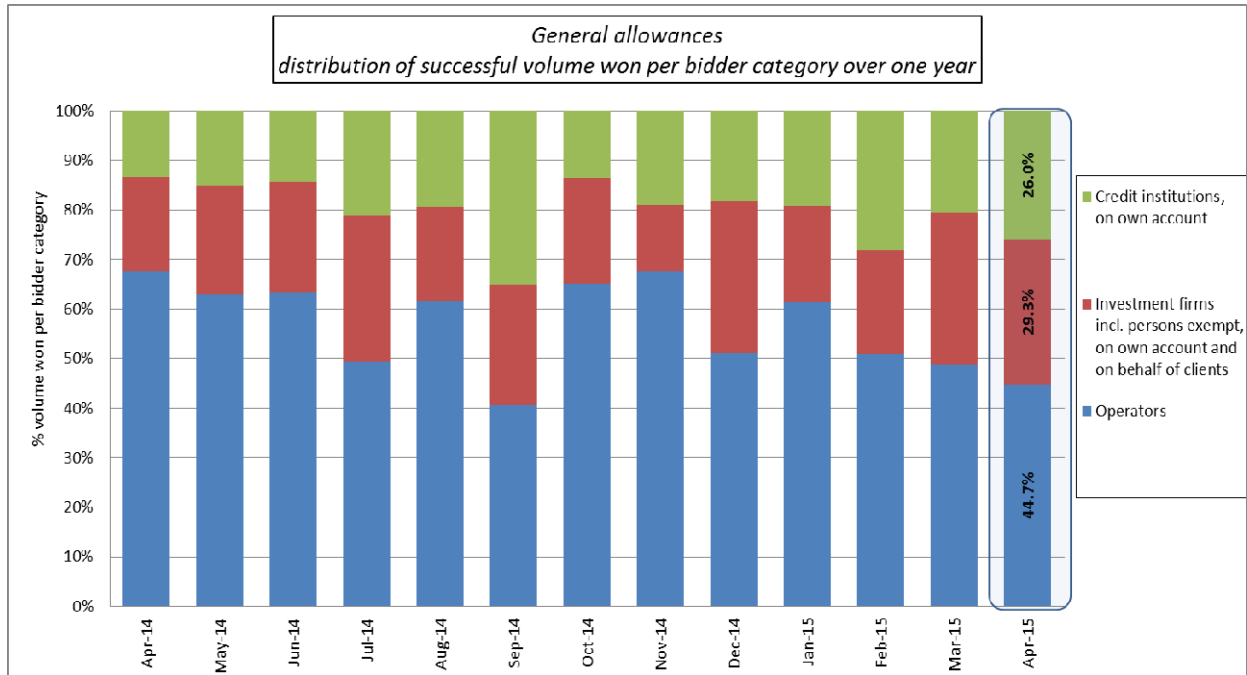
<sup>11</sup> Standard deviation of volume won per bidder in each auction over the month.

<sup>12</sup> Auctions on behalf of Poland were held on the following days: 8/1/2014, 5/2/2014, 5/3/2014, 28/1/2015 and 25/3/2015.

**1.1.3. Type of bidders - general allowances**

In April 2015, almost all volume bid was done on own account, with only 0.27% of the volume submitted by intermediaries on behalf of a client. 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 one year



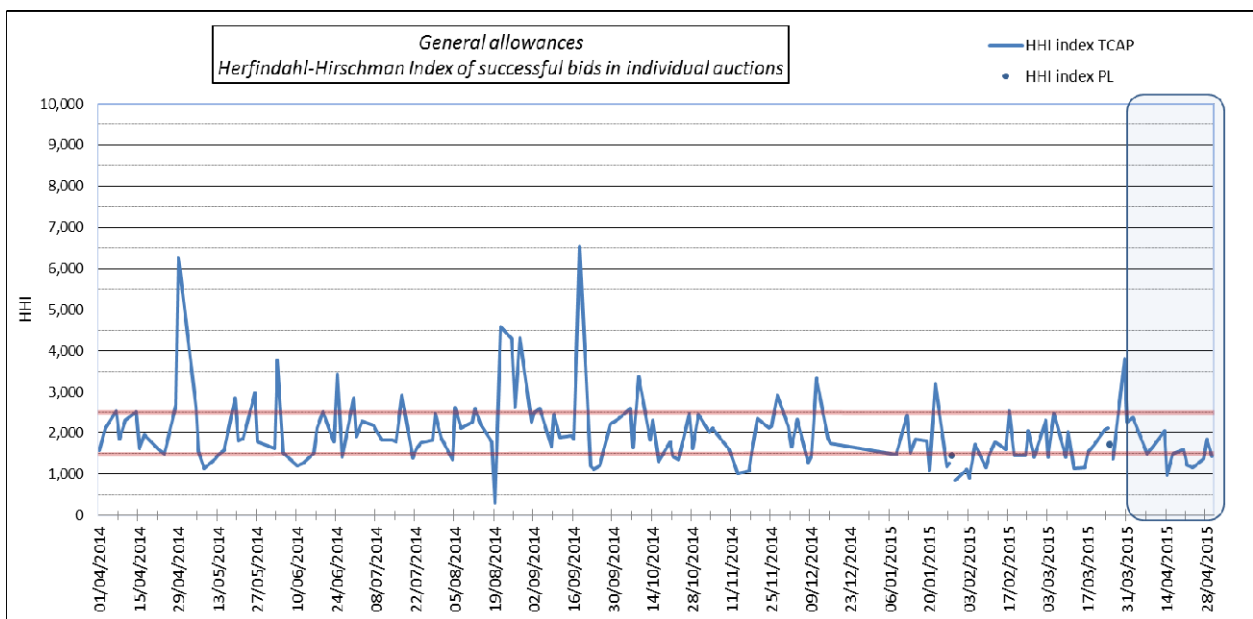
**Table 4:** General allowances – distribution of volume won per bidder category and their standard deviations for April 2015

Month	% volume won coming from bidding on behalf of a client	Bidder category	% volume won	Standard deviation of % of volume won
April 2015	0.53%	Operators (including Business groupings)	44.7%	10.8% points
		Investment firms (including persons exempt)	29.3%	10.6% points
		Credit institutions	26.0%	10.6% points

### 1.1.4. Concentration - general allowances

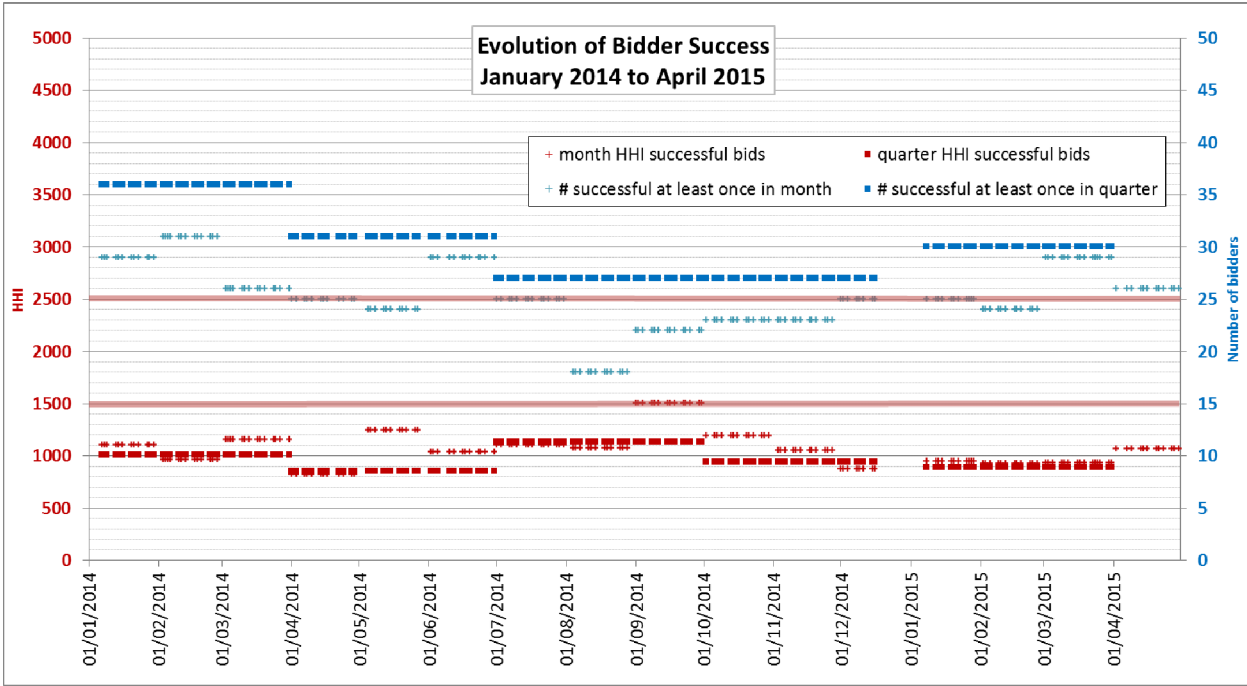
The Herfindahl-Hirschman Index (HHI) of successful bids is used to measure market concentration<sup>13</sup>. The HHI ranges from a value of 0 (perfect competition) to 10 000 (a single buyer). A common interpretation of the HHI is that a score below 1 500 is 'not-concentrated', between 1 500 and 2 500 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



<sup>13</sup> The HHI is calculated as the sum of the squares of all successful bidders' shares (in % 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 and quarterly level**



## 1.2. Aviation allowances auctions

The auctioning of *aviation allowances* restarted as of September 2014<sup>14</sup>. Pursuant to the published *auction calendar*, only *aviation allowances* for the calendar year 2012 were auctioned in 2014<sup>15</sup>; the *aviation allowances* for the calendar years 2013-2015 are 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 March 2015.

### 1.2.1. Clearing prices and participation – aviation allowances

An overview of the auction results from September 2014 to April 2015 is provided in Table 5.

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

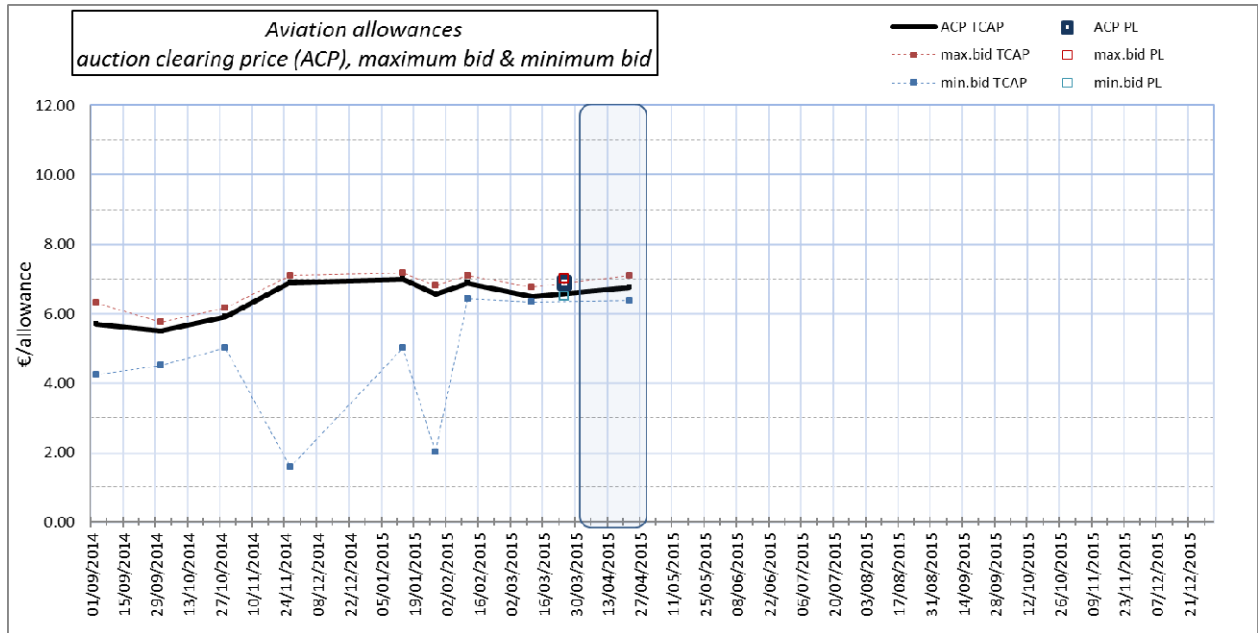
Month	Total auction volume	Total bid volume	Total revenue (€)	Average Cover ratio <sup>16</sup>	Average number of bidders	Average number of successful bidders	Average auction clearing price (€)
April 2015	1 493 500	3 475 500	10 081 125	2.3	11.0	11.0	6.75
March 2015	1 927 500	6 016 500	12 663 600	3.1	11.0	6.7	6.57
February 2015	1 494 000	3 750 000	10 263 780	2.5	9.0	8.0	6.87
January 2015	2 988 000	11 244 000	20 243 700	3.8	11.5	9.0	6.78
Dec. 2014	-	-	-	-	-	-	-
Nov. 2014	1 641 500	7 665 500	11 326 350	4.7	14.0	7.0	6.90
Oct. 2014	3 286 000	14 685 000	18 763 060	4.5	13.5	8.0	5.71
Sept. 2014	1 643 000	5 851 000	9 365 100	3.6	11.0	9.0	5.70
<b>2014 total</b>	<b>6 570 500</b>	<b>28 201 500</b>	<b>39 454 510</b>	<b>4.3</b>	<b>13.0</b>	<b>8.0</b>	<b>6.00</b>

<sup>14</sup> The auctions were suspended end 2012, see the Regulatory update published by the Commission on 16 November 2012 [http://ec.europa.eu/clima/news/articles/news\\_2012111601\\_en.htm](http://ec.europa.eu/clima/news/articles/news_2012111601_en.htm).

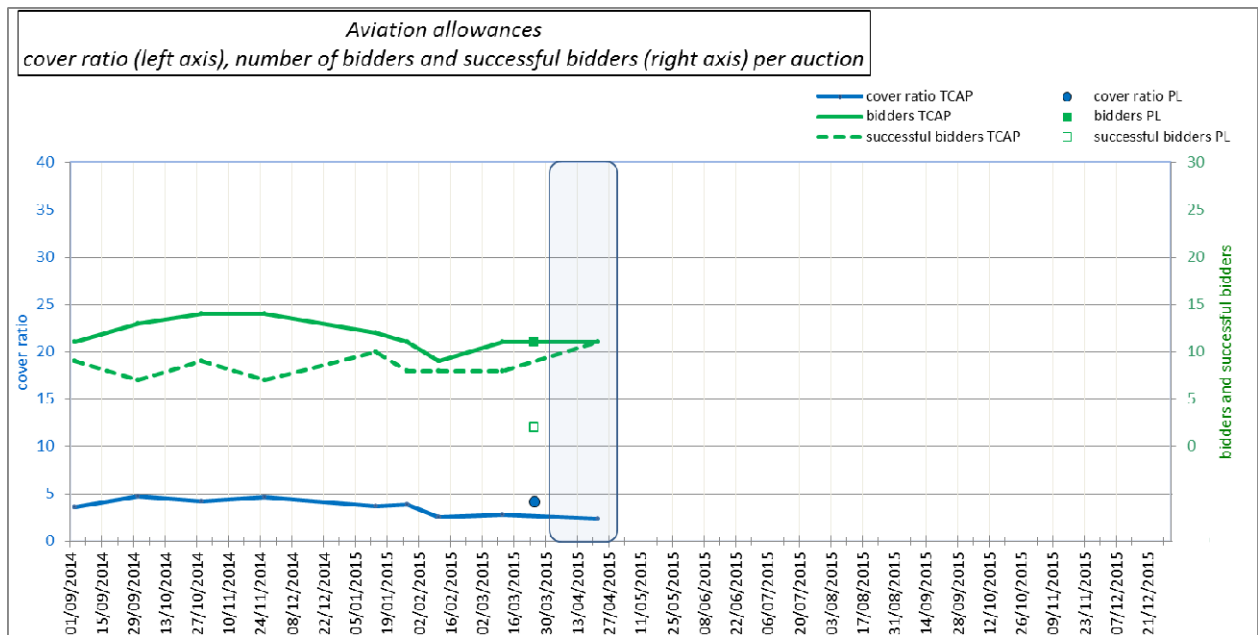
<sup>15</sup> See also the regulatory update published by the Commission on 29 July 2014; [http://ec.europa.eu/clima/news/articles/news\\_2014072901\\_en.htm](http://ec.europa.eu/clima/news/articles/news_2014072901_en.htm).

<sup>16</sup> 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<sup>17</sup>**



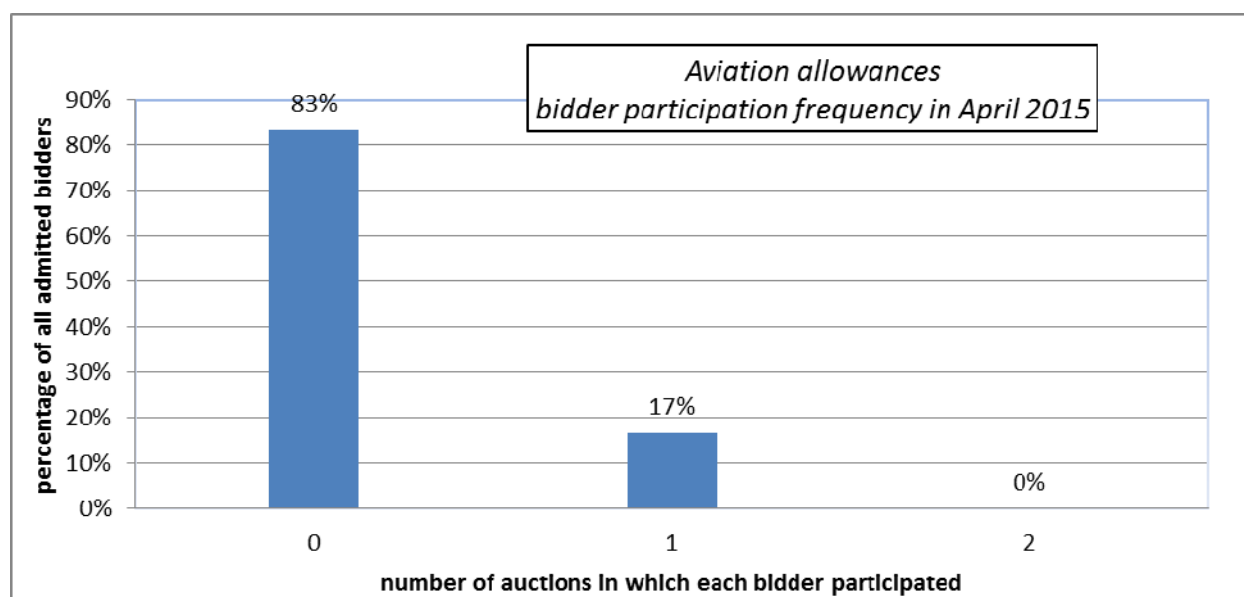
**Graph 9: Aviation allowances - cover ratio (left axis), number of bidders and successful bidders (right axis) per auction**



There were 66 eligible bidders in April 2015. Out of these, 11 different bidders participated in the auctions in April 2015. Graph 10 indicates the participation frequency in April 2015.

<sup>17</sup> Auctions on behalf of Poland were held on the following days: 25/3.

**Graph 10** Aviation allowances - bidders participation frequency in April 2015



### 1.2.2. Bidding behaviour – aviation allowances

Table 6 provides monthly data on the bids submitted from January 2014 to April 2015. See also Graph 11.

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

Month	Nr of auctions	Nr of bidders <sup>(1)</sup>	Total volume of bids	Average total volume bid per bidder per auction <sup>18</sup>	Average total volume bid per bidder per auction over the month <sup>19</sup>	standard deviation of total volume bid per bidder per auction over the month <sup>20</sup>	Total monthly nr of bids	Average nr. of bids per bidder per auction <sup>21</sup>	Average bid size <sup>22</sup>
April 2015	1	11	3 475 500	315 955	315 955	400 818	35	3.2 <sup>++</sup>	99 300
March 2015	2	13	6 016 500	333 461	273 477	290 869	60	2.7 <sup>++</sup>	122 269
Feb. 2015	1	9	3 750 000	416 667	416 667	434 388	39	4.3 <sup>++</sup>	96 154
Jan. 2015	2	12	11 244 000	490 432	488 870	512 660	70	3.0 <sup>++</sup>	168 321
Dec. 2014	-	-	-	-	-	-	-	-	-
Nov. 2014	1	14	7 665 500	547 536	547 536	654 163	63	4.5 <sup>++</sup>	121 675
Oct. 2014	2	15	14 685 000	545 940	543 889	555 854	83	4.5 <sup>++</sup>	177 573
Sept. 2014	1	11	5 851 000	531 909	531 909	483 194	65	5.9 <sup>++</sup>	90 015

++: indicates simple average

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

<sup>18</sup> 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.

<sup>19</sup> 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 the whole month of number of bidders present in each auction).

<sup>20</sup> Standard deviation of total volume bid per bidder in each auction over the month.

<sup>21</sup> 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).

<sup>22</sup> 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.



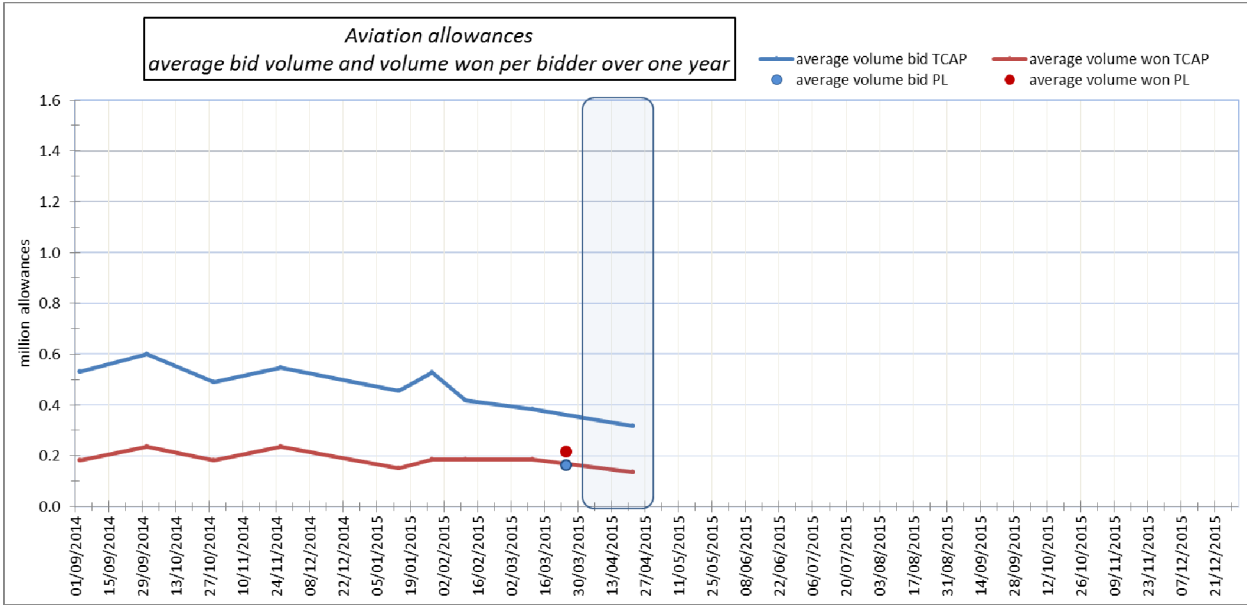
Table 7 provides monthly data on successful bids from January 2014 to April 2015. See also Graph 11.

**Table 7: Aviation Allowances – Monthly statistics on successful bids**

Month	Nr of auctions	Nr of successful bidders <sup>(1)</sup>	Total auction volume	Average volume won per bidder per auction <sup>23</sup>	Average volume won per bidder per auction over the month <sup>24</sup>	Standard deviation of volume won per bidder per auction over the month <sup>25</sup>	Total monthly nr of successful bids
April 2015	1	11	1 493 500	135,773	135,773	132 536	20
March 2015	2	9	1 927 500	193 497	192 750	176 192	18
Feb. 2015	1	8	1 494 000	186 750	186 750	136 102	17
Jan. 2015	2	10	2 988 000	168 075	166 000	170 471	24
Dec. 2014	-	-	-	-	-	-	-
Nov. 2014	1	7	1 641 500	234 500	234 500	171 897	9
Oct. 2014	2	11	3 286 000	208 635	205 375	165 517	19
Sept. 2014	1	9	1 643 000	182 556	182 556	159 714	20

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

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



<sup>23</sup> 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 total bid volume in each auction.

<sup>24</sup> 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 the whole month of number of bidders present in each auction).

<sup>25</sup> Standard deviation of volume won per bidder in each auction over the month.

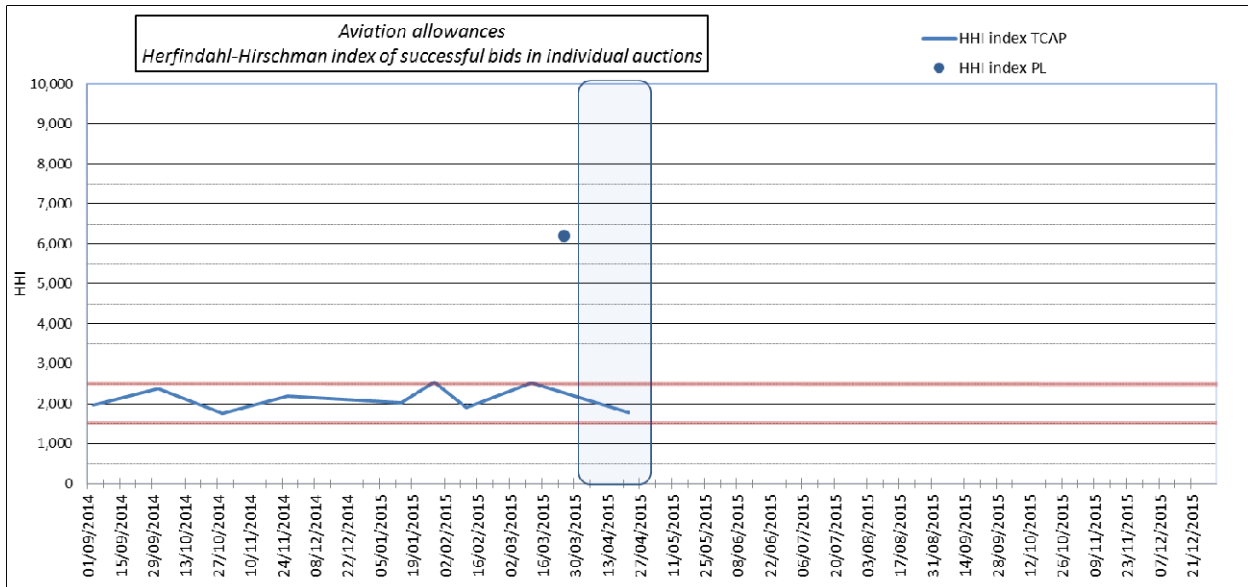
**1.2.3. Type of bidders – aviation allowances**

In April 2015, all volume bid was done on own account.

**1.2.4. Concentration – aviation allowances**

The HHI of successful bids is used to measure market concentration<sup>26</sup>. 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



<sup>26</sup> The HHI is calculated as the sum of the squares of all successful bidders’ shares (in % points) of the total auctioned volume over the period of interest.

## 2. 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 8 presents the number of eligible bidders under each category in April 2015

Most of the active participants in the secondary carbon market are assumed to also have been admitted to bid in the auctions<sup>27</sup>.

*Table 8: Eligible participants to the auctions in April 2015, 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 <i>spot secondary market</i>							109
Participants eligible to bid in the auctions	45	1	9	5	0	6	66
(Of which:) Participants eligible to bid in the auctions on behalf of clients	-	-	2	2	-	1	5
(Of which:) <i>Auction-only access</i>	2	0	0	0	0	0	2

Throughout the period, EEX actively promoted the auctions in view of attracting bidders.

No irregularities or deviations from the admission and access requirements were found.

### Transparency

The results for each auction were published in accordance with Article 61 of the *Auctioning Regulation*, not later than 15 minutes after the close of the *bidding window*.

EEX revised its webpage on auctioning where necessary for keeping it up to date.

### Technical and operational aspects

With regard to the holding of the auctions, EEX reported one technical incident during the reporting period. The response to the incident ensured the smooth conduct of the auction. EEX adopted measures to mitigate the risk of reoccurrence.

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. EEX's Market Surveillance department takes its instructions only from SMWA (Saxony's Ministry for Economy and Employment) and is independent of the exchange itself.

No infringements of the confidentiality requirements were identified.

<sup>27</sup> This assessment is based on the auction participants' activity in EEX's secondary market and general market knowledge of EEX.

#### **Other aspects**

No problems or issues were identified as regards coordination of the auctions between the various auction platforms.

A new auctioneer was appointed by Greece in November 2014 and by Hungary in January 2015.

### **3. 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 and the way they have been taken into account**

EEX made no comments on the report.

**Date of publication: 01/10/2015**

## 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: <a href="http://ec.europa.eu/clima/policies/ets/cap/auctioning/documentation_en.htm">http://ec.europa.eu/clima/policies/ets/cap/auctioning/documentation_en.htm</a> .
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> .
Back-loading	Proposal by the Commission to postpone, as a short-term measure, the auctioning of 900 million allowances from the years 2013-2015 until 2019-2020. See: <a href="http://ec.europa.eu/clima/policies/ets/reform/index_en.htm">http://ec.europa.eu/clima/policies/ets/reform/index_en.htm</a> .
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> .
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](http://ec.europa.eu/clima/policies/ets/documentation_en.htm).

General Allowance	Allowance to emit one tonne of CO <sub>2</sub> -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 <sub>2</sub> -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, Poland and the UK, 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.
Transitional common auction platform	Auction platform appointed pursuant to Article 26(2) of the <i>Auctioning Regulation</i> , also referred to as <i>TCAP</i> .
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 1 Auction revenues per Member State until April 2015 (reported in euros)

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

	General Allowances		Aviation Allowances		All Allowances
	November 2012 to March 2015	April 2015	November 2012 to March 2015	April 2015	November 2012 to April 2015
Austria	137 508 145	6 272 980	2 387 480	297 000	146 465 605
Belgium	243 589 310	11 359 180	3 420 500	347 625	258 716 615
Bulgaria	140 267 705	9 918 090	680 380	121 500	150 987 675
Croatia	20 791 500	7 035 910	215 200	60 750	28 103 360
Cyprus	2 359 150	-	1 024 760	182 250	3 566 160
Czech Republic	162 481 400	8 985 620	1 085 430	145 125	172 697 575
Denmark	120 583 600	5 594 820	2 535 210	357 750	129 071 380
Estonia	30 492 675	1 695 400	118 390	16 875	32 323 340
Finland	164 972 700	7 459 760	1 889 230	283 500	174 605 190
France	540 651 185	24 583 300	16 264 480	1 559 250	583 058 215
Greece	338 537 825	15 597 680	3 653 520	627 750	358 416 775
Hungary	114 580 300	6 696 830	799 340	121 500	122 197 970
Ireland	89 061 825	4 153 730	1 974 520	266 625	95 456 700
Italy	951 481 535	43 232 700	12 586 960	1 849 500	1 009 150 695
Latvia	26 511 655	1 186 780	409 670	70 875	28 178 980
Lithuania	47 308 775	2 288 790	192 890	47 250	49 837 705
Luxemburg	11 735 965	508 620	739 020	37 125	13 020 730
Malta	9 805 790	423 850	395 430	67 500	10 692 570
The Netherlands	330 069 035	15 089 060	7 352 660	465 750	352 976 505
Poland	360 646 075	-	2 982 480	-	363 628 555
Portugal	172 552 370	7 883 610	2 752 560	361 125	183 549 665
Romania	306 856 470	15 851 990	1 129 480	209 250	324 047 190
Slovak Republic	151 777 035	6 866 370	152 190	20 250	158 815 845
Slovenia	43 605 980	1 949 710	128 740	6 750	45 691 180
Spain	852 655 360	38 739 890	14 876 460	2 095 875	908 367 585
Sweden	87 856 925	3 984 190	2 878 610	462 375	95 182 100
<b>TOTAL</b>	<b>5 458 740 290</b>	<b>247 358 860</b>	<b>82 625 590</b>	<b>10 081 125</b>	<b>5 798 805 865</b>

## Annex 2 Results of individual auctions on behalf of participating Member States and Poland in April 2015

(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 2015																			
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
02/04/2015	7.14	6.95	7.50	7.12	7.12	2 918 000	7 087 000	2.43	17	15	20 834 520	67	24	3.9	105 776	416 882	593 281	194 533	310 555
07/04/2015	7.08	6.88	7.50	7.06	7.06	2 918 000	7 615 000	2.61	18	14	20 659 440	67	20	3.7	113 657	423 056	570 127	208 429	219 051
09/04/2015	7.12	6.90	7.60	7.09	7.09	2 918 000	7 262 000	2.49	20	16	20 776 160	68	26	3.4	106 794	363 100	447 999	182 375	235 075
13/04/2015	6.82	6.64	7.25	6.82	6.81	2 918 000	6 821 000	2.34	18	15	19 900 760	66	29	3.7	103 348	378 944	558 143	194 533	281 926
14/04/2015	6.77	6.00	7.50	6.76	6.76	2 918 000	8 775 000	3.01	22	18	19 754 860	71	26	3.2	123 592	398 864	445 630	162 111	140 779
16/04/2015	6.82	6.64	7.50	6.83	6.79	2 918 000	5 481 500	1.88	22	15	19 900 760	60	23	2.7	91 358	249 159	284 364	194 533	218 067
20/04/2015	6.88	6.66	7.00	6.86	6.88	2 918 000	6 350 500	2.18	16	15	20 075 840	68	31	4.3	93 390	396 906	497 237	194 533	229 897
21/04/2015	7.07	6.88	7.45	7.06	7.06	2 918 000	7 342 000	2.52	24	17	20 630 260	85	30	3.5	86 376	305 917	360 156	171 647	179 633
23/04/2015	7.06	3.50	7.50	6.49	7.03	2 918 000	9 632 500	3.30	23	16	20 601 080	74	24	3.2	130 169	418 804	551 612	182 375	169 846
27/04/2015	7.33	7.00	7.50	7.30	7.30	2 918 000	5 118 500	1.75	18	12	21 388 940	49	16	2.7	104 459	284 361	255 126	243 167	195 547
28/04/2015	7.16	6.98	7.40	7.13	7.14	2 918 000	6 040 500	2.07	19	15	20 892 880	65	23	3.4	92 931	317 921	369 633	194 533	258 352
30/04/2015	7.52	7.31	7.85	7.52	7.53	2 918 000	5 968 000	2.05	17	14	21 943 360	58	33	3.4	102 897	351 059	337 141	208 429	209 952
<b>Monthly Value</b>	-	-	-	-	-	35 016 000	83 493 500	-	29 <sup>(1)</sup>	26 <sup>(1)</sup>	247 358 860	798	305	3.4 <sup>(2)</sup>	104 628 <sup>(3)</sup>	356 810 <sup>(4)</sup>	453 453 <sup>(5)</sup>	192 396 <sup>(6)</sup>	224 960 <sup>(7)</sup>
<b>Monthly minimum</b>	6.77	3.50	7.00	-	-	2 918 000	5 118 500	1.8	16	12	19 754 860	49	16	2.7	86 376	249 159	-	162 111	-
<b>Monthly average</b>	7.06	6.53	7.46	7.00 <sup>++</sup>	-	2 918 000 <sup>++</sup>	6 957 792	2.4	19.5	15.2	20 613 238 <sup>++</sup>	66.5	25.4	3.4 <sup>++</sup>	104 562	358 748	-	194 267	-
<b>Monthly maximum</b>	7.52	7.31	7.85	-	-	2 918 000	9 632 500	3.3	24	18	21 943 360	85	33	4.3	130 169	423 056	-	243 167	-

Note: volume variables reported in tCO<sub>2</sub>, 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.

++: indicates simple average



**Aviation Allowances – April 2015**

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
<b>22/04/2015</b>	6.75	6.38	7.10	6.79	6.78	1 493 500	3 475 500	2.3	11	11	10 081 125	35	20	3.2	99 300	315 955	400 818	135 773	132 536
<b>Monthly Value</b>	-	-	-	-	-	1 493 500	3 475 500	-	11 <sup>(1)</sup>	11 <sup>(1)</sup>	10 081 125	35	20	3.2 <sup>(2)</sup>	99 300 <sup>(3)</sup>	315 955 <sup>(4)</sup>	400 818 <sup>(5)</sup>	135 773 <sup>(6)</sup>	132 536 <sup>(7)</sup>
<b>Monthly minimum</b>	6.75	6.38	7.10	-	-	1 493 500	3 475 500	2.3	11	11	10 081 125	35	20	3.2	99 300	315 955	-	135 773	-
<b>Monthly average</b>	6.75	6.38	7.10	6.79 <sup>++</sup>	-	1 493 500 <sup>++</sup>	3 475 500	2.3	11	11	10 081 125 <sup>++</sup>	35.0	20.0	3.2 <sup>++</sup>	99 300	315 955	-	135 773	-
<b>Monthly maximum</b>	6.75	6.38	7.10	-	-	1 493 500	3 475 500	2.3	11	11	10 081 125	35	20	3.2	99 300	315 955	-	135 773	-

Note: volume variables reported in tCO<sub>2</sub>, 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.

++: indicates simple average

The data for previous auctions can be downloaded from EEX's website: <https://www.eex.com/en/market-data/emission-allowances/auction-market/european-emission-allowances-auction/european-emission-allowances-auction-download>

