

**California Cap-and-Trade Program,  
Ontario Cap-and-Trade Program, and  
Québec Cap-and-Trade System  
May 2018 Joint Auction #15**

**Summary Results Report**

**Background**

The California Air Resources Board (CARB), Ontario Ministry of the Environment and Climate Change (MOECC), and Québec's ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC)<sup>1</sup> held a joint auction of greenhouse gas (GHG) allowances on May 15, 2018. The auction included a Current Auction of 2016 and 2018 vintage allowances and an Advance Auction of 2021 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, MOECC, and MDDELCC 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, Ontario, 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 2016/2018 vintage allowances and for the Advance Auction of 2021 vintage allowances. The auction algorithm correctly applied the 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, MOECC, and MDDELCC 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 jurisdictions (California, Ontario, 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

---

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

proceeds by June 11, 2018. 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. Ontario and 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 11, 2018, providing the final amount of proceeds transferred.

### Auction Results

The first table below provides key data and information on the results of the auction. The second 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: Auction Results for May 2018 Joint Auction #15**

|   | Current Auction   |                   |                   | Advance Auction 2021 Vintage |
|---|-------------------|-------------------|-------------------|------------------------------|
|   | 2016 Vintage      | 2018 Vintage      | Total Current     |                              |
| <b>Total Allowances Available for Sale</b>                          | <b>13,368,884</b> | <b>77,218,854</b> | <b>90,587,738</b> | <b>12,427,950</b>            |
| CA Entity Consignment   | -                 | 14,569,443        | 14,569,443        | -                            |
| CARB  | 11,436,180        | 31,175,277        | 42,611,457        | 8,020,000                    |
| MOECC   | -                 | 23,743,316        | 23,743,316        | 3,026,450                    |
| MDDELCC   | 1,932,704         | 7,730,818         | 9,663,522         | 1,381,500                    |
| <b>Total Allowances Sold at Auction</b>                             | <b>13,368,884</b> | <b>77,218,854</b> | <b>90,587,738</b> | <b>6,057,000</b>             |
| CA Entity Consignment   | -                 | 14,569,443        | 14,569,443        | -                            |
| CARB  | 11,436,180        | 31,175,277        | 42,611,457        | 3,908,701                    |
| MOECC   | -                 | 23,743,316        | 23,743,316        | 1,474,998                    |
| MDDELCC   | 1,932,704         | 7,730,818         | 9,663,522         | 673,301                      |
| Total Qualified Bids Divided by Total Allowances Available for Sale |                   |                   | 1.36              | 0.49                         |
| Proportion of Allowances Purchased by Compliance Entities           |                   |                   | 95.6%             | 77.7%                        |
| Herfindahl-Hirschman Index  | 668               | 668               |                   | 1444                         |

**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.

**Table 2: Qualified Bid Summary Statistics for May 2018 Joint Auction #15**

|                                    | Current 2016/2018<br>Vintage |         | Advance 2021 Vintage |         |
|------------------------------------|------------------------------|---------|----------------------|---------|
|                                    | USD                          | CAD     | USD                  | CAD     |
| Auction Reserve Price              | \$14.53                      | \$18.56 | \$14.53              | \$18.56 |
| Settlement Price                   | \$14.65                      | \$18.72 | \$14.53              | \$18.56 |
| Maximum Price                      | \$54.27                      | \$69.33 | \$21.91              | \$27.99 |
| Minimum Price                      | \$14.53                      | \$18.56 | \$14.53              | \$18.56 |
| Mean Price                         | \$15.51                      | \$19.81 | \$14.70              | \$18.78 |
| Median Price                       | \$14.66                      | \$18.73 | \$14.62              | \$18.68 |
| Median Allowance Price             | \$14.85                      | \$18.97 | \$14.58              | \$18.63 |
| Auction Exchange Rate (USD to CAD) |                              |         |                      | 1.2775  |

**List of qualified bidders for the May 2018 Joint Auction #15**

A qualified bidder is an entity that completed an auction application, submitted a bid guarantee<sup>2</sup> that was accepted by the Financial Services Administrator, and was approved by CARB, MOECC, or MDDELCC to participate in the auction. Qualified bidders may or may not have participated in the auction.

| <b>CITSS Entity ID</b> | <b>Entity Legal Name</b>                         |
|------------------------|--|
| QC2659                 | 1055585 Ontario Inc                              |
| ON2465                 | 1308998 Ontario Ltd.                             |
| ON2306                 | 1329606 Ontario Limited                          |
| QC2101                 | 1443635 Ontario Inc                              |
| ON2147                 | 2089956 Ontario Inc.                             |
| CA1185                 | Aera Energy, LLC                                 |
| CA1019                 | Air Liquide Large Industries U.S., LP            |
| CA1561                 | AltaGas Power Holdings (U.S.), Inc.              |
| CA1913                 | BP Products North America, Inc.                  |
| QC2193                 | Bridgestone Canada Inc.                          |
| CA1108                 | California Resources Elk Hills, LLC              |
| ON2676                 | Canadian Pacific Railway Company                 |
| ON2532                 | Centre Lane Trading Limited                      |
| CA1075                 | Chevron U.S.A., Inc.                             |
| CA1732                 | City of Long Beach, Gas and Oil Department       |
| CA1443                 | City of Los Angeles, Department of Airports      |
| CA1073                 | City of Roseville                                |
| CA1166                 | City of Vernon, Vernon Public Utilities          |
| QC2631                 | Compagnie des chemins de fer nationaux du Canada |
| QC1901                 | Coopérative de solidarité Carbone                |
| CA2648                 | CWP Energy, Inc.                                 |
| CA1417                 | Direct Energy Business, LLC                      |
| ON2509                 | Econo Petroleum Inc.                             |
| ON2414                 | Elbow River Marketing Ltd                        |
| ON2176                 | Enbridge Gas Distribution Inc.                   |
| ON2458                 | Énergie Valero Inc / Valero Energy Inc           |
| QC1384                 | Énergie Valero Inc.                              |
| QC1502                 | Énergir, s.e.c.                                  |
| ON2696                 | Energy Source Natural Gas Inc.                   |

<sup>2</sup> The term “bid guarantee” refers to “bid guarantee” as described in the California Regulation, “financial guarantee” as defined in the Québec Regulation, and “financial assurance” as described in the Ontario Regulation.

| <b>CITSS Entity ID</b> | <b>Entity Legal Name</b>                |
|------------------------|---|
| QC1515                 | Entreprise Indorama PTA Montréal S.E.C. |
| ON2329                 | EPCOR Natural Gas Limited Partnership   |
| CA1110                 | Exelon Generation Company, LLC          |
| ON2402                 | Factor Gas Liquids Inc.                 |
| ON2253                 | Federated Co-operatives Limited         |
| CA1260                 | Flyers Energy, LLC                      |
| CA1081                 | Foster Poultry Farms                    |
| QC1750                 | Gazifère Inc.                           |
| QC1764                 | Gestion Énergie Québec Inc.             |
| ON2162                 | Goodyear Canada Inc                     |
| ON2470                 | Grant's Transport Limited               |
| ON2330                 | Great Lakes Greenhouses Inc.            |
| ON2240                 | Greater Toronto Airports Authority      |
| ON2203                 | Greenenergy Fuels Canada Inc.           |
| ON2388                 | Greenfield Energy Centre LP             |
| QC2118                 | Hamel Propane Inc.                      |
| ON2361                 | Hiram Walker & Sons Ltd.                |
| ON2315                 | Husky Oil Operations Limited            |
| ON2288                 | Hydro One Networks Inc.                 |
| QC1359                 | Hydro-Québec                            |
| CA1807                 | Idemitsu Apollo                         |
| ON2189                 | Imperial Oil                            |
| ON2210                 | Ivaco Rolling Mills 2004 L.P.           |
| CA1727                 | Jaco Oil Company                        |
| CA1141                 | Kern Oil & Refining Company             |
| ON2356                 | Koch Supply & Trading, LP               |
| ON2504                 | Larry Penner Enterprises Inc.           |
| QC2501                 | Le Groupe Harnois Inc                   |
| QC1770                 | Les Pétroles Irving Commercial s.e.n.c  |
| QC1730                 | Les Produits Pétroliers Norcan S.E.N.C  |
| CA1111                 | Los Angeles Department of Water & Power |
| CA1830                 | Luminus Energy Partners, LLC            |
| ON2439                 | MacEwen Petroleum Inc.                  |
| CA1104                 | Macquarie Energy, LLC                   |
| ON2187                 | Markham District Energy Incorporated    |
| ON2457                 | McDougall Energy Inc.                   |
| CA2645                 | Mercuria Energy America, Inc.           |
| CA1107                 | Midway Sunset Cogeneration Company      |
| ON2449                 | Mighty Flame Canada Inc.                |

| <b>CITSS Entity ID</b> | <b>Entity Legal Name</b>  |
|------------------------|---|
| CA1239                 | Morgan Stanley Capital Group, Inc.                              |
| CA1302                 | Naftex Operating Company  |
| ON2324                 | Nature Fresh Farms Inc.   |
| CA1672                 | NextEra Energy Marketing, LLC                                   |
| QC2107                 | NGL Supply Co. Ltd.   |
| CA1191                 | Northern California Power Agency                                |
| CA1138                 | NRG Power Marketing, LLC  |
| ON2304                 | Ontario Power Generation Inc.                                   |
| CA1046                 | Pacific Gas and Electric Company                                |
| CA2046                 | Pacific Gas and Electric Company                                |
| CA1034                 | PacifiCorp  |
| CA2106                 | PBF Energy Western Region, LLC                                  |
| ON2345                 | Pembina Infrastructure and Logistics LP                         |
| ON2477                 | Pétrole Léger Inc.  |
| CA1279                 | Phillips 66 Company   |
| CA1595                 | Pixley Cogen Partners, LLC                                      |
| ON2190                 | Plains Midstream Canada ULC                                     |
| CA1003                 | Plumas-Sierra Rural Electric Cooperative                        |
| CA1304                 | Portland General Electric Company                               |
| CA1505                 | Powerex Corporation   |
| ON2348                 | Primemax Energy Inc.  |
| QC1731                 | Propane Québec Inc.   |
| CA1204                 | Rio Tinto Minerals, Inc.  |
| CA1774                 | Robinson Oil Supply & Transport, Inc.                           |
| ON2445                 | Royal Bank of Canada  |
| CA1102                 | Royal Bank of Canada  |
| CA1163                 | Sacramento Municipal Utility District (SMUD)                    |
| CA1085                 | San Diego Gas & Electric Company                                |
| CA1760                 | San Diego Gas and Electric Company                              |
| CA1011                 | San Joaquin Refining Company, Inc.                              |
| CA2175                 | Sempra Gas & Power Marketing, LLC                               |
| CA1366                 | Seneca Resources Corporation                                    |
| CA2358                 | Sentinel Peak Resources California, LLC                         |
| CA1251                 | Shell Energy North America (US), LP                             |
| CA1757                 | Shiralian Enterprises   |
| CA1170                 | Southern California Gas Company                                 |
| CA1800                 | Southern Counties Oil Company, a California Limited Partnership |
| CA1674                 | Southwest Gas Corporation                                       |
| ON2244                 | St. David's Hydroponics Ltd                                     |

| <b>CITSS Entity ID</b> | <b>Entity Legal Name</b>                 |
|------------------------|--|
| CA1804                 | Stan Boyett & Son, Inc.                  |
| CA1921                 | Statkraft US, LLC                        |
| ON2474                 | St-Pierre Fuels Inc                      |
| ON2151                 | Suncor Energy Products Partnership       |
| QC1486                 | TEMBEC                                   |
| CA1165                 | Tesoro Refining & Marketing Company, LLC |
| ON2299                 | The Corporation of the City of Kingston  |
| ON2381                 | The Corporation of the City of Kitchener |
| ON2359                 | The International Group Inc.             |
| CA1888                 | The Soco Group, Inc.                     |
| CA2100                 | Tricor Refining, LLC                     |
| CA1216                 | Turlock Irrigation District              |
| ON2165                 | Union Gas Limited                        |
| CA1346                 | United States Gypsum Company             |
| CA1635                 | Valero Marketing and Supply Company      |
| CA1135                 | Vitol, Inc.                              |
| ON2514                 | W. O. Stinson & Son Limited              |
| QC2066                 | W.R. Grace Canada Corp.                  |
| CA1229                 | Walnut Creek Energy, LLC                 |
| CA2056                 | Wild Goose Storage, LLC                  |



**Explanatory Notes: Qualified Bid Summary Statistics****Current Auction**

|  |  |
|--|--|
| 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, the Province of Ontario, 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, a Capped Participant as defined in Ontario's 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.  |
| 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.  |
| 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.