

California Cap-and-Trade Program and Québec Cap-and-Trade System May 2023 Joint Auction #35

Summary Results Report

Background

The California Air Resources Board (CARB) and Québec's ministère de l'Environnement, de la Lutte contre les changements climatiques, de la Faune et des Parcs (MELCCFP)¹ held a joint auction of greenhouse gas (GHG) allowances on May 17, 2023. The auction included a Current Auction of 2023 vintage allowances and an Advance Auction of 2026 vintage allowances. The information provided in this report is a balance between the need for program transparency and protection of information about individual qualified bidders' market positions.

Prior to the certification of the auction, CARB and MELCCFP staff and the independent 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 (the 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 qualified bidder for the Current Auction of 2023 vintage allowances and for the Advance Auction of 2026 vintage allowances. The auction algorithm correctly applied requirements of the Regulations covering the bid guarantee.

The Market Monitor did not observe any breaches of security or communication protocols.

The Market Monitor recommends that CARB and MELCCFP approve the May 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 linked

¹ Ministry of the Environment, the Fight against Climate Change, Wildlife and Parks



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.

The Financial Services Administrator will distribute auction proceeds to the jurisdictions after all qualified bidder payments are received. The jurisdictions will receive auction proceeds by June 15, 2023. 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.

California must receive auction proceeds only in USD. Québec must receive auction proceeds only in CAD. Thus, the total amount of auction proceeds received by the jurisdictions from the sale of allowances may be higher or lower than the auction settlement price multiplied by allowances sold depending on the prevailing exchange rates in effect at the time of currency exchange prior to the distribution of auction proceeds. Each jurisdiction will separately post information on June 15, 2023, providing the final amount of proceeds transferred.

Auction Results

The first three tables below provide key data and information on the results of the auction. The fourth table provides qualified bid summary statistics from the auction. Please see Explanatory Notes after the list of qualified bidders for descriptions of all summary information.

Table 1: Allowances Offered for Sale in the May 2023 Joint Auction #35

| Description of Allowances | Current Auction Vintage 2023 | Current Auction Vintage Total | Advance Auction Vintage 2026 |
|---|------------------------------|-------------------------------|------------------------------|
| Allowances offered by CA Entity Consignment | 20,203,647 | 20,203,647 | - |
| Allowances offered by CARB | 29,126,032 | 29,126,032 | 6,350,000 |
| Allowances offered by MELCCFP | 6,754,558 | 6,754,558 | 1,227,000 |
| Total Allowances Offered for Sale | 56,084,237 | 56,084,237 | 7,577,000 |

Table 2: Allowances Sold in the May 2023 Joint Auction #35

| Description of Allowances | Current Auction Vintage 2023 | Current Auction Vintage Total | Advance Auction Vintage 2026 |
|---|------------------------------|-------------------------------|------------------------------|
| Allowances sold for CA Entity Consignment | 20,203,647 | 20,203,647 | - |
| Allowances sold for CARB | 29,126,032 | 29,126,032 | 6,350,000 |
| Allowances sold for MELCCFP | 6,754,558 | 6,754,558 | 1,227,000 |
| Total Allowances Sold at Auction | 56,084,237 | 56,084,237 | 7,577,000 |

Table 3: Auction Data for May 2023 Joint Auction #35

| Auction Data | Current Auction | Advance Auction |
|---|-----------------|-----------------|
| Total Qualified Bids Divided by Total Allowances Available for Sale | 1.75 | 2.63 |
| Proportion of Allowances Purchased by Compliance Entities | 86.36% | 77.13% |
| Herfindahl-Hirschman Index | 520 | 1093 |

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. The Auction Exchange Rate for this auction was 1.3456 CAD to one USD.

Table 4: Qualified Bid Summary Statistics for May 2023 Joint Auction #35

| Auction Statistics | Current Auction USD | Current Auction CAD | Advance Auction USD | Advance Auction CAD |
|---------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Auction Reserve Price | \$22.21 | \$29.89 | \$22.21 | \$29.89 |
| Settlement Price | \$30.33 | \$40.81 | \$30.05 | \$40.44 |
| Maximum Price | \$66.71 | \$89.76 | \$37.00 | \$49.79 |
| Minimum Price | \$22.21 | \$29.89 | \$22.21 | \$29.89 |
| Mean Price | \$32.38 | \$43.57 | \$28.63 | \$38.52 |
| Median Price | \$29.34 | \$39.48 | \$28.68 | \$38.59 |
| Median Allowance Price | \$31.00 | \$41.71 | \$29.17 | \$39.25 |

List of qualified bidders for the May 2023 Joint Auction #35

A qualified bidder is an entity that completed an auction application, submitted a bid guarantee² that was accepted by the Financial Services Administrator, and was approved by CARB or MELCCFP to participate in the auction. Qualified bidders may or may not have participated in the auction.

| CITSS Entity ID | Entity Legal Name |
|------------------------|--|
| QC2466 | 1067323 Ontario Limited |
| CA3185 | AC Carbon, LP |
| CA1827 | ACT Commodities, Inc. |
| CA2988 | Aetos Capital Opportunities Fund, LP |
| CA1019 | Air Liquide Large Industries U.S., LP |
| CA1561 | AltaGas Power Holdings (U.S.), Inc. |
| CA3235 | Amet Partners, LP |
| CA1259 | Anew Climate, LLC |
| CA3054 | BLAM Carbon Fund, LLC |
| CA3063 | BNP Paribas US Wholesale Holdings, Corporation |
| CA3101 | Boston Energy Trading and Marketing, LLC |
| CA1913 | BP Products North America, Inc. |
| CA3065 | Braeswood Carbon Partners, LP |
| QC2193 | Bridgestone Canada Inc. |
| CA2743 | California Department of Water Resources |
| CA1108 | California Resources Elk Hills, LLC |
| CA1119 | Calpine Energy Services, LP |
| CA1201 | CalPortland Company |
| CA2678 | Canadian Imperial Bank of Commerce |
| CA3214 | Carbon Point Partners, LP |
| QC1938 | Carbone Capital inc |
| CA2862 | CCT Carbon Allowance Fund I, LP |
| CA1830 | Cedar Carbon, LLC |
| CA3390 | Charter Oak Carbon Fund I, LP |
| CA1075 | Chevron U.S.A., Inc. |
| CA3163 | Citadel Energy Marketing, LLC |
| CA1112 | Citigroup Energy, Inc. |
| CA1037 | City of Anaheim, Public Utilities Department |

² The term “bid guarantee” refers to “bid guarantee” as described in the California Regulation and “financial guarantee” as defined in the Québec Regulation.

| CITSS Entity ID | Entity Legal Name |
|-----------------|--|
| CA1732 | City of Long Beach, Gas and Oil Department |
| CA1038 | City of Palo Alto |
| CA1016 | City of Riverside Public Utilities |
| CA1166 | City of Vernon, Vernon Public Utilities |
| CA2141 | Clean Energy |
| CA1110 | Constellation Energy Generation, LLC |
| QC1901 | Coopérative de solidarité Carbone |
| CA2050 | CP Energy Marketing (US), Inc. |
| CA3307 | DRW Investments, LLC |
| CA1091 | DTE Energy Trading, Inc. |
| QC2448 | Elbow River Marketing Ltd. |
| QC2159 | Énergie LGP Inc. |
| QC1384 | Énergie Valero Inc. |
| QC2586 | ÉNERGIES SONIC INC. |
| QC1502 | Énergir, s.e.c. |
| QC1489 | FibreK s.e.n.c. |
| CA1260 | Flyers Energy, LLC |
| CA3228 | Garberville Gas Corporation |
| QC1750 | Gazifère Inc. |
| QC1764 | Gestion Énergie Québec Inc. |
| CA3339 | Gildenbrook, LLC |
| CA3287 | Global Carbon Opportunity (SPV) Fund, LLC |
| CA3478 | Greenlight Energy Group, LLC |
| QC3461 | Groupe Axor inc. |
| QC2501 | Harnois Énergies Inc. |
| QC2789 | Ifastgroupe 2004 L.P. |
| CA1293 | J. Aron & Company, LLC |
| CA2932 | Kcarbon Holdings, LLC |
| CA1141 | Kern Oil & Refining Company |
| CA3199 | KIROS Energy Marketing ULC |
| CA3208 | Klima Holdings I, LLC |
| QC3170 | KRAFT NORDIC, S.E.C. |
| CA3046 | LCP Carbon, LLC |
| QC1730 | Les Produits Pétroliers Norcan S.E.N.C |
| CA1233 | Liberty Utilities (CalPeco Electric), LLC |
| CA3121 | Liminality Partners, LP |
| CA1111 | Los Angeles Department of Water & Power |
| CA1104 | Macquarie Energy, LLC |

| CITSS Entity ID | Entity Legal Name |
|------------------------|--|
| CA3264 | MARATHON PETROLEUM COMPANY, LP |
| CA2645 | Mercuria Energy America, LLC |
| CA3248 | Merritt Point Environmental Opportunities Fund, LP |
| CA1261 | Midstream Energy Partners (USA), LLC |
| CA3032 | Molecule Ventures, LP |
| CA1239 | Morgan Stanley Capital Group, Inc. |
| CA2829 | MRP San Joaquin Energy, LLC |
| CA2232 | Musket Corporation |
| CA1302 | Naftex Operating Company |
| CA1672 | NextEra Energy Marketing, LLC |
| CA1191 | Northern California Power Agency |
| CA3237 | Northern Trace Capital, LLC |
| QC3230 | Olymel S.E.C. |
| CA1046 | Pacific Gas and Electric Company |
| CA2046 | Pacific Gas and Electric Company |
| CA3165 | Pacific Summit Energy, LLC |
| CA1034 | PacifiCorp |
| CA2106 | PBF Energy Western Region, LLC |
| QC2673 | Petro-Francis Inc |
| CA1410 | Petro Diamond, Inc. |
| CA1279 | Phillips 66 Company |
| CA3231 | Pinnacle Merritt Point Domestic Opportunities, LLC |
| CA1595 | Pixley Cogen Partners, LLC |
| CA1003 | Plumas-Sierra Rural Electric Cooperative |
| CA1505 | Powerex Corporation |
| QC1474 | Produits Suncor Énergie S.E.N.C. |
| QC2663 | PROPANE PLUS INC |
| QC1486 | Rayonier A.M. Canada société en nom collectif |
| CA1834 | River City Petroleum |
| CA1774 | Robinson Oil Supply & Transport, Inc. |
| CA1163 | Sacramento Municipal Utility District (SMUD) |
| CA1760 | San Diego Gas and Electric Company |
| CA1011 | San Joaquin Refining Company, Inc. |
| QC2744 | Sanimax ACI Inc. |
| CA3207 | SARHEN CCA, LP |
| CA2175 | Sempra Gas & Power Marketing, LLC |
| CA1251 | Shell Energy North America (US), LP |
| CA1031 | Silicon Valley Power (SVP), City of Santa Clara |

| CITSS Entity ID | Entity Legal Name |
|------------------------|--|
| CA1029 | Southern California Edison Company |
| CA1170 | Southern California Gas Company |
| CA1674 | Southwest Gas Corporation |
| CA1921 | Statkraft US, LLC |
| QC1873 | Superior Gas Liquids Partnership |
| CA3337 | TACenergy, LLC |
| CA3153 | Targa Liquids Marketing and Trade, LLC |
| CA3213 | The City of Seattle, City Light Department |
| CA3072 | Trafigura Trading, LLC |
| QC1467 | TransCanada Energy Ltd. |
| CA1216 | Turlock Irrigation District |
| CA1598 | United States Pipe & Foundry Company, LLC |
| CA1635 | Valero Marketing and Supply Company |
| CA1135 | Vitol, Inc. |
| QC2174 | W.O. Stinson & Son Ltd |
| QC2066 | W.R. Grace Canada Corp. |

Explanatory Notes: Qualified Bid Summary Statistics**General Term****Explanation**

Total Allowances Available for Sale:

Total allowances available, by vintage, for purchase in the Current Auction, including allowances consigned by consigning entities and allowances offered for sale by the State of California and the Province of Québec.

Total Allowances Sold at Auction:

Total allowances purchased, by vintage, 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 California's Cap-and-Trade Regulation or an Emitter as defined in Québec's Cap-and-Trade Regulation.

General Term**Explanation**

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.

Qualified Bids:

The bids that remain after a qualified bidder's submitted bids have been evaluated and reduced to meet all bidding limitations.

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 price.



| General Term | Explanation |
|---|---|
| Minimum Price: | Lowest qualified bid price. |
| Mean Price: | Average qualified bid price calculated as the sum of the qualified bid prices times the bid allowances at each qualified bid price divided by the sum of all qualified bid allowances. |
| Median Price: | The price per metric ton calculated so that 50% of the qualified bid prices fall above and 50% fall below the median bid price. |
| Median Allowance Price: | The price per metric ton calculated so that 50% of the qualified bid allowances fall above and 50% fall below the median allowance price. |
| Auction Exchange Rate (USD to CAD FX Rate): | The exchange rate in effect for the joint auction that is set the business day prior to the joint auction as the most recently available daily average exchange rate for USD and CAD as published by the Bank of Canada the day before the joint auction. |

Advance Auction

The statistics presented in the report for the Advance Auction are computed in the same manner as the statistics computed for the Current Auction. No allowances are consigned by consigning entities to the Advance Auction.

