

## Additional Auction 1 Summary Statistics

### Background

The Air Resources Board (ARB) held its first auction of greenhouse gas allowances (GHG) on November 14, 2012. The auction included a Current Auction of 2013 vintage allowances and Advance Auction of 2015 vintage allowances. ARB released a [post-auction summary report](#) on November 19, 2012. ARB is providing additional auction summary statistics in this report.

The post auction summary report posted on November 19<sup>th</sup> provided statistics based on submitted bids. For “Submitted Bids,” no bids were excluded when evaluated against holding limits, purchase limits, and bid guarantees. The additional summary statistics in this report are based on qualified bids; these statistics had not been calculated when the November 19<sup>th</sup> post-auction summary report was released. “Qualified Bids” means the bids used in the auction settlement process after the submitted bids have been evaluated against the holding limits, purchase limits, and bid guarantees. In the future, ARB will release a single post-auction summary report which will include statistics based on both qualified and submitted bids.

The most prominent difference between the statistics based on submitted bids versus qualified bids is the ratio of total bids divided by total 2013 allowances available for sale. For the November 14<sup>th</sup> auction, a very small number of auction participants exceeded their purchase limit, holding limit, or bid guarantee, which led to the higher ratio for submitted bids. Prior to the certification of the auction, ARB staff and the market monitor carefully evaluated these bids, and determined that the auction process and procedures complied with the requirements of the Cap-and-Trade Regulation. These bids did not have any effect on the final results in the auction settlement.

## Additional Auction Summary Statistics

### California Air Resources Board Quarterly Auction 1

The Air Resources Board (ARB) held its first auction of greenhouse gas allowances (GHG) on November 14, 2012. The auction included a Current Auction of 2013 vintage allowances an Advance Auction of 2015 vintage allowances. Below are key data and information on the results of the auction.

#### Current Auction of 2013 Vintage Allowances

Total 2013 Allowances Available for Sale:	23,126,110
Total 2013 Allowances Sold at Auction:	23,126,110
Total Qualified Bids Divided by	
Total 2013 Allowances Available for Sale:	1.06
Auction Reserve Price:	\$10.00
Settlement Price Per Allowance:	\$10.09
Allowances Purchased by Compliance Entities:	97.0%
Bid Price Summary Statistics	
Maximum Price:	\$91.13
Minimum Price:	\$10.00
Mean Price:	\$15.60
Median Price:	\$12.95
Hirschman-Herfindahl index <sup>1</sup> :	1133

#### Advance Auction of 2015 Vintage Allowances

Total 2015 Allowances Available for Sale:	39,450,000
Total 2015 Allowances Sold at Auction:	5,576,000
Total Qualified Bids Divided by	
Total 2015 Allowances Available for Sale:	0.14
Auction Reserve Price:	\$10.00
Settlement Price Per Allowance:	\$10.00
Allowances Purchased by Compliance Entities:	91.0%
Bid Price Summary Statistics	
Maximum Price:	\$17.25
Minimum Price:	\$10.00
Mean Price:	\$11.07
Median Price:	\$10.59
Hirschman-Herfindahl index:	1485

<sup>1</sup> Please see Explanatory Notes after the list of Qualified Bidders for descriptions of all summary information.

## Explanatory Notes

### Current Auction of 2013 Vintage Allowances

Total 2013 Allowances Available for Sale:	Total 2013 vintage allowances available for purchase in the auction in metric tons, including allowances consigned by Electric Distribution Utilities and allowances sold by the State of California. For the November 2012 auction, the only 2013 vintage allowances for sale are those consigned by the Electric Distribution Utilities.
Total 2013 Allowances Sold at Auction:	Total 2013 vintage allowances purchased in the auction in metric tons.
Total Qualified Bids Divided by Total 2013 Allowances Available for Sale:	Total number of allowances included in all the qualified bids for the current vintage (regardless of bid price) divided by the total number of current vintage allowances available in the auction.
Auction Reserve Price:	The minimum acceptable auction bid price for current vintage allowances in dollars per metric ton.
Settlement Price Per Allowance:	The current vintage allowance price that resulted from the auction, in dollars per metric ton.
Allowances Won by Compliance Entities:	The total number of current vintage allowances purchased in the auction by compliance entities divided by the total number of current vintage allowances sold in the auction. A Compliance Entity is a Covered Entity or Opt-in Covered Entity as defined in the Cap-and-Trade Regulation.
<b>Bid Price Summary Statistics</b>	Statistics are calculated from all the qualified bids for the current vintage (regardless of bid price).
Maximum Price:	Highest qualified bid
Minimum Price:	Lowest qualified bid
Mean Price:	Average qualified bid calculated as the sum of the bid price times the bid quantity of each qualified bid divided by the sum of the bid quantities across all qualified bids.
Median Price:	The price per metric ton calculated so that 50% of the allowances in the qualified bids fall above and below the median value.

Hirschman-Herfindahl index (HHI):

The HHI is a measure of the concentration of allowances purchased by winning bidders relative to the total sale of current vintage allowances in the auction. The percentage of allowances purchased by each winning bidder is squared and then summed across all winning bidders. The HHI can range up to 10,000, representing 100% of the current vintage allowances purchased by a single bidder (i.e.,  $100 \times 100 = 10,000$ ).

### **Advance Auction of 2015 Vintage Allowances**

The data for the future vintage allowance auction are computed in the same manner as computed for the current vintage allowance auction. No allowances are consigned to the future vintage auction.