

# MARKET MONITOR REPORT FOR AUCTION 20

## **Prepared for:**

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

**Prepared By:** 



June 7, 2013



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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 (CO<sub>2</sub>) 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 20

As the Market Monitor for the RGGI CO<sub>2</sub> 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 20, which was held on June 5, 2013.

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.

Forty-seven bidders participated in the offering of CO<sub>2</sub> allowances for the current control period. Bids were submitted to purchase 2.1 times the available supply of allowances, resulting in a clearing price of \$3.21 per ton. Compliance entities or their affiliates purchased 68 percent of the allowances in the offering. 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 20 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  $CO_2$  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. Nearly 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.

Less Than 5%

7%

7%

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



#### **B.** DISPERSION OF BIDS IN AUCTION 20

In the offering of allowances for the current control period, bids were submitted by 37 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. Ten compliance entities and four other entities submitted bids for a large quantity of allowances (i.e., at least 2 million tons). Overall, compliance entities accounted for 80 percent of the quantity of allowances for which bids were submitted. The quantity of allowances for which bids were submitted was 2.1 times the available supply in Auction 20, down slightly from 2.2 times the available supply in Auction 19 and up considerably from 0.53 times the available supply in Auction 18.

The bid quantities were widely distributed among the 47 bidders. The concentration of bids, using the Herfindahl-Hirschman Index ("HHI"), fell from 638 in Auction 19 to 565 in Auction 20. 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).

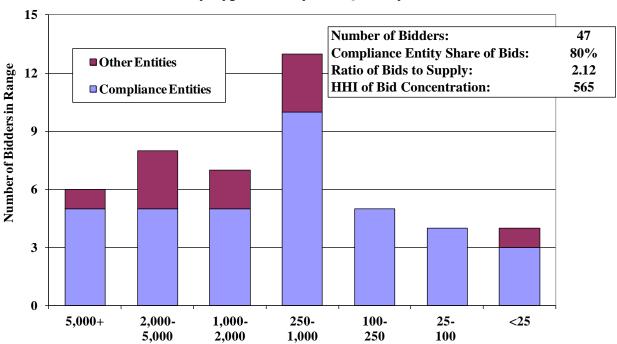


Figure 2: Quantity of Bids Submitted by Entity By Type of Entity and Quantity Bid

Quantity of Bids Submitted (in Thousands of Tons)



#### C. SUMMARY OF PURCHASES OF ALLOWANCES IN AUCTION 20

In the offering of allowances for the current control period, awards were distributed across 43 bidders with four bidders purchasing three million tons or more and 25 bidders purchasing 300,000 tons or more. Compliance entities or their affiliates purchased 68 percent of the allowances in the auction.

The share of allowances purchased and several other quantities are reported for three 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-subsidiary 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 20, compliance entities and their affiliates purchased 68 percent of the allowances sold.
- In the first 20 RGGI auctions, compliance entities and their affiliates purchased 86 percent of the allowances sold.
- Compliance entities and their affiliates will hold 86 percent of the allowances in circulation following the settlement of allowances sold in Auction 20.

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	5,000,000
Bidder 2	4,629,000
Bidder 3	4,000,000
Bidder 4	3,015,000
Bidder 5	2,160,000
Bidder 6	2,031,000
Bidder 7	1,750,000
Bidder 8	1,750,000
Bidder 9 Bidder 10	1,490,000 1,434,000
Bidder 11	1,174,076
Bidder 12	1,026,000
Bidder 13	800,000
Bidder 14	800,000
Bidder 15	800,000
Bidder 16	782,000
Bidder 17	700,000
Bidder 18	645,000
Bidder 19	600,000
Bidder 20	512,000
Bidder 21	500,000
Bidder 22	400,000
Bidder 23	300,000
Bidder 24	300,000
Bidder 25	300,000
Bidder 26	261,000
Bidder 27	250,000
Bidder 28	235,000
Bidder 29	225,000
Bidder 30	175,000
Bidder 31	160,000
Bidder 32	125,000
Bidder 33	112,000
Bidder 34	93,000
Bidder 35	85,000
Bidder 36	30,000
Bidder 37	30,000
Bidder 38	28,000
Bidder 39	25,000
Bidder 40	25,000
Bidder 41	12,000
Bidder 42	10,000
Bidder 43	3,000



## D. SUMMARY OF BID PRICES IN AUCTION 20

Bids were submitted across a wide range of prices in the auction and the clearing price of \$3.21 was relatively consistent with average bid prices submitted.

The following table reports several statistics regarding the bid prices for bids submitted in Auction 20. The median and mean bid prices are weighted by the quantity of each bid.

Bid Prices:	
Minimum	<b>\$1.98</b>
Maximum	<b>\$5.55</b>
Average (Median)	<b>\$3.17</b>
Average (Mean)	\$3.08
Clearing Price:	\$3.21



#### E. NAMES OF POTENTIAL BIDDERS IN AUCTION 20

In accordance with Sections 2.8 and 3 of the Auction Notice for CO<sub>2</sub> Allowance Auction 20 on June 5, 2013, the Participating States are releasing the names of Potential Bidders in Auction 20. The states defined potential bidders as: "Each Applicant that has been qualified and submitted a complete *Intent to Bid.*" The list of 55 Potential Bidders is as follows:

Astoria Energy, LLC Indeck-Corinth Limited Partnership
Astoria Generating Company, LP Jamestown Board of Public Utilities

Berkshire Power Company, LLC Jordan Stutt

Brookfield Energy Marketing LP J-Power USA Development Co., Ltd.

Brooklyn Navy Yard Cogen Partners, LP Kleen Energy Systems, LLC Caithness Long Island, LLC Koch Supply & Trading, LP

Calpine Energy Services, LP Laurence DeWitt
Castleton Commodities Merchant Trading, LP Mercuria Energy America, Inc.

Castleton Power, LLC
Millennium Power Partners, LP
CE2 Carbon Capital, LLC
Morgan Stanley Capital Group, Inc.
ClimeCo Corporation
National Grid Gen. dba National Grid

Consolidated Edison Comp. of NY, Inc.

New Athens Generating Company, LLC

Dominion Energy Marketing, Inc.

NextEra Energy Power Marketing, LLC

DTE Energy Trading, Inc.

NRG Power Marketing, LLC

Dynegy Marketing and Trade, LLC

EDF Trading North America, LLC

Panda Brandywine, LP

Power Authority of the State of New York

Element Markets, LLC

Element Markets, LLC

Public Service Company of New Hampshire

Empire Generating Co., LLC

RBC

Entergy Rhode Island State Energy, LP Selkirk Cogen Partners, LP

EquiPower Resources
Shell Energy North America (US), LP
Essential Power, LLC
TransCanada Power Marketing, Ltd.
Evolution Markets, Inc.
Twin Eagle Resource Management, LLC

Exelon Generation Company, LLC Upstate New York Power Producers, LLC Five Rings Capital, LLC Verso Paper Corp.

Footprint Power Salem Harbor Operations, LLC Village of Freeport

GenOn Energy Management, LLC Vitol Inc.
Granite Ridge Energy, LLC Wallingford Energy, LLC

Hess Corporation (G)