



**MARKET MONITOR REPORT
FOR AUCTION 23**

Prepared for:

RGGI, Inc., on behalf of the RGGI Participating States

Prepared By:



March 7, 2014

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The Regional Greenhouse Gas Initiative (RGGI) is the first mandatory market-based regulatory program in the U.S. to reduce greenhouse gas emissions. RGGI is a cooperative effort of Northeast and Mid-Atlantic states to reduce emissions of carbon dioxide (CO₂) from the power sector.

RGGI, Inc. is a non-profit corporation created to provide technical and administrative services to the states participating in the Regional Greenhouse Gas Initiative.

MARKET MONITOR REPORT FOR AUCTION 23

As the Market Monitor for the RGGI CO₂ allowance market, Potomac Economics monitors the conduct of market participants in the auctions and in the secondary market to identify indications of market manipulation or collusion. We also review the administration of the auctions by World Energy Solutions. This report summarizes our findings regarding RGGI Auction 23, which was held on March 5, 2014.

We observed the auction as it occurred and have completed our review and analysis of its results. Based on our review of bids in the auction, we find no material evidence of collusion or manipulation by bidders.

The Cost Containment Reserve (“CCR”) was used for the first time in Auction 23. The demand for CO₂ allowances from bids submitted above the CCR Trigger Price of \$4.00 exceeded the Initial Offering of 18,491,350 allowances and was sufficient to purchase all 5 million 2014 CCR allowances. After the CCR was exhausted, the auction cleared at a price of \$4.00 per ton. There are no other CCR allowances available for sale in 2014.

Forty-five bidders participated in the offering of CO₂ allowances for the current control period. Bids were submitted to purchase 3.1 times the Initial Offering of CO₂ allowances and 2.5 times the total available supply (including allowances in the CCR). Compliance entities and their affiliates purchased 45 percent of the CO₂ allowances. There was no indication of barriers to participation in the auction.

Based on our review of the administration of the market, we found that:

- The auction was administered in a fair and transparent manner in accordance with the noticed auction procedures and limitations.
- The auction results were consistent with the market rules and the bids received.
- Sensitive information was treated appropriately by the auction administrator.
- There were no indications of issues with the auction platform such as hardware or software problems, communications issues, or security breaches.

In summary, the results of our monitoring of RGGI Auction 23 raise no material concerns regarding the auction process, barriers to participation in the auction, or the competitiveness of the auction results. The appendix provides additional information about the market for RGGI CO₂ allowances and outcomes of the auction.

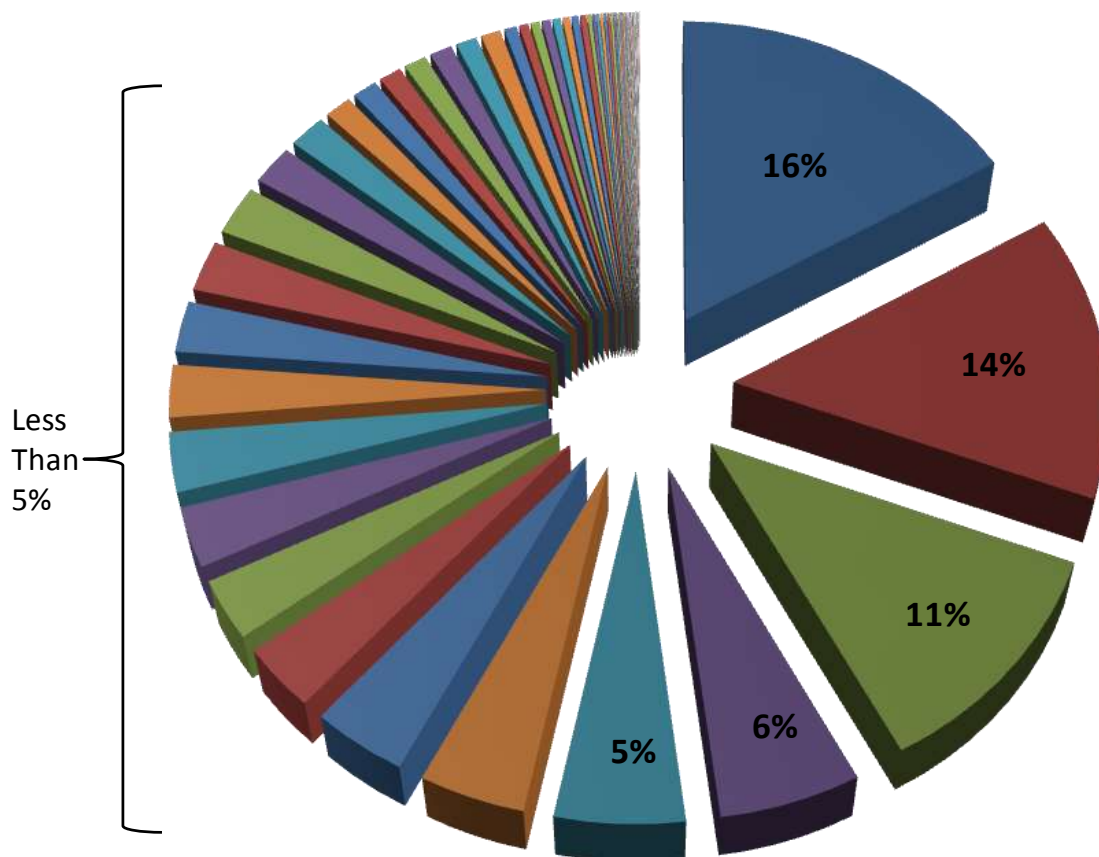
APPENDIX

A. DISPERSION OF PROJECTED DEMAND

The wide dispersion of projected demand for RGGI allowances across compliance entities facilitates the competitive performance of the auction.

The following figure shows the relative shares of projected demand for RGGI allowances by compliance entity in the current control period. The largest compliance entity represents only 16 percent of the total projected demand for allowances. Approximately half of the projected demand is composed of entities that each account for less than 5 percent of the total demand. Participation by a large number of entities facilitates the competitive performance of the auction.

Figure 1: Projected Demand for RGGI Allowances Shares by Compliance Entity



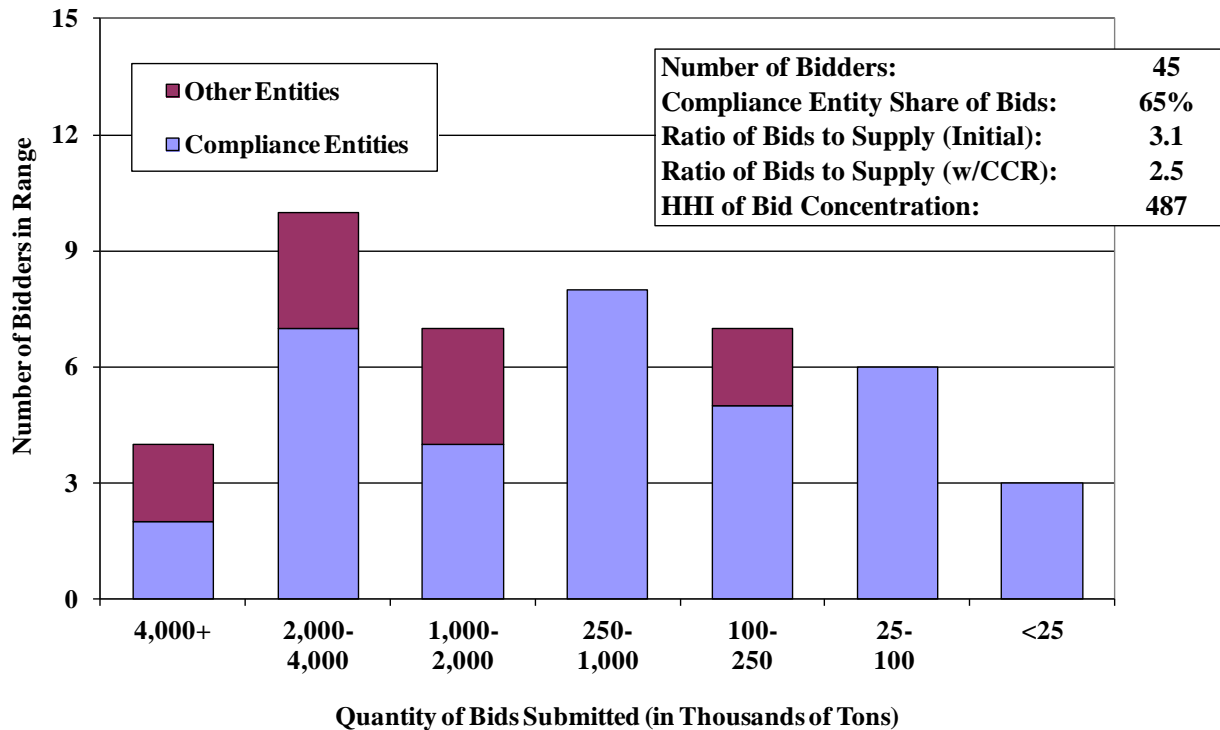
B. DISPERSION OF BIDS IN AUCTION 23

In the offering of allowances for the current control period, bids were submitted by 35 compliance entities and ten other entities. In our review of the bids and the qualification process, we found no material evidence of anti-competitive conduct or inappropriate barriers to participation.

The following figure summarizes the quantity of allowances for which bids were submitted by each bidder. Nine compliance entities and five other entities submitted bids for a large quantity of allowances (i.e., at least 2 million tons). Overall, compliance entities accounted for 65 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 3.1 times the Initial Offering of 18,491,350 allowances and 2.5 times the total available supply (including the 5 million allowances in the CCR). In Auction 22, the quantity of allowances for which bids were submitted was 2.7 times the available supply.

The bid quantities were widely distributed among the 45 bidders. The concentration of bids, using the Herfindahl-Hirschman Index (“HHI”), was relatively low at 487 in Auction 23, down from 557 in Auction 22. The HHI is a standard measure of concentration calculated by squaring each entity’s share and then summing the squares across all entities (hence, the index ranges from 0 to 10,000).

**Figure 2: Quantity of Bids Submitted by Entity
By Type of Entity and Quantity Bid**



C. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 23

In the offering of allowances for the current control period, awards were distributed across 28 bidders with five bidders purchasing two million tons or more and 15 bidders purchasing 300,000 tons or more. Compliance entities and their affiliates purchased 45 percent of the allowances in the auction.

The share of allowances purchased and several other quantities are reported for two types of entities:

- *Compliance Entities:* This includes all compliance entities and their affiliates. In this report, affiliated firms are firms that: (i) have a parent-subsidary relationship with a compliance entity, (ii) are subsidiaries of a parent company that has a large interest in a compliance entity, (iii) have substantial control over the operation of a budget source and/or responsibility for acquiring RGGI allowances to satisfy its compliance obligations.
- *Other Entities:* This includes all other entities without compliance obligations.

The following statistics summarize the purchases and holdings of allowances by compliance entities and their affiliates under the RGGI program:

- In Auction 23, compliance entities and their affiliates purchased 45 percent of the allowances sold.
- In the first 23 RGGI auctions, compliance entities and their affiliates purchased 78 percent of the allowances sold.
- Compliance entities and their affiliates will hold 74 percent of the allowances in circulation following the settlement of allowances sold in Auction 23.

The following table shows the quantity of allowances purchased by each bidder. The identity of each bidder is masked, and the bidders are ranked according to the amount of allowances awarded, from largest to smallest.

Table 1: Quantity of Allowances Awarded by Bidder

Bidder	Number of Allowances Awarded
Bidder 1	3,500,000
Bidder 2	2,500,000
Bidder 3	2,400,000
Bidder 4	2,311,000
Bidder 5	2,000,000
Bidder 6	1,950,000
Bidder 7	1,500,000
Bidder 8	1,351,000
Bidder 9	1,250,000
Bidder 10	820,000
Bidder 11	748,000
Bidder 12	500,000
Bidder 13	500,000
Bidder 14	500,000
Bidder 15	386,350
Bidder 16	250,000
Bidder 17	210,000
Bidder 18	182,000
Bidder 19	172,000
Bidder 20	150,000
Bidder 21	85,000
Bidder 22	66,000
Bidder 23	44,000
Bidder 24	36,000
Bidder 25	24,000
Bidder 26	24,000
Bidder 27	20,000
Bidder 28	12,000

D. SUMMARY OF BID PRICES IN AUCTION 23

Bids were submitted across a wide range of prices in the auction and the clearing price of \$4.00 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 23. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	\$2.00
Maximum	\$11.85
Average (Median)	\$3.95
Average (Mean)	\$3.76
Clearing Price:	\$4.00

E. NAMES OF POTENTIAL BIDDERS IN AUCTION 23

In accordance with Sections 2.8 and 3 of the Auction Notice for CO₂ Allowance Auction 23 on March 5, 2014, the Participating States are releasing the names of Potential Bidders in Auction 23. The states defined potential bidders as: “Each Applicant that has been qualified and submitted a complete *Intent to Bid*.” The list of 52 Potential Bidders is as follows:

Astoria Energy, LLC	Indeck-Oswego Limited Partnership
Brayton Point Energy, LLC	Indeck-Yerkes Limited Partnership
Brooklyn Navy Yard Cogen Partners, LP	Jamestown Board of Public Utilities
Caithness Long Island, LLC	J-Power USA Development Co., Ltd.
Calpine Energy Services, LP	Kleen Energy Systems, LLC
Castleton Commodities Merchant Trading, LP	Koch Supply & Trading, LP
Castleton Power, LLC	Lakeside Energy, LLC
CE2 Carbon Capital, LLC	Luminus Energy Partners QP, LP
Consolidated Edison Comp. of NY, Inc.	Mercuria Energy America, Inc.
CP Energy Marketing (US) Inc.	Millennium Power Partners, LP
Delaware City Refining Company, LLC	Morgan Stanley Capital Group, Inc.
Dominion Energy Marketing, Inc.	National Grid Gen. dba National Grid
DTE Energy Trading, Inc.	New Athens Generating Company, LLC
Dynegy Marketing and Trade, LLC	NextEra Energy Power Marketing, LLC
EDF Trading North America, LLC	Noble Americas Gas & Power Corp.
Entergy Rhode Island State Energy, LP	NRG Power Marketing, LLC
EquiPower Resources	Power Authority of the State of New York
Evolution Markets, Inc.	PSEG Energy Resources & Trade, LLC
Exelon Generation Company, LLC	Public Service Company of New Hampshire
Five Rings Capital, LLC	RBC
GDF SUEZ Energy Marketing NA, Inc.	Selkirk Cogen Partners, LP
GenOn Energy Management, LLC	Shell Energy North America (US), LP
Granite Ridge Energy, LLC	Upstate New York Power Producers, LLC
Hess Energy Marketing LLC	Verso Paper Corp.
Indeck-Corinth Limited Partnership	Vitol Inc.
Indeck-Olean Limited Partnership	Wallingford Energy, LLC