

**California Cap-and-Trade Program and  
Québec Cap-and-Trade System  
August 2016 Joint Auction #8**

**Summary Results Report**

**Background**

The California Air Resources Board (ARB) and Québec's ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC)<sup>1</sup> held the eighth joint auction of greenhouse gas (GHG) allowances on August 16, 2016. The auction included a Current Auction of 2016 vintage allowances and an Advance Auction of 2019 vintage allowances. The information provided in this report is a balance between the need for program transparency and protection of individual auction participants' market positions.

Prior to the certification of the auction, ARB and MDDELCC staff and the Market Monitor carefully evaluated the bids and determined that the auction process and procedures complied with the requirements of the California and Québec Cap-and-Trade Regulations. 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 regulations and appropriate economic logic. The Market Monitor confirmed the clearing price and clearing quantities by participant for the current vintage auction for 2016 vintage allowances and for the advanced auction for 2019 vintage allowances. The auction algorithm correctly applied the regulation requirements covering the bid guarantee. The Market Monitor did not observe any breaches of security or communication protocols. The Market Monitor recommends that ARB and MDDELCC approve the August Auction results.

Auction proceeds figures are not shown in this report because of the exchange rate process for determining final auction proceeds in a joint auction. Winning bids are submitted in one of two currencies – U.S. dollars (USD) or Canadian dollars (CAD). After receiving payment from the winning bidders, and using instructions from the jurisdictions (California and Québec), the financial services administrator will exchange some amount of currency at then-prevailing market rates prior to transferring the auction proceeds to the jurisdictions.

Proceeds to the jurisdictions are paid after all bidder payments are received and will occur by September 12, 2016. As provided in the California Cap-and-Trade Regulation, sellers who consigned allowances in this auction will be paid the auction settlement price in USD for every consigned allowance sold. Information regarding jurisdiction specific auction proceeds will be published after the auction is final.

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<sup>1</sup> Ministry of Sustainable Development, Environment and the Fight against Climate Change.

California must receive auction proceeds only in USD and Québec must receive auction proceeds only in CAD. Thus, the total amount of auction proceeds received by California and by Québec from the sale of state- and province-owned allowances may vary (upwards or downwards) depending on the prevailing exchange rates in effect at the time of distribution of auction proceeds. Each jurisdiction will issue a Post Joint Auction Public Proceeds Report on September 12, 2016 providing the final amount of proceeds transferred.

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**Auction Results**

	Current 2016 Vintage	Future 2019 Vintage
<b>Total Allowances Available for Sale</b>	<b>86,278,410</b>	<b>10,078,750</b>
CA Entity Consignment	40,550,635	
ARB	35,610,823	8,657,500
MDDELCC	10,116,952	1,421,250
<b>Total Allowances Sold at Auction</b>	<b>30,021,000</b>	<b>769,000</b>
CA Entity Consignment	26,500,756	
ARB	0	660,560
MDDELCC	3,520,244	108,440
Total Qualified Bids Divided by Total Allowances Available for Sale	0.35	0.08
Proportion of Allowances Purchased by Compliance Entities	91.5%	100.0%
Herfindahl-Hirschman Index	1210	5758

**Qualified Bid Summary Statistics**

All Qualified Bid Summary Statistics are determined in USD including all bids submitted in USD and CAD. The CAD equivalent of the USD Qualified Bid Summary Statistics is based on the Auction Exchange Rate. USD statistics are converted into CAD in whole cents to be able to compare statistics on a common basis.

	2016 Vintage		2019 Vintage	
	USD	CAD	USD	CAD
Auction Reserve Price	\$12.73	\$16.45	\$12.73	\$16.45
Settlement Price	\$12.73	\$16.45	\$12.73	\$16.45
Maximum Price	\$47.55	\$61.44	\$13.36	\$17.26
Minimum Price	\$12.73	\$16.45	\$12.73	\$16.45
Mean Price	\$14.39	\$18.59	\$13.17	\$17.02
Median Price	\$12.74	\$16.46	\$12.73	\$16.45
Median Allowance Price	\$13.50	\$17.44	\$13.32	\$17.21
Auction Exchange Rate (USD to CAD)				1.2922

### List of Qualified Bidders for the Current Auction of 2016 Vintage Allowances and the Advance Auction of 2019 Vintage Allowances

A Qualified Bidder is an entity that completed an auction application or confirmed an intent to bid for the auction, submitted an acceptable bid guarantee, and was approved by ARB or MDDELCC to participate in the auction.

Entity ID Number	Entity Legal Name
CA1185	Aera Energy LLC
QC1724	Bell-Gaz ltée
CA1463	California Power Holdings LLC
CA1075	Chevron U.S.A. Inc.
CA1037	City of Anaheim, Public Utilities Department
CA1105	City of Banning
CA1288	City of Cerritos
CA1732	City of Long Beach, Gas and Oil Department
CA1073	City of Roseville
CA1166	City of Vernon, Vernon Gas & Electric
QC1384	Énergie Valero Inc.
CA1110	Exelon Generation Company, LLC
CA1081	Foster Poultry Farms
QC1750	Gazifère Inc.
QC1938	Gestion Dominic Belleville inc.
QC1764	Gestion Énergie Québec Inc.
QC1359	Hydro-Québec
CA1727	Jaco Oil Company
QC1901	La Coop Carbone
QC1444	Lafarge Canada Inc.
QC1431	Lantic Inc.
QC1730	Les Produits Pétroliers Norcan S.E.N.C
CA1233	Liberty Utilities (CalPeco Electric) LLC
CA1830	Luminus Energy Partners, LLC
QC2117	Michel Poitevin
CA1209	Modesto Irrigation District
CA1239	Morgan Stanley Capital Group Inc.
CA1191	Northern California Power Agency
CA1138	NRG Power Marketing LLC
CA1046	Pacific Gas and Electric Company
CA2046	Pacific Gas and Electric Company
CA1034	PacifiCorp
CA1279	Phillips 66 Company
CA1505	Powerex Corp.

QC1474 Produits Suncor Énergie S.E.N.C.  
CA1102 Royal Bank of Canada  
CA1163 Sacramento Municipal Utility District (SMUD)  
CA1551 San Diego Gas & Electric Company  
CA1085 San Diego Gas & Electric Company  
CA1757 Shiralian Enterprises  
CA1031 Silicon Valley Power (SVP), City of Santa Clara  
QC1502 Société en commandite Gaz Métro  
QC1430 Société en commandite Revenu Noranda  
CA1029 Southern California Edison Company  
CA1170 Southern California Gas Company  
CA1674 Southwest Gas Corporation  
CA1921 Statkraft US LLC  
CA1172 Surprise Valley Electrification Corp.  
QC1486 TEMBEC  
CA1274 USS-POSCO Industries  
CA1135 Vitol Inc.  
CA1229 Walnut Creek Energy, LLC  
CA2056 Wild Goose Storage, LLC

**Explanatory Notes: Qualified Bid Summary Statistics**  
**Current Auction of 2016 Vintage Allowances**

Total Allowances Available for Sale:	Total allowances available, by vintage, for purchase in the Current Auction in metric tons, including allowances consigned by consigning entities and allowances sold by the State of California and the Province of Québec.
Total Allowances Sold at Auction:	Total allowances, by vintage, purchased in the Current Auction in metric tons.
Total Qualified Bids Divided by Total Allowances Available for Sale:	Total number of allowances (all vintages) included in all the qualified bids for the Current Auction allowances (regardless of bid price) divided by the total number of Current Auction allowances available in the auction.
Proportion of Allowances Purchased by Compliance Entities:	The total number of Current Auction allowances (by vintage) purchased in the Current Auction by compliance entities divided by the total number of Current Auction allowances sold in the Current Auction. A Compliance Entity is a Covered Entity or Opt-in Covered Entity as defined in the Cap-and-Trade Regulation or an Emitter as defined in Québec's Cap-and-Trade Regulation.
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 auction allowances (regardless of vintage) 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., $100 \times 100 = 10,000$ ).

Qualified Bid Price Summary Statistics:	Statistics are calculated from all the qualified bids for the Current Auction allowances (regardless of bid price). All price statistics are shown in USD and CAD.
Auction Reserve Price:	The minimum acceptable auction bid price for Current Auction allowances shown in both USD and CAD per metric ton.
Settlement Price:	The Current Auction allowance price that resulted from the auction, in USD and CAD per metric ton.
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 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.
Auction Exchange Rate (USD to CAD):	The most recently available noon daily buying rate for USD and CAD as published by the Bank of Canada the day before the auction.

### **Advance Auction of 2019 Vintage Allowances**

The data for future vintage allowances available for sale at the Advance Auction are computed in the same manner as computed for the Current Auction. No allowances are consigned to the Advance Auction.