



# AUCTIONING

## Auctioning of Emission Allowances in Germany Periodical Report: October/November 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 more than 40 million emission allowances (EUA) from the current trading period (2nd TP) for auctioning. Between 2010 and 2012 the auctions were held weekly on the European Energy Exchange (EEX) spot and futures markets 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 a vendor (seller) for allowances on behalf of the Federal Government. Further updated information on participation terms and conditions can be downloaded from the [EEX website](#). Previous periodical reports are available on the [DEHSt auction website](#).

### 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 trading department of their own can also benefit from participating in the auctions. Exchange members already admitted to emissions trading at the EEX can participate in the weekly auctions at no cost or with fixed charges.

In 2010 and 2011, auctions were held on separate dates between January and October – 300,000 allowances for immediate delivery (spot contract) were auctioned every Tuesday and 570,000 allowances to be delivered by December of the current year (futures) were 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 alone from November. In 2012 this volume increased to 1,150,000 EUAs. The exact auction dates can be found in the [EEX Auction Calendar 2012](#).

The auction procedure is comprehensively set out 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

**The first auction of EUAs from the third trading period (early auctions) as well as aviation allowances (EUAA 2012) was performed successfully:**

In October, EEX successfully carried out the first primary market auctions of emission allowances for the third trading period (early auctions) and 2012 EU aviation allowances (EUAA) on behalf of the Federal Republic of Germany. The [Auction calendar](#) and results of the auctions can be downloaded from the [EEX website](#).

The German Emissions Trading Authority (DEHSt) at the Federal Environment Agency will publish a concise report with detailed results and evaluation of the third trading period EUA (early auctions) and EUAA (2012) auctions early next year on the [DEHSt auctioning page](#). DEHSt's regular monthly and quarterly auctioning reports will be continued in 2013.

### Info Box: Early auctions of the third trading period and auctioning of 2012 EUAs

From 26.10.2012, about 23.5 million emission allowances of the third trading period will be auctioned at the EEX on a weekly basis. The auction calendar is available from the [EEX website](#). The following table provides the core data of these early auctions:

<b>Auction product</b>	EUA third trading period spot contracts
<b>Period</b>	26.10.2012 to 14.12.2012
<b>Auction frequency</b>	Weekly (Fridays, 09:00-11:00 hours)
<b>Volume per auction</b>	3 million EUAs (2.531 million EUAs on 14.12.2012 )
<b>Bid volume</b>	500 EUA
<b>Auction mode</b>	Single-round, uniform-price procedure with a closed order book

This year, 2.5 million EUAs were auctioned for aviation in emissions trading:

<b>Auction product</b>	2012 EUAA spot contracts
<b>Auction date</b>	31.10.2012 (09:00-11:00 hours)
<b>Auction volume</b>	2.5 million EUAs on 31.10.2012
<b>Bid volume</b>	500 EUAA
<b>Auction mode</b>	Single-round, uniform-price procedure with a closed order book

### The European Commission has announced the deferral of emissions trading for international flights:

The European Commission has proposed a temporary deferral of duties under the European Emissions Trading System for incoming and outgoing flights from third countries from 2010 to 2012 ([Information from the European Commission](#)) to support current negotiations in the International Civil Aviation Organisation's (ICAO) about global measures to reduce emissions from aviation. The Council and the European Parliament have to decide on the proposal in the codecision procedure. Requirements for monitoring, reporting and surrendering remain valid for flights within the European Economic Area.

If no agreement on a global market-based mitigation measure for aviation is achieved by autumn 2013 (date of the next ICAO General Assembly), the obligations apply from the reporting year 2013 as before. Auctions scheduled for the year 2012 were therefore suspended at short notice and will be rescheduled, probably in the first quarter of next year. This shift was inter alia necessary to be able to adequately calculate the new (or adapted) volumes arising from the Commission's proposal and await a decision on the proposal.

## 2 SURVEILLANCE REPORT BY THE HÜST

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

*"The auctions of emission allowances took place at the EEX on behalf of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety in October and November of 2012 according to the defined procedure and without any disturbances. For this period, the Market Surveillance of the EEX could not detect any irregularities and especially no behaviour of bidders that was targeted at manipulating the auction price."*

### 3 AUCTIONING OF THE 2<sup>ND</sup> TP: OVERVIEW OCTOBER/NOVEMBER 2012

In October 2012, a total of 4,900,000 emission allowances (EUA) of the current trading period (2nd TP) with a total value of €38,671,500 were auctioned. This resulted in a volume-weighted average price per allowance of €7.89. Of the total amount of allowances auctioned, 3,400,000 allowances with a value of €26,860,000 (average price €7.90) were futures contracts (MidDec2012), while 1,500,000 emission allowances worth €11,811,000 (average price €7.87) were sold on spot-market auctions.

The auctions on the EEX futures market were finished as scheduled on 30 October for the calendar year 2012. Therefore, in accordance with the ETS Auctioning Regulation in the period November, the weekly auctions on the spot market were increased to 1,150,000 EUA. The last auction of the current year was held on 20 November. On that date, the remaining 868,000 allowances (EUA) of the annual total were offered.

In November, the remaining volume of 3,168,000 emission allowances (EUA) of the current trading period (2nd TP) was auctioned at an average price of €7.88 on the spot market. The revenues in November amounted to €24,979,580.

The following tables provide an overview of the most important auctioning indicators of individual dates during the reporting period.

Table 1: Overview of auction dates in October 2012

Date	Contract	Number of bidders	Bid volume	Auction volume	Cover ratio	Clearing price	Revenue
02/10/2012	Spot	9	1,513,000	300,000	5.04	€7.79	€2,337,000
09/10/2012	Spot	8	1,456,000	300,000	4.85	€7.85	€2,355,000
10/10/2012	Futures	9	3,993,000	850,000	4.70	€7.67	€6,519,500
16/10/2012	Spot	13	2,402,000	300,000	8.01	€7.76	€2,328,000
17/10/2012	Futures	8	3,589,000	850,000	4.22	€8.18	€6,953,000
23/10/2012	Spot	11	2,002,000	300,000	6.67	€7.85	€2,355,000
24/10/2012	Futures	8	2,872,000	850,000	3.38	€7.72	€6,562,000
30/10/2012	Spot	11	1,745,000	300,000	5.82	€8.12	€2,436,000
31/10/2012	Futures	8	2,773,000	850,000	3.26	€8.03	€6,825,500
<b>Spot</b>		<b>52</b>	<b>9,118,000</b>	<b>1,500,000</b>	<b>*6.08</b>	<b>*€7.87</b>	<b>€11,811,000</b>
<b>Futures</b>		<b>33</b>	<b>13,227,000</b>	<b>3,400,000</b>	<b>*3.89</b>	<b>*€7.90</b>	<b>€26,860,000</b>
<b>October</b>		<b>85</b>	<b>22,345,000</b>	<b>4,900,000</b>	<b>**4.56</b>	<b>**€7.89</b>	<b>€38,671,000</b>

Source: EEX, DEHSt

\* Equally weighted average

\*\* Volume-weighted average

Table 2: Overview of auction dates in November 2012

Date	Contract	Number of bidders	Bid volume	Auction volume	Cover ration	Clearing price	Revenue
06/11/2012	Spot	14	6,535,000	1,150,000	5.68	€8.24	€9,476,000
13/11/2012	Spot	12	3,630,000	1,150,000	3.16	€8.53	€9,809,500
20/11/2012	Spot	13	5,547,000	868,000	6.39	€6.56	€5,694,080
<b>November</b>		<b>39</b>	<b>15,712,000</b>	<b>3,168,000</b>	<b>**4.96</b>	<b>** €7.88</b>	<b>€24,979,580</b>

Source: EEX, DEHSt

\*\* Volume-weighted average

## 4 AUCTIONING OF THE 2<sup>ND</sup> TP: OVERVIEW OF 2012

In 2012, a total of 48,108,000 emission allowances (EUAs) of the current trading period (2nd TP) worth €359,598,180 were auctioned on 89 auction dates (average price €7.47). Due to the market prices in the current year, the 2012 average price is about 46 percent below the previous year (€13.81). Of the total auction volume, 32,040,000 emission allowances worth €239,476,600 (average price €7.47) were futures contracts (MidDec2012) and 16,068,000 emission allowances worth €120,121,580 (average price €7.48) were auctioned on the spot market in accordance with legal requirements. The cumulative auction results for the current year are shown in Table 3.

In addition to the legally fixed **basic annual volume** of 40 million emission allowances, additional allowances from the national reserve are auctioned every year to cover the cost incurred by the Federal Government in exercising its duties and responsibilities in connection with emissions trading. In 2012, the volume of allowances auctioned increased by a proportion which covered the costs that were incurred by DEHSt under the current reimbursement of the general emissions trading fee. This annual **refinancing volume** is calculated from the average auction clearing prices from the months of January to October and the nominal refinancing need. The 2012 refinancing volume was found to be 8,107,558 EUA and was announced on the [DEHSt website](#) on 5th November. Taking into account a minimum bid volume of 500 EUA at the EEX spot market, the 2012 **total annual volume** is 48,108,000 EUA.

All in all, valid bids for over 250 million EUAs were traded within the trading system. The aggregate bidder demand and the auction offer thus had a coverage ratio of 5.22. The cover ratio on the spot market (6.35) as in the previous year was slightly above the reference value on the futures market (4.65). The annual average was about 7 bidders participating in each auction. The fluctuation of clearing prices in the secondary market was minimal and was largely at the ppm level (see Chapter 6).

Table 3: Overview of 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
September	Spot	4	6,329,000	1,200,000	5.27	€7.61	€9,126,000
	Futures	4	16,333,000	3,400,000	4.80	€7.67	€26,078,000



October	Spot	5	9,118,000	1,500,000	6.08	€7.87	€11,811,000
	Futures	4	13,227,000	3,400,000	3.89	€7.90	€26,860,000
November	Spot	3	15,712,000	3,168,000	4.96	€7.88	€24,979,580
	Futures	-	-	-	-	-	-
<b>Spot</b>		<b>46</b>	<b>102,094,000</b>	<b>16,068,000</b>	<b>**6.35</b>	<b>**€7.48</b>	<b>€120,121,580</b>
<b>Futures</b>		<b>43</b>	<b>148,843,000</b>	<b>32,040,000</b>	<b>**4.65</b>	<b>**€7.47</b>	<b>€239,476,600</b>
<b>Total</b>		<b>89</b>	<b>250,937,000</b>	<b>48,108,000</b>	<b>**5.22</b>	<b>**€7.47</b>	<b>€359,598,180</b>

Source: EEX, DEHSt

\*\* Volume-weighted average

## 5 AUCTIONING OF THE 3<sup>RD</sup> TP AND AVIATION

In October and November 2012, a total of 18,000,000 emission allowances (EUAs) of the third trading period (3rd TP) were auctioned with a total value of €130,290,000. This provided a volume-weighted average revenue per allowance of €7.24. In December, the remaining volume of 5,531,000 emission allowances (EUAs) will be auctioned at the EEX. The following table provides an overview of the most important auctioning indicators of the individual dates during the reporting period.

Table 4: Early Auctions - overview of auction dates in October / November 2012

Date	Contract	Number of bidders	Auction volume	Cover ratio	Clearing price	Revenue
26/10/2012	EUA spot 3 <sup>rd</sup> TP	15	3,000,000	7.67	€7.54	€22,620,000
02/11/2012	EUA spot 3 <sup>rd</sup> TP	15	3,000,000	4.83	€7.96	€23,880,000
09/11/2012	EUA spot 3 <sup>rd</sup> TP	16	3,000,000	3.63	€8.20	€24,600,000
16/11/2012	EUA spot 3 <sup>rd</sup> TP	17	3,000,000	1.69	€6.75	€20,250,000
23/11/2012	EUA spot 3 <sup>rd</sup> TP	15	3,000,000	3.07	€6.75	€20,250,000
30/11/2012	EUA spot 3 <sup>rd</sup> TP	13	3,000,000	2.60	€6.23	€18,690,000
<b>October/November</b>		<b>15.2</b>	<b>18,000,000</b>	<b>3.92</b>	<b>€7.24</b>	<b>€130,290,000</b>

Source: EEX, DEHSt

In October, 2,500,000 allowances were auctioned for the first time for aviation (EUAA).

Table 5: Auctioning of EUAA of 2012 - overview for October

Date	Contract	Number of bidders	Auction volume	Cover ratio	Clearing price	Revenue
31/10/2012	EUAA Spot	6	2,500,000	1.82	€7.01	€17,525,000

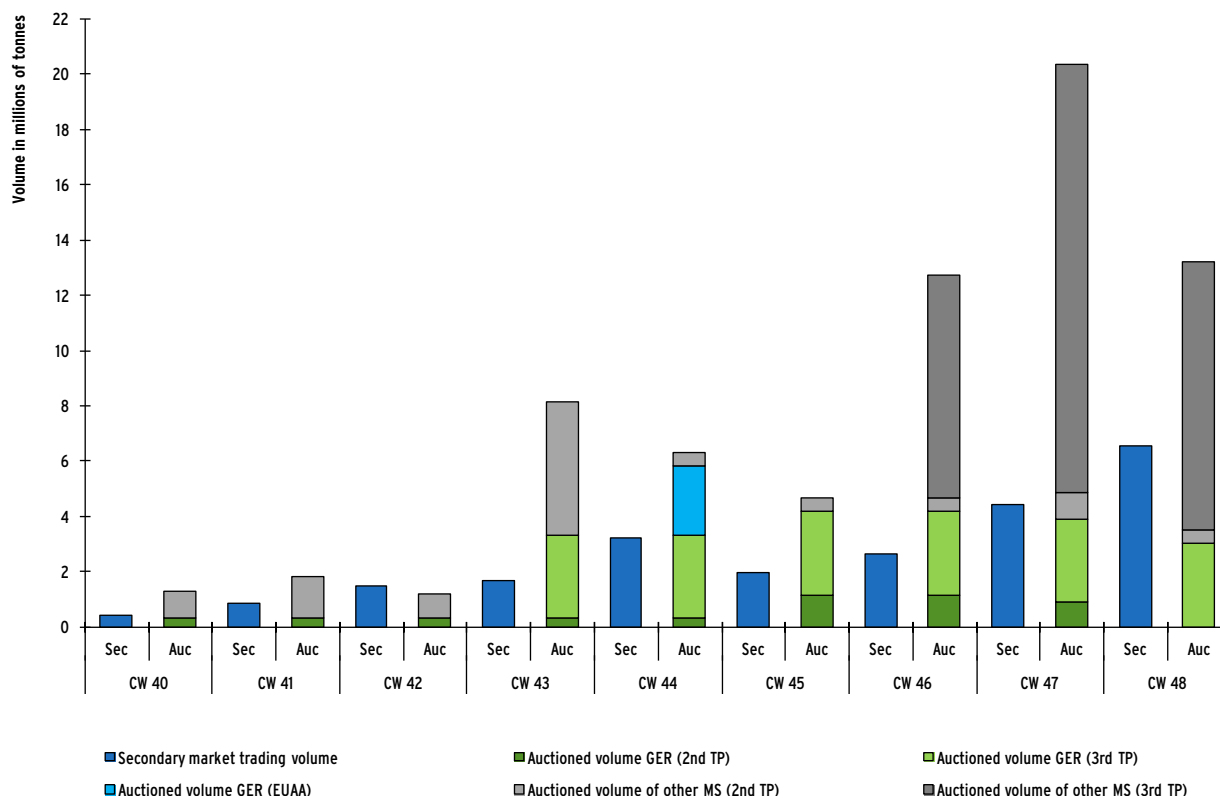
Source: EEX, DEHSt

Clearing prices of the early auctions of the 3rd TP and the EUAA, and associated reference price developments will be comprehensively analysed and evaluated in a separate evaluation report which is scheduled for publication in early 2013.

## 6 AUCTIONS AND THE SECONDARY MARKET

### 6.1 TRADING VOLUME AND THE SECONDARY MARKET

In October and November, 8,068 million EUAs of the current trading period (2nd TP) were auctioned at the EEX for Germany. In addition, 18 million EUAs of the 3rd TP (early auctions) and 2.5 million aviation allowances (EUAA 2012) were successfully auctioned (also see Chapter 5). During the same period, the cumulative trade volume in the relevant total market was over 1.6 billion EUAs<sup>1</sup>. Figures 1 and 2 show the volumes traded in the reporting period on the secondary market and the volumes auctioned on the primary market for each calendar week (CW) separately for spot and futures markets.

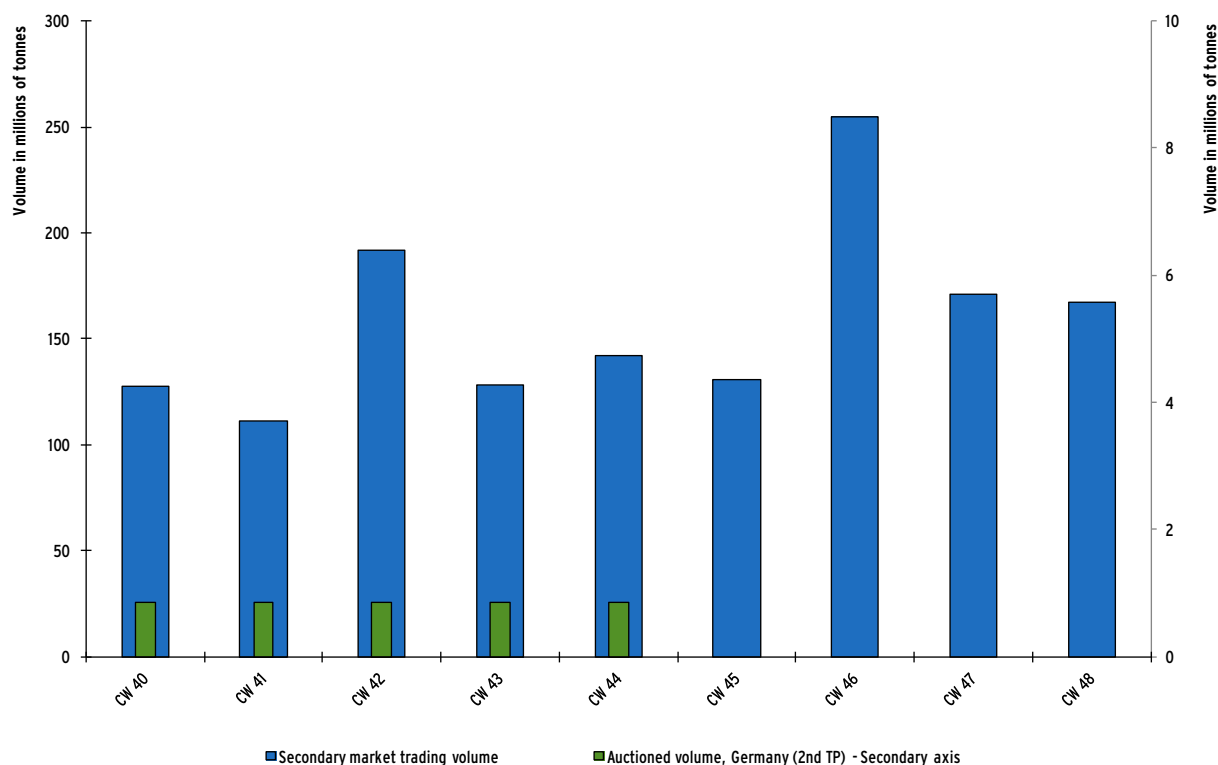


Sources: BlueNext, EEX, Nasdaq OMX, DEHSt

\* Auc = Auctions; Sec = Secondary market

Figure 1: Trading volume on the secondary market (spot) and volume of auctions conducted in October and November 2012

<sup>1</sup> All emission allowances (EUA/EUAA) traded on spot and futures markets on the exchanges ICE/ECX, GreenX, BlueNext, EEX and Nasdaq OMX are considered. Transactions completed directly on the stock exchange (screen traded) or those bilateral transactions that at least used the stock exchange clearing mechanism are included. Option contracts are not involved. The October/November 2012 spot contracts auctioned by other EU Member States are also considered.



Sources: Thomson Reuters, EEX, Nasdaq OMX, DEHSt

Figure 2: Trading volume on the secondary market (futures) and volume of auctions conducted in October and November 2012

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

Reference prices from the most liquid trading venues served as appropriate benchmarks (see box below) for the evaluation of auction clearing prices. The reference contract for the auction of the MidDec12 futures contract is the Dec12 futures traded on the London ICE/ECX. The last trade and last best bid made immediately before the end of the bidding period are used as reference 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 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 6 shows the relative deviations of clearing prices at futures auctions from the London lead market. Deviations at auction dates fluctuated between -0.49 and -0.13 percent (last best bid) and between -0.74 and -0.13 percent (last trade) during the reporting period. For statistical evaluation, the arithmetic mean of the moduli (absolute values) of the individual deviations during the trading period is calculated. The mean deviation from the last best bid was calculated to be 0.31 percent over all four auctions, and 0.44 percent for the last trade.

Table 6: Auctions clearing prices (futures) and deviations from secondary market prices (ICE/ECX Dec12) in October 2012

Date	Contract	Clearing price	Deviation from lead market (ICE/ECX Dec12)	
			Last best bid	Last trade
10/10/2012	EUA futures 2 <sup>nd</sup> TP	€7.67	-0.13%	-0.13%
17/10/2012	EUA futures 2 <sup>nd</sup> TP	€8.18	-0.49%	-0.49%
24/10/2012	EUA futures 2 <sup>nd</sup> TP	€7.72	-0.26%	-0.39%
31/10/2012	EUA futures 2 <sup>nd</sup> TP	€8.03	-0.37%	-0.74%
<b>Mean deviation (futures)</b>			<b>0.31%</b>	<b>0.44%</b>

Sources: KfW, DEHSt

For the spot market auctions (2<sup>nd</sup> TP), the EUA spot market at the Paris BlueNext has been used as a benchmark. The deviations ranged between -0.23 and +0.46 percent (Table 7). The average deviation between the clearing price and the secondary market price on the BlueNext in the reporting period was 0.15 percent.

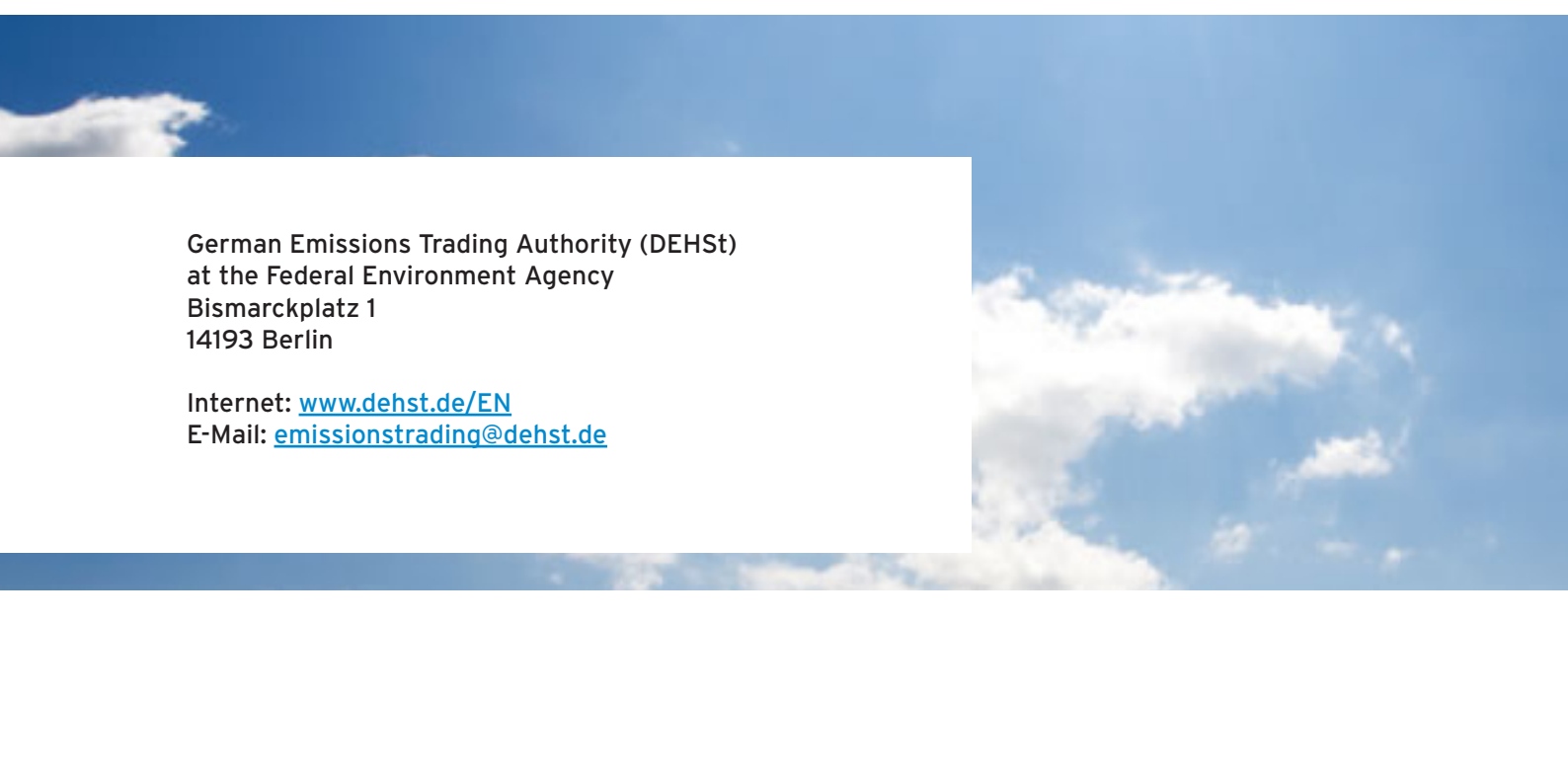
In addition, Table 7 shows the deviations of the clearing price at the spot auctions from the last „best bid“ on the ICE/ECX (Dec12) futures market. The deviations over the entire reporting period were between -0.76 and 0 percent reflecting the reduction in spot against front-year contracts common on functioning markets. As expected, the prices between spot and futures contracts converged compared to previous months. The reason is the approaching maturity date of futures on the ICE on 17 December 2012. The mean deviation in October/November was -0.39 percent which is slightly below the previous year's level (October/November 2011: -0.52 percent).

Table 7: Auction clearing prices (spot) and deviations from secondary market price (BlueNext and ICE/ECX Dec12) in October / November 2012

Date	Contract	Clearing price	Deviation from lead market	
			Last best bid spot (BlueNext)	Last best bid futures Dec12 (ICE/ECX)
02/10/2012	EUA spot 2 <sup>nd</sup> TP	€7.79	*	-0.64%
09/10/2012	EUA spot 2 <sup>nd</sup> TP	€7.85	0.00%	-0.76%
16/10/2012	EUA spot 2 <sup>nd</sup> TP	€7.76	0.00%	-0.39%
23/10/2012	EUA spot 2 <sup>nd</sup> TP	€7.85	0.13%	-0.25%
30/10/2012	EUA spot 2 <sup>nd</sup> TP	€8.12	0.25%	-0.37%
06/11/2012	EUA spot 2 <sup>nd</sup> TP	€8.24	0.00%	-0.24%
13/11/2012	EUA spot 2 <sup>nd</sup> TP	€8.53	-0.23%	-0.47%
20/11/2012	EUA spot 2 <sup>nd</sup> TP	€6.56	0.46%	0.00%
<b>Mean deviation (futures)</b>			<b>0.31%</b>	<b>0.44%</b>

Sources: KfW, DEHSt

\* No EUA trading at BlueNext due to a switch-over of the Union Registry



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