



**Auction
of Québec Greenhouse Gas
Emission Units
on December 3, 2013**

Summary Report Results

Background

The Québec Ministère du Développement durable, de l'Environnement, de la Faune et des Parcs (MDDEFP)¹ held its first auction of greenhouse gas emission units on December 3, 2013. The auction included the sale of present vintage (2013) and future vintage (2016) emission units. The data presented in this report respects the privacy of confidential information provided by auction participants.

Before certifying the auction, the staff of MDDEFP's carbon market division and the market monitor evaluated the bids submitted, monitored the sale, and determined that the sale met the requirements of the *Regulation respecting a cap-and-trade system for greenhouse gas emission allowances*.

The market monitor made the following observations and recommendations:

- Based on the data available at the time of the auction, the market monitor noted that the auction results were competitive. Based on the same data, the market monitor did not find any evidence of market manipulation.
- The market monitor observed that one participant submitted a bid below the minimum price for a batch of 2013 vintage emission units. However, as provided by regulation, this bid was automatically excluded from the bids used to determine the auction results.
- The market monitor indicated that the auction results were calculated in accordance with the regulations in place and in keeping with appropriate economic logic.
- Based on the data available, the market monitor confirmed the auction results established by the auction administrator: the final selling prices and quantities of 2013 vintage and 2016 vintage emission units awarded to participants. The auction administrator established \$10.75 as the final selling price for 2013 vintage units, for a total of 1,025,000 units sold. The administrator also established \$10.75 as the final selling price for 2016 vintage units, for a total of 1,708,000 units sold.
- Since the distribution of emission units awarded to participants was in accordance with regulations and the regulation logic involved in tiebreakers and the random distribution of residual emission units, the market monitor confirmed the award procedure to be correct. The auction algorithm correctly applied the rules concerning the obligations of financial guarantees.
- The market monitor did not observe any breaches in security or in the communication protocols.
- The market monitor recommended that MDDEFP approve the results of the December 3, 2013 auction results.

Auction of Québec Greenhouse Gas Emission Units Held on December 3, 2013

The Québec (MDDEFP) held its first auction of greenhouse gas emission units on December 3, 2013. The auction included the sale of present vintage (2013) and future vintage (2016). Below is the main information and data regarding the auction results. **Please refer to the explanatory notes appearing after the list of participants for a description of the data presented below.**

Summary of bids accepted²

Auction of present vintage (2013) emission units

Total number of 2013 vintage emission units available for sale:	2,971,676
Total number of 2013 vintage emission units sold:	1,025,000
Ratio of total acceptable bids (in number of emission units) divided by total number of 2013 vintage emission units available for sale:	0.34
Minimum selling price:	\$10.75
Final selling price per unit:	\$10.75
Proportion of emission units purchased by emitters:	Not disclosed*
Price statistics:	
Maximum price:	\$30.00
Minimum price:	\$10.75
Average price:	\$12.36
Median price:	\$12.26
Median emission unit price:	\$11.75
Hirschman-Herfindahl Index:	1984

Auction of future vintage (2016) emission units

Total number of 2016 vintage emission units available for sale:	6,319,000
Total number of 2016 vintage emission units sold:	1,708,000
Ratio of total acceptable bids (in number of emission units) divided by total number of 2016 vintage emission units available for sale:	0.27
Minimum selling price:	\$10.75
Final selling price per unit:	\$10.75
Proportion of emission units purchased by emitters:	Not disclosed*
Price statistics:	
Maximum price:	\$11.98
Minimum price:	\$10.75
Average price:	\$11.07
Median price:	\$10.83
Median emission unit price:	\$11.11
Hirschman-Herfindahl Index:	8575

² An accepted bid is an offer that, if accepted as such, does not violate the purchase limit, possession limit, or financial guarantee of the bidder.

* Given the limited number of bidders, this statistic cannot be disclosed, in order to preserve the confidentiality of certain information.

Summary of submitted bids³

Auction of present vintage (2013) emission units

Total number of 2013 vintage emission units available for sale:	2,971,676
Total number of 2013 vintage emission units sold:	1,025,000
Ratio of total acceptable bids (in number of emission units) divided by total number of 2013 vintage emission units available for sale:	0.35
Minimum selling price:	\$10.75
Final selling price per unit:	\$10.75
Proportion of emission units purchased by emitters:	Not disclosed*
Price statistics:	
Maximum price:	\$30.00
Minimum price:	\$10.75
Average price:	\$12.36
Median price:	\$12.26
Median emission unit price:	\$11.75

Auction of future vintage (2016) emission units

Total number of 2016 vintage emission units available for sale:	6,319,000
Total number of 2016 vintage emission units sold:	1,708,000
Ratio of total acceptable bids (in number of emission units) divided by total number of 2016 vintage emission units available for sale:	0.28
Minimum selling price:	\$10.75
Final selling price per unit:	\$10.75
Proportion of emission units purchased by emitters:	Not disclosed*
Price statistics:	
Maximum price:	\$15.00
Minimum price:	\$10.75
Average price:	\$11.13
Median price:	\$11.05
Median emission unit price:	\$11.11

³ A submitted bid is an offer proposed as such by a bidder without taking into account the purchase limit, the possession limit and the financial guarantee of the bidder.

* Given the limited number of bidders, this statistic cannot be disclosed, in order to preserve the confidentiality of certain information.

Participants registered as qualified bidders for the auction of present vintage (2013) and future vintage (2016) emission units

A qualified bidder is an emitter or participant that is registered for the auction, has submitted an acceptable financial guarantee, and whose registration application has been approved by the MDDEFP.

ARCELORMITTAL MONTRÉAL INC.

COLACEM CANADA

DENIS DIONNE

DIAGEO CANADA INC.

VALERO ENERGY INC.

ETHANOL GREENFIELD QUÉBEC INC.

GLENCORE CANADA CORPORATION

GRAYMONT (QC) INC.

HOLCIM (CANADA) INC.

HYDRO-QUÉBEC

KRONOS CANADA, INC.

LANTIC INC.

SOREL FORGE INC.

PRODUITS SUNCOR ÉNERGIE S.E.N.C.

SHELL ENERGY NORTH AMERICA (CANADA) INC.

NORANDA INCOME LIMITED PARTNERSHIP

TEMBEC

TRANSCANADA ENERGY LTD.

TRANSCANADA PIPELINES LIMITED

Explanatory notes: Summary of statistics on accepted bids at the auction of present vintage (2013) emission units

The statistics on accepted bids at the auction of future vintage (2016) emission units are calculated in the same manner as the statistics regarding present vintage (2013) emission units.

Total number of 2013 vintage emission units up for sale	Total number of 2013 vintage units, in metric tons, put up for sale by the MDDEFP
Total number of 2013 vintage emission units sold	Total number of 2013 vintage emission units, in metric tons, purchased at the auction
Ratio of total acceptable bids (in number of emission units) divided by total number of 2013 vintage emission units up for sale	Total of acceptable bids submitted (in number of 2013 vintage emission units, regardless of bid prices) divided by the total number of 2013 vintage emission units up for sale
Minimum selling price	Acceptable minimum price, in dollars per metric ton, for a bid on a 2013 vintage emission unit made at the auction
Final selling price per unit	Selling price of a 2013 vintage emission unit resulting from the auction, in dollars per metric ton
Proportion of emission units purchased by issuers	Total number of 2013 vintage emission units purchased by issuers divided by the total number of 2013 vintage units sold
Price bid statistics	Statistics calculated based on acceptable bids for 2013 vintage units (regardless of the bid prices)
Maximum price	The highest bid price
Minimum price	The lowest bid price
Average price	Price calculated as being the sum of all bid prices multiplied by the quantity offered for each accepted bid, divided by the sum of the number of units of all accepted bids
Median price	Price per metric ton calculated so that 50% of the bids fall above and 50% fall below this price
Median emission unit price	Price per metric ton calculated so that 50% of the quantity of emission units for which there is a bid fall above and 50% fall below this price
Hirschman-Herfindahl Index (HHI)	The HHI is a measure of the concentration of emission units purchased relative to the total sale of 2013 vintage emission units. The percentages of emission units purchased by each bidder is squared, and then summed across all winning bidders. The HHI limit is 10,000, which is reached when 100% of the emission units are purchased by a single bidder (100 x 100 = 10,000)