

California Air Resources Board Quarterly Auction 7 May 2014

Summary Results Report

Background

The Air Resources Board (ARB) held its seventh auction of greenhouse gas (GHG) allowances on May 16, 2014. The auction included a Current Auction of 2014 vintage allowances and an Advance Auction of 2017 vintage allowances. The information provided in this report is a balance between the need for program transparency and protection of individual auction participant's market positions.

Prior to the certification of the auction, ARB staff and the Market Monitor carefully evaluated the bids, and determined that the auction process and procedures complied with the requirements of the Cap-and-Trade Regulation. As provided below, the Market Monitor made the following determination:

"The Market Monitor found that the auction was cleared consistent with the auction clearing rules in the regulation and appropriate economic logic. The Market Monitor confirmed the auction results, based on the data available. The Market Monitor confirmed the clearing price and clearing quantities by participant for the auction for 2014 and for the auction for 2017 vintage allowances. The Auction Administrator (AA) reported that the 2014 auction clearing price is \$11.50 per allowance, with 16,947,080 total 2014 allowances sold. The AA reported that the 2017 auction clearing price is \$11.34 per allowance with 4,036,000 total 2017 allowances sold. The Market Monitor confirmed that the 2014 auction clearing price is \$11.50 per allowance and that the 2017 auction clearing price is \$11.34 per allowance. The Market Monitor confirmed the cleared quantities assigned to individual participants by the AA were consistent with the regulation logic involving tie breakers and the random allocation of residual allowances in both auctions and therefore that the total volumes cleared are correct. The auction algorithm correctly applied the regulation requirements covering the bid guarantee and the tie breaker constraints. The Market Monitor did not observe any breaches of security or communication protocols. The Market Monitor recommends that ARB approve the May 2014 Auction results."

There were no violations of the holding limits, purchase limits, or bid guarantee for any submitted bids in the Current Auction of 2014 allowances or in the Advance Auction of 2017 vintage allowances. The bid price statistics for submitted bids are therefore the same as qualified bids.

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The Air Resources Board (ARB) held its seventh auction of greenhouse gas (GHG) allowances on May 16, 2014. The auction included a Current Auction of 2014 vintage allowances and an Advance Auction of 2017 vintage allowances. Below are key data and information on the results of the auction. Please see Explanatory Notes after the list of Qualified Bidders for descriptions of all summary information.

Qualified Bid Summary Statistics

Current Auction of 2014 Vintage Allowances

Total 2014 Allowances Available for Sale:	16,947,080
Total IOU Consigned 2014 Allowances:	13,234,228 (\$152,193,622)
Total POU Consigned 2014 Allowances:	1,506,610 (\$17,326,015)
Total State-Owned 2014 Allowances:	2,206,242 (\$25,371,783)
Total 2014 Allowances Sold at Auction:	16,947,080 (\$194,891,420)
Total Qualified Bids Divided by	
Total 2014 Allowances Available for Sale:	1.46
Auction Reserve Price:	\$11.34
Settlement Price Per Allowance:	\$11.50
Allowances Purchased by Compliance Entities:	89.5%
Bid Price Summary Statistics	
Maximum Price:	\$50.00
Minimum Price:	\$11.34
Mean Price:	\$13.55
Median Bid Price:	\$11.65
Median Allowance Price:	\$11.61
Hirschman-Herfindahl Index:	482

Advance Auction of 2017 Vintage Allowances

Total 2017 Allowances Available for Sale:	9,260,000
Total 2017 Allowances Sold at Auction:	4,036,000 (\$45,768,240)
Total Qualified Bids Divided by	
Total 2017 Allowances Available for Sale:	0.44
Auction Reserve Price:	\$11.34
Settlement Price Per Allowance:	\$11.34
Allowances Purchased by Compliance Entities:	100%
Bid Price Summary Statistics	
Maximum Price:	\$13.00
Minimum Price:	\$11.34
Mean Price:	\$11.59
Median Bid Price:	\$11.82
Median Allowance Price:	\$11.44
Hirschman-Herfindahl Index:	1439

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Submitted Bid Summary Statistics

Current Auction of 2014 Vintage Allowances

Total 2014 Allowances Available for Sale:	16,947,080
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Total POU Consigned 2014 Allowances	1,506,610 (\$17,326,015)
Total State-Owned 2014 Allowances:	2,206,242 (\$25,371,783)
Total 2014 Allowances Sold at Auction:	16,947,080 (\$194,891,420)
Total Submitted Bids Divided by	
Total 2014 Allowances Available for Sale:	1.46
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List of Qualified Bidders for the Current Auction of 2014 Vintage Allowances and the Advance Auction of 2017 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
AltaGas Power Holdings (U.S.) Inc.
BNSF Railway Company
BreitBurn Operating, LP
California Department of Water Resources
Calpine Energy Services, LP
CE2 Carbon Capital, LLC
Chevron U.S.A. Inc.
Citigroup Energy Inc.
City of Anaheim, Public Utilities Department
City of Azusa
City of Los Angeles, Department of Airports
City of Roseville
City of Vernon, Light and Power
CP Energy Marketing (U.S.) Inc.
CPV Sentinel, LLC
EDF Trading North America, LLC
Exelon Generation Company, LLC
Exxon Mobil Corporation
Freeport-McMoRan Oil & Gas, LLC
Fresno Cogeneration Partners, LP
Gila River Power, LLC
Goal Line, LP
High Desert Power Project, LLC
J. Aron & Company
J.G. Boswell Company
J.P. Morgan Ventures Energy Corporation
Kings River Conservation District
Koch Supply & Trading, LP
La Paloma Generating Company, LLC
Lassen Municipal Utility District
Liberty Utilities (CalPeco Electric), LLC
Los Angeles Department of Water & Power
Luminus Energy Partners QP, LP
Macquarie Energy, LLC
Modesto Irrigation District
Morgan Stanley Capital Group Inc.

Naftex Operating Company
NextEra Energy Power Marketing, LLC
Noble Americas Gas & Power Corp.
Northern California Power Agency
NRG Power Marketing, LLC
Occidental Power Services Inc.
Oildale Energy, LLC
Pacific Coast Energy Company, LP
Pacific Gas and Electric Company
PacifiCorp
Pasadena Water & Power
Phillips 66 Company
Plumas-Sierra Rural Electric Cooperative
Portland General Electric Company
Powerex Corp.
Ripon Cogeneration, LLC
Royal Bank of Canada
Sacramento Municipal Utility District (SMUD)
San Diego Gas & Electric Company
Sempra Generation
Shell Energy North America (US), LP
Signal Hill Petroleum Inc.
Silicon Valley Power (SVP), City of Santa Clara
Southern California Edison Company
Southern California Gas Company
Stanislaus Food Products Company
The Bank of Nova Scotia
The Metropolitan Water District of Southern California
The Morning Star Packing Company
TransCanada Energy Sales Ltd.
Turlock Irrigation District
Union Pacific Railroad Company
United States Gypsum Company
Vista Metals Corp.
Vitol Inc.
Walnut Creek Energy, LLC
Yuba City Cogeneration Partners, LP

Explanatory Notes: Qualified Bid Summary Statistics

Current Auction of 2014 Vintage Allowances

Total 2014 Allowances Available for Sale:	Total 2014 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.
Total IOU 2014 Consigned Allowances:	The 2014 vintage allowances available for purchase in the auction in metric tons that were consigned by investor owned utilities.
Total POU 2014 Consigned Allowances:	The 2014 vintage allowances available for purchase in the auction in metric tons that were consigned by publicly owned utilities.
Total 2014 Allowances Sold at Auction:	Total 2014 vintage allowances purchased in the auction in metric tons.
Total Qualified Bids Divided by Total 2014 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.

Median Bid Price:	The price per metric ton calculated so that 50% of the qualified bids fall above and below the median bid price.
Median Allowance Price:	The price per metric ton calculated so that 50% of the quantity of allowances in the qualified bids fall above and below that price median value.
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 2017 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 2014 Vintage Allowances

Total 2014 Allowances Available for Sale:	Total 2014 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.
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Total POU 2014 Consigned Allowances:	The 2014 vintage allowances available for purchase in the auction in metric tons that were consigned by publicly owned utilities.
Total 2014 Allowances Sold at Auction:	Total 2014 vintage allowances purchased in the auction in metric tons.
Total Submitted Bids Divided by Total 2014 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.
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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.

Median Bid Price:	The price per metric ton calculated so that 50% of the submitted bids fall above and below the median bid price.
Median Allowance Price:	The price per metric ton calculated so that 50% of the quantity of allowances in the submitted bids fall above and below that price median value.
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