



# AUCTIONING

## Auctioning of Emission Allowances in Germany Periodical Report: August 2012

## **IMPRINT**

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## AUCTIONING OF EMISSION ALLOWANCES IN GERMANY

Since January 2010, the Federal Republic of Germany has been offering an annual total of roughly 41 million emission allowances (EUA) for auctioning. Between 2010 and 2012 the auctions are held weekly at the spot and futures markets of the European Energy Exchange EEX in Leipzig (see info box below). The German Emissions Trading Authority (DEHSt) at the Federal Environment Agency has commissioned the KfW banking group to act as vendor (seller) of allowances at the EEX on behalf of the Federal Government. Further updated information on terms and conditions of participation is to be found on the [EEX website](#). Previous Periodical Reports are available on the [auctioning website of the DEHSt](#).

### Info Box: Participation, Deadlines and Procedure

Weekly auctions of futures or spot contracts at EEX are part of normal exchange trading. Participation is possible either directly for EEX members or indirectly via a broker or as a client of an EEX member. This ensures that small and medium-sized enterprises that have no dedicated trading department can also benefit from the auctions. Exchange members already admitted to emissions trading on the EEX can participate in the weekly auctions at no cost or fixed charges.

From 2010 to 2011, auctions were held on separate dates between January and October - 300,000 allowances for immediate delivery (spot contract) are auctioned every Tuesday and 570,000 allowances to be delivered by December (futures) are auctioned every Wednesday. In 2012, the weekly volume of futures contracts increased to 645,000 EUAs from January and to 850,000 EUAs from June. In 2010 and 2011, 870,000 allowances were auctioned weekly on the spot market from November. In 2012 this volume increases to 1,150,000 allowances. The exact auction dates are published in the respective [EEX Auction Calendar 2012](#).

The auction procedure is broadly laid down in the Ordinance on the Auctioning of Emission Allowances (Emissionshandels-Versteigerungsverordnung, EHVV 2012). A single-round, uniform-price procedure is applied at auctions. All successful bidders pay the same price. Auctions are conducted with a closed order book, and bidders can only see their own bids. The minimum bid size is 500 allowances in auctions on the spot market and 1,000 allowances in auctions on the futures market.

## 1 CURRENT DEVELOPMENTS

### Five years' sales and auctions of emission allowances in Germany:

On 29<sup>th</sup> of August 2012, the German Emissions Trading Authority (DEHSt) at the Federal Environment Agency and KfW Bankengruppe presented their report "Auctioning of Emission Allowances in Germany: Evaluation and background of five years' sales and auctioning upon transition to the third trading period of the EU Emissions Trading System" during an organised expert panel. At the event in Berlin, relevant background information and experiences with sales and auctions of emission allowances in the second trading period were presented and, subsequently, discussed. The speakers and around 100 participants generally agreed on the success of the German pilot model and its contribution to shaping the overall EU auctioning framework. Furthermore, the report provides an overview of the main features and processes of auctioning in the third trading period which will start in 2013. The report is available for download in English and German on the [website of the DEHSt](#).

## Start of auctions for Third Trading Period and for aviation allowances to commence soon:

In February this year, the EEX in Leipzig won the tender for the German auctions for the Third Trading period and aviation allowances in 2012 and 2013. On September 1st, the legal basis for the start of the auctions was finally established by the European Commission, when the amendment of the EU Auctioning Regulation came into force. The start of the auctions is planned to commence in early October. This is, however, subject to the condition that the necessary technical functionalities in the European Union registry will be available on time. Moreover, the German auction calendar will have to be approved by the Commission until that time.

In 2012, Germany will auction its share of so called “Early Auctions” allowances amounting to 23,531,000 EUA for the Third Trading period and, additionally, auctioning will take place for up to 7 million aviation allowances (EUAA) on the spot-market of the EEX. Auctions of emission allowances for the current trading period will continue. The precise quantity of aviation allowances has yet to be determined by the European Commission. In line with the current auctions, Early Auctions will be held on a weekly basis on the EEX. Following European law, EUAA will be auctioned in two separate tranches. Once approved by the Commission, the German auction calendar will be published as usual [on the EEX website](#). The precise auction start will be announced at least two weeks in advance by the EEX and the Federal Environment Agency (UBA).

## 2 MARKET SURVEILLANCE REPORT BY THE HÜST

In order to guarantee above-board market activities free of manipulation on the EEX, continuous surveillance is conducted by an independent Market Surveillance Office (Handelsüberwachungsstelle, HÜSt), as required under German law. The HÜSt reports to the DEHSt in regular internal reports on the results of its surveillance activities. HÜSt reported as follows on auctions in August of 2012 (excerpt):

*“The auctions of emission certificates at the EEX on behalf of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety in August 2012 took place following the defined procedure and without any disturbances. For this period, the Market Surveillance of the EEX could not detect any irregularities, and especially no behavior of bidders that aims at manipulating the auction price.”*

## 3 OVERVIEW AUGUST 2012

In August 2012, a total of 5,450,000 emission allowances (EUA) with a total value of €40,876,000 were auctioned. This is equivalent to a volume-weighted revenue per allowance of €7.50. Of the total amount of allowances auctioned, 4,250,000 allowances with a value of €31,705,000 (average price €7.46) were futures contracts (MidDec2012), while 1,200,000 emission allowances worth €9,171,000 (average price €7.64) were sold at spot-market auctions.

Over the 9 auction dates, bids for a total of 18,733,500 allowances were entered into the trading system. Thus the quantity to be auctioned was oversubscribed by a factor of 3.44. In total, 60 bidders participated in the August auctions (7 bidders on average).<sup>1</sup>

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<sup>1</sup> As trading participants are allowed to enter bids on several successive dates, the number of participating and successful bidders does not necessarily reflect the true number of different parties taking part in auctions over the reporting period. It must also be taken into account that bidders were able to participate indirectly via intermediaries such as banks and financial service providers, which is not reflected in the quoted number of participants. Numbers only include trading participants acting as intermediaries, not indirect third-party bidders.

The following table gives an overview of the most important auction parameters for the individual dates of the reporting period.

Table 1: Overview of the auction dates in August 2012

Date	Contract	Number of Bidders	Bid Volume	Auction Volume	Cover Ratio	Clearing Price	Revenue
01/08/2012	Futures	8	2,912,000	850,000	3.43	6.92 €	5,882,000 €
07/08/2012	Spot	6	780,000	300,000	2.60	7.21 €	2,163,000 €
08/08/2012	Futures	7	3,755,000	850,000	4.42	7.19 €	6,111,500 €
14/08/2012	Spot	4	829,000	300,000	2.76	7.51 €	2,253,000 €
15/08/2012	Futures	6	2,634,000	850,000	3.10	7.47 €	6,349,500 €
21/08/2012	Spot	7	1,719,500	300,000	5.73	7.60 €	2,280,000 €
22/08/2012	Futures	8	2,411,000	850,000	2.84	7.86 €	6,681,000 €
28/08/2012	Spot	6	942,000	300,000	3.14	8.25 €	2,475,000 €
29/08/2012	Futures	8	2,751,000	850,000	3.24	7.86 €	6,681,000 €
<b>Spot</b>		<b>23</b>	<b>4,270,500</b>	<b>1,200,000</b>	<b>*3.56</b>	<b>*7.64 €</b>	<b>9,171,000 €</b>
<b>Futures</b>		<b>37</b>	<b>14,463,000</b>	<b>4,250,000</b>	<b>*3.40</b>	<b>*7.46 €</b>	<b>31,705,000 €</b>
<b>August</b>		<b>60</b>	<b>18,733,500</b>	<b>5,450,000</b>	<b>**3.44</b>	<b>**7.50 €</b>	<b>40,876,000 €</b>

Source: EEX, DEHSt

\* Equally weighted average

\*\* Volume-weighted average

## 4 OVERVIEW OF THE CURRENT YEAR

In the current year 2012 a total of 35,440,000 emission allowances (EUA) worth €260,743,600 were auctioned. The resulting volume-weighted revenue per allowance is €7.36.

Of the total auction volume, 25,240,000 emission allowances worth €186,538,600 (average price €7.39) were futures contracts (MidDec2012) and 10,200,000 emission allowances worth €74,205,000 (average price €7.28) were auctioned at the spot-market.

In total, valid bids for around 190 million emission allowances were entered into the trading system over the 69 auction dates. The aggregated bidder demand exceeds supply by a factor of 5.37. Table 2 summarizes the relevant parameters for the current year 2012 on a monthly basis.

Table 2: Overview of the current year 2012

Month	Contract	Dates	Bid Volume	Auction Volume	Cover Ratio	Clearing Price	Revenue
January	Spot	5	19,619,000	1,500,000	13.08	6.88 €	10,314,000 €
	Futures	4	21,075,000	2,580,000	8.17	6.98 €	18,014,850 €
February	Spot	4	8,902,000	1,200,000	7.42	8.44 €	10,131,000 €
	Futures	5	9,337,000	3,225,000	2.90	8.59 €	27,709,200 €
March	Spot	4	6,624,000	1,200,000	5.52	7.56 €	9,072,000 €
	Futures	4	12,584,000	2,580,000	4.88	7.79 €	20,091,750 €
April	Spot	4	11,370,000	1,200,000	9.48	6.64 €	7,971,000 €
	Futures	4	20,238,000	2,580,000	7.84	6.82 €	17,582,700 €
May	Spot	4	5,074,000	1,200,000	4.23	6.55 €	7,857,000 €
	Futures	5	13,127,000	3,225,000	4.07	6.72 €	21,659,100 €
June	Spot	4	6,041,500	1,200,000	5.03	7.05 €	8,460,000 €
	Futures	4	17,463,000	3,400,000	5.14	7.12 €	24,216,500 €
July	Spot	5	9,034,000	1,500,000	6.02	7.49 €	11,229,000 €
	Futures	4	10,996,000	3,400,000	3.23	7.52 €	25,559,500 €
August	Spot	4	4,270,500	1,200,000	3.56	7.64 €	9,171,000 €
	Futures	5	14,463,000	4,250,000	3.40	7.46 €	31,705,000 €
<b>Spot</b>		<b>34</b>	<b>70,935,000</b>	<b>10,200,000</b>	<b>*6.95</b>	<b>*7.28 €</b>	<b>74,205,000 €</b>
<b>Futures</b>		<b>35</b>	<b>119,283,000</b>	<b>25,240,000</b>	<b>**4.73</b>	<b>**7.39 €</b>	<b>186,538,600 €</b>
<b>Total</b>		<b>69</b>	<b>190,218,000</b>	<b>35,440,000</b>	<b>**5.37</b>	<b>**7.36 €</b>	<b>260,743,600 €</b>

Source: EEX, DEHSt

\* Equally weighted average

\*\* Volume-weighted average

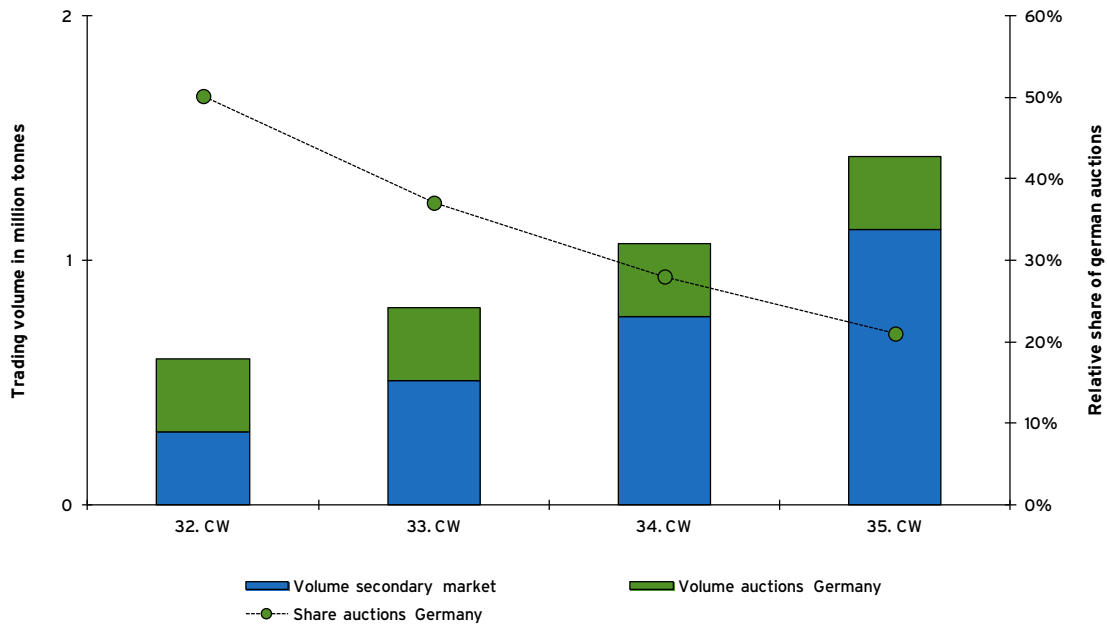
## 5 AUCTIONS AND THE SECONDARY MARKET

### 5.1 TRADING VOLUME ON THE SECONDARY MARKET

While in August 5.45 million emission allowances were auctioned at the EEX for Germany, the cumulated trading volume on the relevant total market was around 510 million allowances.<sup>2</sup> Thus, the market share of German auctions was about 1 percent. Figures 1 and 2 show the market volumes traded during the reporting period and the corresponding share of German auction volumes per calendar week (CW), separately for the spot and futures markets.

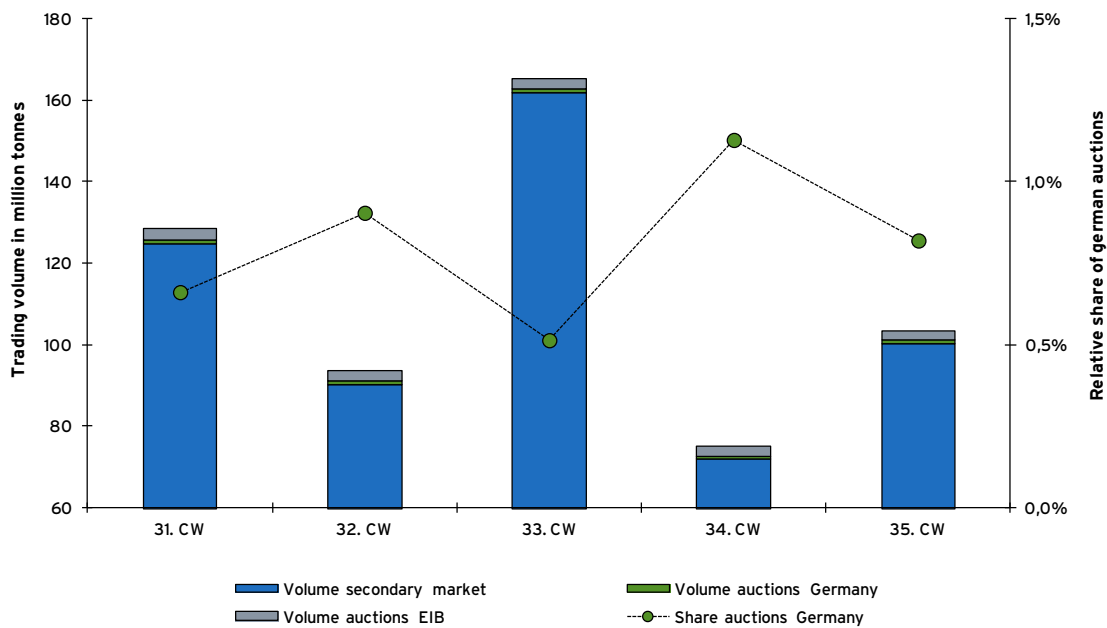
<sup>2</sup> The analysis includes transaction of EUA on the spot and futures markets, which are traded at the ICE/ECX, BlueNext, EEX and Nasdaq OMX exchanges. Only transactions concluded at the exchange (screen-traded) or bilateral transactions that went through the exchange clearing mechanisms are included, whereas options are not included. Futures contracts auctioned by the European Investment Bank (EIB) in August 2012 are also included.





Source: BlueNext, EEX, DEHSt

Figure 1: Trading volume on the spot market and relative weekly share of the German auctions (EEX) in August 2012



Source: ICE/ECX, EEX, Nasdaq OMX, EIB, DEHSt

Figure 2: Trading volume on the futures market and relative weekly share of the German auctions (EEX) in August 2012

Due to increasing activity on the secondary market, the weekly shares of spot auctions in August fell continuously from around 50 to 21 percent (market share in August 29.2 percent). The weekly shares of futures auctions on the total futures market fluctuated between 0.5 and 1.1 percent (market share in August 0.8 percent).

## 5.2 CLEARING PRICES AND PRICE DEVELOPMENT ON THE SECONDARY MARKET

In order to evaluate auction clearing prices realised, reference prices from the most liquid exchanges were used as benchmarks (see next Info Box). The reference contract for the auctioning of the MidDec12 futures contract is the Dec12 Future traded at the London ICE/ECX. Last trade and last best bid prices before the end of the bidding period were used as benchmark prices.

### Info Box: Reference Prices

In regular exchange trading (secondary trading), participants enter their buying and selling requests (bids and asks) into an order book which is constantly updated. As in German auctions, such buying bids in the secondary trading include quantity and price limits. The price limit is the highest price a buyer is prepared to pay for the purchase of an allowance. Sellers can also put a price limit on their bid, i.e. a minimum price per allowance sold.

The order book is open to inspection by any participant. It shows the current highest purchase offer (best bid) and the lowest sales offer (best ask) with the relevant quantities. Trading occurs where best bid and best ask overlap. The best bid is therefore a good indicator of the willingness to pay on a market. Trading price records finally show the price limits where supply equals demand.

Table 3 shows the relative deviations of clearing prices at futures auctions from the London futures market. Deviations per auction date varied between -0.63 and +0.27 percent (last best bid) respective -0.63 and +0.13 percent (last trade). During the reporting period, the median deviation from the last best bid and from the last trade was 0.32 percent. The median deviation is calculated as the arithmetic mean of absolute deviation values in the reporting period.

Table 3: Auction clearing prices (futures) and deviations from secondary market price (ICE/ECX Dec12) in August 2012

Auction Date	Contract	Clearing Price	Deviation from Lead Market (ICE/ECX Dec12)	
			Last Best Bid	Last Trade
01/08/2012	Futures	6.92 €	-0.57%	-0.57%
08/08/2012	Futures	7.19 €	0.00%	-0.14%
15/08/2012	Futures	7.47 €	0.27%	0.13%
22/08/2012	Futures	7.86 €	-0.13%	-0.13%
29/08/2012	Futures	7.86 €	-0.63%	-0.63%
<b>Median Deviation (Futures)</b>			<b>0.32%</b>	<b>0.32%</b>

Source: KfW, DEHSt

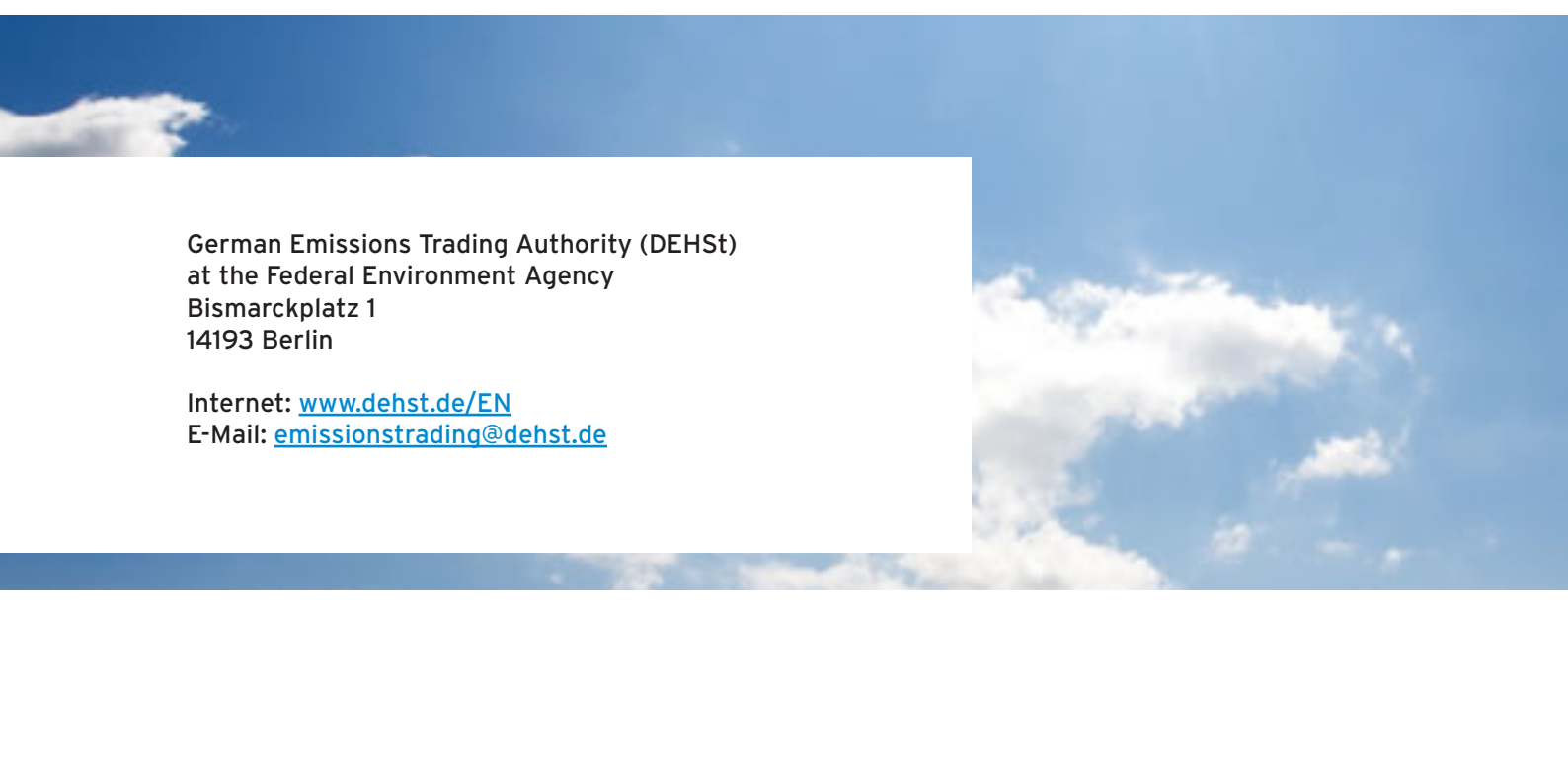
For spot-market auctions, the BlueNext spot market in Paris is used as benchmark. The deviations fluctuated between -0.27 and +0.53 percent in August (Table 4). The median deviation from the last best bid at the BlueNext during the reporting period was 0.39 percent.

To complement the snapshot of the markets during call phases on auction days, Table 4 shows clearing price deviations in spot market auctions from the last best bids at the futures market ICE/ECX (Dec12). Over the reporting period, deviations fluctuated between -0.92 to -0.55 percent, which is the usual discount in functioning markets where spot contracts are normally rated lower than front-year contracts. As expected, the price gap between spot and futures contracts gradually closed towards compared to the previous month. The reason is the approaching end of the futures maturity date in December. The average deviation in July was -0.75 percent, slightly below the previous year (August 2011: -1.08 percent).

Table 4: Auction clearing prices (spot) and deviations from secondary market price (BlueNext and ICE/ECX Dec12) in August 2012

Auction Date	Contract	Clearing Price	Deviation from Lead Market	
			Last Best Bid Spot (BlueNext)	Last Best Bid Future Dec12 (ICE/ECX)
07/08/2012	Spot	7.21 €	0.42%	-0.55%
14/08/2012	Spot	7.51 €	-0.27%	-0.92%
21/08/2012	Spot	7.60 €	0.53%	-0.91%
28/08/2012	Spot	8.25 €	0.36%	-0.60%
<b>Median Deviation (Spot)</b>			<b>0.39%</b>	<b>0.75%</b>

Source: KfW, DEHSt



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