

**California Air Resources Board Quarterly Auction 1, November 2012****Summary Results Report****June 5, 2013 Update**

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 an Advance Auction of 2015 vintage allowances. Below are key data and information on the results of the auction.

**Qualified Bid Summary Statistics****Current Auction of 2013 Vintage Allowances**

Total 2013 Allowances Available for Sale:	23,126,110
Total IOU Consigned 2013 Allowances:	21,731,990 (\$219,275,779)
Total POU Consigned 2013 Allowances:	1,394,120 (\$14,066,671)
Total State-Owned 2013 Allowances:	0 (\$0)
Total 2013 Allowances Sold at Auction:	23,126,110 (\$233,342,450)
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 <u>Bid Price</u> :	\$12.95
<u>Median Allowance Price</u> :	<u>\$11.81</u>
Hirschman-Herfindahl Index:	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 (\$55,760,000)
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 <u>Bid Price</u> :	\$10.59
<u>Median Allowance Price</u> :	<u>\$10.75</u>
Hirschman-Herfindahl Index:	1485

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**California Air Resources Board Quarterly Auction 1, November 2012****Submitted Bid Summary Statistics****Current Auction of 2013 Vintage Allowances**

Total 2013 Allowances Available for Sale:	23,126,110
Total IOU Consigned 2013 Allowances:	21,731,990 (\$219,275,779)
Total POU Consigned 2013 Allowances:	1,394,120 (\$14,066,671)
Total State-Owned 2013 Allowances:	0 (\$0)
Total 2013 Allowances Sold at Auction:	23,126,110 (\$233,342,450)
Total Submitted Bids Divided by	
Total 2013 Allowances Available for Sale:	3.10
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:	\$13.75
Median <u>Bid Price</u> :	\$12.96
<u>Median Allowance Price</u> :	<u>\$12.44</u>
Herfindahl–Hirschman Index:	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 (\$55,760,000)
Total Submitted 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 <u>Bid Price</u> :	\$10.59
<u>Median Allowance Price</u> :	<u>\$10.75</u>
Herfindahl–Hirschman Index:	1485

## List of Qualified Bidders for the Current Auction of 2013 Vintage Allowances and the Advance Auction of 2015 Vintage Allowances

A Qualified Bidder is an entity that registered for the auction, submitted an acceptable bid guarantee, and was approved by ARB to participate in the auction.

Aera Energy LLC  
 Air Liquide Large Industries U.S. LP  
 Berry Petroleum Company  
 BP Energy Company  
 California Department of Water Resources  
 California Institute of Technology  
 California Pacific Electric Company, LLC  
 California Steel Industries, Inc.  
 Calpine Energy Services, L.P.  
 Cardinal Cogen, Inc.  
 CE2 Carbon Capital LLC  
 Chevron U.S.A. Inc.  
 CI Power Cogeneration Plant  
 ConAgra Foods Packaged Foods LLC  
 Constellation Energy Commodities Group, Inc.  
 CP Energy Marketing (US) Inc.  
 DTE Carbon, LLC  
 EDF Trading North America, LLC  
 Element Markets, LLC  
 Exxon Mobil Corporation  
 Flyers Energy, LLC  
 GenOn Energy Management, LLC  
 Hilmar Cheese Company  
 J. G. Boswell Company  
 Kern Oil & Refining Co,  
 Kings River Conservation District  
 La Paloma Generating Company, LLC.  
 Lassen Municipal Utility District  
 Lepirino Foods Company  
 Lockheed Martin Space Systems  
 Los Angeles Department of Water & Power  
 Luminus Energy Partners QP, LP  
 Macquarie Energy LLC  
 Modesto Irrigation District  
 Morgan Stanley Capital Group Inc.  
 Noble Americas Gas & Power Corp.  
 Northern California Power Agency (1)  
 Northern California Power Agency (2)

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NRG Power Marketing LLC  
 Occidental Power Services, Inc.  
 Oildale Energy LLC  
 OLS Energy - Chino  
 Pacific Coast Producers  
 Pacific Gas and Electric Company  
 PacifiCorp  
 Phillips 66 Company  
 Pilkington North America, Inc.  
 Plumas-Sierra Rural Electric Cooperative  
 Power and Water Resources Pooling Authority  
 PPG Industries, Inc.  
 Redding Electric Utility  
 Regents of the University of California  
 Ripon Cogeneration LLC.  
 Riverside Cement Company  
 Royal Bank of Canada  
 Sacramento Municipal Utility District (SMUD)  
 San Diego Gas & Electric Company  
 San Joaquin Refining Company, Inc.  
 Saputo Cheese USA Inc.  
 Sempra Generation  
 Shell Energy North America (US), L.P.  
 Signal Hill Petroleum, Inc.  
 Silicon Valley Power (SVP), City of Santa Clara  
 Southern California Edison Company  
 Tesoro Refining and Marketing Company  
 The Morning Star Packing Company  
 TransAlta Energy Marketing (U.S.) Inc.  
 Turlock Irrigation District  
 Twin Eagle Resource Management, LLC  
 Ultramar, Inc.  
 Valero Refining Company-California, Benicia Refinery and Asphalt Plant  
 Vitol Inc.  
 William Bolthouse Farms Inc.

## Explanatory Notes: Qualified Bid Summary Statistics 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 IOU 2013 Consigned Allowances:	The 2013 vintage allowances available for purchase in the auction in metric tons that were consigned by investor owned utilities.
Total POU 2013 Consigned Allowances:	The 2013 vintage allowances available for purchase in the auction in metric tons that were consigned by publicly owned 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.
Bid Price Summary Statistics	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.
<u>Median Bid Price:</u>	<u>The price per metric ton calculated so that 50% of the qualified bids fall above and below the median bid price.</u>
Median <u>Allowance</u> Price:	The price per metric ton calculated so that 50% of the <u>quantity of</u> allowances in the qualified bids fall above and below <u>that price</u> <del>median value</del> .
Herfindahl-Hirschman 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.

## Explanatory Notes: Submitted Bid Summary Statistics 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 IOU 2013 Consigned Allowances:	The 2013 vintage allowances available for purchase in the auction in metric tons that were consigned by investor owned utilities.
Total POU 2013 Consigned Allowances:	The 2013 vintage allowances available for purchase in the auction in metric tons that were consigned by publicly owned utilities.
Total 2013 Allowances Sold at Auction:	Total 2013 vintage allowances purchased in the auction in metric tons.
Total Submitted Bids Divided by Total 2013 Allowances Available for Sale:	Total number of allowances included in all the submitted 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.
Bid Price Summary Statistics	Statistics are calculated from all the submitted bids for the current vintage (regardless of bid price).
Maximum Price:	Highest submitted bid
Minimum Price:	Lowest submitted bid

Mean Price:	Average submitted bid calculated as the sum of the bid price times the bid quantity of each submitted bid divided by the sum of the bid quantities across all submitted bids.
<u>Median Bid Price:</u>	<u>The price per metric ton calculated so that 50% of the submitted bids fall above and below the median bid price.</u>
Median <u>Allowance</u> Price:	The price per metric ton calculated so that 50% of the <u>quantity of</u> allowances in the submitted bids fall above and below that <u>price median value</u> .
Herfindahl–Hirschman 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., $100 \times 100 = 10,000$ ).

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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.