



# AUCTIONING

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

## **IMPRINT**

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Responsible Editor: Section E 2.3

Status: 06/2012

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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 will increase to 645,000 EUA from January and to 850,000 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

### German auction volumes at the EEX will be increased by June:

As from June 2012, the volumes of EU allowances auctioned on behalf of the Federal Republic of Germany will be slightly increased compared to previous months. Thus, the weekly quantities offered as futures contracts (F2EA) between June and October will increase from currently 645,000 to 850,000 EUA. For spot contracts (T2PA), by contrast, quantities offered for the same period will remain at 300,000 EUA. As usual, auctions on the futures market will be completed in October. From November 2012, spot market quantities will increase to 1,150,000 EUAs. Detailed information can be found in the [EEX Auction Calendar 2012](#). The increase shall ensure that all ETS system cost incurred by the Federal Republic will be covered.

## 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 May of 2012 (excerpt):

“In the morning of May 8<sup>th</sup> 2012 from 9.00 to 10.15 AM a system wide breakdown of the XETRA trading System occurred. The incident was caused by a technical defect in Frankfurt and affected EEX, Deutsche Börse as well as all connected traders. After solving the issue and the resumption of trading, the primary allocation of emission allowances on behalf of the German Ministry for the Environment, Nature Conservation and Nuclear Safety was conducted in correspondence with the authorities in charge, without any problems and following the agreed procedures.

Except for the shortened auction on May 8<sup>th</sup> which was completed without any problems, the auctions of emission allowances at the EEX on behalf of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety in May 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 MAY 2012

In May 2012, a total of 4,425,000 emission allowances (EUA) with a total value of €29,516,100 were auctioned. This is equivalent to a volume-weighted revenue per allowance of €6.67. Of the total amount of allowances auctioned, 3,225,000 allowances with a value of €21,659,100 (average price €6.72) were futures contracts (MidDec2012), while 1,200,000 emission allowances worth €7,857,000 (average price €6.55) were sold at spot-market auctions.

Over the 9 auction dates in May, bids for a total of 18,201,000 allowances were entered into the trading system. Thus the quantity to be auctioned was oversubscribed by a factor of 4.11. In total, 54 bidders participated in the May auctions (6 bidders on average).<sup>1</sup> The following Table 1 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 May 2012

| Date           | Contract | Number of Bidders | Bid Volume        | Auction Volume   | Cover Ratio | Clearing Price  | Revenue             |
|----------------|----------|-------------------|-------------------|------------------|-------------|-----------------|---------------------|
| 02/05/2012     | Futures  | 4                 | 1,417,000         | 645,000          | 2.20        | 7.29 €          | 4,702,050 €         |
| 08/05/2012     | Spot     | 5                 | 1,385,000         | 300,000          | 4.62        | 6.50 €          | 1,950,000 €         |
| 09/05/2012     | Futures  | 7                 | 2,739,000         | 645,000          | 4.25        | 6.56 €          | 4,231,200 €         |
| 15/05/2012     | Spot     | 8                 | 1,211,000         | 300,000          | 4.04        | 6.49 €          | 1,947,000 €         |
| 16/05/2012     | Futures  | 7                 | 2,882,000         | 645,000          | 4.47        | 6.46 €          | 4,166,700 €         |
| 22/05/2012     | Spot     | 7                 | 1,292,000         | 300,000          | 4.31        | 6.65 €          | 1,995,000 €         |
| 23/05/2012     | Futures  | 6                 | 2,972,000         | 645,000          | 4.61        | 6.83 €          | 4,405,350 €         |
| 29/05/2012     | Spot     | 5                 | 1,186,000         | 300,000          | 3.95        | 6.55 €          | 1,965,000 €         |
| 30/05/2012     | Futures  | 5                 | 3,117,000         | 645,000          | 4.83        | 6.44 €          | 4,153,800 €         |
| <b>Spot</b>    |          | <b>25</b>         | <b>5,074,000</b>  | <b>1,200,000</b> | <b>4.23</b> | <b>*6.55 €</b>  | <b>7,857,000 €</b>  |
| <b>Futures</b> |          | <b>29</b>         | <b>13,127,000</b> | <b>3,225,000</b> | <b>4.07</b> | <b>*6.72 €</b>  | <b>21,659,100 €</b> |
| <b>May</b>     |          | <b>54</b>         | <b>18,201,000</b> | <b>4,425,000</b> | <b>4.11</b> | <b>**6.67 €</b> | <b>29,516,100 €</b> |

Source: EEX, DEHST

\* Equally weighted average

\*\* Volume-weighted average

<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.

## 4 OVERVIEW OF THE CURRENT YEAR

In the current year 2012 a total of 20,490,000 emission allowances (EUA) worth €150,402,600 were auctioned. The resulting volume-weighted revenue per allowance is €7.34.

Of the total auction volume, 14,190,000 emission allowances worth €105,057,600 (average price €7.40) were futures contracts (MidDec2012) and 6,300,000 emission allowances worth €45,345,000 (average price €7.20) were auctioned at the spot-market.

In total, valid bids for around 128 million emission allowances were entered into the trading system over the 43 auction dates. The aggregated bidder demand exceeds supply by a factor of 6.24. 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 €         |
| <b>Spot</b>    |          | <b>21</b> | <b>51,589,000</b>  | <b>6,300,000</b>  | <b>8.19</b> | <b>*7.20 €</b>  | <b>45,345,000 €</b>  |
| <b>Futures</b> |          | <b>22</b> | <b>76,361,000</b>  | <b>14,190,000</b> | <b>5.38</b> | <b>*7.40 €</b>  | <b>105,057,600 €</b> |
| <b>Total</b>   |          | <b>43</b> | <b>127,950,000</b> | <b>20,490,000</b> | <b>6.24</b> | <b>**7.34 €</b> | <b>150,402,600 €</b> |

Source: EEX, DEHSt

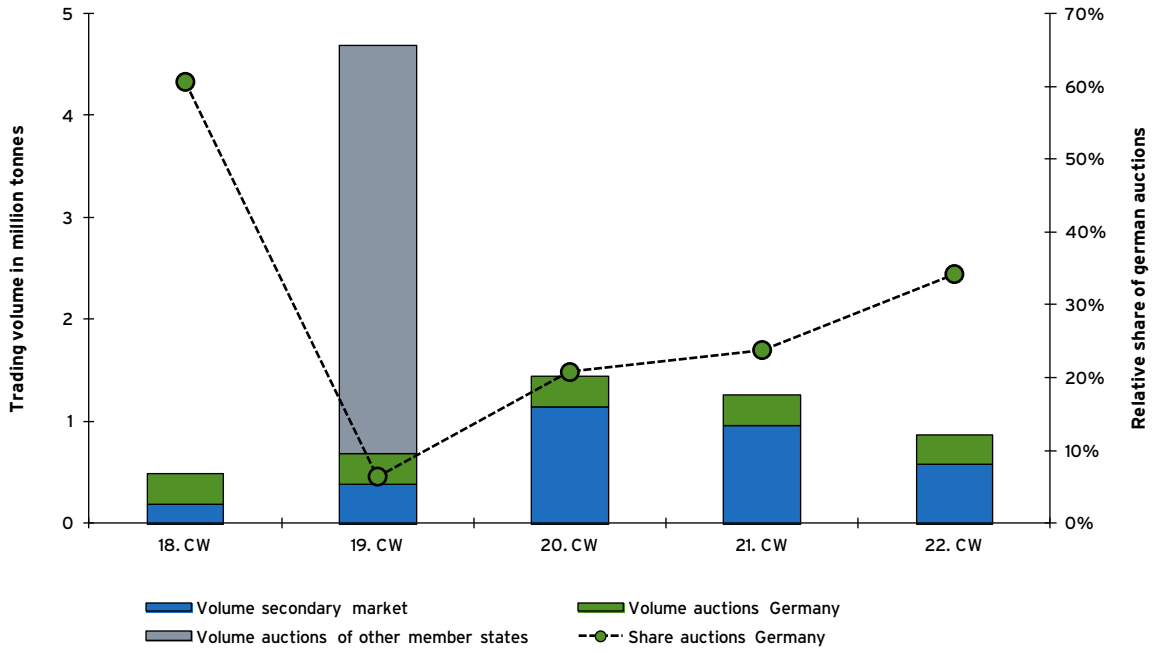
\* Equally weighted average

\*\* Volume-weighted average

## 5 AUCTIONS AND THE SECONDARY MARKET

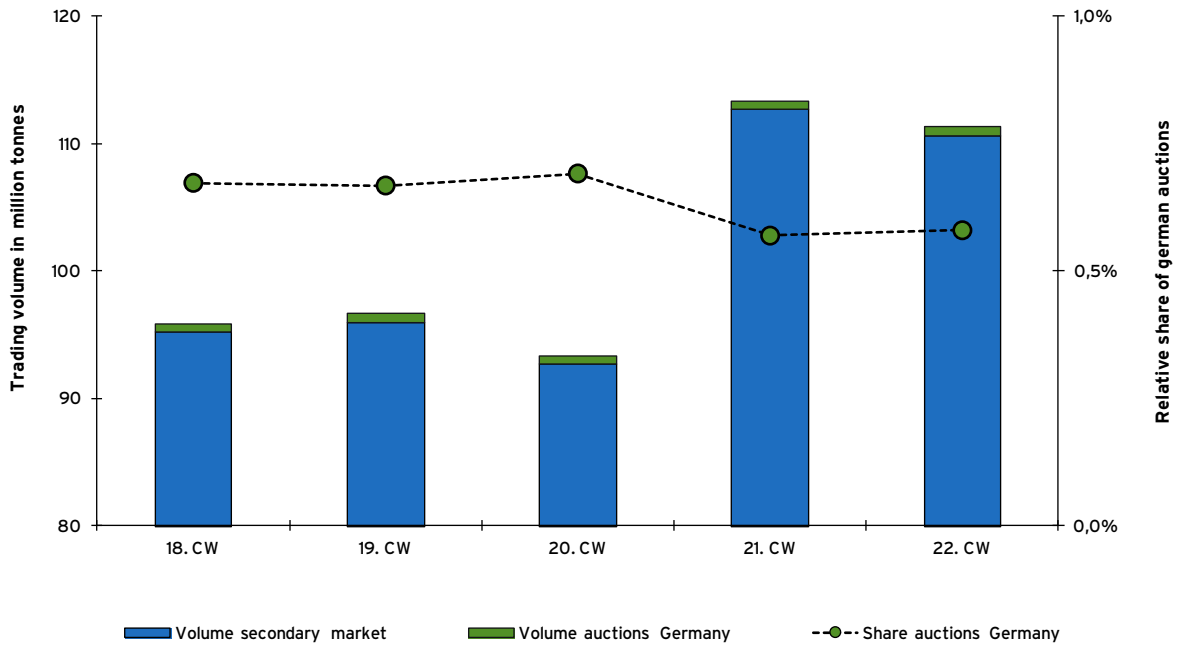
While in May 4.425 million emission allowances were auctioned at the EEX, the cumulated trading volume on the relevant total market was over 485 million allowances.<sup>2</sup> Thus, the market share of German auctions was about 0.9 percent. Figures 1 and 2 show the market volumes traded during the reporting 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, GreenX, 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. Spot contracts auctioned by other EU Member States in May 2012 are also included.



Source: BlueNext, EEX, Nasdaq OMX, DEHSt

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



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

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

The weekly shares of spot auctions in May fluctuated between 6.4 and 60.6 percent (market share in May 14.2 percent). Weekly shares of futures auctions on the total futures market fluctuated between 0.6 and 0.7 percent (market share in May 0.7 percent).

The clearing prices achieved in May have been evaluated by setting reference prices of the most liquid carbon exchanges as benchmarks. 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<sup>3</sup> prices before the end of the bidding period were used as benchmark prices.

Table 3 shows the relative deviations of clearing prices at futures auctions from the London futures market. Deviations per auction date varied between -0.73 and +0.31 percent (last best bid) respective -0.73 and +0.16 percent (last trade). Throughout all five dates, the median deviation from the last best bid was 0.35 percent, while the median deviation from the last trade was 0.41 percent. The median deviation is calculated as the arithmetic mean of absolute deviation values in May.

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

| Auction Date                      | Contract | Clearing Price | Deviation from Lead Market (ICE/ECX Dec12) |              |
|-----------------------------------|----------|----------------|--|--------------|
|                                   |          |                | Last Best Bid                              | Last Trade   |
| 02/05/2012                        | Futures  | 7.29 €         | -0.41%                                     | -0.41%       |
| 09/05/2012                        | Futures  | 6.56 €         | 0.00%                                      | -0.46%       |
| 16/05/2012                        | Futures  | 6.46 €         | 0.31%                                      | 0.16%        |
| 23/05/2012                        | Futures  | 6.83 €         | -0.73%                                     | -0.73%       |
| 30/05/2012                        | Futures  | 6.44 €         | -0.31%                                     | -0.31%       |
| <b>Median Deviation (Futures)</b> |          |                | <b>0.35%</b>                               | <b>0.41%</b> |

Source: KfW, DEHSt

For spot-market auctions, the BlueNext spot market in Paris is used as benchmark. The deviations fluctuated between -0.46 and -0.15 percent in May (Table 4). Throughout all four dates, the median deviation from the last best bid at the BlueNext was 0.34 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). Throughout the reporting period, deviations fluctuated between -2.38 to -2.11 percent, which is the usual discount in functioning markets where spot contracts are normally rated lower than front-year contracts.

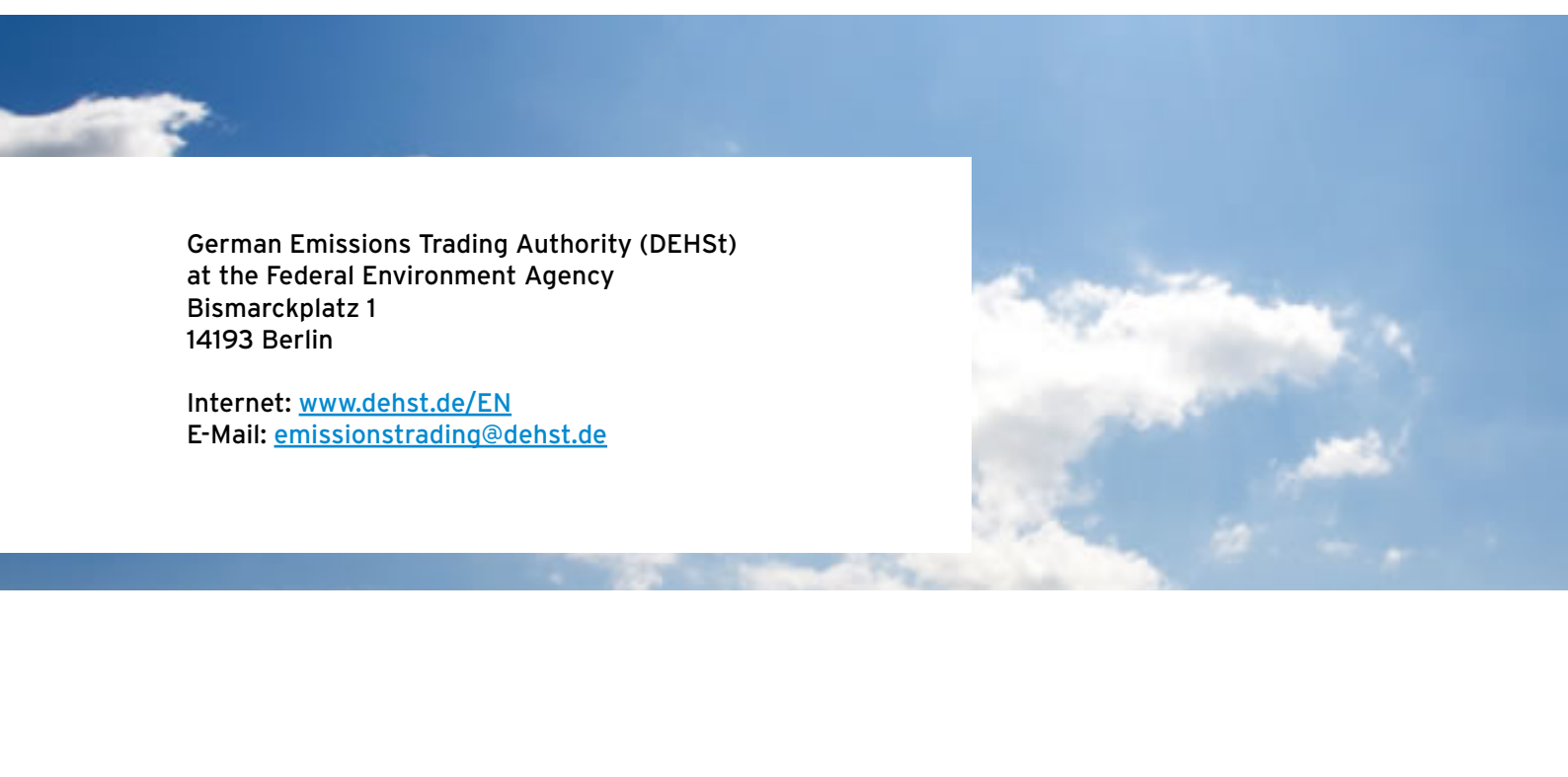
**Table 4: Auction clearing prices (spot) and deviations from secondary market price (BlueNext and ICE/ECX Dec12) in May 2012**

| Auction Date                   | Contract | Clearing Price | Deviation from Lead Market    |                                      |
|--------------------------------|----------|----------------|-------------------------------|--------------------------------------|
|                                |          |                | Last Best Bid Spot (BlueNext) | Last Best Bid Future Dec12 (ICE/ECX) |
| 08/05/2012                     | Spot     | 6.50 €         | -0.31%                        | -2.11%                               |
| 15/05/2012                     | Spot     | 6.49 €         | -0.46%                        | -2.26%                               |
| 22/05/2012                     | Spot     | 6.65 €         | -0.45%                        | -2.21%                               |
| 29/05/2012                     | Spot     | 6.55 €         | -0.15%                        | -2.38%                               |
| <b>Median Deviation (Spot)</b> |          |                | <b>0.34%</b>                  | <b>2.24%</b>                         |

Source: KfW, DEHSt

<sup>3</sup> The best bid is defined as the highest bid in the order books at a given time.





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